

# **Lower Snake River Juvenile Salmon Migration Feasibility Study Community-Based Social Impact Assessment**

**Phase I - Southeastern Washington,  
Northeastern Oregon,  
and North Central Idaho**

**September 1999**



# **Lower Snake River Juvenile Salmon Migration Feasibility Study**

## **Community-Based Social Impact Assessment**

**Phase I - Southeastern Washington, Northeastern Oregon,  
and North Central Idaho**

---

**PREPARED FOR:  
Department of the Army  
Corps of Engineers  
Walla Walla District  
201 North Third Avenue  
Walla Walla, Washington 99362**

**PREPARED BY:  
Foster Wheeler Environmental Corporation  
10900 NE 8th Street  
Bellevue, Washington 98004**

**Dr. Charles C. Harris, Dr. William McLaughlin,  
Erik Nielsen, and Dennis Becker  
University of Idaho  
Moscow, Idaho 83844-1139**

**September 1999**

## Foreword

This document is the product of the US Army Corps of Engineers' (Corps) efforts to involve the region in the development of the Lower Snake River Juvenile Salmon Migration Feasibility Report/Environmental Impact Statement (FR/EIS). The Corps has reached out to regional stakeholders (states, tribes, federal agencies, organizations, and individuals) for the input and development of various work products. This and various other products associated with the development of the FR/EIS were authored and developed by these regional stakeholders and contractors. Although the Corps has acquired this document as part of its FR/EIS process, the opinions and/or findings expressed herein do not necessarily reflect the official policy or position of the Corps. The Corps will review and incorporate information from this product into our analysis and development of the draft FR/EIS.

Social scientists from the University of Idaho were contracted to conduct community assessments, analyze the data collected and to report the findings. The primary purpose of this research was to assess the past and current situation of selected communities and to better understand potential future impacts of improved salmon passage alternatives being considered at four Corps managed dams on the lower Snake River. An important goal of the forums was to ensure adequate community-level participation and involvement of a range of individuals in communities throughout Idaho, and eastern Washington and Oregon. Phase I of the impact assessments included the following communities:

**Washington:** Burbank, Clarkston, Colfax, Pomeroy, Prescott, and Washtucna

**Idaho:** Genesse, Lewiston, Orofino, Riggins, and Weippe

**Oregon:** Enterprise, Stanfield, Adams, and Umatilla

Phase II of the assessments included ten communities in Southern Idaho.

This document is only one part of the social analysis of the FR/EIS. For a true social analysis of the implications of any of the study alternatives, all the components of the social analysis must be considered, without any individual component taken out of context.

# Table of Contents

## [Foreword](#)

## [Executive Summary](#)

[Introduction](#)

[Purpose and Objectives](#)

[Methodology](#)

[Key Findings](#)

[Conclusions](#)

## [Section 1 - Introduction](#)

[1.1](#) - Purpose and Objectives

[1.2](#) - Methodology

[1.2.1](#) - Selection of Assessment Communities

[1.2.2](#) - Structure of the Interactive Community Forums

[1.2.2.1](#) - Pre-Testing and Pilot Communities

[1.2.2.2](#) - Structure of the Community Forums

[1.2.2.3](#) - Forum Participants

[1.2.2.3.1](#) - Snowball Sampling of Invited Participants

[1.2.2.3.2](#) - Non-Snowball (Or Self-Selected) Participants

[1.2.2.3.3](#) - General Public

[1.2.2.4](#) - Meetings, Scheduling, and Participation

[1.2.3](#) - Conduct of the Forums

[1.2.3.1](#) - Organization and Registration of Participants

[1.2.3.2](#) - Introduction and Clarification of the Process

[1.2.3.3](#) - Explanation of Selection of Study Communities

[1.2.3.4](#) - Explanation of Forum Participants

[1.2.3.5](#) - Clarification of the Role of the Research Team

[1.2.3.6](#) - Introductions and Questions of Clarification About the Forum Process

[1.2.3.7](#) - Putting the Current Situation into Historical Context

[1.2.3.8](#) - Dimensions of Community

[Community Social Make-Up - The People](#)

[Community Economy - Jobs & Wealth](#)

[Community Character - The Place](#)

[Community Organization and Leadership Capacity - Vision & Vitality](#)

[1.2.3.9](#) - Assessing the Current Situation in 1999 In The Community

[1.2.3.10](#) - Presentation of Pathway and Impact Information

[1.2.3.11](#) - Assessing the Impacts of Pathways A1, A2, and A3

[1.2.4](#) - Data Analysis Procedures

[1.2.4.1](#) - Data Entry and Coding

[1.2.4.2](#) - Addressing Problem Respondents

[1.2.4.3](#) - Analysis of Individual Communities

[The Current Situation - 1999](#)

[The Impacts of the Three Pathways](#)

[1.2.5](#) - Cross-Case Analysis Comparing All Communities

[Comparison of Alternatives A1, A2, and A3](#)

[1.2.6](#) - Limitations of the Assessment Study Methods and Findings

## **Section 2 - Results of the Assessment for Each Community**

### **2.1 - Adams, Oregon, Community Assessment**

#### **2.1.1 - Summary of Community Findings**

#### **2.1.2 - Interactive Community Forum Participants**

#### **2.1.3 - Community Background**

#### **2.1.4 - Community Assessment of 1999 Situation**

##### **1999 Situation: Community Dimensions and Rating Scale**

##### **1999 Situation: Ratings**

##### **1999 Situation: Rating Justifications**

#### **2.1.5 - Comparisons of Salmon Recovery Pathways A, A2, and A3**

##### **2.1.5.1 - Community Dimensions Impact Rating Scale**

##### **2.1.5.2 - Summary of Pathway Findings A, A2, and A3**

##### **2.1.5.3 - Rating Justifications Across A1, A2, and A3**

##### **2.1.5.4 - Pathway A1**

##### **2.1.5.5 - Comparison of Pathway A1 to A2**

##### **2.1.5.6 - Comparison of Pathway A1 to A3**

#### **2.1.6 - Minimizing Adverse Impacts**

### **2.2 - Burbank, Washington, Community Assessment**

#### **2.2.1 - Summary of Community Findings**

#### **2.2.2 - Interactive Community Forum Participants**

#### **2.2.3 - Community Background**

#### **2.2.4 - Community Assessment of 1999 Situation**

##### **1999 Situation: Community Dimensions and Rating Scale**

##### **1999 Situation: Ratings**

##### **1999 Situation: Rating Justifications**

[2.2.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.2.5.1](#) - Community Dimensions Impact Rating Scale

[2.2.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.2.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.2.5.4](#) - Pathway A1

[2.2.5.5](#) - Comparison of Pathway A1 to A2

[2.2.5.6](#) - Comparison of Pathway A1 to A3

[2.2.6](#) - Minimizing Adverse Impacts

[2.3](#) - Clarkston, Washington, Community Assessment

[2.3.1](#) - Summary of Community Findings

[2.3.2](#) - Interactive Community Forum Participants

[2.3.3](#) - Community Background

[2.3.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.3.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.3.5.1](#) - Community Dimensions Impact Rating Scale

[2.3.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.3.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.3.5.4](#) - Pathway A1

[2.3.5.5](#) - Comparison of Pathway A1 to A2

[2.3.5.6](#) - Comparison of Pathway A1 to A3

[2.3.6](#) - Minimizing Adverse Impacts

[2.4](#) - Colfax, Washington, Community Assessment

[2.4.1](#) - Summary of Community Findings

[2.4.2](#) - Interactive Community Forum Participants

[2.4.3](#) - Community Background

[2.4.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.4.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.4.5.1](#) - Community Dimensions Impact Rating Scale

[2.4.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.4.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.4.5.4](#) - Pathway A1

[2.4.5.5](#) - Comparison of Pathway A1 to A2

[2.4.5.6](#) - Comparison of Pathway A1 to A3

[2.4.6](#) - Minimizing Adverse Impacts

[2.5](#) - Enterprise, Oregon, Community Assessment

[2.5.1](#) - Summary of Community Findings

[2.5.2](#) - Interactive Community Forum Participants

[2.5.3](#) - Community Background

[2.5.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)



[2.5.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.5.5.1](#) - Community Dimensions Impact Rating Scale

[2.5.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.5.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.5.5.4](#) - Pathway A1

[2.5.5.5](#) - Comparison of Pathway A1 to A2

[2.5.5.6](#) - Comparison of Pathway A1 to A3

[2.5.6](#) - Minimizing Adverse Impacts

[2.6](#) - Genesee, Idaho, Community Assessment

[2.6.1](#) - Summary of Community Findings

[2.6.2](#) - Interactive Community Forum Participants

[2.6.3](#) - Community Background

[2.6.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.6.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.6.5.1](#) - Community Dimensions Impact Rating Scale

[2.6.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.6.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.6.5.4](#) - Pathway A1

[2.6.5.5](#) - Comparison of Pathway A1 to A2

[2.6.5.6](#) - Comparison of Pathway A1 to A3

[2.6.6](#) - Minimizing Adverse Impacts

[2.7](#) - Kahlotus, Washington, Community Assessment

[2.7.1](#) - Summary of Community Findings

[2.7.2](#) - Interactive Community Forum Participants

[2.7.3](#) - Community Background

[2.7.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.7.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.7.5.1](#) - Community Dimensions Impact Rating Scale

[2.7.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.7.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.7.5.4](#) - Pathway A1

[2.7.5.5](#) - Comparison of Pathway A1 to A2

[2.7.5.6](#) - Comparison of Pathway A1 to A3

[2.7.6](#) - Minimizing Adverse Impacts

[2.8](#) - Kennewick, Washington, Community Assessment

[2.8.1](#) - Summary of Community Findings

[2.8.2](#) - Interactive Community Forum Participants

[2.8.3](#) - Community Background

[2.8.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.8.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.8.5.1](#) - Community Dimensions Impact Rating Scale

[2.8.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.8.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.8.5.4](#) - Pathway A1

[2.8.5.5](#) - Comparison of Pathway A1 to A2

[2.8.5.6](#) - Comparison of Pathway A1 to A3

[2.8.6](#) - Minimizing Adverse Impacts

[2.9](#) - Lewiston, Idaho, Community Assessment

[2.9.1](#) - Summary of Community Findings

[2.9.2](#) - Interactive Community Forum Participants

[2.9.3](#) - Community Background

[2.9.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.9.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.9.5.1](#) - Community Dimensions Impact Rating Scale

[2.9.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.9.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.9.5.4](#) - Pathway A1

[2.9.5.5](#) - Comparison of Pathway A1 to A2

[2.9.5.6](#) - Comparison of Pathway A1 to A3

[2.9.6](#) - Minimizing Adverse Impacts

[2.10](#) - Orofino, Idaho, Community Assessment

[2.10.1](#) - Summary of Community Findings

[2.10.2](#) - Interactive Community Forum Participants

[2.10.3](#) - Community Background

[2.10.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.10.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.10.5.1](#) - Community Dimensions Impact Rating Scale

[2.10.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.10.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.10.5.4](#) - Pathway A1

[2.10.5.5](#) - Comparison of Pathway A1 to A2

[2.10.5.6](#) - Comparison of Pathway A1 to A3

[2.10.6](#) - Minimizing Adverse Impacts

[2.11](#) - Pasco, Washington, Community Assessment

[2.11.1](#) - Summary of Community Findings

[2.11.2](#) - Interactive Community Forum Participants

[2.11.3](#) - Community Background

[2.11.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.11.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.11.5.1](#) - Community Dimensions Impact Rating Scale

[2.11.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.11.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.11.5.4](#) - Pathway A1

[2.11.5.5](#) - Comparison of Pathway A1 to A2

[2.11.5.6](#) - Comparison of Pathway A1 to A3

[2.11.6](#) - Minimizing Adverse Impacts

[2.12](#) - Pomeroy, Washington, Community Assessment

[2.12.1](#) - Summary of Community Findings

[2.12.2](#) - Interactive Community Forum Participants

[2.12.3](#) - Community Background

[2.12.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.12.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.12.5.1](#) - Community Dimensions Impact Rating Scale

[2.12.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.12.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.12.5.4](#) - Pathway A1

[2.12.5.5](#) - Comparison of Pathway A1 to A2

[2.12.5.6](#) - Comparison of Pathway A1 to A3

[2.12.6](#) - Minimizing Adverse Impacts

[2.13](#) - Prescott, Washington, Community Assessment

[2.13.1](#) - Summary of Community Findings

[2.13.2](#) - Interactive Community Forum Participants

[2.13.3](#) - Community Background

[2.13.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.13.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.13.5.1](#) - Community Dimensions Impact Rating Scale

[2.13.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.13.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.13.5.4](#) - Pathway A1

[2.13.5.5](#) - Comparison of Pathway A1 to A2

[2.13.5.6](#) - Comparison of Pathway A1 to A3

[2.13.6](#) - Minimizing Adverse Impacts

[2.14](#) - Colfax, Washington, Community Assessment

[2.14.1](#) - Summary of Community Findings

[2.14.2](#) - Interactive Community Forum Participants

[2.14.3](#) - Community Background

[2.14.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.14.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.14.5.1](#) - Community Dimensions Impact Rating Scale

[2.14.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.14.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.14.5.4](#) - Pathway A1

[2.14.5.5](#) - Comparison of Pathway A1 to A2

[2.14.5.6](#) - Comparison of Pathway A1 to A3

[2.14.6](#) - Minimizing Adverse Impacts

[2.15](#) - Stanfield, Oregon, Community Assessment

[2.15.1](#) - Summary of Community Findings

[2.15.2](#) - Interactive Community Forum Participants

[2.15.3](#) - Community Background

[2.15.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.15.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.15.5.1](#) - Community Dimensions Impact Rating Scale

[2.15.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.15.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.15.5.4](#) - Pathway A1

[2.15.5.5](#) - Comparison of Pathway A1 to A2

[2.15.5.6](#) - Comparison of Pathway A1 to A3

[2.15.6](#) - Minimizing Adverse Impacts

[2.16](#) - Umatilla, Oregon, Community Assessment

[2.16.1](#) - Summary of Community Findings

[2.16.2](#) - Interactive Community Forum Participants

[2.16.3](#) - Community Background

[2.16.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.16.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.16.5.1](#) - Community Dimensions Impact Rating Scale

[2.16.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.16.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.16.5.4](#) - Pathway A1

[2.16.5.5](#) - Comparison of Pathway A1 to A2

[2.16.5.6](#) - Comparison of Pathway A1 to A3

[2.16.6](#) - Minimizing Adverse Impacts

[2.17](#) - Washtucna, Washington, Community Assessment

[2.17.1](#) - Summary of Community Findings

[2.17.2](#) - Interactive Community Forum Participants

[2.17.3](#) - Community Background

[2.17.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)



[2.17.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.17.5.1](#) - Community Dimensions Impact Rating Scale

[2.17.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.17.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.17.5.4](#) - Pathway A1

[2.17.5.5](#) - Comparison of Pathway A1 to A2

[2.17.5.6](#) - Comparison of Pathway A1 to A3

[2.17.6](#) - Minimizing Adverse Impacts

[2.18](#) - Weippe, Idaho, Community Assessment

[2.18.1](#) - Summary of Community Findings

[2.18.2](#) - Interactive Community Forum Participants

[2.18.3](#) - Community Background

[2.18.4](#) - Community Assessment of 1999 Situation

[1999 Situation: Community Dimensions and Rating Scale](#)

[1999 Situation: Ratings](#)

[1999 Situation: Rating Justifications](#)

[2.18.5](#) - Comparisons of Salmon Recovery Pathways A, A2, and A3

[2.18.5.1](#) - Community Dimensions Impact Rating Scale

[2.18.5.2](#) - Summary of Pathway Findings A, A2, and A3

[2.18.5.3](#) - Rating Justifications Across A1, A2, and A3

[2.18.5.4](#) - Pathway A1

[2.18.5.5](#) - Comparison of Pathway A1 to A2

[2.18.5.6](#) - Comparison of Pathway A1 to A3

[2.18.6](#) - Minimizing Adverse Impacts

## **Section 3 - Cross-Case Comparison of Study Communities by Community Typology**

[3.1](#) - Community Structures and Processes

[3.2](#) - Development of a Two-Tiered Community Typology

[3.2.1](#) - Application of the Community Typology to the Affected Environment

[3.3](#) - Risk-Assessment of Community Types by the Affected Environment and Environmental Impacts of the Three Pathways

[3.3.1](#) - Synopsis of Affected Environments and the Environmental Effects of Pathway A1, A2, and A3 by Community Type

[3.3.1.1](#) - The Trade Center Community Type

[3.3.1.2](#) - The Highly Productive Dryland Agriculture Community Type

[3.3.1.3](#) - The Productive Dryland Agriculture Community Type

[3.3.1.4](#) - The Multiple Natural Resource Use Community Type

[3.3.1.5](#) - The Columbia River Agriculture Community Type

[3.3.1.6](#) - The Lower Snake River Agriculture Community Type

[3.4](#) - Key Findings

[3.4.1](#) - Findings Related to Perceived Impacts

[3.4.2](#) - Findings Related to Community Resilience and Assessment or Risk

[3.4.3](#) - Findings Concerned with Minimizing Negative Impacts

[3.4.3.1](#) - General Observations

[3.4.3.2](#) - Findings on Community Resilience and Assessment of Risk

[3.4.3.3](#) - Findings by Community Type

[3.4.4](#) - Other Findings

## **Section 4 - Conclusions**

## **Section 5 - References**

## **Appendix A - Presented Impact Information**

## **Appendix B - Community Dimensions Used in the Interactive Community Forums**

## List of Tables

<a href="#">Table 1-1</a>	Sites of Interactive Community Forums
<a href="#">Table 1-2</a>	Communities Within Theoretical Sample by Community Type
<a href="#">Table 1-3</a>	Population and Economic Diversity of Theoretically- Sampled Communities
<a href="#">Table 1-4</a>	1995 Direct Employment in Natural Resource Sectors
<a href="#">Table 2-1</a>	Rating Justifications for the Current (1999) Situation in Adams, Oregon, by Community Dimension and Type of Group
<a href="#">Table 2-2</a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Adams, Oregon by community Dimension and Type of Group
<a href="#">Table 2-3</a>	Rating Justifications for the Current (1999) Situation in Burbank, Washington, by Community Dimension and Type of Group
<a href="#">Table 2-4</a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Burbank, Washington, by community Dimension and Type of Group
<a href="#">Table 2-5</a>	Rating Justifications for the Current (1999) Situation in Clarkston, Washington, by Community Dimension and Type of Group
<a href="#">Table 2-6</a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Clarkston, Washington, by community Dimension and Type of Group
<a href="#">Table 2-7</a>	Rating Justifications for the Current (1999) Situation in Colfax, Washington, by Community Dimension and Type of Group
<a href="#">Table 2-8</a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Colfax, Washington, by community Dimension and Type of Group
<a href="#">Table 2-9</a>	Rating Justifications for the Current (1999) Situation in Enterprise, Oregon, by Community Dimension and Type of Group
<a href="#">Table 2-10</a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Enterprise, Oregon by community Dimension and Type of Group
<a href="#">Table 2-11</a>	Rating Justifications for the Current (1999) Situation in Genesee, Idaho, by Community Dimension and Type of Group

<a href="#"><u>Table 2-12</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Genesee, Idaho, by community Dimension and Type of Group
<a href="#"><u>Table 2-13</u></a>	Rating Justifications for the Current (1999) Situation in Kahlotus, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-14</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Kahlotus, Washington, by community Dimension and Type of Group
<a href="#"><u>Table 2-15</u></a>	Rating Justifications for the Current (1999) Situation in Kennewick, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-16</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Kennewick, Washington, by community Dimension and Type of Group
<a href="#"><u>Table 2-17</u></a>	Rating Justifications for the Current (1999) Situation in Lewiston, Idaho, by Community Dimension and Type of Group
<a href="#"><u>Table 2-18</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Lewiston, Idaho, by community Dimension and Type of Group
<a href="#"><u>Table 2-19</u></a>	Rating Justifications for the Current (1999) Situation in Orofino, Idaho, by Community Dimension and Type of Group
<a href="#"><u>Table 2-20</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Orofino, Idaho, by community Dimension and Type of Group
<a href="#"><u>Table 2-21</u></a>	Rating Justifications for the Current (1999) Situation in Pasco, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-22</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Pasco, Washington, by community Dimension and Type of Group
<a href="#"><u>Table 2-23</u></a>	Rating Justifications for the Current (1999) Situation in Pomeroy, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-24</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Pomeroy, Washington, by community Dimension and Type of Group
<a href="#"><u>Table 2-25</u></a>	Rating Justifications for the Current (1999) Situation in Prescott, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-26</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Prescott, Washington, by community Dimension and Type of Group

<a href="#"><u>Table 2-27</u></a>	Rating Justifications for the Current (1999) Situation in Riggins, Idaho, by Community Dimension and Type of Group
<a href="#"><u>Table 2-28</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Riggins, Idaho, by community Dimension and Type of Group
<a href="#"><u>Table 2-29</u></a>	Rating Justifications for the Current (1999) Situation in Stanfield, Oregon, by Community Dimension and Type of Group
<a href="#"><u>Table 2-30</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Stanfield, Oregon, by community Dimension and Type of Group
<a href="#"><u>Table 2-31</u></a>	Rating Justifications for the Current (1999) Situation in Umatilla, Oregon, by Community Dimension and Type of Group
<a href="#"><u>Table 2-32</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Umatilla, Oregon, by community Dimension and Type of Group
<a href="#"><u>Table 2-33</u></a>	Rating Justifications for the Current (1999) Situation in Washtucna, Washington, by Community Dimension and Type of Group
<a href="#"><u>Table 2-34</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Washtucna, Washington, by community Dimension and Type of Group
<a href="#"><u>Table 2-35</u></a>	Rating Justifications for the Current (1999) Situation in Weippe, Idaho, by Community Dimension and Type of Group
<a href="#"><u>Table 2-36</u></a>	Comparison of Rating Justifications for Pathways A1, A2, and A3 for Weippe, Idaho, by community Dimension and Type of Group
<a href="#"><u>Table 3-1</u></a>	1999 Situation Across Community Types
<a href="#"><u>Table 3-2</u></a>	Affected Environment Across Community Types for the 1999 Situation
<a href="#"><u>Table 3-3</u></a>	Environmental Effects Across Community Types for A1, A2, and A3
<a href="#"><u>Table 3-4</u></a>	Identified Means to Minimize Adverse Community Impacts, By Community Type

## List of Figures

- [Figure 2-1](#) Median Scale Rating of the Current (1999) Situation in Adams, Oregon, By Community Dimension, Across Groups
- [Figure 2-2](#) Median Scale Ratings of Pathways A1, A2, and A3, for Adams, Oregon, By Community Dimension, Across Groups
- [Figure 2-3](#) Median Scale Rating of the Current (1999) Situation in Burbank, Washington, By Community Dimension, Across Groups
- [Figure 2-4](#) Median Scale Ratings of Pathways A1, A2, and A3, for Burbank, Washington, By Community Dimension, Across Groups
- [Figure 2-5](#) Median Scale Rating of the Current (1999) Situation in Clarkston, Washington, By Community Dimension, Across Groups
- [Figure 2-6](#) Median Scale Ratings of Pathways A1, A2, and A3, for Clarkston, Washington, By Community Dimension, Across Groups
- [Figure 2-7](#) Median Scale Rating of the Current (1999) Situation in Colfax, Washington, By Community Dimension, Across Groups
- [Figure 2-8](#) Median Scale Ratings of Pathways A1, A2, and A3, for Colfax, Washington, By Community Dimension, Across Groups
- [Figure 2-9](#) Median Scale Rating of the Current (1999) Situation in Enterprise, Oregon, By Community Dimension, Across Groups
- [Figure 2-10](#) Median Scale Ratings of Pathways A1, A2, and A3, for Enterprise, Oregon, By Community Dimension, Across Groups
- [Figure 2-11](#) Median Scale Rating of the Current (1999) Situation in Genesee, Idaho, By Community Dimension, Across Groups
- [Figure 2-12](#) Median Scale Ratings of Pathways A1, A2, and A3, for Genesee, Idaho, By Community Dimension, Across Groups
- [Figure 2-13](#) Median Scale Rating of the Current (1999) Situation in Kahlotus, Washington, By Community Dimension, Across Groups
- [Figure 2-14](#) Median Scale Ratings of Pathways A1, A2, and A3, for Kahlotus, Washington, By Community Dimension, Across Groups
- [Figure 2-15](#) Median Scale Rating of the Current (1999) Situation in Kennewick, Washington,, By Community Dimension, Across Groups

- [Figure 2-16](#) Median Scale Ratings of Pathways A1, A2, and A3, for Kennewick, Washington, By Community Dimension, Across Groups
- [Figure 2-17](#) Median Scale Rating of the Current (1999) Situation in Lewiston, Idaho, By Community Dimension, Across Groups
- [Figure 2-18](#) Median Scale Ratings of Pathways A1, A2, and A3, for Lewiston, Idaho, By Community Dimension, Across Groups
- [Figure 2-19](#) Median Scale Rating of the Current (1999) Situation in Orofino, Idaho, By Community Dimension, Across Groups
- [Figure 2-20](#) Median Scale Ratings of Pathways A1, A2, and A3, for Orofino, Idaho, By Community Dimension, Across Groups
- [Figure 2-21](#) Median Scale Rating of the Current (1999) Situation in Pasco, Washington, By Community Dimension, Across Groups
- [Figure 2-22](#) Median Scale Ratings of Pathways A1, A2, and A3, for Pasco, Washington, By Community Dimension, Across Groups
- [Figure 2-23](#) Median Scale Rating of the Current (1999) Situation in Pomeroy, Washington, By Community Dimension, Across Groups
- [Figure 2-24](#) Median Scale Ratings of Pathways A1, A2, and A3, for Pomeroy, Washington, By Community Dimension, Across Groups
- [Figure 2-25](#) Median Scale Rating of the Current (1999) Situation in Prescott, Washington, By Community Dimension, Across Groups
- [Figure 2-26](#) Median Scale Ratings of Pathways A1, A2, and A3, for Prescott, Washington, By Community Dimension, Across Groups
- [Figure 2-27](#) Median Scale Rating of the Current (1999) Situation in Riggins, Idaho, By Community Dimension, Across Groups
- [Figure 2-28](#) Median Scale Ratings of Pathways A1, A2, and A3, for Riggins, Idaho, By Community Dimension, Across Groups
- [Figure 2-29](#) Median Scale Rating of the Current (1999) Situation in Stanfield, Oregon, By Community Dimension, Across Groups
- [Figure 2-30](#) Median Scale Ratings of Pathways A1, A2, and A3, for Stanfield, Oregon, By Community Dimension, Across Groups
- [Figure 2-31](#) Median Scale Rating of the Current (1999) Situation in Umatilla, Oregon, By Community Dimension, Across Groups
- [Figure 2-32](#) Median Scale Ratings of Pathways A1, A2, and A3, for Umatilla, Oregon, By Community Dimension, Across Groups

[Figure 2-33](#)

Median Scale Rating of the Current (1999) Situation in Washtucna, Washington, By Community Dimension, Across Groups

[Figure 2-34](#)

Median Scale Ratings of Pathways A1, A2, and A3, for Washtucna, Washington, By Community Dimension, Across Groups

[Figure 2-35](#)

Median Scale Rating of the Current (1999) Situation in Weippe, Idaho, By Community Dimension, Across Groups

[Figure 2-36](#)

Median Scale Ratings of Pathways A1, A2, and A3, for Weippe, Idaho, By Community Dimension, Across Groups



# EXECUTIVE SUMMARY

## INTRODUCTION

This report details the findings of Phase I of the University of Idaho's community impact assessment obtained through 18 interactive community forums in southeastern Washington, northeastern Oregon, and north central Idaho as part of the Lower Snake River Juvenile Salmon Migration Feasibility Study and *Environmental Impact Statement* (Feasibility Study/EIS). A companion report entitled *Community Based Social Impact Assessment Phase II - Southern Idaho*, details the findings of Phase II, which is an assessment of 9 additional communities in Southern Idaho. [Section 1](#) of this report describes the purpose and scope of the interactive community assessment. [Section 2](#) provides the findings from each of the 18 communities with respect to the history of each community, its 1999 baseline situation, and the perceived impacts on each community due to the three proposed *pathways* (or sets of alternatives) for salmon recovery on the Lower Snake River. [Section 3](#) compares the communities and results from each individual community assessment. It concludes by identifying common patterns for both the current situation in the sampled communities (or the current affected environment) and community-level impacts (or environmental consequences) under each of the proposed pathways.

## PURPOSE AND OBJECTIVES

### Purpose

The purpose of the Lower Snake River Community Impact Assessment was twofold. First, the study assessed the current condition and characteristics of selected communities in the regions of southeastern Washington, northeastern Oregon and north central Idaho that may be directly impacted by the three pathways currently under consideration by the U.S. Army Corps of Engineers for salmon recovery in the Lower Snake River. In brief, these pathways are as follows:

PATHWAY A1 - The first alternative is the baseline condition, or the "Existing System," whereby the situation with the four Lower Snake River dams would remain much the same as it is today. Juvenile salmon would continue to pass through turbines, through fish bypass systems, or over spillways. Some fish would continue to be transported by barge and truck to below Bonneville Dam. River flow would continue to be augmented by Upper Snake River water. Ongoing improvements include longer screens, additional barges, and flow deflectors on spillways.

PATHWAY A2 - In this alternative, "Major System Modification," the four Lower Snake River dams would remain. Construction of surface bypass and fish guidance systems would occur, structural changes would be made to turbines and spill basins as well as modification of river flow and spills. River flow would continue to be augmented by Upper Snake River water. These modifications could be used with either the juvenile fish transportation system or in-river juvenile migration.

PATHWAY A3 - In "Natural River Drawdown (Dam Breaching)," the four Lower Snake River dams would be partially removed. Existing reservoirs would be permanently lowered to a natural free-flowing condition by removing a section of each dam, creating 140 miles of free-flowing river. Commercial navigation and hydropower would cease on the Lower Snake River, and irrigation and recreation opportunities would be affected.

The second purpose of the study was to assess community participants' perceptions of the kinds and extent of impacts each of the above pathways would have on their communities. The results from the forums provide an additional tier of more detailed information reported in the social assessment analysis and considered as part of the environmental impact statement and feasibility report.

## **Objective**

In particular, the objectives of the interactive community forums were to:

- Introduce community members to preliminary information from the Corps of Engineers' Feasibility Study/EIS to help them identify positive and negative social impacts;
- Understand communities' current situations and how they have changed since 1960;
- Provide residents with the opportunity to assess how their community would be affected by the three major pathways under consideration (Pathways A1, A2, and A3);
- Obtain community residents' ideas about effective strategies for maximizing positive social impacts or minimizing negative social impacts of the proposed pathways; and
- Provide people with an opportunity to have their input included by the U.S. Army Corps of Engineers' as part of the Feasibility Study/EIS.

## **METHODOLOGY**

### **Research Approach and Sampling Design**

The research approach taken for the Lower Snake Community-Based Social Impact Assessment was a multiple case study. The unit of analysis and the sampling unit was the community, and the sampling frame was all communities located in one of the three impact areas designated by the U.S. Army Corps of Engineers for consideration for Phase I of the assessment: the reservoir region in southeastern Washington, the upriver region in northcentral Idaho, and the downriver region in northeastern Oregon and south central Washington. The goal of the multiple case study was to provide a forum for a community-based assessment of impacts of the project pathways on a sample of 18 communities in the region comprised of these three impact areas. (Originally, 17 communities were contracted to be assessed, but when the researchers learned that Kahlotus shared school services with Washtucna, it was included as a study community

that was assessed along with Washtucna in one of the pilot forums.) Each assessment was conducted during a one-day 4-hour public meeting in each of the communities. The forums enabled the UI team of social scientists to record local perspectives of past and current community responses to economic and social changes, and to assess potential social impacts resulting from the project on a variety of kinds of communities.

The communities of concern for this assessment included 90-plus communities within the geographic scope of the Phase I region. Given the large number of communities in the region surrounding the area of the proposed action, it was not possible to adequately obtain sufficient information about each community within the timeframe of the decision-making process. Therefore, a range of communities in which to conduct community-based assessments was selected. The range of potentially affected communities was identified with a theoretical sampling approach, whereby communities were selected based on a typology of predetermined criteria. Two variables, economic diversity and state, were used as the primary criteria for the initial theoretical sampling frame. Economic dependence on kinds of industries also was considered in the sampling process.

All of the community forums were open to the general public, but, in addition, active and involved community members were targeted and asked to attend to ensure that a range of potential interests and important perspectives were represented at each forum. The assumption was that these individuals represented the full diversity of knowledge and perspectives within each community, and that they were among the community residents who were most knowledgeable and capable of addressing key issues that could impact the future of their community.

Nonresidents of the sample communities were invited to attend the forums, but their participation was limited to providing general written comments about the assessment process and any input on the pathways they wished to make. This input was provided on comment cards that were transmitted directly to the U.S. Army Corps of Engineers. The premise was that participants in the interactive groups at each community forum needed to be community members who possessed in-depth knowledge about their community.

### **The Community Forum Assessment Process**

All of the individuals who attended the community forums participated according to a set of interactive, structured group activities. These activities were designed to promote discussion across varying community viewpoints, introduce the best available information about primary and secondary impacts of the project, and record the thoughts and reactions of the participants.

Forum participants were first asked to give their recollections about the histories of their community as a basis for beginning to think about key dimensions of their communities' changing characteristics and conditions. These dimensions were presented in terms of four broad categories of community characteristics: 1) a community's social make-up (or a community's "People"); 2) community economy (a community's "Jobs and Wealth;" 3) community character (the "Place"); and 4) community organization and leadership

capacity (a community's "Vision and Vitality"). These four broad dimensions of community characteristics and conditions represented the elements of community used throughout the duration of the interactive forums. The significant historic changes in each community, as related to each of the four dimensions, were recorded and shared with the entire assembly of forum participants as illustrations of each dimension.

Forum participants were systematically assigned to different facilitated tables, based on self-reported community involvement roles (e.g., business, elected officials, land-production, education and health services, etc.). The purpose here was to maximize the diversity of community members in the group at each table. These participants were first asked to assess the 1999 current situation in their community in terms of the four dimensions of community. A sheet listing a fairly comprehensive set of characteristics or conditions are related to each of the four community dimensions was reviewed to assist forum participants in: 1) thinking about the specifics of each dimension; and 2) providing specific reasons or justifications for their ratings of their community based on particular characteristics or conditions of it. The facilitator at each table conducted an initial rating of each dimension with a rating form entitled, *Your Community in 1999*, with a current community situation scale ranging from 1 ("As bad as it could be") to 10 ("As good as it could be"). The purpose of this rating exercise was to stimulate forum participants to begin thinking about their community's situation in 1999 in terms of each of the four dimensions. With this starting point they would be better able to judge how things would change in the future (specifically, in the year 2020) if the Corps adopted any of the three proposed Pathways. This rating process also was intended to help the study team learn from forum participants about their community. Each form also obtained written responses from participants on the key or most salient characteristic or conditions for why they rated their community the way they did.

After about seven minutes of discussion of their numerical ratings of their community on a given dimension and the reasons for their ratings, participants were asked to re-rate their scale based upon what they had learned in their discussion. They were assured they could keep the same rating or change it. They then were reminded they needed to complete the second part of the question by filling in the blanks on the sheet with characteristics of the dimension from the corresponding sheet, or writing some other reason that was behind their rating. They were reminded that their justifications were equally important as the numeric rating they had given. The goal was to get them to justify their rating and explain the "why" behind it, based on the characteristics they considered most important in making their decision. This process was followed to assess the current situation in 1999 for all four dimensions.

Information was then presented to community members on the forecasted biological, economic and physical changes associated with each of the three pathways under consideration by the Corps (Pathways A1, A2 and A3). After presentation of the impact information, community members were asked to combine it with their knowledge of their community, "do some crystal-balling," and forecast the likely effects their community would experience, using a community impact rating scale and again providing specific reasons or justifications for those ratings in writing.

The impact rating scale was used by participants to rate the kind and degree of change in each of the four community dimensions that would result if a given pathway was implemented, based on the presentation of information about each pathway by the study team and discussed within the groups at the facilitated tables. This community impact scale ranged from -5 ("adversely affected" by the pathway) to +5 ("beneficially affected"), with a mid-point, or "0," that was based on their rating for each dimension on the current community situation scale. Forum participants perceiving characteristics of a given dimension as being adversely affected were instructed to rate that dimension with a negative number on the impact rating scale; the higher that number, the more severe the impact was indicated to be. Those participants perceiving a dimension of their community to be beneficially affected were instructed to rate that dimension with a positive number on the scale. The last task for the consideration of each pathway was to ask participants in each group to brainstorm ways to minimize negative social and economic effects on the community, should a given pathway be selected and implemented.

### **Data Entry, Coding, Cleaning, Analysis, and Reporting**

The input from forum participants who participated in each community forum included both rating scores and written justifications for their ratings. The two types of data and their analysis in this report represent a direct matching of both the quantitative data (numerical scale ratings) and qualitative data (up to three characteristics for each community dimension or reason for the rating provided by participants as justifications for their rating). These responses were entered into a database for each community. Once the data were entered, they were inspected for errors, and any found were corrected.

Standard procedures were followed for coding and analyzing the assessment's qualitative data (Miles and Huberman, 1994). These data consisted of open-ended responses to questions requesting that participants give reasons or community characteristics to justify their numerical rating of each dimension of community, whether for the current (1999) situation or for the changes or impacts they perceived would result from each of the three pathways. The number of these responses was reduced, as follows. First, categories of broad kinds or themes of these justifications were developed, and a unique code number was assigned to each category. Individual participant's responses were then coded descriptively and thematically, with each response categorized in terms of these thematic categories and the appropriate code numbers assigned to each. Lastly, patterns among these thematic categories were identified, and analytical generalizations from these patterns were made. The scale ratings, as well as themes and actual text of the reasons given, were analyzed for each community to identify patterns across the groups of participants at facilitated tables at each community forum, as well as across communities in a cross-case analysis that compared results for all the communities assessed.

Scale ratings and figures depicting those ratings are reported for each of the four dimensions for the current situation in 1999 and each of the three pathways. In each case, the report's "Results" section first presents figures displaying the central tendency of the ratings recorded for different groups at different tables in terms of group medians, along with a discussion of each figure.

In addition, qualitative data are presented in the report in tables of coded justifications listed with three headings: "Across all Groups," "Invited Group," and "Other Groups." The logic underlying the pattern analysis of the qualitative data was that replication of justifications given for participants' ratings across facilitated groups at each forum was critical. This concern for replication of justifications was based on the premise that the more a characteristic or reason for a scale rating was repeated across various groups of participants at the same forum, the more salient, meaningful, and relevant that justification was as qualitative data supporting the overall central tendency reported for the community. When a justification or reason was reported out of all the groups of participants in a forum, it was included in the list under the heading "Across All Groups." These clustered justifications also provided the basis for the cross-community comparisons.

The diversity of the group of participants at the invited facilitated (the "Invited Group") table and the output of their discussion were deemed to be very important in capturing the range of justifications. Therefore, justifications that were only listed by the invited group also were included in the analysis under a separate heading of the "Invited Group." A key assumption of underlying this approach to the analysis was that, along with the information presented at each forum, individual participants were also informed by their own knowledge, perceptions, and beliefs about their community's present and future. In addition, they likely were also influenced by the rich discussion among the wide variety of participants at their facilitated table.

Justifications that were listed by other groups at other tables at a forum also presented an important viewpoint. The people in those other groups, while they were determined to often be less likely to be highly involved activists, and more likely to represent particular "communities of interest" (such as farming, business, or travel & tourism), also could have unique perspectives and knowledge not possessed by the more diverse group at the invited table. Accordingly, if participants at a super-majority of the groups at the other non-invited tables mentioned a justification, it was also included as a salient reason in the analysis for that community, under the heading of "Other Groups."

Because of the large number of justifications, the discussion in the "Results" section of this report emphasizes justifications that were mentioned across all groups at the facilitated tables at any given meeting, and thus replicated. Justifications falling under the other headings are provided for each community and may be mentioned, but they are not always the main focus of the discussion.

A cross-case community comparison also was conducted to identify patterns across the 18 communities in terms of their 1999 current situation. Its purpose was to identify which communities might be more at greater risk from outside changes, based on both the quantitative and qualitative data. Salient justifications for the ratings were used to reinforce interpretation of the common patterns for the current (1999) situation. Likewise, in the analysis of the three pathways, a similar process was followed to examine the forecasts participants made about changes to the community in the year 2020 due to each pathway.

The results of this analysis is first provided for Pathway A1, the "no action" pathway, with the existing hydro-system and waterway maintained in its current condition on into the year 2020. This forecast provided the basis for assessing the impacts of Pathways A2 ("major modifications of the existing hydro-system on the lower Snake River") and A3 ("natural river drawdown and dam breaching on the lower Snake River"). A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1. The patterns of these changes were examined across types of communities developed on the basis of several key criteria, including the nature of their relationship to the river, their economic base and level of diversity, and population size, among others.

This report presents the results of the in-depth analysis conducted for each of the 18 communities, as well as the findings across the types of communities identified for the community typology. A summary of the findings for each community is included in the report, along with summaries of findings for the communities types as well.

The assessment methodology and report were reviewed and critiqued for scientific rigor, objectivity, substance and quality by Dr. Greg Brown, a professor at Alaska Pacific University. Dr. Brown has conducted research on rural communities in the Pacific Northwest and the state of Alaska.

### **Limitations of the Community-Based Assessment Methods and Findings**

One limitation of the assessment methodology and thus its findings was that the technical information from the Army Corps of Engineers was not finalized prior to the initiation of the community forums. During the period in which the community forums were conducted, the PATH report was under review by the National Marine Fisheries Service. (However, it should be noted that the finalized information has not proven to be significantly different from that presented to forum participants.) Also, information on the economic impacts relating to recreation and anadromous fish was not available. Thus, the perceptions identified in the community forums must be considered in the context of information that was presented as preliminary or that was missing. In cases of missing information, information under review, or information that participants did not agree with, many participants were found to assume the worst case scenario and to base their ratings and justifications on that assumption.

Results of this assessment must be interpreted, understood, and used within the qualitative and quantitative research framework. Care was taken to employ conservative statistical analyses such as the use of median ratings within communities and to use replication logic as opposed to sampling logic to make scientifically defensible inferences. The ratings presented and discussed here are not representative of the total population of the communities studied. Rather, they present the diversity of perceived effects and associated justifications from citizens who are actively involved in their communities or interested in the salmon recovery issue. Also, the ratings based on the interval-level scales developed for this research have little utility without the companion use of the qualitative justifications.

Finally, it is critical to stress that the benefits and costs to local residents of the three pathways can vary within communities, as well as across communities and the geographic region being assessed. The impacts and the communities assessed are unique, and each community has different capabilities to deal with distinct direct, indirect and perceived impacts. There may be common themes across all community types or within all community types, but there is not one single, "one-size-fits-all" set of impacts across all communities, or actions to minimize those impacts that are negative.

## **KEY FINDINGS**

Key findings presented in the report focus on four areas. One is the community typology that was developed on the basis of the community assessment. Key findings also focus on the kinds of impacts perceived by participants in the community forums, as well as finding about the resilience of the different types of communities assessed and the risk to them based on perceived impacts. The third area of key findings focuses on participants' ideas about actions that could be taken to minimize the negative effects on communities of efforts to recover salmon runs, both generally and specifically looking across pathways and at each type of community. Finally, other, more general but important findings about the assessment process, participants in the forums, and the issue of salmon recovery are presented.

### **Community Types**

A typology of communities, or array of kinds of communities having common characteristics, emerged as a result of conducting the interactive process involved in the community forums. The typology depicts the range of kinds of communities that are found in the region, what they have in common, and what distinguishes among them in terms of significant differences. The community typology presented here is based on communities' relationships to the river, economic base and level of diversity, population, and other key factors identified in the community forums.



The community typology developed in this assessment includes six types of communities: 1) the Trade Center Community Type; 2) the Highly Productive Dryland Agriculture Community Type; 3) the Productive Dryland Agriculture Community Type; 4) the Multiple Natural Resource Use Community Type; 5) the Snake River Irrigated Agriculture Community Type; and 6) the Columbia River Agriculture Community Type. Other communities can be classified according to these types and their current affected environments surmised, and then the extent and kinds of impacts can be inferred based on that classification. But caution must be exercised and the partitioning variables along with community context must be simultaneously considered.

### **Findings Related to Perceived Impacts**

Forum participants in most of the region's towns and cities assessed perceived that they are resource based, and that any actions taken would have important effects on them. Many people would prefer a win-win solution where their neighbors won't be negatively affected by actions taken.

Participants in agriculturally-based communities and ones closest to the segment of the Lower Snake River were those that perceived the impacts of Pathway A3 (dam breaching and natural river drawdown) on their communities to be the most severe and adverse. These towns and cities in the "reservoir region" included the Tri-Cities (Trade Center Type) and the small farming towns of the Columbia Basin, the Palouse, and the Camas Prairie -- especially ones dependent on irrigated farming and dry-land agriculture for whom transportation costs would increase (Irrigated Agriculture Type and Productive and Highly Productive Dryland Agriculture Types).

The farming communities in the "downriver region" which were asked to focus on their local environment and the Snake River, as opposed to the Columbia River, exhibited more of a "halo effect" in their assessment of impacts. This assessment reflected their antipathy towards the Federal government and its activities, and their belief in a domino effect of dam breaching that eventually would extend to the Columbia and have major impacts on them, even if they were not directly affected by Pathway A3.

### **Findings Concerning Community Resilience and Assessment of Risk**

An important contribution of the community impact assessment conducted in Phases I and II is its assessment of the risk to communities potentially impacted by the three Corps pathways. The results of the assessment suggest that communities of some types would be at greater risk of being significantly affected by proposals to change the existing river system on the Lower Snake River than would other types. The degree to which a community is at-risk was assessed based on two factors: 1) the town or city's current community capacity to respond to change, which is dependent on the community's affected environment; and 2) the perceived degree and kind of impact the

community would experience, or the environmental effects of a particular pathway, if each one of the three pathways was implemented. However, an exhaustive analysis of risk across communities examined in Phase I and Phase II was beyond the scope of this research. The following is a brief summary of the risk identified by forum participants in Phase I and II and the degree of forecasted impacts as identified by members of communities categorized as types of communities based on the community typology.

#### The Trade Center Community Type:

Although forum participants in Trade Center communities perceived substantial negative impacts associated with the implementation of Pathway A3, forecasted impacts varied across Kennewick, Pasco, Lewiston and Clarkston. The fact that these communities have relatively diverse, vibrant economies and active community vision and vitality suggests that their ability to cope and respond to adverse changes to the environment at the community level is relatively high. Additionally, these communities are highly resilient trade centers that will continue to grow and change, enhancing their ability to respond to negative impacts.

#### The Highly Productive Dryland Agriculture Community Type:

Forum participants in the Highly Productive Dry-land Agriculture communities perceived substantial negative social effects associated with the implementation of Pathway A3. Colfax, Genesee and Pomeroy are communities in transition. The increase in transportation costs associated with the A3 would significantly affect farmers, associated agriculture services, and others dependent on barge transportation. Given that these communities have a low to moderate level of resiliency and ability to adapt and respond to change, they are at a high level of risk from significant changes to the external environment. These negative effects could be somewhat moderated by the high degree of vision and vitality exhibited by communities of this type.

#### The Productive Dryland Agriculture Community Type:

Forum participants in the Productive Dryland Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Kahlotus and Washtucna are small communities highly dependent on agriculture. Given their proximity to the Tri-Cities' river ports, negative impacts associated with increased transportation costs with the implementation of A3 are less significant compared to impacts on communities categorized as the Highly Productive Dry-land Agriculture Community Type. Because these communities have a low to medium level of resiliency and low economic diversity, their ability to adapt and respond to change is limited. However, negative effects to these communities could be moderated if they retain their strong, active community organization and leadership. Therefore, this community type has a more moderate level of risk associated with the implementation of Pathway A3.

### The Multiple Natural Resource Use Community Type:

Forum participants in the Multiple Natural Resource Use communities perceived a range of potential impacts associated with the implementation of Pathway A3, from somewhat beneficial to very adverse. Although Enterprise, Riggins, Orofino and Weippe are more distant from the immediate Lower Snake River region, these towns could be beneficially affected by increased salmon runs. As suggested by their identified impacts and the travel and tourism nature of their local economy, forum participants in Riggins, Orofino and Enterprise perceived some benefits from increased salmon runs under Pathways A2 and A3 and adverse impacts associated with declining salmon and steelhead runs under A1. However, participants in Orofino and Weippe in north central Idaho perceived adverse impacts associated with the implementation of Pathway A3, such as increased transportation and utility costs and possible effects on the traditional forest industry of the area. Given these communities' varied perceptions of the risks associated with A3, the mix of beneficial and adverse impacts, and their active, on-going efforts to adapt and respond to socio-economic changes, these communities can be characterized as being at a low to moderate level of risk.

### The Columbia River Agriculture Community Type:

Forum participants in the Columbia River Agriculture communities, which perceived slight to very adverse impacts associated with the implementation of Pathway A3, are communities in transition. However, given the proximity of Adams, Stanfield and Umatilla to the Tri-Cities and the indirect nature of their relationship to the Lower Snake River, risks associated with the implementation of A3 are minimal for communities of this type compared to other communities in the study. A confounding factor for this community type is the perception that removal of dams on the Snake River will result in the removal of dams on the Columbia River in the future.

### The Lower Snake River Irrigated Agriculture Community Type:

Forum participants in the Lower Snake River Irrigated Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Prescott and Burbank are communities in transition with an increasing number of residents on public assistance and poor job opportunities. Coupled with the fact that these communities have a low level of resilience, the potential loss of irrigated agriculture lands from the implementation of A3 would have significant negative impacts on these communities and their ability to adapt and respond to changes.

## **Findings Concerned with Minimizing Negative Effects to Communities: General Observations**

Participants at each community forum identified potential actions or efforts to minimize the negative socioeconomic impacts they identified for each pathway. This brainstorming activity was designed to be open and unstructured so that participants would feel free to provide any and all ideas about actions that could be taken to minimize impacts in their community. Several consistent and identifiable patterns emerged from these data. First, participants from nearly all communities found it necessary to propose actions that went beyond their community and were more regional in nature. Second, although participants were asked to suggest actions to address socioeconomic effects, they often felt compelled to say something about biological issues related to the potential decline of salmon populations. Third, there often was great disparity between the kinds and magnitude of effects identified by participants for each pathway and the actions they suggested to minimize the negative socioeconomic effects at the community level for that pathway. Fourth, communities and community types that were more directly dependent on the existing Lower Snake River system, and which would be more directly impacted by changes to it, demonstrated the greatest ability to articulate community-level actions to minimize negative socioeconomic effects. A greater amount of diversity of local socioeconomic actions suggested by forum participants also occurred across the facilitated groups in these more directly affected communities. The community types where this was most prevalent were Highly Productive Dry-land Farming, Multiple Natural Resource and Snake River Irrigated Agriculture.

## **Findings Related to Minimizing Negative Effects to Communities Across Pathways**

In general, participants in the community forums focused on regional actions or efforts, such as the need to address habitat improvement, ocean and in-river harvesting of salmon, and the effects of hatcheries on salmon runs, under Pathways A1 and A2. Additionally, participants called for increased local involvement in salmon recovery decision making. For both A2 and A3 participants identified the need to have costs of implementation and increased utility rates shared by the nation, and not borne by specific communities or the region alone.

Under Pathway A3, participants across all community types noted the need for infrastructure improvements and economic assistance to diversify local economies, and they suggested monetary compensation to interests that currently depend on barging transportation. The focus of participants in communities in the Downriver region on regional and non-local-level actions provides evidence of these participant's perception that their community would be less affected or more indirectly affected. In contrast, participants in the highly productive dry-land farming communities, who perceived direct socioeconomic effects on their community, identified specific and detailed actions to minimize negative these socioeconomic effects under Pathway A3. This ability to identify actions that parallel or correspond to specific kinds of impacts substantiates the contention that participants were able to identify the interrelationships between

proposed pathways and local environmental effects. This rational, logical reaction was probably not devoid of emotion, but it certainly less so than responses of participants in downriver communities and communities in the Trade Center Community Type. It is interesting to note that participants in the directly affected communities often rated A3 less negatively than did those in the indirectly impacted communities. Typically, the latter, who based their rating justifications on highly charged perceptions, made comments reflecting their mistrust of the Federal government (e.g., "if these dams go so too will the dams on the Columbia," "the federal government is bad and only interested in control," etc.).

### **Findings Related to Minimizing Negative Effects to Communities by Community Type**

The following provides an overview of common themes for minimizing negative impacts of pathways identified across communities and within community types, as well as some unique actions identified at both the regional and local level. Nonetheless, it is important to note that these actions as identified by community participants were specific to the community being assessed. Although there may be common themes across all community types or within all community types, there is not one single, "one-size-fits-all," action proposed by participants for minimizing negative impacts across all communities. The communities, as well as the impacts on them, are unique, and each community has different capabilities for dealing with particular direct, indirect and perceived impacts. To minimize the negative impacts of implementing any of the three pathways, mitigation strategies need to be developed at the community, county, and regional level with direct input from community members as well as stakeholders.

#### **Trade Center Community Type:**

Under the implementation of Pathway A1, forum participants in Clarkston and Pasco identified the need for the local government to become more involved in salmon recovery efforts, while Kennewick participants identified the need for any costs incurred as a result of this pathway to be spread out across all citizens across the country. Regional considerations tended to focus more on specific elements of the management of the waterway system and the fisheries themselves. Specific issues identified included a need to improve salmon habitat, reduce salmon predators, and reduce or eliminate commercial and recreational harvesting of salmon.

Participants in Clarkston, Kennewick and Lewiston each felt that, if Pathway A2 was implemented, its costs should be shared by the entire country. Regional considerations included the need to develop the necessary technology to make effective modifications to the dams.

Participants in Lewiston and Clarkston generally identified similar actions to minimize negative impacts with the implementation of Pathway A3. In particular, these communities identified a need for an improved infrastructure, including road and highway access. They also identified the need for economic development plans and incentives for businesses previously dependent on barge transportation. Few regional issues were identified.

### Highly Productive Dryland Community Type:

Under the implementation of Pathway A1, no local actions were identified across all communities of this type. However, forum participants in Colfax identified the need to increase local control over the Snake River, and participants in Pomeroy felt that actions would be needed to increase the diversity of reservoir-related recreation as well as to increase government spending in the local area. Regional considerations tended to focus on the management of the river system and the fisheries themselves. Specific issues identified included addressing salmon fish passage, reducing the harvest of salmon, increasing salmon habitat, and possibly amending the Endangered Species Act.

Participants in Colfax and Pomeroy identified the need to address the short-term effects of any increase in the town's population due to an in-migration of construction workers to modify the dams with the implementation of Pathway A2. Similarly, participants in Colfax, Genesee and Pomeroy all identified the need to develop more effective dam modification technology for salmon recovery. Specific local actions identified by Pomeroy participants included increased local spending by the government and to contract local labor for modifications, as well as increasing the number of recreation opportunities. Specific regional actions identified by participants in Colfax included the need to develop contingency plans in the event predicted outcomes of salmon recovery do not meet threshold levels.

For the implementation of Pathway A3, the highly productive dry-land communities felt that significant steps would need to be taken to improve highway and rail transportation, improve grain storage, and guarantee the availability of rail cars for alternative modes of grain distribution. Additionally, participants in Colfax, Genesee and Pomeroy each identified the need for business redevelopment and incentives for economic diversification to minimize adverse impacts. Specific actions identified at the local level included Colfax's need to strengthen social services to handle increased implementation-related stresses and health problems. Participants in Genesee identified the need for job retraining, and participants in Pomeroy felt that long-term compensation for displaced farmers would be required with the implementation of A3.

### Productive Dryland Farming Communities:

The two communities in this type were pilot communities and therefore were not given the opportunity to identify means of minimizing negative impacts to the community. It may be reasonable to assume that given the opportunity to identify mitigation these communities would identify actions similar to those identified by the highly productive dry-land farming communities. One distinction that might affect this assessment is that the direct financial impact to these farms and farmers would be significantly less than those in the highly productive dry-land farm types.

## Multiple Natural Resource Communities:

Under Pathways A1 and A2, no actions to minimize community-level or regional impacts were identified across all communities. Specific local-level actions for these pathways included providing monetary compensation to communities for the declining salmon runs and the need to have increased local involvement and control in salmon recovery efforts. Specifically, participants in Orofino was concerned about the minimizing the negative effects of continued flow augmentation from Dworshak on the recreation and tourism industry and the need to compensate the local community for losses.

Additionally under Pathway A2, community members identified the need to provide preferences to local contractors and laborers for modification activities on the four Lower Snake River dams.

Regional suggestions included the need to address declining habitat, improve hatcheries and to further restrict ocean and in-river harvest. Under A2, regional suggestions included the need to modify the four Lower Columbia River dams with comparable fish by-pass technology.

Under Pathway A3, forum participants in three of the four communities in this type identified local-level actions to minimize community-level impacts. Participants in Riggins did not identify any local-level actions. Common ideas included economic assistance in the form of grants to assist in community development, economic diversification, and strengthening and promoting fishing related recreation and tourism as well as direct compensation to shippers affected by the loss of barge transportation. Suggestions related to infrastructure included the provision of improved rail and road access and service at competitive prices.

Although participants in Riggins did not identify negative local-level impacts under this pathway, participants did identify regional actions to subsidize regional ratepayers and farmers who currently move their commodity on the river system and to improve the regional transportation system.

## Columbia River Agricultural Communities:

Participants in these communities tended to focus on regional-level actions to minimize negative impacts across all pathways and did not identify many salient local-level actions although in general they tended to rate the Pathway A3 towards the very negative or adverse end of the scale.

Under Pathways A1 and A2, no actions to minimize community-level or regional impacts were identified across all communities. Local-level actions specific to individual communities for these pathways included increasing local involvement in salmon recovery decision making and for A2 sharing the costs of implementation

with the entire country. Regional actions included the development of a regional comprehensive plan of action and an increased coordination between responsible agencies. Other regional actions included continued investment in research, limitations on in-river and ocean harvesting and the enforcement of international fishing treaties.

No local-level actions to minimize negative impacts under A3 were identified across all communities in this type. Specific actions included tax incentives and grants to promote economic growth and diversification as well as an improved transportation system. Umatilla participants identified the need for federal funding to complete the additional power plant. Stanfield participants identified the need to address the risks of flooding in the Columbia River flood plain as one regional measure.

#### Snake River Irrigated Agricultural Communities:

Participants in only one irrigated agricultural community, Burbank, provided information to minimize negative impacts. Prescott was a pilot community and therefore did not have the opportunity to provide this information. It may be assumed that there may have been many similarities between these communities.

Under Pathways A1 and A2, no local-level actions were identified to minimize negative impacts. Regional suggestions included the enforcement of international treaties, improving habitat, halting in-river and ocean fishing and improving barging technology.

Under the implementation of A3, participants identified local actions to minimize impacts to the community's economy and infrastructure. These economic actions included financial compensation for losses, low interest loans, and direct assistance to dislocated agricultural workers. Suggestions to minimize community infrastructure and services included funding to support schools, highway improvements (US 12 and SR 124), expanded rail and port facilities, modification of river parks and actions to minimize the effects of increased trucking and dust emissions. One regional measure included the need to more fully involve Native Americans in the salmon recovery efforts.

#### **Other Pertinent Findings**

Rural communities are in transition and on-going changes, such as increased commuting for employment opportunities, their use as "bedroom communities," outmigration of youth, and the continuing consolidation of farms, are common-place in participants' perceptions of their community's future. The assessment also found that rural community residents generally oppose Federal government intervention, although they are highly dependent on government projects and programs, subsidies, and employment. (These findings are not inconsistent, given that a major theme identified in the assessment is the perception, especially in smaller towns, that they are subject to outside forces beyond local control.)



The research team was surprised by how willing participants, especially those in small towns, were to come out, discuss and learn from one-another. The community forum process took over four hours, yet few people left prior to the completion of the forums. Participants were very willing to share with their opinions with their neighbors and learn how others felt the community might be affected by the proposed pathways.

These discussions and sharing of ideas increased participants' comprehension of the complexity of the issues involved, resulting in greater social learning and two-way communication between people and the U.S. Corps of Engineers. The interactive process applied in the community forums provided a rich source of information and insights into key issues, concerns and perceptions of impacts. The team concluded from its analysis of the qualitative data, in particular, that people did see the linkages among specific social and economic impacts of the pathways across community dimensions.

Another general finding was that the concept of dam removal is a very emotional issue. Participants came to the forums with intense feelings, whether pro or con, on the various pathways. The research team noted that the level of interest in the issue is apparently higher in small towns, where it is the talk of the town. Proportionately many more people came to the forums in the small communities than in larger ones, and even in terms of absolute numbers fewer people attended in the larger communities than in the smaller ones. Many possible reasons could explain this phenomenon. They include the perception that the implementation effects would be greater in smaller communities. Also, in a city, residents may not be as close socially, or they may feel less empowered. Some people, whether from large or small towns, may have felt that the Corps has already made their decision. Many potential participants could have been burned-out and exhausted from previous meetings and rallies. A final reason may have been that people in larger communities believed that they could rely on others to participate.

The assessment team noted that a common belief across all communities was that the Corps had already made a decision and that the interactive community forums were an attempt to rationalize that decision post-hoc. Also, the team experienced residents' concerns over who is ultimately "in charge" and responsible for decisions affecting salmon recovery, as well as frustration over the perceived lack of local control over these decisions.

The complexity of the current situation, complete with a multitude of data sources and results, has led to confusion amongst the public and has increased its anxiety over the lack of certainty in knowing what is happening and what is likely to happen in the future. Some of this complexity and confusion is due to the sheer amount of information being collected and considered, while some is due to community members finding that competing sources and kinds of scientific information are confusing. Many people were well informed, which was reflected in the quality of questions asked and their desire to understand the science behind the issue.

A halo effect was noted in forum participants' ratings, especially in communities that had little or no direct relationship to the Snake River. In these communities, participants believed that any actions to remove dams on the Snake River would lead to the removal of Columbia River dams ("if it happens on the Snake River, it won't be long before it happens on the Columbia River").

Mistrust was apparent at many of the forums where participants expressed concerns that they were somehow being manipulated by the government to give certain answers desired by Federal agencies. This finding shows how challenging the task of meaningful public involvement really is for Federal agencies.

## **CONCLUSIONS**

The community assessment conducted as Phase I in the direct impact region (southeastern Washington, northeastern Oregon, and north central Idaho) was effective in meeting its stated goals of 1) assessing the current characteristics and conditions of the region's communities (*i.e.*, affected environment); and 2) assessing residents' perceptions of the impacts on their communities of the three pathways being considered for salmon recovery on the Lower Snake River (*i.e.*, environmental effects on the communities). In a true two-way communication process, the UI research team informed the public about the information and data on the impacts of the pathways that decision-makers were assembling for evaluating those pathways and recommending a preferred pathway; at the same time, the public from a theoretical sample of the diversity of communities in the impact region informed the assessment team with their perceptions of the affected environment and the likely environmental effects of the pathways on their communities.

A typology of communities emerged as a result of conducting the interactive process involved in the community forums. It is based on communities' relationships to the river, economic base and level of diversity, population, and other key factors identified in the community forums. This typology is further examined in Phase II of the Community-Based Social Impact Assessment conducted in Southern Idaho.

Another contribution of the community assessment is the identification of social and economic risk to communities that could result if the proposed pathways for salmon recovery were implemented. Findings suggest that different types of communities would differ in the extent to which they would be at risk of being significantly affected by proposals to recover salmon runs on the Lower Snake River.

This dominantly qualitative assessment of community perceptions has limitations. Results of this assessment must be interpreted, understood, and used within the qualitative and quantitative research framework developed for the assessment. Care was taken to use conservative statistical analyses such as median ratings for facilitated groups within communities and to apply replication logic as opposed to sampling logic to

make scientifically defensible inferences. The ratings presented and discussed here are not representative of the total population of the communities studied, but rather capture the diversity of perceived effects and associated justifications from citizens who are actively involved in their communities or interested in the salmon recovery issue. Finally, it is important to note that equal-appearing interval scales used for rating the community dimensions should be interpreted in conjunction with the qualitative justifications for those ratings.

The benefits and costs to local residents of the pathways under consideration can vary within communities, as well as across the geographic region being assessed. Nonetheless, given the legal requirement currently mandating the Federal government to recover the salmon stocks, understanding who the likely winners and losers are, and the trade-offs associated with the various pathways, is critical for sound decision-making. To some people, the loss of the salmon stocks and the extinction of the affected species, should it occur, is an irreversible and unacceptable outcome. To other people, the loss of jobs, and potentially families and social services, not to mention the character of the place they call home, is irreplaceable. For them, the welfare of people living and working in the region, which depends on economic development and the area's built environment, is paramount--irregardless of the impact on the runs of wild salmon.

# SECTION 1 - INTRODUCTION

This report details the findings of Phase I of the University of Idaho's community impact assessment obtained through 18 interactive community forums in southeastern WA, northeast OR, and north central ID as part of the lower Snake River Juvenile Salmon Migration Feasibility Study and *Environmental Impact Statement* (Feasibility Study/EIS). A companion report entitled *Community Based Social Impact Assessment Phase II - Southern Idaho*, details the findings of Phase II which is an assessment of 9 additional communities in Southern Idaho. Section 1 of this report describes the purpose and scope of the interactive community assessment. Section 2 provides the findings from each of the 18 communities with respect to the community history, 1999 baseline situation, and the perceived impacts to individual communities due to each of the three proposed pathways for salmon recovery on the lower Snake River. Section 3 compares the communities and results from each of the individual community assessments and identifies common patterns for both the current situation in the sampled communities (current affected environment) and community-level impacts (or environmental consequences) under the three proposed pathways.

## 1.1 - PURPOSE AND OBJECTIVES

The purpose of the Feasibility Study/EIS was twofold. First, the study assessed the current condition and characteristics of selected communities in the regions of southeastern Washington, northeastern Oregon and North central Idaho that may be directly impacted by three different "pathways," or sets of alternatives, currently under consideration by the U.S. Army Corps of Engineers for salmon recovery in the lower Snake River. The three main groups of alternatives that were assessed from a community perspective include:

*PATHWAY A1* - The first alternative is the baseline condition, or the Existing System," whereby the situation with the four Lower Snake dams would remain much the same as it is today. Juvenile salmon would continue to pass through turbines, through fish bypass systems, or over spillways. Some fish would continue to be transported by barge and truck to below Bonneville Dam. River flow would continue to be augmented by Upper Snake River water. Ongoing improvements include longer screens, additional barges, and flow deflectors on spillways.

*PATHWAY A2* - In this alternative, "Major System Modification," the four lower Snake River dams would remain. Construction of surface bypass and fish guidance systems would occur, structural changes would be made to turbines and spill basins as well as modification of river flow and spills. River flow would continue to be augmented by Upper Snake River water. These modifications could be used with either the juvenile fish transportation system or in-river juvenile migration.

*PATHWAY A3* - In "Natural River Drawdown (Dam Breaching)," the four lower Snake River dams would be partially removed. Existing reservoirs would be permanently lowered to a natural free-flowing condition by removing a section of each dam, creating 140 miles of free-flowing river. Commercial navigation and hydropower would cease on the lower Snake River, and irrigation and recreation opportunities would be affected.

The second purpose of the study was to assess community participants' perceptions of the range of impacts each pathway would have on their communities. The results from the forums provide an additional tier of more detailed information reported in the social assessment analysis and considered as part of the draft environmental impact statement and feasibility report.

In particular, the objectives of the interactive community forums were to:

- Introduce community members to preliminary information from the Corps of Engineers' lower Snake River salmon study to help them identify positive and negative social impacts;
- Understand communities' current situations and how they have changed since 1960;
- Provide residents with the opportunity to assess how their community would be affected by the three major pathways under consideration. (Pathways A1, A2, and A3)
- Obtain community residents' ideas about effective strategies for maximizing positive social impacts or minimizing negative social impacts of the proposed pathways; and
- Provide people with an opportunity to have their input included by the U.S. Army Corps of Engineers' as part of the Lower Snake River Juvenile Salmon Recovery Feasibility Study.

Key questions addressed by this report include the following:

- What have been the historic social and economic changes in the selected communities in relation to the Snake River system as perceived by residents?
- How do community members describe and project the potential social impacts (beneficial and adverse) associated with the proposed pathways?
- What are the social impacts of the DREW/PATH projected changes in the regional economy and other kinds of changes on selected communities?

- How do community members think their community will respond to the social and economic impacts resulting from the project's pathways?
- What efforts or actions do community members think are needed to minimize negative social impacts and maximize positive ones under each of the pathways?

The intent of the interactive community forums was to obtain formal public input on proposed pathways prior to the development of a recommendation and the draft EIS. In addition to the other components of the social assessment characterizing the human environment for the EIS and feasibility study (*e.g.*, regional economic analysis, recreation analysis, *etc.*), the interactive community forums represent a community impact assessment based on the perspectives of those citizens most directly affected by the salmon recovery pathways.

## **1.2 - METHODOLOGY**

The research approach taken for the Lower Snake Community Impact Assessment was a multiple case study. The unit of analysis and the sampling unit was the community, and the sampling frame was all communities located in one of the three impact areas designated by the Corps for consideration in Phase I of the community assessment: the Reservoir region in eastern Washington, Upriver region in northern Idaho, and the Downriver region in northeastern Oregon and south central Washington. Embedded units of analysis (to be discussed in more detail later) within each community included:

- the groups in which forum participants were split into when they were seated at a particular table to maximize role diversity in each group (and the effects of the facilitated interactive processes experienced within their group);
- within those groups, the role that each participant represented; and
- within that role, the individual personality, knowledge, beliefs, and perceptions that each participant brought to the forum.

Key elements of analysis in multiple case study include: 1) use of a variety of kinds of data that seek to provide a high degree of internal validity; 2) triangulation and replication among these different kinds and sources of qualitative and quantitative data, not only to assess internal validity, but also to promote greater insights; and 3) pattern analysis and cross-case comparison to suggest broader empirical generalizations and conclusions for further research and more detailed data analysis (Government Accounting Office, 1990; Strauss and Corbin, 1990; Yin, 1989).

The following steps were implemented in conducting this community impact assessment as a multiple case study and analyzing its results:

1. Communities were selected across the types of communities in the study region as grouped on the basis of economic diversity, location by state, population size, and other characteristics.
2. Dimensions of current community conditions and characteristics were developed for the community impact assessment.
3. Rating scales and forms were developed for each dimension of the current situation in 1999 and for each of the proposed salmon recovery pathways.
4. The *Agenda for Interactive Community Forums* was developed and described.
5. Results from DREW and PATH reports were distilled and synthesized for presentation to communities.
6. A community history presentation was developed based on information from secondary sources.
7. Community dimensions, rating forms, and the structure of the interactive meetings were pre-tested with local Palouse farmers and students.
8. A pilot-test of the process was conducted in three pilot communities, and the results were used to refine and improve that process.
9. The forums were advertised via local media for each community, and selected participants were identified and invited.
10. Community forums were conducted.
11. Qualitative data from each community were thematically coded and entered in computer files, along with corresponding numerical ratings.
12. Patterns within and between facilitated tables of participants at each meeting were analyzed, as well as among communities.
13. A report of the results was prepared.

### 1.2.1 Selection of Assessment Communities

The communities of concern for this assessment include 90-plus communities within the geographic scope of the regional analysis for Phase I, including towns and cities outside the immediate proximity of the Corps projects (see attached database). Given the large number of communities in the region surrounding the area of the proposed action, it was not possible to adequately obtain sufficient information about each community within the time frame of the decision-making process. Therefore, a range of communities in which to conduct community-based assessments was selected. Identification of the range of potentially affected communities followed a theoretical sampling method whereby communities were selected based on a typology of predetermined criteria.

A theoretical sample was used to select the communities. Corbin and Strauss (1990) describe theoretical sampling as "a way to purposively choose persons, sites or documents that maximizes opportunities to elicit data regarding variations along dimensions or categories." Two dimensions, economic diversity and state of residence (Washington, Idaho, and Oregon), were selected as the initial criteria for the theoretical sampling approach taken here.

A community that is economically diverse has an employment distribution in many industrial sectors, and is not especially dependent upon one sector. Economic diversity was chosen as one dimension due to the fact that those communities in the region with lower economic diversity would be affected differently by the impacts associated with each pathway than more economically diverse communities.

Economic diversity was measured with an index for each of the selected communities using data gathered for the Interior Columbia Basin Ecosystem Management project in conjunction with regional economist Dr. Hank Robison of the University of Idaho (see Harris et al. Forthcoming). Community economic diversity was based on the percentage of a town's total direct employment attributable to each industrial sector contributing to that town's economy in 1995 (the latest information that was available). These data provide a community-level economic profile of each of the selected cities and towns in terms of 23 industrial sectors.

The economic diversity index was developed as a summative index of relative economic diversity. The index was calculated using standardized measures of the extent to which communities are dependent on a variety of industrial sectors, in terms of total direct employment. The first component of the index is a measure of the extent to which a given community's economy is comprised of only a few or, alternatively, many industrial sectors. This measures the total number of sectors having some proportion of total direct employment in that community. The second component of the index was a measure of the preponderance of total direct employment in any one sector. The higher this percentage was, the less economically diverse the community, hence, a positive or negative numerical sign was given to the index to provide an indicator consistent with the first component. Together, these component measurements were standardized and summed for a cumulative index of economic diversity.



Communities within the geographic scope of the Lower Snake feasibility analysis were grouped by their level of economic diversity based on the index score. Levels of economic diversity ranged from Low (-4.58 to -1.45), Medium Low (-1.26 to 0.39), Medium High (0.40 to 1.68), to High (1.87 to 2.05). These rankings were based on relative ranges of quartiles of economic diversity index scores, with each class thus representing an equal proportion of the communities under assessment (25% each). The one-quarter of the towns receiving the lowest economic diversity index scores (-1.45 or less) were labeled as "Low," and so forth.

The second dimension for the theoretical sampling framework was the state in which a community was located. This dimension was chosen to assess differences across the communities in different states (Washington, Idaho and Oregon) have distinct resources and structures for mediating and mitigating social and economic changes specific to their state's political system. Typically, when federal dollars are involved they are directed through a state's governmental system. In addition, states serve as a proxy for the types of resource changes in the project area. For example, communities in Washington, are those in greatest proximity to the dams and slackwater reservoirs, and they will be affected primarily by changes in transportation costs, transportation modes and recreational opportunities. Idaho towns are primarily upriver from the impacted area, and while they also will see issues related to transportation costs, they could also experience improved recreational opportunities resulting from salmon recovery. Communities in Oregon are primarily downstream and might see changes based on shifts in transportation modes, irrigation and recreation. The total populations of communities in the region based on these typologies are displayed in Table 1-1. A breakdown of selected communities based on these typologies is as follows:

<b>Table 1-1 Sites of Interactive Community Forums</b>				
<b>Community Location: State</b>	<b>Community Economic Diversity (Population)</b>			
	<b>Low</b>	<b>Medium Low</b>	<b>Medium High</b>	<b>High</b>
Washington	Burbank (1,700)	Colfax (2,810) Field Test: Washtucna (270)/Kahlotus	Pomeroy (1,460) Field Test: Prescott (305)	Clarkston (6,750) Pasco (22,170) Kennewick (46,960)
Total Washington Communities: 41 Selected: 9 (22%)	Total Washington Communities in Category: 7	Total Washington Communities in Category: 14	Total Washington Communities in Category: 10	Total Washington Communities in Category: 10
Idaho	Weippe (523)	Genesee (783)	Orofino (3,010) Riggins (460)	Lewiston (29,119)
Total Idaho Communities: 24 Selected: 5 (21%)	Total Idaho Communities in Category: 2	Total Idaho Communities in Category: 8	Total Idaho Communities in Category: 11	Total Idaho Communities in Category: 3
Oregon	Adams (245)	Stanfield (1,620)	Umatilla (3,155)	Enterprise (1,935)
Total Oregon Communities: 27 Selected: 4 (15%)	Total Oregon Communities in Category: 4	Total Oregon Communities in Category: 8	Total Oregon Communities in Category: 12	Total Oregon Communities in Category: 3
<b>Totals by Diversity Category</b>	<b>13</b>	<b>30</b>	<b>33</b>	<b>16</b>
<b>Selected (Percent)</b>	<b>3 (23%)</b>	<b>5 (17%)</b>	<b>5 (15%)</b>	<b>5 (31%)</b>

Due to the nature of classification schemes, there are limitations to these variables. Specifically, resource changes and community actions are not exclusive to a particular geographic region or state. State governments influence community well being, but they do not represent a community's ability to adapt and respond to change. Although economic diversity is a strong indicator of a community's resiliency, it does not provide a direct relationship. Economic diversity can be used as an approximation of community responses to economic impacts; however, it is not an indicator for social and cultural changes to a community as a result of the proposed pathways.

Although communities ideally could be differentiated based on resource changes, changes in transportation, and others that are important influences on social impacts, doing so is neither simple nor clear-cut. For example, it is very difficult to clearly identify the magnitude of the social impacts that a small city like Lewiston will experience due to increased transportation costs versus shifts in recreation opportunities. Likewise, a small farming town like Pomeroy might see social impacts due to changes in recreational opportunity, Army Corps of Engineers employment, transport cost and transport modes implementation.

Evaluating which changes should be considered and their diversity and magnitude should not be part of framing of the assessment process pre-determine the results of that process. Rather, identification and measurement of those changes should be among the results of that process. Significantly, social and economic impacts would occur across the range of existing communities that researchers may not be aware of a priori.

To compensate for these limitations, economic diversity and state of residence were used only as the initial classification dimensions. Subsequent variables were analyzed to identify coverage of key issues and publics across the assessment region. Through this process, it was found that communities are adequately distributed across the following "second-tier" classification variables:

- Population (See Table 1-2)
- Economic Diversity (See Table 1-2)
- Natural resource dependency (See Table 1-3)
- Communities that have experienced significant change in the past
- Shifts in transportation modes and nodes
- Changes in transportation costs
- Changes in recreation
- Changes due to project construction
- Changes in Corps of Engineers employment

**Table 1-2  
Communities Within Theoretical Sample by Community Type**

State	Economic Diversity			
	Low	Medium Low	Medium High	High
Washington	Farmington Starbuck Malden Colton Albion Asotin <b>Burbank</b>	College Place <b>Kahlotus</b> <b>Washtucna</b> Uniontown Endicott Finley Mesa La Crosse St. John Garfield Tekoa Palouse Ritzville <b>Colfax</b>	Pullman Richland <b>Prescott</b> Oakesdale Lind Rosalia Waitsburg <b>Pomeroy</b> Benton City Connell	Othello <b>Clarkston</b> <b>Pasco</b> Walla Walla <b>Kennewick</b> Bingen Goldendale Prosser White Salmon Dayton
Oregon	Helix <b>Adams</b> Ione Ukiah	Grass Valley Lexington Rufus Weston Wallowa Irrigon Joseph <b>Stanfield</b>	Milton-Freewater Lostine Moro Wasco Arlington Echo Condon Athena Heppner <b>Umatilla</b> Pilot Rock	Hermiston Pendleton <b>Enterprise</b>
Idaho	Elk River <b>Weippe</b>	Culdesac Nez Perce Juliaetta Craigmont Troy <b>Genesee</b> Pierce Lapwai	Boardman <b>Riggins</b> Deary Mackay Elk City Kooskia Potlatch Cottonwood Kamiah <b>Orofino</b> Grangeville	<b>Lewiston</b> Challis Salmon
Note: Bolded communities indicate selected towns.				

<b>Table 1-3 Population and Economic Diversity of Theoretically-Sampled Communities</b>				
<b>Population</b>	<b>Economic Diversity</b>			
	<b>Low</b>	<b>Medium Low</b>	<b>Medium High</b>	<b>High</b>
Low (Less than 1,500)	Weippe Elk River Adams Helix Farmington Starbuck Ione Ukiah Malden Colton Albion Asotin	St. John Weston Wallowa Joseph Mesa Genesee Pierce Tekoa Irrigon Lapwai Grass Valley Washtucna Troy Culdesac Endicott Craigmont Palouse Kahlotus Lexington Rufus Uniontown Finley La Crosse Nez Perce Juliaetta Garfield	Riggins Rosalia Kooskia Kamiah Heppner Pomeroy Prescott Wasco Arlington Echo Lostine Moro Oakesdale Lind Deary Mackay Elk City Condon Potlatch Cottonwood Athena Waitsburg	Challis Bingen
Medium Low (1,501-3,000)	Burbank	Stanfield Ritzville Colfax	Pilot Rock Benton City Boardman Connell	Enterprise White Salmon Dayton
Medium High (3,001-5,000)	None	None	Orofino Umatilla Grangeville	Salmon Goldendale Prosser
High (Greater than 5,001)	None	College Place	Milton-Freewater Moscow Pullman Richland	Pasco Walla Walla Lewiston Kennewick Othello Clarkston Hermiston Pendleton

From this theoretical selection, common patterns that emerge across communities are identified and described, and their implications for the three pathways are presented.

## **1.2.2 Structure of the Interactive Community Forums**

### **1.2.2.1 Pre-testing and Pilot Communities**

Community dimensions, definitions, rating forms, and the structure of the interactive

meetings were reviewed in an informal pre-test with local Palouse farmers, professors, and students.

Two pilot community forums were conducted in Prescott, Washington and Washtucna/Kahlotus, Washington. (Originally, 17 communities were contracted to be assessed, but when the researchers learned that Kahlotus shared school services with Washtucna, it was included as a study community that was assessed along with Washtucna in one of the pilot forums.) As "pilot tests" of the process, comments and feedback from these community forums were used to streamline and refine the process for succeeding forums, and to improve the clarity of the presentation and workshop instructions given in them. Although some changes were made in the process in succeeding forums that provided modified or new data (*e.g.*, ways to lessen negative impacts), the data collected in the pilot forums were included in the analysis and results reported here.

### **1.2.2.2 Structure of the Community Forums**

#### **Introduction**

A community forum is an interactive type of public involvement activity that provides members of a potentially affected population with the opportunity to interact and ensure their thoughts and ideas are incorporated into the social impact assessment process of an EIS (Burdge, 1994). The key purpose of the community forums conducted for the present assessment was to obtain credible information from a range of invited members of a community as well as other community members who participated in the forum. The goal of the forums was to capture as wide a range of diverse community knowledge and judgments as possible.

#### **Meeting Organization: Community Forum Agenda**

Information for the community self-assessment was collected in a four-hour-long forum conducted in each of the selected communities. In each forum, information was presented to community members on the biological, economic and physical changes associated with each of three main groups of alternatives. People were then asked to discuss and record their perceptions of specific social, cultural, economic impacts that would occur in their community in 2020 (that is, about 20 years into the future, or when their community's teens would be approaching middle age).

A standard agenda was followed for each forum, including the following components:

##### **I. Setting the Stage**

- Introduction
- Introduction and Clarification of the Process
- Study Communities and Forum Participants
- Community Forum Agenda

- Key Objectives
- Ground Rules
- Salmon Recovery Pathways
- Dimensions of the Community

## II. Current Situation of the Community

- What Is The Situation In Your Community Today?
- Assess Baseline Conditions
- Share Perceptions of Community
- Identify Key Reasons For Judgments

## III. Assessing the Impacts of the Salmon Recovery Pathways on a Community

- What Social Impacts Would Your Community Experience In the Year 2020?
- Presentation of U.S. Army Corps of Engineers Impact Information
- Assess the Social Impacts of Pathways A1, A2 & A3
- Identify Actions to Minimize Negative Social Impacts to Your Community

## IV. Finishing Up

- Where Do We Go From Here?
- How This Information Will Be Used
- How To Stay Involved In the Study
- Any Other Comments

### **1.2.2.3 Forum Participants**

The invited community members were identified using a snowball sampling technique and asked to participate in the interactive community forums on the basis of referral by fellow residents. Random sampling was not used because it would not have insured the inclusion of all the different interests within a community nor the key leaders who make things happen in a community. The research assumed that these members represented the diversity of knowledge and perspectives within each community and that they were among the most active and involved in addressing issues that impact the future of their cities and towns.

Two kinds of groups of people participated in each of the community forums facilitated by the UI. One group was comprised of people who were invited to participate, and who sat and interacted at one facilitated table, which was called the "invited table." Those community members who were invited to participate were selected to reflect a range of community interests. They were people from formal and informal community organizations who demonstrated involvement in their community, and had the community's recognition for past community efforts.

Individuals active in their community in the following roles were invited:

1. Elected official (mayor or city council member);
2. Civic organization (active in a prominent service organization or club);
3. Economic (economic development, business person, chamber of commerce);
4. Education (school official, teacher, parent group)
5. Health care (active citizen or professional in health care);
6. Historic preservation or environmental protection (organizational leader, active citizen, public affairs, historical society, soil conservation, NGO, *etc.*);
7. Land-based resource production (agriculture, forestry, mining, *etc.*);
8. Community liberal (person seen as active for liberal causes regardless of political affiliation);
9. Community conservative (person seen as active for conservative causes regardless of Political affiliation);
10. Religion (denomination is unimportant);
11. Ethnic group (could be more than one);
12. Newcomer (most highly involved new resident of 1-3 years residence);
13. Senior citizen (most highly involved persons 60 years of age or older); and
14. Other active residents (as identified in a particular community as a result of the modified snowball sampling process).



### **1.2.2.3.1 Snowball Sampling of Invited Participants**

This group of participants was identified through a snowball sampling design, which was implemented as follows: Within each community, the town or city clerk, an elected official, the Chamber of Commerce executive or administrative secretary, an officer in a major civic group, and the school principal or superintendent were contacted and asked to provide a list of residents they felt best represented each of the roles. Subsequently, those people whose names were provided were contacted to provide a similar list of community members whom they felt best represented each category of community members. This process of contacting those people who were referred by fellow residents was repeated until several names for each category were identified.

From these lists, the person identified most often for each role was asked to participate in the community forum for their city or town. Through this process of local residents identifying individuals, a full range of interests, specialties and perspectives representing a diversity of community knowledge and experience was ensured in addition to the general public's participation. Of particular importance was the identification of minority representatives within the community.

Prior to the scheduling of each forum, individuals identified by fellow community members were notified of the intent of the meeting and invited to participate. Upon agreeing to participate, these targeted community members were formally invited to participate with an official letter. In the event that the identified participant could not participate, the person identified second-most frequently within that category was invited to attend. This process was repeated in an effort to ensure that one active community member from each of the categories had committed to participate.

### **1.2.2.3.2 Non-Snowball (or "Self-Selected") Participants**

A second group of participants was comprised of other residents of the community who came and participated in the forum. Because the meetings were open to all residents of the community who were willing to participate, this group consisted of all community members who sat and interacted at one of the other tables facilitated along with the "invited table." This group of "self-selected" participants in the community forum participated for a variety of reasons, ranging from a desire to preserve their lifestyle and distrust of federal government, to concerns about diminishing salmon returns, to their desire to learn more about and become more active in the process.

In order to use this volunteer energy in a scientifically defensible fashion, these individuals were systematically assigned to a group on the basis of community roles. The goal was to create replicated groups within a community that had a maximum variation of diverse community roles.

### **1.2.2.3.3 General Public**

In addition to the residents of the selected communities, the general public (or "nonresidents" of the selected communities) was formally invited to participate in the interactive community forums via the Corps' Lower Snake River Newsletter and press releases sent out to local media approximately two weeks prior to the scheduled forums. Local media received announcements indicating the time and place of the forums as well as an explanation of the nature of the workshop type forum and an explicit statement that these were not public hearings. All community members were encouraged to participate with these announcements, and nonresidents were informed that they were invited to attend, listen, and observe, but that they would not be participating in the small groups. Instead, they were offered the opportunity to give comments via comment cards directly to the U.S. Army Corps of Engineers.

### **1.2.2.4 Meetings, Scheduling and Participation**

to a set of interactive, structured group activities. These activities were designed to promote discussion across varying community viewpoints, introduce the best available information about primary and secondary impacts of the project, and record the thoughts and reactions of the participants. Community forums were held at a time and location that was arranged in consort with the school and city government calendars and that would be mutually suitable to invited community members and the forum organizers. Meetings were thus scheduled to minimize conflicts with pre-existing community meetings and activities whenever possible and to maximize attendance. The forums typically were conducted weekday evenings, at a time when past experience has shown more people are available and willing to participate. Meetings normally took place between 6:30 and 11:00 PM, Monday through Thursday; the major exception were the Saturday forums held in the Tri-Cities communities of Kennewick and Pasco, at which larger numbers of participants were expected and thus two back-to-back meetings were scheduled.

The community forums for Phase I of the community impact assessment were held over a two-month period, January 20, 1999 to March 25, 1999.

When and where possible, public facilities capable of housing large meetings (*e.g.*, city centers, schools, libraries, civic organizations meeting halls, *etc.*) were used. Each forum followed an agenda based on an established meeting protocol that was repeated across all 18 forums.

It was anticipated that between 25 and 100 community members would attend each meeting, although the level of interest would be assessed with the size of the turn-out at the communities where the meeting protocol was pilot-tested. Large numbers of participants at the small towns (50 in Prescott and 70 in Washtucna/Kahlotus) suggested that even larger numbers would attend in the larger cities. This did not prove to be the case; at any one session in the bigger cities of Kennewick, Lewiston and Pasco, only two tables of participants attended forums, regardless of whether the forums were held weekday nights (as they were in Lewiston) or on Saturday mornings or afternoons (as they were in Kennewick and Pasco).

A total of 877 people attended the forums, including 579 who participated in the full 4-hour long process (over 2000 man-hours of effort), and 298 who came to observe (most were nonresidents, but also included residents who chose not to stay for the full session).

### **1.2.3 Conduct of the Forums**

#### **1.2.3.1 Organization and Registration of Participants**

All people who attended the forum and lived in the community or considered it home were asked to complete a registration form, indicating where they from, their age, occupation, and which of the roles listed above best described the nature of their involvement in their community. Those individuals who were invited were seated at an "invited" table. As discussed previously the purpose of this invited table was to ensure that at least one table had as great a diversity of roles represented at it as possible.

Other residents of the community who were willing to participate for the forum's full four hours were assigned seats at other facilitated tables, and an effort was made to ensure a diversity of roles at each of those tables, thereby replicating the same diversity of roles present at the invited table. Numbers of facilitated tables at the different forums ranged from one to six.

Some people attending the forums were residents of the community but were unwilling to participate or unable to do so for the full four hours. Individuals from other communities that had not been selected attended but did not participate in the facilitated groups. These people were told the following:

"As for those of you in the back who do not consider this community your home, we appreciate that some of you have come a great distance and that you are sincerely concerned about this issue. However, it doesn't make sense for you to participate in the forum here because you are not a member of the community, and because you can't know the kinds of details about it that we need to learn about tonight. We want all of you to have an opportunity to express your opinion on this important regional topic. If you have any questions about our process, any information you see here tonight, or any concerns you have about the Lower Snake River Juvenile Salmon Migration Feasibility Study, we ask that you write them down on the comment cards we will now pass out. If you need additional ones, please ask a person from our team working in your area. You can return them to us or mail them directly to the address provided on the back. If you would like information on how to remain involved, be sure to pick up the materials, provided by the Army Corps of Engineers that we will be putting out later on the tables near where you signed in for the forum."

### 1.2.3.2 Introduction and Clarification of the Process

The forums were conducted by a moderator who introduced the issue of salmon recovery, explained the process of the forum, laid out the objectives and agenda for the forum, answered initial questions, and made sure that the forum stayed on schedule.

Each forum began with the moderator asking residents to identify major events or developments in their community on a decade-by-decade basis. These accounts were recorded on a timeline for the period from 1960 to 1999. As the participants gathered at each forum's beginning, they identified specific historic events in terms of four dimensions of community that the researchers used to structure participants' input about community characteristics and conditions: People (social make-up), Jobs and Wealth (economics), Place (character), and Vision and Vitality (organization and leadership capacity). (These dimensions are discussed in-depth in [Section 1.2.3.8](#)). The purpose here was to obtain community resident's recollections of significant historic changes as they relate to the lower Snake River.

Once the timeline was completed and all participants had been registered and seated, the formal process began with introductions of the research team, followed by an expression of thanks to those who provided the facility for the forum and who helped in preparing for it.

The role of the community impact assessment as part of the larger social assessment was introduced to participants, as follows:

"Our reason for being here tonight/today is to learn what the impacts to communities would be if different things are done to try to recover wild salmon stocks in the Lower Snake River. This study, which you are a part of today, is just like all the other impact studies being conducted by consultants for the Corps. The difference is this: A social assessment could have been done by scientists in Portland or Seattle looking at U.S. Census and other kinds of data to analyze and then draw conclusions. Instead, we are convinced that you are the best sources of information about your community. Whatever your background and role in your community, we are here to listen to you, collect information from you and transmit what we have learned from you to the Corps. In comparison to you, we know little about your community, how it has developed through time, and how you want it to stay or change in the future -- so we are here to learn from you.

Where does this forum fit into the overall process that the Corps and we are all participating in? (An overhead of the EIS Process was displayed and explained.)

We will be presenting results of tonight's forum to the Corps. The results from this forum, along with those of 17 others, will become one of the study reports and part of the public record that will be used to develop the Corps' draft final proposals and statement of impacts. The truth is that the Corps has not made any decision at this point in time. They are still completing studies like this one to obtain information they will consider as they complete their evaluation of the situation on the Lower Snake and prepare an Environmental Impact Statement. The results of our forums and your contributions will be available to the public as well as to decision-makers."

The research team further explained that it had designed the process with the understanding that the issue of salmon recovery and dams was a very sensitive one that residents of the impact area felt very passionately about. The intent of the forum process was to work with residents to channel their interest, concern and local knowledge into a social science process that could organize, present, and communicate residents' input for the decision makers involved.

The team also explained that the assessment was like the other impact studies being conducted by consultants for the Corps, except for one important difference: Residents were treated as critical sources of information about their community. Whatever residents' backgrounds and roles in their community, the team stressed that it was there to listen to and collect information from residents about their judgments of the social impacts of the pathways, and then transmit what was learned to the Corps. In comparison to residents, the team noted that it knew comparatively little about the communities selected, how each developed through time, and how residents wanted it to stay or change in the future -- so it had come to them to learn from them.

### **1.2.3.3 Explanation of Selection of Study Communities**

The moderator explained to forum participants the intent of the study was:

"to include some real small communities, some larger ones, some agricultural communities, some economically diverse communities, some communities who benefit from being able to use the river for barging, others who benefit by having a port nearby, and yet others who benefit from recreation and tourism associated with the river. You can think of the selected communities as being barometers for a set of similar communities in the region. As much as we would have liked to go to every community that would be impossible. Just like the fisheries biologist did not get a chance to study every fish we too had to scientifically select communities."

#### **1.2.3.4 Explanation of Forum Participants**

The study team relied on residents as experts in their community. People who attended a forum were told that,

"As participants in various activities and parts of their community's life, residents know more about a variety of economic, business and social aspects of their communities than anyone -- some are active in health care, others on education, and others on farming, still others own businesses or are active in civic affairs and clubs."

#### **1.2.3.5 Clarification of the Role of the Research Team**

The forums were conducted by a team of social scientists from the University of Idaho that was contracted by the U.S. Army Corps of Engineers to assess the social impacts on communities of pathways the Corps was studying for possible implementation on the lower Snake River for salmon recovery. The team included professors, research associates, and some 15 facilitators from the UI. The team was hired because of its expertise in community development, group facilitation and, most importantly, because it would develop and conduct a neutral process for eliciting the input of community members.

#### **1.2.3.6 Introductions and Questions of Clarification about the Forum Process**

In the first small-group discussion of the forum, a breakout session was conducted at each facilitated table in which those seated at the table became acquainted with one another: the group facilitator at each facilitated table had everyone at the table introduce themselves by giving their name and their key area of interest in the community.

Next, as an ice-breaker, forum participants were asked to re-read an informational sheet entitled *Answers to Commonly Asked Questions*, they were given as they registered. Then they asked if they had any other burning questions about the process and the use of the input that was to be gathered. To do this, forum participants were told the following:

There is some really important information on this sheet, so we ask that everyone remains quiet until everyone at the table is done reading. Your facilitator will then ask you one by one if there are any questions on the sheet that you would like to have further clarified. Your facilitator will record these. After 5-7 minutes, I will go around to each table and ask each facilitator to present questions from the purple sheet their group would like further clarified. We will do this for about 10 minutes before we move on. This way we can hopefully get most of your basic questions addressed before we begin the forum. Certainly throughout the night other questions may arise and they will be addressed at that time. Those of you observing might also wish to read the purple sheet and see if the groups come up the same type of clarification questions that you might ask.

From the beginning of each forum, it was made explicit that the forum was a workshop, not a traditional public meeting. There would not be an opportunity for residents to give testimony; rather they were being given an opportunity for structured interaction, dialogue and discussion, and input.

#### **1.2.3.7 Putting the Current Situation into Historic Context**

Historic information based on secondary data that were specific to each of the selected communities was presented to forum participants to begin explaining the four community dimensions and to place the current situation and potential impacts from the three pathways in an historic context.

The presentation of this information allowed the community forum facilitators to engage in meaningful dialogue with community members and begin eliciting information about their community's changing relationship with the Snake River. Forum participants had already been asked to think about their historic recollections of their community as a basis for beginning to think about key dimensions of their communities' changing characteristics and conditions, and for projecting future adverse and beneficial changes as a result of the salmon recovery pathways. Past accounts of community events and actions were especially important for understanding a community's future relationship with the river as influenced by their reactions and inaction (both formal and informal) to the NEPA process and the proposed salmon recovery pathways.

To begin residents thinking about the characteristics and conditions of their community in terms of each of the dimensions, community resident's recollections of significant historic changes, as they related to each of the four dimensions, were presented to the entire assembly of forum participants as illustrations of them.

#### **1.2.3.8 Dimensions of Community**

Dimensions of communities were presented to the forum participants on four separate and color-coded sheets. A sheet for each dimension was provided to each participant (see Appendix B), with the statements below provided as introductory explanations for each, followed by a list of questions intended to help residents think about important characteristics and conditions of their community in terms of each of the dimensions.

These community dimensions were used to channel participants' input about the characteristics and conditions currently characterizing their communities and likely future changes in them. These dimensions were identified in previous research and through the literature to describe the social and economic dynamics specific to individual towns. These dimensions were presented with four broad categories: 1) a community's social make-up (or a community's "People"); 2) community economy (a community's "Jobs and Wealth"; 3) community character (the "Place"); and 4) community organization and leadership capacity (a community's "Vision and Vitality"). These four broad dimensions of community characteristics and conditions represent the elements of community used throughout the duration of the interactive forums.

The following are brief descriptions of the content of each dimension:

#### Community Social Make-up -- The "People"

The social make-up of a community was referred to in the forum process as "The People" dimension. This dimension refers to characteristics of individuals or households in a community. Characteristics relating to the individual or household might include a community's population size, how rapidly it is growing or losing population, its age and family structure, as well as the make-up of various groups of people, including their ethnicity, their values and lifestyles, and other kinds of diversity.

#### Community Economy -- "Jobs & Wealth"

The economy of a community was referred to in the forum process as the "Jobs & Wealth" dimension. This dimension refers to the major businesses and sources of jobs in a community, and the diversity of an economy in terms of the variety of businesses, industries, and financial assets (the amount of capital or wealth) available to support services and activities. The major businesses and industries within a community, such as manufacturing, services, retail and wholesale trade, agriculture, forestry, and government, are interrelated and provide a source of jobs and income. The relative mix of jobs and income in these industries is an indication of a community's economic diversity.

#### Community Character -- "The Place"

The character of a community was referred to in the forum process as "The Place" dimension. This dimension refers to the characteristics of the human-built and natural environment of a community. The physical infrastructure and built-environment includes characteristics such as the attractiveness of the downtown, the quality of the community's roads, and traffic safety and congestion, as well as the level of social services provided. A community's natural environment includes characteristics such as parks, fields and rivers, as well as the attractiveness of the surrounding scenery.

#### Community Organization and Leadership Capacity -- "Vision & Vitality"

The organization and leadership capacity of a community was referred to in the forum process as the "Vision & Vitality" dimension. This dimension refers to the characteristics of a community's social organizations, including the number of civic groups and their level of activity. This dimension also refers to a community's degree of cohesiveness -- the extent to which people identify with their community, are committed to it, and work together to get things done. In addition, this dimension refers to the effectiveness and vitality of a community's government and its ability to accomplish its goals. Finally, this dimension refers to a community's vision for the future and their desire and preparedness to make that future a reality.



### 1.2.3.9 Assessing the Current Situation in 1999 in the Community

To help people at the forums think about the "current situation" in their community in terms of the four dimensions of community -- People, Jobs & Wealth, Place, and Vision & Vitality -- the facilitators provided the forum participants at their table with a rating and response form entitled *Your Community in 1999*. The form for rating and describing the community's current situation asked the participant the following question for each community dimension:

How would you rate the situation for the [community dimension] of your community in 1999?

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

For each community dimension, the moderator took the participants through a four step process: Step 1 was to read over the appropriate dimension and think about key characteristics of their community, then make an initial rating of a community dimension and stop; Step 2 was to discuss in their group the results of their rating and the characteristics, conditions, or reasons justifying their rating; Step 3 was to give a final rating; and Step 4 was to justify or explain their final rating in writing in blanks provided on the form, listing the most important characteristics from the community dimension sheet, along with any other reasons that most influenced the rating they had given.

This four-step process was repeated four times, once for each of the four dimensions of community. The purpose of this rating exercise was to familiarize forum participants with each of the dimensions so that participants would have a sound basis for judging how things would change in the future (2020) if the Corps adopted a proposed pathway. It also was intended to help the study team learn about the community from forum participants.

Each facilitator had been trained to get everyone at their table to talk and to remind people to listen to what others had to say. After participants focused on the reasons for circling the rating number they did, they were asked which characteristics were most responsible for them giving the rating they did. For one dimension, the discussion of the current situation scale would begin by asking forum participants who had given a high rating (9 or 10, at the as good as it could be end) to explain to the group why they had done so. Then, someone who gave a low rating (1 or 2, at the as bad as it could be end of the scale) was asked to explain why they had rated a dimension on the low end. Finally, those participants who rated it in the middle were asked to explain their logic.

For another dimension, the discussion started with the facilitator asking a participant who had given a low rating (1 or 2) to explain why they had rated a dimension low; then, participants who rated it at the high end were asked to explain their reasons; and so.

After about seven minutes of discussion, participants were asked to re-rate their scale based upon what they had learned in their discussion. They were assured they could keep the same rating or change it. They then were reminded they needed to complete the second part of the question by filling in the blanks on the sheet with characteristics of the dimension from the corresponding sheet, or writing some other reason that was behind their rating. They were reminded that their justifications were equally important as the numeric rating they had given. The goal was to get them to justify their rating and explain the "why" behind it, based on the characteristics they considered most important in making their decision.

#### **1.2.3.10 Presentation of Pathways and Impact Information**

In the next step of the forum process, detailed information on each pathway and its likely broad, general impacts on each community were presented to the forum (see [Appendix A](#)).

The DREW and PATH provided the community assessment team with estimates of various kinds of impacts. (DREW is the Drawdown Regional Economic Workgroup formed by regional interests to conduct a collaborative regional economic analysis for the Lower Snake Juvenile Salmon Migration Feasibility Study. PATH is a workgroup of fish biologists conducting a parallel analysis for the biological assessment of the situation for the salmon on the Lower Snake River.) Prior to the dissemination of these results, the principle investigators working on studies of major areas of impact -- including salmon recovery, transportation, power, recreation, air and water quality, regional economic effects, and costs of implementing each pathway -- were contacted to solicit information on the intended formats of the information.

Thus, the best available preliminary data were presented from the numerous studies that the Corps commissioned from a diversity of scientists and consultants, such as fish biologists, transportation experts, economists, and other contractors assessing the impacts of the pathway. Key findings were extracted from them, and those findings were checked by the specialists conducting the studies. In addition, other information related to the Lower Snake River Juvenile Salmon Feasibility Project and its Environmental Impact Assessment were collected, reviewed, and presented as they became available.

It is important to note that, at the time of the community assessments, many of the reports were under review. Two reports (recreation and the economics of anadromous fish) were unavailable to report to the public. The limitations of not having final reviewed impact information nor having even preliminary findings for two of the key studies are discussed at the conclusion of this section.

Templates were developed for aggregating and displaying these data, as appropriate, for each of the selected communities. The intention of the templates was to provide a consistent, clear format for presenting the projected social, environmental, and economic impacts of the three pathways at the community level at each of the interactive community forums. These templates were developed to communicate with community members during the interactive forums about the impacts and their relevance to each community. The impact information presented for each individual community may be found in [Appendix A](#).

The team of facilitators stressed that, because they were not the technical experts who had prepared the information, they would not attempt to defend the data. They would not spend time arguing about the methods or results they were reporting, but would only try to clarify it. If the participants had any comments or concerns about the data, their validity, or their implications, they were encouraged to write them on official Corps of Engineers comment cards, as well as on forms the researchers had provided.

Throughout this part of the forum, participants were reminded that the purpose was not to debate or question the findings. Rather, the participants were instructed to adopt the position that the projected impacts were what decision makers would base their decisions on, and so the participants needed to base their judgements of the impacts of the pathways on the community in 2020 on these data as well.

#### **1.2.3.11 Assessing the Impacts of Pathways A1, A2, and A3**

Community residents were asked to think about the information that was presented one pathway at a time. After the presentation of the impact information, community members were asked to combine it with their knowledge of their community, then "do some crystal balling" and forecast the likely impacts their community could face. This presentation of information for each pathway was followed by a session where participants rated and discussed likely impacts to each of the four community dimensions -- People, Place, Jobs & Wealth and Vision & Vitality.

For each of the pathways, a different scale was used than the one used to rate the current community situation; this scale was called a community impact rating scale. The impact rating scale was used by participants to rate the kind and degree of change in each of the four community dimensions that would result if a given pathway was implemented, based on the presentation of information about each pathway by the study team and discussed within the groups at the facilitated tables. This community impact scale ranged from -5 ("adversely affected" by the pathway) to +5 ("beneficially affected"), with a mid-point, or "0," that was based on their rating for each dimension on

the current community situation scale. Forum participants perceiving characteristics of a given dimension as being adversely affected were instructed to rate that dimension with a negative number on the impact rating scale; the higher that number, the more severe the impact was indicated to be. Those participants perceiving a dimension of their community to be beneficially affected were instructed to rate that dimension with a positive number on the scale. The last task for the consideration of each pathway was to ask participants in each group to brainstorm ways to minimize negative social and economic effects on the community, should a given pathway be selected and implemented.

In the case of Pathway A1, for example, the facilitators at each facilitated table passed out a form for rating and describing the pathway's likely effects entitled *Pathway A1: Maintain the Existing System*. The form asked the participant the following question for each of the community dimensions:

In comparison to your community today, how would the situation for  
[community dimension] change in the year 2020 if the existing Snake  
River system were maintained into the future?

	My community will be the same as it was in 1999	
My community will be adversely affected and much worse in 2020	-5 -4 -3 -2 -1 0 1 2 3 4 5	My community will be beneficially affected and be much better in 2020

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

The moderator gave the forum participants the following instructions:

Read the first question-- the People Dimension on the white Pathway A1 form -- and circle a number (-5 to +5) that best represents how you feel. When you have assigned an initial rating to all four dimensions, stop and wait for the next instruction. Now the facilitator will lead group members in a discussion of these initial ratings. During this discussion you are welcome to talk about any one, or all four of the dimensions of community. Remember - this holistic discussion is about the year 2020.

Facilitators stressed that the participants' ratings should reflect impacts to their community, and not to the region, and also they were to probe to get other perspectives on a dimension. As appropriate, they also could keep the discussion more holistic. Facilitators also continued to ask the participants at their table which characteristics on which dimensions were most influential on their giving a particular rating on a particular dimension. Facilitators also encouraged the forum participants to think about specific connections between the impacts that were presented and characteristics of their community.

As was done for the current situation, participants were asked to discuss their ratings and the reasons for them. They were then given the opportunity to re-rate their scale based upon what they had learned from the group discussion. After about seven minutes of discussion, they were assured they could keep the same rating or change it. They then were reminded they needed to complete the second part of the question by filling in the blanks using characteristics of the dimension from the corresponding sheet, or writing some other reason that was behind their rating. They were reminded that their justifications were as important as the numeric rating they had given. The goal was to get them to explain the "why" behind their rating, based on the characteristics from the appropriate sheet they considered most important in making their decision.

Facilitators then asked the participants at their table to suggest the kinds of things could be done to minimize or reduce negative social impacts to their community. The facilitators led a brainstorming session to try to identify ways to eliminate or at least minimize community impacts from Pathway A1. Their suggestions were recorded on a large sheet.

This same process was used with the presentations, discussions and ratings on the other two pathways, the "major system modifications" proposed in Pathway A2 and the "natural river drawdown/dam breaching" proposed in Pathway 3.

## **1.2.4 Data Analysis Procedures**

### **1.2.4.1 Data Entry and Coding**

The input from forum participants who participated in each community forum included both rating scores and written justifications for their ratings. The two types of data and their analysis in this report represent a direct matching of both the quantitative data (numerical scale ratings) and qualitative data (up to three characteristics for each community dimension or reason for the rating provided by participants as justifications for their rating). These responses were entered into a database for each community. Once the data were entered, they were inspected for errors, and any found were corrected.

Standard procedures were followed for coding and analyzing the assessment's qualitative data (Miles and Huberman, 1994). These data consisted of open-ended responses to questions requesting that participants give reasons or community characteristics to justify their numerical rating of each dimension of community, whether for the current (1999) situation or for the changes or impacts they perceived would

result from each of the three pathways. The number of these responses was reduced, as follows. First, categories of broad kinds or themes of these justifications were developed, and a unique code number was assigned to each category. Individual participant's responses were then coded descriptively and thematically, with each response categorized in terms of these thematic categories and the appropriate code numbers assigned to each. Lastly, patterns among these thematic categories were identified, and analytical generalizations from these patterns were made. The scale ratings, as well as themes and actual text of the reasons given, were analyzed for each community to identify patterns across the groups of participants at facilitated tables at each community forum, as well as across communities in a cross-case analysis that compared results for all the communities assessed.

#### **1.2.4.2 Addressing Problem Respondents**

Participants were told at every forum that they needed to provide justifications for their numerical ratings and, further, that the recorded reasons or characteristics they provided to justify their ratings were as important as their ratings. Accordingly, if no justification or reason was given for a particular rating, that numerical score was excluded from the pattern analysis of numerical ratings. The rationale here was that participants were sometimes observed, say, to simply be stating a comparative preference for a given alternative, or "voting," by giving ratings but not specifying impacts related to those ratings. Participants had been cautioned against doing this, and they were constantly reminded that the nature or kinds of the impacts being projected were deemed to be as important as the degree of impact. Typically no more than one or two individual ratings on a given alternative were eliminated from a community database.

#### **1.2.4.3 Analysis of Individual Communities**

Scale ratings and figures depicting those ratings are reported for each of the four dimensions for the current situation in 1999 and each of the three pathways. These data represent a direct matching of both the quantitative and qualitative data analyzed and presented here. The scale ratings, themes and actual text were analyzed to identify patterns across the groups of participants at the facilitated tables at each community, as well as across communities in a cross-case analysis.

#### **The Current Situation - 1999**

In the case of the current situation in 1999, a figure showing the relative clustering around numerical scale values of the different groups, at the facilitated tables, is presented for the four dimensions for each community. The group at the invited facilitated table is indicated as the "Invited Group," with additional groups at other facilitated tables labeled as group 2, group 3, and so on, depending on the number of tables that were facilitated at a given forum. The scale used for each of the dimensions was a ten-point ordinal scale (current situation rating scale).

Qualitative data are presented in the report in tables of coded justifications listed with three headings: "Across all Groups," "Invited Group," and "Other Groups." The logic underlying the pattern analysis of the qualitative data was that replication of justifications given for participants' ratings across facilitated groups at each forum was critical. This concern for replication of justifications was based on the premise that the more a characteristic or reason for a scale rating was repeated across various groups of participants at the same forum, the more salient, meaningful, and relevant that justification was as qualitative data supporting the overall central tendency reported for the community. When a justification or reason was reported out of all the groups of participants in a forum, it was included in the list under the heading "Across All Groups." These clustered justifications also provided the basis for the cross-community comparisons.

The diversity of the group of participants at the invited facilitated (the "Invited Group") table and the output of their discussion were deemed to be very important in capturing the range of justifications. Therefore, justifications that were only listed by the invited group also were included in the analysis under a separate heading of the "Invited Group." A key assumption of underlying this approach to the analysis was that, along with the information presented at each forum, individual participants were also informed by their own knowledge, perceptions, and beliefs about their community's present and future. In addition, they likely were also influenced by the rich discussion among the wide variety of participants at their facilitated table.

Justifications that were listed by other groups at other tables at a forum also presented an important viewpoint. The people in those other groups, while they were determined to often be less likely to be highly involved activists, and more likely to represent particular "communities of interest" (such as farming, business, or travel & tourism), also could have unique perspectives and knowledge not possessed by the more diverse group at the invited table. Accordingly, if participants at a super-majority of the groups at the other non-invited tables mentioned a justification, it was also included as a salient reason in the analysis for that community, under the heading of "Other Groups."

The report's "Results" section presents figures displaying the central tendency of the ratings recorded for different groups at different tables in terms of group medians, along with a discussion of each figure. In addition, qualitative data are presented in the report tables of coded justifications listed with three headings: "Across all Groups," "Invited Group," and "Other Groups."

Because of the large number of justifications, the discussion in the "Results" section of this report emphasizes justifications that were mentioned across all groups at the facilitated tables at any given meeting, and thus replicated. Justifications falling under the other headings are provided for each community and may be mentioned, but they are not always the main focus of the discussion.

## **The Impacts of the Three Pathways**

The logic underlying the pattern analysis of the qualitative data for the impact rating scale for each of the pathways was that, as with the current situation scale, the more consistently a justification was given for the rating participants reported on the above scale across the various groups at the different facilitated tables at the forum, the more salient and thus significant that justification was as qualitative data supporting the overall central tendency for numerical ratings reported for the community. Thus, if a justification was given by all the groups at the facilitated tables present, they were included in the analysis. The same logic applied for presenting the qualitative data for the current situation thus was used here, as well.

In the case of changes across the three pathways, Pathway A1 was treated as the base-case, or the situation in a given community in 2020 if the river system remained unchanged. Under this pathway, forum participants were instructed to assume that other social, economic, and cultural trends continued on their current trajectory, as they were perceived by the participants. Changes from Pathway A1 to Pathways A2 and A3 are presented here, both in quantitative and qualitative terms.

### **1.2.5 Cross-Case Analysis Comparing All Communities**

A cross-case community comparison also was conducted to identify patterns across the 18 communities in terms of their 1999 current situation. Its purpose was to identify, based on both quantitative and qualitative data gathered, which communities might be more at greater risk from outside changes affecting their social, economic, and environmental characteristics and conditions. Salient justifications for the ratings were used to reinforce interpretation of the common patterns for the current (1999) situation.

#### **Comparison of Pathways A1, A2, and A3**

Likewise, in the analysis of the three pathways, a process was followed similar to that for the 1999 current situation to examine the forecasts participants made about changes to the community in the year 2020 due to each pathway. The results of this analysis is first provided for Pathway A1, the "no action" pathway with the waterway in its current condition. This forecasting provided the basis for assessing the impacts of Pathways A2 ("major modifications of the existing hydro-system on the lower Snake River") and A3 ("natural river drawdown and dam breaching on the lower Snake River"). A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1. The patterns of these changes were examined across types of communities developed on the basis of several key criteria, including the nature of their relationship to the river, their economic base and level of diversity, and population size, among others.



## **Reporting of Results**

This report presents the results of the in-depth analysis conducted for each of the 18 communities, as well as the findings across the types of communities identified for the community typology. A summary of the findings for each community is included in the report, along with summaries of findings for the communities types as well.

The assessment methodology and report were reviewed and critiqued for scientific rigor, objectivity, substance and quality by Dr. Greg Brown, a professor at Alaska Pacific University. Dr. Brown has conducted research on rural communities in the Pacific Northwest and the state of Alaska.

### **1.2.6 Limitations of the Assessment Study Findings**

One limitation of the assessment was that the technical information from the Army Corps of Engineers was not finalized prior to the initiation of the community forums. Forums were conducted with information available on most kinds of impacts. During the period in which the community forums were conducted, the PATH Committee's report on salmon recovery was under review by National Marine Fisheries Service (NMFS). (However, it should be noted that the finalized information has not proven to be significantly different from that presented to forum participants.) Also, information on the economic impacts relating to recreation and anadromous fish was not available. Thus, the perceptions identified in the community forums must be considered in the context of information that was presented as preliminary or that was missing. It is unclear if the participants would have perceived impacts differently with more definitive information. In cases of missing information, information under review, or information that participants did not agree with, many participants were found to assume the worst case scenario and to base their ratings and justifications on that assumption.

Assessment findings for A2, in particular, should be considered with the understanding that community participants did not have the qualified anadromous fish findings from NMFS. Although the uncertainty and limitations of the PATH data were made explicit to forum participants, they were asked to use those data for their assessment (*e.g.*, the probability of salmon recovery under A2 was less than or equal to A1). The revised NMFS interpretation still provides a basis for this conclusion, but with the qualification that under certain assumptions the probabilities of salmon recovery are above the threshold probability level set by the Corps for salmon recovery.

Our findings for A3 are similarly limited by the fact that forum participants were not exposed to the quantified positive economic impacts associated with changes in recreation, anadromous fish and implementation. These benefit categories from the economic analysis might have shifted the ratings in some communities towards the beneficial end of the rating scale and triggered more positive justifications from the forum participants.

Additionally, care should be taken with the use of the numerical ratings to indicate actual magnitude of impacts. The scale scores are relative to each community and their current situation, and cross-community comparisons must be qualified and interpreted cautiously. The scales used do not provide ratio-level measurement (*i.e.*, a -2 is not twice as bad as a -1), but rather interval-level data about the direction and magnitude of the projected impacts and the relative nature of the ratings across dimensions within each community.

Accordingly, the results of this assessment must be interpreted, understood, and used within the qualitative and quantitative research framework. Care was taken to employ conservative statistical analyses such as the use of median ratings within communities and to use replication logic as opposed to sampling logic to make scientifically defensible inferences. The ratings presented and discussed here are not representative of the total population of the communities studied. Rather, they present the diversity of perceived effects and associated justifications from citizens who are actively involved in their communities or interested in the salmon recovery issue. Also, the ratings based on the interval-level scales developed for this research have little utility without the companion use of the qualitative justifications.

Finally, it is critical to stress that the benefits and costs to local residents of the three pathways can vary within communities, as well as across communities and the geographic region being assessed. The impacts and the communities assessed are unique, and each community has different capabilities to deal with distinct direct, indirect and perceived impacts. There may be common themes across all community types or within all community types, but there is not one single, "one-size-fits-all" set of impacts across all communities, or actions to minimize those impacts that are negative.

State & Local Government		Agriculture		Timber		Federal Employment		Travel & Tourism		Mining	
Community	Pct Emp	Community	Pct Emp	Community	Pct Emp	Community	Pct Emp	Community	Pct Emp	Community	Pct Emp
Finley	L	Lostine	L	Richland	L	Helix	L	Colton	L	Albion	L
La Crosse	L	Clarkston	L	Colfax	L	Wasco	L	Finley	L	Malden	L
Adams	L	Pierce	L	Helix	L	Colton	L	Lexington	L	Kahlotus	L
Malden	L	Moscow	L	Irrigon	L	Finley	L	Troy	L	Burbank	L
Lostine	L	Lewiston	L	St. John	L	Ukiah	L	Juliaetta	L	Uniontown	L
Albion	L	Pullman	L	Tekoa	L	Grass Valley	L	Albion	L	Farmington	L
Elk River	L	Richland	L	Othello	L	Lexington	L	Genesee	L	Starbuck	L
Lexington	L	Weston	L	College Place	L	Washtucna	L	Malden	L	Lind	L
Mackay	L	Kennewick	L	Boardman	L	Lind	L	Kahlotus	L	Adams	L
Elk City	L	Wht Salmon	L	Burbank	L	Tekoa	L	Burbank	L	Weston	L
Wasco	ML	Pendleton	ML	Garfield	L	Arlington	L	Uniontown	L	Oakesdale	L
Ukiah	ML	Helix	ML	Lapwai	L	Palouse	L	Farmington	L	Weippe	L
Rufus	ML	Deary	ML	Ione	L	Troy	L	Starbuck	L	Prescott	L
Kennewick	ML	Walla Walla	ML	Endicott	L	College Place	L	Lind	L	Tekoa	L
Waitsburg	ML	Kamiah	ML	Palouse	L	Juliaetta	L	Adams	L	Irrigon	L
Hermiston	ML	Irrigon	ML	Prosser	L	Irrigon	L	Washtucna	L	Nez Perce	L
Pierce	ML	Rosalia	ML	Prescott	L	Albion	L	Palouse	L	Craigmont	L
Nez Perce	ML	Orofino	ML	Mackay	L	Hermiston	L	Goldendale	L	Endicott	L
Craigmont	ML	Milton-Free	ML	Rufus	L	Waitsburg	L	College Place	L	Elk River	L
Grass Valley	ML	St. John	ML	Wasco	L	Garfield	L	Condon	L	Stanfield	L
Connell	ML	Grangeville	ML	Colton	L	Asotin	L	Garfield	L	Boardman	L
LEWISTON	MH	Salmon	ML	Kahlotus	L	Farmington	L	Heppner	L	Moro	L
Grangeville	MH	Colfax	ML	Connell	L	Deary	L	Pierce	L	Benton City	L
Joseph	MH	Potlatch	ML	Finley	L	Rosalia	L	Pomeroy	L	Kamiah	L

RIGGINS	MH	Pasco	MH	Uniontown	L	Kennewick	L	Weston	L	Culdesac	L
Boardman	MH	Hermiston	MH	Athens	L	Milton-Free	L	Othello	L	Grass Valley	L
Weston	MH	Weippe	MH	Moro	L	Endicott	L	Pilot Rock	ML	Arlington	L
Milton-Free	MH	Bingen	MH	Waitsburg	L	Genesee	L	Oakesdale	ML	Joseph	L
Salmon	MH	Tekoa	MH	Lind	L	Prescott	L	Lapwai	ML	Rufus	L
Clarkston	MH	Othello	MH	Oakesdale	L	Nez Perce	L	Prosser	ML	La Crosse	L
Othello	MH	Pilot Rock	MH	Condon	L	Craigmont	L	Weippe	ML	Mackay	L
Kooskia	MH	Riggins	MH	Ritzville	L	Lewiston	L	Potlatch	ML	Ukiah	L
Starbuck	MH	College Place	MH	Mesa	L	Culdesac	L	Prescott	ML	Ione	L
Ritzville	MH	Dayton	MH	Farmington	L	Oakesdale	L	Colfax	ML	Pilot Rock	L
Walla Walla	MH	Juliaetta	MH	Washtucna	L	Uniontown	L	Tekoa	ML	Bingen	L
Challis	MH	Cottonwood	MH	Starbuck	L	Goldendale	L	Athens	ML	Elk City	L
Mesa	MH	Boardman	MH	La Crosse	L	Mesa	L	Challis	ML	Athens	L
Condon	MH	Goldendale	MH	Genesee	L	La Crosse	L	Irrigon	ML	Lexington	L
Bingen	MH	Challis	MH	Asotin	L	Othello	L	Nez Perce	ML	Pomeroy	L
Richland	MH	Burbank	MH	Ukiah	L	Dayton	L	Craigmont	ML	St. John	L
Pasco	MH	Garfield	MH	Culdesac	L	Prosser	L	Endicott	ML	Helix	L
Rosalia	MH	Enterprise	MH	Grass Valley	L	Colfax	L	Wht Salmon	ML	Hepner	L
Kamiah	MH	Lapwai	MH	Adams	L	Condon	L	Dayton	ML	Condon	L
Goldendale	MH	Ione	MH	Albion	L	Ione	L	St. John	ML	Echo	L
Wallowa	MH	Endicott	MH	Malden	L	Connell	L	Connell	MH	Othello	L
Potlatch	MH	Palouse	H	Pullman	L	Pierce	L	Bingen	MH	Mesa	L
Lapwai	MH	Prosser	H	Kennewick	L	Weston	L	Orofino	MH	Genesee	L
Benton City	MH	Prescott	H	Pasco	L	Clarkston	L	Helix	MH	Pasco	L
Athens	MH	Mackay	H	Benton City	L	Weippe	L	Kooskia	MH	Kooskia	L
Pendleton	MH	Rufus	H	Hermiston	L	Pasco	L	Elk River	MH	Washtucna	L
Lind	MH	Elk City	H	Pomeroy	L	Ritzville	L	Stanfield	MH	Palouse	L
College Place	MH	Kooskia	H	Moscow	L	Cottonwood	L	Richland	MH	Pullman	L
Cottonwood	H	Wasco	H	Rosalia	L	Joseph	L	Boardman	MH	Troy	L
Irrigon	H	Hepner	H	Dayton	L	Richland	L	Moro	MH	Ritzville	L
Culdesac	H	Pomeroy	H	Challis	L	Moscow	L	Echo	MH	Colfax	L
Troy	H	Umatilla	H	Umatilla	L	Athens	L	Mesa	MH	Moscow	L
Arlington	H	Echo	H	Stanfield	L	Stanfield	L	Pasco	MH	Pierce	L
Dayton	H	Colton	H	Milton-Free	L	Pullman	L	Deary	MH	Dayton	L
Oakesdale	H	Joseph	H	Weston	L	Potlatch	L	Walla Walla	MH	Wasco	L
Wht Salmon	H	Kahlotus	H	Enterprise	L	Kamiah	L	Ritzville	MH	Juliaetta	L
Pilot Rock	H	Benton City	H	Pendleton	L	Kooskia	ML	Elk City	MH	Orofino	L
Weippe	H	Connell	H	Nez Perce	L	St. John	ML	Pullman	MH	Wht Salmon	L
Prosser	H	Finley	H	Craigmont	L	Pilot Rock	ML	Benton City	MH	Hermiston	L
OROFINO	H	Uniontown	H	Clarkston	L	Walla Walla	ML	Grangeville	MH	Asotin	L
UMATILLA	H	Athens	H	Riggins	L	Malden	ML	Kamiah	MH	Connell	L
Enterprise	H	Moro	H	Cottonwood	L	Challis	ML	Umatilla	MH	Clarkston	L
Washtucna	H	Stanfield	H	Echo	L	Benton City	ML	Salmon	MH	Richland	L
POMEROY	H	Waitsburg	H	Walla Walla	L	Wht Salmon	ML	Hermiston	MH	Milton-Free	L
Hepner	H	Arlington	H	Elk River	L	Umatilla	ML	Pendleton	MH	Rosalia	L
Farmington	H	Lind	H	Lexington	ML	Pendleton	ML	Cottonwood	MH	Cottonwood	L
Juliaetta	H	Oakesdale	H	Arlington	ML	Boardman	ML	Lewiston	MH	Prosser	L
Genesee	H	Condon	H	Salmon	ML	Hepner	ML	Enterprise	MH	Grangeville	L
Kahlotus	H	Troy	H	Goldendale	ML	Adams	ML	Culdesac	MH	Lapwai	L
Burbank	H	Ritzville	H	Hepner	ML	Elk River	ML	Grass Valley	MH	Riggins	L
Moro	H	Mesa	H	Wht Salmon	ML	Wallowa	ML	Arlington	MH	Umatilla	L
Prescott	H	Farmington	H	Troy	ML	Bingen	ML	Joseph	MH	Kennewick	ML
Echo	H	Washtucna	H	Grangeville	ML	Echo	ML	Lostine	MH	Waitsburg	ML
Deary	H	Starbuck	H	Lewiston	MH	Orofino	MH	Kennewick	MH	Lewiston	ML
Stanfield	H	La Crosse	H	Orofino	MH	Salmon	MH	Wallowa	MH	Lostine	ML
Moscow	H	Lexington	H	Bingen	MH	Kahlotus	MH	Waitsburg	H	College Place	ML
Uniontown	H	Genesee	H	Wallowa	MH	Enterprise	MH	Moscow	H	Pendleton	ML
Pullman	H	Asotin	H	Kamiah	H	Grangeville	MH	Clarkston	H	Walla Walla	ML
St. John	H	Ukiah	H	Potlatch	H	Riggins	MH	Milton-Free	H	Deary	ML
Garfield	H	Culdesac	H	Elk City	H	Moro	MH	Rufus	H	Colton	ML
COLFAX	H	Nez Perce	H	Kooskia	H	Pomeroy	MH	La Crosse	H	Garfield	ML
Palouse	H	Craigmont	H	Deary	H	Mackay	MH	Mackay	H	Enterprise	ML
Tekoa	H	Grass Valley	H	Lostine	H	Elk City	H	Asotin	H	Wallowa	ML
Ione	H	Adams	H	Pilot Rock	H	Lostine	H	Wasco	H	Potlatch	MH
Endicott	H	Elk River	H	Juliaetta	H	Rufus	H	Ukiah	H	Salmon	MH
Asotin	H	Albion	H	Joseph	H	Starbuck	H	Rosalia	H	Goldendale	MH
Colton	H	Wallowa	H	Weippe	H	Burbank	H	Riggins	H	Challis	H
Helix	H	Malden	H	Pierce	H	Lapwai	H	Ione	H	Finley	H

Notes: 'Low (L) employment is less than 5 percent; Medium Low (ML) employment is 6-10 percent; Medium High (MH) employment is 11-19 percent; and High (H) employment is greater than 20 percent.

\*Communities in capital letters represent selected community forums.

## **SECTION 2 - RESULTS OF THE ASSESSMENT FOR EACH COMMUNITY**

This section reports the results of the community assessment for each of the selected communities. These results are presented community-by-community, with a subsection for each community. Each subsection begins with a brief summary of the findings for the community being reported on. It then provides a summary of the history of that community. This background is followed by a detailed overview of the positive and negative characteristics of the current (1999) situation in the community, as identified by forum participants in terms of the four dimensions of community assessed in the study. Next, the results of the assessment of the effects of Pathway A1, or "maintaining the existing hydro-system on the Lower Snake River," on the community in the year 2020 are presented. The magnitudes and kinds of changes in community dimensions between Pathway A1, which is treated as the baseline situation, and Pathways A2 ("major modifications to the existing hydro-system on the Lower Snake River") and A3 ("dam-breaching and natural river drawdown") are then described. This discussion includes key justifications for the rating scores for the three pathways and reasons for the differences in them. Finally, ideas identified by participants for lessening the adverse impacts associated with the three pathways are summarized.

Throughout the "Results" section of the report, quotes based on the actual text of comments made by forum participants are indicated with quotation marks.

### **2.1 - Adams, Oregon, Community Assessment**

findings for the community. Each summary provides a brief synopsis of the community's history and current situation, the impacts of the three pathways on it in 2020 as perceived by participants at the forum held there, ideas identified by participants for lessening any impacts perceived to be adverse, and finally a concluding overview. Throughout the summary, quotes based on the actual text of comments made by forum participants are indicated with quotation marks.

#### **2.1.1 Summary of Community Findings**

Adams, Oregon, is a small farming community of about 260 people located to the north of Pendleton, Oregon, and south of the lower Snake River and Walla Walla, Washington. Historically, its agriculture has consisted of dryland farming and irrigated agriculture. The population in Adams has remained relatively constant in recent history and has remained stable although the school was closed in mid 1970s.

Participants in the forum depicted a community in 1999 whose current situation reflects optimism for the Place dimension, with Adams having a strong sense of place and a high quality of life as indicated by comments from participants such as the "surrounding scenery is great." However, with the loss of the railroad, the closing of the school and a declining economic base, Adams is becoming a bedroom community with "few job opportunities" and low pay. Nevertheless, forum participants felt that Adams has a stable population base and that the people of the community generally have good

prevalent values with a strong sense of pride. Participants also felt that Adams was looking forward in terms of "preparing for future growth" and working to secure grants for community development. However, with the perception that the community's civic capacity is diminishing and the lack of involvement of some citizens, some participants felt that Adams may not be prepared for the future.

Participants were guardedly optimistic about Adams' future in the year 2020 under Pathway A1 (the existing hydro-system maintained on the Lower Snake River). Ratings of its effects generally were on the positive, "beneficially affected" end of the scale for all four dimensions. Forum participants generally saw improvement and growth on all dimensions, including a growing population base and expanded business opportunities within Adams. However, there was also the feeling that extended families could become less stable because "relatives leave town for jobs," and that people would continue to commute elsewhere for both jobs and schooling. Forum participants felt that, under Pathway A2, the town would change little from their perceived impacts from A1, and participants provided ratings and justifications that were much the same across the People, Jobs & Wealth, Place and Vision & Vitality dimensions.

Participants at the Adams forum were very concerned about their community's future under the implementation of A3 (dam-breaching on the Lower Snake River and natural river drawdown), with ratings of its effects in 2020 clustered at the negative, "adversely affected" end of the scale. A major concern here was the perceived significant impacts of the increase in transportation costs for shipping agricultural products. Many participants felt that "when farming costs go up, it affects the whole community," and that a general decline in the economic base of the community would result. Additionally, participants' perceived that, with the loss of agriculture-related jobs, the number of farms and farm families would decrease, which in turn would reduce Adams' civic organizational capacity as "people are less civic minded when they are facing financial problems." Other concerns included the perception that, with an unstable population base, families would be less stable and that there would be an increase in people on public assistance. Also, a key theme was that, with the shift to alternative forms of energy production and increased traffic, the area's air and water quality would decline, as well as the community's infrastructure.

Adams residents did not identify any means to minimize negative impacts to the community if A1 and A2 were implemented. They did provide regional-level suggestions focused on minimizing negative impacts to salmon. Under the implementation of A3, Adams' participants did not identify any measures to minimize negative impacts they identified.

Adams is a town in ongoing transition that should not be directly affected by the proposed pathways for future management of the Lower Snake River, given that the town does not really have any kind of direct relationship with that river. Assessment of the community's future is mixed, regardless of changes in the hydro-system on the Lower Snake River. Nonetheless, forum participants perceived that Pathway A3 would have significant negative impacts on their town, particularly ones related to alternative sources of power, such as decreased air quality and higher fertilizer costs, as well as impacts on roads and transportation costs.

## 2.1.2 Interactive Community Forum Participants

Seven community members provided perspectives on the history, 1999 (current) situation and Pathways one, two and three (A1, A2, A3) for the town of Adams, OR. These forum participants sat at one facilitated table (see methodology), working in an interactive small group (hereafter, "group"). The overall diversity index rating for participants was 0.43 (on a scale from 0 to 1.0), meaning that 6 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, two were in agriculture, two were retirees, and 1 was a city recorder; the remaining two people did not identify occupations.

## 2.1.3 Community Background

Adams, Oregon, which was established in 1883, is a small farming community of about 260 people located several miles to the north of Pendleton, Oregon. It lies some 20 miles to the south of Walla Walla, Washington, and over 40 miles from the Lower Snake River, and it has no direct relationship to the river. Agriculture was and continues to be its major industry, and an experimental station for developing improved wheat strains was located in the town prior to the 1950s. In the 1950s and 1960s, irrigated farming and chemical fertilizer production were incorporated into the town's economic base. Although the town's population increased until the 1980s (from less than 200 in 1960 to almost 250 by 1980), school consolidation resulted in the closing of the town's school in the mid-1970s, which had a significant effect on the community's social activities. However, the Friendship Center (a social hall and meeting room attached to the community's church) was built in the same period, and social activities there helped some to compensate for the loss of the school. Around the 1980s, the railroad tracks were removed and the highway was improved, routing traffic around the town center. Improvements were made in the fire station in the 1990s. Native American holdings and infrastructure development have expanded in recent years with the changing role of the region's Indians as a sovereign nation. Adams has emerged in recent years as a bedroom community to Pendleton and a retirement community.

## 2.1.4 Community Assessment of 1999 Situation

### 2.1.4.1 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Adams to rate the current (1999) situation of the following four community dimensions: 1) People - Social Make-up; 2) Jobs and Wealth - Economy; 3) Place - Character; and 4) Vision and Vitality - Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

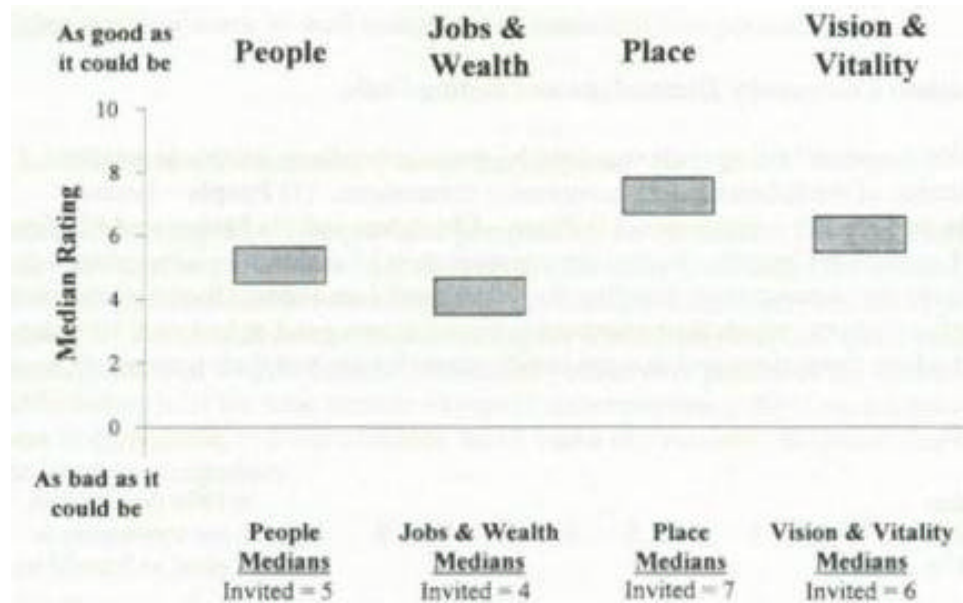
In 1999, the situation  
in my community is as  
bad as it could be

1 2 3 4 5 6 7 8 9 10

In 1999 the situation in  
my community is as  
good as it could be

### 2.1.4.2 1999 Situation: Ratings

As Figure 2.1 presents, the range of medians across the four community dimensions for the one facilitated group at the forum ranged from a 4 on the Jobs & Wealth dimension, to a 7 on the Place dimension. Specifically, the group perceived the Place dimension as being most oriented to the as good as it could be end of the scale and the Jobs & Wealth dimension as being most oriented towards the as bad as it could be end of the scale. The Vision & Vitality dimension was perceived by the facilitated group as being the second highest dimension oriented towards the good end of the scale within Adams, while the People dimension was perceived to be more central having both good and bad characteristics.



**Figure 2.1 Median scale rating of the current (1999) situation in Adams, Oregon, by community dimension, across groups.**

### 2.1.4.3 1999 Situation: Rating Justifications

#### Place

The Place dimension was rated the highest with a median rating of 7 and individual responses ranging from 5 to 7. As presented in [Table 2.1](#), justifications for the participant's ratings ranged from good parks and opens spaces, attractive scenery ("surrounding scenery is great") and good air and water quality to negative aspects of community and residential appearance ("some private places need cleaning") and the loss of the railroad. The group also identified low traffic congestion, strong sense of place, high quality of life, and a safe and crime free environment as important positive characteristics of the Place dimension in Adams.

**Table 2-1  
Rating Justifications for the Current (1999) Situation  
In Adams, Oregon,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Stable population (43)		
	Good customs and lifestyles (51)		
	Good prevalent values (61)		
	Stable families (103)		
	Most people own homes (151)		
	Safe place to live with low crime (191)		
	Good, friendly, helpful people (201)		
	Strong quality of life (209)		
	Strong sense of spirit and pride in community (211)		
	Stability of community (general) (323)		
	Small town charm/rural lifestyle (421)		
	Negative	Lack of school (84)	
Families are becoming less stable (102)			
Poor community services (402)			
Lack of industry and lack of job opportunities (492)			
Other	Increasing number of retirees (21)		
	Population general (48)		
	Nothing is static (329)		
<b>Jobs and Wealth</b>			
Positive	Low unemployment (192)		
	High property values (198)		
	Good people (204)		
Negative	Poor job opportunities (3)		
	Low-paying jobs (31)		
	Money leaves (51)		
	Bedroom community (53)		
	Commuting (general) (61)		
	Negative impacts associated with commuting (62)		
	High commuting (66)		
	Low economic diversity (122)		
	Aging population (211)		
	Loss of schools (243)		



<b>Place</b>		
Positive	Good community appearance (511)	
	Low traffic congestion (599)	
	Good parks and open spaces, public lands (667)	
	Strong sense of place (670)	
	Attractive scenery (771)	
	Good air and water quality (780)	
	Good quality of life (901)	
	Safe and crime free (902)	
Negative	Poor community appearance (513)	
	Appearance of residential areas need improvement (550)	
	Loss of railroad transportation (605)	
<b>Vision and Vitality</b>		
Positive	Strong active civic organizational capacity (11)	
	Successful at getting and using grants (241)	
	Affordable city expenditures (281)	
	Numerous, variety, good social activities (301)	
	Friendly, sociable community (305)	
	Planning and plans exist, good base for the future (403)	
	Steady budget (483)	
	Strong and high level of community participation (work together) (561)	
Negative	Diminished civic organizational capacity (12)	
	Overwhelmed, poor leaders (142)	
	Limited quality of social services (302)	
	Not prepared for future (382)	
	Inefficient and ineffective local government (462)	
	Limited budget (482)	
	Lack of community involvement in community affairs (562)	

## **Vision & Vitality**

The Vision and Vitality dimension received the next highest median rating with a 6 and individual responses ranging from 4 to 8. Positive justifications influencing participants ratings included strong, active civic organizational capacity, success with grants, the existence of community planning ("preparing for future growth"), and a high level of community participation (see [Table 2.1](#)). Examples of negative characteristics influencing participants' ratings included a diminished civic organizational capacity, overwhelmed leaders, unprepared for the future and a lack of community involvement.

## **People**

The People dimension received a median rating of 6 with individual responses ranging from 4 to 8. Justifications that were positive included a stable population with good customs and lifestyles, strong prevalent values, stable families and a strong sense of spirit and pride in Adams ("community spirit is high") (see [Table 2.1](#)). Alternatively, characteristics of the People which were perceived to be more negative were that Adams lacks a school, and that extended families are becoming less stable ("relatives leave town for jobs").

## **Jobs & Wealth**

Responses on the Jobs & Wealth dimension were the most oriented towards the bad end of the scale with a median rating of 4 and individual responses ranging from 3 to 5. [Table 2.1](#) shows that only a low unemployment rate and high property values contributed to positive characteristics of this dimension. Of those negative justifications provided by forum participants, poor job opportunities, low pay, and a leakage of money from the community ("money is not invested in the community") were among the justifications influencing their ratings. Additionally, participants noted that Adams is a bedroom community that lacks economic diversity.

### **2.1.5. Comparison of Salmon Recovery Pathways A1 - A3**

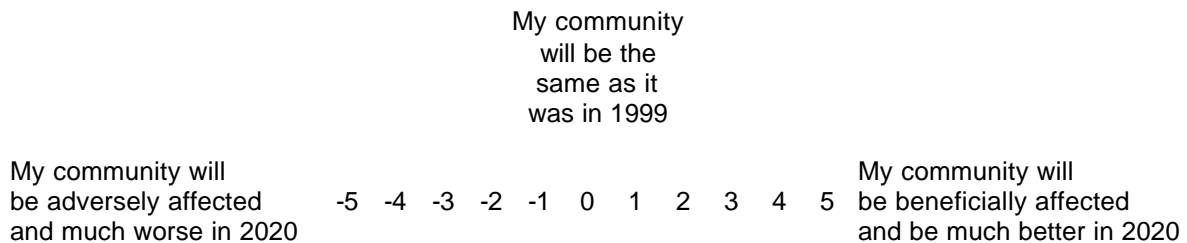
#### **2.1.5.1 Community Dimensions Impact Rating Scale**

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (People, Jobs & Wealth, Place, and Vision & Vitality) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from a Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from

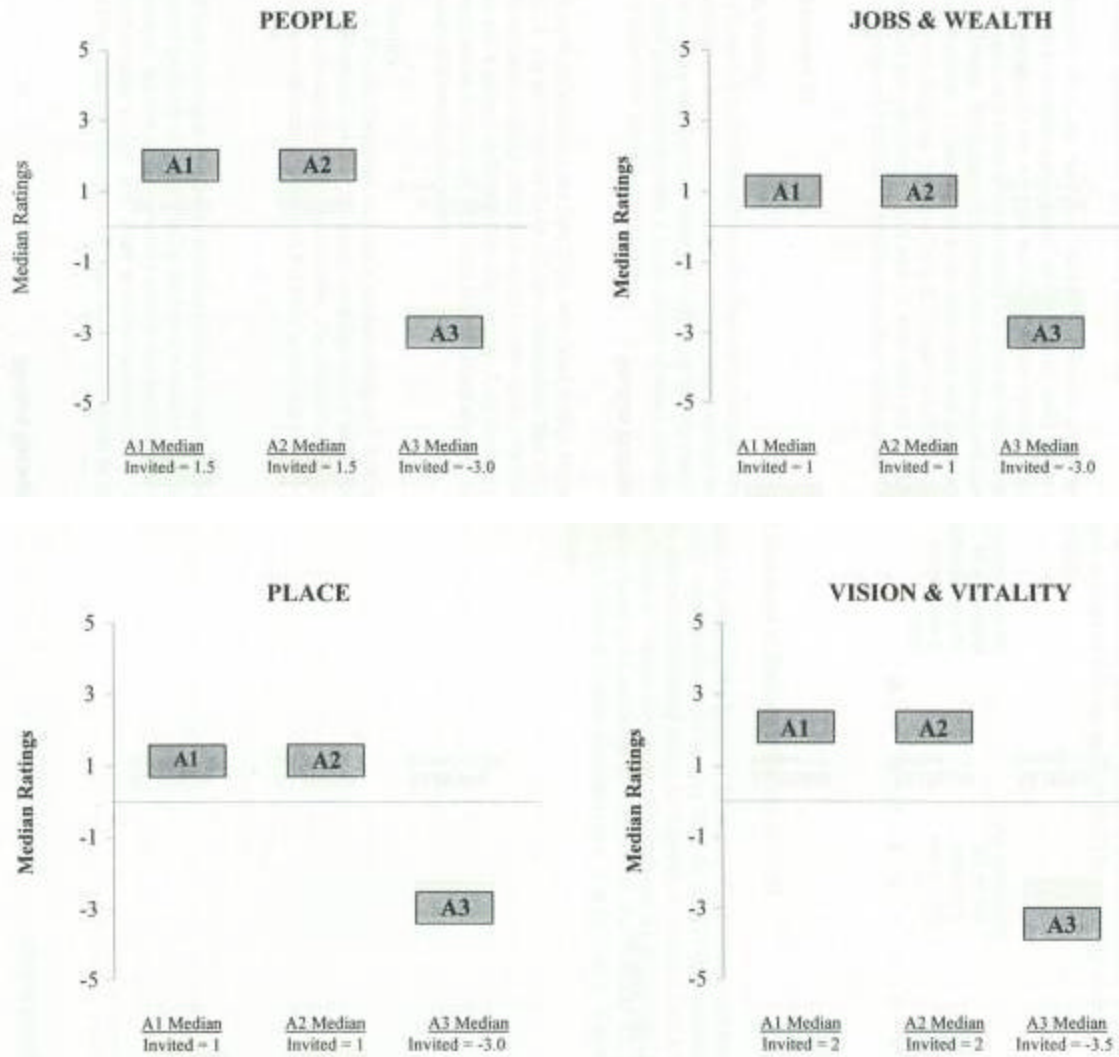
Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see Appendix A). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension. The 1999 situation then became the mid-point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.1.5.2 Summary of Pathway Findings A1 - A3

As Figure 2.2 presents, the group of forum participants perceived that the situation for their community would be better in the year 2020 for each of the dimensions under A1. The range of medians across the facilitated group for Pathway A1 extends from a 1 in the Jobs & Wealth to a 2 in the Vision & Vitality dimension. For Pathway A2, the medians for the facilitated group are the same as those in A1 across all the dimensions. For Pathway A3, group medians ranged from a -3.5 in the Vision & Vitality dimension to a -3 in the Jobs & Wealth, People and Place dimensions.



**Figure 2-2. Median scale ratings of Pathways A1, A2, and A3, for Adams, Oregon, by community dimension, across all groups**

### 2.1.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.1.5.4 - Pathway A1**

*Vision & Vitality* For the Vision & Vitality dimension, individual ratings ranged from 1 to 3, with a median score of 2. Participants felt that there would be no real change in their degree of cohesiveness in 2020 under the existing situation but "with good planning the city should grow" (see Table 2-2). Among other justifications given, a good number of social activities, and an optimistic vision for the future influenced participants' ratings.

*People* For the People dimension in the year 2020, individual ratings ranged from 1 to 3, with a median rating of 1.5. As presented in Table 2-2, the justifications that the group perceived to be the most salient characteristics influencing their ratings were stable population, good customs and lifestyles, and a general stability of the community. Less positive justifications provided by forum participants for the year 2020 were the continued absence of a school, and the perception that families will become less stable.

*Jobs & Wealth* The Jobs & Wealth dimension received a median rating of 1 with individual ratings ranging from 0 to 2. Justifications given by the group were that money will continue to leave town and that there would still exist poor job opportunities. Participants also felt there would be an increase in local business with economic growth, but that commuting to work would continue in the year 2020.

*Place* For the Place dimension in Adams, individual ratings ranged from 0 to 2, with a median score of 1. Important justifications provided by the forum participants were that there would be poor social services, but that with community growth and improvement the tax base would improve ("increased revenue to city" and "more taxes for improvement"). Additionally, participants perceived the quality of life improving and that Adams would be safe and crime free.

**Table 2-2  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Adams, Oregon,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>Jobs and Wealth</b>			
<b>Across All Groups</b>			
<b>Invited Groups</b>	Poor social services (570)	Poor social services (570)	Poor job opportunities (3)
	Money leaves (51)	Money leaves (51)	Jobs decrease due to ripple effect from agricultural losses (26)
	Commuting (general) (61)	Commuting (general) (61)	Negative impacts associated with commuting (62)
	Increased business (130)	Increased business (130)	Increasing taxes/high (74)
	Stagnant economy (154)	Stagnant economy (154)	Increasing transportation costs (75)
	Stable economy (155)	Stable economy (155)	Increased cost of living (85)
	Strong, growing economy (157)	Strong, growing economy (157)	Increased utility rates (86)
	No effect on economy (168)	No effect on economy (168)	Increased costs of doing business (88)
	Low unemployment (192)	Low unemployment (192)	Need irrigation (106)
	Good rural area (228)	Good rural area (228)	Shrinking agricultural base (135)
			Agricultural-based economy (143)
			Declining tax base (172)
			Decreasing wealth (181)
			Decreasing property values (202)
			Effects on NW decline area (220)
		Loss of schools (243)	

Place			
Across All Groups			
Invited Groups	Poor social services (570)	Poor social services (570)	Poor community appearance (513)
	Community growth and improvement (721)	Community grown and improvement (general) (721)	Negative effects of alternative energy production (592)
	Good tax base and revenues, property values (881)	Good tax base and revenues, property values (881)	Traffic congestion (603)
	Good quality of life (901)	Good quality of life (901)	Poor roads, highways, and community infrastructure (623)
	Safe and crime free (902)	Safe and crime free (902)	Negative impacts on the number of farms and farm families (642)
			Decreased number of farms and increased farm size, absentee owners, corporate farms (653)
			Limited opportunities in small towns (683)
			Poor economy (740)
			Negative economic impact from increased transportation costs (741)
			Poor air and water quality (782)
			Increasing population (821)
			Ruin of community, complete negative community change (844)
			Increased taxes (883)
			Safe and crime free (902)
			Increasing crime and drug use/less safety (903)

**Vision and Vitality**

Across All Groups

	Numerous, varied, good, or improving social activities (301)	Numerous, varied, good, or improving social activities (301)	Civic organization decline (population decline/financial stress) (14)
	No real change in cohesiveness (363)	Increased community cohesiveness (345)	Reduced, pessimistic visions of future (384)
	New optimistic visions of future (385)	No real change in cohesiveness (363)	Lack of planning and the ability to plan for the future (404)
	Planning and plans exist, good base for the future (403)	New, optimistic visions of future (385)	Lack of community control of outside forces (economics/regulations) (442)
	Strong/increasing community vision and vitality (601)	Planning and plans exist, good base for the future (403)	Negative community characteristics (542)
		Strong/increasing community vision and vitality (601)	Lack of community involvement in community affairs (562)
			Negative economic opportunities (582)
			Lack of community vision and vitality (602)
			Increased costs related to modifications (702)
			Negative impacts on parks and recreation facilities (832)
			Impacts from traffic (872)



People			
Across All Groups			
	Stable population (43)	Stable population (43)	Stable population (43)
	Growth (general) (49)	Growth (general) (49)	Unstable population (44)
	Good customs and lifestyles/changes for the better (51)	Good customs and lifestyles/changes for the better (51)	Poor prevalent values (62)
	Lack of school (84)	Lack of school (84)	Lack of school (84)
	Families are becoming less stable (102)	Families are becoming less stable (102)	Families are becoming less stable (102)
	People changing for better (311)	People changing for better (311)	High public assistance (112)
	Stability of community (general) (323)	Stability of community (general) (323)	Poor community attitude (222)
	Current trends will continue (325)	Current trends will continue (325)	Less community vitality (232)
	Loss of industries and lack of job opportunities (492)	Loss of industries and lack of job opportunities (492)	People changing for worse/negative change (312)
	Growth of businesses/good diverse strong economy (541)	Growth of businesses/good diverse strong economy (541)	Recreation/tourism is important (positive) (441)
	Stable economy (543)	Stable economy (543)	Harm environment and resources (472)
			Increased utilities, transportation, and taxes, and decreased irrigation, loss of power
			Loss of industries and lack of job opportunities (492)
			High economic dependence on few sectors (501)
			Unstable/poor economy (542)

### 2.1.5.5 - Comparison of Pathway A1 to A2

Under the implementation of A2, the change between A1 median group ratings and A2 median group ratings for all four dimensions remained constant (Figure 2-2) with the range of individual ratings for the Jobs & Wealth, Vision & Vitality and Place dimensions also staying the same.

### 2.1.5.6 - Comparison of Pathway A1 to A3

The median group ratings for A1 shifted toward the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3. Median ratings for the four dimensions ranged from -3 to -3.5 for A3 (see Figure 2-2).

#### *People*

For the People dimension, individual ratings ranged from -1 to -5 and the group median was -3. Table 2-2 shows the shift in salient justifications under the implementation of A3 to include divergent perceptions of the Adams' population stability. Participants also felt that there would be a decrease in prevalent community values, families would become less stable and that with increasing public assistance there would be a "loss of self worth because we would rely more on assistance." Other justifications given for participant's negative ratings included the social effects of a declining economy and the negative impact to the environment from the implementation of A3.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -1 to -5, with a group median of -3. Justifications for participants' negative ratings included poor job opportunities and a decrease in jobs due to a ripple effect from a declining agriculture based economy ("when farming costs go up, it affects the whole community"). Participants also felt that the cost of living in Adams would increase with an increase in transportation costs and utility rates, and a decrease in wealth and property values.

#### *Place*

For the Place dimension, individual ratings ranged from 0 to -5 with the median of -3. Justifications included the need to improve public areas, negative effects of alternative energy production, increased traffic congestion and related impacts to the deterioration of roads, highways and the community infrastructure. Additionally, participants felt that with a decrease in agriculture related jobs there would be a decrease in the number of farms and farm families. They also felt that given alternative forms of energy production that there would be a negative impact to their air and water quality of the area ("more pollution").

#### *Vision & Vitality*

For the Vision & Vitality dimension individual responses ranged from 0 to -5 with the group median rating of -3.5. The group's justifications ranged from a reduced civic organizational capacity ("people are less civic minded when they are facing financial problems") and a pessimistic vision of the future, to a lack of planning and any ability to plan ("the turmoil caused by dam breaching would raise hell with any vision we may have"). The town's participants expressed the perception that Adams has little control over outside forces. One participant sounded the concern heard across the Oregon towns that were assessed that "breaching the dams could have a snowball effect." Additionally, participants felt that there would be a general lack of community vision and vitality and that there would be a decrease in the level of community involvement in community affairs.

## **2.1.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Adams across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1 and A2, Adams residents did not identify any means to minimize negative impacts to the community. On a regional level suggestions to minimize the negative impacts to salmon included enforcing international fishing limits, banning commercial fishing, investing more money into dam modification studies, and increase coordination and harmony between the responsible agencies.

Under the implementation of A3, Adams participants did not identify any measures to minimize negative impacts they identified.

## **2.2 - Burbank, Washington, Community Assessment**

### **2.2.1 - Summary of Community Findings**

Burbank, Washington, is an unincorporated community of an estimated 1,700 people. Located at the confluence of the Snake and Columbia Rivers, it is a bedroom community to the Tri-Cities and home to the Port of Walla Walla. Historically it has been an irrigated agriculture based economy and more recently has become a bedroom community to the Tri-Cities. The school system and the community have exhibited rapid growth with annexation of Burbank Heights and Columbia View.

Participants in the community forum depicted a town in 1999 whose current situation highlights the pros and cons of being an unincorporated town and a bedroom community to the Tri-Cities. Generally, the People dimension was rated positively, with residents highlighting the positive role of schools and school events in the community and the strong prevalent values present in the population. On the one hand, some participants indicated the strength of having good jobs available in the nearby Tri-Cities and the low tax rates due to the unincorporated nature of the community. On the other hand, there are "no jobs to speak of in the community," a "relatively non-existent retail sector," and many residents commuting elsewhere in the Tri-Cities for work, leading many to rate the Jobs and Wealth dimension lower. Overall, the Place was seen to be attractive. Its strengths included its overall quality of life and the natural amenities related to the area's river and abundant parks and open spaces. The negative elements of the Place were associated with the unincorporated state of the community, with residents noting the lack of a water and sewage system as detrimental to the community. Nonetheless, the Place was a "great place to live and raise a family." The lowest rated dimension was that of Vision & Vitality, with participants indicating that the community's continued status as an unincorporated community reflected a lack of vision and vitality.

Participants were optimistic about the future of the community with the maintenance of the Lower Snake River projects (Pathway A1 in the year 2020), with ratings across all community dimensions being on the beneficial, positive side of the rating scale. Residents generally saw slow economic and population growth, continued improvement of the community's infrastructure, and the future incorporation of the town all contributing to a strengthening of the community's leadership. Ratings for the future under A2 (major modifications to the existing hydro-system on the Lower Snake River) were similar with similar justifications. Some participants perceived that an increase in job opportunities and related population growth would be a consequence of dam modifications.

Participants in the forum in Burbank were very concerned about the future of the community under Pathway A3 (dam breaching on the Lower Snake River and natural river drawdown). Ratings across all dimensions at the extreme "adversely affected" end of the current situation scale reflected a pessimistic vision of the future under this pathway. A major concern was the effect on employment opportunities provided by those dependent on irrigation, including Boise Cascade and irrigated farms, and on property values due to lost irrigation on the Ice Harbor reservoir. Increased truck traffic to the Port of Walla Walla and Pasco was perceived to cause decreased road safety and air quality, and increased road maintenance costs and traffic congestion. Although many saw that Burbank would "become a hub for barge transportation," they did not note any benefits to the Jobs and Wealth dimension. The loss or modification of recreation sites was perceived to greatly diminish the quality of the place and the aesthetic qualities that make Burbank a special place at the confluence of the two rivers.

To minimize these negative impacts, residents noted that improvements to the road system and rail and port facilities would be critical, as well as modifications to river parks and actions to maintain clean water and air. They also noted the need to compensate irrigated agriculture owners and employees for the loss of employment, declining property values, and the need to modify irrigation pumps. Additionally, residents indicated that grants would be necessary to diversify the economy and to derive some economic benefits of increased anadromous fish runs.

Given that the community is unincorporated, actions resulting in major changes to the physical, social and economic environment of Burbank were perceived to be detrimental to a community that is not prepared for the future. The consensus among forum participants was the proposed actions under A3 would have a dramatic and adverse affect on the community.

## 2.2.2 - Interactive Community Forum Participants

Fifty-three community members provided perspectives on the history, 1999 situation and the community level effects of Pathways one, two and three (A1, A2 and A3) for Burbank, WA. These forum participants sat at five facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The overall diversity index rating for participants was 0.86 (on a scale of 0 to 1.0), meaning that 12 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the registration form, 32 percent were employed in agricultural production and related services, 10 percent in construction, and 15 percent were retired. The remaining 43 percent represented a wide diversity of occupations, including education, construction, minister, electrician, paper makers, postal worker, railroad, computer drafting, deputy sheriff, field consultant, fire chief, vision therapist, secretary, controller, maintenance worker, and business manager.

## 2.2.3 - Community Background

Burbank, Washington, is an unincorporated community of an estimated 1,700 people located at the confluence of the Snake and Columbia Rivers. (Because Burbank is unincorporated, its population can only be estimated). It is a bedroom community to the Tri-Cities and is home to the Port of Walla Walla. Burbank was established in 1909 and originally had an agriculture-based economy. The Port of Walla Walla, fire department, Boise Cascade Paper, and Burbank Heights (a residential development) were established during the 1950s. Irrigation also began in that decade and grew in scale during the 1960s. Charbonneau Park was established with the construction of the Ice Harbor Dam. In the late 1970s, a new high school was constructed, and Columbia View was added to the town. From the 1960s to the 1990s, nearly \$24 million in capital development levies were passed, as the community's school system continued to grow (a 30 percent increase in enrollment from 1970 to 1990), along with its population. By the 1990s, many of the community's approximately 1,700 residents commuted elsewhere in the Tri-Cities to work.

## 2.2.4 - Community Assessment of 1999 Situation

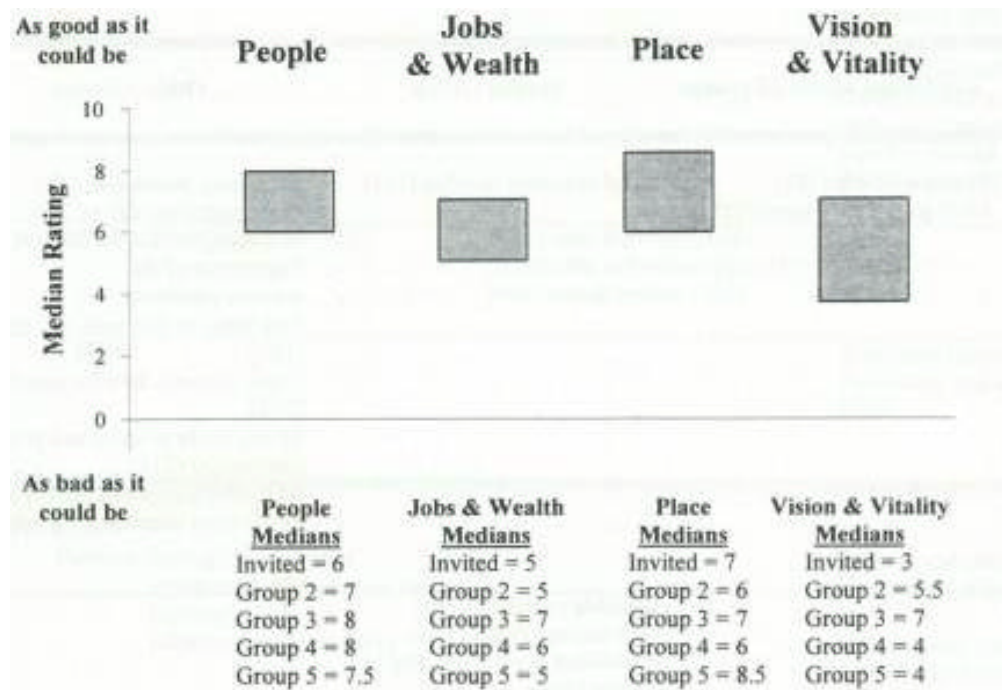
### 2.2.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Burbank to rate the current situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions. They then provided written justifications for their numerical ratings.

In 1999, the situation in my community is as **bad** as it could be      1 2 3 4 5 6 7 8 9 10      In 1999, the situation in my community is as **good** as it could be

### 2.2.4.2 - 1999 Situation: Ratings

Figure 2-3 presents the range of medians across the four community dimensions for all participants (four facilitated groups) ranging from 4 on the People and Jobs & Wealth dimension, to a 9 on the Place dimension. Central tendencies of the ratings for Burbank's People and Place indicate that these dimensions of the current 1999 situation as being most clustered at the as good as it could be end of the scale. The community's social make-up and character were perceived to be the highest of the community's four dimensions. The medians across facilitated groups for ratings on the community's Jobs and Wealth dimension indicate the current situation for Burbank's economy was perceived to be more central having both good and bad characteristics. Burbank's Vision & Vitality received the lowest rating of the four community dimensions: the situation for Burbank's organization and leadership capacity was clustered at the as bad as it could be end of the scale, with three of the groups' medians at 4 or below.



**Figure 2-3. Median scale ratings of the current (1999) situation in Burbank, Washington, by community dimensions, across groups.**

Overall, the clustering of group medians demonstrates that, of the dimensions assessed, the greatest convergence was around the People and Jobs and Wealth dimensions. For these dimensions, each facilitated group independently came to similar conclusions about the state of their community in terms of the goodness or badness of their community's current situation. This replication indicates these community dimensions are likely to be perceived somewhat similarly. This cannot be said for Vision & Vitality or the Place.

The difference between the invited group's median score for each of Burbank's four community dimensions and that of the other facilitated groups ranged from 1 to 2 rating points on the current situation scale, except in the case of Vision & Vitality. In the case of that dimension, a 3-point discrepancy was found between the invited group and the some of the other groups. In fact, the invited group tended to rate all of the dimensions lower than other groups. The Place dimension also exhibited a low level clustering of scores.

#### **2.2.4.3 - 1999 Situation: Rating Justifications**

Table 2-3 presents the clustering of justifications for the four facilitated groups. Justifications noted by both the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized 'Other Groups'.

##### *People*

The People dimension was one of the two highest rated dimensions of the current situation in Burbank in 1999, with a clustered median of 7. Individual ratings ranged from 3 to 10 across all participants. Key positive factors mentioned across all groups included a strong educational system and high home ownership. Additional positive factors included good extended families, strong values ("we have a good honest public"), and the small town feel ("a small community with no big city problems") and a growing population. Negative factors that likely lowered the overall rating include a perception of increasing numbers of low-income residents and increased ethnic diversity ("ethnic diversity create social problems").

##### *Place*

The single important positive characteristics of the Place dimension in Burbank, which was also among the highest rated dimensions oriented toward the good, was the high quality of life it offered, with the only detracting feature as an increasing number of store vacancies. Groups at the invited and the other groups generally commented on quality of the community's overall infrastructure, including its schools ("everything is centered on the school"), roads, safety, crime-free, air and water quality, and its parks, open-spaces, and recreation opportunities. It was also noted that Burbank is a very "close community with a high sense of place." Negative aspects identified were the lack of a sewer system and poor shape of the community's infrastructure.

##### *Jobs & Wealth*

Burbank's Jobs & Wealth rating clustered around a 5. Individual ratings ranged from 2 to 9 across all participants. Forum participants presented conflicting perspectives of the state of the economy. Some participants indicated that good job opportunities and low unemployment were justifications for a positive assessment of the Jobs and Wealth dimension. Although all groups mentioned good job opportunities they also mentioned

poor job opportunities, low economic diversity and high levels of commuting as negatives that likely detracted from the overall rating. Other conflicting justifications were the level of reinvestment, the quality of jobs in the community ("...could use more high paying jobs and jobs period"), and the role of commuting with some seeing it as a positive while others indicated the negative aspects of having jobs and retail purchases outside of the community.

*Vision & Vitality*

The lowest rated dimension was Vision & Vitality, with a clustering of group’s medians around the invited group median of 4. Individual ratings ranged from 1 to 9 across all participants. As the lowest rated dimension, positive justifications included the perceptions of a high level of community participation, strong support for and improving schools ("we always pass school bonds and levies"), and planning and plans exist for a good base for the future. Key negative factors were that the community was not prepared for the future and it has no effective and efficient government, and inadequate community cohesiveness, which is not surprising since Burbank’s residents have chosen to remain unincorporated as a town, and consequently the community is not prepared for, and does not have a vision of the future ("where there is no vision there is no future").

<b>Table 2-3            Rating Justifications for the Current (1999) Situation            In Burbank, Washington,            By Community Dimension and Type of Group</b>			
<b>Dimension</b>	<b>Replication Across All Groups</b>	<b>Invited Group</b>	<b>Other Groups</b>
<b>People</b>			
Positive	Strong education (81)	Good extended families (101)	Increasing population (41)
	Most people own homes (151)		Good prevalent values (61)
			Increasing school enrollment (71)
			Supportive of the schools/education (91)
			Safe place to live with low crime (191)
			Good, friendly, helpful people (201)
			Strong sense of spirit and pride in community (211)
			Attractive community (411)
			Small town charm/rural lifestyle (421)



Negative		Unstable population (44)	
		Low income influx (115)	
		Population is too ethnically diverse (305)	
		Unstable/poor/decreasing economy (542)	
Other	Customs and lifestyles (general) (59)	Increasing number of retirees (21)	School/enrollment (general) (79)
	Families (general) (109)	Growth (general) (49)	Few homes/land for sale (171)
		Diversity (general) (309)	
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	Money reinvested in local business (54)	Can live here and commute (70)
	Low unemployment (192)	Lower taxes (80)	Low utilities (79)
			Low poverty (185)
Negative	Poor job opportunities (3)	Low employment for youth (6)	Low paying jobs (31)
	Commuting (general) (61)	Negative impacts associated with commuting (62)	Money leaves (51)
	High commuting (66)	High poverty (183)	
	Low economic diversity (122)	Economically dependent on schools (146)	
<b>Place</b>			
Positive	Good quality of life (901)	Community character is good (566)	Good schools (563)
		Pride in/commitment to community (671)	Good roads, highways, and community infrastructure (620)
			Close-knit community with many activities/cohesive (700)
			Good air and water quality (780)
			Safe and crime-free (902)
			Good parks and open spaces, public lands (667)
Negative	Store vacancies (521)	Poor roads, highways, and community infrastructure (623)	
		Poor sewage system (786)	

Other		Waterway (general) (610)	Recreation and tourism (general) (660)
<b>Vision and Vitality</b>			
Positive	Strong/High level of community participation (work together) (561)		Support and ability to support bonds and levies (181)
	Improving schools (811)		Planning and plans exist, good base for the future (403)
Negative	Not prepared for future	Inefficient and ineffective local government (462)	Insufficient/decreasing tax base/fiscal resources (202)
		Inadequate community cohesiveness (342)	
Other		General community control (440)	

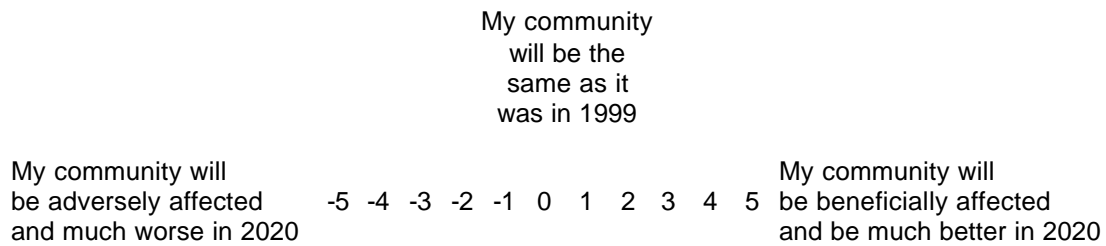
## 2.2.5 - Comparison of Salmon Recovery Pathways A1 - A3

### 2.2.5.1 - Community Dimensions Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the -situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants related the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid-point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts to their community only and not on the entire region.



**2.2.5.2 - Summary of Pathway Findings A1 - A3**

Figure 2-4 illustrates that, across all five groups, forum participants generally perceived that the situation for their community would be better in the year 2020 for each of the dimensions under A1 and A2. Across the five facilitated groups, the median ratings for both A1 and A2 cluster around 3 for each community dimension across each of the five facilitated groups, or the community's situation will be better in 2020. In the case of A3, the median ratings cluster around -5, and the clear perception is that the situation will be much worse.

The range of median ratings across the five facilitated groups for Pathway A1 extends from a 2 in all four dimensions to a high of 4 in the People and Place dimensions. For Pathway A2, the range of group medians across dimensions extends from a 1 in the Vision & Vitality dimension to a 4 in the People dimension. Group medians for Pathway A3 did not exhibit any range at all: medians of -5 were rated by all groups across all dimensions. This suggests that there was less uncertainty and all groups perceived Burbank to be adversely affected by A3 in 2020, and the degree of change in terms of adverse effects was similar for all four dimensions.

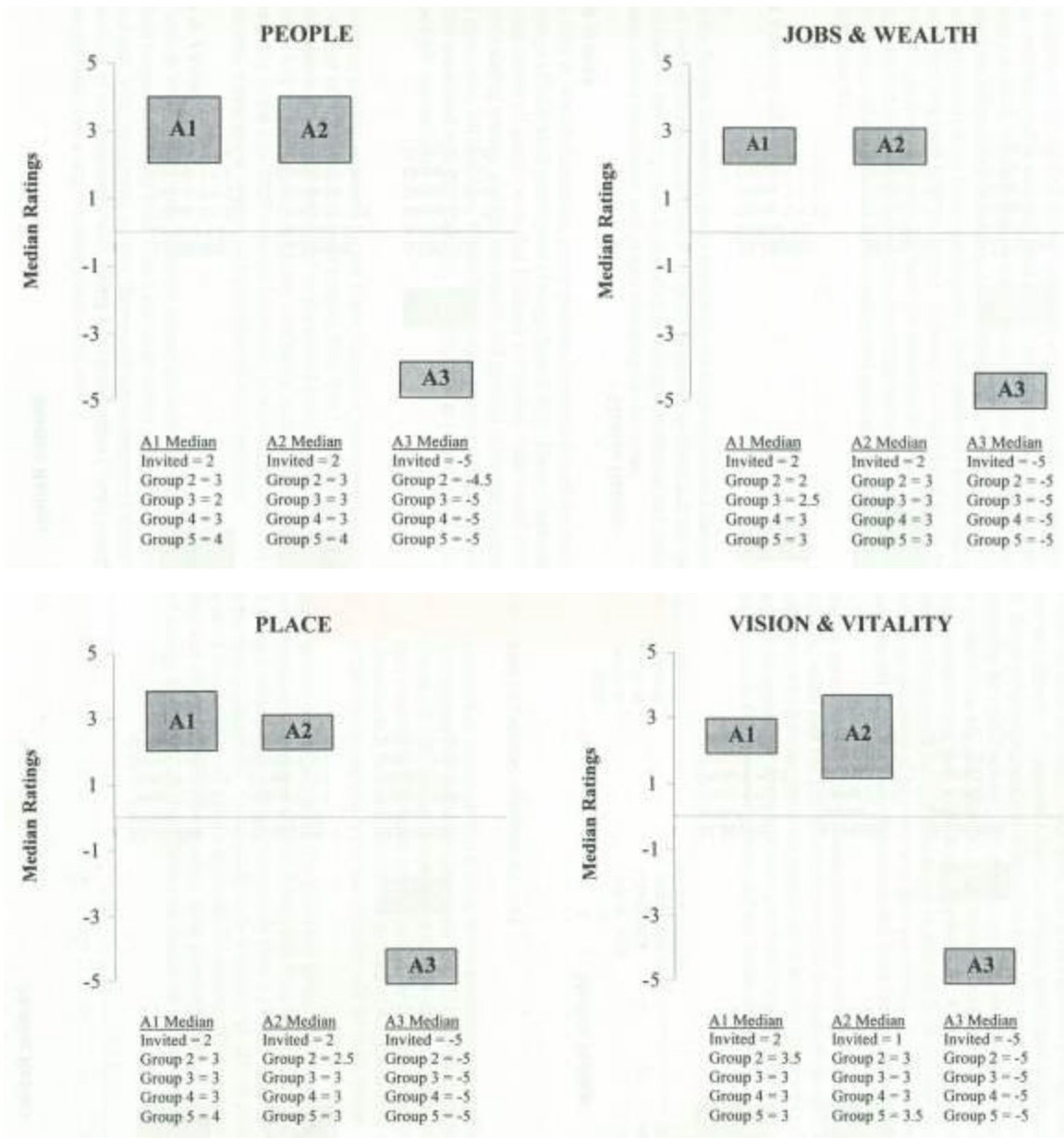


Figure 2-4. Median scale ratings of A1, A2, and A3, for Burbank, Washington, by community distribution, across groups

### **2.2.5.3 - Rating Justifications Across A1 - A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major system modification") and A3 ("natural river drawdown/dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.2.5.4 - Pathway A1**

#### *People*

Within the People dimension, group median scores clustered around the invited group of 3 with a range of individual responses from 0 to 5. As presented in Table 2-4, the clustering of justifications by the five groups included an increasing population and community growth, increasing school enrollment, and people changing for the better.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, group medians clustered around the invited group's rating of 3 with a range of individual participant's ratings from 0 to 5. Those characteristics consistently mentioned across all groups were that Burbank's economic base would continue to grow in 2020 under the existing system, and this expansion will provide increased income and wages. The invited group also felt that there would be increased commerce related to the Snake river in the year 2020 associated with this Pathway, including jobs at the dams and other groups also saw increased job opportunities.

#### *Place*

The clustering of group medians for the Place dimension was around the invited group median of 3 with a range of individual responses ranging from 0 to 5. Important characteristics for the Place dimension in Burbank identified by the invited group are that the status quo in the community will be maintained, with some continuing improvement. Other key factors to the positive rating in the year 2020 were the perception of additional parks and open space development, a new sewer system, and strengthened social services

#### *Vision & Vitality*

The Vision & Vitality dimension clustered around the invited group's median of 2 with individual responses ranging from -1 to 5 across all forum participants. Forum participants indicated that, with the existing system, they would see an improved ability to cope and a future incorporation of the community with strong local government ("in 20 years Burbank should be incorporated and have a large monetary base of its own").

**Table 2-4  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Burbank, Washington,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/High population (41)	People changing for the better/positive change (311)	People changing for the worse/negative change (312)
	Growth (general) (49)		Loss/change in recreation/tourism opportunities (442)
	People changing for the better/positive change (311)		Loss of industries and lack of job opportunities (492)
	Current trends will continue/little/no impact (325)		
Invited Groups	Attractive community (411)		Poor community appearance (412)
			Increase/high traffic congestion (432)
			Unstable/poor/decreasing economy (542)
Other Groups	Increasing school enrollment (71)	Increasing/high population (41)	Decreasing/low population (42)
		Growth (general) (49)	Decreasing school enrollment (72)
		Current trends will continue/little/no impact (325)	Decrease in farms and increase in farm size (156)
		Increased industries/good job opportunities (491)	Increased utilities, transportation and taxes, and decreased irrigation, loss of power (482)
			Businesses suffer (512)
			Unstable tax base (522)

Place			
Across All Groups	Community growth and improvement (general) (721)		Traffic congestion/increased traffic (603)
	Maintain status quo, no change (841)		Poor roads, highways, and community infrastructure (623)
			Poor/loss of recreation and tourism opportunities (666)
			Decline in sense of place and community pride (672)
			Poor economy (740)
			Ruin of community, complete negative community change (844)
Invited Groups	Good parks and open spaces, public lands (667)		
	Scenery should remain good (771)		
Other Groups	General public and social services (560)	Community growth and improvement (general) (721)	Increasing store vacancies (521)
		Maintain status quo, no change (841)	Appearance of residential areas bad/need improvement (550)
			Unsafe roads and highways (624)
			Negative impacts on the number of farms and farm families (642)
			Decreased opportunities for parks and open spaces (668)
			Poor air and water quality (782)
			Decreasing population (823)
			Decline in property values and tax base (882)

<b>Vision and Vitality</b>			
Across All Groups	Improved ability to cope (365)		Reduced, pessimistic visions of future (384)
Invited Groups	Other comments related to economics (749)		No real change in cohesiveness (363)
			Not prepared for the future (382)
Other Groups	Strong and good local government (461)	Prepared for the future (381)	Diminished civic organizational capacity (12)
		Strong and good local government (461)	Leadership decline (124)
		Positive economic opportunities (581)	Lack of support and ability to pass bonds and levies (182)
			Insufficient/decreasing tax base/fiscal resources (202)
			Loss of community cohesiveness (344)
			Lack of community control of outside forces (442)
			Negative economic opportunities (582)
<b>Jobs and Wealth</b>			
Across All Groups	Strong/growing economy (157)		Decreasing agriculture jobs (22)
			Decreasing forestry-related jobs
			Population decline (206)
Invited Groups	Increase in jobs at dams (414)	Economy dependent on waterway and river (149)	Devastate dryland farming (108)
	Things will become worse before getting better (164)		Increasing poverty (187)
	Hopeful (961)		Declining environment (233)
			Bad for community (956)



Other Groups	Increasing job opportunities (general) (10)	Increasing job opportunities (general) (10)	Poor job opportunities (3)
		Increasing construction-related jobs (17)	Decreasing job opportunities (general) (18)
		Increased utility rates (86)	Jobs decrease due to the ripple effect from agricultural losses (26)
			Increasing taxes/high taxes (74)
			Increased utility rates (86)
			Need irrigation/irrigation-dependent farming (106)
			Loss of recreation and tourism-related business (134)
			Shrinking agriculture/mining/timber base (135)
			Declining/limited business and shops (136)
			Declining tax base (172)
		Decreasing property values (202)	

### 2.2.5.5 - Comparison of Pathway A1 to A2

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all the dimensions remained relatively constant (Figure 2-4). The range of group ratings stayed the same for the People and Jobs & Wealth dimensions, and while they decreased slightly on the Place dimension, and increased slightly on the Vision & Vitality dimension, the clustering of medians remained much the same across all four dimensions.

The median ratings for all four dimensions under A1 and A2 cluster around 3 across all groups, suggesting the community's situation will be somewhat better in 2020.

As presented in Table 2-4, the salient justifications under the implementation of A2 generally were similar to those given in A1 for the People and Place dimensions and those current trends would continue. For the Jobs & Wealth dimension, dam-related job opportunities and an increase in construction related and other kinds of jobs related to the implementation of A2 as positive aspects. For the Vision and Vitality dimension, other groups noted that strong leadership from local government and positive economic opportunities, as well as preparedness for the future, would characterize the community in 2020 under this Pathway.

### **2.2.5.6 - Comparison of Pathway A1 to A3**

The median group ratings for A1 shifted towards the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3. Median clusters for A1 dropped from ratings of 2 to 4 across all dimensions to -5 under A3 (Figure 2-4). The range of median group ratings decreased across all four dimensions between A1 and A3, indicating a convergence of ratings. Thus, a greater consensus about the level of negative impact was found across groups in terms of the four dimensions.

#### *People*

Individual ratings ranged from -5 to 4 and the group medians clustered around -5. Justifications for these ratings across all tables included the negative effects on families ("loss of family home and life") and the community ("our community is totally dependent on water to sustain our life style") (see Table 2-4). These include a forecast by all groups of a decrease in job and recreation opportunities, and people changing for the worse, while the invited group noted increased traffic, negative community appearance, and an unstable, poor economy. Other groups perceived decreases in population ("ambitious people would leave"), irrigated farms, and school enrollments.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -5 to 5 and group medians clustered around -5. Justifications clustered around a decrease in agricultural and forestry-related jobs, with a resulting population decrease, decreased property values and an increase in poverty. Participants perceived that Boise Cascade, a major local employer would be forced to leave without irrigation from Ice Harbor ("Boise Cascade couldn't operate and 700 jobs would be lost").

#### *Place*

For the Place dimension, individual ratings ranged from -5 to 5 with the group medians clustered around -5. The greatest change under A3 was described for the Place dimension, with all the groups mentioning traffic congestion ("a lot more truck traffic would hurt the infrastructure-law enforcement"), deteriorating infrastructure, change in agricultural land tenure, less pride and sense of place, and general negative change in the character of the community. The other groups also cited such reasons as increased business vacancies, increased traffic accidents, and negative impacts on the number of farms and farm families. Declines would include decreased recreational opportunities for residents, along with a loss of parks and open space, poor air and water quality ("Burbank would be a dust bowl") and negative impacts on the town's aesthetic quality.

#### *Vision & Vitality*

For the Vision and Vitality dimension individual responses ranged from -5 to 2 with the group median ratings clustering around -5. One key factor cited was a reduced vision of the future as one participant commented, "I don't see any future without the water traffic and recreation." The invited group actually noted no real change in cohesiveness, except for unpreparedness for the future. Across all groups, negatives included loss of leadership and civic organizational capacity, a loss of community cohesiveness ("cohesiveness of community would suffer because long-time residents would be forced to leave") a decreasing tax base, and a resulting lack of support for bonds and levies.

## **2.2.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Burbank across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1 and A2, participants generally felt that the negative impacts to the fish populations could be minimized through regional measures such as halting all fishing of anadromous fish, enforcement of international treaties, improving habitat, and improving barging technology.

Under the implementation of A3, participants identified local measures to minimize negative impacts to the community's economy and infrastructure and regional measures to improve salmon recovery. Suggestions to minimize economic impacts to agriculture included compensation for loss of property values, low interest loan programs to modify irrigation pumps, job retraining, direct assistance to dislocated workers, relocating farms and grants to diversify economy and derive benefits from increased fish runs. Suggestions to minimize impacts to community infrastructure and services included funding to supplement schools, improvements to highway 12 and 124 (4 lanes), expanded rail and port facilities, modification of river parks and measures to minimize impacts of increased dust and trucking emissions. One regional measure identified was the need to more fully involve Native Americans in the fish recovery efforts.

## **2.3 - Clarkston, Washington, Community Assessment**

### **2.3.1 - Summary of Community Findings**

Clarkston, Washington, is a small city of about 6,900 people located on the upper end of the Lower Granite reservoir at the confluence of the Snake and Clearwater rivers. The city is some 20 miles downstream from the Hell's Canyon National Recreation Area. Over the past 40 years, Clarkston's population and employment base has remained relatively constant, with little overall growth. Clarkston has been a bedroom community with many residents commuting to work in the manufacturing and service sectors in Lewiston, Idaho. Changes have occurred since the slackwater reservoir arrived in 1975. Many orchards and a beef processing plant were lost, new parks and trails were developed, and new economic opportunities such as the arrival of tour boats from Portland were made possible. Clarkston also has gained reputé as a gateway to the Hell's Canyon National Recreation area, with an area office and visitor center offering many services to visitors located in the town.

Participants in the community forum in Clarkston depicted a community in 1999 that takes pride in the amenities available in town, yet is still struggling to maintain and build its own identity, given its close ties to the city of Lewiston -- especially the large number of residents who work across the state line. The town's affected environment includes strong positive perceptions of the Place dimension, with residents identifying "great parks and riverfront development" as key to the rating, while poor air quality was perceived as a negative characteristic of Clarkston as a Place. Participants' assessment of the Vision & Vitality dimension highlighted a division in perceptions about the future

orientation of the community, with some participants noting that their community has little control of outside forces and does not cope well with change. Overall there was positive sense of community support for education and a friendly sociable community, at the same time that the fiscal resources needed to realize the communities vision appeared to be lacking. The People and Jobs & Wealth dimensions were rated in the middle of the scale. A strong education system, an educated community and an increasing population base because of the lack of state income taxes in Washington were perceived strengths of the community. The recent influx of retirees appears to be an important part of recent population growth but these new community members were perceived both negatively and positively. Economically, Clarkston is struggling with its status as a low-cost bedroom community with low economic diversity and few job opportunities in town. This lack of an economic base was perceived to lead to a weak tax base and a high leakage of money out of the community.

Across all community dimensions, participants perceived improvements to their current situation in the year 2020 under Pathway A1 (maintaining the existing hydrosystem on the river), with ratings generally being on the positive, beneficial end of the scale. Residents perceived improvement and growth in all dimensions with a growing economy and improving wages due, in part, to a stable river environment and "less apprehension about the future." The growth in the economy would provide opportunities for young adults to stay in the community and would be driven by an increasing number of retirees moving to the town. This growth was perceived to also affect the quality of life in the community and thus there would be more effective planning. Participants noted that the strong characteristics of the Place, parks and open spaces, would continue to be attractive although some investments would need to be made to the existing infrastructure.

Under A2 (major modifications to the existing hydro-system on the Lower Snake River), participants in Clarkston did not perceive any significant changes from the future changes forecast under A1, and the ratings across the four community dimensions remained relatively constant in a positive direction. Some groups' ratings did increase, but others decreased, with the overall median remain the same. Most justifications remained the same as participants did not perceive this Pathway as having negative or positive effects on the community and the community would be essentially the same as under Pathway A1. Some participant's justifications highlighted that increased construction related to dam modification would be beneficial to the community and increase the tax base. Others noted that under this pathway the town's sense of place would be a decrease with the lower probability of salmon recovery.

Participants at the Clarkston forum were very concerned with their community's future under Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River), with ratings shifting to the negative and adverse end of the scale for all four dimensions. Major concerns were the negative effects of dam breaching on businesses that utilize the river waterway, the aesthetic impact on the community waterfront and a loss of recreational opportunities. Participants perceived that these impacts would lead to population losses (human resources) and lower property values (fiscal resources) and thereby overwhelm the community's ability to plan and develop a vision of the

future. In order to minimize these negative impacts to the community, participants suggested that transportation infrastructure would need to be improved, good plans would be needed to address land exposed by drawdown and the economy would need to be diversified away from dependence on river transportation. Participants also felt that businesses utilizing the river system should receive tax incentives to allow for continued operation.

### **2.3.2 - Interactive Community Forum Participants**

Twenty-nine community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Clarkston, WA. These forum participants sat at four facilitated tables (see methodology), working in interactive small groups (hereafter "groups"). The participants' overall diversity index rating for participants was 0.86 (on a scale from 0 to 1.0), with 12 of 14 pre-identified community roles present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 13 percent were business owners, 13 percent retirees, and 10 percent county commissioners. The remaining 64 percent of participants were employed in the following occupations: educator, electrician, engineer, forester, merchant marine, pharmacist, port manager and commissioner, Chamber of Commerce, physician, real estate, secretary, mill worker, and steam plant operator.

### **2.3.3 - Community Background**

Clarkston, Washington, is a small city of about 6,900 people located on the upper end of the Lower Granite reservoir at the confluence of the Snake and Clearwater rivers. The city is some 20 miles downstream from the Hell's Canyon National Recreation Area.

In 1899 a bridge across the Snake River connected Lewiston and 'Jawbone Flats', the area officially incorporated as Clarkston in 1902. Agriculture, particularly berry production, dominated the town's economy in the early 1900s. By the 1950s, agricultural production grew to include grains and hay, peas and other fruits. Livestock raising also existed. Water based transportation was important to the community bringing supplies up from Portland and grain down on the return trip. As water transportation on the Snake improved, Clarkston became a gateway for tourists exploring Hell's Canyon. In the 1970s, Clarkston's high school and the tissue mill were expanded. Lower Granite Dam was completed in 1975, flooding much of the fruit orchards and beef processing plants. Barging started out of Port of Clarkston. A second bridge, the Red Wolf Bridge, linking Clarkston and Lewiston was constructed in 1982. Boat manufacturing began at around that time, and tour boats from Portland began to bring visitors to the community. Costco arrived in the 1990s. Today, Clarkston remains active as a regional trading center via its port, and continues to have a strong agricultural base, abundant outdoor recreational opportunities, and a growing retiree population.

*Vision:*

Clarkston’s 1983 Comprehensive Plan emphasizes growth management strategies to maintain its small city atmosphere while providing for high quality services to its residents. Key elements mentioned in the plan include:

- Joint efforts with the Port of Clarkston and the Army Corps of Engineers to encourage economic development of the Port. These include expanding industrial development while enhancing tourist facilities for water-related recreation development;
- Improve transportation by improving the existing street system;
- Encourage the development of tourist and recreation opportunities to stimulate economic development opportunities. Examples include strengthening the business district, improving air quality, and providing services as a gateway to Hell’s Canyon.

### 2.3.4 - Community Assessment of 1999 Situation

#### 2.3.4.1 - 1999 Situation: Community Dimensions and Rating Scale

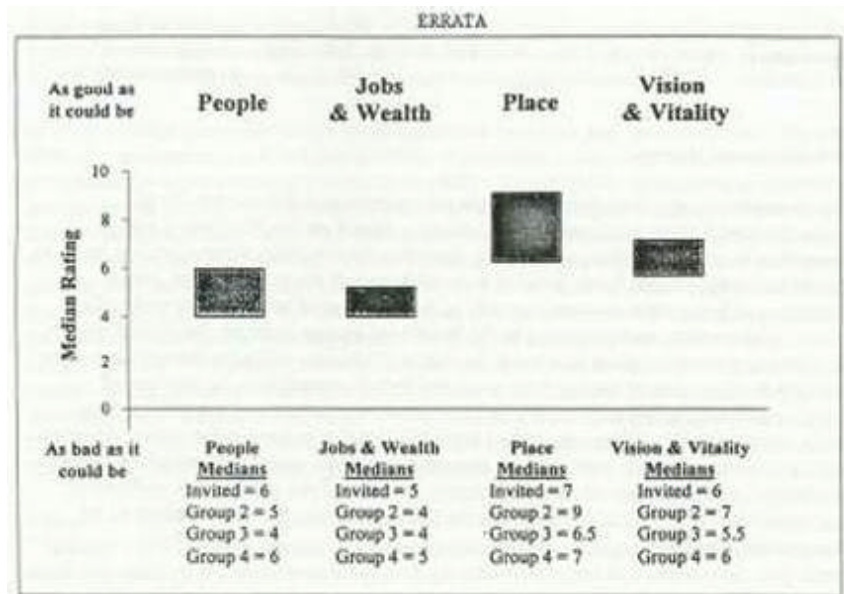
The following "1999 community situation" rating scale was used by participants from Clarkston to rate the current (1999) situation of the following four dimensions: 1) **People** -- Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

#### 2.3.4.2 - 1999 Situation: Ratings

Figure 2-5 presents the range of medians across the four community dimensions for all participants at the forum (four facilitated groups) ranging from 4 on the People and Jobs & Wealth dimension, to a 9 on the Place dimension. Specifically, the Place dimension was rated as being the most oriented towards the as good as it could be end of the scale and the Jobs & Wealth dimension as being most oriented towards as bad as it could be end of the scale. The Vision & Vitality dimension was perceived by the facilitated groups as being the second highest dimension oriented towards as good as it could be within Clarkston, while the People dimension was perceived to be more central having both good and bad characteristics. In the case of Clarkston’s four community

dimensions, the difference between the invited group's median score and that of other facilitated groups ranged from 1 to 2 rating points on the current situation. This clustering of group medians demonstrates that each facilitated group independently came to similar conclusions about the state of their community in terms of the goodness or badness of their current situation. This replication indicates the community dimensions are likely to be perceived somewhat similarly.



**Figure 2-5. Median scale ratings of the current (1999) situation in Clarkston, Washington, by community dimension and across groups.**

### 2.3.4.3 - 1999 Situation: Rating Justification

Table 2-5 presents the clustering of justifications for the four facilitated groups. Justifications noted by the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized 'Other Groups'.

#### *Place*

The clustering of justifications across all four groups shows that for the Place dimension, which was the highest rated dimension oriented toward the good with 3 of the 4 facilitated groups clustering around the invited group's median rating of 7. Individual responses ranged from 5 to 9. Specifically, good recreation and tourism, parks ("great parks and riverfront development"), scenery and the outdoor environment were the most consistently mentioned positive reasons for the ratings. In addition, all groups indicated that good schools, social services, good infrastructure including roads, highways and the waterway were important positive characteristics of the Place dimension in Clarkston. Negative Place characteristics were that people shop elsewhere and that the "air water quality could be much better" ("...smell at Potlatch doesn't take long to get used to").

### *Vision & Vitality*

The second highest rated dimension was Vision & Vitality with a clustering of group's medians around the invited group median of 6. Individual responses ranged from 3 to 8. Justifications for ratings clustered around a general support for bonds and levies, a general preparedness for the future ("we joined Valley Vision") meaning planning and plans exist, and a friendly sociable community. Examples of negative characteristics included insufficient tax base and resources, lack of community control of outside forces, lack of planning and ability to plan for future, as well as a resistance to change. Examples of other group's justifications clustered around the fact that people are adaptable, the level of community participation is high and the community is interesting. Negative examples include inadequate fiscal resources, a lack of community cohesiveness and low preparedness for the future ("no zoning in the community").

### *People*

The People dimension was rated as third relative to the four dimensions with a clustering of groups around the invited group's median of 5 and a range of individual responses ranging from 4 to 9. The clustering of justifications across the four facilitated groups indicates that strong education and an increasing population base ("people move to Clarkston because it does not have a state income tax") contributed to higher ratings for those groups. Alternatively, characteristics of the People which were perceived to be more negative were high crime rates, the role of retirees ("they do not create family wage jobs"), lower levels of education, high public assistance and a corresponding lack of family stability, and lack of industries and job opportunities. Forum participants also identified factors such as good prevalent values, good, friendly, helpful people, and community pride as important justifications for their higher ratings. Alternatively, forum participants also saw factors such as a general resistance to change as weaknesses within their community.

### *Jobs & Wealth*

The Jobs and Wealth dimension was oriented the most towards the *bad* end of the scale and was the community dimension receiving the lowest rating by forum participants with a clustering of group medians around the invited group median of 5. Individual ratings ranged from 2 to 7. Only one justification clustered across the four facilitated groups on the positive side while numerous justifications clustered around negative characteristics. The low cost of living was the only positive justification consistently mentioned. Negative justifications clustered around characteristics such as poor job opportunities, low wages ("people feel underpaid, many people leave for higher paying jobs"), and low economic diversity. In addition, high commuting and leakage of money from the community ("not enough income reinvested in community, even by major employers") were influences on the lower rating of Jobs & Wealth in Clarkston.



**Table 2-5  
Rating Justifications for the Current (1999) Situation  
In Clarkston, Washington,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Increasing/high population (41)	Good prevalent values (61)	Safe place to live with low crime (191)
	Strong schools/education (81)	Conservative values (65)	Good, friendly, helpful people (201)
		Increasing school enrollment (71)	Support of community activities and involved (241)
		Stable families (103)	
		Many/most/increasing people own homes (151)	
		Strong sense of spirit and pride in community (211)	
		Ethnic diversity is high/increasing (301)	
		People changing for the better/positive change (311)	
		Attractive community (411)	
		Recreation/tourism is important (positive) (441)	
		No state income tax (525)	
Negative	Increasing number of retirees (21)	Poor prevalent values (62)	
	Poor schools/education (82)	Resistant to change (233)	
	Families are becoming less stable (102)	Ethnic diversity is low/decreasing (302)	
	Increasing/high public assistance (112)	Increased utilities, transportation, and taxes, and decreased irrigation, loss of power (482)	
	High/increasing crime rate (192)	High economic dependence on few sectors (501)	
	Loss of industries and lack of job opportunities (492)		
Other		Growth (general) (49)	

<b>Jobs and Wealth</b>			
Positive	Low cost of living (78)	Good job opportunities (2)	
		Stable government jobs (48)	
		Low utilities (79)	
		Housing fairly priced (83)	
		Some are wealthy/income stratification (179)	
		High property values (198)	
		Good rural area (228)	
Negative	Poor job opportunities (3)	High commuting (66)	Negative impacts associated with commuting (62)
	Low paying jobs (31)	Increasing taxes/high (74)	High poverty (183)
	Money leaves (51)	High cost of housing (76)	
	Low economic diversity (122)	People will leave (206)	
	Increase/high government assistance (184)	Constrained by government (951)	
Other		Public sector jobs (general) (44)	
		Farming/Resources (general) (99)	
		Forestry-based economy (144)	
<b>Place</b>			
Positive	Good social services/equal access to services (561)	Changing downtown businesses (523)	Close proximity to outdoor recreation opportunities (662)
	Good schools (563)	Safe streets and highways (622)	Strong sense of place/heritage/morale and community (670)
	Good roads, highways, and community infrastructure (620)	Good climate (772)	Good air and water quality (780)
	Good parks and open spaces, public lands (667)	Safe and crime free (902)	
	Scenery good (771)		

Negative	People shop elsewhere due to lack of businesses (522)	Poor declining community appearance (513)	Increasing store vacancies (521)
	Poor air quality (782)	Appearance of residential areas bad/need improvement (550)	Low traffic, congestion (599)
		General public and social services (560)	Increasing crime and drug use/less safety (903)
		Lack of transportation facilities (602)	
Other	Waterway (general) (610)		
	Recreation and tourism (general) (660)		
<b>Vision and Vitality</b>			
Positive	Support and ability to support bonds and levies (181)	Strong, active civic organizational capacity (11)	Interesting community (307)
	Friendly, sociable community (305)	Strong, active, astute political leadership (81)	Strong/high level of community participation (work together) (561)
	Prepared for the future (381)	Numerous, varied, good, or improving social activities (301)	Improving/good schools (811)
	Planning and plans exist, good base for the future (403)	Stable budget (483)	
Negative	Insufficient/decreasing tax base/fiscal resources (202)	Diminished civic organizational capacity (12)	Inadequate community cohesiveness (342)
	Do not cope well with, or resist change (362)	Poor/lack of political leadership (82)	Not prepared for the future (382)
	Lack of planning and the ability to plan for future (404)	Weak/ineffective leadership	
	Lack of community control of outside forces (442)	High/increasing taxes (204)	
		Lack of community control of outside forces (442)	
		Negative economic opportunities (582)	

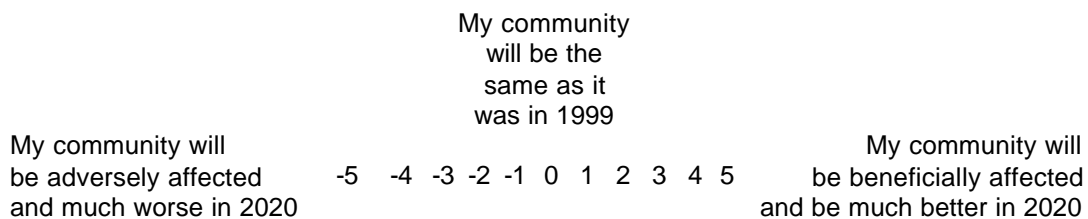
## 2.3.5 - Comparison of Salmon Recovery Pathways A1 to A3

### 2.3.5.1 - Community Dimensions Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 maintains the existing Lower Snake River System, Pathway A2 makes major modifications to the existing Lower Snake River System, and Pathway A3 draws down the river through dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see Appendix A). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid-point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.3.5.2 - Summary of Pathway Findings A1 - A3

Figure 2-6 presents the median rating of all four groups for each of the pathways, categorized according to dimension. For all the dimensions, forum participants perceived that the situation for their community would be better in the year 2020 under

Pathway A1. The range of medians for A1 ranges from a 1 in the People dimension to a high of 4 in the Jobs & Wealth dimension as well as within the People dimension. For A2, the range of group medians across dimensions again extends from a 1 to a 4 within each of the dimensions with basically little change from A1. Group medians for A3 decreased from A1 and ranged from a -4 in the Place and People dimensions to a -5 for the Jobs & Wealth and Vision & Vitality dimensions. The degree of clustering within A1, A2, and A3 across community dimensions remained relatively constant.

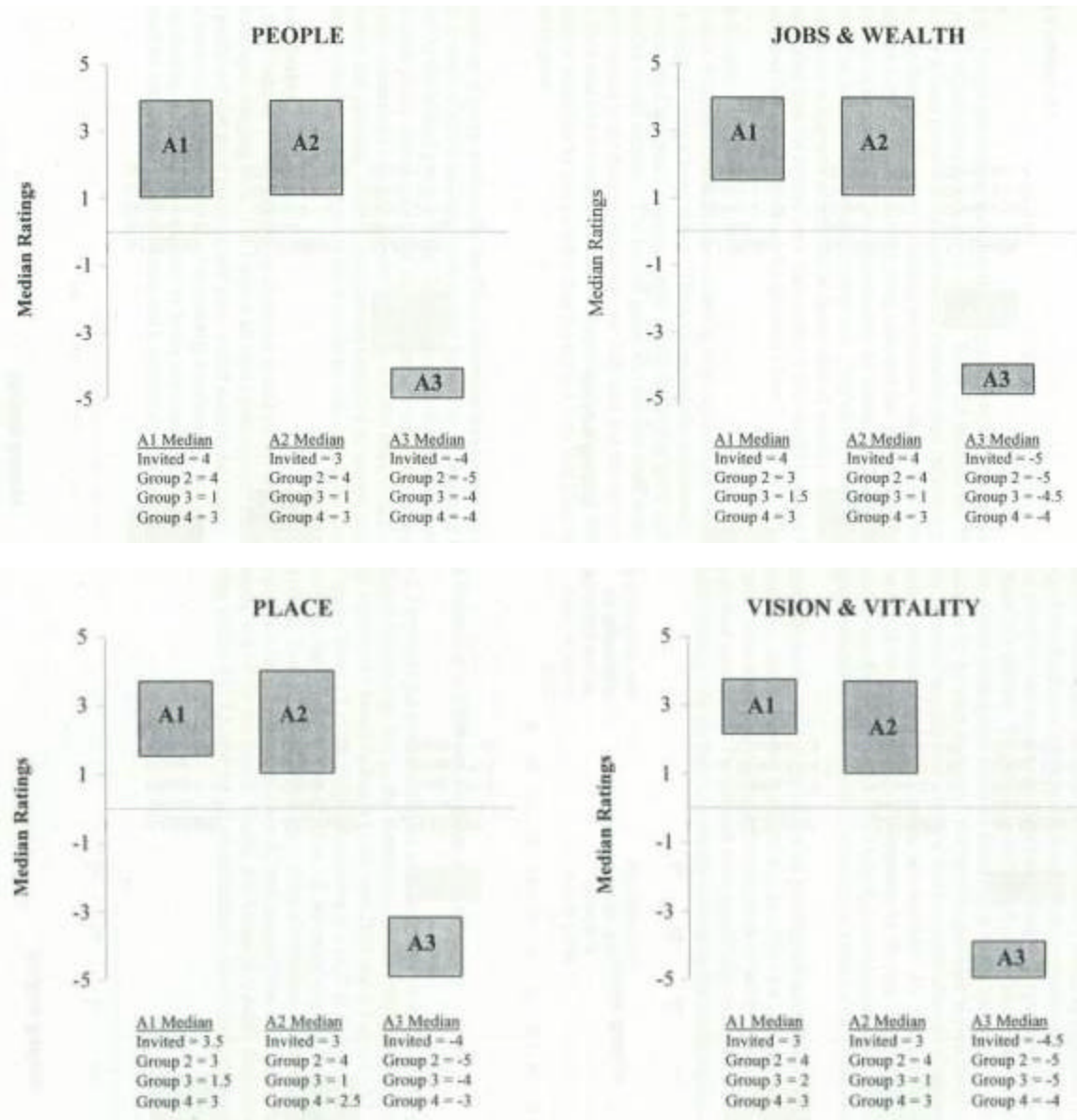


Figure 2-6 - Median scale ratings of Pathways A1, A2, and A3, for Clarkston, Washington, by community dimension, across groups

### **2.3.5.3 - Rating Justifications Across A1 - A3**

#### **2.3.5.4 - Pathway A1**

##### *People*

Within the People dimension, the clustering of group medians around the invited group was 3.5 with a range of individual responses of -2 to 5. Table 2-6 presents the clustering of justifications that the four groups perceived the most salient characteristics influencing their People dimension ratings. Key factors included an increasing population with more jobs and job opportunities. Justifications identified by the invited group indicates that the People dimension in the year 2020 will be better in terms of increased opportunities for young people, increased school enrollment, good extended families, and no state income tax. They also felt that Clarkston's population would continue to age with an increase in the number of retirees. Salient justifications identified by groups other than the invited were that current trends would continue for the People dimension and that public assistance would remain low.

##### *Jobs & Wealth*

For the Jobs & Wealth dimension, the clustering of group medians around the invited group was 4 with a range of ratings from -2 to 5. Those characteristics consistently mentioned across all groups were that Clarkston's economic base would continue to grow and expand, and job opportunities would increase. The invited group also felt that there would be increased commerce related to the Snake river in the year 2020 and that the tourism industry would grow but that there could be a change in recreation opportunities associated with this Pathway. Salient justifications identified by groups other than the invited were that Clarkston's population would continue to grow.

##### *Place*

The clustering of group medians for the Place dimension was around the invited group median of 3.5 with a range of individual responses ranging from -2 to 5. Important characteristics identified by the invited group are that Clarkston's general appearance would remain attractive but that some public areas would need improvement. In terms of continued development of private and commercial interests, the invited group felt that there would be increased need for more zoning and planning. Salient justifications identified by groups other than the invited were that with continued economic growth there would be trade-offs in the quality of life in Clarkston.

##### *Vision & Vitality*

Lastly, the Vision & Vitality dimension clustered around the invited group's median of 3 with individuals again ranging from -3 to 5 across all forum participants. Participants across all groups perceived that good planning and plans would exist in the future. The invited group also felt that there would be a high level of community involvement, with strong civic groups and active leadership, and continued support for levies and bonds. Other groups indicated they envisioned no real change in cohesiveness and a continued resistance to change.

**Table 2-6  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Clarkston, Washington,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/high population (41)		Decreasing/low population (42)
	Increasing industries/good job opportunities (491)		People changing for the worse (312)
			Unstable/poor economy (542)
Invited Groups	Aging population (2)	Opportunities for youth exist (12)	Decreasing number of retirees (22)
	Opportunities for youth exist (12)	Increasing number of retirees (21)	Poor place to retire (32)
	Increasing number of retirees (21)	Increasing/high population (41)	Decreasing school enrollment (72)
	Increasing school enrollment (71)	Increasing school enrollment (71)	Families are becoming less stable (102)
	Good extended families (101)	Good extended families (101)	Decreasing farms, increasing farm size (156)
	Many/most/increasing people own homes (151)	Ethnic diversity is high/increasing (301)	Poor community attitude (222)
	Ethnic diversity is high/increasing (301)	No change in people/little/no impact (313)	Ethnic diversity is low/decreasing (302)
	Attractive community (411)	Increased industries/good job opportunities (491)	Increased traffic deaths/injuries (435)
	Continued use of river (481)	High/increased wealth/income/wages/decreased poverty (531)	Loss/change in recreation/tourism opportunities (442)
	No state income tax (525)		
	High/increased wealth/income/wages/decreased poverty (531)		
Other Groups	Low public assistance (111)	Current trends will continue/little/no impact (325)	Increasing/high public assistance (112)
	Current trends will continue/little/no impact (325)		Few/less/decreasing people own homes (152)
	Recreation/tourism is important (positive) (441)		Lack of industry/job opportunities (492)
	Growth of businesses/good diverse strong economy (541)		

<b>Place</b>			
Across All Groups			Increasing store vacancies (521)
			Poor/loss of recreation and tourism opportunities (666)
Invited Groups	Good/improving community appearance (511)	Poor/declining community appearance (513)	Poor/decreasing social services (570)
	Poor/declining community appearance (513)	Transportation (general) (600)	Lack of transportation facilities (602)
	Ability to attract new businesses (534)	Good modes of transportation (601)	Traffic congestion/increased traffic (603)
	Expanding residential areas (541)	Negative impact of changing land use patterns (634)	Loss of railroad transportation (605)
	Good roads, highways, and community infrastructure (620)	Planning (general) (712)	Poor roads, highways, and community infrastructure (623)
	Poor land-use planning, concern over plan (713)	Needs sewer system (786)	Poor community location (685)
	Increased commercial and residential development/loss of open space (761)	Maintain status quo (841)	Poor economy (740)
	Poor sewer system (786)	Sense of security is important (907)	Loss of environmental beauty, rivers, scenery (777)
	Maintain status quo, no change (841)		Ruin of community, complete negative community change (844)
	Sense of security is important (907)		Poor/decreasing quality of life (906)
Other Groups	Recreation and tourism (general) (660)	Improved survivability of fish (807)	Negative impacts on the number of farms and farm families (642)
	Good parks and open spaces, public lands (667)		Decreased income/increased poverty (751)
	Community improvement (721)		Poor air and water quality (782)
	Economic growth versus quality of life (908)		



<b>Vision and Vitality</b>			
Across All Groups	Planning and plans exist, good base for the future (403)		Reduced, pessimistic visions of future (384)
			Lack of community control of outside forces (442)
Invited Groups	Strong, active civic organizational capacity (11)	Strong, active civic organizational capacity (11)	Overwhelmed, poor leaders (142)
	Active, strong leadership (121)	Leadership improvement (125)	Insufficient/decreasing tax base/fiscal resources (202)
	Leadership improvement (125)	Good/increasing tax base/fiscal resources (201)	Not prepared for the future (382)
	Support and ability to support bonds and levies (181)	Strong, cohesive community (341)	Negative economic opportunities (582)
	Increased community cohesiveness (345)	New, optimistic vision of future (385)	
	Do not cope well with or resist change (362)	Community control of outside forces (441)	
	Strong and high level of community participation (561)	Quality of life (general) (883)	
	Quality of life (general) (883)		
	Impacts of changing demographics (886)		
Other Groups	Cope well with change (361)	Positive economic opportunities (581)	Lack of planning and the ability to plan for the future (404)
	No real change in cohesiveness (363)	Positive impacts on visitation and vitality with more fish (681)	
	Positive economic opportunities (581)		

<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Strong/growing economy (157)	Decreasing job opportunities (general) (18)
	Expanding economic base (125)		
	Strong/growing economy (157)		
Invited Groups	Increased commerce on rivers (28)	Increasing construction-related jobs (17)	Increased cost of doing business (88)
	Increasing high tech-related jobs (40)	Increased commerce on rivers (28)	General impacts from trucking (158)
	Increased local investment (57)	Increasing high tech-related jobs (40)	Declining economy (162)
	Low utilities (79)	Low utilities (79)	Decreased wealth (181)
	Housing fairly priced (83)	Housing fairly priced (83)	People will leave (206)
	Resource tourism and amenity recreation growth (126)	Expanding economic base (125)	
	Industry growth (general) (127)	Loss of recreation and tourism-related business (134)	
	Loss of recreation and tourism-related business (134)	Shrinking agriculture/mining/timber base (135)	
	Stable economy (155)	Regulations (174)	
	Regulations (174)	Aging population (211)	
	Aging population (211)		
Other Groups	Population growth (207)	Increasing job opportunities (general) (10)	Increased utility rates (86)
			Loss of recreation and tourism-related business (134)
			Declining/limited business and shops (136)
			Decreasing property values (202)

### 2.3.5.5 - Comparison of Pathway A1 to A2

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all the dimensions remained relatively constant (Figure 2-6). The range of group ratings across the dimensions for the Jobs & Wealth, Vision & Vitality and the Place dimension increased slightly with the lower ratings dropping from A1 to A2. The range of ratings for People did not change.

As presented in Table 2-6, the salient justifications under the implementation of A2 generally were similar to those given in A1 for the People dimension and that those current trends would continue. For the Jobs & Wealth dimension, the invited group saw an increase in construction jobs related to the implementation of A2 as well as fair-priced housing. The invited group felt that there would be a smaller agriculture-based economy in the Clarkston area. For the Place dimension, the invited group saw a continued sense of security with the river system and good planning for the future. Additionally, other groups added that there would be a decreased sense of place with the loss of the salmon. For the Vision and Vitality dimension, the invited group saw positive impacts on community cohesiveness, good increasing tax base and fiscal resources, and the maintenance of community values in the year 2020.

### **2.3.5.6 - Comparison of Pathway A3 and A1**

Under the implementation of A3, the change between A1 clustered median group ratings and A3 clustered median group ratings decreased towards the adversely affected end of the rating scale from medians around 3 to medians of -4 across all the dimensions (Figure 2-6). The range of median group ratings within each dimension also decreased, indicating a convergence of ratings under A3. In other words, there was a greater consensus across groups about the direction and magnitude of the negative impact.

#### *People*

For the People dimension, group medians clustered around -4. Individual ratings ranged from 1 to -5. Table 2-6 shows the shift in salient justifications under the implementation of A3. These include a forecast decrease in Clarkston's population with the People dimension generally changing for the worse with the development of an unstable economy. The invited group indicated negative impacts on the retiree population ("older people would leave because the parks along the river would be gone"). They also perceived a decrease in school enrollment. Other groups added that there would be an increase in the number of people on public assistance with fewer people owning their own homes, as justifications for the negative ratings.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, group medians clustered around -5. Individual ratings ranged from 1 to -5. Justifications for forum participants scale ratings clustered around decreasing job opportunities ("endanger the Potlatch mill and the distribution hub would be gone"). The invited group added that there would be negative effects of an increased cost of doing business. Other groups perceived that A3 would cause a loss of tourism to the area, which means declining business, and there would be an overall decrease in property values.

### *Place*

For the Place dimension, group medians clustered around -4. Individual ratings ranged from 0 to -5. Justifications across all groups clustered around an increase in business vacancies and a decrease in recreational opportunities for residents ("our Hell's Canyon Marina would close"). The invited group indicated a lowering quality of life with increased traffic congestion, with Clarkston's aesthetic qualities being adversely affected by the exposed shoreline. Other groups noted a decline in the number of local farms and farm families and a decrease in air and water quality.

### *Vision & Vitality*

For the Vision and Vitality dimension, group median ratings clustering around -4.5. Individual responses ranged from 0 to -5. All groups' justifications clustered around a reduced and pessimistic vision, and lack of community control of outside forces for the community of Clarkston in the year 2020 ("the future would be bleak and leaders would need to change to 'survival mode' rather than evaluating a future with optimism" and "people will say-why bother to help our community-the government will come and tell us what will happen"). The invited group felt that under A3, leaders would be overwhelmed and that the community would not be prepared for the future. They also noted a decrease in community vitality tied to changing economic factors and that there would be an insufficient tax base to support the community. Additionally, other groups perceived a lack of the ability to plan and a general absence of adequate plans to deal with the effects of A3.

## **2.3.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Clarkston across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally identified regional issues as they felt that the harvesting of salmon within the river system as well as in the ocean should be further addressed and that additional efforts should be taken to improve upriver habitat. They also felt that control of salmon predators and increased fish hatcheries would be appropriate measures to take to lessen impacts salmon. Participants also felt that local community members should be more involved in federal government decisions related to the fate of salmon.

Under the implementation of A2, forum participants felt that there should be a continued search for more effective modifications to the four lower Snake River dams to increase salmon survival and that this should be done in a more efficient manner. To reduce the economic burden on local residents from the implementation of A2, forum participants noted that the entire country should take responsibility for the costs of implementation of this Pathway.

Under the implementation of A3, forum participants focused on local level impacts and measures to minimize those impacts. They indicated that Clarkston would require an improved transportation system with increased rail and highway access. They also felt that they would need good plans for land exposed by the drawdown of the river, and plans for increased economic diversification with less dependence on river transportation. For those currently dependent on the river barging, participants felt that those individuals and businesses should receive tax incentives to continue their operations in Clarkston.

## **2.4 - Colfax, Washington, Community Assessment**

### **2.4.1 - Summary of Community Findings**

Colfax, Washington, is a small county seat of about 2,800 residents located in the heart of Whitman County, about 16 miles to the north of the Lower Snake River. This region, commonly known as the Palouse, is one of the nation's most highly productive grain-growing areas. This town, the oldest community in Eastern Washington, has historically relied on dryland agriculture for its cultural and economic base. Changes in the town's transportation system include the creation of the Port of Whitman County and the gradual removal of rail service and infrastructure in the 1970s and 1980s. Recent changes in the community include new economic development parks and improvements to Main Street. Two economic sectors, agriculture and state and local government (including schools), have recently been dominant in the local economy.

Participants in the Colfax community forum depicted a "tight-knit," rural, agriculturally-based community with strong human resources, values and community spirit and involvement that provide an "attractive place to live and raise a family." Although the community works well together, participants did not perceive that they were well prepared for the future. Residents were divided on their assessment about the state of the economy, with some noting that job opportunities are available "for those who want to work," while others felt that job opportunities were poor and did not pay well. This division may be due in part to the variability in the agricultural sector, the perceived dependence of the local economy on agriculture, and the recent downturn in crop prices.

Participants perceived some positive changes in Colfax in the year 2020 under Pathway A1 (the existing hydro-system on the Lower Snake River), with ratings generally indicating small improvements towards the "beneficially affected" end of the scale for all community dimensions. However, some participants perceived the Jobs & Wealth dimension as worse off in the future. Residents generally felt that current trends would continue and that the town would retain its small town qualities. Residents noted the

continuing challenge of dealing with a shrinking agricultural base in light of the significant role of agriculture in the community. They exhibited optimism about possibilities for future economic development if the existing river system is maintained. Under Pathway A2 (major modifications of the hydro-system on the Lower Snake River), participants again saw small positive changes and similar justifications to A1. New justifications related primarily to the effects of construction jobs and related effects under the implementation of Pathway A2.

Participants in the Colfax forum were particularly concerned about the future of their agriculturally based community under the implementation of Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River). Ratings shifted from small positives under A1 toward the "adversely affected" end of the scale across all four dimensions under A3, with the most significant decrease in the Jobs & Wealth dimension. A major concern that appeared to affect ratings and justifications across all dimensions was the effect of increased transportation costs on small family farmers and the subsequent restructuring or consolidation of the local farm economy. Participants identified the linkages between the changing family farm structure and the weakening or loss of the population base, community wealth, property values and the local tax base. Residents also felt that the population would be "much more stressed" and the "transition will result in less vision for the future," with development plans becoming "obsolete."

To minimize these negative impacts of A3, residents identified numerous measures to minimize the impact on the farm sector. These included a federally funded expansion of the existing transportation system with improved highway and rail access, increased grain storage facilities, and decreased regulations on trucks. They also identified the need to loosen constraints on the federal CRP program to allow more agricultural acreage to be enrolled. They identified the need to strengthen social services to address a likely increase in stress and health problems.

It is clear that participants at the forum perceived significant negative impacts across all community dimensions from the removal of the Lower Snake River dams. Considering the agricultural history of this community and the current state of agriculture, the linkages between the surrounding farms and the health of the community are not surprising. These negative impacts may be minimized to some degree by improving transportation infrastructure, but other community-level actions also appear critical.

#### **2.4.2 - Interactive Community Forum Participants**

Seventy-two community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Colfax, WA. These forum participants sat at eight facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The overall diversity index rating for participants was 0.86 (on a scale from 0 to 1.0) meaning that 12 of 14 pre-identified community roles present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire,

54 percent were in agriculture and agricultural services and 10 percent retirees. The remaining 36 percent of participants were employed in the following occupations: port manager, machinery sales, mechanic, assistant manager, city administrator, clerk, Department of Transportation, electrical engineer, electrician, Fish and Wildlife enforcement officer, homemakers, food production, publisher/journalists, real estate, investor, ironworker, mortgage lender, landlord, mayor, pastor, and county auditor.

### **2.4.3 - Community Background**

Colfax, Washington, is a small county seat of about 2,800 residents located in the heart of Whitman County, about 16 miles to the north of the Lower Snake River. Incorporated in 1873, Colfax is the oldest town in Eastern Washington. Originally it was a town centered around a sawmill, cattle ranches, and farms, and agriculture has become the community's primary industry over the years. In 1960 the Port of Whitman was built, the hospital was established and the town's residential area was expanded. Its population has remained fairly stable since the 1960s. A series of floods and fires threatened to destroy the community, but residents continued to rebuild after them, and in 1963 the Army Corps of Engineers constructed a flood-control project to prevent flooding in the downtown area. The Port of Wilma opened in the 1970s and the Whitman County Business Development Council organized. In the 1980s, some branch rails around the community were abandoned. During this same time, retirement homes were being built and the town was investing in its school facilities. In 1991, a \$2.1 million levy was passed for school construction. In 1990, Colfax expanded its economic base with the creation of an Industrial Park and an Internet Center, and the community continues to have a stable economy with major employment in such sectors as county, state (including the school district), and federal government, agricultural services and trade. Most recently, the town's Main Street was renovated and residential expansion has continued with development of the Houser Addition.

#### *Vision:*

Colfax's 1993 Comprehensive Plan describes a strategy "...to nurture a harmonious environment that will enhance the quality of life for all citizens. It will provide for efficient municipal services, promote the business community and establish balanced economic growth..." Several of the key elements to achieve this vision include:

- Enhance residential development opportunities , and preserve opportunities for diversified lifestyles, to accommodate a growing population of at least 15% by the year 2002;
- Enlarge the economic base by stimulating development of commercial facilities, a diverse job market and shopping opportunities, and by promoting Colfax as a retirement place;
- Improve arterial and local road transportation;

- Plan for rail abandonment to attain railroad rights-of-way;
- Provide facilities and services for educational, cultural and recreational use;
- Maintain and improve the quality of the physical environment.

## 2.4.4 - Community Assessment of 1999 Situation

### 2.4.4.1 - 1999 Situation: Community Dimensions and Rating Scale

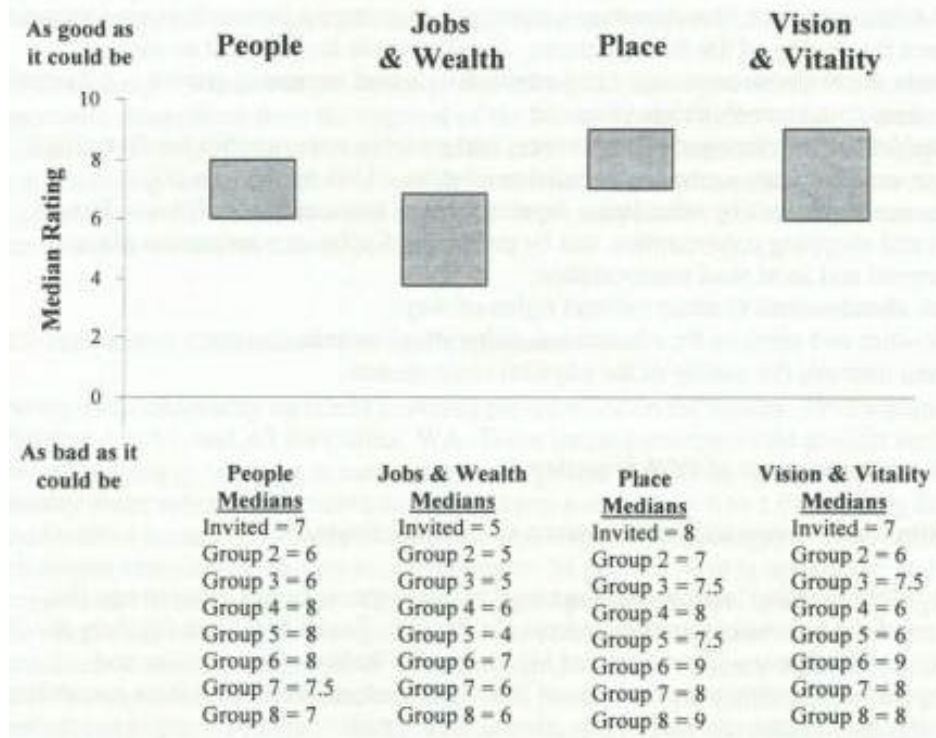
The following "1999 situation" rating scale was used by participants from Colfax to rate the current situation of the following four dimensions: 1) **People** -- Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

### 2.4.4.2 - Situation: Ratings

As Figure 2-7 presents, the range of medians across the four community dimensions for the eight facilitated tables of community members ranged from a 4 on the Jobs & Wealth dimension, to a 9 on the Place and Vision & Vitality dimension. Specifically, the eight facilitated groups at the forum perceived the Place dimension as being the most oriented towards the *as good as it could be* end of the scale and the Jobs & Wealth dimension as being most oriented towards *as bad as it could be* end of the scale. The Vision & Vitality dimension was perceived by the facilitated groups as being the second highest dimension oriented towards *as good as it could be* within Colfax, while the People dimension was perceived to be slightly lower.





**Figure 2-7. Median scale ratings of the current (1999) situation in Colfax, Washington, by community dimension, across groups.**

In the case of Colfax's four community dimensions, the difference between the invited group's median score and that of other facilitated groups ranged from 1 to 2 rating points on the current situation. This clustering of group medians demonstrates that for the four dimensions assessed, each facilitated group independently came to similar conclusions about the state of their community in terms of the goodness or badness of Colfax's current situation. This replication indicates the community dimensions are likely to be perceived somewhat similarly.

#### **2.4.4.3 - 1999 Situation: Rating Justification**

Table 2-7 presents the clustering of justifications for the eight facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Group'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized as 'Other Group'.

##### *Place*

The Place dimension was the highest rated dimension with an invited group median rating of 8. Individual responses ranged from 3 to 10. Justifications such as, recreation and tourism ("...love the recreation...great access to water, fishing and hunting"), parks, air and water quality and the outdoor environment were consistently mentioned positive reasons for the ratings. Additionally, all groups indicated that good schools, a good infrastructure, and good community facilities and services were important to the overall

quality of life (an attractive place to live and raise your family"). There was no clustering of negative justifications across all the groups indicating a high degree of consensus about the positive nature of the Place dimension. However, the invited group's lower ratings were influenced by factors such as people shopping elsewhere.

### *Vision & Vitality*

The Vision and Vitality dimension received the next highest rating with an invited group median of 7. Individual responses ranged from 2 to 10. Justifications clustered around a general support for bonds and levies, a strong level of community involvement ("community comes to the aid of citizens very quickly"), and the perception of Colfax being a friendly, sociable town with variety of community activities. Examples of other justifications given the invited group include strong leadership and stable civic organizations. Negative characteristics such as the fear that the community is not prepared for the future and it does not have control over outside forces ("outside regulations and demands really hinder local progress") may have lowered the overall high rating.

### *People*

The People dimension received an invited group median of 7. Individual responses ranged from 4 to 8. Justifications reflect that Colfax is a safe place to live with a strong sense of community, stable families and a strong education system that is "preparing our children for the future." Other justifications provided by the invited group added that the customs and lifestyles and the values of the community are strong. Characteristics of the People, which were perceived to be more negative, were an aging population that is "not ethnically diverse-values are not tolerant." The invited table also noted factors such as a lack of opportunities for young people and a decreasing population.

### *Jobs & Wealth*

The Jobs and Wealth dimension was oriented the most towards the bad end of the scale with an invited group median of 7. Individual responses ranged from 4 to 8 across the eight groups. Good job opportunities and low unemployment were the only justifications clustered across the eight facilitated groups on the positive side. However, groups equally identified poor job opportunities available in the community. Additional justifications provided by the invited group identified factors such as the presence of government jobs as important influences for their higher ratings. The low level of economic diversification, a shrinking agricultural base and a "dependent on agricultural and government jobs" were important reasons for the lower rating.

**Table 2-7  
Rating Justifications for the Current (1999) Situation  
In Colfax, Washington,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Strong schools/education (81)	Good customs and lifestyles (51)	Stable population (43)
	Stable families (103)	Customs and lifestyles (general) (59)	
	Safe place to live with low crime (191)	Stable school enrollment (73)	
	Supportive of community activities and involved (241)	Decreasing/low public assistance (111)	
		High/increasing home/property values (162)	
		Not heavily regulated by government (254)	
		Good community services (401)	
		Decreased/low traffic congestion (431)	
Negative	Aging population (2)	Lack of opportunities for young people (11)	
	Ethnic diversity is low/decreasing (302)	Decreasing/low population (42)	
		Too bound to customs (55)	
		Increasing/high public assistance (112)	
		Many homes for sale (172)	
		Loss of industries and lack of job opportunities (492)	

Other		Conservative values (65)	
		Prevalent values (general) (69)	
		Stability of community (general) (323)	
		Future requires courage (235)	
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	High paying jobs (30)	
	Low unemployment (192)	Positive aspects of commuting (63)	
		Industry growth (general) (127)	
Negative	Poor job opportunities (3)	Negative impacts associated to public sector jobs (45)	
	Low paying jobs (31)	High commuting	
	Low economic diversity (122)	High cost of living (72)	
	Shrinking agriculture/mining/timber (135)	Government-based economy (145)	
	Agriculture-based economy (143)	High unemployment (191)	
		Bad for community (956)	

Place			
Positive	Good/improving community appearance (511)	Good residential appearance (540)	Good quality of life (901)
	Good schools (563)	Good modes of transportation (601)	
	Good public facilities (565)	Good roads, highways, and community infrastructure (620)	
	Good parks and open spaces, public lands (667)		
	Good air and water quality (780)		
	Safe and crime free (902)		
Negative		People shop elsewhere (522)	
		Traffic through doesn't stop (604)	
		Farming will decrease (653)	
		Air and water quality bad (782)	
Other	General public and social services (560)		
	Recreation and tourism (general) (660)		

Vision and Vitality			
Positive	Support and ability to support bonds and levies (81)	Adequate stable civic organizational capacity (13)	Active, strong leadership (121)
	Numerous, good, or improving social activities (301)	Strong, active, astute political leadership (81)	Successful at getting and using grants (241)
	Friendly, sociable community (305)	Interesting community (307)	
	Strong and high level of community participation (work together) (561)	Planning and plans exist, good base for the future (403)	
		Community control of outside forces (441)	
Negative	Not prepared for the future (382)	Diminished civic organizational capacity (12)	Lack of community control of outside forces (442)
		Lack of community involvement in community affairs (562)	

## 2.4.5 - Comparison of Salmon Recovery Pathways A1 - A3

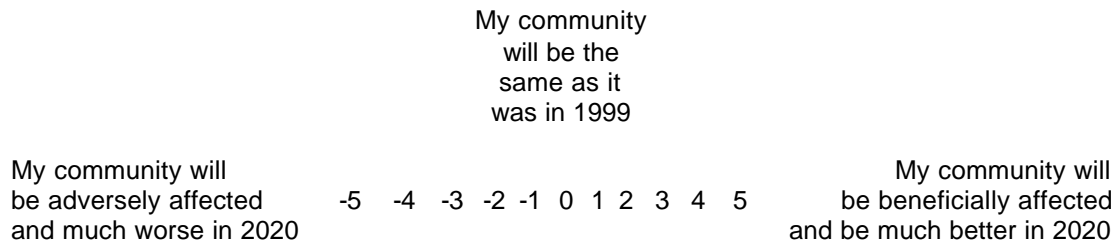
### 2.4.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and

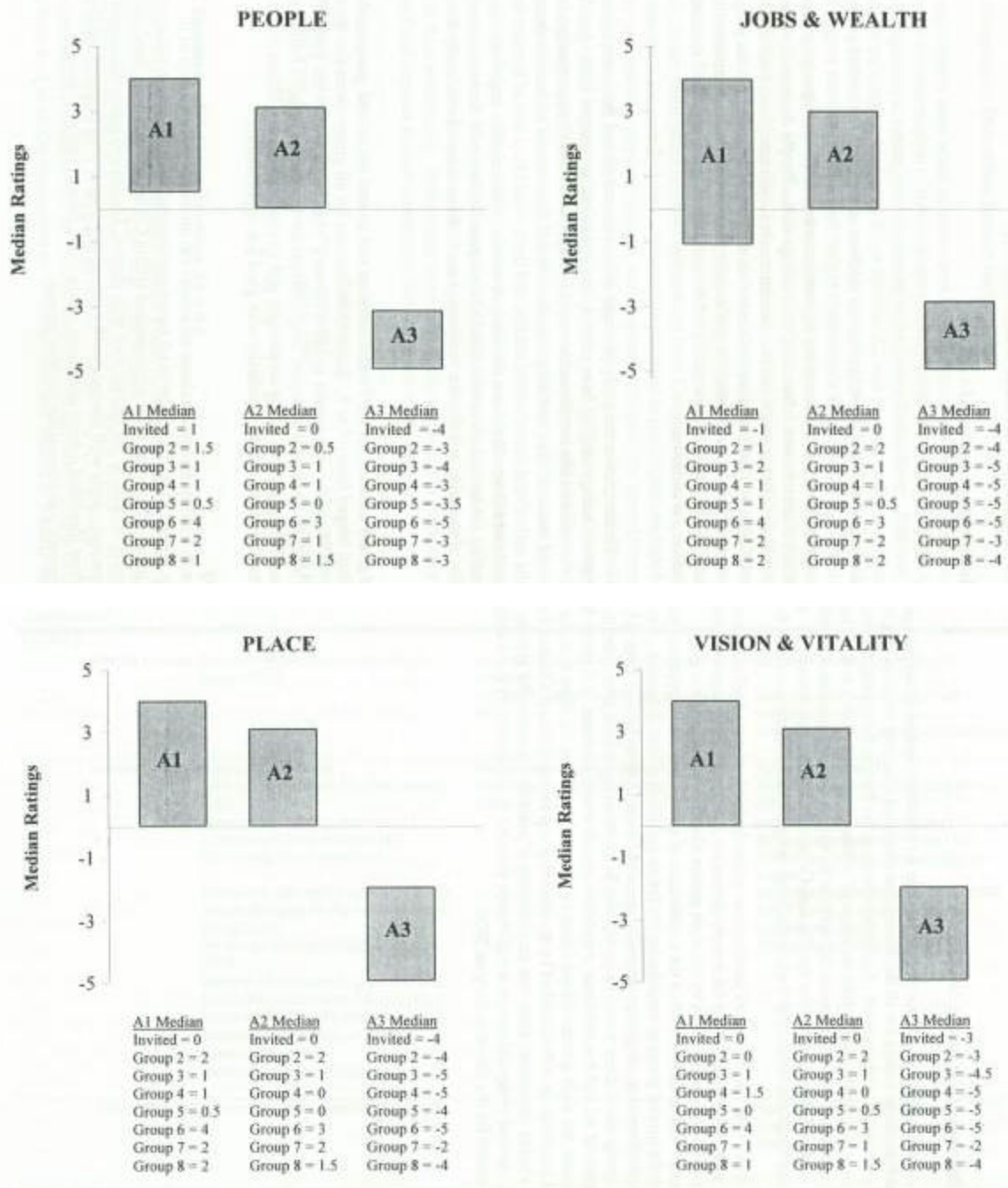
economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid-point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus only on adverse and beneficial impacts to their community and not to the entire region.



### 2.4.5.2 - Summary of Pathway Findings A1 - A3

As Figure 2-8 presents, across the eight groups forum participants perceived that the situation for their community would be better in the year 2020 for each of the dimensions under A1. The range of medians across the eight facilitated groups for A1 ranges from a -1 in the Jobs & Wealth dimension to a high of 4 across all the dimensions. For A2, the range of group medians across dimensions extends from 0 to 3 within each of the dimensions. Group medians for A3 ranged from a -5 in all the dimensions to -2 in the Place and Vision & Vitality dimensions. The degree of clustering within A1, A2, and A3 across community dimensions remained relatively constant except in the assessment of Jobs & Wealth under A1.



**Figure 2-8. Median scale ratings of Pathways A1, A2, and A3, for Colfax, Washington by community dimension, across groups.**



### **2.4.5.3 - Rating Justifications Across A-1 to A-3**

#### **2.4.5.4 - Pathway A1**

*People* Within the People dimension, the clustering of group medians was around the invited group rating of 1, with one group rating people significantly higher. Individual responses ranged from -3 to 5. As presented in Table 2-8, the clustering of justifications that the eight groups perceived to be the most salient characteristics influencing their ratings of the People dimension were that the community would not change much and that current trends would continue. Additional justifications identified by the invited group indicates that the People dimension in the year 2020 will be better in terms of job opportunities, but that an aging population, lack of opportunities for young people, decreasing population, decreasing school enrollment and high public assistance would adversely affect the community.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, the group medians did not cluster around the invited group's rating of -1 with group ratings ranging from -1 to 4. Individual ratings ranged from -4 to 5. Those characteristics consistently mentioned across all groups were that job opportunities in and around Colfax would increase. The invited group also felt that there would be some industry growth but that the agricultural sector would decline and there would be a loss of farmers and increasing farm sizes which would mean a declining economy. Additionally, negative justifications given by the invited group was that Colfax's population would decrease as many jobs are outside the community and that the economic base of the area could decline by the year 2020.

#### *Place*

The clustering of group medians for the Place dimension was around the invited group median of 0. Individual ratings ranged from -4 to 5. Salient justifications for all groups were that Colfax would improve ("will have the opportunity to move forward") but that that it would generally remain the same place as its current situation. Justifications for the invited group's ratings also focused on the positive appearance of the community and its residential areas, access to good recreation opportunities and a stable population with good job opportunities.

#### *Vision & Vitality*

Lastly, the Vision & Vitality dimension clustered around the invited group's median of 0. Individual ratings ranged from -1 to 5 across all forum participants. Participants in the invited group perceived there to be strong civic organizations within Colfax yet they were concerned with adverse impacts because of not coping well with change. The invited group was divided on how well the community deals with change but did concur that they are not prepared for the future. Other groups identified a more optimistic vision of the future ("better chance of economic development") as reasons for positive ratings.

**Table 2-8  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Colfax, Washington,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Current trends will continue/little/no impact (325)	Current trends will continue/little/no impact (325)	Decreasing/low population (42)
		Increased industries/good job opportunities (491)	Loss of industries and lack of job opportunities (492)
			Unstable/poor/decreasing economy (542)
Invited Groups	Aging population (2)	Decreasing/low population (42)	Aging population (2)
	Lack of opportunities for young people (11)	Recreation/tourism is important (positive) (441)	Lack of opportunities for young people (11)
	Increasing number of retirees (21)		Increasing number of retirees (21)
	Decreasing/low population (42)		Decreasing school enrollment (72)
	Decreasing school enrollment (72)		Current trends will continue/little/no impact (325)
	Increasing/high public assistance (112)		Increased/high traffic congestion (432)
	People changing for the worse/negative change (312)		Loss/change in recreation/tourism opportunities (442)
	No change in people/little/no impact (313)		Businesses suffer (512)
	Stability of community (general) (323)		
	Small town charm/rural lifestyle (421)		
	Increased/high traffic congestion (432)		
	Increased industries/good job opportunities (491)		
	Increasing development (511)		

Other Groups	Increasing/high population (41)		Increasing/high public assistance (112)
			People changing for the worse - negative change (312)
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Same/no change (245)	Decreasing job opportunities (general) (18)
			Jobs decrease due to the ripple effect of agricultural losses (26)
			Increased utility rates (86)
			Increased costs of doing business (88)
			Shrinking agriculture/mining/timber base (135)
			Declining economy (162)
			Decreasing property values (202)
Invited Groups	Decreasing agriculture jobs (22)	Increasing construction-related jobs (17)	Devastate dryland farming (108)
	Increased tourism and recreation jobs (38)	Shrinking agriculture/mining/timber base (135)	Agriculture-based economy (143)
	Commuting (general) (61)	Population growth (207)	Struggle to keep head above water (165)
	Declining farm prices (100)		Decreased wealth (181)
	Decreasing farms and increasing farm size (109)		Decreased wealth (181)
	Rely on river transportation system (112)		Increasing unemployment (195)
	Low economic diversity (122)		
	Resource tourism and amenity recreation growth (127)		
	Shrinking agriculture/mining/timber base (135)		
	Declining economy (162)		
	No effect on economy (168)		
	Jobs and wealth will change regardless of pathways (182)		
People will leave (206)			

Other Groups	Low utilities (79)	Increasing job opportunities (general) (10)	Increasing transportation cost (75)
	Strong/growing economy (157)	Short-term and temporary jobs (37)	Declining/limited business and shops (136)
			Tax base down (172)
<b>Place</b>			
Across All Groups	Community improvement (general) (721)	Maintain status quo, no change (841)	Increasing store vacancies (521)
	Maintain status quo, no change (841)		Poor roads, highways, and community infrastructure (623)
Invited Groups	Expanding residential areas (541)	Economic growth and stability (731)	Poor/decreasing social services (570)
	Community character is good (566)		Lack of transportation facilities (602)
	Require access to new technology (583)		Traffic congestion/increased traffic (603)
	Recreation and tourism (general) (660)		Negative impacts on the number of farms and farm families (642)
	Increase in jobs (747)		Decreased opportunities for parks and open spaces (668)
	Stable population (830)		Increased cost of living (742)
			Decrease in jobs (748)
			Decreased income/increased poverty (751)
			Increasing population (821)
Other Groups			Increased income stratification (825)
			Poor economy (740)
			Ruin of community, complete negative community change (844)

Vision and Vitality			
Across All Groups			Reduced, pessimistic visions of the future (384)
			Negative economic opportunities (582)
Invited Groups	Strong, active civic organizational capacity (11)	No real change in cohesiveness (363)	Civic organizational decline (14)
	Cope well with change (361)	Prepared for the future (381)	Civic organizational improvement (15)
	Do not cope well with or resist change (362)		Leadership decline (124)
	Not prepared for the future (382)		Decreasing social stability (309)
	Impacts of changing demographics (886)		Strong/high level of community participation (work together) (561)
			Lack of community involvement in community affairs (562)
			Impacts from traffic (872)
			Outmigration of population (892)
Other Groups	No real change in cohesiveness (363)		Lack of planning and the ability to plan for the future (404)
	New, optimistic visions of future (385)		

#### 2.4.5.5 - Comparison of Pathway A1 to A3

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all the dimensions remained relatively constant (Figure 2-8) with a slight convergence downward. For group ratings in the People dimension, the invited group median remained the same while the range of medians clustered from 3 to 0. Likewise the invited group median remained constant for the Jobs & Wealth dimension under A2 with a range of medians clustering from 3 to 0. For the Place and Vision & Vitality dimensions, the invited group medians remained constant at 0 while the upper range of the medians decreased to 3.

As presented in Table 2-8, the salient justifications under the implementation of A2 generally was similar to those given in A1 for the People dimension continuing along current trends. Other important justifications given by the eight groups identified an increase in job opportunities as well as factors such as the continuance of current recreation opportunities identified by the invited group in considering the future condition of this dimension. For the Jobs & Wealth dimension, all groups generally perceived

there to be no change from A1 to A2. The invited group added there would be an increase in construction-related jobs from the implementation of A2 and that moderate population growth would continue. Likewise, for the Place dimension, the eight groups did not foresee a change from A1 to A2 other than the factor of increased economic growth identified by the invited group for condition of Colfax. For the Vision and Vitality dimension, there was no clustering of justification across the groups, however, the invited group did not see a real change from A1 to A2 other than that Colfax would be better prepared for the future in the year 2020.

#### **2.4.5.6 - Comparison of Pathway A1 to A3**

Under the implementation of A3, the change between A1 clustered median group ratings and A3 clustered median group ratings decreased towards the adversely affected end of the rating scale with group medians from -3 in the Vision & Vitality dimension to medians of -4 across all the other dimensions (Figure 2-8). The range of median group ratings within each dimension also decreased, indicating a convergence of ratings under A3. In other words, there was a greater consensus across groups about the level of the negative impact.

##### *People*

For the People dimension, group medians clustered around -4. Individual ratings ranged from 0 to -5. Table 2-8 shows the shift in salient justifications under the implementation of A3. These include a forecast decrease in job opportunities and that businesses would suffer within an unstable or poor economy which in turn would adversely affect Colfax's population base ("population would decrease as many farmers would be out of business and only larger farms would be left"). Additionally, the invited group also felt that the community would be less attractive to new residents because of the loss of recreational opportunities associated with the implementation of A3. Other groups noted that people would change for the worse because "they will have much more stress."

##### *Jobs & Wealth*

For the Jobs & Wealth dimension, group medians clustered around -4. Individual ratings ranged from 2 to -5. Justifications for these ratings clustered around decreasing job opportunities within an agriculturally based economy. Other justifications provided by the eight groups was the adverse affects associated with increase utility rates, increased costs of doing business as a result of A3 and a "drop in property values as farm consolidation in surrounding land takes place." Specifically, the invited group felt that the implementation of A3 would devastate dry land agriculture in the area and that there would be less wealth in Colfax with higher unemployment rates. Justifications given by the other groups added that the community's tax base could decrease under this Pathway, transportation costs could increase and Colfax could lose businesses by the year 2020.

##### *Place*

For the Place dimension, individual ratings ranged from 1 to -5 with the group medians clustered around -4. Justifications across all groups clustered around a poor infrastructure within Colfax and a loss of businesses in part "due to the 5-10 year time for recreation to return to the river." Additionally, the invited group focused on

characteristics such as poor transportation services, increased traffic congestion, poor social services, decrease in jobs and a loss of parks and open spaces to justify their low ratings. They also felt that there would be less income in the community and fewer farms and farm families yet the cost of live would be higher. Alternatively, others felt that population could increase in the year 2020 but that there would be an increase stratification between income levels.

### *Vision & Vitality*

For the Vision and Vitality dimension, group median ratings clustered around -3. Individual ratings ranged from 3 to -5. All groups' justifications clustered around a reduced and pessimistic vision for the community of Colfax ("transition will result in less vision for the future") in the year 2020 with negative economic opportunities. With the implementation of A3, the invited group and the other groups felt that community leadership would decline and civic organizations would have decreased organizational capacity with a lack of community involvement. However, it was also noted that civic groups could become stronger and that there would continue to be good community participation ("will continue as a positive force to deal with community problems"). Other factors the groups saw as adversely affecting Colfax was a general lack of planning or ability to plan for the future because "plans that have been made will be obsolete."

### **2.4.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Colfax across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally identified regional issues that needed to be addressed to minimize the low probability of anadromous fish recovery. They felt that the harvesting of salmon within the river system as well as in the ocean should be further addressed and that additional efforts should be taken to improve water quality and habitat conditions. They also felt that there should be more localized control of the river to protect long-term river transportation interests. Additionally, many participants felt that the Endangered Species Act needs to be amended and that the costs of salmon protection should be spread out over the entire country.

Under the implementation of A2, forum participants felt in addition to the regional steps that should be taken in A1, there should be a continued search for more effective modifications to the four lower Snake River dams to increase salmon survival. Given the apparent uncertainty associated with system modifications, the least cost Pathways should be implemented first. However, participants also acknowledged that responsibility should be taken if modifications to the river system are unsuccessful. Colfax participants suggested that the local effects of the short-term increase and decline in population, school enrollment, housing, and roads should be mitigated although specific measures were not given.

Under the implementation of A3, forum participants noted that Colfax would require an improved transportation system with increased rail and highway access, increased grain storage facilities, federal funding for infrastructure modifications, decreases in road taxes, and decreased regulations on trucks. Other examples identified by participants were a need to put fewer restraints on the federal CRP program to allow for more agriculture acreage to be enrolled in the program. They also felt that there would need to be a strengthening of social services in the community to handle increased stresses and health problems associated with adverse impacts from implementing A3 as well as job retraining programs, incentives for business development, and re-education of unemployed workers.

## **2.5 - Enterprise, Oregon, Community Assessment**

### **2.5.1 - Summary of Community Ratings**

Enterprise, Oregon, is a town of about 2,000 people located in a valley just to the north of the scenic Eagle Cap Wilderness Area in the Wallowa Mountains of northeastern Oregon. The town of Enterprise has always been dependent on multiple natural resources. From its inception in 1887, agriculture, forestry and nearby mining have always been important to the community's economy. In recent years, the town has shifted from being primarily an agriculture center to a more diversified center of government (local and federal) and tourism. Today, its agriculture heritage remains important to the community.

Enterprise is up-river from the four Lower Snake River dams and could potentially see an increase in salmon in nearby streams if salmon populations were increased. For the most part, the community's farmers send their products to market by truck and rail, so they are not dependent on the Snake River for transportation. They perceive that improved transport facilities (truck and rail) in the region would very likely benefit them. Residents of Enterprise currently view their town as part of an emerging tourist destination that includes Joseph, Oregon, another small town some miles away. Many participants noted that the two communities, together with the area's surrounding farm and ranchlands, were becoming increasingly inseparable and interconnected as a rural tourism destination. This area is a gateway to the Eagle Cap Wilderness and the Hell's Canyon National Recreation Area.

Participants in the forum at Enterprise depicted their town's current situation in 1999 as being somewhat positive, but their optimism about the community is guarded. They reported concerns over the continued transition of Enterprise from a center of rural farming to one for rural tourism and government activities and jobs. For many participants, no higher quality setting than the Enterprise area exists for living and bringing up their family. These same values are attracting retirees who bring new money, values and energy into the community. Jobs and wealth are the biggest concern of participants. There is a feeling that poor job opportunities, shrinking numbers of government jobs and low paying jobs are all taking a toll on the community. High technology firms, the recreation and tourism industry, and retirees with cash are all seen as potential sources for improving the economic condition of Enterprise.



The forum participants expressed guarded optimism toward all three pathways. They were uncertain as to whether or not their community would really be beneficially or adversely affected by the proposed pathways. Under Pathway A1, the median rating for the invited group was a -1 on all four dimensions, indicating that these participants perceived that the community would be slightly worse off and adversely affected if the current situation was maintained into the future. Not much difference was found for the second group, although it was slightly more positive in its forecast, or saw no real change resulting under A1. Likewise, not much difference in impacts were indicated between Pathways A1 and A2, except for a fairly positive assessment of the second group on the Vision & Vitality dimension.

Participants were often at least as concerned about regional level effects under Pathway A3 as they were about impacts on their local community. Median ratings for both groups clustered around 0 on the Place dimension and -1 on the Vision & Vitality dimension. The most consistently rated negative impact was reported for the effects on the economy (a moderately adverse rating of -2 on the Jobs & Wealth dimension). For some participants, A3 provided the possibility of more salmon as yet one more enhancement to the recreation and tourism economy the community is trying to build. For others, the idea of dam breaching was too extreme, and concerns for fellow farmers and ranchers made A3 difficult to embrace.

The mitigation ideas for Pathways A1, A2, and A3 all included major regional efforts further supporting the contention that regional effects are perceived to be as important for Enterprise as potential beneficial and adverse community effects. If A3 is implemented, forum participants at Enterprise perceive that they will need grants and loans to manage and more effectively develop fishing related tourism.

Enterprise participants noted that their community will continue to change regardless of which pathway is implemented. Their greatest concern is over how best to maintain their high quality of life and all the positive characteristics of community associated with it. If the selection of a particular pathway enhances or further protects the quality of life and economic livelihood of the Enterprise area, it is likely to be supported.

### **2.5.2 - Interactive Community Assessment Participants**

Twenty-seven forum participants interacting in two facilitated groups provided perspectives on the current (1999) situation in the community of Enterprise. The overall diversity index rating for participants was .86 (on a scale from 0 to 1.0), meaning that 12 of 14 pre-selected community roles were present at the forum. Of the total number of participants completing the sign-in questionnaire, 25 percent were employed in agriculture, 19 percent were retired, 13 percent were biologists and the remaining (less than 10 percent per category) were employed in a variety of other occupations engineering, forestry, education, health care, outfitting and guiding, news media, and office management.

### 2.5.3 - Community Background

Enterprise, Oregon, is a town of about 2,000 people located just to the north of the scenic Eagle Cap Wilderness Area in the Wallowa Mountains of northeastern Oregon. This area is a watershed that empties into the Snake River, and restoration of salmon runs could potentially result in the return of the salmon to the region's waterways.

Enterprise was established in 1887. In 1908 the railroad was linked to the town and provided an important transportation mode for shipping its agricultural products to market. A focus on forest planning, endangered species (Nez Perce Salmon Habitat Recovery Plan, bull trout listing, etc.), bronze factories and fine arts characterized the 1970s. After a significant decline in population in the 1960s, the town rebounded to a high of nearly 2,000 by 1995. The railroad was abandoned in the 1980s and the Boise Cascade mill closed at the same time that Lewiston was providing a new transportation node to the area through its port facility. During the 1990s, \$135,000 in Community Development Block Grants was awarded to Enterprise. In 1995, the town had developed a fairly diversified economy that included government, agriculture, travel and tourism, construction and manufacturing, and mining among its major employers. The Enterprise/Joseph Area continues to work hard to identify itself as a tourist destination and to enhance its reputation as a center for arts and crafts, especially sculpture.

### 2.5.4 - Community Assessment of 1999 Situation

#### 2.5.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The "1999 situation" rating scale was used by participants from Enterprise to rate the current (1999) situation for the following community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed, forum participants were asked to rate the extent to which their community situation was good or bad for each of the four dimensions and to write justifications for each of their numerical ratings.

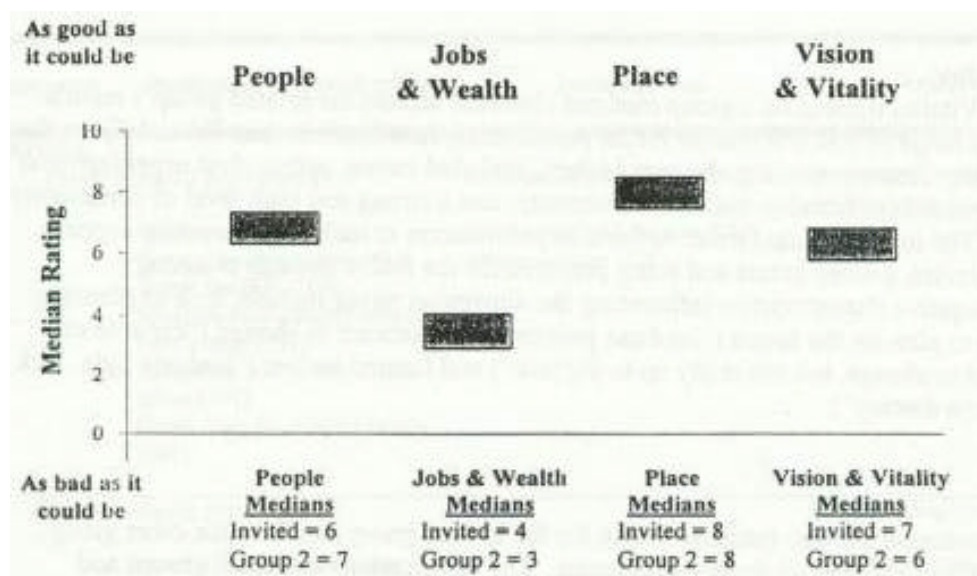
In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

#### 2.5.4.2 - 1999 Situation: Ratings

As Figure 2-9 presents, the range of medians across the four community dimensions for the two facilitated tables of community members working in interactive small groups at the forum (hereafter, "groups") was from 3 on the Jobs & Wealth dimension, to 8 on the Place dimension. Specifically, the 2 groups perceived the Place dimension as being most oriented towards the *as good as it could be* community situation and the Jobs &

Wealth dimension as being most oriented towards *as bad as it could be* community situation. The other two community dimensions, People and Vision & Vitality, were perceived by the groups to be more central, having more of a mix of positive and negative characteristics.

In the case of Enterprise's four community dimensions, the difference between the invited group's median and that of the other facilitated groups was within one point on the 10 point current situation rating scale. This clustering of group medians demonstrates that for the dimensions assessed, each group independently came to similar conclusions about the relative goodness or badness of their community's People, Jobs & Wealth, Place and Vision & Vitality dimensions. This replication indicates participants' perceptions of these dimensions for their community's current situation are very similar.



**Figure 2-9. Median scale ratings of the current (1999) situation in Enterprise, Oregon, by community dimension, across groups.**

#### 2.5.4.3 - 1999 Situation: Rating Justifications

Table 2-9 presents the clustering of justifications for the four facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Group'. Finally, justifications noted by the other group are categorized 'Other Group'.

##### *Place*

On the 10-point current situation rating scale the group medians for the Place dimension clustered around the invited group's median rating of 8, with a range of 5 to 10 across all forum participants. As presented in Table 2-9, the clustering of responses across all groups shows that positive items like good parks and open space, good air and water quality, attractive scenery, and a strong sense of place/heritage/morale and community ("Sense of place, people love it here, want to stay") along with good public and social services and a crime-free community are the dominant justifications for the Place

dimension's high median rating of 8. These characteristics support the high rating in spite of less desirable or negative qualities such as increasing store vacancies, negative impacts on the number of farms and farm families, increased cost of living, *etc.* Other distinct characteristics not mentioned by all groups but by the invited group included good improving community appearance and the close-knit community feeling.

### *Vision & Vitality*

The Vision & Vitality dimension's group medians clustered around the invited group's median rating 7, with a range of 3 to 9 across all forum participants. Justifications (see Table 2-9) for the Vision & Vitality dimension rating, the next highest, included strong, active civic organizational capacity and leadership; friendly, sociable community; and a strong and high level of community participation. The invited group further defined its justification to include community support for bonds and levies, getting grants and being prepared for the future through planning. Examples of negative characteristics influencing the dimension rating include, lack of planning and the ability to plan for the future ("land use problems"), resistance to change ("capable of seeing the need to change, but not really up to the task") and limited budget ("budgets tight, lack control over own destiny").

### *People*

The People dimension's group medians were 6 for the invited group and 7 for the other group, with a range of 3 to 9 across all forum participants. The justifications across all groups and additional ones from the invited group show the rating for the People dimension is based on positive characteristics such as aging population ("an aging population may have benefits"), stable population and stable families, and a somewhat common set of prevailing social values, customs, and lifestyles ("strong community pride" and "...honesty, reliability, supportive of institutions"). Justifications lessening the rating score of the People dimension include aging population (negative aspects like less youth), families becoming less stable ("not higher because young families are down & more transient people" and "families can't stay together, economy affects the return of young people") and the increased dependence on public assistance (see Table 2-9).

### *Jobs & Wealth*

The Jobs & Wealth dimension was rated substantially lower and oriented the most towards the *as bad as it could be* community situation than the other dimensions (see Figure 2-9). The invited group's median rating was 4 and the other group rated it 3, with a range of 2 to 6 across all forum participants. No positive justifications emerged from both of the facilitated groups. Instead, numerous negative characteristics from both groups justify the low median rating. These justifications include poor job opportunities--especially for the youth, low paying jobs, low economic diversity and negative impacts associated with public sector jobs ("too many public sector jobs" and "economy too dependent on public sector jobs" especially with government cutbacks). These negative characteristics support the low rating in spite of the more positive qualities mentioned by the invited group (see Table 2-9) such as increasing job opportunities, an expanding economic base, increasing high tech related jobs ("increasing diversity through arts and internet-related jobs"), and like retirees ("attracting affluent, educated retirees").

**Table 2-9  
Rating Justifications for the Current (1999) Situation  
In Enterprise, Oregon,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Aging population (2)	Good extended families (101)	Supportive of community activities and involved (241)
	Stable population (43)	Few homes/land for sale (171)	
	Good prevalent values (61)	Above average (321)	
	Many/most/increasing people own homes (151)		
	Safe place to live with low crime (191)		
	Good, friendly, helpful people (201)		
Negative	Aging population (2)		Increasing/high public assistance (112)
	Families are becoming less stable (102)		Unstable/poor/decreasing economy (542)
	Ethnic diversity is low/decreasing (302)		
Other Groups	Customs and lifestyles (general) (59)	Population (general) (48)	
	Families (general) (109)		
<b>Jobs and Wealth</b>			
Positive		Good job opportunities (2)	
		Increasing job opportunities (general) (10)	
		Increasing high tech-related jobs (40)	
		Economically diverse (121)	
		Expanding economic base (125)	
		Stable wealth and poverty levels (178)	
		Like retirees (215)	

Negative	Poor job opportunities (3)	Low employment for youth (6)	High poverty (183)
	Low paying jobs (31)	Youth leave community (209)	Lack of middle income jobs and families (189)
	Negative impacts associated with public sector jobs (45)		High unemployment
	Low economic diversity (122)		
	High property values (198)		
Other Groups		Public sector jobs (general) (44)	
<b>Place</b>			
Positive	Good parks and open space, public lands (667)	Good/improving community appearance (511)	Good quality of life (901)
	Strong sense of place/heritage and community (670)	Low traffic congestion (599)	
	Attractive scenery (771)	Close-knit community with many activities/cohesive (700)	
	Good air and water quality (780)		
	Safe and crime free (902)		
Negative	Increasing store vacancies (521)	Appearance needs improvement (516)	Poor economy (740)
	People shop elsewhere due to lack of businesses (522)	Loss of railroad transportation (605)	
	Negative impacts on the number of farms and farm families (642)	Increased cost of living (742)	
Other Groups	General public and social services (560)		

Vision and Vitality			
Positive	Strong, active civic organizational capacity (11)	Civic organization improvement (15)	Strong, cohesive community (341)
	Active, strong leadership (121)	Strong, active civic leadership (41)	
	Numerous, varied, good, or improving social activities (301)	Strong, active, astute political leadership (81)	
	Friendly, sociable community (305)	Support and ability to support bonds and levies (181)	
	Strong and high level of community participation (561)	Successful at getting and using grants (241)	
		Prepared for future (381)	
		Planning and plans exist, good base for the future (403)	
		People are adaptable (505)	
Negative	Don't cope well with or resist change (362)	Lack of planning and the ability to plan for the future (404)	Not prepared for the future (382)
	Lack of community control of outside forces (economics/regulations) (442)		
	Limited budget (482)		

## 2.5.5 - Comparison of Salmon Recovery Pathways A1 - A3

### 2.5.5.1 - Community Dimensions Impact Rating Scale

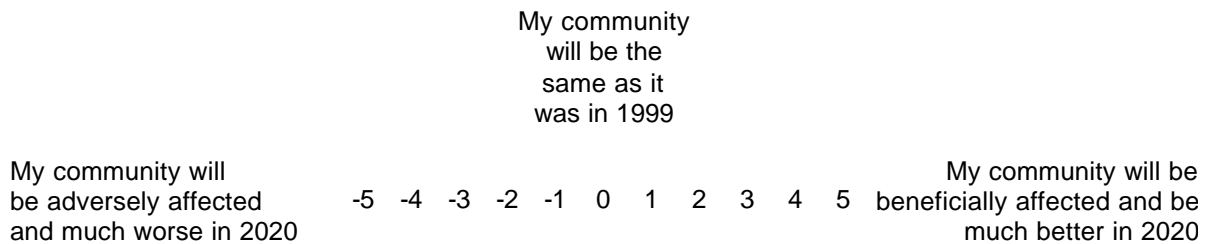
Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking

about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

Following the presentation of a description of a pathway and associated impacts, and a small group discussion, forum participants were asked to rate the adverse or beneficial effects to their community for each of the four dimensions and to write justifications for each of their numerical ratings. This process was repeated three times, once for each of the proposed pathways.

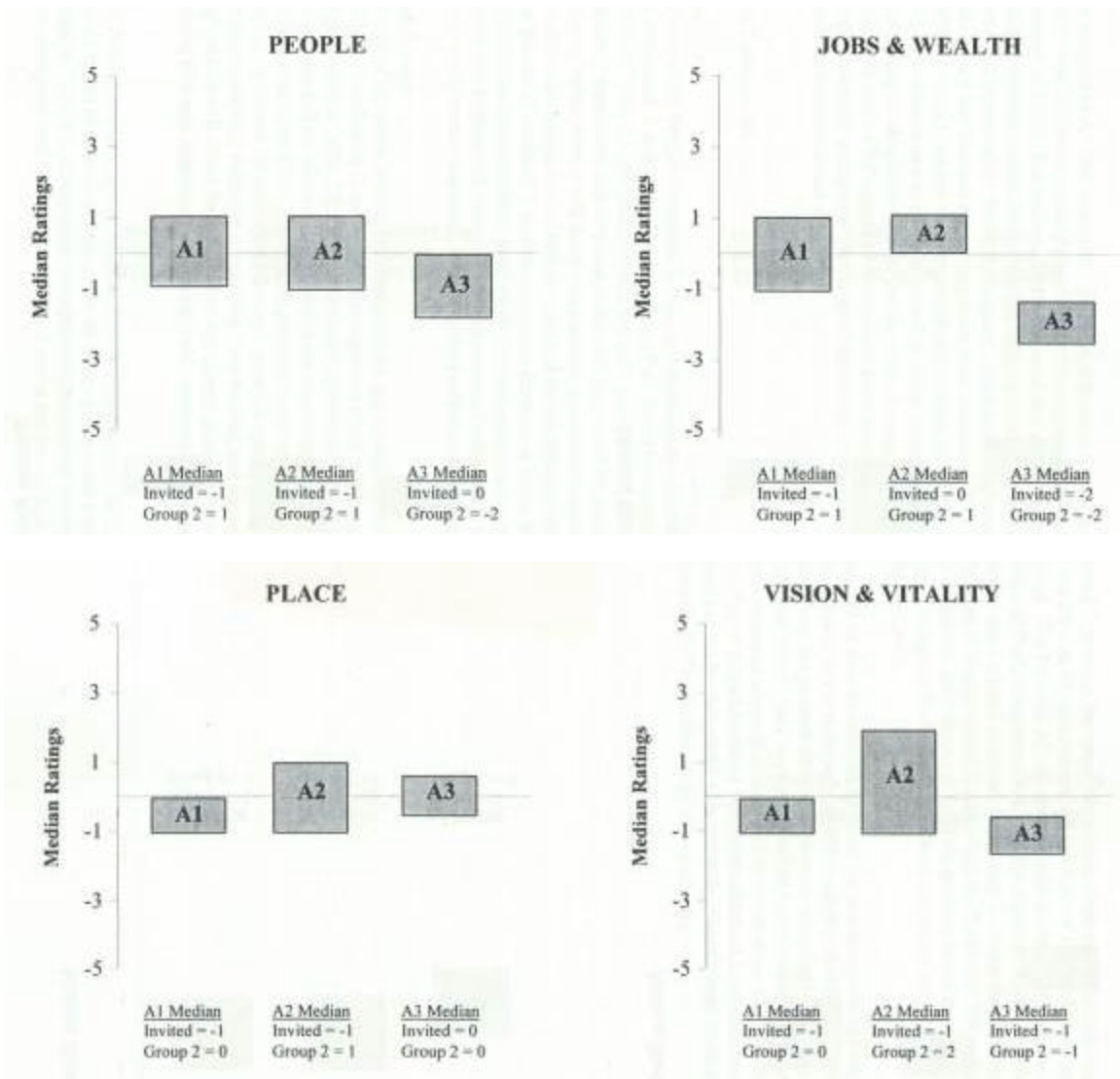


### 2.5.5.2 - Summary of Pathway Findings A1 to A3

As Figure 2-10 presents, the range of group medians across all dimensions for Pathway A1 goes from a low of -1 in all four dimensions to a high of 1 in the People and Jobs & Wealth dimensions. For Pathway A2, the group medians across dimensions range -1 on the People, Jobs & Wealth and Place dimensions to a 2 on the Vision & Vitality dimension. The invited group consistently rated A1 and A2 lower than group 2. Group medians for Pathway A3 ranged from a -2 in the Jobs & Wealth dimension to a 0 in the People and Place dimensions. The Vision & Vitality dimension for Pathway A2 had the greatest spread in rating (-1 to 2) between groups, and in three instances for Pathway A3 the group ratings were identical -- Place, Vision & Vitality and Jobs & Wealth.



In the case of all four dimensions, Pathway A2 was perceived as being a situation where Enterprise would be the same as it is 1999 or slightly beneficially affected in 2020. In the case of A3 there was the greatest similarity between the ratings of the two groups. Pathway A3, for all dimensions except Place, was perceived as being a situation where Enterprise would be somewhat adversely affected in 2020 and therefore worse off. Unlike most other communities studied in Phase 1, the adverse or beneficial effects on Enterprise were perceived by the participants not to be substantial as is shown by the relatively small movement on the impact scale from the 1999 situation for all three pathways.



**Figure 2-10. Median scale ratings of A1, A2, and A3, for Enterprise, Oregon, by community dimension, across groups.**

### **2.5.5.3 - Rating Justifications Across Pathways A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons (justifications) and changes underlying them were examined. The impact rating scale used ranged from -5 to 5, where -5 is adversely affected and be much worse off in 2020, and 5 is beneficially affected and be much better off in 2020. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of the clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.5.5.4 - Pathway A1**

#### *People*

In the case of the People dimension for A1, group medians ranged from -1 to 1, with an invited group median of -1 and individual responses of all forum participants ranging from -3 to 3. As presented in Table 2.5, the justifications for these ratings for 2020 across all groups were aging population ("population will continue to age and that could be positive") and increasing number of retirees ("more retirees will bring more outside generated income"), the perception that current trends including loss of industry and lack of job opportunities ("existing farmers/ranchers will be put out of business"), and the continued decrease in farms and farm size will continue along with other characteristics listed by the invited group such as customs and lifestyles ("customs and culture will change") and supportive of community activities and involved ("People would remain the same. Increases number of retirees, still community involvement").

#### *Jobs & Wealth*

In the case of the Job & Wealth dimension for A1, group medians ranged from -1 to 1, with an invited group median of -1 and individual responses of all forum participants ranged from -2 to 4. As presented in Table 2-10, the clustering of responses across all groups shows that items such as low utilities and no effect on the economy are important determinants of participants' ratings of their community in 2020. Beyond the perception across all groups the invited group's listed such things as follows to justify their ratings: poor job opportunities and low paying jobs which in part drive away the youth; poor economy; less hunting and fishing ("decrease in steelhead fishing") which will affect the potential of the current growing recreation and tourism economy (increasing jobs and employees in tourism); and constraining government regulations.

*Place*

For the Place dimension, group medians for A1 ranged from -1 to 1, with an invited group median of -1 and individual responses for all forum participants ranged from -2 to 3. As presented in Table 2-10, characteristics consistently mentioned across all groups were negative impacts associated with fish decline of which one is the loss of fish lessening the sense of place, and maintain the status quo, no change. To these justifications for the perceived 2020 situation, the invited group added community appearance will remain the same, increasing store vacancies, negative impacts of changing land use patterns, loss of agricultural lands and associated agricultural lifestyle and character, increased government regulations and decreased local control and poor economy. They also included positive justifications for their rating of their community in 2020. Two that stood out were good parks and open spaces, public lands and a healthy environment/"great outdoors."

*Vision & Vitality*

In the case of the Vision & Vitality dimension for A1, group medians ranged from -1 to 0, with an invited group median of -1 and individual responses of all forum participants ranged from -5 to 3. As presented in Table 2-10, characteristics consistently mentioned across all groups were that 1999 trends would continue. In other words, there would be no real change from today, community cohesiveness would not change and political and organizational leadership would remain. However, the invited group added the following more negative justifications for their ratings, loss of community cohesiveness, lack of community control of outside forces, reduced budget, and a lack of community involvement in community affairs. Overall, there was a great deal of pessimism about Enterprise’s future under Pathway A1 (maintaining the current hydro-system).

<b>Table 2-10</b> <b>Comparison of Rating Justifications For Pathways A1, A2, and A3</b> <b>For Enterprise, Oregon,</b> <b>By Community Dimension and Type of Group</b>			
<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Aging population (2)	Current trends will continue/little/no impact (325)	Decreasing/low population (42)
	Increasing number of retirees (21)	Unstable/poor/decreasing economy (542)	People changing for worse/negative change (312)
	Current trends will continue/little/no impact (325)		Increased utilities, transportation, and taxes; decreased irrigation, loss of power (482)
	Loss of industry and lack of job opportunities (492)		

Invited Groups	Decreasing/low population (42)	Aging population (2)	Aging population (2)
	Customs and lifestyles (general) (59)	Increasing number of retirees (21)	Increasing/high population (41)
	Decrease in farms and increase in farm size (156)	Customs and lifestyles (general) (59)	Increasing/high public assistance (112)
	Supportive of community activities and involved (241)	Decrease in farms and increase in farm size (156)	Low income influx (115)
	Government involvement (general) (259)	Increased community vitality and attachment (231)	Stability of community (general) (323)
		Declining fish populations/ listed (462)	Current trends will continue/ little/no impact (325)
			Recreation/tourism is important (general) (441)
			Stable economy (543)
Other Groups	Increasing/high population (41)	Stable families (103)	Unstable/poor/decreasing economy (542)
	Stability of community (general) (323)		
<b>Jobs and Wealth</b>			
Across All Groups	Low utilities (79)		Low paying jobs (31)
	No effect on economy (168)		Increasing utilities (73)
	Stable property values (203)		Increasing transportation costs (75)
			Negative economic impacts with loss of water/lake (90)
			Increased fishing (129)
			Decreasing wealth (181)

Invited Groups	Poor job opportunities (3)	Increasing construction-related jobs (17)	Decreasing agricultural jobs (22)
	Low paying jobs (31)	Decreasing agricultural jobs (22)	Increasing transportation costs (75)
	Resource tourism and amenity recreation growth (126)	Increased utility rates (86)	Increased utility rates (86)
	Decreasing wealth (181)	Increased cost of doing business (88)	Increased cost of doing business (88)
	High property values (198)	Resource tourism and amenity recreation growth (126)	Resource tourism and amenity recreation growth (126)
	Youth leave community (209)	Stable economic base (139)	Loss of recreation and tourism-related businesses (134)
	Less hunting and fishing (229)	Stable wealth and poverty levels (178)	Economically dependent on waterway, river (149)
	Constrained by government regulations (951)	Increasing wealth (180)	Decreasing income/wages (33)
		Less hunting and fishing (229)	Increased cost of living (85)
		No change (245)	
		No advantage over pathway #1 (247)	
		Constrained by government regulations (951)	
	Bad for community (956)		
Other Groups	Increasing job opportunities (general) (10)		
<b>Place</b>			
Across All Groups	Negative impacts associated with fish decline (811)	Poor economy (740)	Maintain status quo, no change (841)
	Maintain status quo, no change (841)	Maintain status quo, no change (841)	

Invited Groups	Community appearance will stay the same (514)	Increasing store vacancies (521)	Poor social services (570)
	Increasing store vacancies (521)	Negative impacts on the number of farms and farm families (642)	Traffic congestion/ increased traffic (603)
	Poor social services (570)	Close proximity to outdoor recreation opportunities (662)	Railroad will improve (607)
	Negative impacts of changing land-use patterns (634)	Poor/loss of recreation and tourism opportunities (666)	Poor roads, highways, and community infrastructure (623)
	Negative impacts on the number of farms and farm families (642)	Decline in sense of place and community pride (672)	Unsafe roads and highways (624)
	Increased restrictions on water use (656)	Economic growth and stability (731)	Negative impacts of changing land-use patterns (634)
	Poor/loss of recreation and tourism opportunities (666)	Decreasing population (823)	Stable number and size of farms (641)
	Good parks and open spaces, public lands (667)	Decline in property values and tax base (882)	Decreased number of farms and increased farm size, absentee owners, corporate farms (653)
	Decline in sense of place and community pride (672)	Increased government regulations and decreased local control (886)	Increase in recreation opportunities (661)
	Poor economy (740)		Loss of recreation and tourism (666)
	Decline in industries (745)		Community growth and improvement (general) (721)
	Healthy environment, perfect environment/"great outdoors" (775)		Poor economy (740)
	Increased survivability of fishing (807)		Positive impacts associated with fish recovery (808)
	Decline in property values and tax base (882)		Increased crowding (825)
Increased government regulations and decreased local controls (886)		Increased taxes, taxes wasted, competition for tax money (883)	
		Good quality of life (901)	
Other Groups	Attractive scenery (771)		

<b>Vision and Vitality</b>			
Across All Groups	No real change in cohesiveness (363)	No real change in cohesiveness (363)	No real change in cohesiveness (363)
Invited Groups	Political leadership and organization (general) (83)	Adequate, stable civic organizational capacity (13)	Increasing government expenditures (282)
	Loss of community cohesiveness (344)	Loss of community cohesiveness (344)	Loss of community cohesiveness (344)
	Lack of community control of outside forces (economics/regulations) (442)	Lack of community control of outside forces (economics/regulations) (442)	Increased community cohesiveness (345)
	Reduced budgets (484)	Reduced budgets (484)	Reduced budgets (484)
	Lack of community involvement in community affairs (562)	Lack of community involvement in community affairs (562)	Lack of community involvement in community affairs (562)
Other Groups	People are adaptable (503)	Decreasing/lack of community vision and vitality (602)	Stable jobs and wealth (723)
			Impacts of changing demographics (886)
		Negative impacts on vision and vitality with less fish (682)	

### 2.5.5.5 - Comparison of Pathway A1 to A2

There was little or no change between A1 and A2 median group ratings for three of the dimensions (see Figure 2-10). The greatest change in group medians across the A1 and A2 impact ratings (0 to 2) was for group 2 on the Vision & Vitality dimension. For several dimensions the participants stated that A2 had no advantage over Pathway A1. Most of the same justifications given for A1 ratings of Enterprise in 2020 on the four community dimensions were also listed for A2. In the case of the Jobs & Wealth dimension notable exceptions not listed in A1 but in A2 were increased utility rates, increased construction jobs and increased costs of doing business. For the Place dimension economic growth and stability and decreasing population were listed as justifications for A2 but not A1. When it comes to Vision & Vitality the one different justification listed for A2 and not A1 was negative impacts on vision and vitality with less fish. In general, A2 was not perceived to be much different than A1 in terms of beneficial and/or adverse effects participants projected would occur in their community in 2020.

### 2.5.5.6 - Comparison of Pathway A1 to A3

Under the implementation of A3, the change between A1 median group ratings and A3 median group ratings decreased slightly towards the adversely affected end of the rating scale with medians of 0 to -2 across all the dimensions (Figure 2-10). The range of median group ratings within each of the dimensions stayed the same or decreased relative to A1, indicating that there is a somewhat common perception of the magnitude of the effects that would occur from implementing Pathway A3. These ratings are some of the highest for A3 when compared to the other communities included in Phase 1 of this assessment.

#### *People*

For the People dimension, individual ratings across all forum participants ranged from -5 to 3 with an invited group median of 0. Justifications of participant's People dimension rating (see Table 2-10) under the implementation of A3 for 2020 not mentioned in A1 and A2 are as follows: increased utilities, transportation and taxes and decreased irrigation, loss of power; stability of community (declining social make-up, high public assistance, and low income influx). These negative characteristics are somewhat balanced by a perceived general community stability and an increase in recreation.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings across all forum participants ranged from -5 to 3 with an invited group median of -2. Justifications for forum participant's impact scale ratings not mentioned in A1 and A2 clustered around increasing transportation costs (particularly farm related), loss of farm jobs, increased utility rates, and negative economic impacts with loss of water/lake. The only positive justifications were increased fishing and resource recreation and amenity recreation growth and there was not agreement or whether recreation would actually increase or decrease.

#### *Place*

For the Place dimension, individual ratings across all forum participants ranged from -5 to 3 with both the invited group and the one other group having a median of 0. Table 2-10 shows the shift in justifications participant's rating under the implementation of A3 for 2020. Both groups forecasted no real change. In addition, the invited group perceived improved railroads, and community growth and improvement. The negative characteristics not previously mentioned, as justifications for the A1 and A2 ratings by the invited group were poor roads, highways and community infrastructure, unsafe roads and highways, and traffic congestion. The participants were mixed on whether recreation and tourism would be beneficially or adversely affected.



### *Vision & Vitality*

For the Vision & Vitality dimension, individual responses ranged from -3 to 3 with an invited group median rating of -1. Once again as in the case of all three pathways both groups suggested there would be no real change. The invited group (at least some members of it), on the other hand, felt that there would be increased community cohesiveness, stable jobs and wealth ("economic development will be more stable"), continued changes to the community's demographics ("farming community decrease will change demographics of community, lose rural feeling") and increasing government expenditures ("Federal government expenditures could increase").

## **2.5.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Enterprise across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally felt that, on a regional level, more should be done to improve salmon habitat, control predators, improve fishing regulations, and continue to work with hatcheries. Some participants noted the need to modify the ESA or to just declare the fish extinct. Suggestions also included the need to have better regional coordination on salmon recovery.

Under the implementation of A2, participants felt that in addition to the steps taken for A1, there should be modification of the four dams on the Columbia and an increased monitoring of the fisheries. Local level measures mentioned included the Corps giving preference to local contractors to modify the dams and that local administrative agencies be compensated for unfunded mandates.

Under the implementation of A3, forum participants noted that Enterprise would need to have an improved rail system with fair pricing and less monopoly pricing. Additionally, community residents suggested grants and loans to businesses to assist with economic development and to both manage and promote fishing related tourism.

## **2.6 - Genesee, Idaho, Community Assessment**

### **2.6.1 - Summary of Community Findings**

Genesee, Idaho, is a town of about 700 people located in the midst of the Palouse, one of the nation's most productive grain-growing areas. The town lies just off of U.S. Highway 95 about 18 miles north of Lewiston and the confluence of the Snake and Clearwater rivers. This rural community has evolved from a self-sufficient agricultural center to a more dependent and town that also serves as a bedroom community for Moscow and Lewiston. Although agriculture retains its position in the economy, the social fabric of the community has changed to accommodate its commuters and non-farmers.

Today, Genesee is a town that takes pride in its school system, actively pursues grants to implement economic development projects, and continues to celebrate its agricultural heritage. The rolling agriculture land known as the Palouse that surrounds the community hosts large-scale farms, and many of the farmers count on the availability of the Snake River to barge their agricultural products to the economic centers of the Pacific coast for use or export.

Participants in the forum at Genesee depicted their 1999 community situation as being quite positive on every dimension except Jobs & Wealth. Participants reported that strong community values, a commitment to the local school system, support for community events, residents actively engaged in trying to improve the community, and the immigration of commuters are all features characterizing their town. Its economy is significantly affected by fluctuating agricultural prices, a low level of economic diversity, and the growing regional centers of population and commerce that include Moscow/Pullman and Lewiston/Clarkston to the north and south of the community. Relatively lower costs of living and nearby job opportunities in Moscow and Lewiston help maintain Genesee's economic stability. The continual process of upgrading highway 95 on either approach to town and extending these upgrades all the way to Moscow and Lewiston will only strengthen Genesee's position as a commuter, bedroom community.

Forum participants were generally optimistic about their future, and there was a strong consensus that their community would be beneficially affected and better off in 2020 under Pathway A1. For Pathway A2, they also felt their community would be beneficially affected, but to a lesser degree than if Pathway A1 was implemented. Under both of these pathways, participants perceived their community would grow in size, continue to diversify economically, further develop leadership and organizational capacity, continue to improve community appearance, and enhance its connections to the nearby regional centers. The participants were committed to retaining Genesee's character as a high quality, friendly, small, progressive rural community. There was a pronounced feeling of pessimism associated with Pathway A3, with participants strongly indicating that it would adversely affect Genesee. Major adverse effects perceived were decreasing population, shifting prevalent community values, decreasing agricultural economy, an increased need for public assistance, higher utility costs, and difficulty in maintaining the quality of the town's appearance and its school system.

The ideas for minimizing the negative impacts of each pathway brainstormed by the forum participants correspond to the types of adverse effects that they identified for each pathway. This triangulation suggests that participants recognized the relationship between adverse effects and mitigation. Mitigation suggested by residents addressed community level effects, such as impacts on the agricultural sector, transportation, and the town's social make-up, confirming that these participants were focusing on their community and not the region.

In sum, residents of Genesee have dealt with change in the past, and they recognize that the future of their town will include changes like more bed-roomers, more dependence on surrounding communities for employment and shopping, and the struggle to integrate newcomers into the traditions and values of a rural agricultural community. Paramount concerns for participants in the Genesee forum included the accelerated loss of the town's farming families and its agricultural heritage if the costs of farming increase -- especially significant increases in costs of shipping grain if Pathway A3 is implemented. These concerns contributed to a pessimistic vision for the community's future under A3.

### **2.6.2 - Interactive Community Forum Participants**

Thirty-eight community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Genesee, ID. These forum participants sat at four facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The participants' overall diversity index rating was 0.79 (on a scale from 0 to 1.0), meaning that 11 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 61 percent were in the agriculture industry, and 11 percent were retired. The remaining participants were employed in one of the following occupations: education, self-employed, assistant manager, contractor, driver, excavating contractor, office manager, pastor, and a computer network specialist.

### **2.6.3 - Community Background**

#### *History:*

Genesee, Idaho, is a town of about 700 people located in the midst of the Palouse, one of the nation's most productive grain-growing areas. The town lies just off of U.S. Highway 95 about 18 miles north of Lewiston and the confluence of the Snake and Clearwater Rivers. Genesee was first settled in the early 1870s, and the town experienced a population boom with the arrival of the railroad in 1878. This rail connection to Spokane was important for this emerging farming area. The town was incorporated in 1889. In the 1930s, the population of the town and its environs reached several thousand, and additions were made to the school. Up until the 1940s, Genesee enjoyed prosperity and was commercially self-sufficient, with a strong agricultural and population base. However, the road to Moscow and Lewiston was paved at around that time, and as the farming industry became increasingly mechanized and consolidated, Genesee started losing many of its residents to other areas. By the 1970s, the number of farms in the county had decreased nearly 40 percent from the 1950s. School consolidation occurred in the 1960s, when Genesee began to regain some of its population -- an increase that peaked at approximately in about 1980 with a population of roughly 750 in town and 1,500 in the school district. The town underwent its first comprehensive planning in the mid-1970s. The railroad was abandoned at around that

time due to union activity and increased labor costs. The Lewiston Grade also was completed at about this time. During the 1990s, Genesee was named an Idaho Gem community, a senior center and community hall were established, and the Bonterra manufacturing company arrived. At this time, increasing numbers of the town's residents began commuting elsewhere (e.g., Lewiston and Moscow) to work, subdivisions were developed, and an updated comprehensive plan developed as Genesee emerged as a bedroom community as well as a farming town.

*Vision:*

The 1975 Genesee Comprehensive Plan covers the key planning elements to guide future economic, social, and physical development. These include:

- Encourage young people to settle in the community
- Develop a program for streamside recreation
- Achieve a strong and diversified economic base to provide adequate community services and facilities;
- Encourage banks to lend to firms wishing to locate in the community;
- Maintain an adequate road network for intra-city travel to and from areas of housing, employment, shopping, and recreation.

**2.6.4 - Community Assessment of 1999 Situation**

**2.6.4.1 - 1999 Situation: Community Dimensions and Rating Scale**

The following "1999 situation" rating scale was used by participants from Genesee to rate the current (1999) situation of the following four community dimensions: 1) **People** - Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 199, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
--	---	---	---	---	---	---	---	---	---	----	--

### 2.6.4.2 - 1999 Situation: Ratings

As Figure 2-11 presents, the range of medians across the four community dimensions for the four facilitated groups at the forum was from 4 in the Jobs & Wealth dimension to 9 in the People dimension. Specifically, the four groups perceived the People dimension as being most oriented toward the as good as it could be end of the scale, while the Jobs & Wealth dimension was most oriented toward the as bad as it could be end of the scale. The other two community dimensions, Vision & Vitality and Place, were given a more mid-point rating; with the former being slightly lower than the latter. The difference between the invited group's median score and that of the other facilitated group for all four community dimensions ranged from 1 to 2 rating units. Clustering of group medians around the invited group for the People and Place dimensions demonstrates that each facilitated group independently arrived at similar conclusions regarding the current (1999) situation of the community in terms of good and bad attributes. This replication indicates the community dimensions are likely to be perceived somewhat similarly. The less clustering on the Jobs & Wealth and Vision & Vitality dimensions indicate these were more variable and there was less agreement across groups.

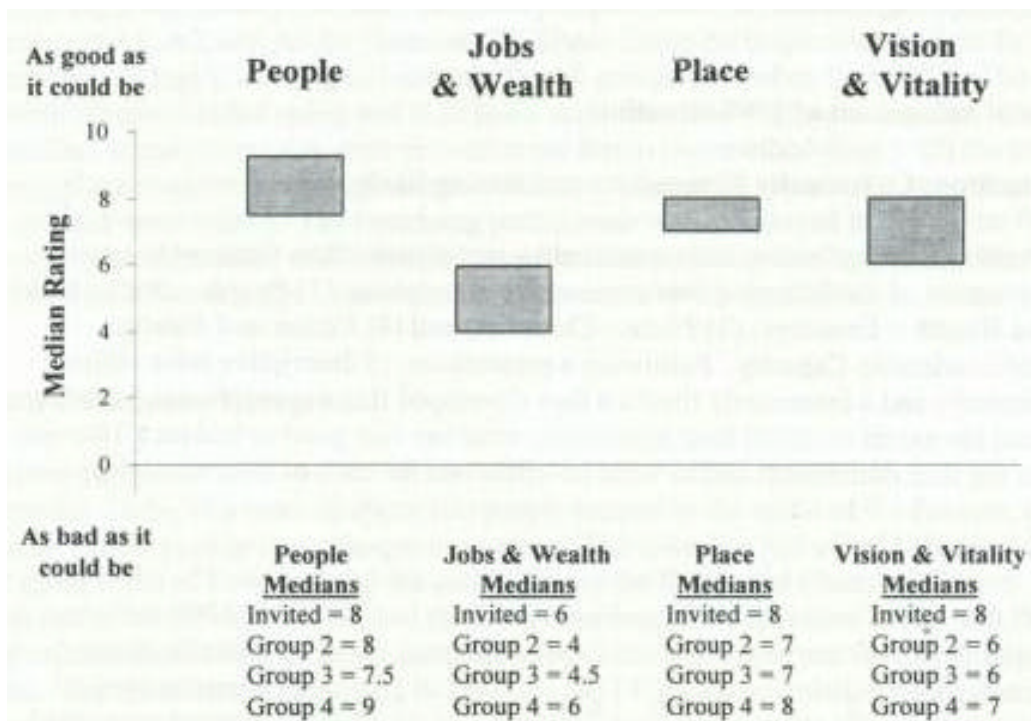


Figure 2-11. Median scale ratings of the current (1999) situation in Genesee, Idaho, by community dimension, across groups

### 2.6.4.3 - 1999 Situations: Rating Justifications

Table 2-11 presents the clustering of justifications for the four facilitated groups. Justifications noted across the invited group and other groups are categorized 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized 'Other Groups'.

#### *People*

The people dimension was the highest rated dimension. Individual responses ranged from 4 to 9 across all participants. Median scores across three of the groups clustered around the invited group median rating of 8. Positive justifications mentioned across all groups include aspects of community values, a strong education system, and supportive of community activities and involved. The invited group added positive justifications that Genesee has good, strong churches, children and education are high priority, stable school enrollment and most people own homes. The negative justifications that detract from the People dimension offered by the invited group included, high public assistance ("more people on public assistance"), drugs and alcohol problems, lack of community involvement and being a bedroom community. Justifications provided by other groups offering further support of the high rating for the People dimension are a population with age diversity, increasing school enrollment, stable families and good, friendly, helpful people.

#### *Vision & Vitality*

The Vision & Vitality dimension was the second highest rated dimension. Median group ratings ranged from 6 to 8, with all of the groups rating this dimension lower than the invited group. Individual scores ranged from 4 to 9 across all four groups. All groups mentioned strong and active civic and political leaders, success at getting and using grants, an overall friendly, sociable community, an ability to cope well with change, and a strong and high level of community participation as justifications for their positive ratings. The invited group also based its high rating on a good, increasing tax base/fiscal resources, and being well prepared for the future. A negative justification offered by all groups was the perception that community residents do not support bonds and levies, and one offered by the invited group was lack of control of outside forces.

#### *Place*

The Place dimension received the third highest median ratings with two groups scoring it 7 and the other two scoring it 8. Individual ratings for all participants ranged from 6 to 9. General appearance of the community, good schools, good roads, highways and community infrastructure ("transportation -- good roads constantly upgrading"), strong sense of place and community ("Great sense of community"), good air and water quality, and being safe and crime free were the all group justifications for the positive rating. There were no negative justifications that clustered across all groups. The invited group and other groups did mention things like decreased opportunities for parks and open spaces, struggling businesses and vacant storefronts, and community decline and worsening ("always room for improvement") as negative characteristics affecting their rating of the Place dimension.

### Jobs & Wealth

The Jobs & Wealth dimension was the lowest rated or most oriented towards the *as bad as it could be* end of the 10-point rating scale. Median ratings for each of the four groups did not cluster around the invited group and ranged from the invited group's high of 6 to group 2's low of 4 (see Figure 2-11). Scores across all participants ranged from 4 to 8. There were no positive characteristics mentioned by all groups as justifications for their ratings, rather negative characteristics such as poor job opportunities, money leaves, low economic diversity, and a shrinking agricultural base dominated. The invited group also noted additional characteristics such as low employment for youth, being a bedroom community, declining farm prices, and increasing poverty as reasons for their scores. Although there was not great agreement across groups, positive justifications were considered as participants rated this dimension. The positive justifications behind the group ratings of the Jobs & Wealth dimension included good job opportunities, high paying jobs outside money spent locally, expanding and stable economic base ("core make up of the city and surrounding area do quite well"), low cost of living, low unemployment and high wealth ("wealthy agricultural area").

<b>Table 2-11</b> <b>Rating Justifications for the Current (1999) Situation</b> <b>In Genesee, Idaho,</b> <b>By Community Dimension and Type of Group</b>			
Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Good customs and lifestyles/change for the better (51)	Poor prevalent values (62)	Population age diversity (4)
	Good prevalent values (61)	Conservative values (65)	Increasing school enrollment (71)
	Community values are stable (63)	Children and education are high priority (66)	Good extended families (101)
	Strong schools/education (81)	Good, strong churches (67)	Stable families (103)
	Supportive of community activities and involved (241)	Stable school enrollment (73)	Good, friendly, helpful people (201)
		Most people own homes (151)	Good community services (401)
			Stable businesses (513)
Negative		High public assistance (112)	
		Drug and alcohol problems (194)	
		Lack of involvement community activities (242)	
		Bedroom community/commuters (422)	
		Businesses suffer (512)	

<b>Jobs and Wealth</b>			
Positive		Good job opportunities (2)	Low cost of living (78)
		High paying jobs (30)	High wealth (176)
		Stable government jobs (48)	Low employment (192)
		Outside money spent locally (55)	Reasonable property values (200)
		Expanding economic base (125)	Stable property values (203)
		Stable economic base (139)	
		Stable economy (155)	
		Low poverty (185)	
		Increasing property values (201)	
Negative	Poor job opportunities (3)	Low employment for youth (6)	Job decrease due to ripple effect from agricultural losses (26)
	Money leaves (51)	Bedroom community (53)	Negative impacts associated with commuting (62)
	Low economic diversity (122)	Commuting (general) (61)	
	Shrinking agricultural base (135)	Declining farm prices (100)	
	Declining/limited business and shops (136)	Increasing poverty (187)	
		High unemployment (191)	
	Youth leave community (209)		
Other	Agricultural-based economy (143)	General job opportunities (1)	
<b>Place</b>			



Positive	Good/improving community appearance (511)	Residential areas are clean (542)	Many trailer homes and renters exist (552)
	General public and social services (560)	Good social services, same access to services (561)	Good public safety services (562)
	Good schools (563)	Good public facilities (565)	Low traffic congestion (599)
	Good roads, highways, and community infrastructure (620)	Good utility/power rates (590)	
	Strong sense of place and community (670)	Stability of agriculture and farms (652)	
	Attractive scenery (771)	Pride in/commitment to community (671)	
	Good air and water quality (780)	Active churches (703)	
	Safe and crime free (902)	Community growth and improvement (general) (721)	
Negative		Decreased opportunities for parks and open spaces (668)	Poor/declining community appearance (513)
		Community decline and worsening (722)	Struggling businesses and vacant store fronts (520)
			Increasing store vacancies (521)
			Poor roads, highways, and community infrastructure (623)
			Safe and crime free (902)
<b>Vision and Vitality</b>			
Positive	Strong, active civic leadership (41)	Active, strong leadership (121)	Strong, active civic organizational capacity (11)
	Strong, active, astute political leadership (81)	Good, increasing tax base/fiscal resources (201)	Numerous, varied, good social activities (301)
	Successful at getting and using grants (241)	Interesting community (307)	Strong, cohesive community (341)
	Numerous, varied, good social activities (301)	Prepared for future (381)	
	Friendly, sociable community (305)	Planning and plans exist, good base for future (403)	
	Cope with change (361)	People are adaptable (505)	
	Strong and high level of community participation (561)		

Negative	Lack of support and ability to pass for bonds and levies (182)	Reduced, pessimistic visions of future (384)	Don't cope well with or resist change (362)
		Lack of community control of outside forces (economics/regulations) (442)	Not prepared for future (382)

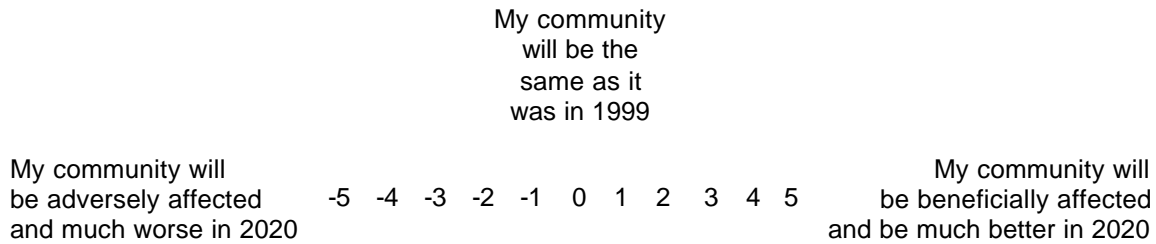
## 2.6.5 - Comparison of Salmon Recovery Pathway A1 - A3

### 2.6.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.6.5.2 - Summary of Pathway Findings A1 to A3

Figure 2-12 presents the median rating of all four groups for each of the pathways, categorized according to dimension. For all dimensions, forum participants perceived the situation for Genesee to be better in the Year 2020 under Pathway A1. Pathway A1 group ratings ranged from 0 for all dimensions to 2, across the three dimensions and 3 for Jobs & Wealth. All group ratings for all four dimensions were within one unit of the invited group. Participants were generally optimistic about 2020 under A1, and had consensus over the likelihood of being beneficially affected.

Likewise for Pathway A2, participants perceived all dimensions to be beneficially affected in the Year 2020 under Pathway A2, although slightly less so than under A1. Similar to A1, group 2 reported a median rating of 0 across all dimensions. For all dimensions, medians for groups 2 and 3 were within 1 unit on the impact rating scale of the invited group's median. This clustering of medians suggests there was consistency across groups in their scoring of effects from Pathway A2.

Group medians for Pathway A3 were the lowest, ranging from -5 in the Jobs & Wealth to -2 in the People and Vision & Vitality dimensions. According to the perceptions of forum participants, Genesee would be adversely affected and much worse under A3 for each dimension. Clustering of medians occurred around the invited group's median for the Place and Vision & Vitality dimensions, but not for the People and Jobs & Wealth dimensions. This suggests that, although all groups perceived Genesee to be much worse off under A3 in 2020, the range in terms of adverse effects was perceived greater for two (People and Jobs & Wealth) of the four dimensions.

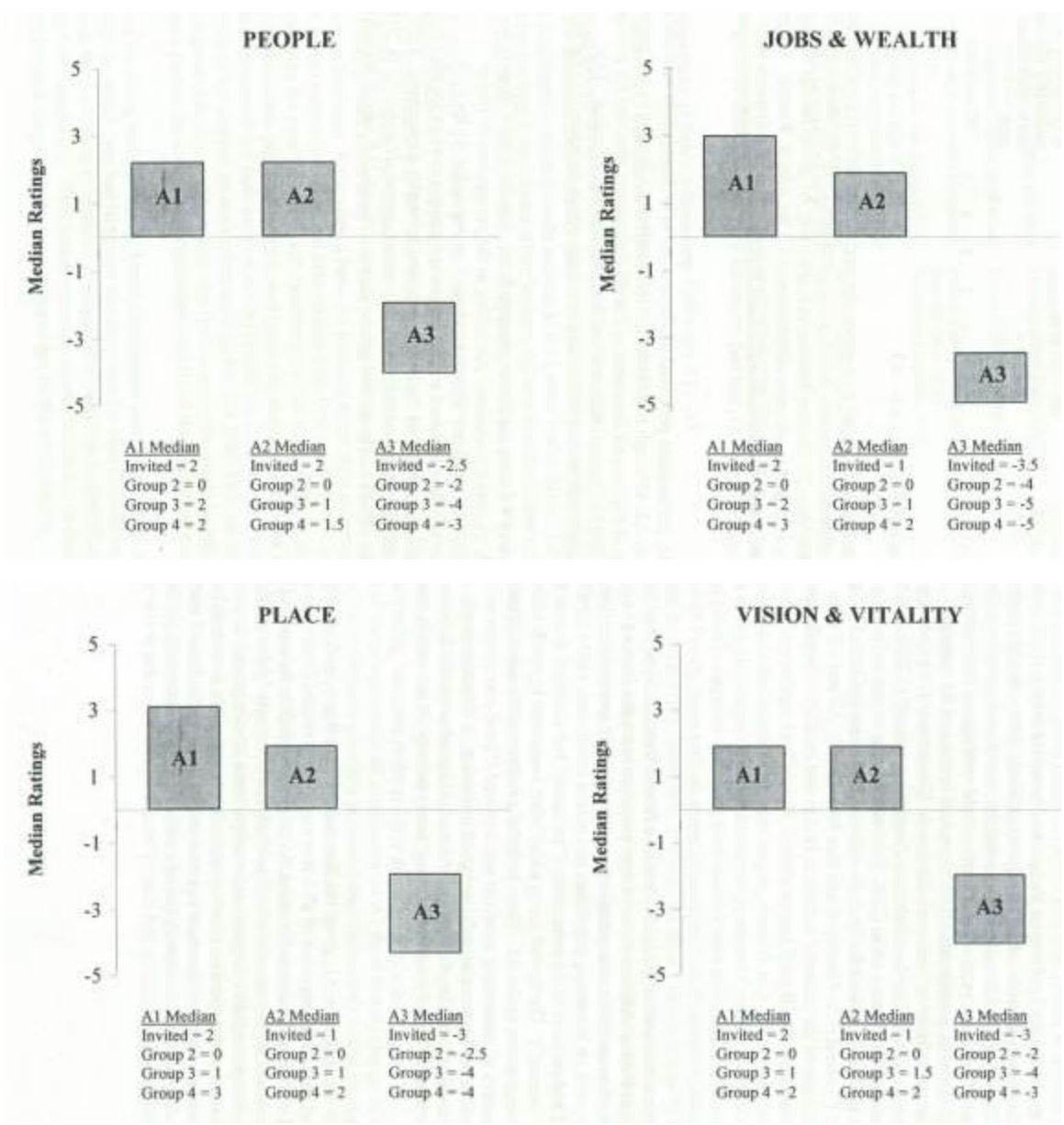


Figure 2-12. Median scale ratings of Pathway A1, A2, and A3, for Genesee, Idaho, by community dimension, across groups.

### **2.6.5.3 - Rating Justifications Across Pathway A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons (justifications) and changes underlying them were examined. The impact rating scale used ranged from -5 to 5, where -5 is adversely affected and be much worse off in 2020, and 5 is beneficially affected and be much better off in 2020. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of the clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.6.5.4 - Pathway A1**

#### *People*

In the case of the People dimension for A1, group medians ranged from 0 to 2, with an invited group median of 2 and individual responses of all forum participants ranged from -1 to 4. As presented in Table 2-12, characteristics consistently mentioned across all groups were that 1999 trends would continue, with an increasing population and school enrollment, stable families increasing numbers of bed-roomers in the community ("too many 'bed roomers' in area that lack long-time community interest"). The invited group added other comments to justify their positive changes in ratings scores under A1. These included good prevalent values ("values will remain strong"), supportive of community activities and involved ("good core people will continue to improve and make Genesee better"), and good technology. Negative items mentioned that contributed to justifying the rating of A1 included good extended families ("extended families will move"), and prevalent values ("newcomers don't necessarily have the same values").

#### *Jobs and Wealth*

For the Jobs & Wealth dimension for A1, group medians ranged from 0 to 3, with an invited group median of 2, and individual responses of all forum participants ranged from -3 to 4. All groups shared several similar justifications for rating A1 more positive than the current 1999 situation, including increases in job opportunities ("good jobs have come to Idaho and they will find there way to Genesee, more jobs with increased markets more jobs"), rely on river transport system ("barging gives an inexpensive link to wheat export"), an expanding economic base, and a strong, growing economy. Some of the negative justifications listed by the invited participants that affected their scoring included commuting (people will still have to commute), declining farm prices, and declining/limited business and shops ("local business down due to low ag prices").

### *Place*

For the Place dimension, group medians ranged from 0 to 3, with an invited group median of 2, and individual responses of all forum participants ranged from -2 to 4. Justifications that clustered across all groups include the perception of good roads, highways and community infrastructure ("roads will be better, transportation to jobs easier"), a strong sense of place and community ("sense of community will increase"), community growth and improvement ("Place will improve & keep up to meeting changing times & changing people. Life goes on!") and good air and water quality. The invited group provided several additional salient positive justifications, such as a general good appearance, decreasing store vacancies, good social services, and an increase in specialty farming. Only one negative justification emerged and it was related to increasing crime ("crime will remain low but not as low as with low growth").

### *Vision & Vitality*

The median group ratings for Vision & Vitality ranged from 0 to 2, with an invited group rating of 2 and individual participant responses ranging from -1 to 3. There were no justifications replicated across all groups; although all groups perceived Genesee's vision and vitality to remain the same or improve under A1, their reasons were different. The invited group justified their rating of 2 using items such as strong leadership (civic & political); stable bonds and levies ("bonds and levies stability comes with knowing the river will not change"); friendly, sociable community, and preparedness for the future as contributing to the positive rating. Two of the other groups saw leadership and organizational capacity in 2020 as not being as well supported as it is today, and they perceived that Vision & Vitality was a little more likely to be how it is today in 1999.

**Table 2-12  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Genesee, Idaho,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
<b>Across All Groups</b>	Increasing population (41)	Increasing population (41)	Decreasing population (42)
	Increasing school enrollment (71)	Current trends will continue (325)	Poor prevalent values (62)
	Stable families (103)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	Decreasing school enrollment (72)
	Current trends will continue		Families are becoming less stable (102)
			Loss of industries and lack of job opportunities (492)
			Unstable tax base (522)
			Unstable/poor economy
<b>Invited Groups</b>	Good prevalent values (61)	Good customs and lifestyles/change for the better (51)	Aging population (2)
	Community values are stable (63)	Good prevalent values (61)	Lack of opportunities for young people (11)
	Good extended families (101)	Community values are stable (63)	Stable population (43)
	Most people own homes (151)	Stable families (103)	Community values are unstable (64)
	Supportive of community activities and involved (241)	Most people own homes (151)	Willingness to support schools/education (91)
	People changing for better/positive change (311)	Good, friendly, helpful people (201)	Government involvement (general) (25)
	Stability of community (general) (323)	Stability of community (general) (323)	People changing for worse/negative change (312)
	Good technology (429)		Increased utilities, transportation and taxes, and decreased irrigation, loss of power (482)
	Low traffic congestion (431)		
	Increase/high in traffic (432)		

Other Groups	Prevalent values (general) (69)	Stable population (43)	Poor customs and lifestyles/loss of/change for the worse (52)
	Increase industries/good job opportunities (49)	Prevalent values (general) (69)	High public assistance (112)
		Increasing school enrollment (71)	Decrease in farms and increase in farm size (156)
		Stable school enrollment (73)	Lack of money in community (532)
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Increasing job opportunities (general) (10)	Decreasing job opportunities (general) (18)
	Rely on river transportation system (112)	Increased utility rates (86)	Decreasing agricultural jobs (22)
	Expanding economic base (125)	Same/no change/same as pathway #1 (245)	Decreased income and wages (33)
	Agriculture/food processing-based economy (143)		Increasing transportation costs (75)
	Strong, growing economy (157)		Decreasing farms and increased farm size (109)
	Stable property values (203)		Shrinking agricultural base (135)
			Declining tax base (172)
			Decreasing wealth (181)
			Decreasing property values (202)



Invited Groups			
	Good job opportunities (2)	Good job opportunities (2)	Short-term and temporary jobs/part-time jobs (37)
	Poor job opportunities (3)	Increasing jobs at dams (14)	Decreasing local investment (58)
	High paying jobs (30)	Decreasing job opportunities (18)	Increasing taxes/high (74)
	Increasing high tech-related jobs (40)	Short-term and temporary jobs/part-time jobs (37)	Increasing transportation costs (75)
	Outside money spent locally (55)	Outside money spent locally (55)	Cost of dam modification passed on to residents (113)
	Commuting (general) (61)	Commuting (general) (61)	Increasing unemployment (195)
	Negative impacts associated with commuting (62)	High commuting (66)	People will leave (206)
	High commuting (66)	Increasing utilities (73)	Effects on Pacific Northwest decline area (220)
	Low utilities (79)	Increasing taxes/high (74)	Less likely to pass school bonds (240)
	Declining farm prices (100)	Declining farm prices (100)	
	Declining/limited business and shops (136)	Declining/limited business and shops (136)	
	Decreasing poverty (188)	Stable economic base (139)	
	High property values (198)	Agricultural/food processing-based economy (143)	
	Improved highways (225)	Improved highways (225)	
	Same/no change/same as pathway #1 (245)	Stable property values (203)	
	Population growth (207)		
Other Groups	Cheap transportation costs keep economy growing (159)		Poor job opportunities (3)
	Increasing wealth (180)		Jobs decrease due to the ripple effect from agricultural losses (26)
			Money leaves (51)
			Increased utility rates (86)
			Declining economy (162)

Place			
Across All Groups	Good roads, highways, and community infrastructure (620)	Maintain status quo, no change (841)	Increasing store vacancies (521)
	Strong sense of place and community (670)		Appearance of residential areas need improvement (550)
	Community growth and improvement (general) (721)		Poor social services (570)
	Good air and water quality (780)		Traffic congestion/increased traffic (603)
			Poor roads, highways, and community infrastructure (623)
			Negative impacts on the number of farms and farm families (642)
			Decline in sense of place and community pride (672)
			Increased cost of living (742)
			Decreased income/increased poverty (751)
			Decreasing population (823)
			Increasing crime and drug-use/less safety (903)

Invited Groups	Good, improving community appearance (511)	Good/improving community appearance (511)	Poor/declining community appearance (513)
	Decreasing store vacancies/new shops coming in (530)	Negative effects of alternative energy production (592)	People shop elsewhere due to lack of businesses (522)
	Good social services, same access to services (561)	Lack of transportation facilities (602)	Strong sense of place and community (670)
	Increase in specialty farming (633)	Poor roads, highways, and community infrastructure (623)	Same as Pathway #1 (930)
	Pride in/commitment to community (671)	Strong sense of place and community (670)	
	Stable community (723)	Pride in/commitment to community (671)	
	Fewer regulations and increased local control (885)	Stable community (723)	
	Increasing crime and drug use/less safety (903)	Increased cost of living (742)	
		Good air and water quality (780)	
		Increasing crime and drug use/less safety (903)	
	Same as pathway #1 (930)		
Other Groups	People shop elsewhere due to lack of businesses (522)	Struggling businesses and vacant storefronts (520)	Decreased number of farms and increased farm size, absentee owners, corporate farms (653)
	Traffic congestion/increased traffic (603)	Good roads, highways, and community infrastructure (620)	Poor air and water quality (782)
	Decreased number of farms and increased farm size, absentee owners, corporate farms (653)		
<b>Vision and Vitality</b>			
Across All Groups	No real change in cohesiveness (363)	Negative economic opportunities (582)	
	Strong and high level of community participation (work together) (561)	Outmigration of population (892)	

Invited Groups	Strong, active civic organizational capacity (11)	Strong, active civic organizational capacity (11)	Leadership quality (49)
	Strong, active, astute, political leadership (81)	Strong, active civic leadership (41)	Political leadership and organization (general) (83)
	Active, strong leadership (121)	Strong, active, astute, political leadership (81)	Support and ability to support bonds and levies (181)
	Stable bonds and levies (183)	Active, strong leadership (121)	Good/increasing tax base/fiscal resources (201)
	Numerous, varied, good social activities (301)	Stable bonds and levies (183)	Insufficient/decreasing tax base/fiscal resources (202)
	Friendly, sociable community (305)	Limited or decreasing quality of social activities (302)	Loss of community cohesiveness (344)
	Increased community cohesiveness (345)	Loss of community cohesiveness (344)	Not prepared for future (382)
	Improved ability to cope (365)	Improved ability to cope (365)	Reduced, pessimistic visions of future (384)
	Prepared for future (381)	Prepared for future (381)	Lack of planning and ability to plan for the future (404)
	Planning and plans exist, good base for the future (403)	Community growth (605)	Reduced budgets (484)
	Negative economic opportunities (582)		Less commitment to community (504)
	Strong, increasing community vision and vitality (601)		
	Need infrastructure for the future (809)		
Other Groups	Adequate, stable civic organizational capacity (13)	General role of bonds and levies (189)	Diminished civic organizational capacity (12)
	No real change in cohesiveness (363)		Lack of support for and ability to pass bonds and levies (182)
	Strong and high level of community participation (work together) (561)		High/increasing taxes (204)
			Lack of community involvement in community affairs (562)
			Decreasing/lack of community vision and vitality (602)

### **2.6.5.5 - Comparison of Pathway A1 to A2**

Under the implementation of Pathway A2, the median group ratings for each group across all dimensions remained the same or decreased by no more than 1 unit on the impact rating scale. The only exception was for group 3 (see Figure 2-12) on the Vision & Vitality dimension where their impact rating increased in the positive direct by .5 of a unit (from 1 to 1.5). In fact, in at least 50% of the groups across all dimensions for A2 there was no change in scoring from A1. Therefore, the participants generally perceived their community would be slightly worse off or no different if A2 was implemented instead of A1.

Table 2-12 presents the salient justifications under the implementation of A2. In general, for the all four dimensions, groups perceived that the justifications they used for A1 were applicable to A2. The two new categories of justifications that emerged with Pathway A2 were increased utility rates (both in the People and Jobs & Wealth dimensions) and some increasing jobs at the dams (Jobs & Wealth dimension). Often participants actually said current trends will continue or the justifications for A2 dimensions are the same as those for A1 dimensions.

### **2.6.5.6 - Comparison of Pathway A1 to A3**

Under the implementation of A3, the change between A1 median group ratings and A3 median group ratings shifted substantially toward the adversely affected end of the rating scale for all dimensions: median ratings from 0 to 3 for A1 decreased to -2 to -5 for A3 (see Figure 2-12). The only dimension that received the lowest possible rating (most adversely affected, -5) was Jobs & Wealth. All groups participating in the forum perceived that Pathway A3 would adversely affect their community. The invited group perceived their community to be somewhat less adversely impacted than the other groups for the dimension of Jobs & Wealth.

#### *People*

Median group ratings ranged from -2 to -4 for the People dimension, with the median rating for the invited group being -2.5. Median ratings did not cluster around the invited group. Individual ratings from all forum participants ranged from -5 to 2, with a median rating of -3. Table 2-12 shows the shift in salient justifications under the implementation of A3. These include a forecast of decreasing, as opposed to increasing population; poor, as opposed to good prevalent values; decreasing, as opposed to stable of increasing school enrollment; less stable, as opposed to stable families; more government involvement, as opposed to more citizen involvement in community; and high public assistance, as opposed to no mention of public assistance as a justification for a rating.

### *Jobs & Wealth*

Median group ratings ranged from -3.5 to -5 for the Jobs & Wealth dimension, with the median rating for the invited group being -3.5. There was no clustering of medians around the invited group. Individual responses ranged from -5 to 1, with a median rating of -4 across all groups. Justifications provided by all groups for this negative rating include decreasing jobs opportunities, decreasing agriculture jobs, a decrease in income and wages, increasing transportation costs, declining tax base, declining property values and ultimately declining wealth. To this add the invited group's additional justifications of decreasing local investment, increasing taxes, less of a likelihood to pass school bonds and costs of dam modification passed on to residents and the other groups concern for higher utility rates. All of these justifications together provide a comprehensive picture of the perceived adverse effects on Genesee in 2020 if A3 is implemented.

### *Place*

Median group ratings ranged from -2.5 to -4 for the Place dimension, with the median rating for the invited group being -3. There was no clustering of medians around the invited group. Individual responses ranged from -5 to 1, with a median rating of -4 across all groups. All groups perceived traffic congestion/increased traffic; negative impacts to the number of farms and farm families ("higher absentee ownership"...); decline, as opposed to an increase in sense of place and community; increased poverty; poor declining community appearance, as opposed to good improving community appearance; and poor air and water quality would occur under A3. Vacant storefronts, a characteristic mentioned under A1, was still seen as a negative characteristic of A3. Additionally, traffic congestion and higher costs of living, which were characteristics mentioned by only some groups under A1 and A2, were mentioned by all groups under A3.

### *Vision and Vitality*

Median group ratings ranged from -2 to -4 for the Vision & Vitality dimension, with the median rating for the invited group being -3. Individual responses ranged from -5 to 1, with the median rating of -3. Negative economic opportunities ("low income due to higher costs, going to cause a depression with the lack of jobs") and out migration of population ("smaller population, less reason to stay here") were justifications across all groups specifically detailing the change in community vision and vitality under A3. The invited group commented that lack of planning and loss of community cohesiveness along with reduced budgets would negatively affect Genesee under A3. The invited group mentioned that support for bonds and levies would continue, although other groups perceived support for bonds and levies would be less.

## **2.6.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Genesee across each of the four dimensions, forum participants expressed the need to address the following issues to lessen community impacts. Under the implementation of Pathway A1, participants generally felt that research should continue to better understand ocean conditions, predation, and to improve fish passage. At the local level, participants described the need to bring new industries to Genesee, and to implement community activities that would improve social cohesion. Better grain prices, lower input costs, and lower taxes were other suggestions offered by the participants.

Under the implementation of A2, participants felt that any costs associated with dam modifications should be spread out across the entire country. They also listed the importance of finding less expensive, and more effective, approaches to system modification for salmon recovery.

Under the implementation of A3, participants noted that added costs of road repairs arising from increased traffic should not translate to higher taxes for community residents. They also mentioned the need for job training and for providing incentives to encourage businesses to relocate to Genesee to diversify the economy. In terms of transportation, it was suggested that hopper rail cars be supplied, that a farmer-owned railroad running from Lewiston to Portland be established, and that a canal for grain barges be built. Development of alternative power sources was also mentioned under this pathway.

## **2.7 - Kahlotus, Washington, Community Assessment**

### **2.7.1 - Summary of Community Findings**

Before the construction of Lower Monument dam in the 1960s, Kahlotus, Washington, was predominantly a seasonal resort that centered on a lake. Kahlotus is located some distance from any major highway, so it has always been off the beaten path. The town's population grew rapidly in the 1960s, increasing from over 100 to 300. In the late 1960s and early 70s, the town began to decline after Lower Monumental Dam was completed and businesses closed down, as did the railroad when it was replaced by barging.

Today, Kahlotus is a community with a population of 215. It is located in the reservoir region of the study area, about 10 miles north of the Lower Snake River in southeastern Washington. This community, with its surrounding dryland farming areas, finds itself faced with a lack of economic opportunities within the community leading many residents commute to other locations for their employment. Community leaders are constantly working for community betterment as is evidenced by its strong leadership and active pursuit of grants for community and economic development.

Forum participants from Kahlotus depicted no clear agreement on their 1999 situation. Some saw their community as well organized and in a position to deal with a changing future, while others saw just the opposite. Struggling businesses and vacancies downtown led participants to provide ratings that were only in the middle of the current situation scale for the Place dimension, in spite of recent investments in community infrastructure. However, the town's proximity to some quality recreation opportunities, small rural character, stable population, and recent Main Street improvements led others to report that Kahlotus has a relatively high quality of rural life. Of all four community dimensions, participants were most concerned about Jobs & Wealth. The declining economy, which is dependent on agriculture, is of major concern. In general, participants feel they are at the mercy of farm product prices and many other things they cannot control. Some see their leaders working for and making changes for a better future, while others see their leaders as being overwhelmed.

Forum participants also varied in their optimism about the effects of Pathway A1 (maintaining the existing hydro-system on the Lower Snake River) on their community in 2020. In general, the participants perceived their community would be most beneficially affected by Pathway A2 (major modifications to the existing hydro-system on the Lower Snake River) and most adversely affected by Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River). Positive ratings for A1 indicated that some participants projected that current trends will continue, such as a continued high quality of life and good leadership development; yet others within the group saw more negatives such as a declining and aging population, and a decrease in farms and increase in farm size. Ratings and justifications for A2 were much the same as for A1.

The negative rating of Pathway A3 is not surprising, given the completion of the Port of Kahlotus's new grain elevator in 1998. That facility would be rendered useless under A3. Decreases in population and school enrollment are some of the justifications for these negative ratings. The compounding effects of a poor, unstable economy and loss of jobs were also discussed, as were increased utility rates and a declining tax base.

Even with many positive community changes, forum participants perceived the existence of Kahlotus to be extremely dependent on the agriculture sector and the barging of grain on the river corridor. This dependence, along with the perception that the community's economic dimension is the worst of the four community dimensions in 1999, meant that any changes perceived to adversely affect the Jobs & Wealth dimension in 2020 raised additional concerns about the future viability of Kahlotus.



## **2.7.2 - Interactive Community Forum Participants**

Seventeen community members provided perspectives on the history, 1999 (current) situation, and on Pathways A1, A2 and A3 for Kahlotus, WA. These forum participants sat at two facilitated tables, working in interactive small groups (hereafter, "groups"). The participants' overall diversity index rating was 0.71 (on a scale from 0 to 1.0), meaning that 10 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, .41 percent were in agriculture and 12 percent were housewives. The rest were equally distributed in the following occupations: business manager, bank manager, dam worker, Mayor/clerk, retiree and student.

## **2.7.3 - Community Background**

Prior to the construction of Lower Monument dam in the 1960s, Kahlotus was predominantly a seasonal resort that centered on a lake. The town's population more than doubled in the 1960s, increasing from over 100 to 300. Once Lower Monumental Dam was completed in 1969, Kahlotus lost a variety of businesses (grocery, hardware store, gas station). The first railroad was removed during this period, and grain began being shipped via the waterway. School enrollment declined after dam construction was completed, but it has since remained stable. The Port of Kahlotus also built a new grain elevator in the mid-1960s. During the 1980s, the town's economy shifted from a predominantly agricultural economy to one that included government, sand and gravel mining, and aerial spraying. The Burlington Northern rail line was abandoned during this period, and a new water well and fish hatchery built. By the late 1980s, the local church had closed, older people were moving away, with no services available for the elderly, resulting in a loss of community. Thus far, the 1990s have seen a shift away from farm families, with younger, non-farm people moving into the community. Kahlotus began sharing school services with Washtucna. In the mid-1990s, a correctional facility was built that brought in more jobs. Major grants provided funding for a new water system, a Main Street improvement project, and a community beautification project resulted in tree-planting and grass. In 1998 the Port of Kahlotus built a new grain elevator. Today, Kahlotus is a community with a population of about 200. It is located in the reservoir region about 10 miles north of the Lower Snake River. This community with its surrounding dryland farming areas finds itself faced with a lack of economic opportunities within the community leading many residents commute to other locations for their employment.

## 2.7.4 - Community Assessment of 1999 Situation

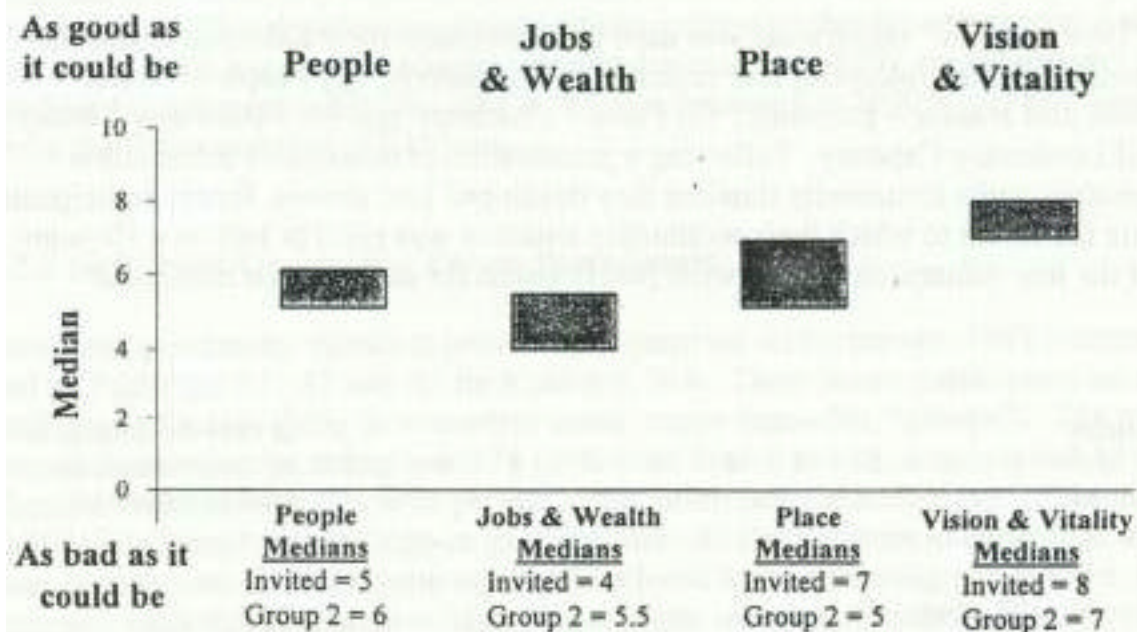
### 2.7.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Kahlotus to rate the current (1999) situation of the following four community dimensions: 1) **People** - Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

### 2.7.4.2 - 1999 Situation: Ratings

As Figure 2-13 presents, median ratings across the four community dimensions for all participants at the forum (two facilitated groups) ranged from a low of 4 in the Jobs & Wealth dimension, to a high of 8 in the Vision & Vitality dimension. Specifically, the 2 facilitated groups perceived the Vision & Vitality dimension as being most oriented to the *as good as it could be* end of the scale and Jobs & Wealth dimension as being most oriented towards the *as bad as it could be* end of the scale. The Place and People dimensions were perceived by both groups as being to be more central, having both good and bad characteristics. The difference between the invited group's median score and that of the other facilitated group for all four community dimension ranged from 1 to 2 rating points. The People and Vision & Vitality dimensions clustered around the invited group's median rating of 5 and 7, respectively. This clustering of group medians demonstrates that each group independently arrived at similar conclusions regarding the current situation of the community in terms of good and bad attributes. Further, this replication indicates the two community dimensions are likely to be perceived somewhat similarly. In contrast, median ratings for the Jobs & Wealth and Place dimensions did not cluster across groups.



**Figure 2-13. Median scale ratings of the current (1999) situation in Kahlotus, Washington, by community dimension, across groups**

#### 2.7.4.3 - 1999 Situation: Ratings Justifications

Table 2-13 presents the clustering of justifications for both facilitated groups. Justifications noted across both groups are categorized 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Group'. Finally, justifications noted by the other group are categorized 'Other Group'.

##### *Vision & Vitality*

The Vision & Vitality dimension was the highest rated dimension, clustered around the invited group's median rating of 8. Individual responses ranged from 5 to 7 across all forum participants. The justifications across all groups shows that strong, active civic leadership, numerous, varied, good or improving social activities, success at getting and using grants and strong cohesion and community participation contributed to the positive ratings. Conversely, the perception between both groups that Kahlotus does not cope well with change and is unprepared for the future may have limited the rating score.

### *Place*

The Place dimension received the next highest rating and individual responses across all forum participants ranged from 4 to 10. Clustering of median ratings across both groups did not occur, with the invited group and other group's reported median rating of 7 and 5, respectively. Nonetheless, many of the justifications given by each group to support their rating overlap. These include the perception that the general appearance of Kahlotus is good and improving, there is low traffic congestion and a good quality of life. Recreation and tourism opportunities ("proximity to dams, 2 parks & Palouse Falls") were also defined as contributing to the positive rating. On the negative end, increasing store vacancies clustered across both groups as a justification.

### *People*

The people dimension clustered around the invited group's median rating of 5, with individual responses ranging from 5 to 7. Justifications clustered across both groups to support the positive rating include the perception of stability in terms of population size, school enrollment and families. In contrast, lack of opportunities for young people ("many of the original family youth have left for work elsewhere") and loss of industry and job opportunities, in general contributed to the mid-point median rating.

### *Jobs & Wealth*

The Jobs & Wealth dimension received the lowest rating of all four dimensions. Individual responses ranged from 2 to 7 across all forum participants. There was no clustering of group medians, with the invited group having a median rating of 4 and the other group having a median rating of 5.5. Although there were no positive justifications clustered across both groups, a variety of negative ones were mentioned. These included the perception that there were poor job opportunities in Kahlotus, and a government based economy ("government jobs hiring, school, dam, prison"). The flow of money outside of the community, and low property values, were also noted as having a negative impact.

**Table 2-13  
Rating Justifications for the Current (1999) Situation  
In Kahlotus, Washington,  
By Community Dimension and Type of Group**

<b>Dimension</b>	<b>Replication Across All Groups</b>	<b>Invited Group</b>	<b>Other Groups</b>
<b>People</b>			
Positive	Stable population (43)	Opportunities for youth exist (12)	Decreasing number of retirees (22)
	Good prevalent values (61)	Good customs and lifestyles/change for the better (51)	
	Stable school enrollment (73)	Families (general) (109)	
	Willingness to support schools/education (91)	Few homes/land for sale (171)	
	Stable families (103)	Stability of community (general) (323)	
	Safe place to live with low crime (191)	Current trends will continue (325)	
	Supportive of community activities and involved (241)	Good community to live and raise family (424)	
	Small town charm/rural lifestyle (421)		
Negative	Lack of opportunities for young people (11)	Aging population (2)	
	Lack of involvement and community activities (242)	Decreasing population (42)	
	Loss of industry and lack of job opportunities (492)	Unstable population (44)	
		Youth need things to do (195)	
		Lack of social activities and opportunities (262)	
<b>Jobs and Wealth</b>			
Positive		Increasing agricultural jobs (11)	Stable cost of living (82)
		Low cost of living (78)	
		Low utility (79)	
		Economic base (general) (120)	
		Low poverty (185)	

Negative	Poor job opportunities (3)	Negative impacts associated with commuting (62)	
	Money leaves (51)	High commuting (66)	
	Government-based economy (145)	Increasing taxes/high (74)	
	Low property values (199)	Agricultural/food processing-based economy (143)	
		Economically dependent on schools (146)	
		Economically dependent on waterway, river (149)	
		Declining economy (162)	
	High poverty (183)		
<b>Place</b>			
Positive	Good/improving community appearance (511)	Unique community (512)	
	Good residential appearance (540)	Residential areas are clean (542)	
	Low traffic congestion (599)	Good public safety services (562)	
	Recreation and tourism (general) (660)	Good schools (563)	
	Strong sense of place/heritage and community (670)	Good modes of transportation (601)	
	Good quality of life (901)	Good roads, highways, and community infrastructure (620)	
	Safe and crime free (902)	Good proximity to outdoor recreation opportunities (662)	
		Attractive scenery (771)	
Negative	Increasing store vacancies (521)	Loss of railroad transportation (605)	People shop elsewhere due to lack of businesses/poor business opportunities (522)
			Good parks and open spaces, public lands (667)

Vision and Vitality			
Positive	Strong, active civic leadership (41)	Strong, active civic organizational capacity (11)	Cope well with change (361)
	Successful at getting and using grants (241)	Adequate, stable civic organizational capacity (13)	
	Numerous, good, or improving social activities (301)	Strong, active, astute political leadership (81)	
	Strong cohesive community (341)	Increase community cohesiveness (345)	
	Strong and high level of community participation (work together) (561)	Improved ability to cope (365)	
Negative	Don't cope well with or resist change (362)	Overwhelmed, poor leaders (142)	
	Not prepared for future (382)	Static/stable leadership (144)	
		Grants needed/used for development (245)	
		Limited or decreasing quality of social activities (302)	

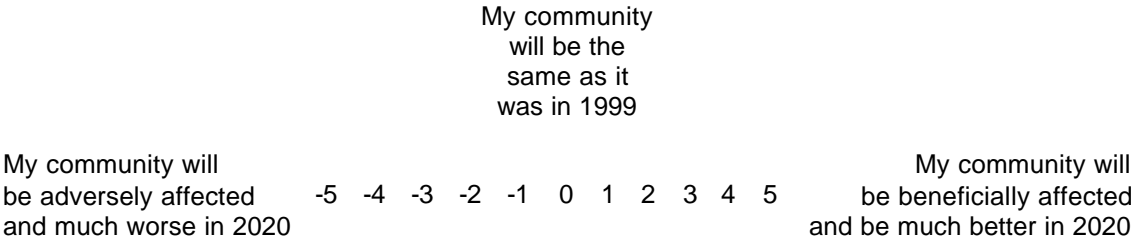
## 2.7.5 - Comparison of Salmon Recovery Pathways A1 to A3

### 2.7.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants re-rated the community dimensions and listed their justifications.

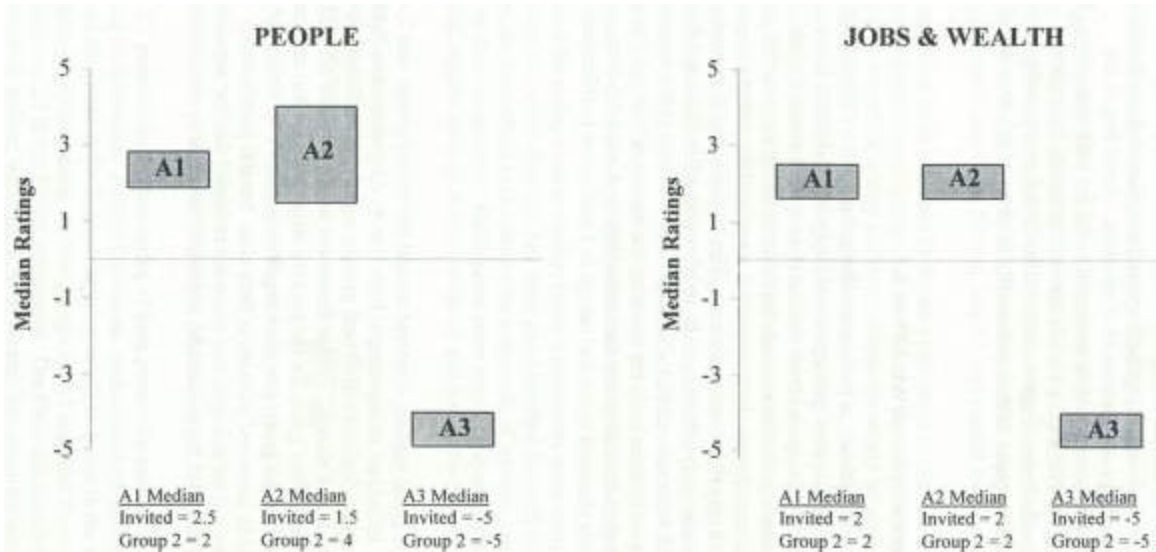
To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

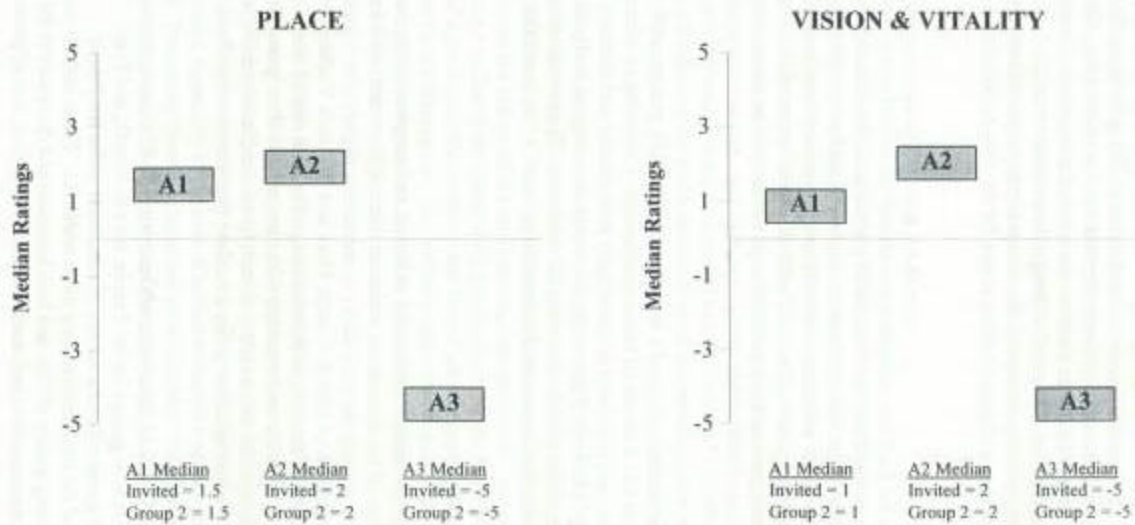




### 2.7.5.2 - Summary of Pathway Findings A1 to A3

Figure 2-14 presents the median rating of both groups for each of the pathways, categorized according to dimension. For all dimensions, and across both groups, forum participants perceived the situation for their community would be better in the year 2020 under Pathway A1. The range of medians across the two groups for A1 extended from a 1 in the Vision & Vitality dimension to a 2.5 in the People dimension. The Place dimension received a median rating of 1.5 across both groups, while the Jobs & Wealth dimension received a 2. Under Pathway A2, the range of group medians across dimensions extended from 2 to 4. The Vision & Vitality, Place and Jobs & Wealth dimensions all had median ratings of 2 for both the invited and other group. The People dimension received median ratings of 1.5 and 4, and was not clustered around either group. Finally, under Pathway A3, both group medians decreased substantially, with both groups reported median ratings of -5 across all dimensions. According to the perceptions of forum participants, Kahlotus would be worse under A3 for each dimension. The degree of clustering within each of the Pathways (A1-A3) across community dimensions remained relatively constant. The clustering suggests that both facilitated groups independently arrived at similar conclusions about the state of their community in terms of affects under A1, A2, and A3.





**Figure 2-14. Median scale ratings of Pathways A1, A2, and A3, for Kahlotus, Washington, by community dimension, across groups**

### 2.7.5.3 - Rating Justifications Across Pathways A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons (justifications) and changes underlying them were examined. The impact rating scale used ranged from -5 to 5, where -5 is adversely affected and be much worse off in 2020, and 5 is beneficially affected and be much better off in 2020. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of the clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.7.5.4 - Pathway A1**

##### *People*

Within the People dimension, the group median, clustered around the invited group, was 2, one of the higher-rated dimensions. Individual ratings ranged from 0 to 4. As presented in Table 2-14 here was little or no clustering of justifications across both groups, signifying that there was not consensus across the groups as to how Kahlotus' People dimension would be better off under A1. Justifications identified by the invited group for the positive rating indicate that current trends will continue yet others within the group saw more negatives such as a declining and aging population, and a decrease in farms and increase in farm size. Several justifications between groups were contradictory -- for example, one comment indicated that the population would decrease, while another stated that the population, and school enrollment, would increase.

##### *Jobs & Wealth*

For the Jobs & Wealth dimension, the clustering of group medians around the invited group was 2, with a range of individual ratings from 0 to 5 across all participants. The salient justifications clustered across both groups were an increase in job opportunities and low utility rates. Other comments made by the invited group to justify its positive rating included population growth, industry growth, stable government jobs and few major changes from current trends. Alternatively, the high rate of commute to jobs outside the community ("people will continue to commute for most jobs") justifies the no change of rating scores for the Jobs & Wealth dimension under A1.

##### *Place*

The clustering of group medians for the Place dimension was around the invited group median of 1.5 with a range of individual responses from 0 to 4 across all participants. Justifications for the positive rating identified across groups included good roads, highways, and community infrastructure, good air and water quality and recreation and tourism opportunities ("recreation opportunities a positive"). The invited group added that, under A1, Kahlotus would be similar to its current situation and continue to grow and improve, although there would be fewer farm families in the community.

##### *Vision & Vitality*

The Vision & Vitality dimension median ratings of 1 were the same for both groups, with individual responses ranging from 0 to 4 across all forum participants. Clustering of salient justifications indicate that a strong and high level of community participation and planning contributed to the positive rating. The invited group also felt that there was good leadership development and good/increasing fiscal resources in place for the future. The present strong, social cohesion within the community was perceived as continuing under A1 on into 2020.

**Table 2-14  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Kahlotus, Washington,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)		Poor job opportunities (3)
	Low utility rates (79)		Decreasing job opportunities (general) (18)
			Increased utility rates (86)
			Declining tax base (172)
Invited Groups	Jobs more service oriented (41)	Increasing construction-related jobs (17)	Increasing job opportunities (10)
	Public sector jobs (general) (44)	Public sector jobs (general) (44)	Increasing habitat restoration jobs (12)
	Stable government jobs (48)	Stable government jobs (48)	Decreasing agricultural jobs (22)
	Outside money spent locally (55)	Commuting (general) (61)	Need irrigation/irrigation-dependent farming (106)
	Commuting (general) (61)	Positive impact to port area (131)	Loss of recreation and tourism-related jobs (134)
	Low utilities (79)	Will be better (955)	Shrinking agriculture base/mining/timber (135)
	Low transportation costs (81)		Government-based economy (145)
	Industry growth (general) (127)		Increasing unemployment (195)
	Positive impact to port area (131)		Low property values (199)
	Opportunity to expand base (141)		Poor roads/degraded roads from trucking (223)
	Economically-dependent on schools (146)		Loss/decrease of schools (243)
	Recreation and tourism-based economy (147)		
	Population growth (207)		
	Same/no change/same as Pathway 1 (245)		
Other	Increasing job opportunities (general) (10)	Expanding economic base (125)	People will leave (206)

People			
Across All Groups			Decreasing/low population (42)
			Decreasing school enrollment (72)
			People changing for the worse/negative change (312)
			Loss of industries and lack of job opportunities (492)
			Unstable/poor/decreasing economy (542)
Invited Groups	Aging population (2)	Aging population (2)	Loss/change in recreation/tourism opportunities (442)
	Decreasing/low population (42)	Decreasing/low population (42)	Strong/improving/recovered fisheries (461)
	School/enrollment (general) (79)	School/enrollment (general) (79)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)
	Decrease in farms, increase in farm size (156)	Decrease in farms and increase in farm size (156)	
	Safe place to life with low crime (191)	Strong/increasing/improving quality of life (209)	
	Strong/increasing/improving quality of life (209)	Recreation/tourism is important (positive) (441)	
	Current trends will continue/little/no impact (325)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	
	Recreation/tourism is important (positive) (441)	Businesses suffer (512)	
Other Groups	Employment/economy (general) (549)	Unstable/poor/decreasing economy (542)	
		Employment/economy (general) (549)	
	Increasing/high population (41)	Increasing/high population (41)	
	Increasing school enrollment (71)	Increasing school enrollment (71)	
Other Groups	Supportive of community activities and involved (241)		
	People changing for better/positive change (311)		

Place			
Across All Groups	Good roads, highways, and community infrastructure (620)		Community character is poor/declining (577)
	Recreation and tourism (general) (660)		Lack of transportation facilities (602)
	Good air and water quality (780)		Poor roads, highways, and community infrastructure (623)
			Poor/loss of recreation and tourism opportunities (666)
			Negative economic impact from increased transportation costs (741)
			Ruin of community, complete negative community change (844)
Invited Groups	Decreased number of farms and increased farm size, absentee owners, corporate farms (653)	Same as Pathway 1 (930)	Irrigation wells drying up, dry farming only (655)
	Increase in tourism (663)		Decrease in jobs (748)
	Community growth and improvement (721)		Poor, decreasing quality of life/would decrease (906)
	Maintain status quo, no change (841)		
Other Groups	Good residential appearance (540)		
	Good modes of transportation (601)		

<b>Vision and Vitality</b>			
Across All Groups	Planning and plans exist, good base for the future (403)	Strong and high level of community participation (work together) (561)	Civic organization decline (population decline/financial stress) (14)
	Strong and high level of community participation (work together) (561)		Leadership decline (124)
	Positive economic opportunities (581)		Lack of support for and ability to pass bonds and levies (182)
			High/increasing taxes (204)
Invited Groups	Strong, active civic leadership (41)	Strong, active civic leadership (41)	Weak, ineffective civic leadership (42)
	Leadership development in place for the future (145)	Good/increasing tax base/fiscal resources (201)	Insufficient/decreasing tax base/fiscal resources (202)
	Good/increasing tax base/fiscal resources (201)		Decreasing/lack of community vision and vitality (602)
	Interesting community (307)		Increased costs related to modification (702)
	Strong cohesive community (341)		
	No real change in cohesiveness (363)		
Other Groups		New, optimistic visions of future (385)	Reduced, pessimistic visions of future (384)
			Negative economic opportunities (582)

### 2.7.5.5 - Comparison of Pathway A1 to A2

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all the dimensions remained relatively constant, with the medians across both groups either staying the same as A1 or increasing slightly (see Figure 2-14) Median ratings for the three dimensions of Jobs & Wealth, Place and Vision & Vitality were rated a 2 across both groups. The only anomaly in the clustering of median ratings across groups occurred in the People dimension, with the median rating of the invited and other group being 1.5 and 4. According to these ratings, the invited group perceived the People dimension to be worse under A2 compared to A1, while the other group perceived their community would be better off.

Table 2-14 presents the salient justifications under the implementation of A2. There were no justifications that clustered across both groups for the People, Jobs & Wealth, and Place dimensions for A2. The invited group offered a variety of comments under the People dimension that were replicates of the justifications they made under A1. These include the importance of recreation, the strong quality of life, and both increases and decreases in the local population. Increased utilities, transportation and taxes, decreased irrigation, loss of power was a justification that was not used in A1 and may have contributed to the deflated median rating score given by the invited group. For the Jobs & Wealth dimension, the invited group again mentioned commuting, public sector jobs, etc. as justifications for its A2 rating. Increasing construction jobs were a new addition and perceived to be a likely effect of A2 in 2020. For the Place dimension, the invited group commented that Kahlotus would be the same under A2 as under A1. Finally, for the Vision & Vitality dimension, both groups perceived high levels of community participation, strong civic leadership, and a good tax base would continue to exist under A2 as under A1.

#### **2.7.5.6 - Comparison of Pathway A1 to A3**

Under the implementation of A3, the change between A1 clustered median group ratings and A3 clustered median group ratings decreased toward the adversely affected end of the rating scale for all dimensions. Specifically, median ratings around 2 for A1 decreased to -4.5, one of the lowest possible ratings possible, for A3. The range of median ratings across both groups and across all dimensions also decreased. Clustering of group medians demonstrates that, for the four dimensions assessed, each facilitated group independently arrived at similar conclusions regarding the situation of the community in 2020 under A3. In other words, both groups perceived Kahlotus to be much worse off in all dimensions under A3, and perceived a similar degree of change.

##### *People*

For the People dimension, individual ratings ranged from -5 to 0 across all participants, with a median of -5 for both groups. Table 2-14 shows the shift in salient justifications under the implementation of A3. Clustering of justifications across both groups signifies that there is more consensus on the effects of A3 on Kahlotus, compared to A1 and A2. Decreases in population and school enrollment are some of the justifications for the negative rating. The compounding effects of a poor, unstable economy and loss of jobs were also mentioned by both groups to affect the People dimension. The invited group saw a strong/improving/recovered fisheries associated with this dimension as well as increases in utilities and transportation ("farmers won't be able to afford the costs").



### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -5 to -2 across all participants, with a median of -5 for both groups. Clustering of justifications across both groups indicates that poor job opportunities, increased utility rates, and a declining tax base, are perceived to negatively affect the community under A3. The invited group however saw increasing job opportunities, especially in the area of habitat restoration while those in agriculture would decrease. Increasing unemployment and poor/degraded roads from trucking were also perceived by the invited group as likely aspects of the community in 2020 under A3.

### *Vision & Vitality*

For the Vision & Vitality dimension, individual ratings ranged from -5 to 0 across all participants, with a median of -5 for both groups. Clustering of justifications across both groups indicates that high, increasing taxes and a decline in leadership and civic organizations are perceived to negatively affect Kahlotus under A3. These projected losses, along with that of lack of support and abilities to pass bonds and levies, are the perceived adverse effects to the community if A3 is implemented. The invited group added that there would be a lack of vision and vitality under A3 that is not the case under A1 or A2.

## **2.7.6 - Minimizing Adverse Impacts**

Kahlotus was a pilot community and, unlike in other communities, forum participants were not given an opportunity to identify ways of minimizing adverse impacts to the community. The assessment process for the forums was still being developed and streamlined, and time was not yet available for the process of identifying ways to lessen the negative impacts of the pathways.

## **2.8 - Kennewick, Washington, Community Assessment**

### **2.8.1 - Summary of Community Findings**

Kennewick, the largest community of the Tri-cities with a population of about 49,000 people, is located in southcentral Washington just above the confluence of the Snake and Columbia Rivers. This city, which began with a predominantly agriculturally-based economy, was linked to a Northern Pacific Railroad route that moved its products to markets. World War II brought new prosperity to the region with the construction of the plutonium-production facilities at the Hanford Project in the 1940s. The city's population increased significantly (from a little over 10,000 people in 1960 to its current size of over 45,000) with Hanford's expanding employment, the city's growing role as a service and retail center, and Kennewick's emergence as a bedroom community for employment in nearby Richland and Pasco.

Two forums were held in Kennewick in morning and afternoon sessions. Participants in the forums depicted a city in 1999 whose current situation reflected a continuation of this growth and the vitality of its current social and economic situation. The town's affected environment was characterized by the highly positive ratings for all four community dimensions given by forum participants, indicating that residents are very "up" about their city, especially its vision and vitality.

Forum participants were fairly optimistic about Kennewick's future under Pathway A1 (the existing hydro-system on the Lower Snake River maintained on into 2020), with ratings of its effects generally at the positive, "beneficially affected" end of the impact rating scale for all four dimensions. Residents generally saw improvement and growth on all dimensions, and both invited groups shared several similar comments that contributed to the fairly positive rating, including an improved economy with increasing job opportunities, a growing population, including retirees, a continued positive character and vision and vitality. Cheap utility rates were also mentioned to positively affect the community under A1. Ratings and justifications for A2 (major modifications to the existing hydro-system on the Lower Snake River) were much the same, except for a forecast of increases in the cost of living, including increased utility costs and taxes, and also increases in construction at the dams, creating short-term, minimum-wage jobs.

Participants at the forums were very concerned about their community's future under A3 (dam-breaching and natural river drawdown on the Lower Snake River), with ratings of its effects in 2020 clustered at the highly negative, adverse end of the scale. A major concern here was the perception of significant negative impacts of A3 on all four dimensions.

In identifying adverse impacts to Kennewick across each of the four dimensions, forum participants focused on regional actions to lessen the impacts to their community and the region, including that local residents not have to pay for dam modifications, but rather under A1 and A2, the entire country. Likewise, in the case of A3, the lack of suggestions for local level impacts suggest that, while some of the perceived impacts of that pathway may be localized in the form of increased utility costs, and thus the cost of living and doing business, the responses of the city's residents were consistent with a community tradition of public investment (in particular, that of the federal government) in its economic base. Given these responses, it is not surprising that the focus of the community's assessment reflected a primary concern for the future of their community.

### **2.8.2 - Interactive Community Forum Participants**

Nineteen community members provided perspectives on the history, current (1999) situation, and Pathways A1, A2, and A3 for Kennewick, WA. These forum participants comprised two groups of participants at two different forums held in Kennewick in anticipation of possibly large numbers of participants in this large city. The two groups of invited participants were seated at facilitated tables and worked in interactive small

groups (hereafter, "groups"). The participants' overall diversity index rating was 0.64 (on a scale from 0 to 1.0), indicating that 9 of 14 pre-identified community roles were present at the forums (see methodology). Of the total number of participants completing the sign-in questionnaire, there were 56 percent retirees and 11 percent business owners. The remaining 33 percent were employed in the following occupations: education, lawyer, chamber of commerce, council member, grange master, self-employed.

To maintain consistency in reporting the results of the analysis across communities, the invited group from the first forum is labeled here as the "Invited Group," and the invited group from the second session is labeled as "Group 2." Significant similarities and differences between the ratings of the two groups are noted.

### **2.8.3 - Community Background**

#### *History:*

Incorporated in 1904, Kennewick, the largest community of the Tri-cities with a population of about 49,000 people, is located in southcentral Washington just above the confluence of the Snake and Columbia Rivers. This city, which began with a predominantly agriculturally-based economy, was linked to a Northern Pacific Railroad route that moved its products to markets. World War II brought new prosperity to the region with the construction of the plutonium-production facilities at the Hanford Project in the 1940s. The city's population increased significantly (from a little over 10,000 people in 1960 to its current size of over 45,000) with Hanford's expanding employment, its own growing role as a service and retail center, and as a bedroom for employment in nearby Richland and Pasco. In response, the city has had a continued program of school expansion and development projects during the 1970s, 1980s, 1990s, with \$148 million in school maintenance and capital development levies passed in the 1990s. During this same period, acreage of farms in the county (Benton) has declined almost 100,000 acres.

#### *Vision:*

The 1998 Kennewick Comprehensive Plan describes a strategy to "...fashion development and growth with conscientious planning and foresight..." Elements of this plan include:

- Encourage growth within the current city limits while protecting critical areas;
- Promote work at the regional level to enhance the Columbia River Shoreline and Kennewick's riverfront;
- Diversify the economy, which is currently dominated by nuclear fuel manufacturing, the construction of nuclear power plants, and agriculture. Initiatives include targeting the underdeveloped industrial sector, providing affordable housing, and capitalizing on tourism benefits of the currently under-utilized Columbia River.

- Maintain the navigability of the Columbia River for commercial barge traffic; and
- Improve all modes of transportation, including the rail system, expansion of Columbia River port capabilities, and expansion of public access to local waterways for recreation.

## 2.8.4 - Community Assessment of 1999 Situation

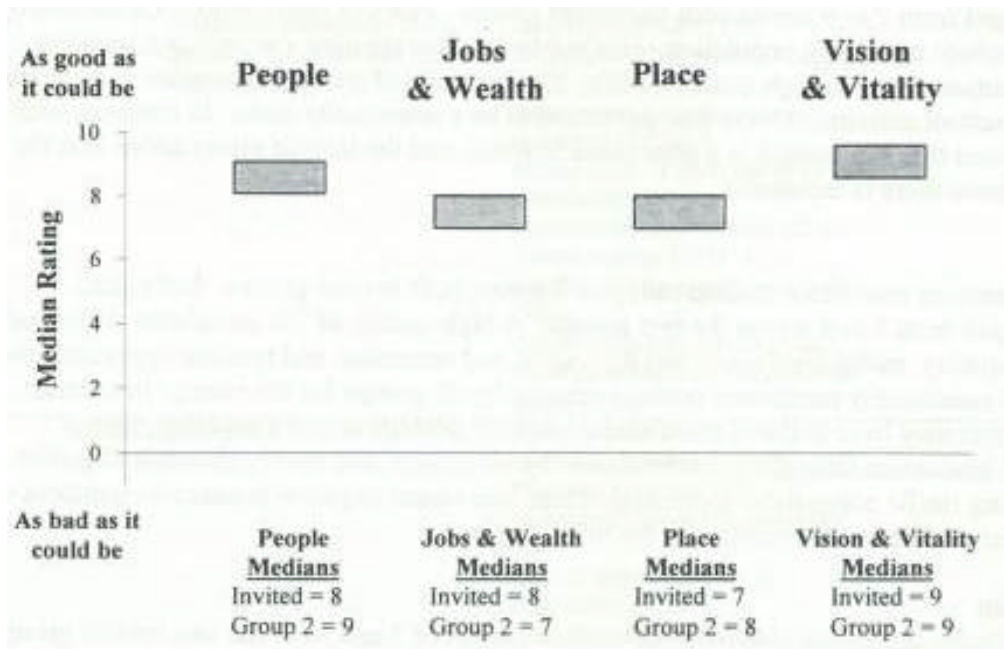
### 2.8.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Kennewick to rate the current (1999) situation of the following four community dimensions: 1) **People** - Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** - Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which of their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1   2   3   4   5   6   7   8   9   10	In 1999, the situation in my community is as good as it could be
---	--	--

### 2.8.4.2 - 1999 Situation: Ratings

As Figure 2-15 presents, median ratings across the four community dimensions for the participants at the forums, all of whom were participants in two invited groups, ranged from a 7 in both the People and Jobs & Wealth dimensions to a 9 in the Vision & Vitality dimension. Overall, the facilitated groups perceived all dimensions as oriented toward the *as good as it could be end of the scale*. The Vision & Vitality dimension was most oriented toward the positive end, followed by the Place Dimension, with a median rating of 8, and then followed by the People and Jobs & Wealth dimensions. The difference between the invited group's median score at the first forum and that of the other invited group at the second session of the forum ranged from 0 to 1 rating point across all community dimensions. This clustering of group medians demonstrates that, for the four dimensions assessed, each facilitated group independently arrived at similar conclusions regarding the current situation of the community in terms of good and bad attributes. This replication indicates the community dimensions are likely to be perceived somewhat similarly.



**Figure 2-15. Median scale ratings of the current (1999) situation in Kennewick, Washington, by dimension, across groups.**

#### 2.8.4.3 - 1999 Situation: Rating Justifications

Table 2-15 presents the clustering of justifications for both facilitated groups. Justifications noted across both groups are categorized "All Groups." Justifications noted by only one of the invited groups are categorized "Invited Group."

##### *Vision & Vitality*

The Vision & Vitality dimension was the highest rated dimension, with median ratings of 9 clustered around both invited groups at the *as good as it could be* end of the current situation rating scale. Individual responses ranged from 8 to 10 across both groups. As presented in Table 2-15, the perceptions that Kennewick has high levels of community participation and civic organizational capacity were some of the most consistently mentioned positive reasons for the ratings. Plans to prepare the community for the future, the ability of the community to cope with future changes, and being a friendly social community and other factors promoting community vitality were also attributed to the current situation.

### *People*

The people dimension was the second highest rated dimension, with median ratings for the invited groups clustered at 8 and 9, or the high positive end of the rating scale. Individual responses ranged from 7 to 9 across both facilitated groups. Positive justifications mentioned by both groups include a growing population, with stable families creating a supportive, positive, close-knit community with a high quality of life. The presence of a strong education system and an increasing school enrollment were also perceived to be a community asset. In contrast, both groups mentioned that Kennewick is a poor place to retire, and the invited group added that the number of retirees there is increasing.

### *Place*

The Place dimension received a median rating of 7 across both invited groups. Individual responses ranged from 5 to 9 across the two groups. A high quality of life associated with good air and water quality, maintained roads and highways, and recreation and tourism opportunities, were the most consistently mentioned positive reasons by all groups for the rating. In contrast, justifications that may have deflated some ratings include perceptions of increasing store vacancies and businesses struggling, as mentioned by all groups, and poorly maintained public areas, increasing traffic congestion, increasing crime, and recent negative impacts on numbers of farms and farm families, as mentioned by the invited group.

### *Jobs & Wealth*

The Jobs & Wealth dimension also received median ratings of 7 and 8 for the two invited groups. Individual ratings across both groups ranged from 4 to 9. Across both groups, justifications for the ratings appear inconsistent, with some comments describing good job opportunities, money reinvested in local businesses, and in general a strong, growing, diverse economy, while other comments mention decreasing job opportunities, low wages, and significant commuting. Such discrepancies may be the cause for the large range of individual ratings, although a relatively positive overall rating was found for this dimension.

**Table 2-15  
Rating Justifications for the Current (1999) Situation  
In Kennewick, Washington,  
By Community Dimension and Type of Group**

Dimension	Replication Across Both Invited Groups	Invited Group	Invited Group 2
<b>People</b>			
Positive	Increasing/high population (41)	Opportunities for youth exist (12)	Small town charm/rural lifestyle (421)
	Growth (general) (49)	Population, general (48)	Strong, stable neighborhoods (423)
	Strong education (81)	Good prevalent values (61)	Recreation/tourism is important (positive) (441)
	Stable families (103)	Prevalent values (general) (69)	Continued use of river (481)
	Many/most/increasing people own homes (151)	Increasing school enrollment (71)	Growth of businesses/good diverse, strong economy (541)
	Good, friendly, helpful people (201)	School/enrollment (general) (79)	
	Supportive of community activities and involved (241)	Families are becoming less stable (102)	
	Diversity (general) (309)	Decreasing/low public assistance (111)	
	Attractive community (411)	Housing (general) (179)	
	Increased industries and job opportunities (491)	Safe place to live with low crime (191)	
		Strong/increasing/improving quality of life (209)	
		Strong sense of spirit and pride in community (211)	
		Good community attitude (221)	
		Above average (321)	
		Stability of community (general) (323)	
		Good community services (401)	
		Good community to live and raise family (424)	

Negative	Poor place to retire (31)	Aging population (2)	
		Increasing number of retirees (21)	
		Poor place to retire (32)	
		Increasing/high public assistance (112)	
		Lack of spirit and pride in community (212)	
		Lack of involvement and community activities (242)	
		Ethnic diversity is low/decreasing (302)	
		Poor community appearance (412)	
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	General job opportunities (1)	
	Money reinvested in local businesses (54)	Low cost of living (78)	
	Negative impacts associated with community (79)	Economically diverse (121)	
	Low utilities (79)	Expanding economic base (125)	
	Economic base (general) (120)	Industry growth (general) (127)	
		Increased businesses (130)	
		Stable economic base (139)	
		Opportunity to expand base (141)	
		Economy (general) (151)	
		Strong/growing economy (157)	
		High property values (198)	
		Stable population (212)	



Negative	Decreasing job opportunities (general) (18)	Poor job opportunities (3)	
	Low paying jobs (31)	Decreased income/wages/pay (33)	
	Low economic diversity (122)	Commuting (general) (61)	
		Increasing utilities (73)	
		High cost of housing (76)	
		Increased cost of living (85)	
		Increased utility rates (86)	
		Low economic diversity (122)	
		Some poverty/level of low income families (186)	
		Lack of middle income jobs and families (189)	
		Decreasing property values (202)	
	Aging population (211)		
<b>Place</b>			
Positive	Good/improving community appearance (511)	Decreasing store vacancies/new shops coming in (530)	
	People shop within the community, regional shopping (532)	Expanding residential areas (541)	
	Good social services, same access to services (561)	Good public safety services (562)	
	Good public facilities (565)	General public and social services (560)	
	Good modes of transportation (601)	Waterway (general) (610)	
	Good roads, highways, and community infrastructure (620)	Farms (general) (650)	
	Recreation and tourism (general) (660)	Good irrigation system and wells, maintenance of irrigation system (657)	
	Good air and water quality (780)	Strong sense of place/heritage/morale and community (670)	
	Good quality of life (901)	Proactive community planning for the future (711)	
		Stable community (723)	
		Safe and crime free (902)	

Negative	Increasing store vacancies (521)	Poor/declining community appearance (513)	
	Decreased opportunities to parks and open spaces (668)	Appearance of residential areas bad/need improvement (550)	
		Poor public facilities (572)	
		Traffic congestion/increased traffic (603)	
		Negative impacts on the number of farms and farm families (642)	
		Poor air and water quality (782)	
		Increasing crime and drug use/less safety (903)	
<b>Vision and Vitality</b>			
Positive	Strong, active civic organizational capacity (11)	Adequate, stable, civic organizational capacity (13)	
	Cope well with change (361)	Civic organization improvement (15)	
	Prepared for future (381)	Strong, active, astute political leadership (81)	
	Planning and plans exist, good base for future (403)	Active, strong leadership (121)	
	Strong and high level of community participation (work together) (561)	Confident, caring leaders (141)	
	Community growth (605)	Support for and ability to support bonds and levies (181)	
		Excessive unjustified government expenditures (284)	
		Friendly, sociable community (305)	
		General budgets (489)	
		Positive/increasing community characteristics (541)	
		Positive economic opportunities (581)	
	Strong/increasing community vision and vitality (601)		
Negative		Lack of planning and the ability to plan for the future (404)	

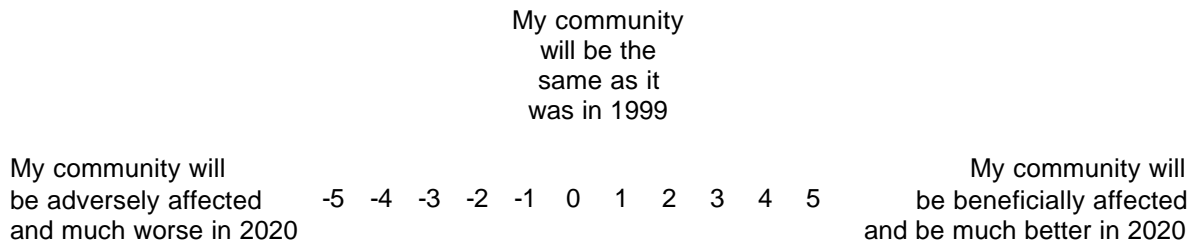
## 2.8.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.8.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

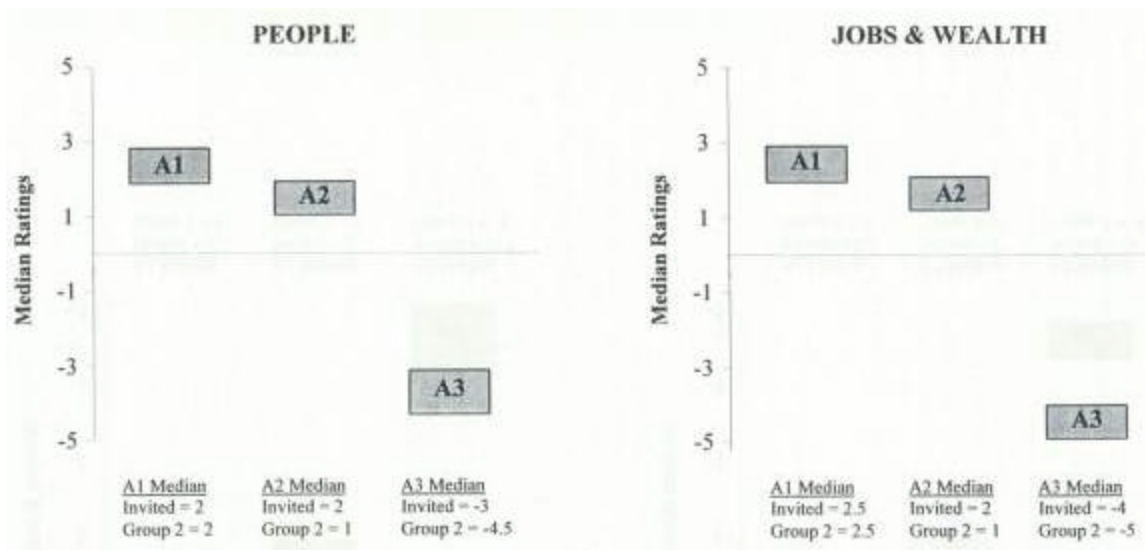
A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.8.5.2 - Summary of Pathway Findings for A1, A2, and A3

Figure 2-16 presents the median rating of both groups for each of the pathways, categorized according to dimension. For all dimensions, forum participants perceived the situation for Kennewick to be better in 2020 under Pathway A1. Specifically, the People, Place, and Vision & Vitality dimensions all had a median rating of 2 across both invited groups, while the Jobs & Wealth dimension had the slightly higher median rating of 2.5 across both groups. For Pathway A2, the group medians ranged from 1 to 2, indicating that little change was perceived by forum participants between A1 and A2. For Pathway A3, all group medians decreased substantially, ranging from a median rating in the Place dimension of -5 across both groups to a -4 in the People dimension. According to the perceptions of forum participants, Kennewick would be much worse off under A3 for each dimension. Clustering occurred around the invited group medians across all dimensions for all pathways. This clustering suggests that each invited group independently arrived at similar conclusions about the state of their community in terms of affects under A1, A2 and A3.



**Figure 2-16. Median group ratings for Kennewick, Washington, for pathways A1, A2, and A3, across dimensions, by groups**

### 2.8.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 (major modification) and A3 (natural river drawdown and dam breaching): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

## 2.8.5.4 - Pathway A1

### *Jobs & Wealth*

For the Jobs & Wealth dimension, the median rating was 2.5 for both groups, with individual responses ranging from 0 to 4. According to these ratings, forum participants perceive that Jobs and Wealth would be beneficially affected, although only somewhat positively, in 2020 under A1. As presented in Table 2-16, all groups shared several similar comments that contributed to the fairly positive rating, including an improved economy with increasing job opportunities. Within the invited groups, there was a large range of responses, from decreasing job opportunities to a more service-oriented economic base and growth in tourism and high-tech jobs, and the presence of construction jobs. Cheap utility rates were also mentioned to affect the community under A1.

### *People*

Within the People Dimension for A1, the median rating for both groups was 2, with individual responses ranging from 0 to 4 across all participants. Characteristics consistently mentioned across all groups were that the population would continue to increase, with the number of retirees growing.

### *Place*

The median rating for the Place dimension was 2 for both groups, with individual responses ranging from 0 to 5 across all participants. Salient justifications clustered across both groups include the perception that current (1999) trends will continue, with increased access to outdoor recreational opportunities further benefiting the community. Invited group 1 also mentioned good social services and public facilities, such as transportation and recreation, a strong sense of place, and quality of life as positive attributes under A1.

### *Vision & Vitality*

The median rating for Vision & Vitality was clustered around 2 for the invited groups. Individual responses across both groups ranged from 0 to 5. The presence of positive and improving community characteristics, including factors promoting community vitality and good planning as a sound base for preparing for the future, were justifications replicated across all the groups. The invited groups provided a variety of related positive justifications for the rating, including a cohesive community, high levels of social activity and citizen involvement that provides a strong organizational capacity, and new and positive visions for the community's future. A number of these justifications overlap those mentioned in the current condition, and several participants added that no change in vision and vitality would occur in 2020 under A1.

**Table 2-16  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Kennewick, Washington,  
By Kinds of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing number of retirees (21)	Increasing/high population (41)	Decreasing/low population (42)
	Increasing/high population (41)	Increase industries/good job opportunities (491)	Decreasing school enrollment (72)
	Increase industries/good job opportunities (491)		Loss/change in recreation/tourism opportunities (442)
			Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)
			Loss of industries and lack of job opportunities (492)

Invited Groups	Population (general) (48)	Increasing number of retirees (21)	Aging population (2)
	Growth (general) (49)	Decreasing/low population (42)	Growth (general) (49)
	Good customs and lifestyles/change for the better (51)	Community values are stable (63)	Poor customs and lifestyles/loss of/change for the worse (52)
	Community values are stable (63)	Growth (general) (49)	School enrollment (general) (79)
	Increasing school enrollment (71)	Stable families (103)	Families are becoming less stable (102)
	Stable families (103)	Ethnic diversity is high/increasing (301)	Stable families (103)
	Many/most/increasing people own homes (151)	Stability of community (general) (323)	Families, general (109)
	Ethnic diversity is high/increasing (301)	Current trends will continue/little/no impact (325)	Increasing/high public assistance (112)
	Current trends will continue/little/no impact (325)	Recreation/tourism is important (positive) (441)	Strong/increasing/improving quality of life (general) (209)
	Good community services (401)	Continued use of river (481)	Lack of spirit and pride in community (212)
	Recreation/tourism is important (positive) (441)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	Ethnic diversity is low/decreasing (302)
	Continued use of river (481)	Increasing development (511)	People will change (314)
	Increasing development (511)		Current trends will continue/little/no impact (325)
			Increase/high in traffic congestion (432)
		Lack of money in community (532)	
		Unstable/poor/decreasing economy (542)	
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Increasing jobs at dams (14)	Decreasing job opportunities (general) (18)
	Economic base (general) (120)	Increasing construction-related jobs (17)	Decreased local investment (58)
	Expanding economic base (125)	Decreasing job opportunities (general) (18)	Declining economy (162)
	Strong growing economy (157)		Declining tax base (172)
	Population growth (207)		Decreasing wealth (181)

Invited Groups			
	General job opportunities (1)	Increasing job opportunities (general) (10)	Poor job opportunities (3)
	Increasing construction-related jobs (17)	Increasing agricultural jobs (11)	Low employment for youth (6)
	Decreasing job opportunities (general) (18)	Decreasing income and wages (33)	Decreasing public sector jobs (21)
	Increasing high-tech related jobs (40)	Short-term and temporary jobs/part-time (37)	Jobs decrease due to the ripple effect from agricultural losses (26)
	Jobs more service oriented (41)	Jobs more service oriented (41)	Decreasing income and wages (33)
	Low utilities (79)	Low utilities (79)	Increased utility rates (86)
	Increasing services/good services/school services (96)	Lower taxes (80)	Increased cost of doing business (88)
	Resource tourism and amenity recreation growth (126)	Increased cost of living (85)	Loss of farm produce (102)
	Industry growth (general) (127)	Increased utility rates (86)	Decreasing farms and increased farm size (109)
	Cheap utility rates keep economy growing (160)	Ripple effect (into community, into all dimensions, etc.) (93)	Loss of recreation and tourism-related business (134)
	Stable tax base (171)	Expanding economic base (125)	Shrinking agricultural base/mining/timber (135)
	Same/no change/same as pathway #1 (245)	Opportunity to expand base (141)	Declining/limited businesses and shops (136)
		Stable economy (155)	Economically dependent on waterway, river (149)
		Same/no change/same as pathway #1 (245)	Weak economy (153)
			Low poverty (185)
			Increasing poverty (187)
			Effects on Pacific Northwest decline area (220)



Place			
Across All Groups	Good/improving community appearance (511)	Good/improving community appearance (511)	Poor/decreasing social services (570)
	People shop within the community, regional shopping (532)		Community character is poor/declining (577)
	Good parks and open spaces, public lands (667)		Traffic congestion/increased traffic (603)
	Maintain status quo, no change (841)		Poor/loss of recreation and tourism opportunities (666)
			Decline in industries (745)
			Decline in property value and tax base (882)

Invited Groups	Struggling businesses and vacant storefronts (520)	Increasing store vacancies (521)	Increasing store vacancies (521)
	Good social services, same access to services (561)	People shop within the community, regional shopping (532)	People shop elsewhere due to lack of businesses/not spending money here/poor business opportunities (522)
	Good public facilities (565)	Good public facilities (565)	Good modes of transportation (602)
	Transportation (general) (600)	High cost of electricity (591)	Decreased number of farms and increased farm size, absentee owners, corporate farms (653)
	Good roads, highways, and community infrastructure (620)	Negative impacts on the number of farms and farm families (642)	Decline in farming (654)
	Poor roads, highways, and community infrastructure (623)	Good parks and open spaces, public lands (667)	Irrigation wells drying up, dry farming only (655)
	Recreation and tourism (general) (660)	Decreased opportunities for parks and open spaces (668)	Irrigation wells drying up, dry farming only (655)
	Decreased opportunities for parks and open spaces (668)	Strong sense of place/heritage/morale and community (670)	Community decline and worsening (722)
	Strong sense of place/heritage/morale, and community	Community growth and improvement (721)	Stable community (723)
	Planning (general) (712)	Decline in industries (745)	Decrease in jobs (748)
	Community growth and improvement (721)	Increased commercial and residential development/loss of open space to it (761)	Poor air and water quality (782)
	Good climate (772)	Good climate (772)	Maintain status quo, no change (841)
	Good air and water quality (780)	Negative impacts associated with fish decline/symbolic/spiritual/material (811)	
	Increased need for dam maintenance (871)	Decreasing population (823)	
	Increasing crime and drug use/less safety (903)	Well-educated work force (827)	
		Maintain status quo, no change (841)	
		Improve use of hydrosystem (872)	
		Improve dam modifications (873)	
	Good quality of life (901)		

Vision and Vitality			
Across All Groups	Planning and plans exist, good base for the future (403)	Planning and plans exist, good base for the future (403)	Negative economic opportunities (582)
	Positive/increasing community character (541)		Reduced budgets (484)
	Strong/increasing community vision and vitality (601)		Decreasing/lack of community vision and vitality (602)
Invited Groups	Strong, active civic organizational capacity (11)	Adequate, stable, civic organizational capacities (13)	Diminished civic organizational capacity (12)
	Good/increasing tax base/fiscal resources (201)	High/increasing taxes (204)	Leadership decline (124)
	Successful at getting and using grants (241)	Numerous, varied, good, or improving social activities (301)	Lack of support for and an ability to pass bonds and levies (182)
	Numerous, varied, and good or improving social activities (301)	Increase community cohesiveness (345)	Reduced, pessimistic visions of the future (384)
	Strong cohesive community (341)	No real change in cohesiveness (363)	New, optimistic visions of the future (385)
	Increase community cohesiveness (345)	Stable vision for future (383)	Lack of planning and ability to plan for the future (404)
	Don't cope well with or resist change (362)	Planning and plans exist, good base for the future (403)	Lack of community controls of outside forces (economics/regulations) (442)
	No real change in cohesiveness (363)	Future planning uncertain (409)	Negative impacts on agriculture and land tenure (544)
	Prepared for future (381)	Strong/increasing community vision and vitality (601)	Economic factors decreasing vision and vitality (583)
	New, optimistic visions of future (385)	Decreasing/lack of community vision and vitality (602)	No change in vision and vitality (603)
	Strong and high level of community participation (work together) (561)	Stable jobs and wealth (723)	Increased costs related to modifications (702)
	No change in vision and vitality (603)	Good community services (861)	Negative land tenure patterns (822)
	Positive attributes of people (881)	Land tenure changes (882)	Increasing quality of life (841)
			Outmigration of population (892)

### **2.8.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the median rating for all four dimensions was between 1 and 2, with the first invited group consistently giving a median rating of 2, and the other invited group consistently reporting a 1 (see Figure 2-16). Comparing A2 to A1, the change in clustered median group ratings for all dimensions remained relatively constant, signifying that no significant difference was perceived between A1 and A2.

Table 2-16 presents the salient justifications under the implementation of A2. In general, for the People dimension, both invited groups perceived that current trends would continue under A2, with continued increases in population and job opportunities. Two comments not reported under A1 that emerged in A2 were increases in development and increases in utility costs and taxes. For the Jobs & Wealth dimension, both groups perceived that increases in jobs at dams would occur, a comment not previously mentioned under A1. Other justifications mentioned by one of the groups included a perceived increase in the cost of living, and a growth in short-term, minimum-wage jobs. These justifications contributed to the lowered rating under A2 compared to A1. For the Place dimension, both groups commented that the appearance of Kennewick would remain good. The invited groups also added a diversity of reasons focused on a positive state of the community and improvements in the hydrosystem and dam technology; they also mentioned such negative changes as increased business problems, declining industries, farms, and population, as well as negative impacts associated with salmon decline. Finally, both groups in rating the Vision & Vitality dimension, mentioned that good planning would continue, as under A1. The invited groups added such justifications as an overall stability in vision, economic factors, organizational capacity, and the like, but that community vitality would decrease under A2.

### **2.8.5.6 - Comparison of Pathway A3 to A1**

The median group ratings for A1 shifted toward the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3. Median ratings for the four dimensions, which loosely clustered around 2 for A1, ranged from -3 to -5 for A3 (see Figure 2-16), with both invited groups perceiving Kennewick to be much worse off in all dimensions under A3. However, there was not complete consensus across the two invited groups regarding the degree of negative impact. The first group consistently rated each dimension 1 to 1.5 points higher than did the second group.

#### *People*

For the People dimension, individual ratings ranged from -5 to 0, with a median of -4 across both invited groups. Table 2-16 shows the shift in salient justifications under the implementation of A3. Comments made by both groups include a forecast of increased business costs and decreases in jobs and recreation opportunities, leading to decreases in population, followed by decreases in school enrollment.

### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual responses ranged from -5 to -1, and group medians clustered around -4 and -5. Justifications for participants' median rating scores clustered around decreasing job opportunities and a declining economy. According to the invited groups, losses in the agriculture and tourism/recreation sectors and their ripple effect throughout the rest of the economy, which was perceived to increase under A1, was thought to decrease under A3.

### *Vision & Vitality*

For the Vision & Vitality dimension, individual responses ranged from -5 to 0, and group medians clustered around -4. Justifications made by both groups for the negative rating include the compounding effects of economic decline and other factors inhibiting community vitality, especially on reduced budgets and their associated impacts. The invited groups further justified their ratings by mentioning a decline in civic organizations, the lack of community control on outside forces, and a loss of the ability to plan for the future.

### *Place*

For the Place dimension, individual responses ranged from -5 to 0 across both groups, with an overall group median of -5. Less clustering between the median ratings of the first and second group occurred, with medians ranging from -3.5 to -5. Both groups' justifications clustered around increases in traffic congestion and related problems, as well as decreases in the agriculture and tourism/recreation sectors and their effect on the tax base for government. One of the invited groups mentioned several less negative attributes of A3, such as community stability and maintaining the status quo, perhaps contributing to the disparity in median ratings across both groups.

## **2.8.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Kennewick across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1 and A2, forum participants suggested that the local residents would not pay for dam modifications but the entire country should share these costs. No local level mitigation measures were identified. This response is not unexpected, given the city's long history of a close relationship to Federal government projects and public investment in them.

Under the implementation of A3, Kennewick residents did not identify any local level measures to minimize local level impacts, although they rated A3 with strong negatives across all four-community dimensions. Regional suggestions included the expansion of nuclear power capability to make up for lost power supplies. The lack of suggestions for local level impacts suggest that, while the impacts of A3 may be localized in the form of increased utility costs and thus the cost of living and doing business, the response of the city's residents is consistent with a tradition of public investment mentioned above.

## 2.9 - Lewiston, Idaho, Community Assessment

### 2.9.1 - Summary of Community Findings

Located at the junction of the Snake and Clearwater Rivers, the city of Lewiston has long served as a supply center for regional industrial and economic development. The city now has a population of over 30,000. Since its earliest days of the gold boom, Lewiston has continued to grow as a regional shopping, trade and distribution center for mining, agricultural and timber operations. The Port of Lewiston was established in 1958, and construction of the Lower Granite dam in 1975 brought slackwater to the city, making it the inland-most port on the 460 mile Columbia/Snake River transportation system and linking the city to Portland by barge traffic. Subsequent increases in grain elevator capacity and highway improvements to Highway 95N have facilitated transportation and shipping of commodities to and from Lewiston. Levees along the river and associated parks and facilities increased recreation opportunities and contributed significantly to the city's character. The downtown was made over in the 1980s, improvements made in the St. Joe's Regional Medical Center, and the city has been developing an image as a retirement community.

Two forums were held in Lewiston in sessions held on consecutive nights. Participants in the forums depicted a city in 1999 whose current situation reflected the ongoing changes in its social and economic situation. The clustering of the facilitated groups indicated they perceived the Place dimension as being the most oriented towards the *as good as it could be* end of the scale. However, there was an apparent difference in perceptions of this dimension among the groups of participants. The clustering of groups most oriented towards the *as bad as it could be* end of the scale was for the Vision & Vitality dimension, with a significant range of median ratings from 4 to 8. The People dimension was perceived as being the second highest dimension oriented towards *as good as it could be*, followed by the Jobs & Wealth dimension with medians around 6 and 7. Overall, the perceptions of the groups were generally positive, although the invited group at the second session tended to give some of the lowest median rating scores, in the middle of the current situation scale.

Participants were somewhat optimistic about Lewiston's future under Pathway A1 (maintaining the existing hydro-system on the Lower Snake River), with ratings of its effects in 2020 generally being on the positive, beneficial end of the scale for all four dimensions. Residents generally saw improvement and growth on all dimensions. The only major negative perceptions for A1 were perceived by group 4, whose members rated significant changes towards the "adversely affected" end of the impact rating scale for all dimensions but Vision & Vitality. Across all the groups, median ratings ranged from a low of -3 in the Place dimension to highs of 4 in the Place and Jobs & Wealth dimensions, indicating a wide range of forecasts across the various groups about Lewiston's future if the existing situation is maintained on into 2020. The invited groups' ratings were within 1 rating point of each other under A1, but the median ratings for the other two groups differed from those of the invited by 2 or more rating points.

Ratings and justifications for A2 (major modifications of the hydro-system on the Lower Snake River) were much the same as for A1, with a somewhat more positive assessment of A2 on the People and Vision & Vitality dimensions.

Participants at the both Lewiston forums were very concerned about their community's future under A3 (dam-breaching and natural river drawdown on the Lower Snake River). Ratings of its effects in 2020 clustered at the negative, "adversely affected" end of the impact rating scale -- especially for the invited group at the first forum session. However, median ratings for A3 ranged widely across groups, from a -5 for all four dimensions to 2 in the Place dimension. Perceptions of how beneficial or adverse the impacts would be on Lewiston with the implementation of this pathway differed significantly, depending on the dimension and the group providing the rating. In a similar vein, the median ratings for the invited groups under A3 consistently differed by 2 or more rating points across all dimensions, again indicating some significant differences in perceptions of impacts among these forum participants. This divergence was especially great for the Jobs & Wealth and Place dimensions.

A major concern here was the perceived significant impacts of the loss of irrigated land. Also, a key theme for the effects of this pathway was the loss of resources, including fiscal and human capital, necessary for a town and its schools that have been "on the brink" to survive. Additional costs of production in a marginal economy in a town where "most people who live here, work elsewhere, and most people who work here, live elsewhere" were seen as extremely adverse. As a result, indicative comments include the sense that A3 would end up "destroying years of progress," as well as a pervasive hopelessness ("little future," "social emotional depression").

Given these responses, it is not surprising that the focus of the community's assessment reflected a primary concern for the future of their community. However, the diversity and range of ratings and justifications provided by residents at the forums held in Lewiston -- especially on the perceived impacts of the three pathways -- suggest that the community is not of a single mind on the issue of salmon recovery and its implications for that future. Perhaps more than any other town or city assessed in Phase I or II of the community-based assessment, a clear consensus was lacking in Lewiston about the extent to which the forecasted impacts of the pathways for salmon recovery would affect the different dimensions of the city. This finding is consistent with other indications of this lack of consensus in the community, such as the previous inability of Lewiston's City Council to take a united position on opposition to or support for dam-breaching. (Significantly, no elected officials attended the forums, perhaps indicative of an unwillingness to engage in further public discussion of the proposed pathways.)

## **2.9.2 - Interactive Community Forum Participants**

Thirty-three community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Lewiston, ID. These forum participants sat at four facilitated tables working in interactive small groups (hereafter, "groups;" see methodology) during a series of two forums held on sequential nights in anticipation of possibly large numbers of participants. Two groups of participants attended the forum the first night, and an additional two groups attended the second night. Separate groups of participants were invited for each forum.

The overall diversity index rating for participants across both meetings was 0.86 (on a scale from 0 to 1.0), indicating that 12 of 14 pre-identified community roles were present at the forums (see methodology). Of the total number of participants completing the sign-in questionnaire, 18 percent were retired, 9 percent electricians, 6 percent were in agriculture, and the remaining 67 percent of participants were employed in the following occupations: education, lawyer, port manager, mechanic, advertising coordinator, editor, carpenter, communications system designer, conservationist, controller, economic development specialist, director of boys and girls club, health care professional, senate field staffer, innkeeper, nursery manager, operations director, public relations, crane operator, tackle store owner, vice-president of administration, and a warehouse manager.

To maintain consistency in reporting the results of the analysis across communities, the invited group at the forum held on the first night is labeled the "invited group 1," and the invited group at the second night's forum is labeled as "invited group 2." Significant similarities and differences among the ratings of the two invited groups are specifically noted.

## **2.9.3 - Community Background**

### *History:*

Located at the junction of the Snake and Clearwater Rivers, the city of Lewiston has long served as a supply center for regional industrial and economic development in northcentral Idaho and southeastern Washington. The city now has a population of over 30,000.

Founded in May 1861, Lewiston was the second permanent settlement in Idaho and the state's first incorporated town. Because of its location at the junction of the Snake and Clearwater Rivers, the city served as a supply center for regional mining operations. Following the gold boom, Lewiston continued to grow as a regional shopping, trade and distribution center for agricultural and timber operations, especially after the construction of the Potlatch lumber and pulp and paper mill. The Port of Lewiston was established in 1958, and property tax is still being paid for it. Airport improvements occurred in the 1960s, and Lewis-Clark State College was upgraded. The Lewiston Orchards commercial and residential area was annexed in 1969, doubling the city's size and population. The WJIP dam across the Clearwater River was also pulled out at Potlatch. Construction of the Lower Granite dam in 1975 brought slackwater to Lewiston, making it the inland-most port on the 460 mile Columbia/Snake River



transportation system and linking the city to Portland by barge traffic. Subsequently, Lewis & Clark Terminals grew in capacity, along with grain elevator increases. Grade improvements to Highway 95N were also initiated, resulting in significantly easier highway north out of Lewiston. Levees along the river and associated parks and facilities increased recreation opportunities. Business began to shift from downtown to Thayne Grade during this period as well. The downtown was made over in the 1980s, improvements made in the St. Joe's Regional Medical Center, and the city began to develop an image as a retirement community. Blount Bullet Manufacturing located in Lewiston. Timber flow problems stemming from reduced timber supply also began in the 1980s. Along with steady population growth since the 1960s (from a little over 20,000 then to a little under 30,000 in 1995), economic development in the city also has continued on into the 1990s, creating a highly diversified economy. Between 85-185 new jobs were created in the St. Joe's Regional Medical Center. The city became established as a major trucking transportation node (e.g., Swift Transportation Co.), \$1 billion was invested in renovating and retooling the Potlatch mill, and large retail distributors located in the city (e.g., Wal-Mart, ShopCo, etc.). Recently, Lewis and Clark Bicentennial activities are being planned for the region, the Pulp & Paper Workers Resource Council is actively involved in local economic issues, and a 'Valley Vision' economic development plan for the Lewiston/Clarkston area currently is being developed, as well as a city comprehensive plan in 1997.

*Vision:*

Lewiston's 1991 Comprehensive Plan lists its key planning objectives. These include:

- Encourage orderly and diverse growth by promoting economic, social and educational opportunities;
- Prevent urban sprawl while encouraging use of undeveloped lots;
- Encourage industrial development that utilizes local labor and products, harmonious with the local environment;
- Protect open spaces and promote environmentally sound activities;
- Pursue transportation projects that lead to economic development;
- Encourage recreational opportunities, such as use of the waterfront. This may include development of a greenbelt from the Lewiston Grain Growers to Hells Gate State Park, and development of a boat launch facility in North Lewiston;
- Protect the existing biological ecosystem of the city and promote its improvement.

## 2.9.4 - Community Assessment of 1999 Situation

### 2.9.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Lewiston to rate the current (1999) situation of the following four community dimensions: 1) **People** - Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

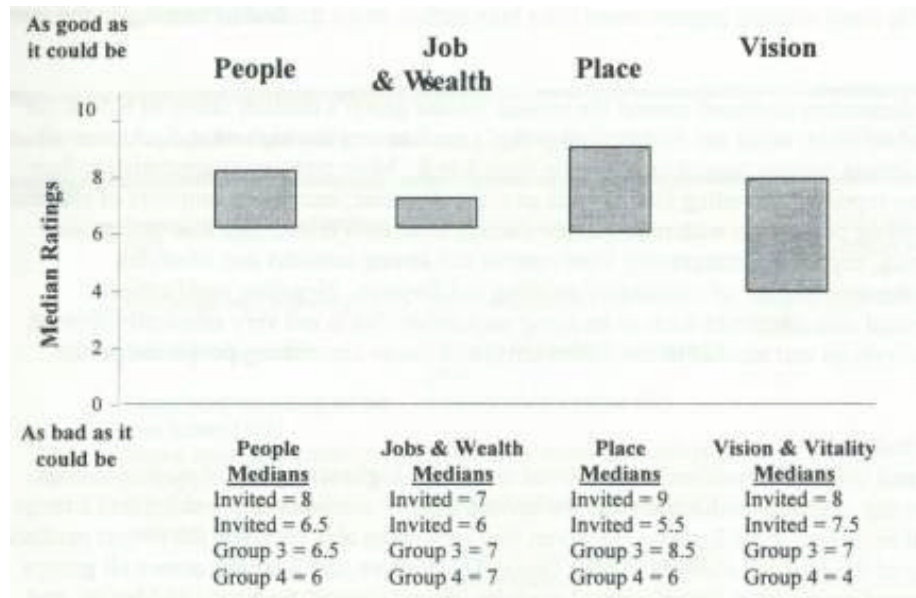
### 2.9.4.2 - 1999 Situation: Ratings

As Figure 2-17 presents, median ratings across the four community dimensions for all participants at the forums (four facilitated groups) ranged from a 4 on the Vision & Vitality dimension, to a 9 on the Place dimension.

Specifically, the clustering of the facilitated groups perceived the Place dimension as being the most oriented towards the as good as it could be end of the scale; however, there was an apparent difference in perceptions among groups, with ratings ranging from 6 to 9. The clustering of groups most oriented towards the as bad as it could be end of the scale was the Vision & Vitality dimension, with a range from 4 to 8. The People dimension was perceived as being the second highest dimension oriented towards as good as it could be, with medians ranging from 6 to 8, followed by the Jobs & Wealth dimension with good characteristics outweighing the bad in Lewiston and medians around 6 and 7.

In the case of the invited groups' ratings, the difference between the invited group's median ratings at the first session of the forum and those of the other invited group at the second session ranged from 0.5 to 1.5 on the People, Jobs & Wealth and Vision & Vitality dimensions. However, for the Place dimension there is a difference of 3.5 rating points between the two invited groups, indicating obvious differences in perceptions of the current situation. Likewise, the other groups' rating scores differed by a range from 0 to 2 for the People, Jobs & Wealth, and Vision & Vitality dimensions. The exception here was that group 4's median rating differed from those of the first invited group by 3 to 4 rating points on the Place and Vision & Vitality dimensions.

The clustering of group medians for the People and Jobs & Wealth dimensions indicates that each facilitated group independently came to similar conclusions about these dimensions. This replication indicates the People and Jobs & Wealth dimensions were perceived somewhat similarly. In contrast, the divergence of medians for the Place and Vision & Vitality dimensions indicates these dimensions were not perceived similarly, suggesting that there might be differences in justifications for these community ratings.



**Figure 2-17. Median scale ratings of the current (1999) situation in Lewiston, Idaho, by dimension, across groups.**

### 2.9.4.3 - 1999 Situation: Rating Justifications

Table 2-17 presents the clustering of justifications for the four facilitated groups. Justifications noted across the invited groups and other groups are categorized as ‘All Groups’. Justifications noted by only the invited groups are categorized as ‘Invited Group’. Finally, justifications noted by groups other than the invited ones are categorized as ‘Other Group’.

#### *Place*

The Place dimension was rated the highest for the current situation, based on the first invited group’s median rating of 9. However, the second invited group’s median rating was 5.5. This lack of clustering across the four groups of participants would suggest that there was not a consensus across the groups in Lewiston, with the groups from the second session of the Lewiston forum (the second Invited Group and Group 4) rating this dimension significantly lower than those at the first night (the first Invited Group and Group 3). Individual responses ranged from 3 to 9 across all four groups.

This spread of median ratings would suggest the justifications for the Place dimension also are diverse. Across all groups, many justifications for the ratings given were more positive than negative, including recreation and tourism, parks, scenery and the outdoor environment. Additionally, the groups also indicated that Lewiston's strong sense of place with a high quality of life, good appearance, and safety to be important positive characteristics of the Place dimension. However, both the invited and other groups consistently mentioned as many negative reasons for their ratings. This finding may help explain the discrepancy between ratings as high as 9 and 8.5 at the first session of the forum in this city and ratings of 5.5 and 6 at the second session. The only negative Place characteristics noted by all groups was the lack of transportation facilities and that the infrastructure of Lewiston needs improvement. Other negative reasons given across a number of groups included traffic congestion, poor air and water quality, public areas needing improvement (like bike paths), and a decline in farming in the area.

### *People*

The People dimension clustered around the second invited group's median rating of 6.5 on the current situation scale, while the first invited group's median was the highest at 8. Across all forum participants, ratings ranged on the scale from 4 to 8. More positive characteristics than negative were reported, including factors such as stable families, increasing numbers of retirees, and an increasing population with most people owning their own home. All four groups also reported strong, supportive community involvement and strong customs and lifestyles influencing the strong sense of community existing in Lewiston. Negative justifications clustered around characteristics such as an aging population that is not very ethnically diverse, problems with drugs and alcohol in the community, and issues concerning people on public assistance.

### *Vision & Vitality*

The Vision and Vitality dimension also received one of the highest clusters of median ratings, with a clustering of group medians around the invited groups' medians of 8 and 7.5 and a range of individual responses from 2 to 10. However, this dimension also received the lowest median rating of any of the four in Lewiston (a 4 by Group 4). Positive justifications across all groups clustered around strong civic organizational capacity, strong support for bonds and levies, and that the community is cohesive with high levels of civic and government involvement. Examples of negative characteristics of Lewiston identified across all groups suggest that civic organizational capacity has diminished -- in particular, ineffective and even dysfunctional local government, a lack of planning, and a lack of community control of outside forces -- and that support for bonds and levies from the community and other forms of involvement of its residents are lacking. The equally large numbers of negative and positive reasons for the ratings given by the invited and other groups reflect the apparent contradiction in clusters of justifications, and they underscore that significant differences exist in current community perceptions in Lewiston of its Vision & Vitality.

### *Jobs & Wealth*

The Jobs & Wealth dimension was rated as the least positive, but still positive, of the four dimensions. All the groups clustered around the invited groups' medians of 7 and 6, respectively, with a range of individual responses ranging from 4 to 8. The clustering of medians across the four facilitated groups for the Jobs & Wealth dimension indicates consensus about Lewiston's economy, and they suggest that a clustering of justifications for those ratings would be found. Across all groups, there was a general perception that there is a high level of unemployment, a strong dependence on the timber industry, and an economic differentiation between social classes. However, perceptions of the quality of jobs, and the degree to which Lewiston's economy was diversified, differed across reasons given by all the groups. Although good and bad aspects of these characteristics were mentioned by all groups, groups apparently differed in assessing how good or how bad they were for the current situation.

**Table 2-17**  
**Rating Justifications for the Current (1999) Situation**  
**In Lewiston, Idaho,**  
**By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Increasing number of retirees (21)	Good place to retire (31)	Good customs and lifestyles/change for the better (51)
	Increasing/high population (41)	Stable population (43)	Employment/economy (general) (549)
	Stable families (103)	Customs and lifestyles (general) (59)	
	Many/most/increasing people own homes (151)	Good prevalent values (61)	
	Strong sense of community among residents (203)	Community values are stable (63)	
	Supportive of community activities involved (241)	Prevalent values (general) (69)	
		Schools, education (general) (69)	
		Families (general) (109)	
		Decreasing/low public assistance (111)	
		Public assistance (general) (119)	
		High/increasing home/property values (162)	
		Safe place to live with low crime (191)	
		Strong/increasing/improving quality of life (209)	
		Strong sense of spirit and pride in community (211)	
		Civic groups (general) (249)	
		Ethnic diversity is high/increasing (301)	
		Socially diverse (306)	
		Stability of community (general) (323)	
		Current trends will continue/little/no impact (325)	
		Good community to live and raise family (424)	
	Increased industries/good job opportunities (491)		
	Stable occupation/job opportunities (493)		
	Stable economy (543)		

Negative	Aging population (2)	Families are becoming less stable (102)	Poor schools/education (82)
	Drug and alcohol problems (194)	Families at risk/single parents (105)	
	Ethnic diversity is low/decreasing (302)	Increasing/high public assistance (112)	
		High/increasing crime rate (192)	
		People changing for worse/negative change (312)	
	Under valued resources (479)		
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	Public sector jobs (general) (44)	High property values (198)
	High paying jobs (30)	Money reinvested in local business (54)	
	Economically diverse (121)	Increasing local investment (57)	
		Low cost of living (78)	
		Low utilities (79)	
		Stable cost of living (82)	
		Housing fairly priced (83)	
		Expanding economic base (125)	
		Economy (general) (151)	
		Strong/growing economy (157)	
		Low poverty (185)	
	Low unemployment (192)		
	Reasonable property values (200)		
Negative	Low paying jobs (31)	Poor job opportunities (3)	Money leaves (51)
	High cost of living (72)	Decreasing public sector jobs (21)	
	Low economic diversity (122)	Less government regulation (34)	
	Forestry based economy (144)	High number of public sector jobs (47)	
	Lack of middle income jobs and families (189)	Low manufacturers (123)	
		Declining economy (162)	
		Impacts of outside influences on economy (166)	
		Low wealth (177)	
		High unemployment (191)	
	Weak infrastructure and infrastructure planning (231)		
	Uncertainty causes problems (242)		

<b>Place</b>			
Positive	Good/improving community appearance (511)	Good schools (563)	Recreation and tourism (general) (660)
	Good social services, same access to services (561)	Community character is good (566)	
	Low traffic congestion (599)	Good modes of transportation (601)	
	Increase in recreation opportunities/recreation is a plus (661)	Close-knit community with many activities/cohesive (700)	
	Good parks and open spaces, public lands (667)	Attractive scenery (771)	
	Sense of place/heritage/morale and community (670)	Good air and water quality (780)	
	Good climate (772)		
	Good air and water quality (780)		
	Good quality of life (901)		
Safe and crime free (902)			
Negative	Lack of transportation facilities (602)	People shop elsewhere due to lack of business (522)	Poor/declining community appearance (513)
	Poor roads, highways, and community infrastructure (623)	Negative impact on the number of farms and farm families (642)	Decline in communications and technology (582)
		Decreased number of farms and increased farm size, absentee owners, corporate farms (653)	Traffic congestion/increased traffic (603)
		Lack bike paths (669)	Poor air and water quality (782)
		Decline in sense of place and community pride (672)	
		Decreasing population (823)	
<b>Vision and Vitality</b>			
Positive	Strong, active civic organizational capacity (11)	Civic organization improvement (15)	
	Support and ability to support bonds and levies (181)	Strong and active civic leadership (41)	
	Friendly, sociable community (305)	Strong, active, astute political leadership (81)	
		Political leadership and organization (general) (83)	
		Active, strong leadership (121)	
		Affordable city expenditures (281)	
		Numerous, varied, good, or improving social services (301)	



		Interesting community (307)	
		Strong cohesive community (341)	
		Planning and plans exist, good base for the future (403)	
		General community control (449)	
		Government involvement at all levels (469)	
		Strong and high level of community participation (work together) (561)	
		Positive economic opportunities (581)	
Negative	Diminished civic organizational capacity (12)	Poor, lack of political leadership (82)	Not prepared for the future (382)
	Lack of support and ability to pass bonds and levies (182)	Lack of planning and the ability to plan for the future (404)	
		Lack of community control of outside forces (economics/regulations) (442)	
		Inefficient and ineffective local government (462)	
		Limited budget (482)	
		Lack of community involvement in community affairs (562)	
		Need infrastructure for the future (809)	

## 2.9.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

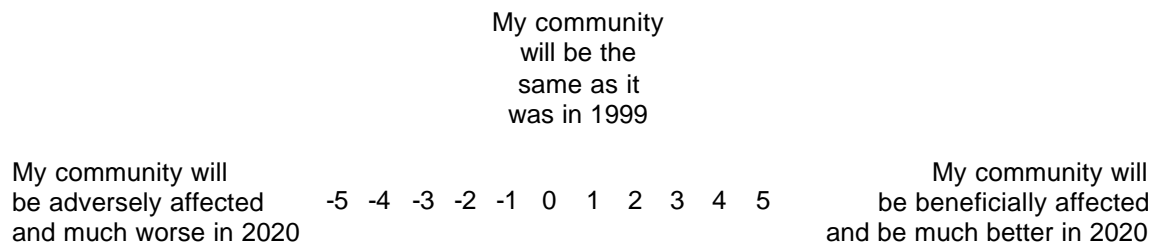
### 2.9.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from a pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each pathway. Information provided to participants included salmon recovery probabilities, physical changes, and

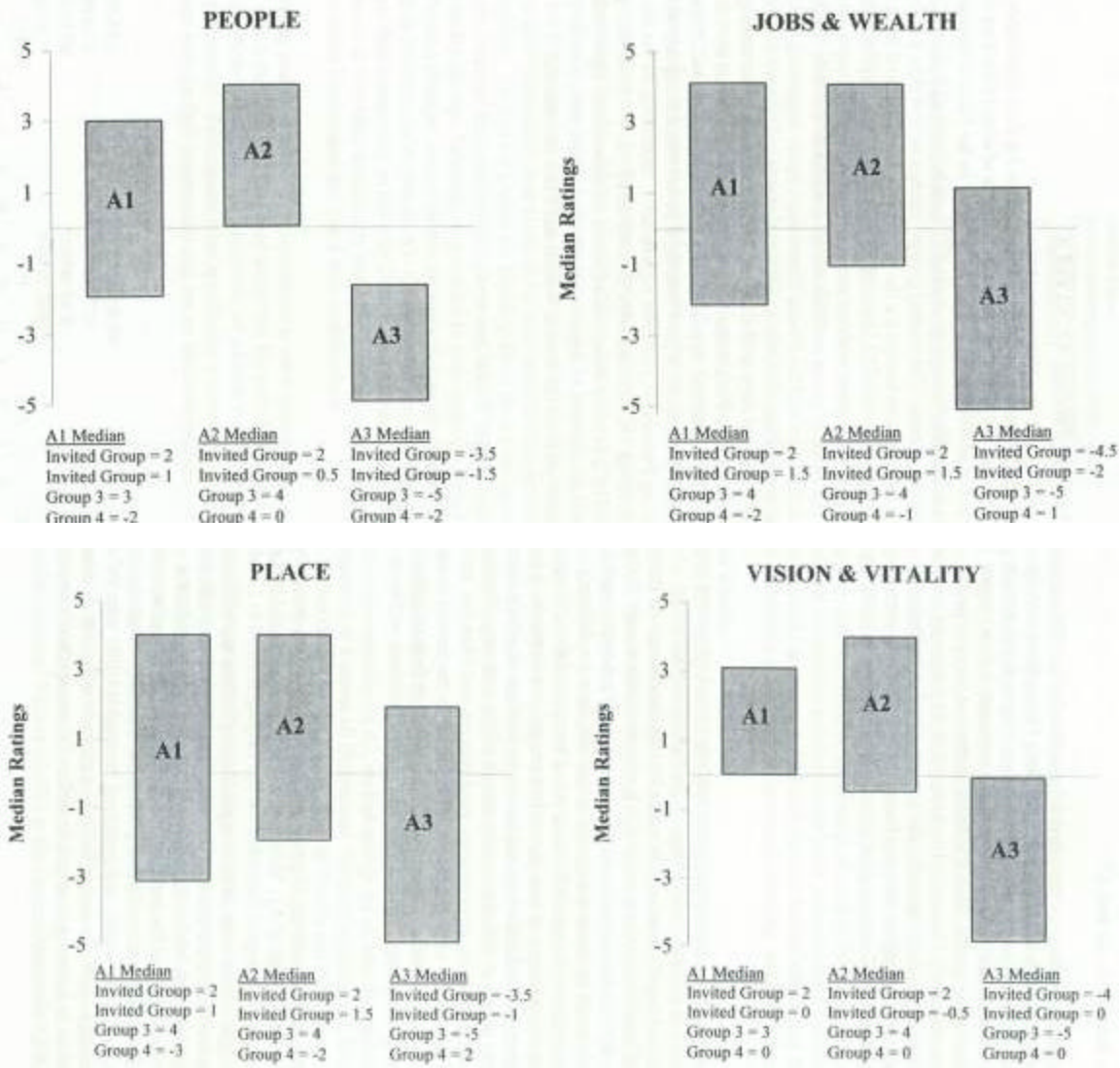
economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.9.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-18 presents how the four groups perceived the situation for their community would change in the year 2020 under the three pathways and in terms of each of the four dimensions. In the case of A1, the group medians ranged from a low of -3 in the Place dimension to highs of 4 in the Place and Jobs & Wealth dimensions, indicating a wide range of forecasts about Lewiston across the various groups. The invited groups' ratings were within 1 rating point of each other under A1, but the median ratings for the other two groups differed from those of the invited by 2 or more rating points. For A2, the median ratings for the groups were much the same as for A1, with a somewhat more positive assessment of A2 on the People and Vision & Vitality dimensions. The range of group medians across dimensions extended from a -2 in the Place dimension to 4 in the Place and the People dimensions, again suggesting that there was a wide range of differing perceptions about the year 2020 under this pathway. The invited groups had similar median ratings for the Jobs & Wealth and Place dimensions, but these groups differed in their perceptions of the People and Vision & Vitality dimensions by 1.5 rating points or more. Group medians for A3 ranged from a -5 for all four dimensions to 2 in the Place dimension, suggesting that perceptions of how beneficial or adverse the impacts would be on Lewiston of implementing Pathway A3 differed significantly, depending on the dimension and the group providing the rating. In a similar vein, the median ratings for the invited groups under A3 consistently differed by 2 or more rating points across all dimensions, again indicating some significant differences in perceptions of impacts among these forum participants. This divergence was especially great for the Jobs & Wealth and Place dimensions.



**Figure 2-18. Median scale rating of Lewiston, Idaho of Pathways A1, A2, and A3, by community, across groups.**

### 2.9.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.9.5.4 - Pathway A1**

##### *People*

For the People dimension under A1, the clustering of group medians around the invited groups were generally slightly positive (1 to 2), but a wide range of other group and individual responses (from -5 to 4) indicated broad variation in forecasts for this dimension. As presented in Table 2-18, the clustering of justifications that perceived to be the most salient were that current trends would continue, but with a negative impact to the environment and resources were A1 to be implemented. Other factors noted by the invited groups reveal that there are differing perceptions of the People dimension in the year 2020 under A1. Examples of this difference can be observed within groups' median ratings and even the invited groups' justifications. Factors that varied included the degree to which families are stable, and perceptions of whether people will generally change for better or worse with the implementation of this pathway. However, other factors such as increasing population, more retirees, good customs and lifestyles, strong values, and a stable cost of living appear to be consistent justifications for the invited groups' positive medians. Factors keeping the median ratings from being higher include the affect on the People dimension of decreasing fish populations and drug and alcohol problems within the community.

##### *Jobs & Wealth*

For the Jobs & Wealth dimension, the clustering of group medians for the invited groups were 1.5 to 2, for a slightly positive rating again of A1. However, a diversity of lower and higher ratings across the other groups, with a range of individual ratings ranging from -5 to 5, indicated broad variation in forecasts for this dimension. Similar to the People dimension, a different perception existed within the community pertaining to Lewiston's economic base, with some participants perceiving it would expand, while others believed it would decline under the implementation of A1. However, many of the justifications given by the invited groups appear to be consistently positive. Factors such as good job opportunities, increased commerce on the river, small business growth, increasing wealth, and continued reasonable utility rates influenced the invited groups' median ratings. Factors keeping the invited groups median ratings from being higher included a decrease in income and wages, as well as future uncertainty associated with the implementation of this Pathway A1.

##### *Place*

Group medians for the Place dimension under A1 were the widest ranging for this dimension. They loosely clustered around positive medians of 2 and 1 for the invited groups, but with a range of individual responses ranging from -5 to 4. A major exception was found in the case of group 4, which perceived that Lewiston would be significantly "adversely affected" (-3) under A1. Clusters of important characteristics influencing all the groups' ratings included positive factors such as increasing recreational opportunities and attractiveness of the area, whereas negative comments focused on the loss of salmon and their impact on individuals' relationship to the area. Positive

justifications provided by the invited groups were that people would choose to shop in Lewiston as opposed to elsewhere, the presence of good schools, the continued value of the waterway, and, specifically, the benefits of bargaining for transportation. Participants also perceived that the tourism industry would grow, retirees would increase, and that the community would have a solid tax base. Additional negative factors influencing the invited groups' ratings included a declining infrastructure, increased crowding, and poor air and water quality.

#### *Vision & Vitality*

The Vision & Vitality dimension for A1 clustered around one invited group's median of 2 and the other's median of 0, with individuals again ranging from -5 to 4 across all forum participants. As suggested by the wide range of median ratings across the groups, there was no clustering of justifications. However, the invited groups felt that Lewiston would have strong civic groups with good leadership and organizational ability in the year 2020. They also felt that Lewiston would be a cohesive community with an optimistic vision for the future, possess a strong tax base, and have cohesiveness and active involvement by community members. Concerns contributing to the lower ratings within this dimension included perceptions that Lewiston is not prepared for the future and that people do not cope well with change, as well as other general factors underlying a reduced, pessimistic vision of the city's future.

#### **2.9.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, median ratings for all four dimensions ranged from -2 for the Place dimension to 4 across all dimensions. With the exception of the clustering of the invited groups' median ratings for the People, Jobs & Wealth and Place dimensions, group medians were not consistent (see Figure 2-18), again suggesting that perceptions of the type and intensity of effects from implementation vary widely.

A comparison of the median group ratings of A2 to those for A1 suggests only slight changes in them across the four dimensions (Figure 2-18), and any shifts in the ratings from A1 to A2 generally reflected positive perceptions of impacts to Lewiston. No significant differences were perceived between A1 and A2, with the one exception of group 4's shifting their ratings on the People dimension to reflect a more positive perception of changes to Lewiston.

As presented in Table 2-18, the salient justifications for the People dimension under the implementation of A2 generally were similar to those given in A1, indicating that those current trends would continue. Factors specific to the implementation of A2 include a sense of encouragement by efforts to recover the salmon and that Lewiston would generally change for the better. Likewise, for the Jobs & Wealth dimension, the groups generally gave similar ratings for their positive justifications. However, many of the

provided justifications focused on the implementation of A2, such as increases in short-term jobs related to system modifications and increases in associated income and wages. Alternatively, invited participants differed in their perceptions of the availability of job opportunities, as well as of the condition of Lewiston’s economy and individual wealth. Participants in the invited groups felt that there would be an increase in unemployment in the area and increased utility rates.

For the Place dimension under A2, forum participants provided few additional justifications from A1. Positive comments clustered around a general sense of community improvement (in particular, shopping and services), with increases in recreation opportunities, tourism, and fishing, and the ability to attract new businesses. The invited groups expressed mixed concerns associated with the loss of salmon and benefits associated with salmon recovery. Significantly, several of the invited group members noted that, contrary to the presented impact information on salmon recovery, they felt that wild stocks of salmon would increase under the implementation of A2. Likewise, the facilitated groups provided similar justifications for the Vision & Vitality ratings as those given in A1. Differences between A1 and A2 clustered around pessimistic visions for the future and, in particular, concerns over a lack of community control of outside forces, but participants also perceived that economic conditions would promote community vitality.

<b>Table 2-18</b> <b>Comparison of Rating Justifications For Pathways A1, A2, and A3</b> <b>For Lewiston, Idaho,</b> <b>By Community Dimension and Type of Group</b>			
<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Current trends will continue/little/no impact (325)		Decreasing/low population
	Harm environment and resources (472)		Decreasing school enrollment (72)
			High/increasing crime rate (192)
			Drug and alcohol problems (194)
			People changing for the better/ positive change (311)
			Negative impacts (general) (322)
			Loss of industries and lack of job opportunities (492)

Invited Groups	Aging population (2)	Increasing number of retirees (21)	Lack of opportunities for young people (11)
	Increasing number of retirees (21)	Increasing/high population (41)	Increasing number of retirees (21)
	Increasing/high population (41)	Stable population (43)	Decreasing number of retirees (22)
	Stable population (43)	Community values are stable (63)	Unstable population (44)
	Good customs and lifestyles (51)	Stable families (103)	Poor customs and lifestyles/loss of/change for the worse (52)
	Stable customs and lifestyles/change for the better (53)	Supportive of community activities and involved (241)	Poor schools/education (82)
	Community values are stable (63)	People are changing for the better/positive change (311)	Families are becoming less stable (102)
	Families are becoming less stable (102)	People are changing for the worse/negative change (312)	Stable families (103)
	Stable families (103)	Above average (321)	Families at risk/single parents (105)
	Families at risk/single parents (105)	Current trends will continue/little/no impact (325)	Increasing/high public assistance (112)
	Drug and alcohol problems (194)	Recreation/tourism is important (positive) (441)	Few/less/decreasing people own homes (152)
	Supportive of community activities and involved (241)	Strong/improving/recovered fisheries (461)	Diversity (general) (309)
	People changing for the better/positive change (311)	Encouraged by effort to save fish (464)	People changing for the worse/negative change (312)
	People changing for the worse/negative change (312)	Harm environment and resources (472)	No change in people/little/no impact (313)
	Negative impacts (general) (322)	Businesses suffer (512)	Loss/change in recreation/tourism opportunities (442)
	Recreation/tourism is important (positive) (441)	Growth of businesses/good diverse strong economy (341)	Strong/improving/recovered fisheries (461)
	Stable cost of living (453)		Undervalued resources (479)
	Declining fish population/listed (462)		Value of agriculture (509)
	Businesses suffer (512)		Growth of business/good diverse strong economy (341)
	Other Groups	Continued use of river (481)	Negative impacts (general) (322)

Jobs and Wealth			
Across All Groups	Increasing job opportunities (General) (10)	Increasing job opportunities (general) (10)	Increasing job opportunities (general) (10)
	Low economic diversity (122)	Short-term and temporary jobs/part-time jobs (37)	Decreasing job opportunities (general) (18)
	Expanding economic base (125)	Stagnant economy (154)	Expanding economic base (125)
	Declining economy (162)	Strong/growing economy (157)	Increasing poverty (187)
Invited Groups			
	Good job opportunities (2)	Good job opportunities (2)	Poor job opportunities (3)
	Increased commerce on rivers (28)	Poor job opportunities (3)	Decreasing agricultural jobs (22)
	Decreasing income and wage (33)	Stable job opportunities/employment (8)	Decreasing forestry-related jobs (23)
	Money leaves (51)	Increasing jobs, at dams (14)	Low paying jobs (31)
	Money reinvested in local business (54)	Low paying jobs (31)	Increasing income and wages (32)
	Low utilities (79)	Increasing income and wages (32)	Decreasing income and wages (33)
	Need irrigation/irrigation dependent farming (106)	Low cost of living (78)	Increasing transportation costs (75)
	Resource tourism and amenity recreation growth (126)	Increased utilities rates (86)	Increased utility rates (86)
	Increased business (130)	Low economic diversity (122)	Increased cost of doing business (88)
	Positive impact to port area (131)	Decreased economic base (124)	Decreased farms and increased farm size (109)
	Stagnant economy (154)	Expanding economic base (125)	Shrinking agriculture base/mining/timber (135)
	Strong/growing economy (157)	Loss of fishery (138)	Economically dependent on waterway, river (149)
	Cheap transportation costs keep economy growing (159)	Stable economic base (139)	Strong/growing economy (157)
	Increasing wealth (180)	Increasing wealth (180)	Decreasing wealth (181)
	Lack of middle income jobs and families (189)	Decreasing wealth (181)	
	Population growth (207)	Lack of middle income jobs and families (189)	
	Uncertainty causes problems (242)	Like retirees (215)	
		Uncertainty causes problems (242)	
		Pathway #2 does not benefit fish or people (246)	



Other Groups			Decreased economic base (124)
			Declining economy (162)
<b>Place</b>			
Across All Groups	Increase in recreation opportunities/recreation is a plus (661)	Community growth and improvement (general) (721)	Poor/loss of recreation and tourism opportunities (666)
	Attractive scenery (771)		Decline in sense of place and community pride (672)
	Negative impacts associated with fish decline/symbolic/spiritual/material (811)		Decline in industries (745)
	Maintain status quo, no change (841)		Increasing crime and drug use/less safety (903)
Invited Groups	Good/improving community appearance (511)	People shop within the community, regional shopping (532)	Poor/declining community appearance (513)
	People shop within the community, regional shopping (532)	Ability to attract new businesses (534)	Increasing store vacancies (521)
	Good schools (563)	Good social services, same access to services (561)	Poor/decreasing social services (570)
	Waterway (general) (610)	Increase in recreation opportunities/recreation is a plus (661)	Community character is poor/declining (577)
	Barging transportation is benefit to the community (613)	Increase in tourism (663)	Good modes of transportation (601)
	Poor roads, highways, and community infrastructure (623)	Attractive scenery (771)	Lack of transportation facilities (602)
	Increase in tourism (663)	Poor air and water quality (782)	Traffic congestion/increased traffic (603)
	Good parks and open space, public lands (667)	Improved survivability of fish (807)	Negative impacts on the number of farms and farm families (642)
	Strong sense of place/heritage/morale and community (670)	Positive impacts associated with fish recovery (808)	Decline in farming (654)
	High community diversity (682)	Negative impacts associated with fish decline/symbolic/spiritual/material (811)	
	Planning (general) (712)	Good tax base and revenues property values (881)	Poor/loss of recreation and tourism opportunities (666)
	Good land use planning (714)	Same as pathway 1 (930)	Strong sense of place/heritage/morale and community (670)

	Community growth and improvement (general) (721)		Community decline and worsening (722)
	Community decline and worsening (722)		Poor economy (740)
	Good climate (772)		Decrease in jobs (748)
	Poor air and water quality (782)		Decreased income/increased poverty (751)
	Increased crowding (825)		Decreased port facilities (765)
	Good tax base and revenues property values (881)		Loss of environmental beauty, rivers, scenery (777)
	Good quality of life (901)		Poor air and water quality (782)
			Positive impacts associated with fish recovery (808)
			Good quality of life (901)
Other Groups	Good social services, same access to services (561)		Increased crowding (825)
			Ruin of community, complete negative community change (844)
			Increased taxes, taxes wasted, competition for tax money (883)
<b>Vision and Vitality</b>			
Across All Groups		No real change in cohesiveness (363)	

	Strong active civic organizational activity (11)	Active strong leadership (121)	Civic organization decline (population decline/ financial stress) (14)	
	Civic organization improvement (15)	Leadership development in place for the future (145)	Leadership decline (124)	
	Strong, active civic leadership (41)	Good/increasing tax base/fiscal resources (201)	General leadership (149)	
	Leadership development in place for the future (145)	Strong cohesive community (341)	Lack of support and ability to pass bonds and levies (182)	
	Good/increasing tax base/fiscal resources (201)	Increased community cohesiveness (345)	Insufficient/decreasing tax base/fiscal resources (202)	
	Grants needed/used for development (245)	Reduced, pessimistic visions of the future (384)	Good/increasing tax base/fiscal resources (201)	
	Increase community cohesiveness (345)	Future planning uncertain (409)	Increasing government expenditures (282)	
	Don't cope well with or resist change (362)	Lack of community control of outside forces (economics/regulations) (442)	Increase community cohesiveness (345)	
Invited Groups	No real change in cohesiveness (363)	Positive economic opportunities (581)	No real change in cohesiveness (363)	
	Improved ability to cope (365)	Strong/increasing community vision and vitality (601)	Improved ability to cope (365)	
	Not prepared for the future (382)	No change (673)	Limited or decreasing quality of social activities (382)	
	Reduced, pessimistic visions of future (384)		Stable vision for future (383)	
	New optimistic visions of the future (385)		Reduced pessimistic visions of future (384)	
	Future planning uncertain (409)		General budgets (489)	
	Dependencies (445)		Strong and high level of community participation (work together) (561)	
	People are adaptable (505)		Negative economic opportunities (582)	
	Strong and high level of community participation (work together) (561)		Outmigration of population (892)	
	Positive economic opportunities (581)			
	Decreasing/lack of community vision and vitality (602)			
	Other Groups	No change (673)		Not prepared for future (382)

### 2.9.5.6 - Comparison of Pathway A3 to A1

The median group ratings for A1 shifted toward the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3. Median ratings for the four dimensions, which were not clustered for A1 across all four groups, were equally widespread for A3. In the case of the Place dimension, for example, the medians for A3 ranged from a 2 to -5 (see Figure 2-18). The median group ratings differed between the two invited groups by 2 rating points, for the People dimension, to as much as 4 rating points for the Vision & Vitality dimension. This variation suggests that perceptions of impacts on Lewiston, and the extent they would be beneficial, neutral or adverse under this pathway, varied widely depending on the dimension and the group providing the rating.

#### *People*

For the People dimension under A3, individual ratings ranged from -5 to 4, with group medians ranging from -1.5 for the second invited group to group 3's median rating of -5. Despite the lack of clustering between the other groups and the invited groups' medians, the ratings on this dimension showed a clear shift under A3 towards the "adversely affected" end of the impact rating scale from A1. Reasons for participants' ratings listed in Table 2-18 reflect the shift in justifications to factors adversely affecting the People dimension. These negative concerns included a forecasted decrease in population, loss of school enrollment, and increasing crime and drug and alcohol problems within the community. Additionally, the invited groups felt that there would be fewer retirees, a decline in customs and lifestyles, more families at risk, and a lower level of education within the community. Other negative factors such as increased public assistance, fewer opportunities for young people, substandard housing, and a change in recreational opportunities also influenced participants' negative ratings.

The wide range of group medians characterizing the People dimension under A3 was reflected in the positive reasons that other forum participants gave, including that Lewiston's people would continue to change for the better (across all groups). The invited groups also mentioned that positive changes would take place as their economy grows, that families would be stable with increased diversity, and that the return of salmon would generally benefit the People dimension of Lewiston.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -5 to 5 and group medians again were widespread. The first invited group's median rating of -4.5 clustered with that of the rating of -5 found for group 3, but less clustering was found between these and the forum's other groups (-2 and 1). The shift in group 4's median actually reflected a forecasted shift toward an improved situation with the implementation of A3 from A1 (from -2 under A1 to 1 under A3). Negative justifications for forum participants' rating scores clustered around a perceived increase in Lewiston's poverty level as well as a loss of jobs. Additional justifications provided by the invited

groups focused on a general decrease in specific types of jobs such as farming and mill workers. The invited groups also identified increased utility rates, higher transportation costs, a shrinking agricultural base, and a general decline in the economy and wealth of the area as important influences on their more negative ratings. Positive justifications clustered around the perception that there would be an increase in job opportunities associated with the implementation of A3. Again, more positive reasons lending weight to some participants' view of A3 as having relatively beneficial effects were of an expanding economic base and economic growth.

### *Place*

For the Place dimension, shifts much like those for the People dimension were found. Forum participants felt that Lewiston would be more adversely impacted by the implementation of A3 than A1. Ratings across all individuals ranged from -5 to 4, with a lack of clustering around the two invited groups' medians of -3.5 and -1. Justifications across all groups clustered around losses of parks and open spaces, less pride and a loss of sense of place in Lewiston, increased crime and drug and alcohol-related problems, and declines in agricultural, timber, and tourism industries. The invited groups perceived there would be a need to improve public areas with the implementation of this pathway, as well as increased traffic congestion and a lack of transportation facilities. Positive factors contributing to participants' justifications included general benefits associated with a free-flowing river and salmon recovery, including increased salmon runs and recreation opportunities. However, the invited groups were also concerned about a decrease in farms and farm families, as well as other sources of jobs and income, decreased social services, and the negative impact of A3 on the community's natural resources and surrounding scenery.

### *Vision & Vitality*

For the Vision and Vitality dimension, individual responses ranged from -5 to 5, with little clustering around the two invited groups' medians of -4 and 0. Median ratings for this dimension displayed the clearest shift for the invited group and group 3 present at the first session of the forum. Their ratings shifted from 2 and 3, under A1, to -4 to -5 with implementation of A3. In contrast, neither the second invited group nor group 4 at the second session of Lewiston's forums perceived a shift in this dimension from A1 to A3.

As evidenced by the wide range of individual as well as median ratings, a variety of important justifications were given that did not cluster across all the groups. The invited groups' justifications often ran counter to one another; some participants perceived that the implementation of A3 would lead to a decline in civic groups, while others felt that it would increase community cohesiveness in Lewiston and reduce the pessimism of residents about the future. However, both invited groups maintained that there would be an insufficient tax base and a limited quality of social services in the year 2020. Yet, other participants felt that there would improved fiscal resources available to Lewiston.

## **2.9.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Lewiston across each of the four dimensions, forum participants felt that the following issues should be addressed to lessen the impacts to their community. Under the implementation of A1, participants at both sessions of the community forum generally felt that research should continue to investigate reasons for reductions in salmon populations and attempt to improve those populations of fish by developing new hatcheries and in and around the Lewiston area. Participants also felt that additional education on the salmon and future steps to increase their survival would allow them to plan for the future.

Under the implementation of A2, forum participants felt that, in addition to steps that should be taken in A1, there should be a continued search for more effective modifications to the four lower Snake River dams to increase salmon survival, and to do so at the cost of taxpayers across the country. Additionally, participants felt that there would be a need to reduce litigation associated with this pathway.

Under the implementation of A3, forum participants noted that Lewiston businesses and individuals adversely impacted would require compensation for their losses, including subsidized transportation rates, job retraining programs, incentives for economic development, and also that the costs of implementation be shared with the rest of the country. Additionally, participants felt that there should be some assurance that alternative modes of transportation such as rail would be reliable and that the cost of utilities would remain low.

## **2.10 - Orofino, Idaho, Community Assessment**

### **2.10.1 - Summary of Community Findings**

Orofino is a small town and county seat of Clearwater County that is located in the Clearwater River valley in northcentral Idaho. It has a population of about 3,100 people. This town, which has always been dependent on multiple natural resources, is up-river from the four Lower Snake River dams, and could potentially see an increase in salmon in the Clearwater River and nearby streams if salmon runs downriver are increased.

Orofino's history is centered on its natural resources: gold prospectors first settled the town in 1861, and then demolished it when ore deposits were found beneath the town. Starting in the 1900s, wood production dominated the economy, and it continues to be a key industry today. Agriculture grew in the area, and a mental hospital was located at the edge of town in the early 1900s as well. By the early 1950s, 11 sawmills were operating in the town and its environs. In 1962 the Lewis and Clark Highway was complete, and was seen as a source of economic stimulation for tourism and commerce with the paving of the road to Missoula. A build-up in Forest Service operations and employment lasted from the late 1960s up to the late 1970s. In 1968, construction began on Dworshak dam, and much of the population remained after the construction was completed. This project contributed to population increases in Orofino: its residents increased in number from a little over 2,000 in 1960 to nearly 4,000 by 1970. In the 1980s, a prison was constructed in the town and began operations. Timber production

declined, with only two mills remaining, and agriculture declined in terms of acres of farmland in production from almost 200,000 to less than 100,000 in the early 1990s. New opportunities in recreation and tourism were created from the Clearwater River and the Dworshak Reservoir initiating an influx of visitors to fish, boat, and camp. The nation's largest steelhead hatchery contributes to this tourism. In the 1990s, Dworshak Reservoir began being drawn down to augment flows in the Snake River, reducing recreational opportunities in the area. This ongoing situation, coupled with declines in the elk population due to habitat problems, decreased outfitting and guides jobs. The community also has a large government sector, with an abundance of federal lands all around it.

Participants in the forum at Orofino depicted their 1999 community situation as being oriented toward the *as good as it could be* end of the current situation rating scale. The range of median ratings across the four community dimensions for the three groups of community members at the forum extended from a 3 on the Jobs & Wealth dimension to a 7 on the Place and Vision & Vitality dimensions. Specifically, the three groups perceived the Place and Vision & Vitality dimensions as being clustered closer to the *as good as it could be* end of the scale, and the Jobs & Wealth dimension as being clustered more at the *as bad as it could be* end of the scale. The safe and crime-free character of the town, its attractive scenery and good schools were reasons for the comparatively high rating of the Place dimension. The air and water quality, natural environment and outdoors, and quality of life in Orofino also were among the consistently mentioned positive reasons for the numerical ratings. Almost as many negative reasons, including such factors as poor schools, a need for improvement of public areas, and an increase in storefront vacancies, were given, and this variation suggests why there were differences in groups' ratings of Orofino's character. The People dimension was perceived to be more in the middle of the scale with both good and bad characteristics. The primary positive reason underlying the People dimension -- good people with a strong sense of community -- was likely outweighed by more numerous negative characteristics given across all three groups that included a lack of opportunities for young people, a decreasing and aging population, high public assistance, and people changing for the worse in general.

The clustering of group medians demonstrates that, except for Orofino's Vision & Vitality, each facilitated group independently came to similar conclusions about the dimensions of their community when assessing the state of its 1999 situation. This replication indicates the community dimensions are likely to be perceived somewhat similarly. Although the Vision & Vitality dimension was rated highly, a more dispersed clustering of group medians was found: a difference of 3 points was found between the rating of the invited group, which gave this dimension a 7, and that of the second group, which rated this dimension a 4. The strong, active organizational capacity of the town,

its high level of civic activity, community participation, and political leadership, as well as its social services, far outnumbered the negative characteristics given for this dimension, which included the community's lack of control of outside forces and its lack of preparation for the future, economic factors underlying the town's decreasing vitality, and Orofino's mistrust of too much Federal government. A perception mentioned by the other groups, the town's difficulty with coping with change, or actually resisting it, suggests one reason for the low rating of this dimension by some participants, especially individuals in the second group.

The Jobs and Wealth dimension was oriented the most towards the bad end of the scale and was the community dimension receiving the lowest rating by forum participants. Numerous negative justifications included poor job opportunities, high unemployment, and low wages and seasonal income, high rates of commuting, and leakage of money from the community. In general, Orofino was perceived to have a weak economy reflected in declines in mill workers and concerns over the public-sector jobs.

Forum participants were generally optimistic about their future. There was agreement that the community would be beneficially affected by Pathways A1 (the existing hydro-system on the Lower Snake River continuing on into 2020) and A2 (major modifications of the existing hydro-system on the Lower Snake River) and adversely affected by Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River). For all dimensions, forum participants perceived the situation for Orofino to be the same or better in the year 2020 under Pathway A1, with the exception of the Jobs & Wealth dimension, for which a median rating of -3 was reported by group 2. However, median ratings for the four dimensions under A3, which were not clustered for A1, were equally widespread, indicating a lack of consensus about the impacts of all of the pathways. In the case of the People dimension, for example, the medians for A3 ranged from a 2 to -5.

Forum participants in Orofino felt that a number of issues should be addressed both locally and regionally to lessen the negative impacts to their community and the region. Under the implementation of all the pathways, forum participants felt that the continued use of Dworshak water to augment Snake River flows should be halted or actions needed to be taken to offset the negative trends in recreation visitation. Suggestions for mitigation included direct compensation to the community and turning the management of Dworshak back to its original commission. Under the implementation of A3, forum participants felt that the increased costs of transportation should be offset through direct financial compensation to shippers and through investments in road and rail infrastructure. On a regional level, forum participants felt that the increased power costs should be borne by the entire country and not just local residents.

As in many small resource-based communities, Orofino's residents face the challenge of an aging population, lack of jobs for youth, slow loss of industry, and also added concerns about Federal government actions limiting or controlling the community's economic growth and community development. This last concern is not surprising, given that much of the surrounding countryside is under the management of the Federal



government. The dimension of community that was rated lowest was Jobs and Wealth. The community finds itself in an economic transition, and it is trying to assess its options to reorient its dependence on natural resources. This resource-based community saw the proposed pathways as being somewhat distant from their immediate community development needs. The beneficial aspects they saw dealt with the fish and how their return might help their tourism efforts. However, negative effects of A3, such as increased costs for utilities and in some cases increased agriculture transportation costs, were perceived to be more significant, resulting in ratings clustered towards the "adversely affected" end of the impact rating scale for this pathway.

### **2.10.2 - Interactive Community Forum Participants**

Twenty five community members provided perspectives on the history, 1999 (current) situation and Pathways A1, A2, and A3 for the town of Orofino, ID. These forum participants sat at three facilitated groups (see methodology) working in interactive small groups (hereafter, "groups"). The overall diversity index rating for participants was 0.86 (on a scale from 0 to 1.0), indicating that 12 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 12 percent were retired, and the rest were employed in a variety of occupations, including agriculture, resource manager, biologist, housewife, nurseryman, reporter, auto dealer, businessman, chiropractor, engineer, secretary, commissioner, county employee, motel owner, museum director, outfitter/storeowner, recreation resource specialist, business owner, and state legislator.

### **2.9.3 - Community Background**

#### *History:*

Orofino is a small town of about 3,100 people located in the Clearwater River valley in northcentral Idaho. This town, which has always been dependent on multiple natural resources, is upriver from the four Lower Snake River dams and could potentially see an increase in salmon in the Clearwater River and nearby streams if changes in the hydrosystem increased salmon populations.

Orofino's history is centered on its natural resources: gold prospectors first settled the town in 1861, and then demolished it when ore deposits were found beneath the town. Orofino was later rebuilt in a different location, at the confluence of Orofino Creek and the Clearwater River. In 1889 the Northern Pacific Railroad began service to the town, and in 1897 the first post office was established. Orofino was incorporated in 1925. By 1940 the town was an established center for white pine logging. By the early 1950s, 11 sawmills were operating in the town and its environs. In 1962 the Lewis and Clark Highway was complete, and was seen as a source of economic stimulation for tourism and commerce with the paving of the road to Missoula. The quality of steelhead fish was notably low during this decade. Also, a grain storage facility in town burned at about this time and a meat packing plant that was in operation from the 1920s went out of business. In response, economic development planning began in the 1970s, along with a build-up in Forest Service operations and employment that lasted from the late 1960s to late 1970s. In 1968, construction began on Dworshak dam, and much of the population remained after the construction was completed. This project contributed to

population increases in Orofino: its residents increased in number from a little over 2,000 in 1960 to nearly 4,000 by 1970. In the 1980s, a prison was constructed in the town and began operations. Timber production declined, with only two mills remaining, and agriculture declined in terms of acres of farmland in production from almost 200,000 to less than 100,000 in the early 1990s. New opportunities in recreation and tourism were created from the Clearwater River and the Dworshak Reservoir initiating an influx of visitors to fish, boat, and camp. The nation's largest steelhead hatchery contributes to this tourism. In the 1990s, Dworshak Reservoir began being drawn down to augment flows in the Snake River, reducing recreational opportunities in the area. This ongoing situation, coupled with declines in the elk population due to habitat problems, decreased outfitting and guides jobs. The listing of Snake River salmon has negatively impacted Orofino's recreational draws. The town's population is now estimated to be down from its recent 1970 high to about 3,000 in 1995, and the town recently completed a comprehensive plan.

*Vision:*

Key elements in Orofino's 19\*\* Comprehensive Plan include:

- Promote a healthy and safe environment for residents;
- Encourage young people to stay by making housing and employment accessible;
- Promote tourism as a means of economic diversity;
- Develop alternate means of public transportation, improve roads, and pave streets
- Encourage efforts to make Hwy 12 a 4-lane to Lewiston
- Establish alternate water source for the city
- Promote the construction of a new bridge across the Clearwater River
- Develop a new airport

## **2.10.4 - Community Assessment of 1999 Situation**

### **2.10.4.1 - 1999 Situation: Community Dimensions and Rating Scale**

The following "1999 situation" rating scale was used by participants from Orofino to rate the 1999 situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be

1 2 3 4 5 6 7 8 9 10

In 1999, the situation in my community is as good as it could be

### 2.10.4.2 - 1999 Situation: Ratings

As figure 2-19 presents, the range of median ratings across the four community dimensions for the three groups of community members at the forum ranged from a 3 on the Jobs & Wealth dimension to a 7 on the Place and Vision & Vitality dimensions. Specifically, the three groups perceived the Place and Vision & Vitality dimensions as being clustered closer to the as good as it could be end of the scale, and the Jobs & Wealth dimension as being clustered more at the as bad as it could be end of the scale. The People dimension was perceived to be more in the middle of the scale with both good and bad characteristics.

Analysis of differences between the invited group's median rating and ratings given by the other groups for the town's four dimensions ranged from 1 to 2 rating points on the 1999 situation scale, except in the case of Vision & Vitality. In the case of that dimension, a difference of 3 points was found between the rating of the invited group, which gave this dimension a 7, and that of the second group, which rated this dimension a 4.

Overall, the clustering of group medians demonstrates that, except for Orofino's Vision & Vitality, each facilitated group independently came to similar conclusions about the dimensions of their community when assessing the state of its 1999 situation. This replication indicates the community dimensions are likely to be perceived somewhat similarly.

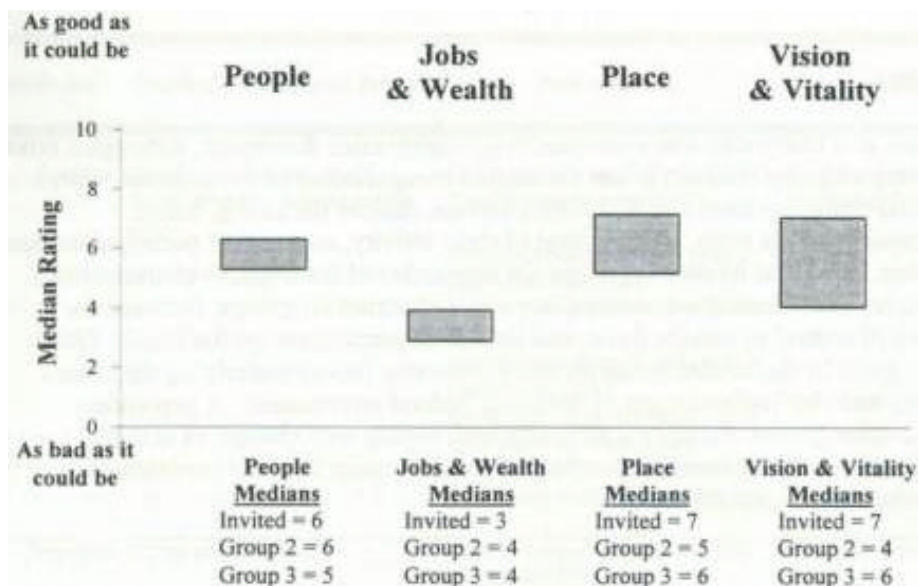


Figure 2-19. Median scale ratings of the current (1999) situation in Orofino, Idaho, by dimension, across groups.

### **2.10.4.3 - 1999 Situation: Rating Justifications**

Table 2-19 presents the clustering of justifications for the three facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited are categorized as 'Other Groups'.

#### *Place*

Orofino's Place dimension was the highest rated dimension oriented toward the good end of the scale, with a clustered median around 6 and a range of individual responses from 3 to 9 across all forum participants. As presented in table 1.10, the clustering of justifications across all three groups indicates that the safe and crime-free character of the town, its attractive scenery and good schools were reasons for the comparatively high rating of this dimension. The air and water quality, natural environment and outdoors, and quality of life in Orofino also were among the consistently mentioned positive reasons for the numerical ratings of this dimension. Almost as many negative reasons, including such factors as poor schools, a need for improvement of public areas, and an increase in storefront vacancies, were given across all groups, and this variation suggests why there were differences in groups' ratings of Orofino's character.

#### *Vision & Vitality*

The town's Vision & Vitality also was a comparatively highly rated dimension, although a more dispersed clustering of group medians below the invited group median of 7 was found, with a range of individual responses from 2 to 8. Positive factors, such as the strong, active organizational capacity of the town, its high level of civic activity, community participation, and political leadership, as well as its social services, far outnumbered the negative characteristics given for this dimension. These shortcomings, as perceived across all groups, included the community's lack of control of outside forces and its lack of preparation for the future. Other negative reasons given by the invited group included economic factors underlying the town's decreasing vitality and Orofino's mistrust of too much Federal government. A perception mentioned by the other groups, the town's difficulty with coping with change, or actually resisting it, suggests one reason for the low rating of this dimension by some participants, especially individuals in the second group.

#### *People*

The People dimension was rated in the center of the current community situation scale, with a clustering of groups around the invited group's median of 6 and a range of individual responses ranging from 3 to 9. The clustering of justifications across the three facilitated groups indicates that, for the People dimension, the one positive reason underlying this dimension -- good people with a strong sense of community -- was likely outweighed by more numerous negative characteristics given across all three groups

that included a lack of opportunities for young people, a decreasing and aging population, high public assistance, and people changing for the worse in general. Some of the other positive factors mentioned by the invited group included good community values, strong education, important recreation opportunities, and a growing population of retirees and stable families who own their own homes, hold good attitudes, and take pride in the town. But all groups mentioned concerns about education, and lack of community support for schools and other local activities.

*Jobs & Wealth*

The Jobs and Wealth dimension was oriented the most towards the bad end of the scale and was the community dimension receiving the lowest rating by forum participants. Not surprisingly, no one positive justification was repeated across all groups, and only the invited group offered the positive characteristics of good job opportunities and the ability to live in Orofino and commute elsewhere to work. Numerous negative justifications included poor job opportunities, high unemployment, and low wages and seasonal income. In addition, high rates of commuting and leakage of money from the community likely influenced the lower rating of this dimension in Orofino. In general, the town was perceived to have a weak economy that declines in mill workers, and concerns over the public-sector jobs.

<b>Table 2-19</b> <b>Rating Justifications for the Current (1999) Situation</b> <b>In Orofino, Idaho,</b> <b>By Community Dimension and Type of Group</b>			
<b>Dimension</b>	<b>Replication Across All Groups</b>	<b>Invited Group</b>	<b>Other Groups</b>
<b>People</b>			
Positive	Good prevalent values (61)	Good customs and lifestyles (51)	Increasing number of retirees (21)
	Good, friendly, helpful people (201)	Good prevalent values (61)	Increasing population/high (41)
		Strong schools/education (81)	
		Stable families (103)	
		Most people own their own homes (151)	
		Strong sense of spirit and pride in community (211)	
		Good community attitudes (221)	
		Supportive of community activities and involve (241)/TD	
		Recreation is important (441)	

Negative	Aging population (2)	Lack of support for schools and education (92)	Poor prevalent values (62)
	Lack of opportunities for young people (11)	Lack of money in the community (532)	Poor schools/education (82)
	High public assistance (112)		Families are becoming less stable (102)
	Unstable economy (542)		Lack of community involvement and community activities (242)
	People are changing for the worse (312)		
	Decreasing school enrollment (72)		
	Decreasing population (42)		
Other		Prevalent values (general) (69)	
		Families (general) (109)	
		Negative impacts (general) (322)	
<b>Jobs and Wealth</b>			
Positive		Good job opportunities (2)	
		Can live here and commute (70)	
		Stable government jobs (48)	
Negative	Poor job opportunities (3)	Decreasing public sector jobs (21)	Low economic diversity (122)
	Low paying jobs (31)	Decreasing forestry-related jobs (23)	Weak economy (153)
	Seasonal employment (35)	Public sector jobs (general) (44)	
	Money leaves (51)		
	Negative impacts associated with commuting (62)		
	High unemployment (191)		

<b>Place</b>			
Positive	Good schools (563)	Good community appearance (511)	People shop elsewhere due to lack of business (522)
	Attractive scenery (771)	Decreasing store vacancies (530)	Quiet and peaceful (781)
	Good air and water quality (780)	Good roads, highways, and community infrastructures (620)	
	Quiet and peaceful (781)	Good parks and open spaces, public lands (667)	
	Good quality of life (901)	Strong sense of place (670)	
	Safe and crime free (902)	Pride in/commitment to community (671)	
Negative	Poor/declining community appearance (513)	Price in/commitment to community (671)	
	Poor schools (573)		
	Increasing store vacancies (521)		
<b>Vision and Vitality</b>			
Positive	Strong and active civic leadership (41)	Civic organization improvement (15)	Planning and plans exist/good base for the future (403)
	Strong, active, and astute political leadership (81)	Organized and responsible civic organization (19)	
	Numerous, varied, good, or improving social activities (301)	Active, strong leadership (121)	
	Strong and high level of community participation (561)	Friendly, sociable community (305)	
		Strong cohesive community (341)	
		Prepared for the future (381)	
		Growing and more active government (465)	
Negative	Not prepared for the future (382)	Lack of community control of outside forces (442)	Do not cope well with or resist change (362)
	Lack of community control of outside forces (442)	Mistrust of and too much Federal government (466)	
		Negative economic opportunities (582)	

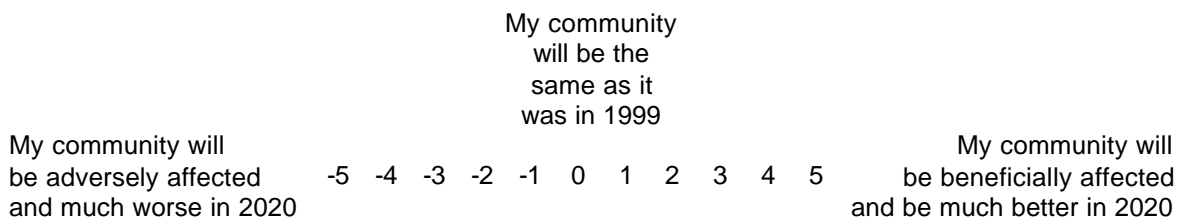
## 2.10.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.10.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (People, Jobs & Wealth, Place, and Vision & Vitality) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

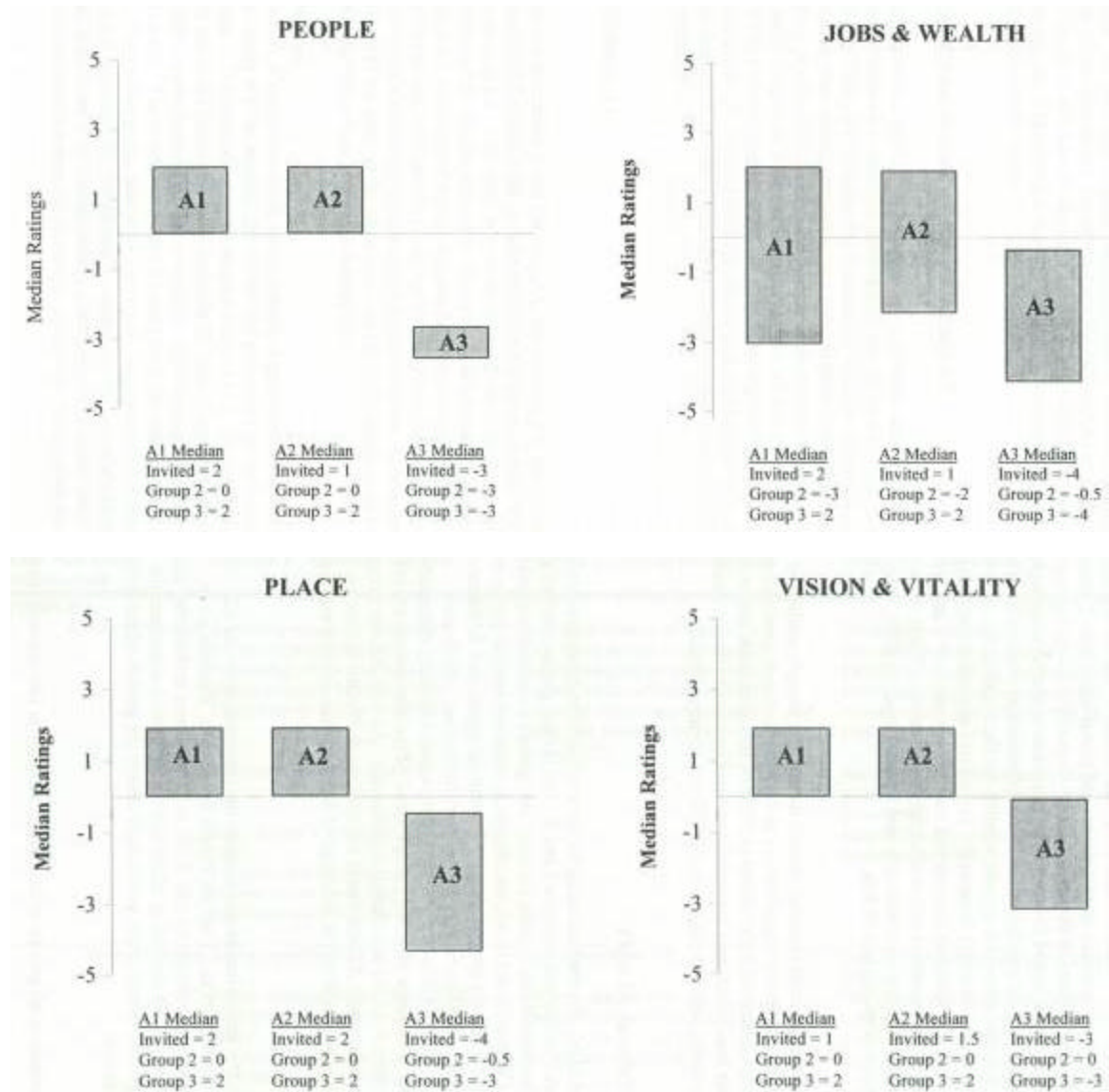


### 2.10.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-20 presents the median rating of all three groups for each of the pathways, categorized by dimension. For all dimensions, all three groups of forum participants perceived the situation for Orofino to be the same or better in the year 2020 under Pathway A1, with the exception of the Jobs & Wealth dimension, for which a median rating of -3 was reported by group 2. Otherwise, the range of medians across the



groups for A1 extended from 0, as rated by group 2 on the other three dimensions, to a high of 2 on all dimensions as rated by the other two groups. For Pathway A2, the range of group medians across dimensions extended from a -2 to a 2, depending on the dimension. Group medians for Pathway A3 ranged from a 0 in the Vision & Vitality dimension to a low of -4 on the Jobs & Wealth and Place dimensions. As figure 2.10 shows, the degree of clustering within each of the Pathways A1 to A3 and across the four community dimensions varies.



**Figure 2-20. Median scale rating of Orofino, Idaho of Pathways A1, A2, and A3, by community, across groups.**

### **2.10.5.3 - Rating Justifications Across A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.10.5.4 - Pathway A1**

#### *People*

For the People dimension under Pathway A1, the clustering of group medians around the invited group was within 2 points, with group 3 reporting the same median of 2 as the invited group and group 2 reporting a 0. Individual responses ranged from -3 to 5. As presented in table 2.10, characteristics of the People dimension that were listed across all groups as being most salient as justifications for participants' ratings included an increasing population in the year 2020, especially of retirees, with people changing for the better and more job opportunities. Across all groups, there was a sense that current trends would continue, with importance of recreation and continued use of the river, at the same time that fish populations would continue to decline and water would be taken from Dworshak Reservoir.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, the clustering of group medians was the most dispersed of any dimension under A1: the medians for the invited group and group 3 was 2, while the median for group 2 was -3. Individual responses ranged from -4 to 5. Those characteristics consistently mentioned across all groups included losses in Orofino's tourism industry and other job opportunities, in part because of the constraints of government regulations, but also continued low utility costs. The other groups also forecast poor job opportunities associated with this Pathway. The invited group was more optimistic, suggesting that a stable economy and stable to increasing job opportunities would result -- except in the case of decreasing public sector jobs. Continued reliance on river transportation, decreasing population, and more fishing also would characterize the town's economic dimension in the year 2020, given the existing hydro-system.

#### *Place*

The clustering of group medians for the Place dimension was similar to that of the People dimension: the clustering of group medians around the invited group was within 2 points, with group 3 reporting the same median as the invited group -- a positive 2 -- and group 2 reporting a 0. Individual responses ranged from -4 to 5. Important characteristics under A1 in 2020 that were identified across all groups for the Place

dimension in Orofino included general community improvement, economic growth benefits for the community, and continued low reservoir levels in Dworshak Reservoir. The invited group felt that there would be growth -- especially that based on tourism and correctional services -- and some fish, but also increased storefront vacancies and over capacity of tourism. While some groups commented on the town's sense of community and sense of place in 2020, other groups noted its diminishment with the loss of fish.

#### *Vision & Vitality*

Lastly, the Vision & Vitality dimension clustered around the invited group's median of 1, with individuals encompassing a smaller range from -1 to 5 across all forum participants. Participants across all groups perceived little change in 2020 on this dimension under A1. However, the invited group listed continued community control by outside forces, mistrust of too much federal government, and out-migration in 2020 under current trends.

#### **2.10.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the median rating for three of the four dimensions (with the exception being Jobs & Wealth) was between 0 and 2. The invited group consistently recorded a median rating between 1 and 2, with the other two groups consistently reporting a 0 and 2 (see Figure 2-19). Comparing A2 to A1, the change in clustered median group ratings for all dimensions remained relatively constant, signifying that no significant difference was perceived between A1 and A2. Median ratings for the four dimensions, which were somewhat clustered for A1 (except for Jobs & Wealth), were equally or more clustered under A2 (see Figure 2-19). The range of group ratings for all of the dimensions except Jobs & Wealth (which already were low) did not change significantly. As with A1, the greatest variance of the four dimensions under A2 was found for the Jobs & Wealth dimension; the other three dimensions were less dispersed in the range of the clustering of their median ratings.

#### *People*

As presented in table 2-20, the salient justifications under the implementation of A2 generally were similar to those given in A1 for the People dimension. Reasons given suggested that 1999 trends would continue on into 2020, with all groups mentioning people changing for the better under A2 and increasing utility and transportation costs, and the invited group suggesting growth would occur, particularly due to the growth of the prison, and poorer customs and lifestyle.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, all groups noted a likely stability in job opportunities, and the invited group saw an improved economy and growth, and an increase in service-related jobs; the invited group felt that there would be an increasing service-based economy in the Orofino area, including resource tourism growth, but with increased utilities and dollars leaving the town.

*Place*

For the Place dimension, all groups saw it being much like A1, while the invited group saw a continuation of community stability and social services, but also a decline in resource-based industries, loss of government jobs, and increased crime and drug problems.

*Vision & Vitality*

Under A2, no change in the Vision & Vitality dimension was forecast across all groups -- in particular, lack of control over outside forces -- but the invited group cited such positive developments as strong and active civic organizations, leadership development, and plans and planning processes that prepared Orofino for the future.

<b>Table 2-20</b> <b>Comparison of Rating Justifications For Pathways A1, A2, and A3</b> <b>For Orofino, Idaho,</b> <b>By Community Dimension and Type of Group</b>			
Year 2020 Rating Justifications	Pathway 1 Existing Condition	Pathway 2 System Modification	Pathway 3 Drawdown
<b>People</b>			
Across All Groups	Increasing number of retirees (21)	Increasing number of retirees (21)	Decreasing population (42)
	Increasing population (41)	Decreasing school enrollment (72)	Decreasing school enrollment (72)
	Decreasing school enrollment (72)	People changing for the better (311)	Families are becoming less stable (102)
	People changing for the better (311)	Current trends will continue (325)	People changing for the worse (312)
	Current trends will continue (325)	Increased utilities and transportation and taxes, and decreased irrigation, loss of power (482)	Increasing standard of living, cost of living (454)
	Recreation is important (441)		Increased utilities and transportation and taxes, and decreased irrigation, loss of power (482)
	Loss/change in recreation opportunities (442)	Loss of industry and lack of job opportunities (492)	
	Declining fish populations (462)		
	Habitat will be focus (474)		
	Continued use of the river (481)		

Invited Groups	Aging population (2)	Aging population (2)	Lack of opportunities for young people (11)
	People changing for the worse (312)	Growth (general) (49)	Few people will own homes (152)
	Strong/improving/recovered fisheries (461)	Poor customs and lifestyles (52)	Lack of community involvement and community activities (242)
	Hatchery fish will continue (465)	Good technology (429)	Current trends will continue (325)
	Increased industries/good job opportunities (491)		Habitat will be focus (474)
			Loss/change in recreation opportunities (442)
			Unstable tax base (522)
Other Groups			Lack of money in the community (532)
			Unstable/poor/decreasing economy (542)
<b>Jobs and Wealth</b>			
Across All Groups	Decreasing job opportunities (18)	Stable job opportunities (8)	Decrease in income and wages (33)
	Low utilities (79)		Increasing transportation cost (75)
	Loss of recreation and tourism-related businesses (134)		Increase in utility rates (86)
	Constrained by government regulations (951)		Increased cost of doing business (88)
			Declining tax base (172)
			Poor roads degraded from trucking (223)

Invited Groups	Stable job opportunities (8)	Decrease in public sector jobs (21)	Increasing job opportunities (10)
	Jobs will be more service-oriented (41)	Decreased job opportunities (18)	
	Decrease in public sector jobs (21)	Money leaves (51)	Jobs more service-oriented (41)
	Rely on river transportation system (112)	Increased utility rates (86)	Increased costs of living (85)
	Increased fishing (129)	Resource tourism growth (126)	Resource tourism and amenity recreation growth (126)
	Economy (general) (151)	Strong, growing economy (157)	Loss of recreation and tourism-based business (134)
	Stable economy (151)		Shrinking agricultural base (135)
	People will leave (206)		Declining/limited businesses and shops (136)
	Same/no change/same as pathway 1 (245)		No new industries (140)
			Low wealth (177)
		Increasing unemployment (193)	
Other Groups	Poor job opportunities (3)		Population will leave (206)
<b>Place</b>			
Across All Groups	Community growth and improvement (721)	Same as pathway 1 (930)	Increasing store vacancies (521)
	Economic growth and stability (731)	Good social services, same access to services (561)	Traffic congestion/increased traffic (603)
	Low reservoir levels (Dworshak) (976)		Land tenure (640)
			Decline in industry (745)
			Decreasing population (832)

Invited Groups	Increasing store vacancies (521)	Stable community (723)	Lack of transportation facilities (602)
	Prison-based social system will grow (584)	Decline in industry, loss of farms, logging, tourism (745)	Barging is good (613)
	Loss of tourism (664)	Loss of government jobs (746)	Poor roads, highways, and community infrastructure (623)
	Strong sense of place/heritage/morale and community (670)	Increasing crime and drug-use/less safety (903)	Loss of farms and farm families (642)
	Presence of hatchery and resident fisheries (809)		Less pride and sense of place (672)
			Negative economic impacts from increased transport (741)
			Air and water quality bad (782)
			Will be some fish (809)
Other Groups	Negative impacts associated with fish decline (811)	Maintain status quo (841)	Negative impacts associated with Dworshak water levels (876)
<b>Vision and Vitality</b>			
Across All Groups	No real change in cohesiveness (363)	No real change in cohesiveness (363)	Decreasing/lack of community vision and vitality (602)
	Stable jobs and wealth (723)		

Invited Groups	Community control of outside forces (441)	Strong, active civic organizational capacity (11)	Leadership improvement (125)
	Private sector dependencies (446)	Leadership development in place for the future (145)	High/increasing taxes 9204)
	Mistrust of and too much federal government (466)	Planning and plans exist, good base for the future (403)	Reduced pessimistic vision (384)
	Outmigration of population (892)	Lack of community control of outside forces (442)	Planning and plans exist, good base for the future (403)
		General community control (449)	Lack of community control of outside forces (442)
		Increased costs related to modification (702)	General community control (449)
			Reduced budget (484)
			Positive community characteristics (541)
			Growth connected to vision and vitality (605)
			Increased costs related to modification (702)
Other Groups	New, optimistic vision of future (385)		Stable schools (813)

### 2.10.5.6 - Comparison of Pathway A3 to A1

The median group ratings for A1 shifted toward the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3, from medians around 0 to 2 to medians around -2 to -3 across all the dimensions (figure 2-20).

Median ratings for the four dimensions, which were not clustered for A1, were equally widespread for A3; in the case of the People dimension, for example, the medians for A3 ranged from a 2 to -5 (see Figure 2-19). Across all dimensions, group medians for A3 ranged from a -5 for all four dimensions to 2 in the Place dimension. The invited groups' median ratings differed 2 rating points in the People dimension to as much as 4 rating points for the Vision & Vitality dimension, suggesting that perceptions of impacts on Lewiston and the extent they would be beneficial, neutral or adverse under this alternative varied widely, depending on the dimension and the group providing the rating.

The range of median group ratings decreased only within the People dimension under A3, indicating a convergence of ratings. As with A2, the greatest variance of the four dimensions was again found for the Jobs & Wealth dimension under A3, and also for the Place dimension. Thus, a greater consensus about the level of the negative impact was found across groups in terms of the People dimension, but not the other three.



### *People*

For the People dimension, individual ratings ranged from -5 to 4 and the group medians clustered around -3. Table 2-20 shows the shift in salient justifications under the implementation of A3. Along with a decrease in population and school enrollments as in A1, all groups forecast families becoming less stable under A3, as well as people changing for the worse and an unstable economy, with less industry and job opportunities, especially for young people. The invited group indicated negative impacts on the community as a result, including a less money staying in Orofino, a less stable tax base, less home ownership as further justifications for the negative ratings.

### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -5 to 5 and group medians ranged from 0.5 to -4. Justifications across all groups clustered around decreasing wages and income, higher transportation costs and increased cost of doing business, degraded roads, and a declining tax base. The invited group added a decreasing population and job opportunities, increasing unemployment, increased cost of living, loss of business, especially tourism and the agricultural base, and low wealth.

### *Place*

For the Place dimension, individual ratings ranged from -5 to 5 with the group medians ranged from -0.5 to -4. Justifications across all groups clustered around decreases in population and resource-based industries and businesses, and increased traffic congestion. The invited group indicated a declining quality of life and sense of place, decreased air and water quality, and other negative impacts of increased transportation costs and lack of transportation facilities.

### *Vision & Vitality*

For the Vision and Vitality dimension individual responses ranged from -5 to 2 with the group median ratings ranging from 0 to -3. The one justification given across all groups concerned factors inhibiting community vitality for the town of Orofino in 2020 under A3. Along with the persisting theme of a lack of control over outside forces and the role of outside influences, the invited group also identified that the community would suffer from high taxes under A3, increased costs related to dam modification, and a limited budget with a declining tax base. However, these forum participants also perceived the persistence of positive community characteristics, such as stable schools, leadership improvement, and a reduced pessimistic vision and growth in vision and vitality.

## **2.10.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Orofino across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1 and A2, forum participants felt that the continued use of Dworshak water to augment Snake River flows should be halted or actions needed to be taken to offset the negative trends in recreation visitation. Suggestions for mitigation included direct compensation to the community and turning the management of Dworshak back to its original commission.

Under the implementation of A3, water continues to be used for flow augmentation and the community residents suggested similar measures to those for A1 and A2. In addition, forum participants felt that the increased costs of transportation should be offset through direct financial compensation to shippers and through investments in road and rail infrastructure. On a regional level, forum participants felt that the increased power costs should be borne by the entire country and not just local residents.

## **2.11 - Pasco, Washington, Community Assessment**

### **2.11.1 - Summary of Community Findings**

Pasco is one of the Tri-Cities of southcentral Washington, located at the confluence of the Snake and Columbia Rivers. By the late 1960s, Pasco was the third largest community in eastern Washington. Pasco's population has since doubled from its 1960 total to over 25,000 in 1995. Officially established in 1891, Pasco attributes its inception and growth to railroad construction near the Snake and Columbia Rivers in the 1870s. In the early 1890's, Pasco's one-industry focus (the railroad) diversified to livestock and irrigated agricultural production in the 1890s. Although Pasco is located on the opposite side of the Columbia River from the Hanford facilities, it received some population and economic spillover from the construction and operation of the Hanford Project.

The city has continued to diversify its economy, and the 1990s have seen local development range from an outlet mall and retail area, to a food-processing industrial site, to a new railroad depot with passenger train service. At the same time, irrigation in Franklin County has resulted in an increase in farm acreage of 100,000 acres since the mid-1960s, totaling over 650,000 acres by 1992. Work on environmental restoration at the Hanford Project continues to provide economic benefits to Pasco. Over \$38 million in school levies have been passed in the 1990s for capital development to meet increasing, and diversifying, school enrollment.

Participants in the forum at Pasco depicted a town in 1999 whose current situation is oriented towards the *as good as it could be* end of the scale for all four community dimensions. The Vision & Vitality dimension received a median rating of 8. Active, strong leadership, a vision for the future, and success with bonds and levies, were consistently mentioned reasons for the high rating. Strengths in civic organizations and school and church activities were also described. Concern over obtaining grants was the only negative comment mentioned. The Place dimension also received a median rating of 8. Good transportation, outdoor recreational opportunities and public services were some of the positive reasons consistently mentioned for the high rating. In contrast, negative Place characteristics included the appearance of downtown Pasco and drug-related crime. The People dimension also received a median rating of 8.

Justifications indicated that the city's growing population, home ownership, and community involvement contributed to the positive rating. Participants also mentioned an increase in population diversity, with growth in the community's retirees as well as migrant labor. This diversity was perceived by forum participants as having both a positive and negative effect on Pasco. The Jobs & Wealth dimension received a slightly lower rating than the previous dimensions, with a median rating of 7. Growth in economic diversity with good income levels, and inexpensive utility rates were some of the justifications contributing to the positive rating. According to participants, impacts associated with problems in the agriculture industry negatively affect Pasco's economy.

Forum participants perceived the situation for Pasco to be better on all four dimensions in 2020 under Pathway A1. The range of medians under A1 extended from 1 in the Place dimension to 2 in the People and Vision & Vitality dimensions. The Jobs & Wealth dimension received a median rating of 1.5. Participants also perceived that their community would improve across all dimensions under Pathway A2. The People, Jobs & Wealth, and Vision & Vitality dimensions were rated the same for A2 as for A1, while the Place dimension increased by 0.5, or a median rating of 1.5. Justifications included decreasing business and storefront vacancies, general community improvement, and access to the great outdoors.

Participants agreed that Pasco would experience negative impacts under Pathway A3. Medians for Pathway A3 were the lowest possible on the "adversely affected" end of the impact rating scale (-5) for all four dimensions. According to the perceptions of forum participants, Pasco would be much worse off under A3 for a variety of reasons, including the expectation of lessening support for bonds and levies, increasing costs of electricity, increased traffic congestion, poorer community services, decreasing job opportunities, and a decreasing population.

### **2.11.2 - Interactive Community Forum Participants**

Nine community members provided perspectives on the history, 1999 (current) situation, and on Pathways A1, A2, A3 for Pasco, WA. These forum participants sat at one facilitated table, working in an interactive small group (hereafter, "group"). The participants' overall diversity index rating was 0.57 (on a scale from 0 to 1.0), indicating that 8 of 14 pre-identified community roles present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 22 percent worked in the agriculture sector. The remaining 78 percent were equally distributed in the following occupations: mayor, electronic engineer, PUD commissioner, contractor, taxidermist, bookkeeper, and retiree.

### 2.11.3 - Community Background

#### *History:*

Pasco is one of the Tri-Cities of southcentral Washington, located at the confluence of the Snake and Columbia Rivers. Officially incorporated in 1891, Pasco attributes its establishment and growth to railroad construction near the Snake and Columbia Rivers in the 1870s. Steam-powered boats provided early transportation in the region. Pasco moved from a one-industry focus (rail) to livestock and agricultural production in the 1890s, which became possible by pumping water from the rivers for irrigation. A more intensive irrigation project was developed in 1910. Airmail service to Pasco began in 1926, and a new airport by the rail was dedicated in 1929. In 1943 the Hanford Project, a nuclear materials-processing project, began. Although Pasco is located on the opposite side of the Columbia River from the Hanford facilities, it received some population and economic spillover from Hanford -- particularly with the construction of the I-182 highway bridge connecting it to Richland in the mid-1980s. Airport expansion occurred in 1966, and by the late 1960s, Pasco was the third largest community in eastern Washington. The Port of Pasco and a port commission was established in 1982. The city has continued to diversify its economy, and the 1990s have seen the development of an outlet mall and retail area, a new wheat yard, a food-processing industrial site, new wineries, and a new depot with passenger train service. At the same time, irrigation in Franklin County has resulted in an increase in farm acreage of 100,000 acres since the mid-1960s, totaling over 650,000 acres by 1992. Work on environmental restoration at the Hanford Project continues to provide economic benefits to Pasco. The city's population has almost doubled since 1960, to over 25,000 in 1995, and new schools were built in the 1970s and 1980s. Over \$38 million in school levies have been passed in the 1990s for capital development to meet increasing school enrollment. A majority of that enrollment is Latino, reflecting the increasing diversity of the city's residents.

#### *Vision:*

The Comprehensive plan lists critical elements to move the community forward. These include:

- Focus on the land use of the city by improving its physical appearance, encouraging cluster development, promote community services, and encouraging small-scale neighborhood commercial hubs;
- Provide adequate park and recreation opportunities, such as improving segments of the Columbia and Snake River shoreline;
- Support efforts to build a train-transit interstate bus terminal for residents;
- Maintain economic development by promoting new businesses, tourism and recreational opportunities on the Columbia and Snake Rivers;
- Maintain a strong relationship with the Port.

## 2.11.4 - Community Assessment of 1999 Situation

### 2.11.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Pasco to rate the 1999 situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be

1   2   3   4   5   6   7   8   9   10

In 1999, the situation in my community is as good as it could be

### 2.11.4.2 - 1999 Situation: Ratings

As Figure 2-21 presents, median ratings across the four community dimensions for all participants at the forum ranged from 7 in the Jobs & Wealth dimension to 8 in the People, Place, and Vision & Vitality dimensions. Specifically, the facilitated group perceived all dimensions as being oriented toward the as good as it could be end of the scale, with the Jobs & Wealth dimension slightly lower than the other three. Due to the limited quantity of participants, it was not possible to have two groups of participants, and therefore internal validity (replication) cannot be given.

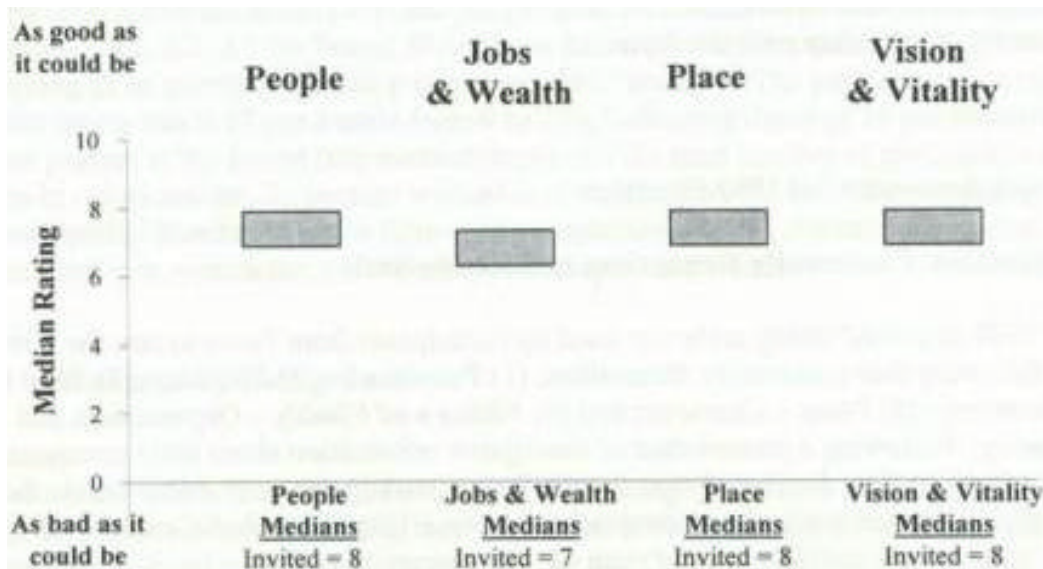


Figure 2-21. Median scale ratings of the current (1999) situation in Pasco, Washington, by dimension, across groups.

### **2.11.4.3 - 1999 Situation: Rating Justifications**

#### *Vision & Vitality*

The Vision & Vitality dimension received a median rating of 8. As presented in Table 2-21, active, strong leadership, a vision for the future, and success with bonds and levies, were consistently mentioned reasons for the high rating. Strengths in civic organizations and school and church activities were also described. Concern over obtaining grants was the only negative comment mentioned.

#### *Place*

The Place dimension also received a median rating of 8, with individual responses ranging from 6 to 9. Good transportation, outdoor recreational opportunities and public services were some of the consistently mentioned positive reasons for the high rating. In contrast, negative Place characteristics included the appearance of downtown Pasco and drug-related crime.

#### *People*

The People dimension also received a median rating of 8, with individual responses ranging from 6 to 9. Justifications indicate that the growth in population, home ownership, and community involvement, contributed to the positive rating. Participants mentioned an increase in population diversity, with growth in the retirement community as well as migrant labor. Such diversity was perceived by forum participants as having both a positive and negative affect on Pasco.

#### *Jobs & Wealth*

The Jobs & Wealth dimension received a slightly lower rating than the previous dimensions, with a median rating of 7. Growth in economic diversity with good income levels, and inexpensive utility rates were some of the justifications contributing to the positive rating. According to participants, impacts associated with problems in the agriculture industry negatively affect Pasco's economy.

**Table 2-21  
Rating Justifications for the Current (1999) Situation  
In Pasco, Washington,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Increasing number of retirees (21)		
	Increasing population (41)		
	Increasing school enrollment (71)		
	Schools/education (89)		
	Most people own homes (151)		
	Good, friendly, helpful people (201)		
	Increased community vitality and attachment (231)		
	Supportive of community activities and involved (241)		
	Ethnic diversity high (301)		
	Increased occupations/job opportunities (491)		
	Increasing development (511)		
Negative	High public assistance (112)		
	Unstable population (44)		
	Increasing standard of living (454)		
	Population is too ethnically diverse (305)		
	Government involvement (259)		
Other	Growth (general) (49)		
	School enrollment (general) (79)		
	Diversity (general) (309)		
	Income (general) (539)		

Jobs and Wealth		
Positive	Good job opportunities (2)	
	Increasing public sector jobs 916)	
	Money reinvested in local business (54)	
	Low utility (79)	
	Economically diverse (121)	
	Expanding economic base (125)	
	Strong growing economy (157)	
	Low wealth (177)	
	Lack of middle income jobs and families (189)	
	Low unemployment (192)	
	Reasonable property values (200)	
	Increasing property values (201)	
	High education level (205)	
	Negative	Jobs decrease due to the ripple effect from agriculture losses (26)
Low paying jobs (31)		
Jobs more service-oriented (41)		
Loss of farm produce (102)		
Economically-dependent schools (146)		
Uncertainty causes problems (242)		
Other	Public sector jobs (general) (44)	



Place		
Positive	Good schools (563)	
	Good social services, same access to services (561)	
	Transportation (600)	
	Good modes of transportation (601)	
	Good roads, highways, and community infrastructure (620)	
	Recreation and tourism (660)	
	Good parks and open spaces, public lands (667)	
	Good climate (772)	
	Good air and water quality (780)	
	Safe and crime free (902)	
	Negative	Poor/declining community appearance (513)
People shop elsewhere due to lack of businesses (522)		
General public and social services (560)		
Poor medical services (576)		
Community character is poor (577)		
Increasing crime and drug use (903)		
Leadership development in place for the future (145)		
Support and ability to support bonds and levies (181)		
Numerous, varied, and good social activities (301)		
Prepared for the future (381)		
Planning and plans exist, good base for the future (403)		
Strong and good local government (461)		
Positive economic opportunities (581)		
Stable jobs and wealth (723)		
Other	General role of bonds and levies (189)	

Vision and Vitality		
Positive	Strong, active civic organizational capacity (11)	
	Strong, active civic leadership (41)	
	Strong, active, astute political leadership (81)	
	Active, strong leadership (121)	
	Leadership development in place for the future (145)	
	Support for bonds and levies (189)	
	Numerous, varied, and good social activities (301)	
	Prepared for the future (381)	
	Planning and plans exist (403)	
	Strong and good local government (461)	
	Role of bonds and levies (189)	

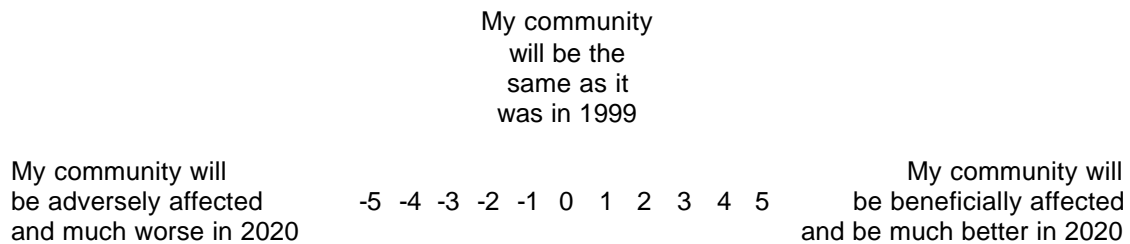
## 2.11.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.11.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants re-rated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

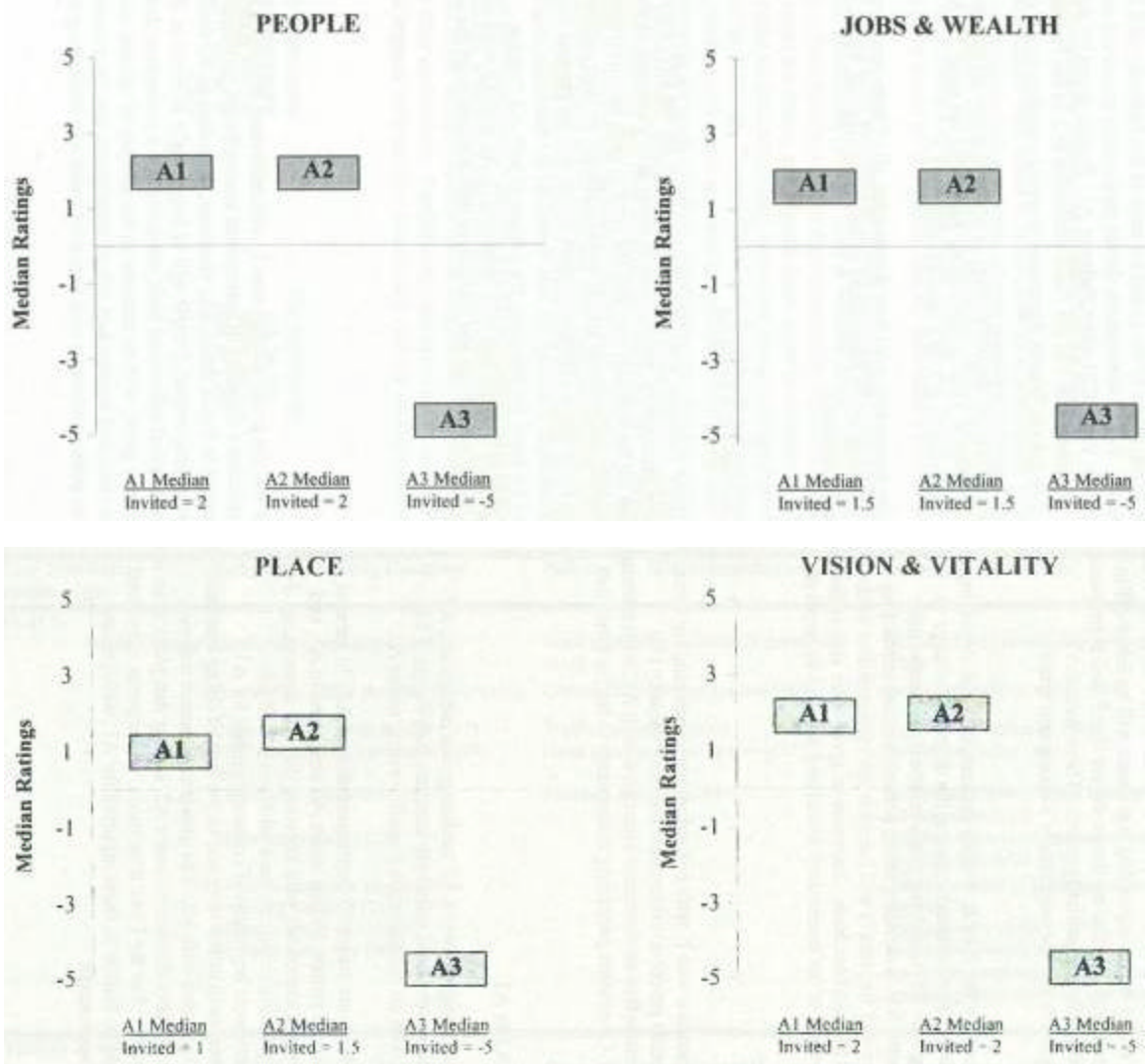


### 2.11.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-22 presents the median rating given by the group for each of the Pathways and is categorized according to dimension. For all dimensions, forum participants perceived the situation for Pasco to be better in the Year 2020 under Pathway A1. Broken down by dimension, the range of medians under A1 extended from 1 in the Place dimension to 2 in the People and Vision & Vitality dimensions. The Jobs & Wealth dimension received a median rating of 1.5.

For Pathway A2, participants also perceived the community to improve across all dimensions. The People, Jobs & Wealth, and Vision & Vitality dimensions were rated the same for A2 as for A1, while the Place dimension increased by 0.5, or a median rating of 1.5

Medians for Pathway A3 were the lowest across all four dimensions, all of them receiving the lowest possible rating of -5. According to the perceptions of forum participants, Pasco will be much worse off under A3 for each dimension.



**Figure 2-22. Median scale rating of Pasco, Washington, of Pathways A1, A2, and A3, by community, across groups.**

### 2.11.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.11.5.4 - Pathway A1**

##### *People*

Within the People dimension for A1, the group median was 2, with individual responses ranging from -4 to 5. This large range indicates a disparity in perceptions among forum participants as to the magnitude of change experienced in Pasco under A1. However, according to the median rating, forum participants perceived that, overall, People will be beneficially affected in 2020 under A1. Some salient justifications that influenced their rating include a perception that Pasco's population would continue to grow, with an increase in the number of retirees and high ethnic diversity. Other comments included increases in school enrollment, and the presence of good prevalent values. Growth in public assistance was also mentioned as a continuing trend of the current situation.

##### *Vision & Vitality*

For the Vision & Vitality dimension, individual ratings ranged from -2 to 5. Again, there appears to be a large disparity among participant perceptions as to the effect of A1 on Vision and Vitality in Pasco. The median rating was 2, signifying that Pasco will be better off in 2020 under A1. Important characteristics identified by the group are that Pasco is prepared for the future and is successful in obtaining and utilizing grants. There was also a connection made between general growth and the community's vision and vitality.

##### *Jobs & Wealth*

Individual ratings ranged from -4 to 5 for the Jobs & Wealth dimension, again signifying a large range of perceptions among forum participants regarding the degree of change to Pasco under A1. The median rating was 1.5, signifying that characteristics under this dimension will be better in 2020 under A1. According to the participants, an expanding economic base ("economic diversity will increase") will increase job opportunities while also increasing property values and the local tax base. Increases in agriculture also added to the positive rating. In addition, mention of the uncertainty associated with A1 in terms of fish recovery was made.

##### *Place*

The median rating for the Place dimension was 1, with individual responses ranging from -3 to 5 across all participants. Participants perceive a decreased business vacancy rate ("businesses will improve") and a crime-free environment associated with A1, with current trends continuing to improve Pasco. Comments pertaining to increases in traffic were also mentioned.

#### **2.11.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the change between A1 median group ratings and A2 median group ratings for all dimensions remained relatively constant (see Figure 2-22). Only the Place dimension changed, with an increase of 0.5 median rating under A2.

Table 2-22 presents the salient justifications under the implementation of A2. In general, the group perceived the People dimension to remain similar under A2 compared to A1, and added that there is a benefit to the people associated with knowing that the dams exist. For the Jobs & Wealth dimension, an expanding economic base with associated job opportunities and decreases in poverty were replicates of comments made for A1. Participants also commented on increases in utility rates and in the cost of doing business, in general, as negative characteristic associated with A2. The group commented that no change would occur in the Vision & Vitality dimension under A2, adding that plans exist for coping with any changes that may occur. For the Place dimension, participants mentioned that community characteristics would be similar to those reported for A1, with general improvements made to community appearance.

<b>Table 2-22</b> <b>Comparison of Rating Justifications For Pathways A1, A2, and A3</b> <b>For Pasco, Washington,</b> <b>By Community Dimension and Type of Group</b>			
Year 2020 Rating Justifications	Pathway 1 Existing Condition	Pathway 2 System Modification	Pathway 3 Drawdown
<b>Place</b>			
Invited Group	Decreasing store vacancies (530)	Good improving community appearance (511)	Poor/declining community appearance (513)
	People shop within the community (532)	Community character is good (566)	Increasing store vacancies (521)
	Community character is poor (577)	Traffic congestion (603)	High cost of electricity (591)
	Traffic congestion/increase in traffic (603)	Good parks and open spaces (667)	Traffic congestion (603)
	Community improvement (721)	Maintain status quo (841)	Poor roads, highways, and community infrastructure (623)
	Stable community (723)		Negative impacts on number of farms and farm families (642)
	Negative economic impacts from increased transport (741)		Decline in sense of place and community pride (672)
	Maintain status quo (841)		Poor economy (740)
	Safe and crime free (902)		Ruin of community (844)
			Declining property values and tax base (882)
			Increasing crime and drug use (903)

Vision and Vitality			
Invited Groups	Successful getting and using grants (241)	Cope well with change (361)	Lack of support for and ability to pass bonds and levies (182)
	No real change in cohesiveness (363)	No real change in cohesiveness (363)	Insufficient/decreasing tax base/fiscal resources (202)
	Prepared for the future (381)	Prepared for the future (381)	Negative results of change (364)
	Stable vision for the future (383)	Planning and plans exit, good base for the future (403)	Reduced, pessimistic visions of the future (384)
	Reduced budgets (484)	Dam's security and the future (641)	Negative economic opportunities (582)
	Community growth (605)	Positive economic opportunities (581)	Increased costs related to modification (702)
			Negative impact on parks and recreation facilities (832)
			Poor community services (862)
			Impacts from traffic (872)

Jobs and Wealth			
Invited Groups	Increasing job opportunities (10)	Stable government jobs (48)	Decreasing job opportunities (18)
	Increases in agriculture (105)	Increased utility rates (86)	Decreasing public sector jobs (21)
	Economic base (120)	Increased cost of doing business (88)	Decreased income and wages (33)
	Economically diverse (121)	Expanding economic base (125)	Increased utility rates (86)
	Expanding economic base (125)	Stable tax base up (171)	Declining/limited business and shops (136)
	Stable economy (155)	Decrease poverty (188)	Dam dependent (150)
	Strong/growing economy (157)		Declining economy (162)
	Will continue to work to improve economy (161)		Declining tax base (172)
	Stable tax base (171)		Decreasing property values (202)
	Wealth and poverty (175)		People will leave (206)
	Decreasing poverty (188)		Poor roads from trucking (223)
	Decreasing unemployment (196)		
	Increasing property values (201)		
	Uncertainty causes problems (242)		



People			
Invited Groups	Aging population (2)	Aging population (2)	Decreasing population (42)
	Increasing number of retirees (21)	Increasing population (41)	High public assistance (112)
	Increasing population (41)	Increasing school enrollment (71)	Less people own homes (152)
	Prevalent values (69)	Ethnic diversity is high (301)	Decreasing homes or property values (161)
	Increasing school enrollment (71)	Current trends will continue (325)	Ethnic diversity is low (302)
	Public assistance (119)	Knowing the dams exist will benefit us (483)	People are changing for the worse (312)
	Most people own homes (151)	Unstable poor economy (542)	Increase in traffic (432)
	Increased community vitality and attachment (231)		High standard of living (454)
	Ethnic diversity is high (301)		Lack of industry or lack of job opportunities (492)
	Current trends will continue (325)		
	Declining fish populations/listed (462)		

### 2.11.5.6 - Comparison of Pathway A3 to A1

Under the implementation of A3, the change between A1 and A3 median group ratings dropped to the lowest rating on the adversely affected end of the rating scale for all dimensions: median ratings around 2 for A1 decreased to -5 for A3 (see Figure 2-22).

#### *People*

All individuals rated the People dimension -5 under A3, signifying consensus across all forum participants that A3 would adversely affect Pasco. Table 2-22 shows the shift in salient justifications that support this rating. These include a forecast decrease in population ("remaining industry will be gone-people will be gone") with increases in public assistance. A decline in ethnic diversity associated with loss of migrant worker jobs was also offered as a justification for the negative rating.

#### *Vision & Vitality*

All individuals rated the Vision & Vitality dimension -5 under A3, signifying consensus across all forum participants that A3 would adversely affect Pasco. The group provided several justifications for the negative rating, including a decline in community services and lost support for bonds and levies. The compounding effects on Pasco's vision and vitality associated with increased traffic and decreased fiscal resources was also mentioned.

### *Jobs & Wealth*

All individuals rated the Jobs & Wealth dimension -5 under A3, signifying consensus across all forum participants that A3 would adversely affect Pasco. The group perceived the community as dam-dependent, and therefore loss of dams would contribute to a decline in jobs and wages, escalating to reductions in property values and a decreased economic and tax base ("loss of businesses and people").

### *Place*

All individuals rated the Place dimension -5 under A3, signifying consensus across all forum participants that A3 would adversely affect Pasco. The group mentioned that Pasco's physical character would decline due to aging infrastructure, increased store vacancies, and increased Crime. Additionally, participants commented that A3 would contribute to increasing costs of electricity and traffic congestion ("increased traffic on highways").

## **2.11.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Pasco across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally felt that local and state officials should be more involved in, and have more control over, federal issues regarding salmon recovery. They also mentioned that all harvesting of salmon should be suspended and the ESA should be modified.

Participants did not offer suggestions for lessening the adverse effects of A2.

Under the implementation of A3, participants noted that compensation should be given to farmers and migrant workers for losses in the irrigated agriculture sector, particularly to migrant employment. Regional measures mentioned included the control of predators on salmon and minimizing the effects of hatchery fish on wild populations and the need to expand the capacity of the power grids in the region.

## **2.12 - Pomeroy, Washington, Community Assessment**

### **2.12.1 - Summary of Community Findings**

Pomeroy, Washington, is a small farming center and the county seat of Garfield County. The town is located on the Palouse in eastern Washington, about 20 miles south of the Lower Snake River. This region is one of the nation's most highly productive grain-growing areas, and besides the approximately 1,400 people who live inside the city limits, the community includes many of the families living on nearby surrounding farms. Historically, its agriculture has consisted of mostly dryland farming. In the late 1880's Pomeroy emerged as a trade and service center, during 1940-1960 it was the site of a

cannery, and the 1970's brought dam construction workers to the area. The town began to decline in population in the 1980's as nearby communities like Lewiston/Clarkston grew and became the region's major trade center. Pomeroy of the 1990s has benefited from infrastructure improvements to its Main Street, numerous economic development projects and ongoing efforts to maintain its hospital and high quality schools. The community has a tradition of strong and active community leadership. Today's large-scale wheat farms are a critical component of the local economic system.

Participants in the forum at Pomeroy depicted their community in 1999 as being a place with a high quality of life. The People, Place and Vision & Vitality dimensions were characterized as being well above the mid-point on the current situation rating scale. This is a community where the people work together to get things done ("great civic organizations" and "local government is in great shape"), where there is great pride in the school system ("school levy passed at least 12 consecutive times") and where family values are cherished. When it comes to Place the participants perceived their community to have good recreation opportunities ("nice golf course, swimming pool, parks, etc."), a great natural environment, and lots of open space along with high air and water quality. A negative side of the Place dimension was that the downtown has yet to be revitalized, and work is still needed on community infrastructure. Jobs & Wealth was the lowest rated dimension in Pomeroy. Like many small agriculture communities, the town suffers from a lack of retail stores, in part due to the emergence of nearby regional trade centers. Participants felt that families on public assistance were on the increase. They also believed the ongoing trend of fewer farms and larger farms is likely to continue to be part of the changes facing Pomeroy. Finally, participants were concerned that the population is aging, with not enough youth remaining in the area. Youth not interested in farming find the local job opportunities very limited. However, in Pomeroy extended families are alive and well, and numerous farms are still operated by family members of the next generation. Although new job opportunities are scarce, the value of the agriculture land and its productivity remains high.

Participants were optimistic about Pomeroy's future under Pathway A1 (the existing hydro-system on the Lower Snake River continuing on into 2020). Participants generally saw their community faced with the same situation it faces today. People will shop elsewhere, the downtown will continue to struggle to improve and deal with store vacancies, farm consolidation and size increases will continue, there will continue to be good transportation, the difficulties with maintaining the hospital will not disappear. Overall, participants see their community as being a small town with a pleasant atmosphere, constantly seeking to improve its character and economic condition. Ratings for Pathway A2 (major modifications of the existing hydro-system on the Lower Snake River) were much the same. Some exceptions were that it was perceived there would be some increased job opportunities that would strengthen the economy and these would lead to an increase in population and school enrollment. Participants at the Pomeroy forum were very concerned about their community's future under Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River). The ratings for all four community dimensions revealed that participants perceived adverse effects would far out weigh beneficial ones. Of major concern were the adverse effects on the community's economy, costs of transporting and storing agriculture products, the tax

base and ultimately community projects, roads, utility rates, family stability, customs and lifestyles ("values community was founded on will be gone-no one will be here to teach them and pass them on") community pride, and community involvement and organizations ("we will lose many of our community leaders-farmers"). The few perceived beneficial effects included increased rail, truck and other jobs (permanent & temporary) related to dam removal, resource tourism and amenity recreation growth, and an expanding economic base ("less dependence on farm income").

The actions brainstormed by the forum participants to minimize the negative impacts on Pomeroy of each pathway correspond to the types of adverse effects that participants identified for each pathway. Actions that were suggested included finding more effective approaches to recovering the salmon, compensating farmers for any economic impacts incurred by the farming industry, improved transportation to compensate for loss of barging in the case of A3, and improvements to infrastructure. This correspondence suggests that these participants recognized the relationship between these effects and the mitigation actions suggested by participants. Also, the specific nature of the mitigation actions proposed, in addressing community-level and not regional effects, confirmed that participants were focusing on their community and not the region as a whole.

It is clear that participants at the forum perceived significant negative impacts across all community dimensions from the removal of the Lower Snake River dams. Considering the agricultural history of this community and the current state of agriculture, the linkages between the surrounding farms and the health of the community are not surprising. These negative impacts may be reduced to some degree, but a variety of community-level actions appear to be critical. For Pomeroy, as for other farming towns in the region, a pessimistic vision of the future if salmon-recovery efforts affect the local economy, and the feeling that the community will lose control of its destiny to outside forces, are paramount concerns. The community has dealt with change in the past and recognizes that its future will include change.

### **2.12.2 - Interactive Community Forum Participants**

Forty forum participants interacting in five facilitated groups provided perspectives on the 1999 situation in the community of Pomeroy. The overall diversity index rating for participants was .86 meaning that 12 of 14 pre-selected community roles were present at the forum. Of the total number of participants completing the sign-in questionnaire, 39% percent were employed in agriculture, 21% were retired and the remaining (less than 10% per category) were employed in a variety of other occupations homemaker, nursing, business, education, health care, news media, office management, ranching and as a county commissioner.

### 2.12.3 - Community Background

#### *History:*

Pomeroy, Washington, is a small farming center and the county seat of Garfield County. The town is located on the Palouse in eastern Washington, about 20 miles south of the Lower Snake River. This region is one of the nation's most highly productive grain-growing areas, and besides the approximately 1,400 people who live inside the city limits, the community includes many of the families living on nearby surrounding farms.

Historically, Pomeroy's agriculture has consisted of mostly dryland farming. Established in 1864, Pomeroy quickly experienced a rapid wave of population migration due to its location on the stagecoach line between the towns of Walla Walla and Lewiston. The economy was based primarily on cattle and vegetable farming. By 1878, the town had grown into a service and trade center, containing a flourmill, retail stores, and a hotel. Pomeroy's population expanded further with the arrival of the Starbuck-Pomeroy rail branch in 1885, serving as the major source of transportation for agricultural products grown in the region. A pea cannery was built in 1942 and operated until the 1960s. The construction of Little Goose Dam in 1970, followed by Lower Granite Dam in 1975 significantly increased the local population in Pomeroy and its economy, as construction workers and their families moved in. The rail line went bankrupt and was abandoned in 1981. Since the 1960s, when the town's population was approaching 2,000, its population has declined about 30 percent to its present size, due in part to a decreasing number of increasingly large farms. As the county seat of Garfield County, Pomeroy of the 1990s has benefited from many infrastructure improvements to its Main Street, the expansion of girl's sports programs (including a volleyball team), a focus on community civic group and church activities, and employment in the agriculture, retail trade, and government. The late 1990s have seen the development of a comprehensive plan and increasingly active Palouse Economic Development Council. The community is actively working on economic development projects and continues its efforts to maintain the local hospital.

#### *Vision:*

Pomeroy's 1995 Comprehensive Plan describes key elements for maintaining its "small town atmosphere." These include:

- Attaining economic well-being through diversification and economic stability.
- Encourage the development of businesses that utilize locally-grown products and value-added industries.
- Protecting the natural and built environments through preservation, conservation, and enhancement.
- Attracting out-of-town money by focusing on recreation and tourism.
- Encourage efficient multi-modal transportation systems based on regional priorities and coordinated with county and city comprehensive plans.

- Increase the opportunity for residents to purchase or rent affordable safe and sanitary housing.
- Protect the viability of agricultural and forest practices from nuisance lawsuits that encourage and may even force the premature removal of lands from agricultural uses and timber production.

## 2.12.4 - Community Assessment of 1999 Situation

### 2.12.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The "current situation" rating scale was used by participants from Pomeroy to rate the 1999 situation for the following community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate how good or bad their community situation currently is for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

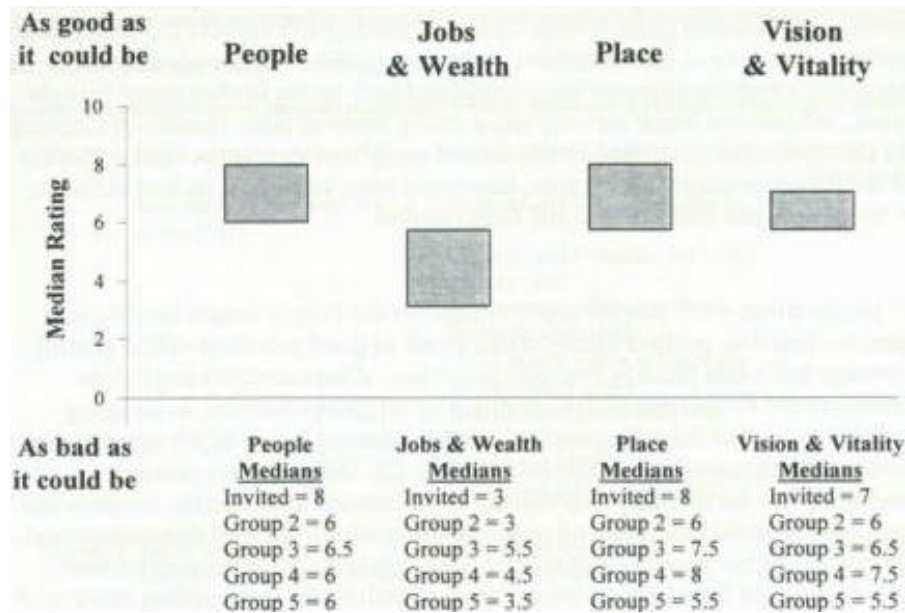
### 2.12.4.2 - 1999 Situation: Ratings

As Figure 2-23 presents, the medians across the four community dimensions for the five facilitated tables of community members working in interactive small groups (hereafter "groups") was from 3 on the Jobs & Wealth dimension, to 8 on the Place and Place dimensions. The 5 groups perceived the Place dimension as being most oriented towards the as good as it could be community situation closely followed by the People and Vision & Vitality dimensions, and the Jobs & Wealth dimension was perceived as being most oriented towards as bad as it could be community situation.

In the case of Pomeroy's four community dimensions, the difference between the invited group's median and that of the other facilitated groups varied. In three dimensions group medians were within two points on the 10-point current situation rating scale. The exception was Jobs & Wealth where the difference was 2.5. This lack of clustering of group medians demonstrates groups varied in terms of their perception of the relative goodness or badness of Pomeroy's People, Jobs & Wealth, Place and Vision & Vitality dimensions.

On the 10 point current situation rating scale the group medians for the Place dimension generally clustered below the invited group's median rating of 8, with a range of 5 to 9 across all forum participants; the People dimension's group medians clustered below the invited group's median rating 8, with a range of 3 to 10 across all forum participants;

the Vision & Vitality dimension's group medians clustered around the invited group's median rating 7, with a range of 4 to 9 across all forum participants; and the Jobs & Wealth dimension clustered somewhat above the invited group's median rating of 3, with a range of 2 to 9 across all forum participants. The invited group rated the People, Place and Vision & Vitality dimensions higher than most other groups and the Jobs & Wealth dimension lower than most other groups.



**Figure 2-23. Median scale ratings of the current (1999) situation in Pomeroy, Washington, by dimension, across groups.**

### 2.12.4.3 - 1999 Situation: Rating Justifications

Table 2-23 presents the clustering of justifications for the five facilitated groups who participated in the community forum. Justifications noted across the invited group and the other groups are categorized as 'All Groups'. Finally, justifications noted by groups other than the invited one(s) are categorized as other groups.

#### *Place*

As Table 2-23 presents, positive items like proximity to outdoor recreation, good parks and open space, good air and water quality, along with a crime-free community are the justifications for the Place dimension's high median group ratings. These characteristics support the high group ratings ranging from 6-8 in spite of less desirable or negative qualities like people shop elsewhere. Other distinct positive characteristics mentioned only by the invited group include good social services, schools and social services and a strong sense of place (small town feeling). Distinct negative characteristics mentioned by the invited group that were associated with their place rating of 8 are poor community appearance, increasing store vacancies, lack of facilities, infrastructure in bad shape, and loss of farms and farm families.

### *People*

The "all groups" justifications show that the group ratings for the People dimension, the next highest after place, are based on positive characteristics such as good prevalent values (family values are very strong) and a safe place to live with low crime.

Characteristics negatively influencing the rating of the People dimension identified by all groups focused on an aging population (people are aging and the younger people aren't returning), lack of job opportunities especially for youth and decreasing population (see Table 2-23). Other distinct positive characteristics mentioned by the invited group include good customs and lifestyle, children and education are high priority, good extended and stable families, strong sense of community, and stable job opportunities. On the negative side the invited group listed families at risk ("more single parents") and the need for public assistance as justifications for their median rating of 8 on the current situation scale.

### *Vision & Vitality*

The "all groups" justification for the Vision & Vitality dimension group ratings ranging from 5.5 to 7.5, only somewhat lower than the People and Place ratings for the current situation, was the community's strong and high level of participation and working together. This justification is further defined by the invited group to include strong, active civic leadership and astute political leadership, stable organizational capacity, community support for bonds and levies, as well as a strong cohesive, friendly, sociable community. Examples of negative characteristics influencing the dimension's rating include a resistance to change, limited budget, not being prepared for the future and having fewer people which limits stable leadership.

### *Jobs & Wealth*

The Jobs & Wealth dimension was oriented the most towards the *as bad as it could be* community situation, receiving the lowest ratings from forum participants ranging from 3 to 5.5. No positive justifications emerged in the "all groups" category, but the invited other groups' negative justifications provide insight for the low rating. These include loss of farmer jobs, decreasing wealth, shrinking agricultural base, and high poverty. These negative characteristics support the low rating in spite of the more positive qualities mentioned by the invited group such as low utility rates, low cost of living and good people (see Table 2-23). There was little agreement on the issue of poverty in the community. Some saw it as being high and others saw it as being low and not a problem.



**Table 2-23**  
**Rating Justifications for the Current (1999) Situation**  
**In Pomeroy, Washington,**  
**By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Good prevalent values (61)	Good customs and lifestyles (51)	Supportive of community activities and involved (241)
	Safe place to live with low crime (191)	Customs and lifestyles (general) (59)	
		Children and education are a high priority (66)	
		Good extended families (101)	
		Stable families (103)	
		Good people with a strong sense of community (201)	
		Recreation is important (441)	
		Stable opportunities/job occupation (493)	
		Increasing development (511)	
Negative	Aging population (2)	Families at risk (105)	Decreasing school enrollment (72)
	Lack of opportunities for young people (11)	High public assistance (112)	High economic dependence on one sector (501)
	Decreasing population (42)	Public assistance (general) (119)	
		Ethnic diversity is low (302)	
Other		Socially diverse (306)	
<b>Jobs and Wealth</b>			
Positive		Low utility rates (79)	
		Low cost of living (78)	
		Low poverty (185)	
		Good people (204)	
Negative	Poor job opportunities (3)	Loss of farmer jobs (22)	Low pay/wages/income (31)
	Money leaves (51)	Farm expansion - bad (109)	Shrinking agriculture base (135)
	Low economic diversity (122)	Decreasing wealth (181)	
	High unemployment (191)	High poverty (183)	
		People will leave (206)	

Other	Economic dependence - agriculture (143)	Economic base (general) (120)	Population aging/retirement town (211)
	Government dependence in the public sector (145)	Property values (197)	
<b>Place</b>			
Positive	Close proximity to outdoor recreation opportunities (662)	Good social services (561)	Small town with pleasant atmosphere (681)
	Good parks and open spaces (667)	Good schools (563)	
	Good air and water quality (780)	Community character is good (566)	
	Safe and crime free (902)	Increase in recreation opportunities (661)	
		Strong sense of place and community (670)	
		Attractive (771)	
Negative	People shop elsewhere due to lack of businesses (522)	Poor community appearance (513)	
		Increasing store vacancies (521)	
		Poor public facilities (572)	
		Lack of transportation facilities (602)	
		Poor roads, highways, and community infrastructure (623)	
		Negative impacts on the number of farms and farm families (642)	
Other		General public services and social services	

Vision and Vitality			
Positive	Strong and high level of community participation (561)	Adequate, stable civic organizational capacity (13)	Strong, active civic organizational capacity (11)
		Strong active civic leadership (41)	Planning and plans exist, good base for the future (403)
		Strong, active, astute political leadership (81)	
		Stable leadership (123)	
		Support and ability to support bonds and levies (181)	
		Numerous, varied, good, or improving social activities (301)	
		Friendly, sociable community (305)	
		Interesting community (307)	
		Strong cohesive community (341)	
Negative	Don't cope well with, or resist, change (362)	Leadership decline (124)D	Diminished civic organizational capacity (12)
	Limited budget (362)	Insufficient tax base/fiscal resources (202)	
		Negative results of change (364)	
		Not prepared for the future (382)	

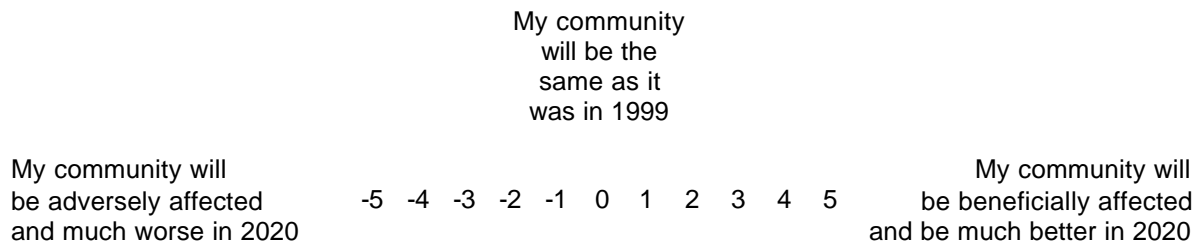
## 2.12.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.12.5.1 - Community Dimension Impact Rating Scale

Forum Participants were asked to make judgements on how their community would be impacted in 2020 by the implementation of three salmon recovery pathways proposed by the Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, Pathway A2 was to make major modifications to the existing Lower Snake River System, and Pathway A3 was natural river drawdown or dam breaching.

An impact rating scale was used by forum participants from Pomeroy to rate the 2020 - situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted. In thinking about the future, participants were asked to consider all

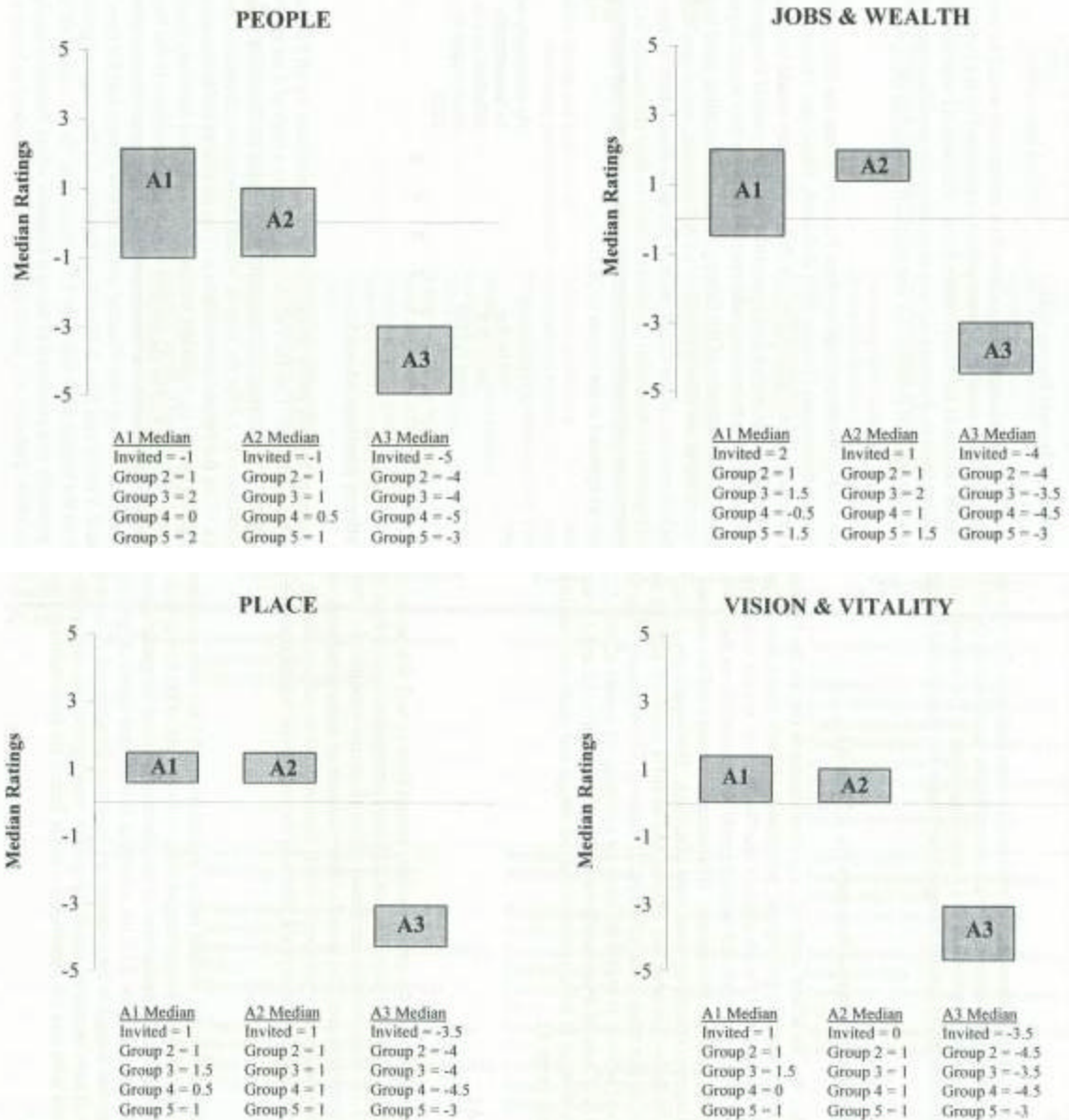
of the normal changes that are likely to occur in a community over time, along with specific changes they would expect to result from adding a pathway to their scenario of the future. To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the center point of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community in 2020 for that dimension. They also were specifically instructed to focus on adverse and beneficial impacts to their community as opposed to the region in 2020.



### 2.12.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-24 presents, the range of median group ratings across all dimensions for all Pathways. Pathway A1 ratings range from a low of -1 on the People dimension to a high of 2 on the People and Jobs & Wealth dimensions. For Pathway A2, the group medians across dimensions range from a -1 for the People dimension to a 2 for the Jobs & Wealth dimension. Group medians for Pathway A3 ranged from a -5 on the People dimension to a -3 on all four of the community dimensions. The range of group ratings by Pathways within dimensions was relatively consistent except in the case of Pathway A1. In Pathway A1 clusters of five group medians in the People and Jobs & Wealth dimensions were spread over as many as three scale units (-1 to 2). For Pathway A2, the Place dimension ratings were identical across all five groups and for three other dimensions (Place, Vision & Vitality and Jobs & Wealth) in Pathway A3 the range of group ratings for all dimensions on the impact scale was only 1.5 units or less. In the case of all four dimensions Pathway A2 generally was perceived as being a situation where Pomeroy would be the same in 2020 as it is in 1999. Pathway A3, for all dimensions was perceived as being a situation where Pomeroy would be adversely affected in 2020 and therefore worse off than it presently is in 1999.

The People and Jobs & Wealth dimensions in Pathway A1 were similar in that they had the largest difference across group medians (-1 to 2). Generally, the spread within the Place and Vision & Vitality dimensions was small (0 to 1.5 units) regardless of the Pathway rated. There was also agreement across group median ratings of the People and Jobs & wealth dimensions for Pathway A3.



**Figure 2-24. Median scale rating of Pomeroy, Washington of Pathways A1, A2, and A3, by community, across groups.**

### 2.12.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons (justifications) and changes underlying them were examined.

The impact rating scale used ranged from -5 to 5, where -5 is adversely affected and be much worse off in 2020, and 5 is beneficially affected and be much better off in 2020. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of the clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.12.5.4 - Pathway A1**

##### *People*

Within the People dimension for A1, group medians ranged from -1 to 2 with an invited group median rating of -1 and individual ratings across all forum participants ranging from -2 to 3. As presented in Table 2-24, characteristics mentioned across all groups were that the 1999 trends would continue. The major trends that would continue include an aging population, more retirees, the population and school enrollment would remain stable or perhaps slightly increase, a continued decrease in farms and farm size a little, and the community would remain a good place to raise a family.

**Jobs & Wealth** For the Jobs & Wealth dimension, median ratings ranged from -0.5 to 2 with an invited group median rating of 2 and individual ratings ranged from -1 to 4. Four of the five groups were within 1 rating unit suggesting a similar view of this dimension across the group's participating in the forum. As presented in Table 2-24, the clustering of responses across all groups shows that items such as no real change in the economy are important determinants of the rating as well as a mixed position of both increasing (small job growth, minor growth in jobs) and decreasing (more automation less jobs, less job opportunity -- larger farms) job opportunities. The invited group added additional justifications such as low cost of living, low utilities and decreasing farms and an increase in farm size.

##### *Place*

For the Place dimension there was the greatest agreement across groups with median ratings ranging from 0.5 to 1.5. The invited group along with two other groups gave this dimension a median rating of 1. As presented in Table 2-24, the clustering of responses across all groups shows that there is a strong belief that the community will remain stable or grow and improve. The invited group added additional justifications for its score that included making gains in the area of improved communications and technology and transportation. Negative impacts such as people having to shop elsewhere due to lack of businesses and reduction in farm numbers and increasing farm sizes are important determinants of the rating. These kept the small town pleasant atmosphere of Pomeroy from receiving an even higher median rating on the impact scale.

*Vision & Vitality*

For the Vision & Vitality dimension group median ratings ranged from 0 to 1.5. This slight variation is reflected in the kinds of justifications offered. Across all groups the feeling was that there would be no real change from today (1999 situation), and an active strong leadership would remain. In fact the strong positive comments about this dimensions dominated. The only negative justifications added by the invited group were civic organization decline (less organization smaller farm population) and reduced budgets (less people lower budgets- smaller farm population).

**2.12.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the variation in the median rating scores was reduced and the scores across all dimensions for most groups were around 1. There were very few changes in the justifications from those given for A1. For A2 the invited group added increasing jobs at dams in the Jobs and Wealth dimension, and affirmed the importance of barging transportation to the community in the Place dimension.

<b>Table 2-24                      Comparison of Rating Justifications For Pathways A1, A2, and A3                      For Pomeroy, Washington,                      By Community Dimension and Type of Group</b>			
<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>Place</b>			
Across All Groups	Community growth and improvement (general) (721)	Maintain status quo (841)	Poor community appearance (513)
	Maintain status quo (841)		Increasing store vacancies (521)
			Lack of transportation facilities (602)
			Traffic congestion (603)
			Negative impacts on the number of farms and farm families (642)
			Poor recreation and tourism opportunities (666)
			Poor air and water quality (782)

Invited Groups	Good community appearance (511)	Increasing store vacancies (521)	Poor schools (573)
	Increasing store vacancies (521)	Residential areas are clean (542)	Poor roads, highways, and community infrastructure (623)
	People shop elsewhere due to lack of business (522)	Barging transportation is a benefit to the community (613)	Unsafe roads and highways (624)
	Improved communications and technology (580)	Decreased number of farms and increased farm size (653)	Decreased number of farms and increased farm size (653)
	Good modes of transportation (601)	Community growth and improvement (721)	Community growth and improvement (721)
	Negative impacts on the number of farms and farm families (642)	Good air and water quality (780)	Negative economic impact from increased transportation costs (741)
	Small town with pleasant atmosphere (681)	Decreasing population (823)	
	Good air and water quality (780)	Good quality of life (901)	
		Same as pathway 1 (930)	
Other Groups			Decline in sense of place and community pride (672)
			Decreasing population (823)
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Increasing job opportunities (general) (10)	Declining tax base (172)
	Decreasing job opportunities (18)		Decreasing property values (202)
	Same/no change (254)		Increasing transportation costs (75)



Invited Groups	Increasing construction jobs (17)	Stable job opportunities (8)	Increasing trucking and rail jobs (13)
	Increased high tech-related jobs (40)	Increasing jobs at dams (14)	Decreasing job opportunities (general) (18)
	Low cost of living (78)	Low cost of living (78)	Low paying jobs (31)
	Low utilities (79)	Low utilities (79)	Decreasing income and wages (33)
	Decreasing farms and increase in farm size (109)	Low transportation costs (81)	Short-term and temporary jobs (37)
	Resource tourism and amenity recreation growth (126)	Increased utility rates (86)	Increased utility rates (86)
	Shrinking agricultural base (135)	Strong/growing economy (157)	Low economic diversity (122)
	Strong/growing economy (157)	Same/no change (245)	Expanding economic base (125)
	Declining economy (162)	Pathway #2 does not benefit fish or people (246)	Resource tourism and amenity recreation growth (126)
		No advantage over pathway 1 (247)	Shrinking agricultural base (135)
			Declining business and businesses (136)
			Agricultural-based economy (143)
			Declining economy (162)
			Struggle to keep head above water (165)
			Lack of middle income jobs and families (189)
			Poor roads/degrading roads from trucking (223)
		Increasing CRP lands (232)	
		Same/no change (245)	
Other Groups		Increasing construction-related jobs (17)	Decreasing agricultural jobs (22)
		Short-term and temporary jobs (37)	Jobs decrease due to ripple effect from agricultural losses (26)
			Increased costs of doing business (88)

<b>People</b>			
Across All Groups	Current trends will continue (325)	Current trends will continue (325)	Decreasing population (42)
			Decreasing school enrollment (72)
			Families are becoming less stable (102)
			Decrease in farms and increase in farm size (156)
			Poor quality of life (208)
			People changing for worse (312)
Invited Groups	Aging population (2)	Aging population (2)	Unstable population (44)
	Population age diversity (4)	Decreasing population (42)	High public assistance (112)
	Increasing number of retirees (21)	Stable population (43)	Low quality, unfriendly, unhelpful people (202)
	Stable population (43)	Stable customs and lifestyles (53)	Ethnic diversity is high (301)
	Stable school (73)	Decreasing farms and increasing farm size (156)	Current trends will continue (325)
	Decreasing farms and increasing farm size (156)	Strong sense of community among residents (203)	Low traffic congestion (431)
	People changing for the better (311)	Supportive of community activities and involved (241)	Increased occupations/job opportunities (491)
	People changing for the worse (312)	People changing for the worse (312)	High economic dependence on one sector (501)
	Bedroom community/commuters (422)	Good community to live and raise a family (424)	Lack of money in community (532)
	Good community to live and raise family (424)	Lack of money in community (532)	
	Recreation is important (positive) (441)		
Other Groups	Increasing population (41)	Increasing population (41)	Poor customs and lifestyles (52)
		Increasing school enrollment (71)	Increased utility/transportation/taxes/irrigation (482)
		Increasing occupation/job opportunities (491)A	Lack of industry/job opportunities (492)
		Increased wealth/income (531)	
<b>Vision and Vitality</b>			
Across All Groups	Active, strong leadership (121)	Insufficient/decreasing tax base/fiscal resources (202)	Loss of community cohesiveness (344)
	No real change (363)		

Invited Groups	Civic organization decline (population decline, financial stress) (14)	Negative results of change (364)	Leadership decline (124)
	Stable leadership (123)	Friendly, sociable community (305)	Insufficient/decreasing tax base/fiscal resources (202)
	Friendly, sociable community (305)	Not prepared for the future (382)	Reduced, pessimistic visions of the future (384)
	Reduced budgets (484)	Future planning uncertain (409)	Reduced budgets (484)
	People are adaptable (505)	Positive/increasing community characteristics (541)	General community control (449)
	Strong and high level of community participation (work together) (561)	Strong and high level of community participation (work together) (561)	Limited budget (482)
	Strong/increasing community vitality (601)	Strong/increasing community vitality (601)	Reduced budgets (484)
			People are adaptable (505)
			Negative/decreasing community characteristics (542)
			Lack of community involvement in community affairs (562)
	Community growth (605)		
Other Groups			Civic organization decline (population decline, financial stress)
			Negative economic opportunities (582)

### 2.12.5.6 - Comparison of Pathway A3 to A1

The median group ratings for all four dimensions shifted substantially toward the "adversely affected" end of the impact rating scale for Pathway A3. Median ratings for the four dimensions ranged from a high of -3.5 to a low of -5. The only dimension to receive the lowest possible rating of -5 was the People dimension. It is clear that the group's rated A3 in a consistent fashion and perceived that this pathway would adversely affect their community.

### *People*

Individual ratings ranged from -5 to 2 across all forum participants. Justifications provided across all groups that were not previously mentioned in A1 or A 2 included major decrease (instability) in population and school enrollment, families becoming less stable, and poorer quality of life. The invited group added higher public assistance, lower quality, unfriendly, and unhelpful people, and high economic dependence on farming (This is a farming community -- when another 20-40 cents is added to expenses of grain -- this will cause a trickle effect all the way to Government employees, shop owners, etc.).

### *Jobs & Wealth*

Individual ratings ranged from -5 to 2 across all forum participants. Justifications for these negative ratings provided by all groups were the declining tax base, decreasing property values and increasing transportation costs. The invited group saw the possibility of increasing trucking and rail jobs, but nearly all of its other justifications were concerned with adverse impacts such as increased utility rates, decreasing income and wages, declining economy and yet the loss of more businesses due to the ripple effect from the impact on agriculture.

### *Place*

Individual ratings ranged from -5 to 1 across all forum participants. Justifications provided across all groups included increasing store vacancies and negative effects on community appearance, lack of transportation and increased traffic congestion, roads/degraded roads from trucking and poor air and water quality. Recreation opportunities were also perceived to be adversely impacted moving from good in A1 to poor in A3. Even when rating the Place dimension the participants perceived impact to the local economy and the ripple effects as a major concern.

### *Vision & Vitality*

Individual ratings ranged from -5 to 1 across all forum participants. Loss of community cohesiveness was the characteristic of vision and vitality all groups used to justify their low negative ratings of A1. Other commonly given justifications were leadership and civic organization decline, and negative economic opportunities leading to an insufficient tax base and ultimately reduced local budgets. All of these culminate in a more pessimistic vision of the future of Pomeroy in 2020. One positive orientated justification was that people were adaptable.

## **2.12.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Pomeroy across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally felt that to minimize the negative impacts other recreation activities should be developed on the reservoirs to diversify recreation, more Corps purchases should be made locally, and grants should be made available to improve water quality from agricultural lands. Regional suggestions to minimize the impacts on salmon included the creation of more fish farms, improving fish bypass technology, eliminating other habitat threats, decreasing Native American harvests, and overall remove threats of dam breaching.

Under the implementation of A2, participants noted the need for funding schools and services to accommodate increased Corps workers, grants to diversify the local economy, increasing recreational opportunities along the reservoirs, more Corps purchases should be made locally, hiring locals to work on dams, and minimizing the disruption of barge traffic during modifications. Regional suggestions included the creation of more fish farms and the need to focus on upstream migration and habitat issues.

Under the implementation of A3, participants identified economic and infrastructure measures to minimize local impacts of dam breaching. Economic measures included direct compensation to farmers for increased shipping costs over the long term, assistance to farmers who leave farming, grants to diversify and develop the local economy, employment in road construction and maintenance, and direct compensation for higher utility rates and to local businesses. Suggested infrastructure improvements include building and maintaining rail, road and storage infrastructure to handle higher volumes and provide assistance to county road maintenance, providing rail cars at competitive rates, the replacement or modification of affected wells and the conversion of riverside property to private property. Regional mitigation suggestions included improving grain-loading facilities in the Tri-Cities, guaranteeing wheat prices, and provide assurance that utility rates would not increase.

## **2.13 - Prescott, Washington, Community Assessment**

### **2.13.1 - Summary of Key Findings About Prescott**

Prescott, Washington, is a small farming town of about 200 in population located on the Columbia Basin about 15 mile south of the Lower Snake River. Historically, its agriculture has consisted of dryland farming and irrigated agriculture. Changes in the area's agriculture, and specifically that industry's labor requirements (agriculture employed some 50 percent of the U.S. population in 1900, in comparison with 2 percent by the 1990s), have resulted in a declining population during the town's history, with some short-term increases in numbers of residents during the periods of dam construction on the river.

Most recently, orchards irrigated from the river and packing operations have employed farm workers (Broetje Orchards and Flat-Top Orchards, Broetje Packing Plant), who originally were transient workers and in the last several decades have begun settling in and around the town. Broetje Orchards, in fact, has provided a housing development and a school for workers and their children, although the children of some employees attend the Prescott District schools. Because of agriculture's major contribution to the district's tax base, residents predict that major impacts to this industry would result in the loss of an already marginal funding base for their school district.

Participants in the forum at Prescott depict a town in 1999 whose current situation reflects this decline and the tenuousness of its current social and economic situation. The town's affected environment includes People and Place dimensions that are highly variable in the ways residents rated them, indicating that, while some people are very "up" about the town's social make-up and character, others are much less so. This response reflects a built environment that has past its prime and that, along with low-income trailer housing, detracts from its physical appearance, leading one person to suggest they were "pessimistic on chances for change" in terms of the town's Place dimension. An influx of some Latinos (farm workers) and people receiving public assistance have contributed to ethnic, social and cultural tensions in the community. Nonetheless, comments on the People dimension indicate Prescott is a "better than average community" and, given that "there are worst places" to live, it provides a "better life than California." Participants in the forum rated both dimensions on the middle of the current situation rating scale. In contrast, the town's economy was rated most consistently and the lowest of the four dimensions, with most ratings at the *as bad as it could be* end of the current situation rating scale: one participant noted that "future events could upset a tenuous balance" in the town's economic situation.

Participants were guardedly optimistic about Prescott's future under Pathway A1 (the existing hydro-system on the Lower Snake River continuing on into 2020), with ratings of its effects generally being on the positive, beneficial end of the scale for all four dimensions. Residents generally saw improvement and growth on all dimensions, with the only concerns including a "water system inadequate for growth" (People dimension) and "water main resource for economic base" (Jobs & Wealth dimension). Ratings and justifications for A2 (major modifications of the existing hydro-system on the Lower Snake River) were much the same.

Participants at the Prescott forum were very concerned about their community's future under Pathway A3 (dam breaching and natural river drawdown on the Lower Snake River), with ratings of its effects in 2020 clustered at the extreme negative, adverse end of the scale. A major concern here was the perceived significant impacts of the loss of irrigated land. Also, a key theme for the effects of this pathway was the loss of resources, including fiscal and human capital, necessary for a town and its schools that have been "on the brink" to survive. Additional costs of production in a marginal

economy in a town where "most people who live here, work elsewhere, and most people who work here, live elsewhere" were seen as extremely adverse. As a result, indicative comments include the sense that A3 would end up "destroying years of progress," as well as a pervasive hopelessness ("little future," "social emotional depression"). Given these responses, it is not surprising that the focus of the community participants' assessment of its situation reflected a primary concern over the future of their community.

### **2.13.2 - Interactive Community Forum Participants**

Thirty community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Prescott, WA. These forum participants sat at four facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The overall diversity index rating for participants was 0.79 (on a scale from 0 to 1.0), which indicates that 11 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 33 percent were in the agriculture industry, 20 percent were retired, and 10 percent were in the education field. The remaining 37 percent were each employed in one the following occupations: maintenance clerk, engineer, equipment operator, operations manager, business owner, service man, social worker, state employer, operations supervisor, surveyor, and self-employed.

### **2.13.3 - Community Background**

Prescott currently is a small town of 200-some people in southeastern Washington. It is located about 15 miles south of the Lower Snake River.

The town of Prescott was founded in the late 1800s, and by 1900, the town's population reached 1,000, mostly due to farming and milling operations. The population began to decline when the mill burned down in 1920. During the 1960s, the Prescott schools merged, and a community swimming pool was built. Ice Harbor Dam was completed in 1961, with its construction bringing in 75 families to town, and a total population of 400. The Union School was built in 1966 to accommodate the influx of students. Lower Monumental Dam was completed in 1969, and the first large irrigation project was done. K2H incorporated, and irrigated farming from the Snake River was established. In the 1970s the railroad depot was abandoned and Prescott's school enrollment increased by 60 percent. The CRP also impacted the community, resulting in a loss of many agricultural jobs. Trailer court opened to Green Giant, and asparagus harvesting with migrant labor began. In the 1980s the Broetje Packing Plant came to town, as well as Broetje Orchards and Flat-Top Orchards. The Unite Train facility was built. In the 1990s, the town passed more than \$1.49 million in school levies. A trailer park opened to accommodate 60 people. Touchet Grain Growers merged with Walla Walla Grain Growers and became the Northwest Grain Growers. Grain elevators also merged and the Snake River vineyards were established.

Currently, a major employer in the area is Broetje Orchards, which is located down on the river and employs a significant number of Latino farm workers. The Orchard has its own residential development and school, but some of the workers' children attend the Prescott schools. Production on approximately 37,000 acres of irrigated land along the river is an important asset for the town's economy, diversity and vitality. Along with farm workers who live in area, Prescott's population includes residents who have lived and worked in the town for generations, people who commute to Walla Walla and elsewhere to work, and people who are receiving public assistance. This mix of diverse ethnic and other groups in the town significantly influences the dynamics of social interaction and cohesion in the town.

### 2.13.4 - Community Assessment of 1999 Situation

#### 2.13.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "current community situation" rating scale was used by participants from Umatilla to rate the current (1999) situation of the following four dimensions: 1) **People** - Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

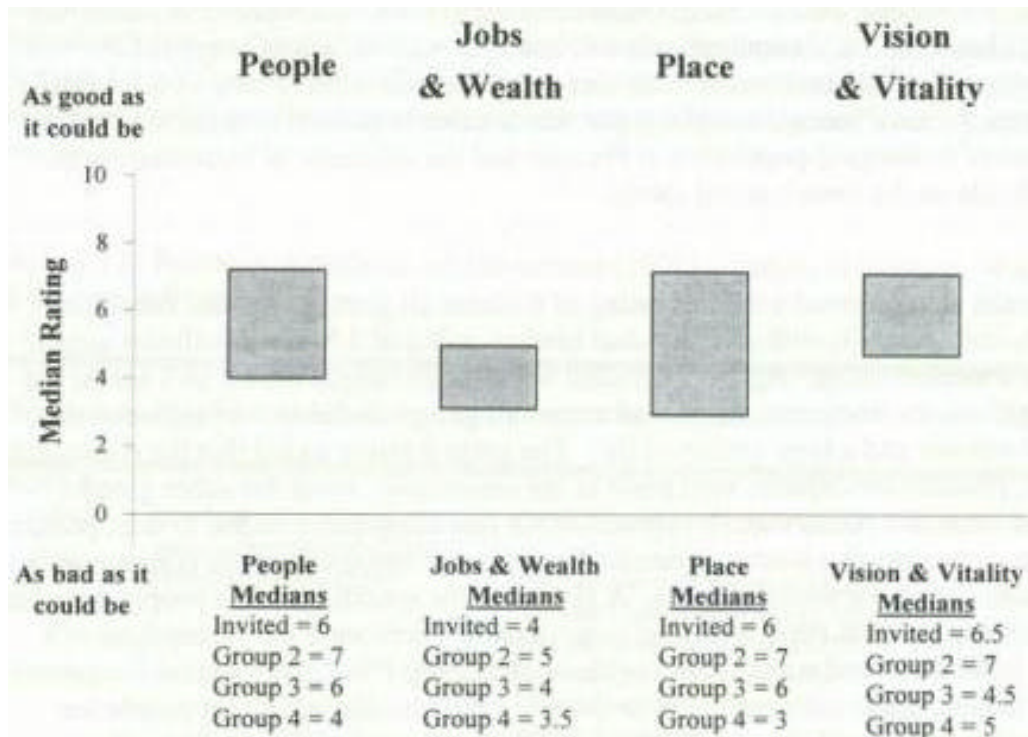
#### 2.13.4.2 - 1999 Situation: Ratings

As Figure 2-25 presents, the medians across the four community dimensions for the four groups at the forum ranged from a 3 on the Place dimension, to a 7 on the People, Place and Vision & Vitality dimensions. The groups differed in the range of their ratings on all dimensions except Jobs & Wealth: group medians differed by more than one point on the rating scale for the People, Place and Vision & Vitality dimensions. Across all groups, these three dimensions were perceived as being most oriented to the *as good as it could be* end of the scale, with an overall median score of 6. Alternatively, the Jobs & Wealth dimension was perceived as being most oriented towards the *as bad as it could be* end of the scale, with an overall median rating of 4.

In the case of Prescott's individual community dimensions, the difference between the invited group's median score and that of the other facilitated groups ranged from 0 to 3 rating points on the current (1999) situation rating scale. The lack of clustering on the People, Place and Vision & Vitality dimensions indicates that the facilitated groups perceived those dimensions of their community differently. In particular, group 4 tended



to rate lower than the remaining groups. However, for the Jobs & Wealth dimension, the clustering of group medians around 4 demonstrates that the groups independently came to similar conclusions about the state of their community's economy in terms of the extent to which its current situation was "bad."



**Figure 2-25. Median scale ratings of the current (1999) situation in Prescott, Washington, by dimension, across groups.**

### 2.13.4.3 - 1999 Situation: Rating Justifications

Table 2-25 presents the clustering of justifications for the four facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized as 'Other Groups'.

#### *People*

The People dimension was one of the highest rated dimensions, with an overall median rating of 6. Only group 4, with an individual median rating of 4, did not cluster around the invited group's median rating. Individual ratings ranged from 2 to 9 across all four groups. Table 2-25 presents the clustering of justifications across the five groups that illustrate why the People dimension was rated toward the good end of the scale. Key factors mentioned across all groups include the perception of Prescott as having good people with a strong sense of community. The invited group and other groups added that residents hold good prevalent values and that they have strong customs and lifestyles. Negative characteristics identified across all groups which may have deflated the ratings were a lack of community spirit ("we must believe in ourselves," "more

community building") and community involvement as well as lack of support for community activities ("lack of community activities and social ties"). A review of the specific reasons people gave for their ratings would suggest that another important consideration here was the perception of a changing population in Prescott and the influence of increased public assistance households on the town's social fabric.

### *Place*

The Place dimension also received a median rating of 6 across all groups. As was found for other dimensions, only group 4, with an individual median rating of 3.5, did not cluster around the invited group's median rating. Again, individual's responses ranged from 2 to 9 across the four groups. Justifications frequently mentioned across all groups in Table 2-25 included the presence of good schools and a high quality of life. The invited group added that the community has a small-town, pleasant atmosphere with pride in the community, while the other groups mentioned that an attractive scenery and a safe and crime free atmosphere added to their positive ratings. Negative comments that tended to detract from groups' ratings were the community's struggling businesses and poor social services. A review of the specific reasons people gave for their ratings would suggest that other important considerations here were the perceptions of a poor appearance in the town and some lack of pride in ownership ("too many vacant businesses," "rentals or fixed income cause poor aesthetics to town") -- but also the sense that people are "attached to the community" and view it as "small, average, not much different from other towns" of its size and situation.

### *Vision & Vitality*

The Vision and Vitality dimension also received an overall median rating of 6. Group medians did not cluster, with the median rating scores across different groups at the tables differing by more than 1. That is, groups 1 and 2 held median ratings of 6.5 and 7, while groups 3 and 4 held median ratings of 4.5 and 5. Individual responses ranged from 1 to 8 across all participants. In addition, no positive justifications clustered across all groups, indicating that participants did not agree regarding the current (1999) situation of Vision & Vitality in the community (see Table 2-25).

However, the invited group offered several positive comments, such as an active and strong leadership and that the community has the ability to cope with change in a positive fashion. The one negative justification mentioned across all groups was the perception that Prescott is not prepared for the future. In addition, the invited group added that the community has limited resources and is facing a decreasing tax base, and that the community lacks control of outside forces.

### *Jobs & Wealth*

The Jobs and Wealth dimension was the one most oriented towards the *as bad as it could be* end of the scale with a median rating of 4 across all forum participants and individual responses ranging from 1 to 9 across all groups. Of the four dimensions, the Jobs & Wealth dimension was the only one with a clustering of group medians around the invited group's median rating. Indicative of the low median rating, there were no

positive justifications clustered across all groups, yet a high degree of wealth and stable government employment were some positive justifications provided by the invited group. All groups perceive Prescott as an agriculture dependent town and the invited group added that they lack good job opportunities ("low wages for farm labor," "poverty level," "property values in town low") and that a stagnant economy with struggling businesses ("poor environment for struggling businesses") were justifications for their low ratings.

<b>Table 2-25</b> <b>Rating Justifications for the Current (1999) Situation</b> <b>In Prescott, Washington,</b> <b>By Community Dimension and Type of Group</b>			
Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Good people with a strong sense of community (201)	Good prevalent values (61)	Good customs and lifestyles (51)
	Nothing is static (329)	Most people own homes (151)	
		Increased community vitality and attachment to community (231)	
		Future requires courage (235)	
		Ethnic diversity is high (301)	
		Above average (321)	
Negative	Lack of community spirit/pride (212)	Lack of opportunities for young people (11)	High crime rate (192)
	Lack of community involvement and support for community activities (242)	Need a common goal (236)	Unstable, poor economy (542)
		Businesses suffer (512)	
<b>Jobs and Wealth</b>			
Positive		Vocational jobs (43)	
		Government jobs stable (48)	
		Good for agriculture (104)	
		High wealth (176)	
Negative	Economic dependent - agriculture (143)	Poor job opportunities (3)	Shrinking agriculture base (135)
		Low pay/wage/income (31)	
		Business down/loss of business (136)	
		Stagnant economy (154)	
		Low wealth (177)	

<b>Place</b>			
Positive	Good schools (563)	Historic, rustic, rural (680)	Appearance, general good (511)
	High quality of life (901)	Pride in community (671)	Roads and highways (620)
		Small town, pleasant atmosphere (681)	Good parks and open spaces (667)
		Good climate (772)	Attractive scenery (771)
			Maintain status quo (841)
			Safe and crime free (902)
Negative	Vacancies increasing, businesses struggling (521)	Appearance needs improvement (550)	
		Trailers-rentals (552)	
		Bad social services (570)	
		Less pride and sense of place (672)	
		Negatives of small town life - limited opportunities (683)	
<b>Vision and Vitality</b>			
Positive		Active, strong leadership (121)	
		Cope well with change (361)	
		Strong, high level of community participation (work together) (561)	
Negative	Not prepared for the future (382)	Poor, dysfunctional, political leadership (82)	
		Overwhelmed, poor leaders (142)	
		Limited resources and conflict (146)	
		Insufficient/decreasing tax base/fiscal resources (202)	
		Lack of community control of outside forces (economics/regulations) (442)	
		Reasons for less commitment to community (504)	

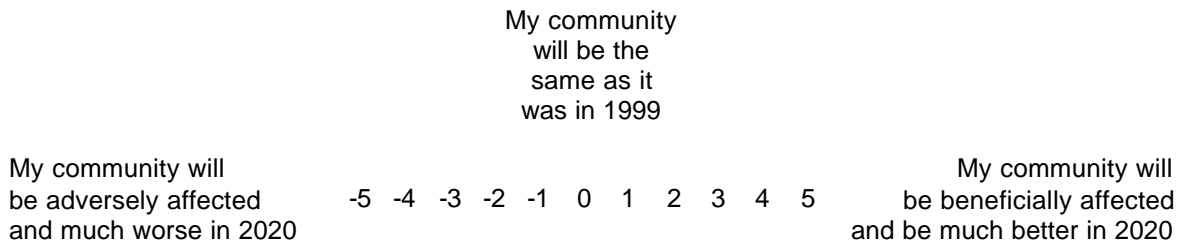
## 2.13.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.13.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by implementation of the three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

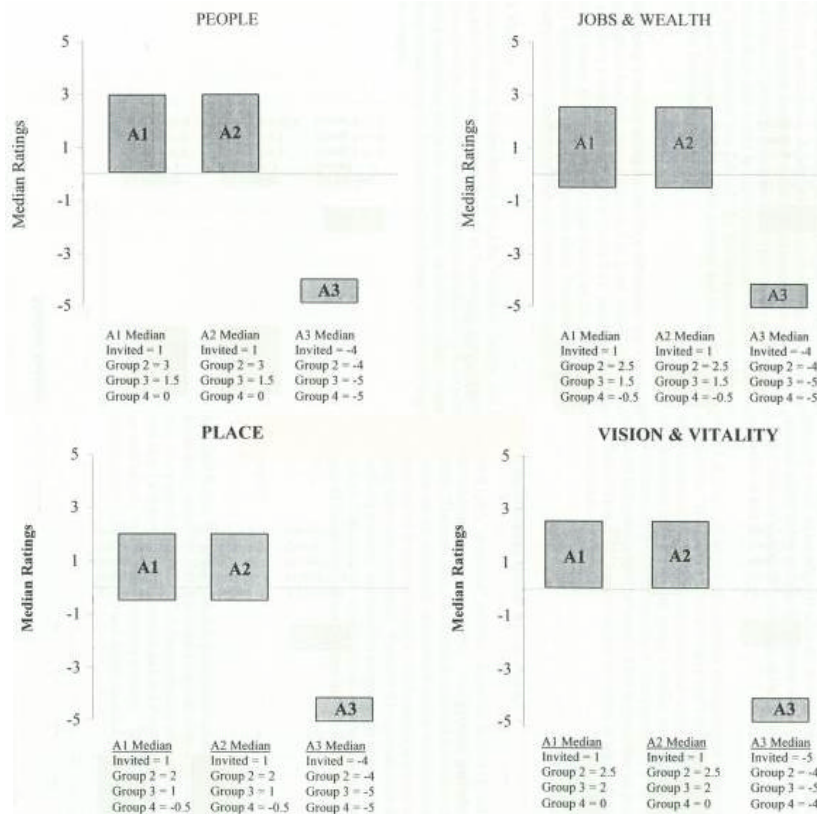
To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.13.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-26 illustrates that, across the four facilitated groups, forum participants generally perceived that the situation for their community would be better and beneficially affected in the year 2020 for each of the dimensions under A1. The range of medians across all the groups A1 ranged from a high of 3 for the People dimension to a low of -0.5 for the Jobs & Wealth and Place dimensions. Likewise for pathway A2, community participants generally perceived that their community would be beneficially affected across all the dimensions as exhibited by identical median rating scores to those for pathway A1. In the case of A3, group medians were clustered at the "adversely affected" end of the scale for all dimensions, with group medians clustering around -4 and -5.

Under both A1 and A2, the degree of clustering among groups remained relatively constant for the Place dimension. The People, Jobs & Wealth and Vision & Vitality dimensions exhibited a lower level of clustering but maintained a consistent range of 1.5 to 2 rating points in deviation of any group's median from the invited group's median rating score. All of the group medians were clustered for each of the dimensions for A3 with deviation of not more than one rating point from the invited group's median rating. This suggests that all groups perceived Prescott to be worse off under A3 in 2020, and the degree of change in terms of adverse effects was similar for all four dimensions.



**Figure 2-26. Median scale rating of Prescott, Washington of Pathways A1, A2, and A3, by community, across groups.**

### **2.13.5.3 - Rating Justifications Across A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 current situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.13.5.4 - Pathway A1**

#### *People*

In the case of the People Dimension for A1, group medians ranged from 0 to 3, with an invited-group median rating score of 1 and individual responses across all forum participants ranging from - to 5. As presented in Table 2-26, characteristics consistently mentioned across all groups were that 1999 trends would continue and that Prescott's population would continue to increase as well as jobs, customs and lifestyles improve. The invited group added that they would continue to have strong customs and lifestyles and a positive community attitude.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, median ratings ranged from a -0.5 to 2.5 across all groups with an invited group median of 1 and ranges of individual responses from -2 to 5 across all forum participants. Again, the lack of clustering around the invited group's median score suggests a range of possible justifications for participant's ratings. Beyond the perception across all groups of increased job opportunities in the year 2020, the invited group felt that those jobs would be higher paying and would increase in agriculture and recreation based industries (see Table 2-26). On the negative side of spectrum, other groups felt that Prescott's property values would decrease and that there would be adverse effects associated with farm expansion.

#### *Place*

The invited group's median rating for the Place dimension was 1 with a higher degree of clustering as group medians ranged from -0.5 to 2 and individual ratings ranged from -2 to 5 across all forum participants. As seen in Table 2-26, justifications given for group ratings ranged from a strong sense of place and high quality of life with a generally positive community appearance to general comments about Prescott's future and the perception that it will remain relatively unchanged from the current (1999) situation.

*Vision & Vitality*

Again, the median rating for the invited group for Vision & Vitality was 1 with a range of 0 to 2.5 and individual ratings ranging from -2 to 5 across all forum participants. Among justifications given in Table 2-26 for their positive ratings, all groups perceived there to be active, strong leadership within the community. In addition, other groups felt that leadership development would occur in the future and that Prescott would work together to be prepared for future changes.

<b>Table 2-26</b> <b>Comparison of Rating Justifications For Pathways A1, A2, and A3</b> <b>For Prescott, Washington,</b> <b>By Community Dimension and Type of Group</b>			
Year 2020 Rating Justifications	Pathway 1 Existing Condition	Pathway 2 System Modification	Pathway 3 Drawdown
<b>People</b>			
Across All Groups	Increasing population (41)	Increasing population (41)	Decreasing population (42)
	Current trends will continue (525)	Current trends will continue (525)	Decreasing school enrollment (62)
			Families are becoming less stable (102)
			People are changing for the worse (312)
			Lack of industry/job opportunities (492)
Invited Groups	Unstable population (44)	Unstable population (44)	Lack of opportunities for young people (11)
	Good customs and lifestyles (51)	Stable school (73)	Good prevalent values (610)
	Stable school (73)	Public assistance, general (119)	Poor prevalent values (62)
	Public assistance, general (119)	Decreasing home property values (161)	School/enrollment, general (79)
	Good community attitude (221)	Good community attitude (221)	Strong quality of life (209)
	Decreasing home property values (161)	People changing for the better (311)	Lack of community spirit/pride (212)
	People changing for the better (311)	Nothing is static (329)	Ethnic diversity is low (302)
	Nothing is static (329)	Employment/economy - general (549)	Increase in traffic (432)
	Employment/economy - general (549)		Unstable/poor economy (542)



Other Groups	Growth, general (49)	Stable population (43)	Poor customs and lifestyles (52)
	Social structure will not change (313)	Growth, general (49)	Increase utilities, transportation, taxes, and irrigaton (432)
	Increasing development (511)	Social structure will not change (313)	
		Increasing development (511)	
<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (10)	Increasing job opportunities (10)	Decreasing job opportunities (18)
			Jobs decrease due to the ripple effect from agricultural losses (26)
			Increased utility rates (86)
			Business down/loss of business (136)
Invited Groups	High pay/wages/income (30)	High pay/wages/income (30)	Loss of farmers jobs (22)
	Government jobs stable (48)	Government jobs stable (48)	High utilities (73)
	Low utilities (79)	Increase in agriculture (105)	Need irrigation (106)
	Increase in agriculture (105)	Need irrigation (106)	Shrinking agricultural base (135)
	Need irrigation (106)	Increase in irrigation (107)	Economic dependent - agriculture (143)
	Increase in irrigation (107)	General economic base (120)	Weak economy (153)
	General economic base (120)	Truck stopover (158)	Declining economy (162)
	Truck stopover (158)	More recreation/leisure (236)	Short-term wealth (163)
	More recreation/leisure (236)	Dams provide recreation (238)	Tax base down (172)
	Dams provide recreation (238)	Hopeful (961)	Increasing poverty (187)
	Hopeful (961)		Increasing unemployment (195)
			Bad for community (956)
Other Groups	Farm expansion-bad (109)	Expanding economic base (125)	Increased commuting (66)
	Expanding economic base (125)	Economic-dependent - agriculture (143)	Declining economic base (133)
	Economic-dependent - agriculture (143)	Increasing property values (201)	Decreasing property values (202)
	Increasing property values (201)		Loss of school/decrease (243)

<b>Place</b>			
Across All Groups	Community future (721)	Community future (721)	Public areas/appearance worsen (513)
			Vacancies increasing/businesses struggle (521)
			Traffic congestion (603)
			Ruin of community (844)
Invited Groups	Appearance general, good (511)	Appearance general, good (511)	Losing bargaining would be bad (613)
	Strong sense of place (670)	Strong sense of place (670)	Less pride and sense of place (672)
	Historic/rustic/rural (680)	Historic/rustic/rural (680)	Noise pollution (694)
	Maintain status quo (841)	Small town, pleasant atmosphere (681)	Hopeless future (716)
	Change due to town itself, not from pathways (842)	Change due to town itself, not from pathways (842)	Agricultural economy decline (740)
	High quality of life (901)	High quality of life (901)	Decline in industries (745)
		Maintain status quo (841)	Decreased income (751)
			Population decrease (823)
Other Groups	Good schools (563)	Poor schools (573)	
	Population increase (821)	Negative impacts on the number of farms and farm families (642)	
<b>Vision and Vitality</b>			
Across All Groups	Active, strong leadership (121)	Active, strong leadership (121)	Diminished civic organizational capacity (12)
			Insufficient tax base (202)
Invited Groups	Other comments about leadership (129)	Other comments about leadership (129)	Causes of leadership decline (124)
	No real change (363)	No real change (363)	Role of bonds and levies (189)
	Prepared for future (381)	Prepared for future (381)	People are adaptable (505)
	Reasons behind reduced, pessimistic visions (384)	Reasons behind reduced, pessimistic visions (384)	Negative impacts on agriculture and land tenure (544)
	Positive/increasing community characteristics (541)	Positive/increasing community characteristics (541)	Economic factors decreasing vision and vitality (583)
	Strong, high level of community participation (work together) (561)	Strong, high level of community participation (work together) (561)	Decreasing community vitality (602)
			Bad community services (862)
		Outmigration (892)	

Other Groups	Leadership development in place for the future (145)	Leadership development in place for the future (145)	Limited quality social activities (302)
			Reasons behind reduced, pessimistic visions (384)

### 2.13.5.5 - Comparison of Pathway A2 to A1

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings was the same for all four dimensions (Figure 2-26): in general, the community perceived that Prescott would be beneficially affected in the same manner under A1 and A2. The range of group ratings as well as rating justifications across the dimensions for A2 did not change, with the People and the Vision & Vitality dimensions perceived to be most beneficially affected.

### 2.13.5.6 - Comparison of Pathway A3 to A1

The median group ratings for A1 shifted toward the "adversely affected" end of the impact rating scale for all dimensions under the implementation of A3. Median ratings for the four dimensions, which loosely clustered around 1 for A1, ranged from -4 to -5 for A3 (see Figure 2-26). Further, the clustering of median ratings around the invited groups median score indicates a similarly in perceived impacts adversely effecting Prescott in each of the four dimensions.

#### *People*

Individual ratings ranged from -5 to -2 across all forum participants with justifications such as decreasing population and school enrollment ("schools will be gone in less than 5 years"); families becoming less stable and a decreased sense of community pride also were salient perceptions of adverse impacts associated with A3 (see Table 2-26). In addition, groups also felt that Prescott's families, customs and lifestyle would be adversely effected ("loss of extended families, cultural diversity, awareness, caring") and that people would generally change for the worse ("severely affect the people in northern Walla Walla County").

#### *Jobs & Wealth*

Individual responses ranged from -5 to -1 across all forum participants. Justifications provided by all groups for this negative rating included the perception of decreased jobs due to the ripple effect of a decline in the agricultural industry and decreased businesses in Prescott. Groups also perceived negative impacts from a declining tax base, increased commuting for jobs and decreasing property values.

### *Place*

For the Place dimension of Prescott, individual responses ranged from -5 to 0 across all forum participants. Justifications for their ratings ranged from a decline in community appearance with increased store vacancies, increased highway traffic, and other traffic impacts ("constant truck traffic and noise," "traffic...hazardous," "accidents & toll on emergency people"), to a sense of helplessness for the future and a declining quality of life. Several groups also mentioned factors such as declining schools and the negative effects associated with the loss of farms and farm families.

### *Vision & Vitality*

For the Vision & Vitality dimension, individual responses ranged from -5 to -1 across all forum participants. Common justifications perceived across all groups focused on an insufficient tax base and the community's diminished level of organizational capacity. Several groups also mentioned factors such as the important role that fiscal as well as other kinds of resources play as well as other economic factors contributing to a general decline in this dimension.

## **2.13.6 - Minimizing Adverse Impacts**

Prescott was a pilot community and, unlike in other communities, forum participants were not given an opportunity to identify ways of minimizing adverse impacts to the community. The assessment process for the forums was still being developed and streamlined, and time was not yet available for the process of identifying ways to lessen the negative impacts of the pathways.

## **2.14 - Riggins, Idaho, Community Assessment**

### **2.14.1 - Summary of Community Findings**

Riggins, Idaho, is a rural community of approximately 500 residents located on the Salmon River in northcentral Idaho. This town, which has always been dependent on multiple natural resources, is up-river from the four Lower Snake River dams and could potentially see an increase in salmon in the Salmon River and nearby streams if salmon populations were increased.

Riggins began as a mining town, but later made a transition to livestock and timber. When the local timber mill was destroyed by fire in the early 1980s, the economy made yet another transition to one largely based on the immigration of retirees and the expansion of the town's recreation and tourism industry. Whitewater rafting on the immediately adjacent Salmon River is one of the town's most popular attractions. Riggins also has a large government sector, with an abundance of federal lands all around it.

Participants in the forum at Riggins varied in their assessment of their town's current situation in 1999. The People dimension was the highest rated dimension with a median rating of 7. Key factors mentioned by both groups of participants present included a good small town community with a high quality of life, strong sense of community and good prevalent values. Negative characteristics of the People dimension identified by

both groups were a decreasing population and a high level of public assistance. The Place dimension received two distinct group medians of 9 and 5. Justifications frequently mentioned by both groups included a strong sense of place, an attractive surrounding area, and access to outdoor recreation and good air and water quality. Negative comments that may have tended to detract from both groups' ratings included the level of traffic congestion through the middle of town. The Vision and Vitality dimension received the next highest rating with two distinct median groups 7 and 5. Frequently mentioned justifications clustered around an interesting and sociable community that actively works together, with a high level of citizen participation, leading to a strong preparedness for the future. One negative justification that decreased the overall rating more towards the "bad" end of the rating scale was overwhelmed leaders who carry most of the leadership load. The Jobs and Wealth dimension was the most oriented of any community dimension towards the "bad" end of the scale, receiving the lowest rating by forum participants with a median of 3.5. Only one justification clustered across the two facilitated groups on a positive characteristic, while numerous justifications clustered around negative characteristics. Access to good and diverse job opportunities was consistently mentioned as a positive characteristic; however, both groups also cited low wages, seasonal employment, high poverty and poor job opportunities for youth as negative characteristics.

Across the two facilitated groups, forum participants perceived that the situation for their community would be "worse off" and fairly "adversely affected" in the year 2020 for each of the dimensions under Pathway A1 (the existing hydro-system on the Lower Snake River continuing on into 2020). The range of medians across the two facilitated groups for A1 extended from a high of 0 in the Vision & Vitality dimension to a low of -2 in both the People and Place Dimensions. Community participants provided similar ratings and justifications for Pathway A2 (major modifications of the existing hydro-system on the Lower Snake River). The range of group medians across dimensions again extended from a high of 0 in the Vision & Vitality dimension to a -2 in both the People and Place dimensions.

When evaluating Pathway A3 (dam breaching and natural river drawdown on the Lower Snake River), Riggins participants were generally optimistic when considering potential impacts to their community. Under the implementation of A3, the median group ratings from A1 and A2 increased towards the "beneficially affected" end of the impact rating scale, with group medians across dimensions shifting from around 0 and -4 to 0 and 4. While the range of median group ratings for the Vision & Vitality dimension decreased, the range of median ratings increased in the case of the Jobs & Wealth, People and Place dimensions -- suggesting less certain ratings under A3. Nevertheless all medians show a movement from the negative and adversely affected end of the scale under A1 and A2 to the positive and beneficially affected end under A3.

### **2.14.2 - Interactive Community Forum Participants**

Twenty-three community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Riggins, Idaho. These forum participants sat at two facilitated tables (see methodology), working in interactive small groups (hereafter small groups). The overall diversity index rating for participants was 0.86 (on a scale from 0 to 1.0), indicating that 12 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 17 percent were river guides and another 17 percent were business owners. The remaining 66 percent were employed in the following occupations; conservation officer, outfitter, real estate, education, building contractor, retiree, sales, property manager, housewife, land manager, driver and fish culturalist.

### **2.14.3 - Community Background**

#### *History:*

Riggins, Idaho is a rural community of approximately 500 residents located on the Salmon River in northcentral Idaho. This town, which has always been dependent on multiple natural resources, is upriver from the four Lower Snake River dams and could potentially see an increase in salmon in the Salmon River and nearby streams if changes in the hydro-system increased salmon populations.

The discovery of gold first attracted settlers to the Riggins area, which was officially named in 1908. Mining was then replaced by livestock raising, which remained prominent until the 1950s. National forests were soon established nearby. With the Civilian Conservation Corps program of the 1930s, as well as other federal projects, many roads, trails, fences, and water developments were constructed. During the 1940s, a sawmill was built and logging became a dominant industry. Forest Service consolidation occurred during the 1970s, and the Frank Church R.O.N.R. Wilderness was created. The area was also known as having some of the best fishing in the country. Retirees began to migrate into the community, resulting in an increasingly elderly population, many of whom were gone in the winter. At the same time, some younger residents were moving out of the community. A fire destroyed the local mill in the early 1980s, and the town lost some mill workers, loggers and their families. The population decreased to about 400 from about 550 in 1960. The result was a transition to a more recreation-based economy of fishing, river floating and hunting, made possible by the Salmon River. At the time the mill was burned, only one river outfitting company was located in Riggins. By the late 1990s, the town's economy included 15 river outfitting companies, plus six motels, five restaurants, and three real estate agencies, among other services. The Salmon River Economic Development Association was formed in 1992 to assess and promote the economic health of the area, and recent estimates show that major employers in Riggins include travel and tourism, government (including the school district), and agriculture. However, the acreage of land being farmed across the county have declined about 100,000 acres since the 1960s to about 730,000 acres in the early 1990s. During the 1990s, improvements to the City Park, the water and sewer system, and the weed spray program were made, and the town was designated a Gem Community. In addition, a medical clinic recently opened, the Goff

Bridge is being replaced, and a new water system is being coordinated with the improvement of Highway 95. Recent estimates are of approximately 30 outfitters currently based in Riggins, and trends are toward an increasingly seasonal employment and population base of about 450 people. Given the geographic constraints on property development within the city limits, that development is growing faster in outlying areas than in the town itself.

*Vision:*

The Riggins Comprehensive Plan places emphasis on the need to diversify its economic situation while having as little impact as possible on small town atmosphere and lifestyle. It calls for "improving the economic status of the existing population through increasing the length of the tourist season, encouraging cottage industries, helping market existing products produced by local residents, and guiding changes that are inevitable." Key elements in the plan include:

- Promote tourism via the internet, brochures, and the construction of a river path;
- Support holistic management of agriculture through weed control, watershed management, and fishing controls;
- Support shared use of Hell's Canyon

**2.14.4 - Community Assessment of 1999 Situation**

**2.14.4.1 - 1999 Situation: Community Dimensions and Rating Scale**

The following "1999 situation" rating scale was used by participants from Riggins to rate the current situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

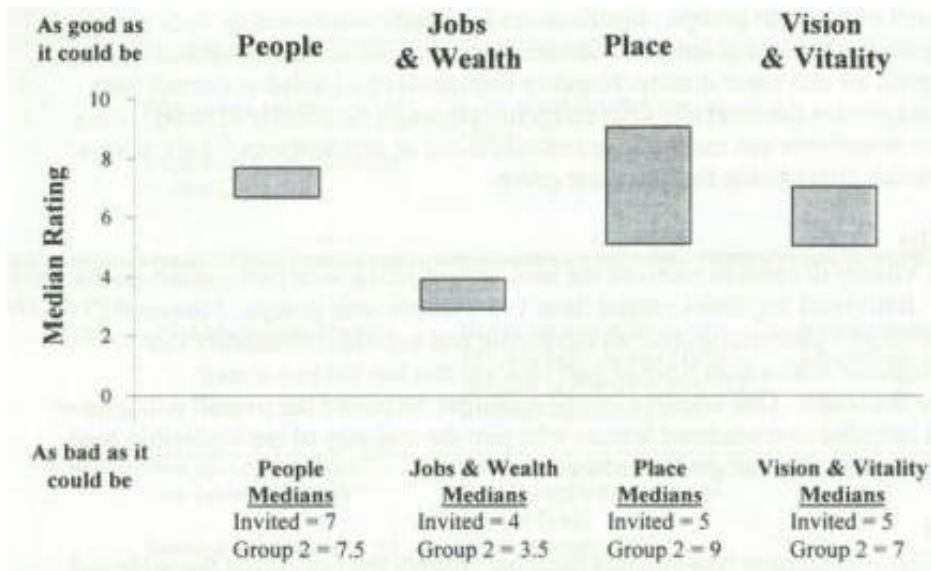
In 1999, the situation in my community is as bad as it could be	1	2	3	4	5	6	7	8	9	10	In 1999, the situation in my community is as good as it could be
---	---	---	---	---	---	---	---	---	---	----	--

**2.14.4.2 - 1999 Situation: Ratings**

As Figure 2-27 presents, the range of medians across the four community dimensions for the two groups ranged from a 4 on the Jobs & Wealth dimension, to a 7 on the People dimension. The two facilitated groups diverged in their rating of both the Place and Vision & Vitality dimensions and the group medians differed by more than one point on the rating scale. Relative agreement was found on the People and Jobs & Wealth

dimension. The two facilitated groups perceived the People dimension as being most oriented to the *as good as it could be* end of the scale and the Jobs & Wealth dimension as being most oriented towards the *as bad as it could be* end of the scale. The Place dimension of Riggins was perceived by the facilitated groups as being the second highest dimension oriented towards as good as it could be although the two groups diverged greatly between their ratings. The Vision & Vitality dimensions rating also exhibited a divergence between groups' perceptions but this rating more generally was in the center having both good and bad characteristics.

In the case of Riggins's four community dimensions, the difference between the invited group's median score and that of the other facilitated groups ranged from 0.5 to 4 rating points on the current situation scale. The lack of clustering on the Vision & Vitality and Place dimensions indicates that the facilitated groups perceived those dimensions of their community differently. On the other two dimensions the clustering of group medians demonstrates that for the People and Jobs & Wealth dimensions the groups independently came to similar conclusions about the state of their community in terms of the relative goodness and badness of their communities current situation.



**Figure 2-27. Median scale ratings of the current (1999) situation in Riggins, Idaho, by dimension, across groups.**

#### 2.14.4.3 - 1999 Situation: Rating Justifications

Table 2-27 presents the clustering of justifications for the two facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Group'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized as 'Other Group'.



### *People*

The People dimension was the highest rated dimension with a median rating of 7. Individual responses ranged from 5 to 9 across both groups. Table 2-27 presents the clustering of justifications across the two groups that illustrate why the People dimension was the highest rated dimension of Riggins toward the good end of the scale. Key factors mentioned across both groups include a good small town community with a high quality of life, strong sense of community and good prevalent values ("great friendly people" that "pull together"). Negative characteristics of the People dimension identified by both groups were a decreasing population and a high level of public assistance.

### *Place*

The Place dimension received two distinct group medians of 9 and 5. Individual responses ranged from 2 to 9 across both groups. Justifications frequently mentioned by both groups included strong sense of place, an attractive surrounding area, and access to outdoor recreation and good air and water quality. Negative comments that tended to detract from both groups' ratings were the level of traffic congestion through the middle of town. Poor shopping, vacant storefronts and excessive growth appeared as justifications for the invited group giving a much lower rating than the other group.

### *Vision & Vitality*

The Vision and Vitality dimension received the next highest rating with two distinct median groups 7 and 5. Individual responses ranged from 1 to 9 across both groups. Frequently mentioned justifications clustered around an interesting and sociable community that actively works together with a high level of participation that has led to a strong preparedness for the future. One negative justification that decreased the overall rating more towards the bad included overwhelmed leaders who pull the majority of the leadership load ("same people do everything and get burned out").

### *Jobs & Wealth*

The Jobs and Wealth dimension was oriented the most towards the bad end of the scale and was the community dimension receiving the lowest rating by forum participants with a median of 3.5. Individual responses ranged from 1 to 9 across both groups. Only one justification clustered across the two facilitated groups on a positive characteristic while numerous justifications clustered around negative characteristics. The access to good and diverse job opportunities was consistently mentioned as a positive characteristic although both groups also cited low wages, seasonal employment, high poverty and poor job opportunities for youth as negative characteristics for the low rating of the Jobs & Wealth dimension of Riggins.

**Table 2-27**  
**Rating Justifications for the Current (1999) Situation**  
**In Riggins, Idaho,**  
**By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Good prevalent values (61)	Stable population (43)	Safe place to live with low crime (191)
	Good friendly, helpful people (201)	Good customs and lifestyles (51)	
	Improving quality of life (209)	Community values are stable (63)	
	Small town charm/rural character (421)	Stable families (103)	
	Increase industries (491)	Strong sense of spirit and pride in community (221)	
		Good community attitude (221)	
		Supportive of community activities and involved (241)	
		Attractive community (411)	
		Affordable cost of living (451)	
Negative	Decreasing population (42)	Families are becoming less stable (102)	Less community vitality (232)
	High public assistance (112)	Lack of industry/job opportunities (492)	
	Population is too ethnically diverse (305)		
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	Stable job opportunities (8)	High property values (198)
		Economically diverse (121)	Like retirees (215)
		Expanding economic base (125)	
		Infrastructure strong (230)	

Negative	Poor job opportunities (3)	Low employment for youth (6)	Struggle to survive (77)
	Low paying jobs (31)	Economically dependent on schools (146)	
	Seasonal employment (35)	Weak economy (153)	
	High poverty (183)	Declining economy (162)	
		Low wealth (177)	
Other		General cost of living (71)	
<b>Place</b>			
Positive	Good improving community appearance (511)	Community character is good (566)	Appearance general, good (511)
	Low traffic congestion (599)	Good roads, highways, and community infrastructures (620)	Waterway (610)
	Good parks and open spaces, public lands (667)	Increase in recreation opportunities (661)	Small town, family-oriented, with pleasant atmosphere (681)
	Strong sense of place (670)	Good sewage system (785)	Safe and crime free (902)
	Historic, rustic, rural community character (680)		
	Attractive scenery (771)		
	Good air and water quality (780)		
	Safe and crime free (902)		
Negative	Poor recreation and tourism opportunities (666)	Poor, declining community appearance (513)	
		Struggling businesses and vacant storefronts (520)	
		Increasing store vacancies (521)	
		Lack support for businesses (533)	
		Traffic congestion (603)	
		Increasing crime and drug use (903)	
		Sense of security is important (907)	
		Poor recreation and tourism opportunities (666)	
		Poor economy (740)	
	Over development of residential and commercial lots (762)		

Vision and Vitality			
Positive	Strong, active civic organizational capacity (11)	Confident, caring leaders (141)	Numerous varied, good, or improving social activities (301)
	Friendly, sociable community (305)	Support for bonds and levies (181)	Planning and plans exist, good base for the future (403)
	Interesting community (307)	New, optimistic vision for the future (385)	
	Strong, cohesive community (341)		
	Prepared for the future (381)		
	Planning and plans exist, good base for the future (403)		
	Strong and high level of community participation (561)		
Negative	Overwhelmed, poor leaders (142)	Lack of support and ability to pass bonds and levies (182)	
		Limited or decreasing quality of social activities (302)	
		Do not cope well with, resistant to, change (362)	
		Lack of people involved in community affairs (562)	
		Less commitment to community (504)	

## 2.14.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

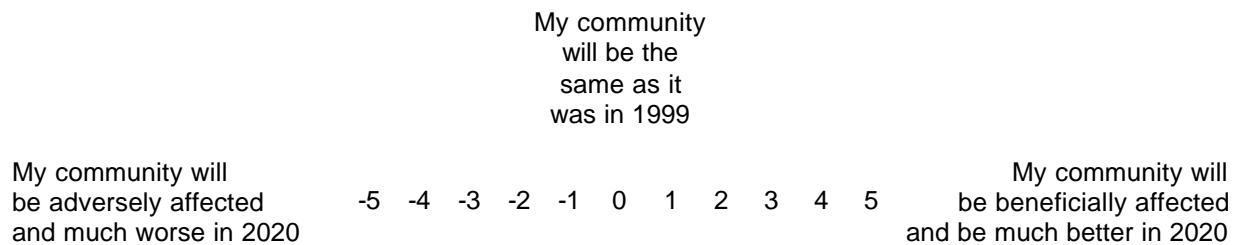
### 2.14.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the

normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community’s future situation, forum participants received information from Corps and NMFS’ studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community’s 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.14.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-28 illustrates that across the two facilitated groups, forum participants perceived that the situation for their community would be worse and adversely affected in the year 2020 for each of the dimensions under A1. The range of medians across the two facilitated groups for Pathway A1 extend from a high of 0 in the Vision & Vitality dimension to a low of -2 in both the People and Place Dimensions. For A2 community participants also perceived that their community would be worse and adversely affected across all community dimensions in the same manner as . The range of group medians across dimensions again extends from a high of 0 in the Vision & Vitality dimension to a -2 in both the People and Place dimensions. Group medians were oriented towards the better end of the scale for all dimensions under A3 meaning that the community felt the community would be beneficially affected under the drawdown Pathway. Group medians ranged from 0 in the Place dimension to a 1.5 in the Jobs & Wealth dimension.

Under both A1 and A2 the degree of clustering between groups remained relatively constant for the People and Place dimensions while the Jobs & Wealth and Vision & Vitality dimensions exhibited a lower level of clustering but maintained the same range. Although all of the group medians increased to positive ratings for A3 the differences between group median ratings also increased indicating that there was less agreement about the future of Riggins under A3 although both groups perceived an improving community situation.

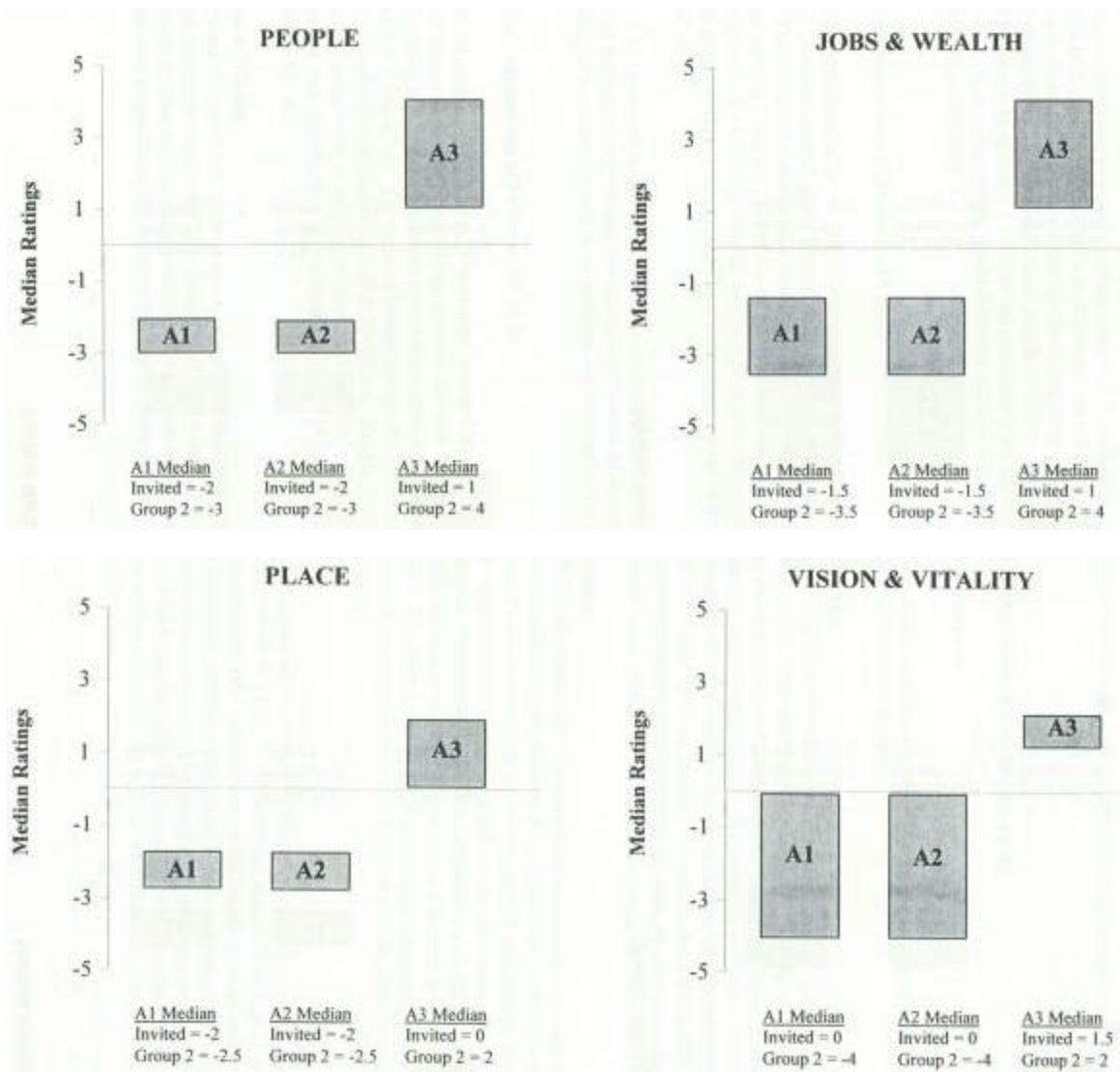


Figure 2-28. Median scale rating of Riggins, Idaho of Pathways A1, A2, and A3, by community, across groups.

### **2.14.5.3 - Rating Justifications Across A1, A2, and A3**

#### **2.14.5.4 - Pathway A1**

A1 will serve as the baseline from which to judge the effects of A2 and A3 on the community dimensions of Riggins.

##### *Vision & Vitality*

The Vision & Vitality ratings were both the highest and lowest ratings with two distinct medians of 0 and 4. Individual responses ranged from 5 to -5 across both groups. This wide range about the future of the Vision & Vitality in Riggins may be best understood by the justifications given for the ratings. As presented in Table 2-28 the clustering of justifications were around negative future conditions of a decreased tax base and a diminished civic organizational capacity. Examples from the invited group illustrate the 0 median where some forum participants did not see any changes in the leadership capacity of the community while others saw an increase in people actively working together.

##### *Jobs & Wealth*

The Jobs & Wealth ratings also did not exhibit consistent clustering around the invited group with two distinct group medians of -1.5 and -3.5. Individual responses ranged from 5 to -5. Under A1 the justifications did cluster around consistently mentioned characteristics such as the negative effect of declining fish on the job outlook for the future and a loss of local businesses. Participants perceived a dependence on recreation and a weak future economy with the lack of recreation related jobs ("fishery will be gone"... "lessen job opportunities." The wide range of medians and individual scores may be seen in the varied and contradictory perceptions across both groups of both good job opportunities and poor job opportunities.

##### *Place*

The Place ratings clustered around invited group rating of -2, meaning the place would be adversely affected by A1. Individual responses ranged from 5 to -5 across both groups. Both groups mentioned the justification for the negative rating was the expectation of downtown vacancies increasing due to less business. Other commonly mentioned justifications that moderated the low rating were that some participants saw the status quo remaining and the beautiful scenery of the place would not be affected. Salient justifications identified by groups other than the invited were that with continued economic growth there would be trade-offs in the quality of life in Riggins.

##### *People*

The People dimension received a median score of -2. Individual responses ranged from 3 to -5 across both groups. Participant's justifications for the ratings towards the adversely affected included declining opportunities for young people, decreasing population and school enrollment. They perceived that people would be changing for the worse ("[people] would be adversely affected"). Additional consistently mentioned characteristics of the people were that current trends would continue and they would see an additional number of retirees in the community.

**Table 2-28  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Riggins, Idaho,  
By Community Dimension and Type of Group**

Year 2020 Rating Justifications	Pathway 1 Existing Condition	Pathway 2 System Modification	Pathway 3 Drawdown
<b>People</b>			
Across All Groups	Lack of opportunities for young people (11)	Lack of opportunities for young people (11)	Increasing population (41)
	Increasing number of retirees (21)	Increasing number of retirees (21)	Stable population (43)
	Decreasing population (42)	Decreasing population (42)	Stable families (103)
	Decreasing school enrollment (72)	Decreasing school enrollment (72)	Recreation is important (441)
	People are changing for the worse (312)	People are changing for the worse (312)	
	Community change with changing situation (319)	Community change with changing situation (319)	
	Current trends will continue (325)	Current trends will continue (325)	
	Loss/change in recreation opportunities (442)	Loss/change in recreation opportunities (442)	
	Declining fish population (462)	Declining fish population (462)	
Invited Groups	Stable population (43)	Stable population (43)	Stable customs and lifestyles (53)
	Growth (general) (49)	Poor prevalent values (62)	
	Poor prevalent values (62)	Stable families (101)	
	Stable families (103)	Lack social diversity (307)	
	Lack of social diversity (307)	People will change (314)	
	People will change (314)	Undervalued resources (479)	
	Undervalued resources (479)	Continued use of river (481)	
	Continued use of river (481)	Increased occupation/job opportunities (491)	
	Increased occupation/job opportunities (491)	Lack of money in community (532)	
	Lack of money in community (532)	Unstable/poor economy (542)	
	Unstable/poor economy (542)		



Other Groups	Poor customs and lifestyles (52)	Poor customs and lifestyles (52)	Good people with a strong sense of community (201)
			People changing for the better (311)
			Strong fisheries (461)
			Increase occupation/more jobs (491)
<b>Jobs and Wealth</b>			
Across All Groups	Good job opportunities (1)	Good job opportunities (1)	Increasing job opportunities (10)
	Poor job opportunities (3)	Poor job opportunities (3)	Low pay/wage/income (31)
	Decreasing job opportunities (18)	Decreasing job opportunities (18)	More fishing (129)
	Decline of fish - negative impact on jobs (25)	Decline of fish - negative impact on jobs (25)	Improving economy/growth (157)
	Money leaves (51)	Money leaves (51)	
	Business down/loss of business (136)	Business down/loss of business (136)	
	Stable economic diversity (139)	Stable economic diversity (139)	
	Economic dependence - recreation (147)	Economic dependence - recreation (147)	
	Weak economy (153)	Economic dependency - fish (148)	
		Declining economy (162)	
Invited Groups	Stable job opportunities (8)	Stable job opportunities (8)	Good job opportunities (10)
	Low pay/wages/income (31)	Low pay/wages/income (31)	Outside money spent here (55)
	General cost of living (71)	General cost of living (71)	Increasing services (96)
	General economic base (120)	General economy base (120)	Stable economic diversity (139)
	Economic dependence - fish (148)	Economy will adapt (170)	No new industries (140)
	Declining economy (162)	No effect on wealth/stable (178)	
	Economy will adapt (170)	Stable property values (203)	
	No effect on wealth/stable (178)	People will leave (206)	
	Stable property values (203)	Population diversification (208)	
	People will leave (206)		
Population diversification (208)			

Place			
Across All Groups	Vacancies increasing/businesses struggling (521)	Vacancies increasing/businesses struggling (521)	Traffic congestion (603)
	Attractive scenery (771)	Attractive scenery (771)	Decreasing recreation and tourism opportunities (666)
	Air and water quality bad (782)	Air and water quality bad (782)	
	Maintain status quo (841)	Maintain status quo (841)	
	Increased income stratification (825)	Increased income stratification (825)	
Invited Groups	Appearance (general) good (511)	Appearance (general) good (511)	Community character is good (566)
	Storefronts reappear (531)	Vacant storefronts (520)	Lack of transportation facilities (602)
	Lack support for business (533)	Decreasing store vacancies (530)	Recreation and tourism (660)
	Community character is good (566)	Lack support for business (533)	Proximity to great outdoors (662)
	Community character is poor (577)	Community character is good (566)	Community stable (723)
	Bad social services (570)	Bad social services (570)	Natural resources are basis of character (776)
	Increase in recreation opportunities (661)	Community character is poor (577)	Air and water quality (780)
	Family and leisure time (704)	Increase in recreation opportunities (661)	Increasing population (821)
	Poor economy (740)	Family and leisure time (704)	Taxes and tax revenue, good base (881)
	Decrease in jobs (748)	Poor economy (740)	Same as pathway 1 (930)
	Air and water quality (780)	Decline in industry (745)	
	Positive impacts associated with fish recovery (808)	Air and water quality (780)	
	Negative impacts associated with fish decline (811)	Positive impacts associated with fish recovery (808)	
		Negative impacts associated with fish decline (811)	
	Other Groups		
		Maintain status quo (841)	

<b>Vision and Vitality</b>			
Across All Groups	Diminished civic organizational capacity (12)	Diminished civic organizational capacity (12)	No real change (363)
	Insufficient/decreasing tax base/fiscal resources (202)	Insufficient/decreasing tax base/fiscal resources (202)	Strong and high level of community participation (561)
Invited Groups	Weak, ineffective leadership (122)	Weak, ineffective leadership (122)	High taxes (204)
	Importance of leadership (149)	Importance of leadership (149)	Increasing government expenditures (282)
	Limited quality social activities (302)	Good/increasing tax base/fiscal resources (201)	No change in vision and vitality (603)
	Friendly, sociable people (305)	Limited quality social activities (302)	Costs related to dam modification (702)
	No real change (363)	Friendly, sociable people (305)	Alternatives won't affect strong community (703)
	Other comments related to outside influence (449)	No real change (363)	Increased population and related improvements (891)
	Mistrust of and too much Federal government (466)	Other comments related to outside influence (449)	No change (673)
	No change in vision and vitality (603)	Mistrust of and too much Federal government (466)	
	No fish recovery, unprepared for fish loss (682)	Strong and high levels of community participation (561)	
		No change in vision and vitality (603)	
	No fish recovery, unprepared for fish loss (682)		
Other Groups	Not prepared for the future (382)	Not prepared for the future (382)	
	Lack of people involved in community affairs (502)	Lack of people involved in community affairs (502)	

### **2.14.5.5 - Comparison of Pathway A1 to A2**

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all the dimensions remained constant (figure 2-28). The community perceived that Riggins would be adversely affected in the same manner under A1 and A2. The range of group ratings across the dimensions for A2 did not shift with both the Vision & Vitality and Jobs & Wealth and were not clustered around the invited group while the People and Place dimensions clustered around the low ratings of the invited group.

Table 2-28 illustrates that no new justifications were presented to justify the ratings from A1. The participants apparently saw the low probability of salmon recovery as adversely affecting their community and their justifications clustered in the same manner as under A1.

### **2.14.5.6 - Comparison of Pathway A1 to A3**

Under the implementation of A3, the change between A1 clustered median group ratings and A2 clustered median group ratings increase towards the beneficially affected end of the impact rating scale. Group medians across dimensions shifted from around 0 and -4 to 0 and 4 (see Figure 2-28). The range of median group ratings decreased within the Vision & Vitality dimension and increased within the Jobs & Wealth, People and Place dimensions indicating an increase in uncertainty of ratings under A3. Nevertheless all medians show a movement from the negative and adversely affected (A1 and A2) to positive and beneficially affected under A3.

#### *Vision & Vitality*

Individual ratings ranged from -5 to -1, with the median rating of 1.5. Under A3 both groups frequently mentioned little change or effect on the communities Vision & Vitality. Examples of other justifications from the invited group indicate an optimism of increasing government expenditures but a negative in higher taxes and the costs of dam breaching.

#### *Jobs & Wealth*

Individual ratings ranged from -3 to 5, with two distinct groups medians of 1 and 4. Table 2-28 indicates that the justifications for the positive rating clustered around community growth and increasing job opportunities, albeit at low wages due to increases in fishing under A3. Other examples cited by the invited group included an expansion of the service industry and the increased capture of outside money in the local economy.

#### *People*

Individual ratings ranged from -3 to 5, with two distinct groups medians of 1 and 4. For the People dimension, consistently mentioned justifications for a positive rating were an increasing or stable population with stable families. The importance of recreation was also mentioned across both groups as a justification for an improving state of the people under A3.

### *Place*

Individual ratings ranged from 0 to 5, with two distinct group medians of 0 and 2. For the Place dimension, rating justifications across all groups clustered around an overall sense of increasing traffic congestion and decrease recreational opportunities under A3. The invited group added the expectation of community stability, a good tax base, and no change from pathway A1.

#### **2.14.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Riggins across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1 and A2, suggestions to minimize the negative impacts to the community of Riggins include compensating the residents of Riggins monetarily for the decrease in Salmon runs. Regional suggestions include further augmenting flows for salmon recovery, banning commercial fishing, controlling perdition, eliminating irrigation, placing further limitations on gill-netting and modify the hydro system on all Columbia dams.

Under the implementation of A3, Riggins residents did not foresee negative community level impacts but they suggested measures to minimize regional negative impacts including using subsidies to mitigate farmers increased transportation costs and ratepayers utility costs. They also noted the need to improve rail transport system to meet transportation needs for farmers.

#### **2.15 - Stanfield, Oregon, Community Assessment**

##### **2.15.1 - Summary of Community Findings**

Stanfield, Oregon, is a farming town of about 1,770 in population located approximately 6 miles south of Hermiston, OR. This community, which lies in the down-river region of the study area some 10 miles south of the Columbia River and about 50 miles south of the Lower Snake River, has no direct relationship to the Snake River. Historically, the Umatilla Army Depot and the construction of McNary Dam have contributed to the community's current population, as well as an increase in irrigated lands and an influx in ethnic farm workers.

Most recently, Stanfield's economy has been influenced by the establishment of a major wholesale distribution center and rail expansion which has led to an increase in population and an expanding residential area. However, forum participants depict a town in 1999 that is a bedroom community to Hermiston, OR, and lacks a diverse economy with good paying jobs. Furthermore, participants reported that it is difficult to keep money in the community, even though they perceived that Stanfield has good leadership and is actively planning for the future. Nonetheless, comments on the People dimension, as well as median ratings, indicate Stanfield is perceived by residents to be a good place to live with "friendly people." Of the four dimensions, forum participants rated the People dimension the highest and the Place as the lowest, with Jobs & Wealth and Vision & Vitality rated in middle of the current situation rating scale.

Forum participants were generally optimistic about Stanfield's future situation under the implementation of Pathway A1 (the existing hydro-system on the Lower Snake River continued on into 2020), with ratings focusing on the beneficial end of the scale. Participants generally perceived an improvement over the 1999 situation across all dimensions, including "steady growth in the economy," increased social activities and continued "visioning for future development." Likewise, forum participants felt that there would be little change under A2 (major modifications of the existing hydro-system on the Lower Snake River) from A1, and they provided ratings and justifications that were much the same across the People, Jobs & Wealth, Place and Vision & Vitality dimensions.

Participants at the Stanfield forum were somewhat concerned about their community's future under the implementation of A3 (dam-breaching and natural river drawdown on the Lower Snake River) -- especially in comparison to the fairly high positive ratings for Pathways A1 and A2 -- with their median ratings for this pathway ranging from 1 on the People dimension to -2 on the Place dimension. However, the perceptions of these participants of the impacts of this pathway generally were not nearly as negative as those of participants in the other northeastern Oregon town assessed, Umatilla. Nor was the range of responses as great in Stanfield as in Umatilla, indicating significantly more agreement about the impacts among the participants in Stanfield.

A major concern in Stanfield was a perceived increase in transportation costs, as well as the negative effects of dam breaching on recreation and tourism opportunities for the town's residents. Some participants reported that, given Stanfield's distance from the Snake River and the lack of related possible impacts, they would experience little to no change within the community. Nonetheless, perceptions generally tended to focus on negative aspects of A3, such as a "lack of faith in the government" and the fear that with the implementation of this pathway, future efforts would focus on removing the Columbia River dams. Participants also perceived that, with a breaching of the dams, much of the planning in progress would be nullified.

To minimize perceived negative impacts, participants proposed that local businesses should receive tax incentives to continue economic growth. On a local and regional level, participants noted that there would be a need to mitigate local transportation impacts and improve the region's transportation system.

In sum, participants in the forum at Stanfield indicated that their community has been in transition as it has become a bedroom community, with more dollars flowing out of town as people work and shop elsewhere. Participants indicated that, overall, Stanfield would be a better place with the implementation of Pathways A1 or A2, but the town would continue to experience an assortment of problems. However, given the range of positive to negative ratings and justifications found for A3 -- except in the case of the Place dimension, which was decidedly negative -- it is unclear from the participants' varied perspectives what exactly the impacts to their community would be. Also, it is unclear whether these problems would persist at a greater magnitude under the implementation of A3, or whether the community would continue their current trends, regardless of the pathway implemented. Nonetheless, perceptions generally tended to focus on negative aspects of Pathway A3.

### **2.15.2 - Interactive Community Forum Participants**

Fourteen community members provided perspectives on the history, 1999 situation and Pathways A1, A2 and A3 for Stanfield, Oregon. These forum participants sat at two facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The participants' overall diversity index rating was 0.71 (on a scale from 0 to 1.0), indicating that 10 of 14 pre-identified community roles were present (see methodology). Of the total number of participants completing the sign-in questionnaire, 29 percent were employed in agriculture, 29 percent were retired, 14 percent were elected officials and the remaining (less than 10 percent each) were employed in a variety of other occupations including tourism, consulting and city management.

### **2.15.3 - Community Background**

Stanfield, Oregon, is a farming town of about 1,770 in population located approximately 6 miles south of Hermiston, OR, and southwest of the Tri-cities in southcentral Washington. It lies in the down-river region of the study area, some 10 miles south of the Columbia River and about 50 miles from the Lower Snake River, and it has no direct relationship to the river.

Stanfield was established in 1883. The building of the Umatilla Army Depot in the 1930s and the McNary Dam in the 1950s contributed to an increase in population, with an additional increase in the 1960s, reaching about 800 people in 1970. In 1963 a major flooding in the area was caused by the John Day Dam located 40 miles downriver. In the 1970s, large farms began their operation in the area, in part due to the creation of circle irrigation with water from the Columbia River. Housing developments were constructed in the 1970s and 1980s, as Stanfield became a bedroom community for Hermiston, OR, and reinvestment in the Army Depot injected the community with a development infusion. A large jump in population in the 1970s almost doubled the town's size to 1,500 residents, which also was partly due to the influx of Latino farm workers into the area. More flooding occurred during these decades. The highway through town was re-built and expanded to four lanes in the late 1980s, paving the way for the first stop-light in 1990, the location of a Distribution Center for wholesale goods, rail expansion, additional residential development, and the construction and opening of a truck stop in the late 1990s. In addition to these trade and service sectors, Stanfield's economy continues to be dominated by employment in agriculture and government. The population continues to grow, reaching about 1,700 by 1995, prompting the town to complete a *Community Visioning & Buildable Lands Inventory* in 1998.

*Vision:* In its 1998 Community Visioning and Buildable Lands Inventory, Stanfield residents identified key economic and civic elements to guide community development. These include:

- Create neighborhood centers whose character contributes to a sense of unique identity for surrounding residential and employment areas
- Provide landscaping and aesthetically pleasing feasibility that can be seen from the highway and other roadways

- Encourage street tree planting
- Identify a core group of Stanfield "Industrial Ambassadors" to actively pursue contacts with firms
- Cultivate a historical perspective of Stanfield's past that sets the tone for the future.

## 2.15.4 - Community Assessment of 1999 Situation

### 2.15.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Stanfield to rate the 1999 situation for the following community dimensions: 1) **People** -- Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

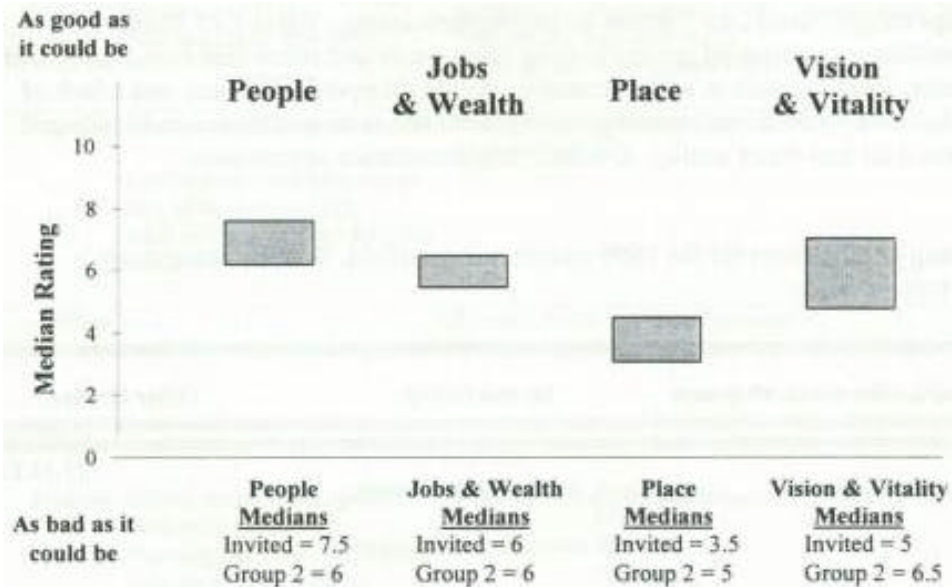
In 1999, the situation in my community is as bad as it could be	1   2   3   4   5   6   7   8   9   10	In 1999, the situation in my community is as good as it could be
---	--	--

### 2.15.4.2 - 1999 Situation: Ratings

As Figure 2-29 presents, median ratings across the four community dimensions for all participants (two facilitated groups) ranged from 3.5 on the Place dimension, to 7.5 on the People dimension. Specifically, the 2 groups perceived the People dimension as being most oriented towards the *as good as it could be* community situation and the Place dimension as being most oriented towards the *as bad as it could be* community situation. The other two community dimensions, Jobs & Wealth and Vision & Vitality, were perceived by the groups to be more central. Both the Place and Jobs & Wealth had the most diverse mix of positive and negative characteristics.

In the case of Stanfield's four community dimensions, the difference between the invited group's median and that of the other facilitated group for the 1999 situation was the same for the Jobs & Wealth dimension and within 1.5 points on the rating scale for the People, Place, and Vision & Vitality dimensions. This clustering of group medians demonstrates that for the dimensions, each group independently came to similar conclusions about the relative goodness or badness of their community's current situation.





**Figure 2-29. Median scale ratings of the current (1999) situation in Stanfield, Oregon, by dimension, across groups.**

#### 2.15.4.3 - 1999 Situation: Rating Justifications

Table 2-29 presents the clustering of justifications for the two facilitated groups. Justifications noted across the invited group and the other group are categorized as 'All Groups.' Justifications noted by only the invited group are categorized as 'Invited Group,' and finally, justifications noted the group other than the invited are categorized as 'Other Groups.'

##### *People*

The People dimension's group medians were most oriented towards the as good as it could be community situation on the 1999 situation scale, clustering around the invited group's median rating of 7.5. Individual ratings ranged from 3 to 9 across all forum participants. Positive justifications influencing the invited group's ratings included characteristics such as Stanfield having a small town charm ("I enjoy country living") with good, friendly people (see Table 2-29). Alternatively, both groups perceived an aging population as a negative characteristic influencing the rating of the People dimension. The invited group also perceived a lack of opportunities for young people ("young people move away") and increasing public assistance as additional negative factors.

### *Jobs & Wealth*

The Job's & Wealth dimension was rated the next highest with both groups rating a 6 and individual ratings ranging from 3 to 8 across all forum participants. The justifications presented in Table 2-29 for the Jobs & Wealth dimension emerged concurrently from both facilitated groups. Positive characteristics across all groups included increasing property values, while both groups perceived there to be poor job opportunities ("there are not many jobs available in Stanfield unless it is school or farming"), low paying jobs and the leakage of money from the community ("money is spent outside of town," and "no place in Stanfield to shop"). Additional justifications proved the invited group allude to the fact that Stanfield is a bedroom community.

### *Vision & Vitality*

The Vision & Vitality dimension's group medians clustered around the invited group's median rating of 5, with individual ratings ranging from 4 to 7 across all forum participants. Positive justifications influencing ratings across all groups included strong, active astute political leadership ("proactive council") and planning for the future (see Table 2-29). Other justifications given included that the community has a good infrastructure and that Stanfield is strong and cohesive. However, the invited group also perceived that is it difficult to pass bonds and levies and that there is a lack of involvement in community affairs.

### *Place*

The Place dimension was oriented the most towards the as bad as it could be community situation with clustering of group medians around the invited group's median of 3.5 and individual ratings ranging from 2 to 5 across all forum participants. Table 2-29 shows the clustering of justifications across all groups ranging from a safe and crime free community with a good appearance, to an increase in store vacancies, people shopping elsewhere and a lack of transportation facilities. Additional invited group's justifications ranged from good roads and highways and good air and water quality, to a declining community appearance.

**Table 2-29  
Rating Justifications for the Current (1999) Situation  
In Stanfield, Oregon,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive		Good, friendly, helpful people (201)	
		Small town charm/rural lifestyle (421)	
		Decrease/low traffic congestion (431)	
		Modern equipment for industry (489)	
		Employment/economy (general) (549)	
Negative	Aging population (2)	Lack of opportunities for young people (11)	
		Increasing/high public assistance (112)	
		Sub-standard housing/low quality (182)	
		Less community vitality (232)	
		Negative impacts (general) (322)	
<b>Jobs and Wealth</b>			
Positive	Increasing property values (201)	Good job opportunities (2)	
Negative	Poor job opportunities (3)	Bedroom community (53)	
	Low paying jobs (31)	Low utilities (79)	
	Money leaves (51)	Lack of railroad access (222)	
	No doctors (219)		
	No bus access (227)		
Other	General job opportunities (1)	Wealth and poverty (general) (175)	Commuting (general) (61)
<b>Place</b>			
Positive	Good/improving community appearance (511)	Good roads, highways, and community infrastructures (620)	Good parks and open spaces, public lands (667)
	Safe and crime free (902)	Safe streets, highways (622)	
		Good air and water quality (780)	

Negative	Increasing store vacancies (521)	Poor/declining community appearance (513)	
	People shop elsewhere due to lack of businesses (522)		
	Lack of transportation facilities (602)		
Other		General public and social services (560)	
<b>Vision and Vitality</b>			
Positive	Strong, active, astute political leadership (81)	Positive community infrastructure (801)	Strong, cohesive community (341)
	Planning and plans exist, good base for the future (403)		
Negative		Lack of support and ability to pass bonds and levies (182)	
		Lack of community involvement in community affairs (562)	
		Negative impact on parks and recreation facilities (832)	

**2.15.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3**

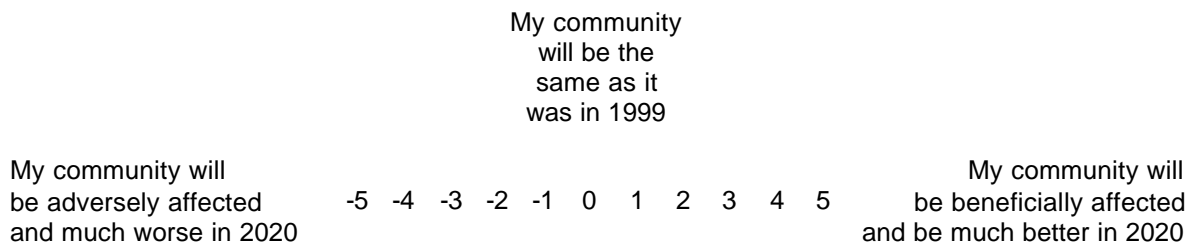
**2.15.5.1 - Community Dimension Impact Rating Scale**

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, Pathway A2 was to make major modifications to the existing Lower Snake River System, and Pathway A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's 1999 situation, forum participants received information from

Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scales in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



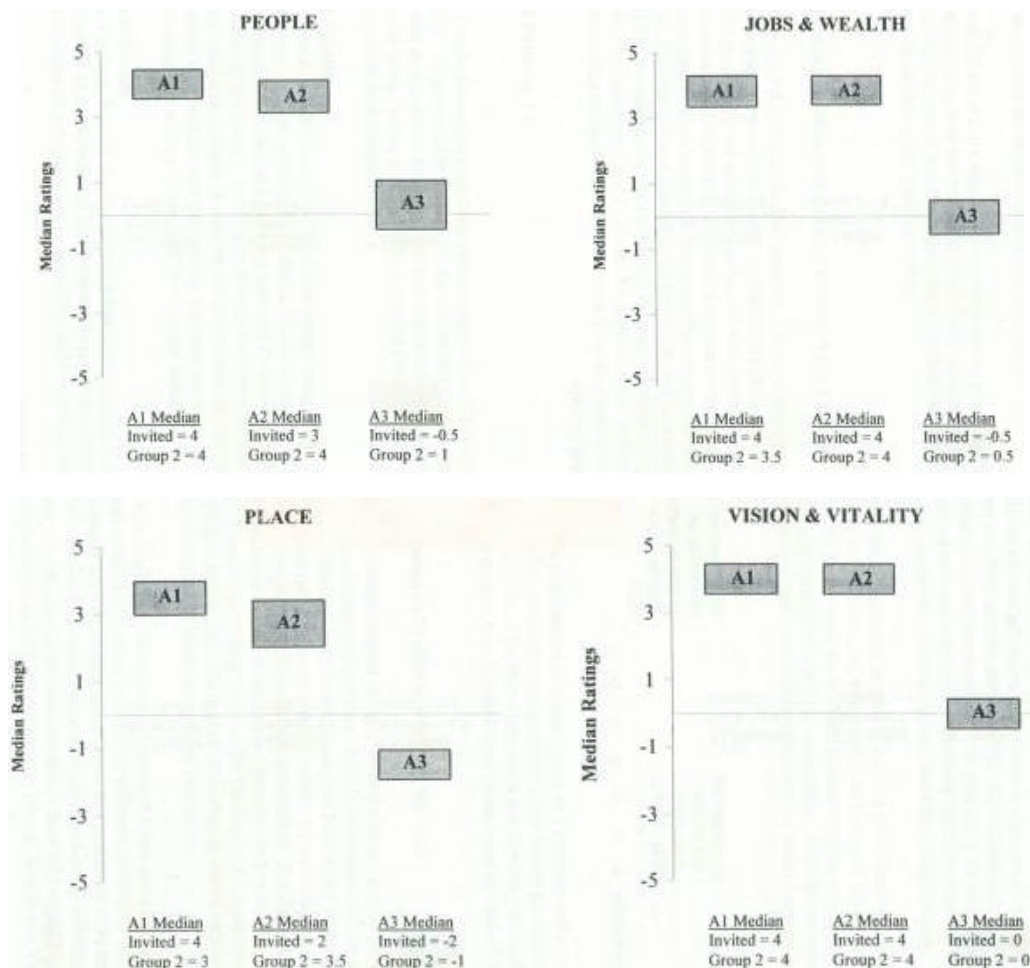
Following the presentation of a description of a pathway and associated impacts, and a small group discussion, forum participants were asked to rate the adverse or beneficial effects to their community for each of the four dimensions and to write justifications for each of their numerical ratings. This process was repeated three times, once for each of the proposed pathways.

### 2.15.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-30 presents median rating of both facilitated groups for each of the Pathways, categorized according to dimension. For all dimensions, forum participants perceived the situation for Stanfield to be better in the year 2020 under Pathway A1. Broken down by dimension, the range of group medians under A1 extended from a low of 3 in the Place dimension to a high of 4 across all the dimensions. For Pathway A2, the group medians across dimensions range from 2 in the Place dimension to 4 in the People, Jobs & Wealth and Vision & Vitality dimensions. Group medians for Pathway A3 ranged from -2 in the Place dimension to 1 in the People dimension. The degree of clustering within each of the Pathways (A1 -- A3) across dimensions remained within two rating points.

In the case of all four dimensions, Pathway A1 was perceived as being a situation where Stanfield would be the most beneficially affected in the year 2020. Pathway A2, for the Jobs & Wealth and Vision & Vitality dimensions was perceived to be the same as A1, while the People and Place dimensions were seen as being somewhat less beneficially impacted than in A1. Pathway A3 was seen as the situation where Stanfield would be the same as in 1999 to somewhat adversely affected in 2020 for the People, Jobs & Wealth and Vision & Vitality dimensions, while the Place dimension was perceived to be more adversely affected (group median ranged from -1 to -2) with the implementation of this Pathway.

Under both A1 and A2, the degree of clustering among groups remained relatively constant for all four dimensions, with the exception of the Place dimension in A2. All the group medians were clustered for each of the dimensions for A3 with deviation of not more than one rating point from the invited group's median rating.



**Figure 2-30. Median scale rating of Stanfield, Oregon, of Pathways A1, A2, and A3, by community, across groups.**

### **2.15.5.3 - Rating Justifications Across A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.15.5.4 - Pathway A1**

#### *People*

For the People dimension individual ratings ranged from 2 to 4 with an invited group median rating of 4. As presented in Table 2-30, the clustering of responses across all groups shows that an increase in population and growth in businesses and the economy influenced positive ratings. The invited group further justified its high median rating in terms of increasing home and property values, and transportation.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension individual ratings ranged from 2 to 4 with an invited group median rating -0.5. As presented in Table 2.15, the clustering of responses across all groups shows characteristics such as a growing economy ("steady growth in all sectors") are important determinants of the rating. Participants ratings are further defined in terms of their perception that there will be an increase in jobs related to the dams on the Snake River and that there would be increases in agriculture and businesses. The only negative characteristic provided for the 2020 situation was a loss of business ("fewer major industries").

#### *Vision & Vitality*

For the Vision & Vitality dimension individual ratings ranged from 2 to 4 with an invited group median rating of 0. Participants justifications ranged from planning for the future, which was provided across all groups, to active leadership and improving social activities.

#### *Place*

For the Place dimension individual ratings ranged from 1 to 4 with an invited group median rating of 4. As presented in Table 2-30, the clustering of responses across all groups shows that opportunities for community growth is one of the most salient determinants of the rating. Another characteristic used to justify participants' ratings were an increase in land under irrigation and an improving community appearance.

**Table 2-30  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Stanfield, Oregon,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/high population (41)	Increasing/high population (41)	Current trends will continue/little/no impacts (325)
	Growth of businesses/good diverse strong economy (541)	Growth (general) (49)	
		Growth of businesses/good diverse strong economy (541)	
Invited Groups	High/increasing home/property values (162)	Land values (general) (169)	Loss/change in recreation/tourism opportunities (442)
	Transportation (general)	Transportation (general)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)
	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	Employment/economy (general) (549)
<b>Jobs and Wealth</b>			
Across All Groups	Strong/growing economy (157)	Strong/growing economy (157)	Increased utility rates (86)
Invited Groups	Increasing jobs at dams (14)	Increasing jobs at dams (14)	Aging population (2)
	Farming/resources (general) (99)	Increase in agriculture (105)	
	Increase in agriculture (105)	Need irrigation/irrigation-dependent farming (106)	
	Increased business (130)	Increased business (130)	
	Declining/limited business and shops (136)	Declining/limited business and shops (136)	
		Planning and plans exist, good base for the future (403)	
Other Groups	Increasing job opportunities (general) (10)	Numerous, varied, good, or improving social activities (301)	



<b>Place</b>			
Across All Groups	Community growth and improvement (721)	Same as Pathway 1 (930)	
Invited Groups	Increase in irrigated land (632)	Increase in jobs (747)	Poor/loss of recreation/tourism opportunities (666)
	Poor land-use planning, concern over plans (713)	Poor, decreasing quality of life/would decrease (906)	
	Increasing population (821)		
Other Groups	Good/improving community appearance (511)		
	General public and social services (560)		
<b>Vision and Vitality</b>			
Across All Groups	Planning and plans exist, good base for the future (403)		
Invited Groups	Active, strong leadership (121)	Negative results of change (364)	Mistrust in government (464)
	Negative results of change (364)	Developers/special interests control development (407)	Positive attributes of people (881)
Other Groups	Numerous, varied, good, or improving social activities (301)		

### 2.15.5.5 - Comparison of Pathway A2 to A1

Under the implementation of A2, the change between A1 invited group median ratings for all of the dimensions except Place remain constant (see Figure 2-30), which moves downward one unit on the rating scale. The justifications behind the consistent ratings between A1 and A2 for People, Jobs & Wealth, Place and Vision & Vitality dimensions are the same as those listed for Pathway A1. In fact, a clustering of justifications identified that A2 would not be different from A1 in the year 2020 for Stanfield. This additional justification supports the notion that forum participants perceived the impacts of A1 and A2 to be similar.

### 2.15.5.6 - Comparison of Pathway A3 to A1

Under the implementation of A3, the change between A1 median group ratings and A3 median group ratings for the Vision & Vitality dimension moved towards the center point of the rating scale labeled *my community will be the same as it was in the 1999* and slightly to the *adversely affected* end of the impact rating scale for the People, Jobs & Wealth and Place dimensions. Figure 2-30 illustrates the range of median group ratings within each of the dimensions as staying the same or slightly increasing as in the case of the People dimension. This would indicate that perhaps there is a relatively common perception of the likely impacts to Stanfield that would result from the implementation of Pathway A3.

#### *Place*

For the Place dimension, individual ratings ranged from -4 to 2 with median group ratings clustering around the invited group's median of -2. Both groups for 2020 forecasted no salient justifications in common (Table 2-30). However, the invited group perceived a loss in recreation and tourism opportunities as well as a decreasing quality of life in Stanfield. Perhaps equally important are the justifications for A1 that are not listed in A3 such as opportunities for growth and increases in land under irrigation.

#### *People*

For the People dimension, individual ratings ranged from -3 to 1 with a clustering of group ratings around the invited group median of -0.5. Justifications provided in Table 2-30 of participant's People dimension ratings for 2020 ranged from the perception that current trends will continue ("social make-up will see little change") to a decline in recreation and tourism opportunities and increased taxes, transportation and utility costs.

#### *Vision & Vitality*

For the Vision & Vitality dimension, individual responses ranged from -3 to 4 with an invited group median rating of 0. Both groups substantially changed their median ratings from A1 to A3 (4 to 0) for this dimension. The two groups had no salient justifications in common. However, the invited group indicated that Stanfield community members would have an increased mistrust of the federal government ("lack of faith in the government"). The justifications that were included in the A1 Vision & Vitality ratings absent from A3 are an active, strong leadership and community planning in progress.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -3 to 4 with clustering of group medians around the invited group median of -0.5. Justifications provided across all groups identifies an increase in utility rates as a salient characteristics influencing participants lower ratings. Items from A1 that do not appear with in implementation of A3 include increases in agriculture and businesses, and an increase in dam-related jobs.

## **2.15.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Stanfield across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants felt that communication and the relationship between the local community and other governmental agencies should be improved and that they should be given more control and a greater role in decision-making about salmon recovery. Regional measures included the need to increase restrictions on the use of gill nets and ocean fishing. No additional items were identified for A2 implementation.

Under the implementation of A3, participants suggested that the risk of flooding in the flood plain needed to be addressed and local businesses should receive tax incentives to continue economic growth. On a regional level, participants noted that there was a need to improve the regional transportation system.

## **2.16 - Umatilla, Oregon, Community Assessment**

### **2.16.1 - Summary of Community Findings**

Umatilla, Oregon, is an agricultural community of approximately 3,375 in population located on the Columbia River just north of Hermiston, Oregon, and southwest of the Tri-Cities in southcentral Washington. This community, which lies in the down-river region of the study area about 50 miles south of the Lower Snake River, has no direct relationship to that river. Historically, the community has shifted from a mining transfer site to a predominately agriculture-based economy, with intermittent fluxes in population due to the construction of McNary Dam and the building of an army depot.

Most recently, Umatilla's economy has been largely influenced by irrigated agriculture as well as state and local government and travel services. In assessing the town's 1999 situation, forum participants indicated that good jobs exist within the community, although much of the money is spent outside of Umatilla, supporting the high rating for the Jobs & Wealth dimension. Additionally, Umatilla was identified as a bedroom community that lacks opportunities for young people. However, participants are encouraged by an increase in the ethnic population and felt that the community possesses good leadership with the ability to get bonds and levies passed. Of the four dimensions, the Jobs & Wealth dimension was rated the highest and the Place and Jobs & Wealth the lowest.

Forum participants were generally optimistic about Umatilla's future situation under the implementation of Pathway A1 (the existing hydro-system on the Lower Snake River continued on into 2020), with ratings focusing on the "beneficially affected" end of the scale. Participants generally perceived an improvement over the 1999 situation across all dimensions, including the perception that Umatilla's economic base would expand. This expansion would provide increased job opportunities where "extended families and children will remain," with changing diversity of the populace and decreases in the

number of people on public assistance. Participants felt that there would be an increase in community involvement and that a "stabilizing population will promote civic organizations." Forum participants indicated that there would be little difference in Pathway A2 (major modifications of the existing hydro-system on the Lower Snake River) from A1, and they provided ratings and justifications that were much the same across the People, Jobs & Wealth, Place and Vision & Vitality dimensions. However, the groups identified factors, such as changing lifestyles and increased utility prices, as well as an increase in skilled jobs related to implementation, as differences from A1.

Participants at the Umatilla forum ranged widely in their perceptions of their community's future under the implementation of A3 (dam-breaching and natural river drawdown on the Lower Snake River), from highly adverse impacts to the perception of little to no effects on their community. The invited group consistently rated the impacts much more negatively than the second group, with ratings that ranged from -4.5 to -5; in contrast, the second group's median ratings ranged from -2.5 on the Place dimension to 0 for the People. A major concern was a decrease in population and its affects on the community's diversity, as well as the ability to provide good jobs and support bonds and levies. Additionally, some concern was indicated over the use of alternative forms of energy production and its affects on the area's air quality.

To minimize perceived negative impacts, participants proposed that one comprehensive plan of actions be carried out, and that it return control of the river's management to the local area, and also that any costs of salmon recovery be borne nationally and not just locally or regionally. It was also proposed that these costs include financial aid to remedy impacts on the local economy, including energy development to replace any lost power.

In sum, participants in the forum at Umatilla indicated that their community would be a better place with the implementation of Pathways A1 or A2, but they would continue to experience an assortment of problems. Also, it is unclear whether these problems would persist at a greater magnitude under the implementation of A3, or whether the community would continue their current trends regardless of the pathway implemented. Given the significant differences in the range of ratings and justifications given for A3 by the groups at the forum, it is unclear from the participants' perspective exactly what the impacts to their community would be under this pathway. Nonetheless, perceptions generally tended to focus on negative aspects of Pathway A3, from "the community would stagnate for a while" to "it would ruin us." The more dire forecasts likely reflect the fear that with the implementation of A3, future efforts would result in removal of the Columbia River dams ("they will not stop on the Snake River"). Participants also perceived that, with a breaching of the dams, much of the planning in progress would be nullified.

## **2.16.2 - Interactive Community Forum Participants**

Twelve community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Umatilla, Oregon. These forum participants sat at two facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The overall diversity index rating for participants was 0.71 (on a scale from 0 to 1.0), indicating that 10 of 14 pre-identified community roles present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 36 percent were retirees, 27 percent in agriculture, and the remaining 37 percent of participants were employed in the following occupations: city administrator, accountant, contractor, and electric utilities.

## **2.16.3 - Community Background**

### *History:*

Umatilla, Oregon, is an agricultural community of approximately 3,375 in population located on the Columbia River just north of Hermiston, OR, and southwest of the Tri-Cities in southcentral Washington. It lies in the down-river region of the study area, about 50 miles south of the Lower Snake River, and it has no direct relationship to that river.

First called Columbia, the town of Umatilla was founded in 1863 as a site for transferring gold on the Columbia River to the Walla Walla route. When mining waned, the town stagnated but then grew into a local service center for agricultural activity. The building of the Umatilla Army Depot in the 1930s and the McNary Dam in the 1950s contributed to an increase in population, but this increase disappeared in the 1960s, when the town's population stabilized at about 500 people. In 1963 a major flooding in the area was caused by the John Day Dam located 40 miles downriver. In the 1970s, large farms began their operation in the area, in part due to the creation of circle irrigation and water from the Columbia River. A large jump in population during this period increased Umatilla's size to nearly 3,000 residents, which was in part due to the influx of Latino farm workers into the area, but mainly to the annexation of a growing population and commercial center bordering the town. In the 1980s and 1990s, additional manufacturing plants, trade distribution centers (*i.e.*, PVC pipe plant and container terminal), and the addition of a prison in the Pendleton area as an employer in the region is expanding the economic base of the community to include agriculture, retail trade, services and government. In the early 1990s, increased school enrollment required the building of a new high school.

*Vision:*

According to the 1977 Umatilla Comprehensive Plan, "throughout its history, the growth of Umatilla has been influenced by fluctuations in the agricultural economy and development along the Columbia River, and the immediate future will likely follow a similar pattern." The key elements of concern emphasized in the document include:

- Recreation: Continued access to and enjoyment of local outdoor recreational opportunities on the Columbia and Umatilla Rivers;
- Economic growth: Future expansions in irrigated agriculture, agri-business and industrial facilities to strengthen the economy;
- Transportation: Improvement of land transportation via the development of I-82 to link I-90 to I-80.

**2.16.4 - Community Assessment of 1999 Situation**

**2.16.4.1 - 1999 Situation: Community Dimensions and Rating Scale**

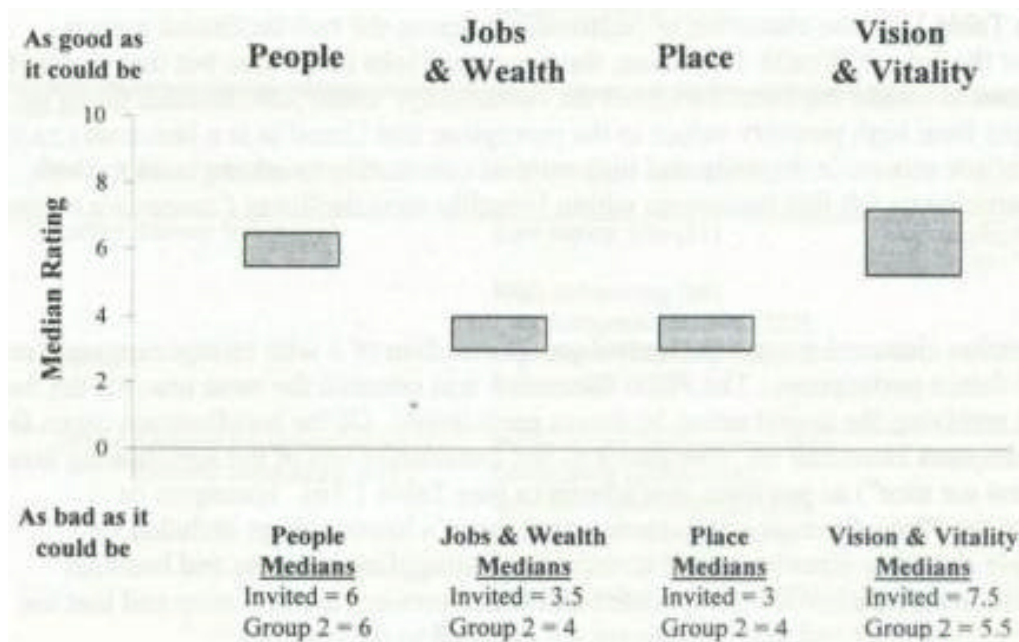
The following "current community situation" rating scale was used by participants from Umatilla to rate the 1999 situation of the following four dimensions: 1) **People** -- Social Make-up; 2) **Jobs & Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision & Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1   2   3   4   5   6   7   8   9   10	In 1999, the situation in my community is as good as it could be
---	--	--

**2.16.4.2 - 1999 Situation: Ratings**

As Figure 2-31 presents, the range of medians across the four community dimensions for the two facilitated groups ranged from a 3 on the Place dimension, to a 7.5 on the Vision & Vitality dimension. Specifically, the facilitated groups perceived the Vision & Vitality dimension as being the most oriented towards the *as good as it could be* end of the scale and the Place dimension as being most oriented towards *as bad as it could be* end of the scale. The People dimension was perceived by the facilitated groups as being the second highest dimension within Umatilla, while the Jobs & Wealth dimension was perceived to be the third highest dimension with median ratings more oriented towards the *as bad as it could be* end of the scale.

In the case of Umatilla, the deviation between the invited group's median score and that of the other facilitated group ranged from 0 on the People dimension to a 2 point difference in the Vision & Vitality dimension. The clustering of group medians for the People, Jobs & Wealth and Place dimensions demonstrates that each facilitated group independently came to similar conclusions about the state of their community in terms of the goodness or badness of their community's current situation. This replication indicates these community dimensions are likely to be perceived somewhat similarly.



**Figure 2-31. Median scale ratings of the current (1999) situation in Umatilla, Oregon, by dimension, across groups.**

### 2.16.4.3 - 1999 Situation: Rating Justifications

Table 2-31 presents the clustering of justifications for the two facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized as 'Other Groups'.

#### *Vision & Vitality*

The Vision & Vitality dimension had the highest median group rating for the invited group with a 7.5 and a range of individual responses from 5 to 8 across all forum participants. As presented in Table 2-31, the clustering of justifications across both groups shows that for the Vision & Vitality dimension, active civic groups with good leadership ("community leadership is very good and capable of great things") were

important characteristics. Inasmuch, both groups felt that Umatilla is prepared for the future as well as the fact that the invited group perceived that they have the ability to support and use bonds and levies within the community ("good success with obtaining grants"). There were no negative justifications for the Vision & Vitality dimension for the current situation between groups.

### *People*

The second highest rated dimension was the People dimension with a clustering of group medians around the invited group median of 6 and a range of individual responses across all forum participants from 4 to 8. Positive justifications clustered around an increasing population base with good ethnic diversity (see Table 2-31). Examples of other justifications focused on the perception that good customs and lifestyles exist within Umatilla but that there is a lack of opportunities for young people as well as a "lack of community spirit." However, there were no negative justifications similar for both groups.

### *Jobs & Wealth*

Group ratings for the Jobs & Wealth dimension clustered around the invited group's median rating of 3.5 with the range of individual responses for all forum participants ranging from 3 to 6. As presented in Table 2-31, the clustering of justifications across the two facilitated groups indicates that for the Jobs & Wealth dimension, there are good jobs in the area but that much of the income generated within the Umatilla leaves the community. Other justifications given by the groups ranged from high property values to the perception that Umatilla is a bedroom community with low economic diversity and high rates of commuting to other places to work. Additionally, participants felt that businesses within Umatilla were declining ("stores are empty on main street").

### *Place*

The Place dimension clustered around the invited group's median of 3 with ratings ranging from 2 to 4 across all forum participants. The Place dimension was oriented the most towards the bad end of the scale receiving the lowest rating by forum participants. Of the justifications given for the ratings, participants identified the appearance of the community and of the surrounding area ("parks and rivers are nice") as positive characteristics (see Table 2-31). Examples of characteristics of the Place dimension influencing participant's lower ratings included an increase in people shopping elsewhere with an increase in struggling business and business vacancies. Additionally, the invited group added that social services are declining and that the community is less close-knit and that "people are not attached to the community."



**Table 2-31  
Rating Justifications for the Current (1999) Situation  
In Umatilla, Oregon,  
By Community Dimension and Type of Group**

Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Increasing population (41)	Population age diversity (4)	
	Ethnic diversity is high (103)	Good customs and lifestyles (51)	
		Conservative values and lifestyles/changes for the better (65)	
		Increasing school enrollment (71)	
		Good extended families (101)	
		Good housing areas (181)	
		Above average (321)	
Negative		Lack of opportunities for young people (11)	
		Unstable population (44)	
		Lack of spirit and pride in community (212)	
		Poor community services (402)	
Other		Increasing number of retirees (21)	
		Community services (general) (409)	
		Income (general) (539)	
<b>Jobs and Wealth</b>			
Positive	Good job opportunities (2)	High property values (198)	
Negative	Money leaves (51)	Low paying jobs (31)	Declining/limited business and shops (136)
		High commuting (66)	
		Low economic diversity (122)	
		Government-based economy (145)	
		Low wealth (177)	

Other	General job opportunities (1)	Public sector jobs (general) (44)	
	General commuting (61)	Commuting (general) (61)	
		Economic base (general) (120)	
		Agricultural/food processing-based economy (143)	
		Property values (general) (197)	
<b>Place</b>			
Positive	Good/improving community appearance (511)		Increasing crime and drug use/less safety (903)
	Good parks and open spaces, public lands (667)		
Negative	Increasing store vacancies (521)	Struggling businesses and vacant storefronts (520)	
	People shop elsewhere due to lack of businesses (522)	Poor/decreasing social services (570)	
		Decline in sense of place and community pride (672)	
		Less close-knit community with few activities (706)	
	Other		General public and social services (560)
<b>Vision and Vitality</b>			
Positive	Strong, active civic organizational capacity (11)	Adequate, stable, civic organizational capacity (13)	
	Adequate civic leadership (41)	Active, strong leadership (121)	
	Strong, active, astute, political leadership (81)	Support and ability to support bonds and levies (181)	
	Prepared for the future (381)	Successful at getting and using grants (241)	
		Cope well with change (361)	
		Adequate/increasing well-managed city budget (481)	
		Positive economic opportunities (581)	

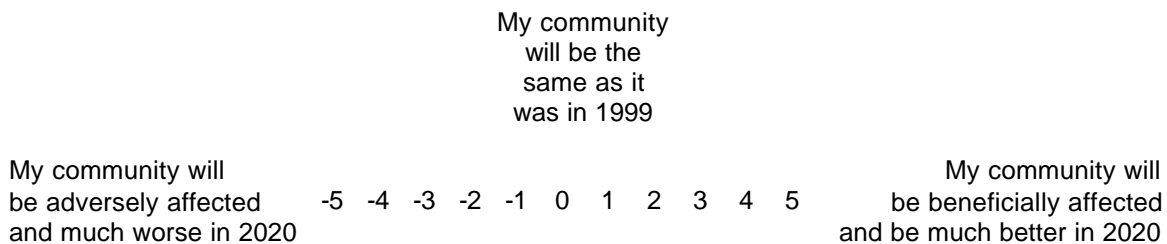
## 2.16.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.16.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.16.5.2 - Summary of Pathway Findings A21, A2, and A3

As Figure 2-32 presents, across the two groups forum participants perceived the situation for their community would be better in the year 2020 for each of the dimensions under Pathway A1. The range of medians across the two groups for A1, ranges from 1 for all the dimensions to a 3 for the People, Jobs & Wealth, and Vision & Vitality dimensions. For A2, the range of group medians across dimensions extends from 0 to 3 within each of the four dimensions. Group medians for A3 ranged from -5 on the Place and Vision & Vitality dimension to 0 on the People dimension. The degree of clustering within A1, A2, and A3 across community dimensions remained relatively consistent for A1 and A2 with a deviation of 1.5 to 2.5 rating points, while for A3 the invited group consistently rated much lower than the other group resulting in 2.5 to 5 rating points difference for the four dimensions.

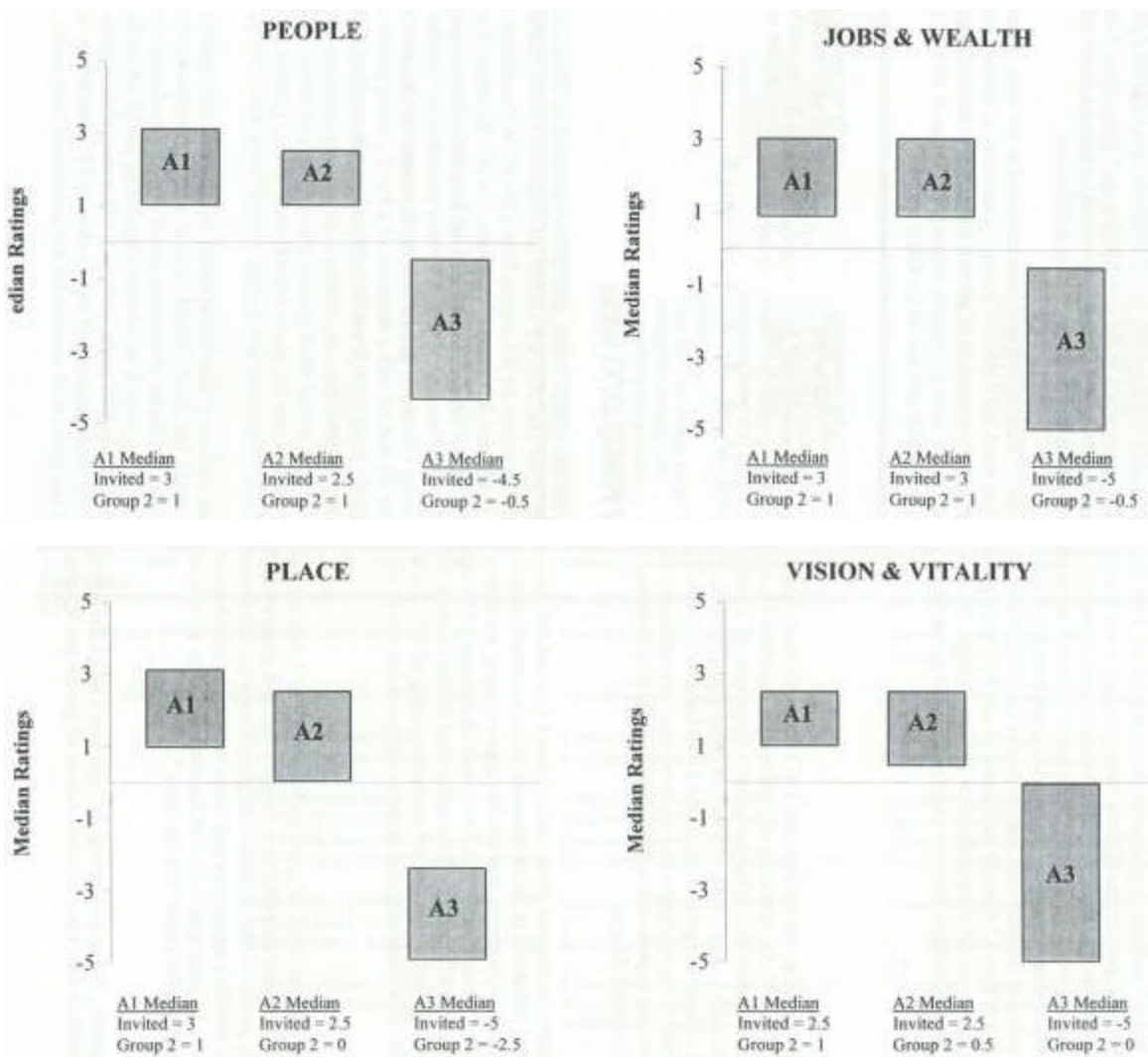


Figure 2-32. Median scale rating of Umatilla, Oregon, of Pathways A1, A2, and A3, by community, across groups.

### **2.16.5.3 - Rating Justifications Across A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.16.5.4 - Pathway A1**

#### *People*

For the People dimension, the range of group medians was 1 to 3 and individual ratings ranged from 0 to 5. As presented in Table 2-32, the clustering of justifications that the two groups perceived to be the most salient characteristics influencing their ratings were an increase in population. Examples of justifications identified by the invited group that influenced their median rating of 3 include the existence of good customs and lifestyles and "extended families and children will remain" as well as the perception that opportunities for youth would exist. Inasmuch, the invited group felt that there would be "fewer people on public assistance" and that the population would remain ethnically diverse.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, the range of group medians was 1 to 3 and individual ratings ranged from 0 to 4. As presented in Table 2-32, those characteristics consistently mentioned across all groups were that Umatilla's economic base would expand creating job opportunities and increased wealth. The invited group also felt that there would be increased commerce related to the river system in the year 2020 and that local investment should increase within a diversified economy. Other examples of the invited groups median rating of 2.5 include decreasing need to commute for work, increasing and stable property values, and an increase in income and wages.

#### *Place*

For the Place dimension in Umatilla, the range of group medians was 1 to 3 and the individual ratings ranged from 0 to 5. An important characteristics identified by both groups was that there will be opportunities for steady growth. Other justifications given for the invited group's ratings are a general improvement in Umatilla's appearance and "more community involvement" as well as an increase in jobs. However, the participants also felt that there would be an increase in vacant storefronts or that the community would "stay the same."

*Vision & Vitality*

For the Vision & Vitality dimension, the range of group medians was 1 to 2.5 and individual ratings ranged from -3 to 5 across all forum participants. Across all groups participants perceived a strong support for bonds and levies. The invited group also felt that there would be a strong civic leadership ("stabilizing population will promote civic organizations") and that they would be more successful in getting community grants. Additionally, the invited group's ratings were influenced by a perception that plans would exist and that their city budget would be adequately managed.

<b>Table 2-32                      Comparison of Rating Justifications For Pathways A1, A2, and A3                      For Umatilla, Oregon,                      By Community Dimension and Type of Group</b>			
<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/high population (41)	Increasing/high population (41)	Diversity low (general) (309)
			Nothing is static (329)
Invited Groups	Opportunities for youth exist (12)	Decreasing/low population (42)	Lack of opportunities for young people (11)
	Population (general) (48)	Population (general) (48)	Increasing number of retirees (21)
	Good customs and lifestyles/change for the better (51)	Lifestyle changing (54)	Decreasing/low population (42)
	Good extended families (101)	Strong schools/education (81)	Population (general) (48)
	Families (general) (109)	Good extended families (101)	Growth (general) (49)
	Decreasing/low public assistance (111)	Families (general) (109)	Decreasing school enrollment (72)
	Many/most/increasing people own homes (151)	Decreasing/low public assistance (111)	Families are becoming less stable (102)
	Supportive of community activities and involved (241)	Home ownership (general) (159)	Increasing/high public assistance (112)
	Ethnic diversity is high/increasing (301)	Land values (general) (169)	Low/decreasing home/property values (161)
	Diversity (general) (309)	Ethnic diversity is high/increasing (301)	Few homes/land for sale (171)
	Stability of community (general) (323)	Diversity (general) (309)	Ethnic diversity is low/decreasing (302)
		Stability of community (general) (323)	Loss of industries and lack of job opportunities (492)
		Increase industries/good job opportunities (491)	Unstable/poor/decreasing economy (542)

Other Groups	Current trends will continue/little/no impact (325)	Current trends will continue/little/no impact (325)	Increasing/high population (41)
		Low/decreasing standard of living (452)	
		Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	
<b>Place</b>			
Across All Groups	General public and social services (560)		Negative effects of alternative energy production (592)
	Community growth and improvement (general) (721)		Poor roads, highways, and community infrastructure (623)
			Poor air and water quality (782)
			Increasing crime and drug use/less safety (903)
Invited Groups	Good/improving community appearance (511)	Good/improving community appearance (511)	Increasing store vacancies (521)
	Increasing store vacancies (521)	Struggling businesses and vacant storefronts (520)	Poor/decreasing social services (570)
	Decreasing store vacancies/new shops coming in (530)	Decreasing store vacancies/new shops coming in (530)	Traffic congestion/increased traffic (603)
	People shop within the community, regional shopping (532)	General public and social services (560)	Negative impact on the number of farms and farm families (642)
	Waterway (general) (610)	Poor/decreasing social services (570)	Decline in sense of place and community pride (672)
	General land-use patterns (630)	Traffic congestion/increased traffic (603)	Decline in industries (745)
	Good land-use patterns (631)	Waterway (general) (610)	Decreased income/increased poverty (751)
	Land tenure (general) (640)	General land-use patterns (630)	Decreasing population (823)
	Stable number and size of farms (641)	Decreased opportunities for parks and open spaces (668)	Decline in property values and tax base (882)
	Increase in tourism (663)	Pride in/commitment to community (671)	
	Good parks and open spaces, public lands (667)	Community growth and improvement (721)	
	Pride in/commitment to community (671)	Loss of environmental beauty, rivers, scenery (777)	
Increase in jobs (747)	Good quality of life (901)		

Safe and crime free (902)	Safe and crime free (902)		
Other Groups	Increasing population (821)	Maintain status quo (841)	Ruin of community, complete negative community change (844)
	Maintain status quo, no change (841)		
<b>Vision and Vitality</b>			
Across All Groups	Support and ability to support bonds and levies (181)		Lack of support for and ability to pass bonds and levies (182)
Invited Groups	Civic organization improvement (15)	Civic organization improvement (15)	Diminished civic organizational capacity (12)
	Strong active civic leadership (41)	Leadership improvement (125)	Civic organization decline (14)
	Active strong leadership (121)	General role of bonds and levies (189)	Leadership development in place for the future (145)
	Support and ability to support bonds and levies (181)	Increased community cohesiveness (345)	Support and ability to support bonds and levies (181)
	Successful at getting and using grants (241)	Cope well with change (361)	Limited or decreasing quality of social activities (302)
	Numerous varied, good, or improving social activities (301)	Change is inevitable (366)	Loss of community cohesiveness (344)
	Increased community cohesiveness (345)	Reduced, pessimistic visions of future (384)	Lack of planning and ability to plan for the future (404)
	Planning and plans exist, good base for the future (403)	Planning and plans exist, good base for the future (403)	Lack of community control of outside forces (442)
	Community control of outside forces (441)	Future planning uncertain (409)	Reduced budgets (484)
	Adequate/increasing well-managed city budget (481)	Adequate/increasing well-managed city budget (481)	Negative economic opportunities (582)
	General budgets (489)	General budgets (489)	
		Positive economic opportunities (581)	
		Negative economic opportunities (582)	
		Positive attributes of people (881)	
Other Groups	Cope well with change (361)	No real change in cohesiveness (363)	No real change in cohesiveness (363)
	No real change in cohesiveness (363)		



<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Increasing job opportunities (general) (10)	Decreasing property values (202)
	Expanding economic base (125)	Decreasing job opportunities (general) (18)	
	Increasing wealth (180)		
Invited Groups	General job opportunities (1)	General job opportunities (1)	Decreasing job opportunities (18)
	Increasing construction-related jobs (17)	Increasing high tech-related jobs (40)	Decreasing public sector jobs (general) (21)
	Increased commerce on rivers (28)	Economic base (general) (120)	Decreasing agricultural jobs (22)
	High pay/wages/income (30)	Shrinking agriculture base/mining/timber (135)	Jobs decrease due to ripple effect from agricultural losses (26)
	Increasing income and wages (32)	Stable economic diversity (139)	Decreasing local investment (58)
	Increasing local investment (57)	Decreasing wealth (181)	High commuting (66)
	Low commuting (67)	Decreasing property values (202)	Loss of farm produce (102)
	Economic base (general) (120)		Products come from the Snake River basin (114)
	Economically diverse (121)		Economic base (general) (120)
	Increasing property values (201)		Economically diverse (121)
	Stable property taxes (203)		Shrinking agriculture base/mining/timber (135)
			Declining economy (162)
			High unemployment (191)
Other Groups	Increased utility rates (86)	Money leaves (51)	

### 2.16.5.5 - Comparison of Pathway A2 to A1

Under the implementation of A2, the change between A1 median group ratings and A2 median group ratings for all the dimensions remained relatively constant (Figure 2-32). The range of group ratings across the dimensions was 0 to 3 with the lower range of group medians decreasing from A1 to A2 for the Place and Vision & Vitality dimension.

As presented in Table 2-32, the salient justifications under the implementation of A2 generally were similar to those given in A1 for the People dimension and that those current trends would continue. However, the groups identified factors such as changing lifestyles and increased utility prices associated with this pathway. Positive justifications given by groups not identified in A1 were a stronger education system and increased job opportunities.

For the Jobs & Wealth dimension, both groups' justifications for their ratings clustered around increased job opportunities, but both groups also felt that there could also be a decrease in jobs indicating that there was a difference in perceptions of the situation with A2 in 2020. Other rating justifications identified by the invited group specific to A2 included perceptions that skilled jobs related to implementation might increase but that there would be a shrinking agriculture base and decreased wealth within the community.

For the Place dimension, there was no clustering of justifications for A2. However, the invited group noted several factors not identified in A1. Examples of those differences included a decrease in social services within Umatilla and that traffic would become more congested. They also felt that there would be a loss of recreation opportunities, parks, and that resources would be negatively impacted but that the community would still have pride in their town and that opportunities for community growth would continue.

### **2.16.5.6 - Comparison of Pathway A3 to A1**

Under the implementation of A3, the change between A1 median group ratings and A3 median group ratings decreased towards the *adversely affected* end of the rating scale with ranges of medians from 0 to -5 across all the dimensions (Figure 2-32). The range of median group ratings within each of the dimensions increased, indicating that there are different perceptions of impacts to Umatilla as result of implementing this A3.

#### *People*

For the People dimension, individual ratings ranged from -5 to 3 for all forum participants and an invited group median of -4.5. Table 2-32 presents the shift in participant's justifications with the implementation of A3. Both groups forecasted a decrease in community diversity while the invited group also felt that there would be fewer opportunities for young people and "population and school enrollment will fall." The invited group also gave justifications such as families becoming less stable, increased public assistance and a general decline in the economy and job opportunities as salient reasons for their low median rating. However, the other group was more optimistic as illustrated by their higher median rating of -0.5 and the perception that Umatilla's population could in fact increase.

#### *Jobs & Wealth*

For the Jobs & Wealth dimension, individual ratings ranged from -5 to 4 across all forum participants, with an invited group median of -5. Justifications for forum participant's ratings ranged from decreasing property values as identified across all groups, to decreasing job opportunities in both the public sector and agriculture sector as identified by the invited group. Additionally, justifications also focused on the perception that money would continue to leave town and that "less money in the local economy would mean less reinvestment in the community" with the implementation of A3.

### *Place*

For the Place dimension, individual ratings ranged from -5 to 2 across all forum participants, with an invited group median of -5. Justifications across both groups clustered around the negative effect of alternative energy production on air and water quality ("air quality will be hurt by new power plants and more trucks") and that Umatilla's infrastructure would require improvement. Additionally, both groups perceived that there would be an increase crime and drug related problems. The invited group also noted that community services would be poor ("declining revenue would reduce social services and city services") and that "due to a decline in income and population, store fronts would go vacant." The invited group also felt that there would be an increase in traffic congestion due to the implementation of A3, and that there would be a decline in Umatilla's sense of place and community pride. Together with population decreases and the loss of families and farms, many felt that the implementation of this Pathway would adversely affect their community.

### *Vision & Vitality*

For the Vision and Vitality dimension, individual responses ranged from -5 to 2 across all forum participants, with an invited group median rating of -5. Both groups felt that Umatilla would not have the ability to pass bonds and levies ("with decreased employment, no levies or bonds would be passed"). However, one perception of the other group was that there would be no real change to the community as represented by their median group rating of 0. The invited group, on the other hand, felt that Umatilla would have a diminished civic capacity with reduced budgets and less control of outside forces. Given these negative characteristics, a perception of the invited group was that there would generally be a loss of community cohesiveness with the implementation of A3.

## **2.16.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Umatilla across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally felt that there should be continued monitoring of wild salmon and that there should be one comprehensive plan of action that will be carried out.

Under the implementation of A2, forum participants felt that, in addition to steps that should be taken in A1, the rest of the nation should take responsibility to pay for system modification costs rather than on concentrating costs regionally.

Under the implementation of A3, forum participants noted that Umatilla would require aid from the federal government to diversify their economy and attract new business to replace business lost as result of this pathway. Participants also suggested that control of the river be given back to local residents and that an additional natural gas power plant would need to be built in the area at the expense of the federal government.

## **2.17 - Washtucna, Washington, Community Assessment**

### **2.17.1 - Summary of Community Findings**

Washtucna, Washington, is a small community of about 280 in population. It is located in the reservoir region of the study area, about 15 miles north of the Lower Snake River in southeastern Washington. Historically, the town's economy has centered on dryland farming and the shipping of agricultural products to market via truck and rail. With the construction of the four dams on the Lower Snake River, the advent of the hydro-system and a shift to barge transportation resulted in closure of the railroad spur through Washtucna in the 1980s. One consequence of this change was a loss of businesses in the community, including a hotel and restaurant, that railroad crews often frequented.

Washtucna's economy remains predominately agriculturally-based, with some employment in state and local government. Forum participants depicted a community in 1999 that has good parks and open spaces, but with few job opportunities and a high level of poverty. Additionally, the perception of participants was that their town has a low level of economic diversity and that many businesses are closing. Nonetheless, comments on the People dimension indicate that Washtucna is a good place to live, where people are active in the community and possess good values and lifestyles. Of the four dimensions, participants rated the Vision & Vitality dimension the highest and the Jobs & Wealth the lowest. On the Vision & Vitality dimension, they noted that Washtucna's leadership is strong and that they are planning for the future.

Forum participants were generally optimistic about Washtucna's future situation under the implementation of Pathway A1 (the existing situation continued on into 2020), with ratings focusing on the "beneficially affected" end of the scale. Participants generally perceived an improvement over the 1999 situation across all dimensions, including an expanding economic base, good parks and open spaces, and the community as a safe, crime-free place. They suggested that the agriculture sector could decrease and that the community would continue to have few job opportunities, particularly ones necessary to retain Washtucna's young people. Forum participants indicated that there would be little change in A2 from A1 and they provided ratings and justifications that were much the same across the People, Jobs & Wealth, Place and Vision & Vitality dimensions. However, the groups identified factors such as increase construction jobs related to modifying the dams.

Participants at the Washtucna forum were concerned about their community's future under the implementation of A3 (dam breaching and natural river drawdown), with ranges of median ratings from -5 on the Jobs & Wealth dimension to -3 on the Vision & Vitality dimension. A major concern was the perceived increase in transportation and utility costs and the ripple effect they would have on agriculture and related jobs.

Similarly, participants were concerned that the number of farms and farm families would decrease, and as a result, the town's population and school enrollment. In the Vision & Vitality dimension, some felt that they would need to apply for and secure economic development grants to offset these negative impacts. Given this range of ratings and justifications, it is not surprising that the focus of the community participants' assessment of their town's situation reflected a primary concern over its future.

### **2.17.2 - Interactive Community Forum Participants**

Fifty-two community members provided perspectives on the history, 1999 situation and Pathways A1, A2, and A3 for Washtucna, WA. These forum participants sat at five facilitated tables (see methodology), working in interactive small groups (hereafter, "groups"). The participants' overall diversity index rating was 0.93 (on a scale from 0 to 1.0), indicating that 13 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, 48 percent were in the agriculture and ranching industry, 13 percent were retirees, and 10 percent were in the education sector. The remaining 29 percent were employed in the following occupations: business, homemaker, student, truck driver, maintenance, court clerk, dental hygienist, biologist, manager, mechanic, and pastor.

### **2.17.3 - Community Background**

Washtucna, Washington, is a small community of about 280 in population. It is located in the reservoir region of the study area, about 15 miles north of the Lower Snake River in southeastern Washington.

Established in 1882, the town and its economy has historically centered on dryland farming and the shipping of agricultural products to market via railroad and truck. During the construction of Ice Harbor Dam in the 1960s, the town's population significantly increased, and its schools were filled with construction workers' children. It was in the mid-1960s that grain began to be shipped on river. Lyons Ferry Bridge opened in the 1970s, opening a corridor for trucks, and truck traffic to elevators. The town's population began to decrease in the 1970s despite highway improvements (Highway 26 was improved in the early 1960s). This change reflected the trend of farms increasing in size and fewer people employed on them. It is generally felt that the railroad spur to Washtucna ended service in the early 1980s due to its inability to compete with river barge completion. The result was a loss of business in the community, including a hotel and restaurant, that railroad crews often frequented. Washtucna's population stabilized in the 1980s, but with improved transportation and increased shopping elsewhere, some businesses such as the local car dealership was forced to close. River recreation grew during this time period, spurred by the fishing, but despite this amenity the population has declined to about 100 people in the late 1990s. With declining school enrollments,

Washtucna combined its sports program with the town of LaCrosse, Washington, and in the 1990s, it began sharing school services with Kahlotus. At this same time the grain growers consolidated and people on public assistance began migrating to the area to secure cheap rent and welfare payments. By the late 1990s, the Pro Grain Barge Terminal opened, as well as new restaurants and a hospital. In 1995 more than 35 percent of the jobs were agriculture-based and in 1999 the school budget increased to \$1.5 million.

*Vision:*

Washtucna's 1991 Comprehensive Plan defines five critical community goals and outlines policies for attaining them. These include:

- Properly, orderly development: encourage the location of new residential development in existing vacant lots
- Balanced supply of affordable housing: ensure the continued availability of affordable housing
- Maintenance of Environmental Quality: protect all resource lands through the adoption of appropriate ordinances
- Improve the quality of public services: insure the continued provision of park and recreation opportunities at their present high standards.

**2.17.4 - Community Assessment of 1999 Situation**

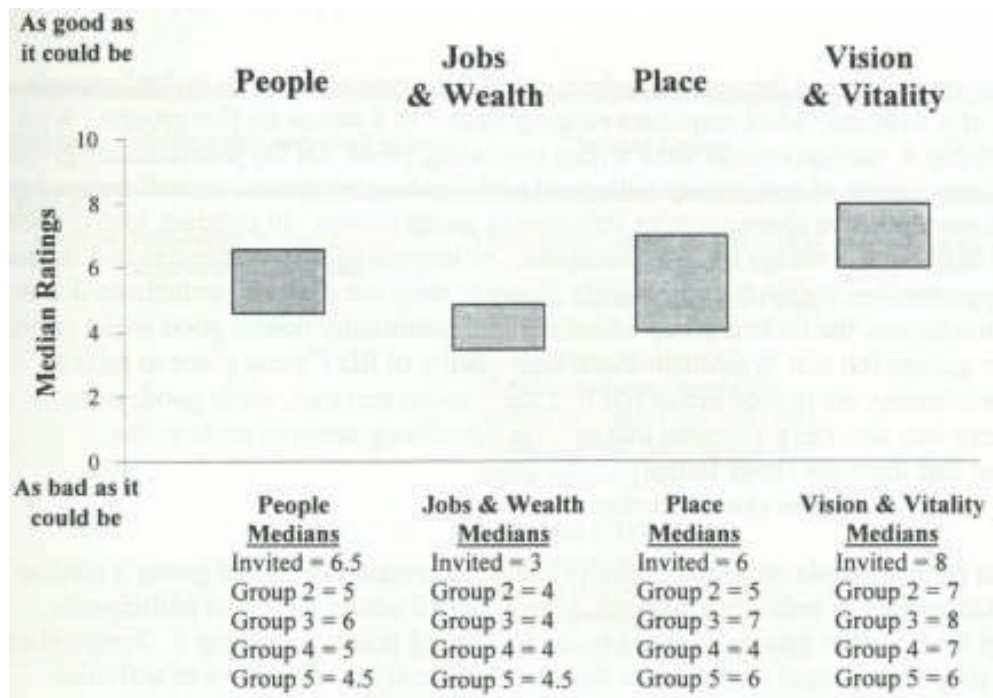
**2.17.4.1 - 1999 Situation: Community Dimensions and Rating Scale**

The following "1999 situation" rating scale was used by participants from Washtucna to rate the 1999 situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1   2   3   4   5   6   7   8   9   10	In 1999, the situation in my community is as good as it could be
---	--	--

### 2.17.4.2 - 1999 Situation: Ratings

As Figure 2-33 presents, median ratings across the four community dimensions for all participants (five facilitated groups) ranged from a 3 in the Jobs & Wealth dimension to an 8 in the Vision & Vitality dimension. Specifically, the five facilitated groups perceived the Vision & Vitality dimension as being most oriented toward the as good as it could be end of the scale, while the Jobs & Wealth dimension was most oriented toward the as bad as it could be end of the scale. The People and Place dimension was given a more neutral rating, with the former being slightly lower than the latter. The difference between the invited group's median score and that of the other facilitated groups for the four community dimensions ranged from 0 to 2 rating points. This clustering of group medians demonstrates that for the four dimensions assessed, each facilitated group independently arrived at similar conclusions regarding the 1999 situation of the community in terms of good and bad attributes. This replication indicates the community dimensions are likely to be perceived somewhat similarly.



**Figure 2-33. Median scale ratings of the current (1999) situation in Washtucna, Washington, by dimension, across groups.**

### 2.17.4.3 - 1999 Situation: Rating Justifications

Table 2-33 presents the clustering of justifications for the five facilitated groups. Justifications noted across the invited group and other groups are categorized as 'All Groups'. Justifications noted by only the invited group are categorized as 'Invited Group'. Finally, justifications noted by groups other than the invited one are categorized as 'Other Groups'.

### *Vision & Vitality*

Of the four dimensions, the Vision & Vitality dimension was rated the highest with a clustering of group medians around the invited group's median rating of 8 and individual responses ranging from 6 to 8 across all forum participants. Median group ratings across the five groups ranged from 6 to 8, with groups 2, 3 and 4 clustering around the invited group's median rating. As presented in Table 2-33, justifications influencing participants high median ratings included strong and active civic leaders, willingness to support bonds and levies, and a high level of community participation ("lots of people willing to help support the community"). In addition, the invited group mentioned the presence of organized civic organizations, the ability to plan for the future and success at acquiring community grants. Negative attributes offered by the invited group was the perception that community leaders are overwhelmed and that "everyone is very busy."

### *Place*

The Place dimension received the second highest rating, clustered around the invited group's median rating of 6 with individual responses ranging from 3 to 8 across all five groups. With the exception of Group 4, median ratings were within one rating point. Of the justifications given in Table 2-33, a strong sense of community with good parks and opens spaces, as well as good roads and highways positive characteristics influencing group ratings. In contrast, justifications that may have deflated the ratings include perceptions of increasing store vacancies and the lack of shopping opportunities within the community ("people shop out of town, sometimes due to necessity"). In addition, the invited group added that the community posses good social services while the other groups felt that Washtucna has a high quality of life ("great place to raise a family"). Alternatively, the invited group felt that there social services, while good, were declining. There was also the perception that there is a declining sense of pride in the community and that there are fewer farms.

### *People*

Group medians for the People dimension loosely clustered around the invited group's median rating of 6.5 with ranges of individual responses from 3 to 10 across all forum participants. Median ratings for the other groups deviated by up to 2 rating points for Group 5. Justifications salient across all groups ranged from a sense that the community is supportive of activities ("there is high participation in what happens in our town"), but that the population is aging and that more people are on public assistance. The invited group added that families and community values are stable, while the other groups felt that people are friendly and helpful ("small town friendly people"). On the negative end, the groups added that there are more retirees due to a lack of opportunities for young people.

### *Jobs & Wealth*

The Jobs & Wealth dimension was oriented the most toward the low end of the rating scale, with an invited group median rating of 3 and individual responses ranging from 2 to 7 across all forum participants. With the exception of Group 5, median ratings for the other groups deviated 1 rating point from the invited group's rating. Indicative of the lower median ratings, there were no positive characteristics identified across all groups, while negative characteristics, such as poor job opportunities, low paying jobs and high



poverty, and low economic diversity dominated participants justifications. The invited group added that there is low employment for youth and that there is increasing unemployment in the community. The only positives provided by the invited group include the perception that wealth and poverty levels, while not high, are stable and that Washtucna's unemployment level is low.

<b>Table 2-33</b> <b>Rating Justifications for the Current (1999) Situation</b> <b>In Washtucna, Washington,</b> <b>By Community Dimension and Type of Group</b>			
<b>Dimension</b>	<b>Replication Across All Groups</b>	<b>Invited Group</b>	<b>Other Groups</b>
<b>People</b>			
Positive	Supportive of community activities and involved (241)	Community values are stable (63)	Good, friendly, helpful people (201)
		Children and education are a high priority (66)	
		Good strong churches (67)	
		Stable school enrollment (73)	
		School enrollment (general) (73)	
		Strong schools/education (81)	
		Stable families (103)	
		Increased community vitality and attachment (231)	
		Supportive of community activities and involved (241)	
		Socially diverse (306)	
Negative	Aging population (2)	Increasing number of retirees (21)	Lack of opportunities for young people (11)
	Increasing/high public assistance (112)	Lack of spirit and pride in community (212)	Loss of industries and lack of job opportunities (492)
		Lack of involvement and community activities (242)	
		Loss/change in recreation/tourism opportunities (442)	
Other		Prevalent values (general) (69)	
		Families (general) (109)	
		Civic groups (general) (249)	
		Employment/economy (general) (549)	

<b>Jobs and Wealth</b>			
Positive		Stable wealth and poverty levels (178)	
		Low unemployment (192)	
Negative	Poor job opportunities (3)	Low employment for youth (6)	
	Low paying jobs (31)	High unemployment (191)	
	Money leaves (51)	Increasing unemployment (195)	
	Low economic diversity (122)		
	High poverty (183)		
Other		Agricultural-based economy (143)	
		Increasing CRP lands (232)	
<b>Place</b>			
Positive	Good roads, highways, and community infrastructure (620)	Good residential appearance (540)	Good quality of life (901)
	Good parks and open spaces, public lands (667)	Good social services, same access to services (561)	
	Strong sense of place/heritage/morale and community (670)	Pride in/commitment to community (671)	
	Safe and crime free (902)	Attractive scenery (771)	
		Good air and water quality (780)	
Negative	Poor/declining community appearance (513)	Poor/decreasing social services (570)	
	Increasing store vacancies (521)	Decreasing number of farms and increasing farm size (653)	
	People shop elsewhere due to lack of businesses (522)	Decline in sense of place and community pride (672)	
		Reduced family and leisure time (708)	
		Decreasing population (823)	
		Uncertainty causes problems (912)	
Other		Recreation and tourism (general) (660)	

Vision and Vitality			
Positive	Strong, active, civic organizational capacity (11)	Organized and responsible civic organization (19)	
	Active, strong leadership (121)	Stable leadership (123)	
	Support and ability to support bonds and levies (181)	Successful at getting and using grants (241)	
	Numerous good or improving social activities (301)	Cope well with change (361)	
	Friendly, sociable community (305)	Planning and plans exist, good base for the future (403)	
	Strong and high level of community participation (561)	Adequate/increasing well-managed city budget (481)	
	Improving/good schools (811)	Positive attributes of people (881)	
Negative		Overwhelmed, poor leaders (142)	
		Lack of community involvement in community affairs (562)	

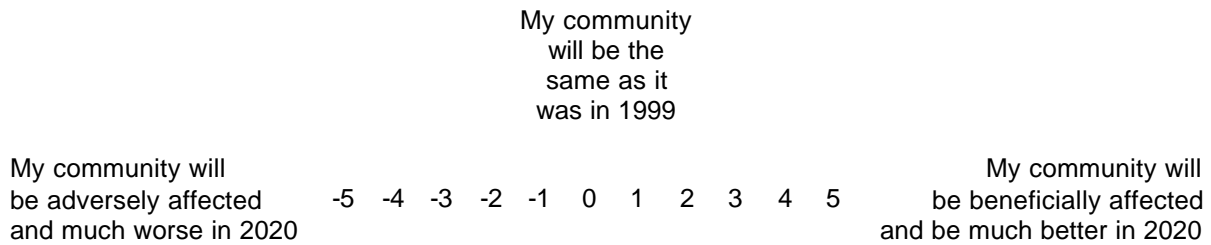
## 2.17.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.17.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in a their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see Appendix A). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rerated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.



### 2.17.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-34 presents median ratings for the five facilitated groups for each of the pathways, categorized according to dimension. For the four community dimensions, forum participants perceived the situation for Washtucna to be better in 2020 under Pathway A1. Broken down by dimension, the range of medians across the groups under A1 extended from 0 in each of the dimensions to 3 in the People dimension. That is, the groups perceived each of the dimensions to be the same to slightly better in the year 2020 under A1. While participants were generally optimistic about their community under A2, there appears to be uncertainty as to the degree of improvement, as well as to the specific changes that will occur. This divergence is represented in the range of median ratings presented by each group for each dimension.

For Pathway A2, median group ratings remained relatively constant from A1 with groups not deviating more than 2 rating points, and typically not more than 1 rating point across the four community dimensions. As such, participants perceived the Jobs & Wealth and Place dimensions to be similar to A1 in terms of their ratings, suggesting that participants generally saw similar impacts, while Vision & Vitality increased slightly and People decreased slightly.

Group medians for Pathway A3 were lower across each of the dimension with median group ratings ranging from -5 across all the dimension to -3 in the Vision & Vitality. According to the perceptions of forum participants, Washtucna would be much worse with the implementation of A3. In addition, the high degree of clustering across each of the dimensions, with the exception of the Vision & Vitality dimension, suggests that each facilitated group independently arrived at similar conclusions about the state of their community in terms of adverse affects under A3.



Figure 2-34. Median scale rating of Washtucna, Washington, of Pathways A1, A2, and A3, by community, across groups.

### **2.17.5.3 - Rating Justifications Across A1, A2, and A3**

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

### **2.17.5.4 - Pathway A1**

#### *People*

Within the People Dimension for A1, groups clustered around the invited group's median rating of 2, with individual responses ranging from -3 to 5 across all participants. Only the median rating of group 5 did not cluster around this score. As presented in Table 2-34, characteristics consistently mentioned across all groups were that Washtucna's population would increase with an increase in the number of retirees and that good recreation opportunities would continue to exist. Similarly, the invited group felt that their population would be aging in 2020, but that there could actually be fewer people in the community. The invited group also felt people would be changing for the worse and that there would be a loss in recreation and tourism opportunities. However, a general sense of the invited group was that Washtucna would be "basically the same" in the year 2020.

#### *Jobs and Wealth*

For the Jobs & Wealth dimension, groups clustered around the invited group's median rating of 1, with individual responses ranging from -2 to 5. According to these ratings, forum participants perceive that Jobs and Wealth will be beneficially affected, although only slightly, in 2020 under A1. The only justification salient across all groups was that resource tourism and amenity recreation would grow ("recreation on the river will grow"). The invited group added several other justifications that influenced their rating, such as a growing economy and an expanding economic base. However, they also felt that agriculture could decrease ("less farm land") and there would be fewer job opportunities. However, a common perception of the other groups was that job opportunities would actually increase in the future under the implementation of A1.

*Place*

The invited group’s median rating for the Place dimension was 2, with individual responses ranging from -1 to 5 across all participants. With the exception of Group 5, the other groups clustered around the invited group. Comments clustering across all groups included the perception that Washtucna is a safe and crime free community with good parks and open spaces. Alternatively, all groups felt that the number of people on welfare would continue to increase, as well as the perception that there would be an increase in store vacancies ("loss of business due to downsizing of population") as provided by the invited group. The invited group also added that their community would have a strong sense of place.

*Vision & Vitality*

For the Vision & Vitality dimension, median group ratings clustered around the invited group’s median rating of 1, with individual responses across all groups ranging from -1 to 5. No justifications were replicated across all groups; although all groups perceive Washtucna’s vision and vitality to remain the same or improve under A1, their reasons were different. The invited group provided several comments to justify their ratings, perceiving no real change to occur, but adding that Washtucna was prepared for the future and had strong community participation and leadership.

<b>Table 2-34                      Comparison of Rating Justifications For Pathways A1, A2, and A3                      For Washtucna, Washington,                      By Community Dimension and Type of Group</b>			
<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/high population (41)	Increasing/high population (41)	Decreasing/low population (42)
	Increasing number of retirees (21)		Decreasing school enrollment (72)
	Recreation/tourism is important (general) (441)		Decrease in farms and increase in farm size (156)
			People changing for the worse/negative change (312)
			Loss/change in recreation/tourism opportunities (442)
			Lack of industries and lack of job opportunities (492)

Invited Groups	Aging population (2)	Aging population (2)	Increasing/high population (41)
	Decreasing/low population (42)	Unstable population (44)	Increasing school enrollment (71)
	Diversity (general) (309)	Families are becoming less stable (102)	School/enrollment (general) (79)
	People changing for the worse/negative change (312)	Decrease in farms and increase in farm size (156)	Poor/decreasing quality of life (208)
	Negative impacts (general) (322)	Supportive of community activities and involved (241)	Increase/high traffic (432)
	Stability of community (general) (323)	Diversity (general) (309)	
	Current trends will continue/little/no impact (325)	Current trends will continue/little/no impact (325)	
	Loss/change in recreation/tourism opportunities (442)	Stable cost of living (453)	
	Continued use of river (481)	Businesses suffer (512)	
	Loss of industries and lack of job opportunities (492)		
Other Groups			Increases utilities, transportation, and taxes; and decreases irrigation (482)
			Unstable/poor/decreasing economy (542)
<b>Jobs and Wealth</b>			
Across All Groups	Resource tourism and amenity recreation growth (126)		Decreasing job opportunities (general) (18)
			Increasing transportation costs (75)
			Increased utility rates (86)
			Increased costs of doing business (88)
			Loss of tourism/recreation-related business (134)



Invited Groups	Poor job opportunities (3)	Low employment for youth (6)	Jobs decrease due to the ripple effect from agricultural losses (26)
	Low employment for youth (6)	Increase in jobs at dams (14)	Decreasing farms and increasing farm size (109)
	Increase in construction-related jobs (17)	Increase in construction jobs (17)	Increased business (130)
	Increase in agriculture (105)	Short-term/temporary jobs created (37)	
	Shrinking agricultural base/mining/timber (135)		
	Rely on river transportation system (112)	Increase in agriculture (105)	Declining/limited businesses and shops (136)
	Expanding economic base (125)	Cost of dam modifications passed on to residents (113)	Declining tax base (172)
	Shrinking agriculture base (135)	Loss of recreation/tourism-related business (134)	Poor/degraded roads from trucking (223)
	Strong growing economy (157)	Strong growing economy (157)	
	Youth leave community (209)	Short-term wealth and income (163)	
	Same/no change/same as pathway #1 (245)	People will leave (206)	
	Youth leave community (209)		
Other Groups	Increasing job opportunities (general)(10)		Poor job opportunities (3)
			Declining economy (162)
			Loss/decrease of schools (243)
<b>Place</b>			
Across All Groups	Good parks, open spaces, public spaces (667)	Same as pathway 1 (930)	Traffic congestion/increased traffic (603)
	Increased number of people on welfare (829)		Decreased number of farms and increased farm size (653)
	Safe and crime free (902)		Poor/loss of recreation and tourism opportunities (666)
			Poor economy (740)
			Decline in industries (745)
			Poor air and water quality (782)
			Decreasing population (823)
			Ruin of community, complete negative community change (844)

Invited Groups	Increasing store vacancies (521)	Poor schools (573)	High cost of electricity (591)
	Community character is good (566)	Less pride and sense of place (672)	Lack of transportation facilities (602)
	Strong sense of place/heritage/morale and community (670)	Retirement community, good (692)	Traffic congestion/increased traffic (603)
	Grain (general) (715)		Unsafe roads and highways (624)
	Decreasing population (823)		Negative impacts on the number of farms and farm families (642)
	Community character is dependent on people (826)		Poor/loss of recreation and tourism opportunities (666)
	Maintain status quo, no change (841)		Decline in sense of place and community pride (672)
			Community decline and worsening (722)
			Poor economy (740)
Other Groups			Negative economic impact from increase in transportation costs (741)
			Increasing store vacancies (521) Poor roads, highways, and community infrastructure (623)
<b>Vision and Vitality</b>			
Across All Groups			Diminished civic organizational capacity (12)
			Weak, ineffective leadership (122)
			Leadership decline (124)
			Increased population and related improvements (891)
Invited Groups	Leadership improvement (125)	Weak, ineffective leadership (122)	Weak, ineffective leadership (122)
	No real change in cohesiveness (363)	Leadership improvement (125)	Grants needed/used for development (245)
	Prepared for the future (381)	Prepared for the future (381)	Decreasing/lack of community vision and vitality (602)
	Strong and high level of community participation (561)	Lack of community involvement in community affairs (562)	Declining/poor schools (812)
	Outmigration of population (892)	Declining/lack of community vision and vitality (602)	Outmigration of population (892)
		Young people stay (883)	

### **2.17.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the invited group's median rating for the Jobs & Wealth, Place, and Vision & Vitality dimensions was 1.5 and 2 for the People dimension. Deviation of median group ratings from the invited group's ranged from 1 for the Jobs & Wealth dimension to 2 for the People dimension (see Figure 2-34).

In comparing A2 to A1, the change in clustered median group ratings for all dimensions remained relatively constant, signifying that no change was perceived to occur between A1 and A2. The range of median ratings remained the same for both the Place and Vision & Vitality dimensions, while based on a slight increase in median ratings, participants felt that for the Jobs & Wealth dimension they would be better in 2020 and slightly worse for the People dimension.

Table 2-34 presents the salient justifications under the implementation of A2. In general, groups perceived that current trends would continue under A2, with general increases in population. Concern over family farms and family stability was also mentioned by the invited group. For the Jobs & Wealth dimension, no replicated justifications were mentioned, but the invited group mentioned an increase in short term jobs due to construction and other dam-modification related employment. All groups commented that Washtucna's Place dimension would be affected similarly under A2 compared to A1. Finally, for the Vision & Vitality dimension, no comments were replicated across all groups. The invited group provided several perceptions for the decreased rating, such as lack of community involvement.

### **2.17.5.6 - Comparison of Pathway A3 to A1**

Under the implementation of A3, the change between A1 clustered median group ratings and A3 clustered median group ratings decreased toward the adversely affected end of the rating scale for all dimensions (see Figure 2-34). The range of median group ratings for each dimension also decreased. That is, there was greater consensus among all groups of how much worse off Washtucna would be under A3 compared to A1. Median group ratings ranged from -5 in the Jobs & Wealth dimension to -3 in the Vision & Vitality dimensions. With the exception of the Vision & Vitality dimension, all median ratings were clustered around the invited group.

#### *People*

For the people dimension, individual ratings ranged from -5 to -1, with the medians clustered around the invited group's median of -4. Table 2-34 shows the shift in salient justifications under the implementation of A3. Of interest is the fact that many of the justifications given by only the invited group under the implementation of A1 have been incorporated into the perceptions of all groups under A3. These include a forecast decrease in farm numbers and the concurrent decrease in population and school enrollment ("population decrease due to lack of jobs"). In addition, the invited group felt that population could increase slightly but that it would be short-term. Given all the justifications, the invited group also felt that there would be a general decrease in the quality of life in Washtucna.

### *Vision & Vitality*

For the Vision & Vitality dimension, the range of participants' justifications loosely clustered around the invited group's median rating of -3. Salient justifications across all groups was a diminishing civic organizational capacity and weak, ineffective leadership. Additionally, the invited group's perception was that they would need grants for development and that there would be a decline in community vision and vitality ("towns dry up with no people to lead").

### *Jobs & Wealth*

For the Jobs & Wealth dimension, range of participants' justifications clustered around the invited group's median rating of -4. Justifications provided by all groups for this negative rating include the perception that jobs would decrease, and there would be an increase in utility rates and transportation costs, as well as a loss in recreation and tourism related businesses. The invited group also added that there would be a decrease in the number of farms and jobs due to the ripple effect of agriculture losses, including a loss in tax base ("loss of tax revenue for schools").

### *Place*

For the Place dimension, individual responses ranged from -5 to -2 across all five groups, with clustering of justifications around the invited group median of -4. All groups mentioned that increased traffic congestion would cause increases in accidents as well as declining air and water quality. All groups also felt that there would be a loss in recreation and tourism opportunities on the river. Additionally, the invited group mentioned that there would be negative effects from increased utility costs and that the sense of place of the community would decline. The other groups added that there would be an increase in store vacancies ("businesses will leave") and transportation increases would decrease the quality of the roads and highways.

## **2.17.6 - Minimizing Adverse Impacts**

Washtucna was a pilot community and, unlike in other communities, forum participants were not given an opportunity to identify ways of minimizing adverse impacts to the community. The assessment process for the forums was still being developed and streamlined, and time was not yet available for the process of identifying ways to lessen the negative impacts of the pathways.

## **2.18 - Weippe, Idaho, Community Assessment**

### **2.18.1 - Summary of Community Findings**

Weippe, Idaho is a town of about 560 people located on the Weippe Prairie of north central Idaho, upriver from the dams under study and north of the Clearwater River valley. The Prairie is a Registered National Landmark. This area was an important trading site for Native Americans and Lewis and Clark traveled in their journey through the Northwest. The community of Weippe has always been dependent on natural resources, whether for agriculture, mining, logging, or recreation and tourism. Today, the community takes pride in its heritage and is actively working to diversify its timber economy by capitalizing on recreation and tourism assets that surround the area.

Weippe's major employers remain the local mills (Hutchins/Timberline Lumber mills, Medley cedar mill) and government (mainly the school district), with some agriculture. Recently, Weippe became a Gem community, received a grant to build a senior citizen hall, and renovated the community hall. The town's Historical Committee and the local Lewis & Clark Bicentennial Committee have become active in trying to promote the area's role in the Lewis & Clark expedition.

Participants in the forum at Weippe depict their 1999 community situation as being oriented toward the *as good as it could be* end of the current situation rating scale. This is especially true for the community dimension of Vision & Vitality. This small, somewhat isolated community is committed to making a future happen. As in many small communities, its residents face the challenge of an aging population, lack of jobs for youth, slow loss of industry, and also added concerns about Federal government actions limiting or controlling the community's economic growth and community development. This last concern is not surprising, given that much of the surrounding countryside is under the management of the Federal government. The dimension of community that was rated lowest was Jobs and Wealth. The community finds itself in an economic transition, and it is trying to assess its options to decrease or reorient its dependence on natural resources. The present community leadership is striving to find an acceptable response to this situation.

Forum participants were generally optimistic about their future. There was agreement that the community would be beneficially affected by Pathways A1 (the existing hydro-system on the Lower Snake River continuing on into 2020) and A2 (major modifications of the existing hydro-system on the Lower Snake River) and adversely affected by Pathway A3 (dam-breaching and natural river drawdown on the Lower Snake River). In justifying the beneficial or adverse effects on the town, it is clear that the participants had difficulty separating their community from the larger region of which it is a part. For A1 and A2 the participants understood that the actions downriver would likely affect them indirectly. They also understood that the return of more wild salmon would not necessarily mean benefits to the local area and that, other than increased utilities and transportation costs for some commodities, adverse effects from the Pathway A2 on the community were few. In fact, the group's justifications suggest that other current and ongoing trends would probably be more influential on Weippe's future than changes in the management of the dams on the Lower Snake River.

Participants' reactions to Pathway A3 and its impact on their community are less readily assessed. Some justifications suggest that participants' overall response focused on a regional and rather than community level. There is, and always will be, healthy skepticism about government actions by the people who live in this area. They have seen new regulations on timber adversely affect timber availability in their area, and they are anticipating an influx of tourists for the upcoming Lewis and Clark Celebration in 2002, as well as experiencing the changing dynamics of the regional economy.

Consistent with a regional-level assessment, most of the actions suggested to minimize negative impacts were general and often focused on the region as much as the community. Most telling perhaps was participants' suggestion in the case of implementing A3 that, at the local level, financial incentives should be provided to broaden Weippe's economic base. An example mentioned here was the need to increase the tourism and outdoor recreation industries to help lessen the negative economic impacts of downriver management changes.

This resource-based community saw the proposed pathways as being somewhat distant from their immediate community development needs. The beneficial aspects they saw dealt with the fish and how their return might help their tourism efforts. However, negative effects of A3, such as increased costs for utilities and in some cases increased agriculture transportation costs, were perceived to be more significant, resulting in ratings clustered towards the "adversely affected" end of the impact rating scale for this pathway.

### **2.18.2 - Interactive Community Forum Participants**

Twenty-one community members provided perspectives on the history, 1999 (current) situation, and Pathways A1, A2, and A3 for Weippe, Idaho. These forum participants sat at two facilitated tables, working in interactive small groups (hereafter, "groups"). The participants' overall diversity index rating was 0.86 (on a scale from 0 to 1.0), indicating that 12 of 14 pre-identified community roles were present at the forum (see methodology). Of the total number of participants completing the sign-in questionnaire, there were 24 percent in the wood products industry, 19 percent retirees, and 10 percent self-employed residents. The remaining 48 percent were employed in the following occupations: health care, housewife, counselor, deputy sheriff's department, extension agent minister, secretary, and home design.

### **2.18.3 - Community Background**

#### *History:*

Weippe, Idaho is a town of about 560 people located on the Weippe Prairie of north central Idaho, upriver from the dams under study and north of the Clearwater River valley. Gold miners first settled Weippe in the 1880s, and the post office opened there in 1888. The first grade school opened in 1899, followed by a second grade school in 1915. The Wesleyan Church was established in the 1930s. Since that time, timber and wood manufacturing has long dominated the town, with several mills established. In the 1960s the farming economy grew and Timberline High School was built. In 1970 Pierce and Weippe High School were consolidated, at the same time that the town's population was peaking at a recent high of almost 800 people. In the 1980s, decreased timber supply led the Forest Service to stop many of its timber sales and timber-related jobs

were lost, and the population declined to about 500. During the 1990s, the population has increased slightly as some retirees settle in the area. Weippe's major employers remain the local mills (Hutchins/Timberline Lumber mills, Medley cedar mill) and government (mainly the school district), with some agriculture. Recently, Weippe became a Gem community, received a grant to build a senior citizen hall, and renovated the community hall. Most recently, the town's Historical Committee and the local Lewis & Clark Bicentennial Committee have become active because of the region's role in the Lewis & Clark expedition.

## 2.18.4 - Community Assessment of 1999 Situation

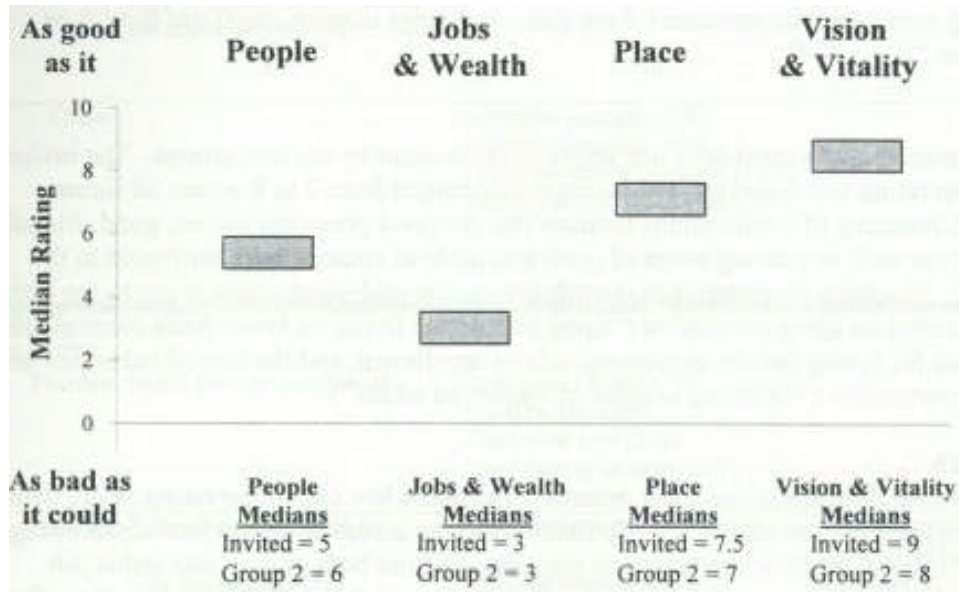
### 2.18.4.1 - 1999 Situation: Community Dimensions and Rating Scale

The following "1999 situation" rating scale was used by participants from Weippe to rate the 1999 situation of the following four community dimensions: 1) **People** -- Social Make-up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity. Following a presentation of descriptive information about their community and a community interactive timeline they developed (see above), forum participants were asked to rate the extent to which their community situation was good or bad on a 10-point scale for each of the four dimensions and to write justifications for each of their numerical ratings.

In 1999, the situation in my community is as bad as it could be	1   2   3   4   5   6   7   8   9   10	In 1999, the situation in my community is as good as it could be
---	--	--

### 2.18.4.2 - 1999 Situation: Ratings

As Figure 2-35 presents, the range of medians across the four community dimensions for both facilitated groups was 3 in the Jobs & Wealth dimension to 9 on the Vision & Vitality dimension. Specifically, the two facilitated groups perceived the Vision & Vitality and Place dimensions as being most oriented toward the *as good as it could be* end of the scale, while the Jobs & Wealth dimension was most oriented toward the *as bad as it could be* end of the scale. The People dimension was given more of a mid-point rating on the scale. The difference between the invited group's median score and that of the other facilitated group for all four of Weippe's community dimensions ranged from 0 to 1 rating units. The clustering of group medians demonstrates that, for the four dimensions assessed, each facilitated group independently arrived at similar conclusions regarding the current situation of the community.



**Figure 2-35. Median scale ratings of the current (1999) situation in Weippe, Idaho, by dimension, across groups.**

#### 2.18.4.3 - 1999 Situation: Rating Justifications

Table 2-35 presents the clustering of justifications for both facilitated groups. Justifications noted across both groups are categorized 'All Groups'. Justifications noted by only the invited group are categorized 'Invited Groups'. Finally, justifications noted by all other participants are categorized 'Other Groups'.

##### *Vision & Vitality*

The Vision & Vitality dimension was the highest rated dimension and clustered around the invited group's median rating of 9. Individual responses ranged from 6 to 9 across both groups. As presented in Table 2-35, organizational capacity, strong leadership, a cohesive and participatory community, and being prepared for the future were the kinds of justifications participants gave for their high rating of this dimension. Few negative justifications were offered in comparison to the number and diversity of positive one. Examples of these are difficulties in coping with change and a limited budget ("poor budget, need grants & outside money").

##### *Place*

The Place dimension received the second highest rating, clustered around the invited group's median rating of 7.5. Individual responses ranged from 5 to 9 across both groups. Positive justifications across both groups indicate that close proximity to outdoor recreation opportunities, good parks and open space, public lands, strong sense of place, the small town family oriented atmosphere, good air and water quality and a safe environment were the positive reasons for the rating. In contrast, the only negative Place characteristic noted by both groups was poor/declining community appearance ("Low end -- buildings in town could use facelift or common theme").



*People*

The people dimension was rated at or just above the mid-point by the two groups. The invited group's median rating was 5 and individual responses ranged from 3 to 8 across all forum participants. Clustering of justifications indicate that the good prevalent values; good, friendly, helpful people; as well as a strong sense of spirit and pride in community contributed to the positive rating. Negative characteristics contributing to the mid-point rating given to the People dimension included an aging population ("aging population living on lower fixed income"), lack of opportunities for young people, decreasing school enrollment, and the loss of industries and lack of job opportunities ("declining number of employed adults").

*Jobs & Wealth*

The Jobs & Wealth dimension was most oriented toward the low end of the rating scale, with both groups giving a median rating of 3. Individual ratings across all forum participants ranged from 1 to 5. The only positive characteristic mentioned across both groups was stable job opportunities. Both groups gave numerous negative characteristics and they justify this rather low rating. These include poor job opportunities, low paying jobs ("wages are low, but enough to survive on"), low economic diversity, a declining economy ("farming and logging operator jobs are on the downslide due to federal regulations" and "timber industry slowing down") and high poverty.

<b>Table 2-35</b> <b>Rating Justifications for the Current (1999) Situation</b> <b>In Weippe, Idaho,</b> <b>By Community Dimension and Type of Group</b>			
Dimension	Replication Across All Groups	Invited Group	Other Groups
<b>People</b>			
Positive	Good prevalent values (61)	Increasing/high population (41)	Recreation/tourism is important (positive) (441)
	Good, friendly, helpful people (201)	Stable population (43)	
	Strong sense of spirit and pride in community (211)	Good extended families (101)	
		Stable families (103)	
		Support of community activities and involved (241)	

Negative	Aging population (2)	Lack of support for schools and education (92)	Increasing/high public assistance (112)
	Lack of opportunities for young people (11)	Diversity (general) (309)	High/increasing crime rate (192)
	Decreasing/low population (42)	Lack of money in community (532)	
	Decreasing school enrollment (72)	Unstable/poor/decreasing economy (542)	
	Loss of industries and lack of job opportunities (492)		
Other		Lifestyles changing (54)	
		Families (general) (109)	
		Public assistance (general) (119)	
		Stability of community (general) (323)	
<b>Jobs and Wealth</b>			
Positive	Stable job opportunities (8)	Low cost of living (78)	
		Good people (204)	
		Good rural area (228)	
		Land mass is an asset (237)	
Negative	Poor job opportunities (3)	Low employment for youth (6)	Decreasing job opportunities (general) (18)
	Low paying jobs (31)	Seasonal employment (35)	Constrained by government regulations (951)
	Money leaves (51)	High commuting (66)	
	Low economic diversity (122)	High commuting into community (bad) (68)	
	Forestry-based economy (144)	No local services (95)	
	Declining economy (162)	Weak economy (153)	
	High poverty (183)	Increasing/high government assistance (184)	
		Teachers live elsewhere (56)	
Other		Old money (56)	

<b>Place</b>			
Positive	Close proximity to outdoor recreation opportunities (662)	Good, improving community appearance (511)	
	Good parks and open spaces, public lands (667)	Community character is good (566)	
	Strong sense of place and community (670)	Low traffic congestion (599)	
	Small town, family-oriented, with pleasant atmosphere (681)	Good roads, highways, and community infrastructure (620)	
	Attractive scenery (771)	Natural resources, environment are basis of character (776)/TD	
	Good air and water quality (780)	Scenery should remain good (771)	
	Good quality of life (901)		
	Safe and crime free (902)		
Negative	Poor/declining community appearance (513)	Poor/decreasing social services (570)	Poor public facilities (572)
		Poor roads, highways, and community infrastructure (623)	
		Small, rural population good (831)	
Other		Transportation (general) (600)	
<b>Vision and Vitality</b>			
Positive	Strong, active civic organizational capacity (11)	Strong, active civic leadership (41)	Positive economic opportunities (581)
	Civic organization improvement (15)	Strong, active astute political leadership (81)	
	Active, strong leadership (121)	Support and ability to support bonds and levies (181)	
	Leadership improvement (125)	Friendly, sociable community (305)	
	Strong, cohesive community (341)	Interesting community (307)	
	Prepared for the future (381)	Community control of outside forces (441)	
	General budgets (489)	People are adaptable (505)	
	Strong and high level of community participation (work together) (561)		

Negative	Don't cope well with or resist change (362)	Lack of friendliness (306)	
		Lack of community control of outside forces (442)	
		Limited budget (482)	

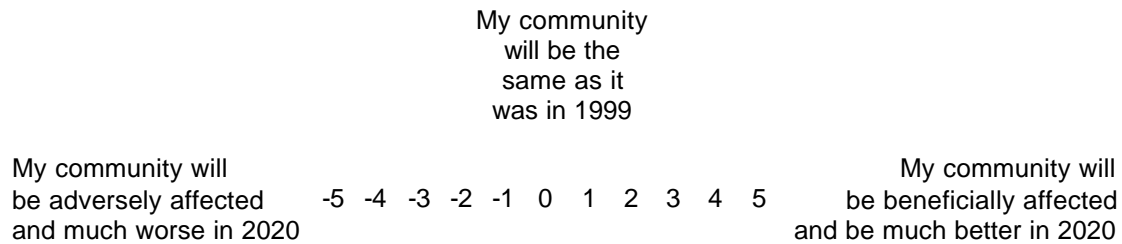
## 2.18.5 - Comparison of Salmon Recovery Pathways A1, A2, and A3

### 2.18.5.1 - Community Dimension Impact Rating Scale

Forum participants were asked to assess how their community would be impacted in the year 2020 by the implementation of three salmon recovery Pathways proposed by the U.S. Army Corps of Engineers to return juvenile salmon to the Lower Snake River. Pathway A1 was to maintain the existing Lower Snake River System, A2 was to make major modifications to the existing Lower Snake River System, and A3 was natural river drawdown or dam breaching.

A second rating scale was used by forum participants to indicate the situation for each of the four community dimensions (*People, Jobs & Wealth, Place, and Vision & Vitality*) in terms of how adversely or beneficially they felt their community would be impacted in the year 2020. In thinking about the future, participants were asked to consider all of the normal changes that are likely to occur in their community over time, along with specific changes they would expect to result from an Pathway. To provide a basis for thinking about their community's future situation, forum participants received information from Corps and NMFS' studies specific to their community for each Pathway. Information provided to participants included salmon recovery probabilities, physical changes, and economic changes (For more information on the information presented and their sources, see [Appendix A](#)). Community members then gave an initial rating of the impacts on their community in the year 2020 for each dimension. After a facilitated group discussion of how and why their community would be affected or not affected, participants rated the community dimensions and listed their justifications.

To ground the rating scale in reality, forum participants were instructed to use their community's 1999 situation, which they had just rated and described for each dimension, as the mid point (0) of the scale from which to determine the magnitude of adverse (negative) or beneficial (positive) effects to their community. Participants were specifically instructed to focus on adverse and beneficial impacts only on their community and not on the entire region.

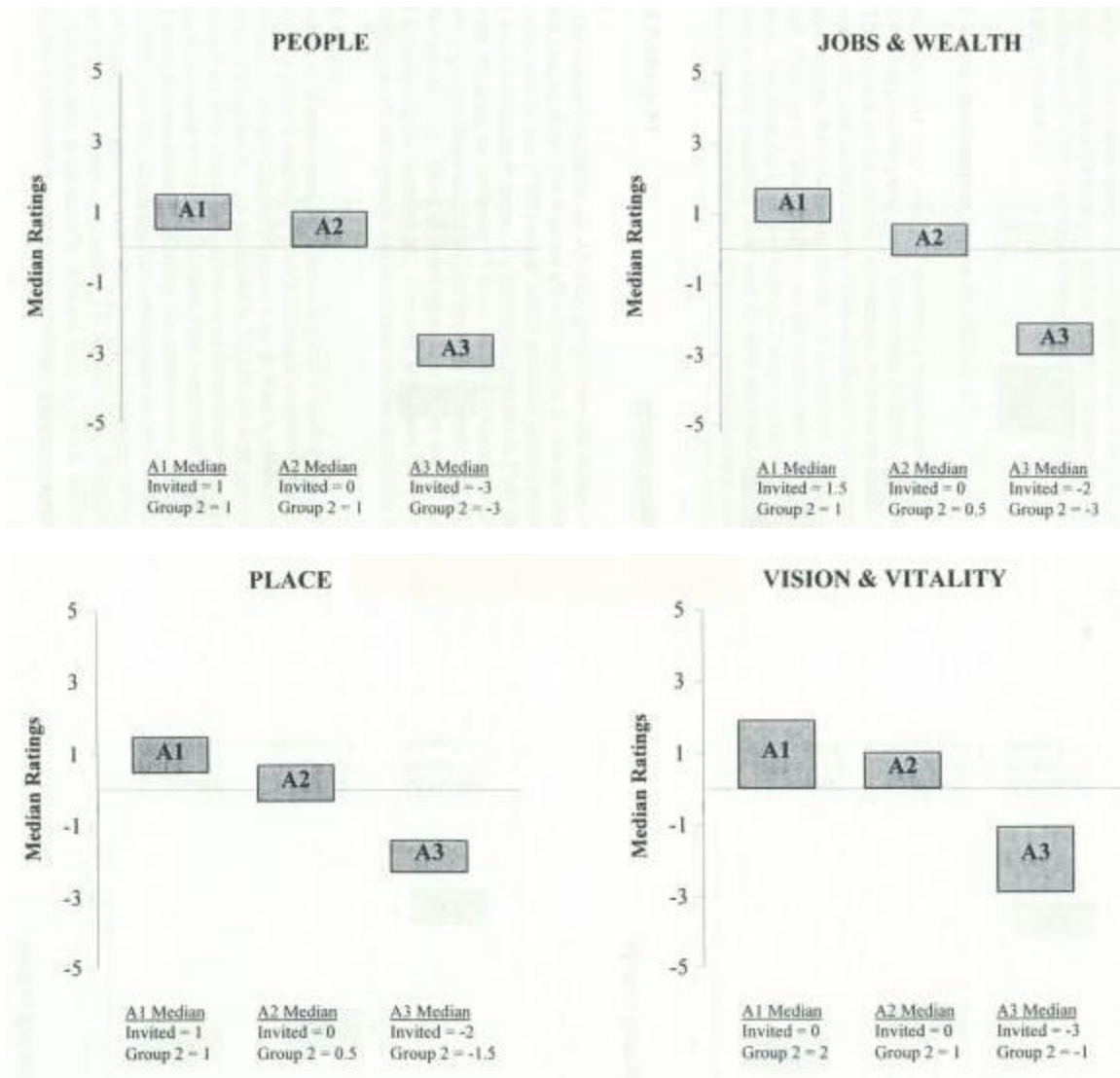


### 2.18.5.2 - Summary of Pathway Findings A21, A2, and A3

Figure 2-36 presents the median rating given by both groups for each of the pathways, categorized according to dimension. For all dimensions, forum participants perceived the situation for Weippe to be better in the Year 2020 under A1. Broken down by dimension, the range of medians across both groups under A1 extended from 0 in Vision & Vitality to a 1.5 in the Jobs & Wealth dimension. The invited group perceived Vision & Vitality to be the same as the current situation in the year 2020 under A1, while Jobs & Wealth, People and Place were perceived by both groups to be slightly better than the current situation in the year 2020. Both the People and Place dimensions received a median rating of 1 across both groups.

For A2, the invited group perceived the community to stay the same, with a median of 0 across all dimensions for the invited group. Group 2 saw a little improvement likely across all dimensions. The closeness of medians, within one scale unit across groups, suggests that, under A2, both facilitated groups independently arrived at similar conclusions about the likely state of their community in 2020. They forecast little or no difference between the 1999 situation and A2.

Group medians under A3 were the lowest of the three pathways. For the invited group they ranged from a -3 in both the People and Vision & Vitality dimensions to a -2 in both the Place and Jobs & Wealth dimensions. According to the perceptions of forum participants, Weippe would be adversely affected and worse off under A3 for each dimension. Clustering occurred around the invited group's median across all dimensions except for the Vision & Vitality dimension where the other group was more than one scale unit different in its rating. This clustering suggests that for three out of four dimensions assessed under A3, each facilitated group independently arrived at similar conclusions about the state of their community in terms of adverse affects under A3.



**Figure 2-36. Median scale rating of Weippe, Idaho, of Pathways A1, A2, and A3, by community, across groups.**

### 2.18.5.3 - Rating Justifications Across A1, A2, and A3

In the analysis of A1, the "no action" pathway, a process similar to that for the 1999 situation was followed to examine participants' perceptions of likely future changes to the community in 2020. The premise for the scenario was that the river system would remain unchanged but other social, economic, and cultural trends would continue on their current trajectory, as perceived by forum participants. Both numerical scores and the reasons and changes underlying them were examined. Pathway A1 was treated as the base-case, and the results for this pathway provided the basis for assessing the impact of both A2 ("major modification") and A3 ("natural river drawdown and dam breaching"): A2 and A3 were analyzed to identify changes of clustered numerical ratings and qualitative justifications from the baseline forecasts under A1.

#### **2.18.5.4 - Pathway A1**

##### *People*

Within the People Dimension for A1, both group's median ratings were 1, with individual responses ranging from -2 to 4 across all participants. Characteristics mentioned across both groups were that current (1999) trends would continue, general growth ("If we leave the current system we will continue to grow..."), increasing population ("people are migrating to our area"), and people changing for the better ("I think things will change some and I hope for the better"). The invited group offered additional justifications for their rating of how Pathway A1 would affect Weippe in 2020. These included aging population, lack of opportunities for young people as well as declining fish populations. The other group also listed increasing number of retirees as a justification ("Older people will be attracted to the community because of carefree living").

##### *Jobs & Wealth*

For the Jobs & Wealth dimension, the other group's median was within one-half of a scale unit of the invited group's median of 1, with individual responses ranging from -2 to 4. According to these ratings, forum participants perceive Jobs & Wealth would be beneficially affected, albeit slightly, in 2020 under A1. As presented in Table 2-36, both groups shared several similar justifications for their rating, although some of these comments appear to be contradictory. For example, both groups mentioned increasing job opportunities in Weippe, some members in the invited group also mentioned decreasing job opportunities. The invited group added several other justifications that influenced their rating, such as low transportation and utility costs, resource tourism and amenity recreation growth, the presence of high tech jobs and that they will continue to work to improve the economy ("we will work to improve jobs and commerce no matter what happens to the dams"). When it came to Jobs & Wealth in 2020 for A1 there were a lot of different perspectives used to justify ratings.

##### *Place*

The median rating for the Place dimension was 1 for both groups, with individual responses ranging from -1 to 3 across all participants. Comments clustered across both groups included community growth and improvement and the perception that status quo will be maintained. The invited group also mentioned good social services, no traffic congestion, and the small town atmosphere as positive attributes. A negative attribute offered by the invited group was decline in sense of place and pride in the community ("people will be less attached to the community") and one mentioned by the other group was decreased wildlife and fish. More positive justifications than negative ones were offered for the perceived beneficial affects of A1 over the current 1999 situation.

##### *Vision & Vitality*

The median rating for Vision & Vitality for A1 was 0 for the invited group and 2 for the other group, indicating dissimilar perceptions. That is, the invited group perceived Weippe's Vision & Vitality to be the same in the year 2020 under A1, while the other group perceived it to be better by two rating points. Individual ratings ranged from -2 to 4 across both groups. Participants across both groups perceived no real change to

occur under A1. The invited group's justification included positive leadership to guide Weippe in 2020, but also listed negative justifications like lack of community control of outside forces, decreasing/lack of community vision and vitality and loss of community cohesiveness. The other group included fewer pessimistic justifications. The competing views were could active leadership offset other forces especially economic ones.

#### **2.18.5.5 - Comparison of Pathway A2 to A1**

Under the implementation of A2, the change between A1 clustered median group ratings and A2 clustered median group ratings for all dimensions remained constant or slightly decreased (see Figure 2-36). The invited group's median rating for all four dimensions under A2 was 0, signifying A2 effects to the community were pretty much perceived to be the same as those under A1. Table 2-36 presents the salient justifications for the ratings under the implementation of A2. In general, both groups perceived the People dimension to remain similar under A2 compared to A1. For the Jobs & Wealth dimension, both groups described the creation of short-term jobs and a rise in utility rates to occur. The invited group added that these new jobs, as well as pre-existing jobs may be low paying and may involve commuting. Both groups commented that Weippe's Place dimension would not be affected differently under A2 compared to A1, though the invited group saw improved community services and the other group expressed the positive characteristic of Weippe being a retirement community. For the Vision & Vitality dimension, both groups saw little difference over A1, with the invited group adding that some negative effects might result due to the general difficulties resulting from change. A common justification that occurred in Pathway A2 that was not present in A1 was increased utility costs that was mentioned in 2 of the 4 dimensions.



**Table 2-36  
Comparison of Rating Justifications For Pathways A1, A2, and A3  
For Weippe, Idaho,  
By Community Dimension and Type of Group**

<b>Year 2020 Rating Justifications</b>	<b>Pathway 1 Existing Condition</b>	<b>Pathway 2 System Modification</b>	<b>Pathway 3 Drawdown</b>
<b>People</b>			
Across All Groups	Increasing/high population (41)	People changing for better/positive change (311)	Decreasing/low population (42)
	Growth (general) (49)	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	Lack of spirit and pride in community (212)
	People changing for better/positive change (311)		High/increasing cost of living (454)
	Current trends will continue/little/no impact (325)		Increased utilities, transportation, and taxes; and decreased irrigation, loss of power
			Unstable/poor/decreasing economy (542)
Invited Groups	Aging population (2)	Decreasing/low population (42)	Customs and lifestyles (general) (59)
	Lack of opportunities for young people (11)	No change in people/little/no impact (313)	Poor sense of community among residents (204)
	No change in people/little/no impact (313)	Above average (321)	No change in people/little/no impact (313)
	Above average (321)	High/increasing standard of living (454)	Negative impacts (general) (322)
	Negative impacts (general) (322)		
	Declining fish population/listed (462)		
	Increased industries/good job opportunities (491)		
Other Groups	Increasing number of retirees (21)	Current trends will continue/little/no impact (42)	Increasing/high public assistance (112)

<b>Jobs and Wealth</b>			
Across All Groups	Increasing job opportunities (general) (10)	Short-term and temporary jobs/part-time jobs (37)	Increasing job opportunities (general) (10)
	Industry growth (general) (127)	Increased utility rates (86)	High commuting (66)
			Increased cost of living (85)
			Increased cost of doing business (88)
Invited Groups	Decreasing job opportunities (general) (18)	Low paying jobs (31)	Decreasing job opportunities (general) (18)
	Increasing high tech-related jobs (40)	High commuting (66)	Decreasing school jobs (24)
	Low utilities (79)	High cost of living (72)	Short-term and temporary jobs/part-time jobs (37)
	Low transportation costs (81)	Increased infrastructure costs (89)	Increasing transportation costs (75)
	Declining local services (97)	Declining local services (97)	Declining economy (162)
	Decreasing farms and increasing farm size (109)	Things will become worse before getting better (164)	Decreasing wealth (181)
	Decreased economic base (124)	No advantage over pathway #1 (247)	
	Resource tourism and amenity recreation growth (126)		
	Industry growth (general) (127)		
	Forestry-based economy (144)		
	Will continue to work to improve economy (161)		
	Declining economy (162)		
	Things will become worse before getting better (164)		
	No effect on economy (168)		
	Work to improve commerce and jobs (169)		
	Less hunting and fishing (229)		
Constrained by government regulations (951)			
Jobs in woods will only help community (953)			
<b>Place</b>			
Across All Groups	Community growth and improvement (721)	Maintain status quo, no change (841)	Increased cost of living (742)
	Maintain status quo, no change (841)		Maintain status quo, no change (841)

Invited Groups	Good social services, same access to services (561)	Good social services, same access to services (561)	Poor roads, highways, and community infrastructure (623)
	Low traffic congestion (599)	Community character is poor/declining (577)	Increase in tourism (663)
	Strong sense of place/heritage/morale and community (670)	Community growth and improvement (721)	Negative economic impact from increased transportation costs (741)
	Decline in sense of place and pride in community (672)	Same as pathway 1 (930)	Poor air and water quality (782)
	Small town, family-oriented with pleasant atmosphere (681)		Increased government regulations and decreased local control (886)
	Stable community (723)		
Other Groups	Good air and water quality (780)	Positive aspects of being a retirement community (692)	Poor economy (740)
	Decreased wildlife and fish (802)		
<b>Vision and Vitality</b>			
Across All Groups	No real change in cohesiveness (363)	No real change in cohesiveness (363)	No real change in cohesiveness (363)
	New, optimistic visions of the future (385)		Negative economic opportunities (582)
Invited Groups	Active, strong leadership (121)	Negative results of change (364)	General leadership (149)
	Leadership development in place for the future (145)	Mistrust in government (464)	Negative results of change (364)
	Loss of community cohesiveness (344)	Negative/decreasing community characteristic (542)	Lack of community control of outside forces (economics/regulations) (442)
	Lack of community control of outside forces (economics/regulations) (442)	Same as pathway 1 (663)	General community control (449)
	Negative economic opportunities (582)		Increased costs related to modifications (702)
	Decreasing/lack of community vision and vitality (602)		Negative attributes of people (882)
	Negative community infrastructure (802)		
Other Groups	Reduced, pessimistic visions of future (384)	Reduced, pessimistic visions of future (384)	Economic factors decreasing vision and vitality (583)

### 2.18.5.6 - Comparison of Pathway A3 to A1

Under the implementation of A3, the change between A1 clustered median group ratings and A3 clustered median group ratings decreased toward the adversely affected end of the rating scale for all dimensions: median ratings around 1 for A1 decreased to -2 and -3 for A3 (see Figure 2-36). The range of median group ratings across the groups for each dimension was similar to A1. That is, for the People, Jobs & Wealth and Place dimensions there was little variability between the invited and other group's median rating scores. The greatest spread in group ratings occurred in the Vision & Vitality dimension. Both the People and Vision & Vitality dimensions received the lowest median ratings of -3 by the invited group.

#### *People*

Individual ratings ranged from -5 to 3, with the median clustered around -3 across both groups. Table 2-36 shows the shift in salient justifications under the implementation of A3. These include a forecast decrease in population coupled with lack of spirit and pride in community, and an increased cost of living. The invited group added there would be a poor sense of community among residents and the other group added that there would be an increase in the number of people on public assistance as a further justification for their negative rating.

#### *Jobs & Wealth*

Individual responses ranged from -5 to 3 across both groups, with a group median of -2 clustered around the invited group. Both groups' justifications clustered around an increased cost of living (utilities, transportation) and increased costs of doing business. These are not unlike the justifications mentioned under A2. The only difference is that they are used to justify a lower rating score. In the invited group, some participants saw no change, or little or no impact would result to the community's Jobs and Wealth dimension by implementing A3.

#### *Place*

Individual responses ranged from -5 to 3 across both groups, with a medians clustered around the invited group's median of -2. Both groups mention that Weippe's physical character would probably not experience much change, although the invited group mention that air and water quality may be affected due to changes in power generation and increased truck traffic. They also indicate several indirect effects on their place caused by A1. For example increase in tourism ("more wild stocks in the 'region' will benefit Weippe's recreation potential economically") and negative economic impact from increased transportation costs ("trucking costs versus barging will break farmers and mills"). The justifications offered by participants suggest they saw connections between what happened regionally and what happened in their community.

### *Vision & Vitality*

Individual responses ranged from -5 to 3. There was a disparity between the invited group's median rating of -3 and other group's median rating of -1, with both ratings declining proportionately to their A1 ratings. The invited group provided several justifications for the negative rating, including the perception that the community has little control over outside forces. They add that change in Weippe is inevitable, and leadership will play an important role in helping people adapt to these changes. The other group describes the link between the community's economy and its vitality, with a decrease in the former negatively affecting the latter.

### **2.18.6 - Minimizing Adverse Impacts**

In identifying adverse impacts to Weippe across each of the four dimensions, forum participants felt that the following issues should be addressed both locally and regionally to lessen the impacts to their community and the region.

Under the implementation of A1, participants generally felt that community members should be more involved in, and have more control over, federal issues regarding salmon recovery.

Under the implementation of A2, participants mentioned both local and regional issues. At the regional level, they felt that harvesting restrictions on salmon within the river system as well as in the ocean should be further addressed. To lessen local impacts, they also mentioned that the increases in utility costs should be shared with the entire country. Additionally, in terms of construction and other jobs associated with dam modification, participants felt that local labor should be utilized.

Under the implementation of A3, participants note that, at the local level, financial incentives should be provided to broaden Weippe's economic base. One example mentioned was the need to increase the tourism and outdoor recreation industries to help lessen the negative economic impacts.

## SECTION 3 - CROSS-CASE COMPARISON OF STUDY COMMUNITIES BY COMMUNITY TYPOLOGY

### 3.1 - Community Structures and Processes

A community consists of people who are meeting their daily needs in a particular geographic area (not limited to jurisdictional boundaries), who have organized themselves to produce goods and services, and who invest resources (time, emotional energy, capital, *etc.*) to take cooperative actions designed to address the needs of community members and/or enhance the important characteristics of their community. For the purposes of conducting this community assessment, a multi-dimensional concept of community consists of four dimensions; 1) **People** -- Social Make-Up; 2) **Jobs and Wealth** -- Economy; 3) **Place** -- Character; and 4) **Vision and Vitality** -- Organization and Leadership Capacity.

Furthermore, communities are seen as constantly changing complex systems made up of individuals, household units, and other organized interests (*i.e.*, business firms, civic groups, churches, retirement and youth groups, chambers of commerce and other non-governmental organizations). Therefore, community decisions most often are a result of interactions between some combination of these units. This reality makes it difficult to determine whom, and how, to ask community members about the state of their community.

Communities also are envisioned to be parts of larger regional landscapes. In fact, relationships between and among communities exist on the basis of shopping patterns, employment patterns, social group patterns, kinship networks, collaborative government efforts, shared non-governmental organization activities (*i.e.*, joint economic development or preservation via establishing a land trust), human land use patterns, as well as the more commonly pointed out biophysical features. Regardless of whether the linkages among communities result from the functioning of a biophysical or social system, some aspects of these interactions serve as barriers between communities and others facilitate synergistic connections between them. Therefore, another reality is that within a developed region of the United States, like the Inland Northwest, there is a much greater proportion of networked communities than totally isolated ones.

The selected definition of community, the choice to focus on four dimensions of community, and the briefly outlined realities above guided the design of a two-tiered approach to developing the community typology, or array of kinds of communities, applied in this assessment.

### 3.2 - Development of a Two-Tiered Community Typology

Two goals further guided the design of the typology. One was to develop meaningful clusters of communities in the affected environment that are based on descriptive themes relevant to the proposed salmon recovery pathways. The second goal was to capture the diversity of the communities across the affected environment.

For the purposes of this assessment, community types are defined as communities having similar land use patterns, economic composition and connections to the river. Additionally, a typical community case is a purposefully selected community that reflects a definable set of attributes for the communities within a community type. To promote the inclusion of a range of communities within and across types the following community partitioning variables were used to describe each typical community case: population size; community resilience index; community economic diversity rating; dominant industrial composition (quantified natural resource and other industrial dependency); river impact (*i.e.*, sub-region location -- upstream, downstream, reservoir -- and important economic and social river connections); and key community trends (*i.e.*, population, economy in transition, becoming a retirement community, or becoming a bedroom community). These variables were selected because of their importance in describing the impacts that communities may experience from the proposed pathways as well as the ongoing dynamics of community change.

The community typology was developed based on 1) the case selection process; 2) interactions with active and involved community members via community forums; and 3) the coding and analysis of the qualitative and quantitative data collected for each community during this assessment. Initial efforts to develop the typology during case selection were dependent on available secondary data. As community forums were conducted, the perceptions of community members of their community situation in 1999 in terms of the four community dimensions, and impacts on their community in terms of the same four dimensions in 2020, were used to corroborate and adjust the ideas and variables underlying the typology. Furthermore, as the ratings and justifications across all communities were analyzed to identify themes and patterns additional insights for the typology were obtained. Lastly, initial findings were examined in terms of their plausibility based upon previous research and available knowledge on community change and social assessment. All of these steps influenced the final conceptualization of the community typology, and the procedures used to apply it.

Qualitative systems of typing objects and the use of typical cases to provide insight for understanding those objects are commonly used in research. This approach however, is different from sampling and projecting to a population of communities. Therefore, care must be taken to not overstate this approach's explanatory power and transferability. For instance, as much as it is feasible at a macro, descriptive level to group communities into community types to identify impacts from proposed actions to recover salmon to typical communities within a type, care must be taken to not overlook the fact that other specific community attributes can be key to understanding how another community categorized as a particular type might be impacted. This additional knowledge is critical to understand how to lessen the impacts from a proposed pathway,

or which community dimensions to target, in order to mitigate a particular environmental effect. Finally, even though typical community cases depict a community type, the transferability of the findings about a community type to another community similarly typed is contingent on having a highly comparable community context. Evidence from this assessment of 18 communities suggests a complete contextual match of communities is rare. Evidence from the assessment of 9 additional Southern Idaho communities in Phase II further supports this contention. This makes it all the more important to look at more than just the community type when using the findings from this study.

### **3.2.1 - Application of the Community Typology to the Affected Environment**

The community typology described above was applied to the affected environment of eastern Washington, northeastern Oregon and north central Idaho. It resulted in the identification of six community types. They include: 1) The Trade Center Community Type; 2) The Highly Productive Dryland Agriculture Community Type; 3) The Productive Dryland Agriculture Community Type; 4) The Multiple Natural Resource Use Community Type; 5) The Snake River Irrigated Agriculture Community Type; and 6) The Columbia River Agriculture Community Type. One additional community type was identified for Phase II Southern Idaho community forums (Upper Snake River Irrigated Agriculture Community Type). Descriptions of these six types for Phase I and the communities they represent are presented below.

#### ***Trade Center Community Type***

These communities are characterized by diverse urban land use patterns with a predominance of intensely developed land types such as industrial, commercial, retail, residential and parks and open spaces. These communities are characterized by a diverse economy that represents a regional trade center. Industrial sectors typically include construction, manufacturing, wholesale, retail, transportation and communication, service, and government. The built landscape dominates the community setting. These communities directly utilize the Lower Snake River for port facilities, transportation of commodities, fisheries, and tourism. Residents also use the river for personal recreation pursuits. In the case of Pasco, WA, water from this segment of river also is used for irrigated agriculture. For the purposes of this study, typical communities used to depict the Trade Center Community Type are Lewiston, ID, Clarkston, WA, Kennewick, WA and Pasco, WA.

#### ***Highly Productive Dryland Agriculture Community Type***

These communities are characterized by less intensive rural development with a predominance of agriculture oriented industrial, commercial and service establishments. Discernable residential areas, downtown business centers, and parks and open spaces are normally present. A limited range of industrial sectors, often dominated by agriculture or state and local government, characterize these communities' economies. These communities are surrounded by highly productive agricultural lands and directly utilize the Lower Snake River for port facilities and transportation of agricultural commodities. Residents also use the river for personal recreation pursuits. For the purposes of this study, typical communities used to depict the Highly Productive Dryland Agriculture Community Type are Colfax, WA, Genesee, ID, and Pomeroy, WA.



### ***Productive Dryland Agriculture Community Type***

These communities are characterized by less intensive rural development with a predominance of agriculture oriented industrial, commercial and service establishments. Discernable residential areas, downtown business centers, and parks and open spaces are normally present. A limited range of industrial sectors, often dominated by agriculture or state and local government, characterizes these communities' economies. These communities are surrounded by productive and/or marginal agricultural lands. They directly utilize the Lower Snake River for port facilities and transportation of agricultural commodities. Residents also use the river for personal recreation pursuits. For the purposes of this study, typical communities used to depict the Productive Dryland Agriculture Community Type are Kahlotus, WA, and Washtucna, WA.

### ***Multiple Natural Resource Use Community Type***

These communities are characterized by natural and rural landscapes in the upriver region, and traditionally their economies and way of life have been dominated by a mixture of resource based uses such as tourism, forestry, fisheries, mining, farming, ranching and conservation. These uses are evident throughout these communities in their industrial, commercial, retail and service developments. Discernable residential areas, downtown business centers, and parks and open spaces are normally present. A diverse range of industrial sectors, often including one or more resource-based industries (*i.e.*, forestry, natural resource based tourism, and ranching) along with state and local government and/or federal government, characterizes these communities' economies. These communities directly utilize the Lower Snake River for its port facilities and transportation of commodities, and indirectly use it for associated fisheries and tourism. Residents also may use the river for personal recreation pursuits. For the purposes of this study, typical communities used to depict the Multiple Natural Resource Use Community Type are Enterprise, OR, Orofino, ID, Riggins, ID and Weippe, ID.

### ***Reservoir Irrigated Agriculture Community Type***

These communities are characterized by irrigated, rural landscapes in the Reservoir region with a predominance of agriculture oriented industrial, commercial and service establishments. Discernable residential areas, and parks and open spaces are normally present. A limited range of industrial sectors, often dominated by agriculture (*i.e.*, related picking, processing, and packaging) or state and local government, characterizes these communities' economies. These communities are influenced by highly developed, irrigated agriculture, such as orchards, vineyards, and row crops. They directly use the Lower Snake River for its port facilities and transportation of agricultural commodities. Residents also use the river for personal recreation pursuits. For the purposes of this study, typical communities used to depict the Snake River Irrigated Agriculture Community Type include Prescott, WA, and Burbank, WA.

### ***Downriver Irrigated/Dryland Agriculture Community Type***

These communities are associated with the Downriver region of the Columbia River, and they are dominated by irrigated and/or dryland agriculture. Normally, these communities are characterized by less intense rural development with a predominance of agriculture oriented industrial, commercial, and service establishments. Discernable residential areas, downtown business centers, and parks and open spaces are normally

present. A limited range of industrial sectors, often dominated by agriculture or state and local government, characterizes these communities' economies. These communities do not directly utilize the Lower Snake River for irrigation, transportation of commodities, or tourism. Residents may use the Snake River for personal recreation pursuits. For the purposes of this study, typical communities used to depict the Columbia River Agriculture Community Type are Adams, OR, Stanfield, OR and Umatilla, OR.

### **3.3 - Risk-Assessment of Community Types by the Affected Environment and Environmental Impacts of the Three Pathways**

An assessment of the overall risk to Phase I communities potentially impacted by the three Corps pathways can be based on the results of the community assessment reported in [Section 2](#). Those results suggest that communities of some types would be at greater risk of being significantly affected by proposals to change the existing river system on the Lower Snake River than would some other types of communities. The degree to which a community is at risk is assessed here based on two factors. One is the town or city's current *community capacity* to respond to change, which is dependent on the *community's affected environment*. Second is the perceived *degree and kind of impact* the community would experience, or the *environmental effects* of a particular pathway, if each one of the three pathways was implemented.

This holistic assessment of risk reflects both qualitative and quantitative indicators and is expressed in a descriptive format. This judgement also reflects the trustworthiness of the data collected, as well as the diversity of perceived effects put forth by forum participants.

#### **3.3.1 - Synopsis of Affected Environments and the Environmental Effects of Pathways A1, A2, and A3 by Community Type**

The study communities, labeled as "typical community cases," their community type, and other characteristics relating to first and second tier variables are listed in Table 3-1. Table 3-2 is a synopsis of "Affected Environments" and Table 3-3 is a synopsis of "Environmental Effects" of Pathways A1, A2, and A3. The median ratings used in Tables 3-2 and 3-3 are those of the invited group; the participants in these groups were purposively sampled and comprise one of the more diverse groups at each forum. Their median rating was treated as the indicator of shifts under the three pathways and served as the standard to which the other replicate groups' ratings were compared.

The columns in Table 3-3 labeled "Rating Shift" include an arrow indicating whether the change in median ratings from Pathway A1 increased in a positive direction as indicated with an "up" arrow, whether it decreased in negative direction as indicated with a "down" arrow, or whether it stayed the same as indicated by a level "two-headed" arrow. The columns also include a label for whether shift resulted in a positive median rating for the community (a "beneficial" effect), a negative median rating (an "adverse" effect), or no

change ("same as 1999"). The "Rating Justification" column, which includes characteristics that were mentioned by forum participants across the majority of communities in a given community type, are categorized by dimension. These reasons, or justifications, for the ratings emphasize the common characteristics across communities of each type, and are helpful for understanding the reasons for the directional ratings listed in the table.

Table 3-1 1999 Situation Across Community Types							
Typical Community Case	Population 1996-1997	Region	Relation to Snake River	Identified Trends	CRI	Economic Diversity	Dominant Industries
<b>Trade Center Community Type</b>							
Lewiston, Idaho	30,271	Reservoir	Port of Lewiston; barging/cruiselines/transportation; recreation	Growing trade center; people on public assistance; elderly health care center	--	High	Travel & tourism; forestry; state/local government
Clarkston, Washington	6,870	Reservoir	Port of Clarkston; barging/transportation; recreation	Growing retirement community; people on public assistance; commuting to Lewiston to work	--	High	Travel & tourism; state/local government
Kennewick, Washington	49,090	Downriver	No direct; recreation	Increasingly multi-ethnic; people on public assistance	--	High	Travel & tourism; diverse
Pasco, Washington	25,300	Downriver	Irrigated farming; transportation; irrigation	Increasingly multi-ethnic; people on public assistance	--	High	State/local government; travel & tourism; agriculture
<b>Highly Productive Dryland Agriculture Community Type</b>							
Colfax, Washington	2,830	Reservoir	Barging/transportation; recreation	Growth in commuting to Pullman for work	High	Medium	State/local government; agriculture
Genesee, Idaho	730	Upriver	Barging/transportation; recreation	Increasingly a bedroom community for Moscow/Lewiston	Low	Low	Agriculture; state/local government
Pomeroy, Washington	1,445	Reservoir	Barging/transportation; recreation	Aging population, with young people leaving; people on public assistance	High	High	Agriculture; Federal and state/local government
<b>Productive Dryland Agriculture Community Type</b>							
Kahlotus, Washington	215	Downriver	Barging/transportation; employment; recreation	Growing number of people on public assistance	--	Medium	Agriculture; Federal and state/local government
Washtucna, Washington	278	Reservoir	Barging/transportation; recreation	Growing number of people on public assistance	Medium	Low	Agriculture; state/local government
<b>Multiple Natural Resource Use Community Type</b>							
Enterprise, Oregon	2,035	Upriver	Transportation; impacts on upriver fisheries	Growth as retirement community; isolated trade center	High	High	State/local government; agriculture; travel & tourism
Orofino, Idaho	3,112	Upriver	Transportation; impacts on upriver fisheries	Declining natural resource supplies	Medium	High	State/local government; forestry; travel & tourism
Riggins, Idaho	495	Upriver	No direct; impacts on upriver fisheries	Growth as retirement community	High	Medium	Travel & tourism; Federal and state/local government; agriculture
Weippe, Idaho	566	Upriver	Transportation; impacts on upriver fisheries	Declining natural resource supplies	High	Low	Forestry; state/local government; agriculture

<b>Snake River Irrigated Agriculture Community Type</b>							
Prescott, Washington	335	Reservoir	School district dependent for tax base on orchards irrigated from Snake River; recreation	Increasingly multi-ethnic; people on public assistance; increased commuting to Walla Walla for work and shopping	Low	Medium	State/local government; agriculture
Burbank, Washington	1,695	Reservoir	Some irrigation from Snake and Columbia Rivers; recreation	Bedroom community for Tri-Cities	Low	Low	Federal and state/local government; agriculture
<b>Columbia River Agriculture Community Type</b>							
Adams, Oregon	265	Downriver	No direct relationship	Aging; commuting to Pendleton for work	Low	Low	Agriculture
Stanfield, Oregon	1,770	Downriver	No direct relationship	Aging; growth as wholesale trade center	Low	Low	State/local government; agriculture; travel & tourism
Umatilla, Oregon	3,375	Downriver	No direct relationship	Increasing ethnic population	Low	Medium	Agriculture; state/local government; travel & tourism

**Table 3-2  
Affected Environment Across Community Types  
For the 1999 Situation**

**Trade Center Community Type**

Typical Community Case	People		Jobs and Wealth	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>
Lewiston, Idaho Clarkston, Washington Kennewick, Washington Pasco, Washington	7	Increasing number of retirees (21)	6.5	Good job opportunities (2)
	6	Increasing/high population (41)	5	Poor job opportunities (3)
	8.5	Growth (general) (49)	7.5	Low paying jobs (31)
	8	Good prevalent values (61)	7	Public sector jobs (general) (44)
		Increasing school enrollment (71)		Money reinvested in local business (54)
		Families are becoming less stable (102)		Low cost of living (78)
		Stable families (103)		Low utilities (79)
		Increasing/high public assistance (112)		Economically diverse (121)
		Most/increasing people own homes (151)		Low economic diversity (122)
		Strong sense of spirit and pride in community (211)		Expanding economic base (125)
		Supportive of community activities and involved (241)		Strong/growing economy (157)
		Ethnic diversity is high (301)		Lack of middle income jobs and families (189)
		Ethnic diversity is low/decreasing (302)		High property values (198)
		Increase industries/good job opportunities (491)		Uncertainty causes problems (242)

Typical Community Case	Place		Vision and Vitality	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>
Lewiston, Idaho Clarkston, Washington Kennewick, Washington Pasco, Washington	7	Good/improving community appearance (511)	7.5	Strong, active civic organizational capacity (11)
	7	Poor/declining community appearance (513)	6	Strong, active astute political leadership (81)
	7.5	People shop elsewhere due to lack of businesses/not spending money here/poor business opportunities (522)	9	Active, strong leadership (121)
	8	General public and social services (560)	8	
		Good social services, same access to services (561)		Support for and ability to support bonds and levies (181)
		Good schools (563)		Friendly, sociable community (305)
		Good modes of transportation (601)		Prepared for future (381)
		Lack of transportation facilities (602)		Planning and plans exist, good base for the future (403)
		Good roads, highways, and community infrastructure (620)		Lack of planning and ability to plan for the future (404)
		Recreation and tourism (general) (660)		General budgets (489)
		Increase in recreation opportunities/recreation is a plus (661)		Strong and high level of community participation (work together) (561)
		Good parks and open spaces, public lands (667)		Positive economic opportunities (581)
		Strong sense of place/heritage/morale and community (670)		
		Good climate (772)		
		Good air and water quality (780)		
		Poor air and water quality (782)		
		Safe and crime free (902)		
	Increased crime and drug use, less safety (903)			

Highly Productive Dryland Agriculture Community Type				
Typical Community Case	People		Jobs and Wealth	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Rating <sup>1</sup>	Rating Justifications <sup>2</sup>
Colfax, Washington Genesee, Idaho Pomeroy, Washington	7	Aging population (2)	5	Good job opportunities (2)
	8	Lack of opportunities for young people (11)	6	Poor job opportunities (3)
	8	Decreasing/low population (42)	3	High paying jobs (30)
		Good customs and lifestyles/change for the better (51)		Low paying jobs (31)
		Customs and lifestyles (general) (59)		Money leaves (51)
		Good prevalent values (61)		High commuting (66)
		Conservative values (65)		Low cost of living (78)
		Children and education are high priority (66)		Low economic diversity (122)
		Stable school enrollment (73)		Shrinking agriculture base/mining/timber (135)
		Strong schools/education (81)		Agricultural/food processing-based economy (143)
		Good extended families (101)		Government-based economy (145)
		Stable families (103)		Low poverty (185)
		Increasing/high public assistance (112)		Increasing poverty (187)
		Safe place to live with low crime (191)		High unemployment (191)
		Good, friendly, helpful people (201)		Low employment (192)
		Supportive of community activities and involved (241)		
	Ethnic diversity is low/decreasing (302)			

Place				
Typical Community Case	Place		Vision and Vitality	
	Median Ratings &sup1;	Rating Justifications&sup2;	Median Ratings &sup1;	Rating Justifications&sup2;
Colfax, Washington Genesee, Idaho Pomeroy, Washington	8	Good/improving community appearance (511)	7	Strong, active civic organizational capacity (11)
	8	Poor/declining community appearance (511)	8	Diminished civic organizational capacity (12)
	8	Increasing store vacancies (521)	7	Adequate, stable civic organizational capacity (13)
		People shop elsewhere due to lack of businesses/not spending money here/poor business opportunities (522)		Strong, active civic leadership (41)
		Good residential appearance (540)		Strong, active, astute political leadership (81)
		General public and social services (560)		Active, strong leadership (121)
		Good social services, same access to services (561)		Support and ability to support bonds and levies (181)
		Good schools (563)		Successful at getting and using grants (241)
		Good public facilities (565)		Numerous, varied, good, or improving social activities (301)
		Good roads, highways, and community infrastructure (620)		Friendly, sociable community (305)
		Poor roads, highways, and community infrastructure (623)		Interesting community (307)
		Good parks and open spaces, public lands (667)		Strong, cohesive community (341)
		Strong sense of place/heritage/morale and community (670)		Do not cope well with or resist change (362)
		Attractive scenery (771)		Not prepared for the future (382)
		Good air and water quality (780)		Planning and plans exist, good base for the future (403)
		Safe and crime free (902)		Lack of community control of outside forces (economics/regulations) (442)
			Strong and high level of community participation (work together) (561)	



Productive Dryland Agriculture Community Type				
Typical Community Case	People		Jobs and Wealth	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Rating <sup>1</sup>	Rating Justifications <sup>2</sup>
Kahlotus, Washington Washtucna, Washington	5	Aging population (2)	4	Poor job opportunities (3)
	6.5	Lack of opportunities for young people (11)	3	Money leaves (51)
		Good prevalent values (61)		Low economic diversity (122)
		Children and education are high priority (66)		Agricultural/food processing-based economy (143)
		Stable school enrollment (73)		Wealth and poverty (general) (175)
		Stable families (103)		High poverty (183)
		Families (general) (109)		
		Good, friendly, helpful people (201)		
		Supportive of community activities and involved (241)		
		Lack of involvement and community activities (242)		
		Small town charm/rural lifestyle (421)		
		Loss of industries and lack of job opportunities (492)		

Typical Community Case	Place		Vision and Vitality	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>
Kahlotus, Washington Washtucna, Washington	7	Unique community (512)	8	Strong, active civic organizational capacity (11)
	6	Appearance needs improvement (516)	8	Strong, active civic leadership (41)
		Increasing store vacancies (521)		Active, strong leadership (121)
		People shop elsewhere due to lack of businesses (522)		Overwhelmed, poor leaders (142)
		Good residential appearance (540)		Successful at getting and using grants (241)
		Good social services, same access to services (561)		Numerous, varied, good, or improving social activities (301)
		Good roads, highways, and community infrastructure (620)		Friendly, sociable community (305)
		Recreation and tourism (general) (660)		Strong, cohesive community (341)
		Close proximity to outdoor recreation opportunities (662)		Cope well with change (361)
		Good parks and open spaces, public lands (667)		Strong and high level of community participation (work together) (561)
		Strong sense of place/heritage/morale and community (670)		
		Attractive scenery (771)		
		Good quality of life (901)		
		Safe and crime free (902)		

Multiple Natural Resource Use Community Type					
Typical Community Case	People			Jobs and Wealth	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Rating <sup>1</sup>	Rating Justifications <sup>2</sup>	
Enterprise, Oregon Orofino, Idaho Riggins, Idaho Weippe, Idaho	6	Aging population (2)	4	Good job opportunities (2)	
		Decreasing/low population (42)		Poor job opportunities (3)	
	6	Stable population (43)	3	Low employment for youth (6)	
	7	Good prevalent values (61)	4	Low paying jobs (31)	
	5	Families are becoming less stable (102)	3	Seasonal employment (35)	
		Stable families (103)		Low economic diversity (122)	
		Families (general) (109)		Weak economy (153)	
		Increasing/high public assistance (112)		High poverty (183)	
		Good, friendly, helpful people (201)		High unemployment (191)	
		Strong sense of spirit and pride in community (211)			
		Supportive of community activities and involved (241)			
		Diversity (general) (309)			
		Lack of money in community (532)			
					Like retirees (215)

Typical Community Case	Place		Vision and Vitality	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>
Enterprise, Oregon Orofino, Idaho Riggins, Idaho Weippe, Idaho	8	Good/improving community appearance (511)	7	Strong, active civic organizational capacity (11)
	7	Poor, declining community appearance (513)	7	Civic organization improvement (15)
	5	Appearance needs improvement (516)	5	Strong, active civic leadership (41)
	7.5	Increasing store vacancies (521)	9	Strong, active, astute political leadership (81)
		People shop elsewhere due to lack of businesses (522)		Active, strong leadership (121)
		Low traffic congestion (599)		Numerous, varied, good, or improving social activities (301)
		Good roads, highways, and community infrastructure (620)		Friendly, sociable community (305)
		Good parks and open spaces, public lands (667)		Strong cohesive community (341)
		Strong sense of place/heritage/morale and community (670)		Don't cope well with or resist change (362)
		Small town, family-oriented with pleasant atmosphere (681)		Prepared for the future (381)
		Attractive scenery (771)		Planning and plans exist, good base for the future (403)
		Good air and water quality (780)		Lack of community control of outside forces (442)
		Good quality of life (901)		
Safe and crime free (902)			Strong and high level of community participation (work together) (561)	

Snake River Irrigated Agriculture Community Type				
Typical Community Case	People		Jobs and Wealth	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Rating <sup>1</sup>	Rating Justifications <sup>2</sup>
Prescott, Washington Burbank, Washington	6	Growth (general) (49)	4	Poor job opportunities (3)
	6	Good customs and lifestyles/change for the better (51)	5	Low paying jobs (31)
		Good prevalent values (61)		Declining/limited businesses and shops (136)
		Schools/enrollment (general) (79)		Agricultural/food processing-based economy (143)
		Many/most/increasing people own homes (151)		Stagnant economy (154)
		Good, friendly, helpful people (201)		Low wealth (177)
		Strong sense of community among residents (203)		
		Lack of spirit and pride in community (212)		
		Lack of involvement and community activities (242)		
		Ethnic diversity is high/increasing (301)		
		People will change (314)		
		Unstable/poor/decreasing economy (542)		
Snake River Irrigated Agriculture Community Type				
Typical Community Case	Place		Vision and Vitality	
	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>	Median Ratings <sup>1</sup>	Rating Justifications <sup>2</sup>
Prescott, Washington Burbank, Washington	6	Increasing store vacancies (521)	6.5	Limited resources and conflict in leadership (146)
	7	Good schools (563)	3	Insufficient/decreasing tax base/fiscal resources (202)
		Good roads, highways, and community infrastructure (620)		Cope well with change (361)
		Good parks and open spaces, public lands (667)		Not prepared for the future (382)
		Pride in/commitment to community (671)		Lack of community control of outside forces (economics/regulations) (442)
		Decline in sense of place and community pride (672)		Strong and high level of community participation (work together) (561)
		Small town, family-oriented with pleasant atmosphere (681)		
		Limited opportunities in small towns (683)		
		Close-knit community with many activities, cohesive (700)		
		Good quality of life (901)		
		Safe and crime free (902)		

<b>Columbia River Agriculture Community Type</b>				
<b>Typical Community Case</b>	<b>People</b>		<b>Jobs and Wealth</b>	
	<b>Median Ratings<sup>1</sup></b>	<b>Rating Justifications<sup>2</sup></b>	<b>Median Rating<sup>1</sup></b>	<b>Rating Justifications<sup>2</sup></b>
Adams, Oregon Stanfield, Oregon Umatilla, Oregon	5	Aging population (2)	4	General job opportunities (1)
	7.5	Lack of opportunities for young people (11)	6	Good job opportunities (2)
	6	Increasing number of retirees (21)	3.5	Poor job opportunities (3)
		Good customs and lifestyles/change for the better (51)		Low paying jobs (31)
		Good, friendly, helpful people (201)		Money leaves (51)
		Poor community services (402)		Bedroom community (53)
		Small town charm/rural lifestyle (421)		Commuting (general) (61)
				High commuting (66)
	Low economic diversity (122)			
	High property values (198)			
<b>Columbia River Agriculture Community Type</b>				
<b>Typical Community Case</b>	<b>Place</b>		<b>Vision and Vitality</b>	
	<b>Median Ratings<sup>1</sup></b>	<b>Rating Justifications<sup>2</sup></b>	<b>Median Ratings<sup>1</sup></b>	<b>Rating Justifications<sup>2</sup></b>
Adams, Oregon Stanfield, Oregon Umatilla, Oregon	7	Good/improving community appearance (511)	6	Strong, active civic organizational capacity (11)
	3.5	Poor/declining community appearance (513)	5	Strong, active, astute political leadership (81)
	3	Increasing store vacancies (521)	7.5	Successful at getting and using grants (241)
		People shop elsewhere due to lack of businesses (522)		Strong, cohesive community (341)
		General public and social services (560)		Planning and plans exist, good base for the future (403)
		Good parks and open spaces, public lands (667)		Lack of community involvement in community affairs (562)
		Good air and water quality (780)		
		Safe and crime free (902)		

<sup>1</sup>Median ratings reflect the invited groups' median (see methodology for discussion of invited groups).

<sup>2</sup>Written justifications for median ratings that are perceived across all communities in the community type.

Table 3-3 Environment Effects Across Community Types For A1 to A3								
Typical Community Case	A1 Median Rating <sup>1</sup>	A2 Median Rating <sup>1</sup>	A1 to A2 Rating Shift <sup>2</sup>	A1 to A2 Rating Justifications <sup>3</sup>	A3 Median Rating	A1 to A3 Rating Shift	A1 to A3 Rating Justifications <sup>3</sup>	
<b>Trade Center Community Type</b>								
<b>Community Dimension - People</b>								
Lewiston, Idaho	1.5	1.0	↓Beneficial	No highly replicated justifications	-3.5	↓Adverse	Decreasing/low population (42)	
Clarkston, Washington	4.0	3.0	↓Beneficial		-4.0	↓Adverse	Decreasing school enrollment (72)	
Kennewick, Washington	2.0	1.5	↓Beneficial		-4.0	↓Adverse	Families are becoming less stable (102)	
Pasco, Washington	2.0	2.0	↔Beneficial		-5.0	↓Adverse	Increasing/high public assistance (112)	
								Few/less/decreasing people own homes (152)
							Ethnic diversity is low/decreasing (302)	
							People changing for worse/negative change (312)	
							Loss/change in recreation/tourism opportunities (442)	
							Loss of industry and lack of job opportunities (492)	
							Unstable/poor/decreasing economy (542)	
<b>Community Dimension - Jobs and Wealth</b>								
Lewiston, Idaho	1.5	1.5	↔Beneficial	Strong/growing economy (157)	-3.5	↓Adverse	Decreasing income and wages (32)	
Clarkston, Washington	4.0	4.0	↔Beneficial		-5.0	↓Adverse	Decreasing job opportunities (general) (18)	
Kennewick, Washington	2.5	1.5	↓Beneficial		-4.5	↓Adverse	Increased cost of doing business (88)	
Pasco, Washington	1.5	1.5	↔Beneficial		-5.0	↓Adverse	Declining/limited businesses and shops (136)	
								Declining economy (162)
							Declining tax base (172)	
							Decreasing wealth (181)	
<b>Community Dimension - Place</b>								
Lewiston, Idaho	1.5	1.5	↔Beneficial	Maintain status quo, no changes (841)	-2.5	↓Adverse	Increasing store vacancies	
Clarkston, Washington	3.5	3.5	↓Beneficial		-4.0	↓Adverse	Poor/decreasing social services (570)	
Kennewick, Washington	2.0	1.5	↓Beneficial		-4.5	↓Adverse	Traffic congestion/increased traffic (603)	
Pasco, Washington	1.0	1.5	↑Beneficial		-5.0	↓Adverse	Negative impacts on the number of farms and farm families (642)	
								Poor/loss of recreation and tourism possibilities (666)
								Decline in sense of place and community pride (672)
							Poor air and water quality (782)	
							Ruin of community, complete negative community change (844)	

Community Dimension - Vision and Vitality							
				Current trends continue			Reduced, pessimistic visions of the future (384)
Lewiston, Idaho	1.0	1.5	↔ Beneficial	Strong/increasing community vision and vitality (601)	-2.0	↓ Adverse	Lack of support for and ability to pass bonds and levies (181)
Clarkston, Washington	3.0	3.0	↔ Beneficial		-4.5	↓ Adverse	Insufficient/decreasing tax base/fiscal resources (202)
Kennewick, Washington	2.0	1.5	↓ Beneficial		-4.5	↓ Adverse	Lack of planning and ability to plan for the future (404)
Pasco, Washington	2.0	2.0	↔ Beneficial		-5.0	↓ Adverse	Negative economic opportunities (582)

**Highly Productive Dryland Agriculture Community Type**

Community Dimension - People							
				Decreasing/low population (42)			Decreasing/low population (42)
				Increasing school enrollment (71)			Poor customs and lifestyles/loss of/change for the worse (52)
				Increased industries/good job opportunities (491)			Decreased school enrollment (72)
							Families become less stable (102)
							Increasing/high public assistance (112)
Colfax, Washington	1.0	0.0	↓ Same 99		-4.0	↓ Adverse	Decrease in farms and increase in farm size (156)
Genesee, Idaho	2.0	2.0	↔ Beneficial		-2.5	↓ Adverse	People changing for the worse/negative change (312)
Pomeroy, Washington	-1.0	-1.0	↔ Adverse		-5.0	↓ Adverse	Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)
							Loss of industries and lack of job opportunities (492)
							Lack of money in community (532)

Community Dimension - Jobs and Wealth							
				Increasing jobs at dams (14)			Decreased job opportunities (general) (18)
				Short-term and temporary jobs/part-time jobs (37)			Decreased agricultural jobs
				Increased utility rates (86)			Jobs decrease due to the ripple effect from agricultural losses (26)
				Population growth (207)			Increased transportation costs (75)
Colfax, Washington	-1.0	0.0	↑ Same 99	Pathway 2 does not benefit fish or people (246)	-4.0	↓ Adverse	Shrinking agriculture base/mining/timber (135)
Genesee, Idaho	2.0	1.0	↓ Beneficial		-3.5	↓ Adverse	Declining/limited businesses and shops (136)
Pomeroy, Washington	2.0	1.0	↓ Beneficial		-4.0	↓ Adverse	Declining economy (162)
				No advantage over Pathway #1 (247)			Decreased tax base (172)
							Increased unemployment (195)
							Decreasing property values (202)



Community Dimension - Place								
Colfax, Washington Genesee, Idaho Pomeroy, Washington	0.0 2.0 1.0	0.0 1.0 1.0	↔ Same 99 ↓ Beneficial ↔ Beneficial	Maintain status quo, no changes (841)	-4.0 -3.0 -3.5	↓ Adverse ↓ Adverse ↓ Adverse	Poor/declining community appearance (513)	
				Same as Pathway 1 (930)			Increased business vacancies (521)	
							Poor/decreasing social services (570)	
							Lack of transportation facilities (602)	
							Traffic congestion/increased traffic (603)	
							Poor roads, highways, and community infrastructure (623)	
							Decline in sense of place and community pride (672)	
							Negative impacts on the number of farms and farm families (642)	
							Increasing cost of living (742)	
							Decreased income/increased poverty (751)	
							Poor air and water quality (782)	
							Community Dimension - Vision and Vitality	
Colfax, Washington Genesee, Idaho Pomeroy, Washington	0.0 2.0 1.0	0.0 1.0 0.0	↑ Same 99 ↓ Beneficial ↓ Same 99	Prepared for the future (381)	-3.0 -3.0 -3.5	↓ Adverse ↓ Adverse ↓ Adverse	Leadership decline (124)	
							Insufficient/decreasing tax base/fiscal resources (282)	
								Reduced pessimistic visions of the future (384)
								Lack of planning and ability to plan for the future (404)
								Reduced budgets (404)
								Lack of community involvement in community affairs (562)
								Negative economic opportunities (582)
Outmigration of population (892)								
Productive Dryland Agriculture Community Type								
Community Dimension - People								
Kahlotus, Washington Washtucna, Washington	2.5 2.0	1.5 2.0	↓ Beneficial ↔ Beneficial	No highly replicated justifications	-5.0 -4.0	↓ Adverse ↓ Adverse	No highly replicated justifications	
				Decrease in farms and increase in farm size (156)			Decreasing/low population (42)	
							Decreasing school enrollment (72)	
							People changing for the worse/negative change (312)	
							Loss/change in recreation/tourism opportunities (442)	
Loss of industries and lack of job opportunities (492)								
Businesses suffer (512)								

Community Dimension - Jobs and Wealth							
Kahlotus, Washington Washtucna, Washington	2.0 1.0	2.0 1.5	↔ Beneficial ↑ Beneficial	Increasing construction-related jobs (17)	-5.0 -4.0	↓ Adverse ↓ Adverse	Poor job opportunities (3)
							Decreasing job opportunities (general) (18)
							Increased utility rates (86)
							Loss of recreation and tourism-related business (134)
							Shrinking agriculture base/mining/timber (135)
							Declining tax base (172)
							Poor roads/degraded roads from trucking (223)
Loss/decrease of schools (243)							
Community Dimension - Place							
Kahlotus, Washington Washtucna, Washington	1.5 1.0	2.0 1.5	↑ Beneficial ↑ Beneficial	Current trends continue	-5.0 -4.0	↓ Adverse ↓ Adverse	Lack transportation facilities (602)
				Same as pathway 1 (930)			Poor roads, highways, and community infrastructure (623)
							Poor/loss of recreation and tourism opportunities (666)
							Negative economic impact from increased transportation costs (741)
Ruin of community, complete negative community change (844)							
Community Dimension - Vision and Vitality							
Kahlotus, Washington Washtucna, Washington	1.0 1.0	2.0 1.5	↑ Beneficial ↑ Beneficial	No highly replicated justifications	-5.0 -3.0	↓ Adverse ↓ Adverse	Leadership decline (124) Decreasing/lack of community vision and vitality (602)
Multiple Natural Resource Use Community Type							
Community Dimension - People							
Enterprise, Oregon Orofino, Idaho Riggins, Idaho Weippe, Idaho	-1.0 2.0 -2.0 1.0	-1.0 1.0 -2.0 0.0	↔ Adverse ↓ Beneficial ↔ Adverse ↓ Same 99	Current trends continue (325)	0.0 -3.0 1.0 -3.0	↑ Same 99 ↓ Adverse ↑ Beneficial ↓ Adverse	Decreasing/low population (42) Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)
Community Dimension - Jobs and Wealth							
Enterprise, Oregon Orofino, Idaho Riggins, Idaho Weippe, Idaho	-1.0 2.0 -1.5 1.5	0.0 1.0 -1.5 0.0	↑ Same 99 ↓ Beneficial ↔ Adverse ↓ Same 99	Increasing utility rates (86)	-2.0 -4.0 1.0 -2.0	↓ Adverse ↓ Adverse ↑ Beneficial ↓ Adverse	Increasing transportation costs (75) Increased cost of living (85) Increased cost of doing business (88)
Community Dimension - Place							
Enterprise, Oregon Orofino, Idaho Riggins, Idaho Weippe, Idaho	-1.0 2.0 -2.0 1.0	-1.0 2.0 -2.0 0.0	↔ Adverse ↔ Beneficial ↔ Adverse ↓ Same 99	Maintain status quo, no changes (841)	0.0-4.0 0.0 -2.0	↑ Same 99 ↓ Adverse ↑ Beneficial ↓ Adverse	Traffic congestion/increased traffic (603) Poor roads, highways, and community infrastructure (623) Poor economy (740) Negative economic impact from increased transportation costs (741) Poor air and water quality (782) Maintain status quo, no change (841)

Community Dimension - Vision and Vitality							
Enterprise, Oregon	-1.0	-1.0	↔ Adverse	Negative impacts on vision and vitality with less fish (682)	-1.0	↔ Same 99	Current trends continue
Orofino, Idaho	1.0	1.5	↑ Beneficial		-3.0	↓ Adverse	Increasing government expenditures (282)
Riggins, Idaho	0.0	0.0	↔ Same 99		1.5	↑ Beneficial	No real change in cohesiveness (363)
Weippe, Idaho	0.0	0.0	↔ Same 99		-3.0	↓ Adverse	Increased costs related to modification (702)

**Snake River Irrigated Agriculture Community Type**

Community Dimension - People							
Prescott, Washington	1.0	1.0	↔ Beneficial	Current trends continue	-4.0	↓ Adverse	Decreasing/low population (42)
Burbank, Washington	2.0	2.0	↔ Beneficial		-5.0	↓ Adverse	People changing for worse/negative change (312)
							Increase/high in traffic congestion (432)
							Loss of industries and lack of job opportunities (492)
							Unstable/poor/decreasing economy (542)

Community Dimension - Jobs and Wealth							
Prescott, Washington	1.0	1.0	↔ Beneficial	Current trends continue	-4.0	↓ Adverse	Decreasing job opportunities (general) (18)
Burbank, Washington	2.0	2.0	↔ Beneficial		-5.0	↓ Adverse	Decreasing agricultural jobs (22)
							Jobs decrease due to the ripple effect from agricultural losses (26)
							Increased utility rates (86)
							Need irrigation/irrigation-dependent farming (106)
							Shrinking agriculture base/mining/timber (135)
							Declining/limited businesses and shops (136)
							Declining tax base (172)
							Increasing poverty (187)
							Decreasing property values (202)
						Bad for community (956)	

Community Dimension - Place							
Prescott, Washington	1.0	1.0	↔ Beneficial	Current trends continue	-4.0	↓ Adverse	Poor/declining community appearance (513)
Burbank, Washington	2.0	2.0	↔ Beneficial		-2.0	↓ Adverse	Increasing store vacancies (521)
							Traffic congestion/increased traffic (603)
							Poor roads, highways, and community infrastructure (623)
							Negative impacts on the number of farms and farm families (642)
							Decline in sense of place and community pride (672)
							Poor economy (740)
							Decreasing population (823)
						Ruin of community, complete negative community change (844)	

Community Dimension - Vision and Vitality							
Prescott, Washington Burbank, Washington	1.0	1.0	↔ Beneficial ↓ Beneficial	Current trends continue	-5.0 -5.0	↓ Adverse ↓ Adverse	Diminished civic organizational capacity (12)
				Leadership decline (124)			
	2.0	1.0		Prepared for the future (381)			Insufficient/decreasing tax base/fiscal resources (202)
				Reduced pessimistic visions of the future (384)			
						Negative economic opportunities (582)	
Columbia River Agriculture Community Type							
Community Dimension - People							
Adams, Oregon Stanfield, Oregon Umatilla, Oregon	1.5	1.5	↔ Beneficial ↓ Beneficial	Growth (general) (49)	-3.0 -0.5	↓ Adverse ↓ Adverse	Unstable economy
				Land values (general) (169)			Families are becoming less stable (102)
	4.0	3.0		Increased utilities, transportation, and taxes; and decreased irrigation, loss of power (482)	-0.5 -4.5	↓ Adverse ↓ Adverse	Increasing/high public assistance (112)
							Loss of industries and lack of job opportunities (492)
3.0	2.5					Unstable/poor/decreasing economy (542)	
Community Dimension - Jobs and Wealth							
Adams, Oregon Stanfield, Oregon Umatilla, Oregon	1.0	1.0	↔ Beneficial ↔ Beneficial	No highly replicated justifications	-3.0 -0.5	↓ Adverse ↓ Adverse	Job decrease due to the ripple effect from agricultural losses (26)
							Increased utility rates (86)
	4.0	4.0			-5.0	↓ Adverse	Shrinking agriculture base/mining/timber (135)
							Decreasing property values (202)
3.0	3.0	↔ Beneficial					
Community Dimension - Place							
Adams, Oregon Stanfield, Oregon Umatilla, Oregon	1.0	1.0	↔ Beneficial ↓ Beneficial ↓ Beneficial	Current trends continue	-3.0 -2.0 -5.0	↓ Adverse ↓ Adverse ↓ Adverse	Negative effects of alternative energy production (592)
				Poor/decreasing social services (570)			Traffic congestion/increased traffic (603)
				Community growth and improvement (general) (721)			Poor roads, highways, and community infrastructure (623)
	4.0	2.0					Negative impacts on the number of farms and farm families (642)
							Poor/loss of recreation and tourism opportunities (666)
	3.0	2.5					Poor air and water quality (782)
							Ruin of community, complete negative community change (844)
				Good quality of life (901)			Increased taxes, taxes wasted, competition for tax money (883)
							Increased crime and drug use/less safety (903)

Community Dimension - Vision and Vitality							
				No highly replicated justifications			Civic organization decline (population decline/financial stress) (14)
Adams, Oregon	2.0	2.0	↔ Beneficial	Increase community cohesiveness (345)	-3.5	↓ Adverse	Lack of planning and ability to plan for the future (404)
Stanfield, Oregon	4.0	4.0	↔ Beneficial		0.0	↓ Adverse	Lack of community control of outside forces (economics/regulations) (442)
Umatilla, Oregon	2.5	2.5	↔ Beneficial		-5.0	↓ Adverse	Negative economic opportunities (582)
<sup>1</sup> Median ratings reflect invited groups' medians (see methodology for discussion of invited groups). <sup>2</sup> Directional shift of median ratings from A1 to A2 on the "Community Impact Rating Scale" (see methodology). <sup>3</sup> Salient justifications for ratings identified across all typical community cases specific to A2 or A3, in addition to those justifications given for A1.							

### 3.3.1.1 - The Trade Center Community Type

#### *Affected Environment:*

As Table 3-2 shows, the forum participants in trade-center communities like those in the region's larger cities (Kennewick, Lewiston, and Pasco) tended to rate their communities' affected environment toward the as good as it could be end of the 1999 situation rating scale across all four dimensions, and higher than participants in all other community types, with the exception of the highly productive dry-land agriculture types. Increasing population, high quality of life, low costs of utilities and living in general, good services, strong leadership, and social and economic stability characterize these communities. If their rating clusters are any indication, these communities are indeed healthy and resilient. Lewiston is a regional trade, medial, and government center; home to one of the region's most up-to-date wood and paper product plant; and has a growing travel and tourism sector. So, too, are the Tri-Cities, where Boise-Cascade, Hanford, and large government and service sectors are dominant employers. Along with growth -- especially as service and retail centers -- a trend in these cities is an increasingly diverse population of retirees and multi-ethnic groups.

Although these communities vary significantly in population, they are all relatively highly populated areas with friendly, active and involved residents and diversified economies. Clarkston was included among these communities, despite its smaller population size (6,870 people), because it is a community adjacent to the larger population center of Lewiston and has strong ties to it, as do the Tri-Cities to one another. A significant segment of Clarkston residents are commuters to Lewiston to work. Clarkston residents rate their town relatively lower than the larger trade centers in this type. The town's residents rate its Jobs and Wealth and Vision & Vitality dimensions significantly lower, in comparison to those cities; its residents indicated median ratings for all four dimensions clustering around or somewhat above the midpoint of the current situation scale. In particular, the larger cities, which have an active, involved citizenry and strong political and civic leadership, perceive themselves significantly more prepared for the future.

### *Environmental Effects:*

For each of these communities, dammed rivers in 1999 are seen as central to their character and way-of-life. In Lewiston and Clarkston, the ports located there are viewed as important facilitators of economic growth, and the current use of the river for barging and shipping is a key factor in the area's economic development. The recreational and scenic amenities associated with the existing Lower Snake River system also is perceived to be of major importance to the character of the Lewiston Valley and its tourism industry. In contrast, the Tri-Cities, located at the confluence of the Snake River, generally are not directly related to the use of the Lower Snake River; important exceptions are Pasco's dependence on the river for the irrigated farming bordering the city; and the residents' use of the Lower Snake River for flat water and reservoir type recreation opportunities.

As Table 3-3 shows, the analysis of the environmental effects of the various pathways found a forecast of beneficial effects across all four community dimensions if the existing system was maintained on to 2020, according to ratings of A1 by forum participants. With only one or two groups at the tables in Lewiston, Kennewick and Pasco, little change from A1 to A2 was found, with medians around 1 and 2 on the impact rating scale and the perception that current trends would continue (&harr;) or slightly decrease (&darr;). Ratings of A3 ranged from -2 to -5 across the four dimensions. The preponderance of -4 and -5 ratings indicate perceptions of significantly adverse impacts from A3. Justifications for these negative ratings included declining populations, schools, and economic and civic vitality, as well as increased traffic congestion, business failures, and general pessimism.

In the case of Lewiston, the dispersion of the medians was much greater for the medians for all three pathways, with a spread on A1 from -3 to 4 on all dimensions except Vision & Vitality (with a clustering from 0 to 3). The Lewiston forum's response to A2 was only slightly different from that to A1, both in dispersion and in higher ratings. A3 showed a definite decrease in ratings, indicating a movement towards being worse off most clearly on the People dimension (with a range from -2 to -5) and the Vision & Vitality dimension (with a spread of medians from 0 to -5), and a range on the other two dimensions from -5 to 2.

This spread was not found in the case of the other communities included under this type. These results suggest less consensus and a wider range of variability in likely impacts were found in the case of Lewiston than for Clarkston, Kennewick and Pasco. Ratings of perceived impacts were more negative in Pasco and Kennewick, whose direct relationship to the Snake River would mainly result in a change in the type of upriver recreation opportunities available. In addition they perceived that upstream effects on irrigation would affect the flow to the Tri-Cities of farm products and consumer purchasing by agriculture owners and workers. Significantly, the Tri-Cities actually would likely experience greater economic impacts than would the Lewiston valley, with Pasco in particular becoming a transportation hub for shipping the region's commodities.

Clarkston, which is in transition with growth as a retirement and retail trade center, forecast even greater improvement by 2020 across all four community dimensions under the existing systems than did the large communities in the Trade Center Community Type (ratings of A1 ranged from 3 to 4). Little change from A1 to A2 was found, with medians around 1 and 2 and participants perceiving that current trends would continue and any changes that would occur being beneficial. Ratings of A3 clustered around -4 to -5 across the four dimensions, indicating perceptions of significantly adverse impacts from A3.

*Holistic Assessment of Risks:*

Although Trade Center communities perceived substantial negative impacts associated with the implementation of Pathway A3, forecasted impacts vary across Kennewick, Pasco, Lewiston, and Clarkston. The fact that these communities have relatively diverse, vibrant economies and active community vision and vitality, suggests that their ability to cope and respond to adverse changes to the environment at the community level is relatively high. Additionally, these communities are highly resilient trade centers that will continue to grow and change aiding them in their ability to respond to negative impacts.

Because of replicate groups within the community forums for Lewiston, Clarkston and Kennewick, the credibility of the information received is adequate. However, there were no replicate groups in Pasco; thus their findings are less credible. This community type included four large communities, yet the overall number of participants was proportionately smaller than other communities studied. The trustworthiness of these findings are adequate, yet care must be taken when applying these to other communities as there is a wide range of contextual variation (Lewiston and Kennewick have differing relationship to the river) included in this community type.

### **3.3.1.2 - The Highly Productive Dryland Agriculture Community Type**

*Affected Environment:*

As Table 3-1 shows, those farming communities included under the Highly Productive Dryland Agriculture Community Type are ones located in highly productive grain-growing regions such as the Palouse and Camas Prairie. These towns vary in size, but are under 3,000 in population. Their economies are dominated by government (in particular, federal agricultural and resource-management agencies, state & local government -- including county and city government -- and school districts), as well as by agricultural production, storage, transport and other agricultural services.

All of these towns were rated fairly highly towards the as good as it can be end of the 1999 situation rating scale by forum participants, except for their economies, with clusters for the Jobs & Wealth dimension at or slightly below the mid-point towards the as bad as it can be end of the current situation rating scale (see Table 3-2). This position for the Jobs & Wealth dimension likely reflects the recent low commodity prices in the farm sector, as well as the participation's justifications for ratings that included poor local employment opportunities, low paying jobs, high commuting to jobs outside the community, high dependence on the government, and a shrinking agricultural base.

Positive justifications were generally found for the other, highly rated dimensions of the current situation in 1999: they included good people; conservative values; interesting communities with strong, cohesive social bonds that are reflected in the towns' numerous and varied social groups and activities; crime-free and positive customs and lifestyles; good services, facilities and attractiveness; and strong community activity, participation and leadership.

With a strong community, small-town character, and a high quality of life, these communities are perceived as active, vital places to live and work -- but they also differ significantly. Genesee has always been a small town, and a declining farming population there recently has been increasingly replaced with families whose members commute to Lewiston, Moscow, and Pullman; this change may be a factor in its being rated lower in community resilience than were Pomeroy and Colfax, which were rated highly in resilience in 1995 (see Harris *et al.*, 1996). Colfax is the largest of the three towns in size and, along with having a significant farming economy, has a major government employer as a county seat. It also is a residence for commuters to the Pullman-Moscow area. Pomeroy also is a county seat, but its population is aging and declining somewhat as young people leave the town to find work elsewhere; Pomeroy differs from the other towns of this type in that it is not a bedroom community, which is a factor underlying the population changes it is experiencing.

These towns have a significant relationship with the Lower Snake River. The most important aspect of this relationship is the high dependence of agriculture in this area on the existing river system for transportation of farm commodities, and the comparatively low cost of that transportation given the current subsidization that the current river system represents.

#### *Environmental Effects:*

The Highly Productive Dryland Agriculture Community Type is comprised of traditionally stable, wealthier, but recently changing farming, bedroom, and government-based communities. Like many of the rural farming communities, these face the out-migration of youth, consolidation of farms and the decline of local community based retail and service sectors which have relocated to regional trade centers. The forum participants of these communities perceive A1 (the existing system in 2020) to have no effect or slightly benefit their community in all four dimensions (see Table 3-3). However, some decline is forecast for some dimensions in 2020 if the existing system is maintained. Adverse effects were forecasted for the People dimension in Pomeroy (-1) and the



economic dimension of Colfax (-1). Generally, the ratings suggest the communities would be better off. Some tightening of this range is seen on A2 (major modifications), with the situation under that pathway about the same or more beneficial on most dimensions for most of the communities. Overall, not much difference is indicated from A1, given that people generally saw current trends continuing, except for increased utility rates, population changes (some up, some down), being prepared for the future, short-term jobs resulting from efforts to modify the existing hydro-system to recover the salmon stocks, and not much benefit or advantage from A2.

As Table 3-3 shows, these communities show a decline to the much worse end of the rating scale (-2.5 to -5) as the result of A3 (dam breaching and natural river drawdown), indicating that participants perceived adverse effects of this pathway on their agricultural communities to be significant. Reasons for these negative ratings included declining populations, with reduced families and schools, increased costs of business and living, decreased incomes and jobs, fewer businesses and decreased property values, shrinking wealth and tax base as a result of reduced tax revenues (resulting in reduced public-sector budgets and services at the same time that public assistance increases), and the loss of farm families, and community pride and vitality.

Were A3 to be implemented, the increased costs of transportation for farmers in this region are perceived to be one of its major impacts. For example, Genesee -- a community already in transition -- would experience some of the greatest increases in transportation costs. In addition, residents from these communities use the river for its current recreation activities and opportunities.

#### *Holistic Assessment of Risks:*

The Highly Productive Dry-land Agriculture communities perceived substantial negative social effects associated with the implementation of Pathway A3. Colfax, Genesee and Pomeroy are communities in transition. With the increase in transportation costs associated with the A3, there would significant impacts to farmers and associated agriculture services and others dependent on barge transportation. Given that these communities have a low to moderate level of resiliency and ability to adapt and respond to change, they are at a high level of risk from significant changes to the external environment. These negative effects could be somewhat moderated by the high degree of vision and vitality exhibited by communities of this type.

Because of the proportionately high number of replicate groups within these community forums, the credibility of the information received is more than adequate. This community type included three towns with a high level of participation and homogeneity. Therefore, the trustworthiness of these findings are high, yet care must be taken when applying these to other communities to the ensure community context (e.g., Palouse region highly dependent on river system for commodity transport) is matched.

### **3.3.1.3 - The Productive Dryland Agriculture Community Type**

#### *Affected Environment:*

Smaller rural towns on the less productive farmland of the Columbia Plateau are included under the Productive Dryland Agriculture Community Type. As Table 3-1 shows, agriculture production as well as government (particularly state and local government) generally dominates these communities' economies, which otherwise lack diversity. Like other communities of this type, Kahlotus, WA, and Washtucna, WA, are small towns (under 300 in population) that share a school superintendent. Both communities are farm towns located on land whose agricultural production is lower than that of land farther to the east (Palouse/Camas Prairie).

Washtucna's reported community resilience was moderately high relative to other communities in the region, likely reflecting its high civic involvement. Both Kahlotus and Washtucna reported good people with good values and a strong sense of community, stable families, and a high level of community involvement. In rating their current condition, forum participants from these communities rated themselves the highest on the Vision & Vitality dimension (an 8 out of 10; see Table 3-2). In contrast, both communities rated the state of their economies and the people as somewhat lower on the scale for their 1999 situation. The position for the Jobs & Wealth dimension likely reflects the recent low commodity prices in the farm sector, as well as reasons participants gave that included poor job opportunities, high levels of commuting, high poverty levels, and leakage of money from the community, as well as a lack of opportunities for young people.

These towns are friendly, sociable communities that perceive themselves as having a high quality of life and small-town charm, and as being safe and crime-free. Both communities also are experiencing growing numbers of residents on public assistance and a lack of involvement in community affairs by some residents. However, Kahlotus and Washtucna also differ significantly. Kahlotus has high employment in Federal government jobs -- specifically, employees of the U.S. Army Corps of Engineers. Washtucna serves as a node along an important transportation route but is characterized by a less diverse economy than Kahlotus.

#### *Environmental Effects:*

These agriculture towns of eastern Washington have a significant relationship to the Snake River. An important aspect of this relationship is the transportation of agricultural products via the river at a comparably low cost. However, due to their proximity to the Columbia River ports, the additional costs of transporting commodities via the Columbia River system as a result of changes to the current system would be minimized in comparison to the Highly Productive Dryland Agriculture Type.

Analysis of the environmental effects of the pathways found that Kahlotus and Washtucna both perceive some improvement in the year 2020 for the four community dimensions under the implementation of A1 (see Table 3-3). The sense of community and Vision & Vitality is strong for these communities, but their economies, which continue to be agriculturally dependent, are perceived to remain poor despite being beneficially affected. Similarly, both communities see themselves being beneficially affected by the implementation of A2, but that those benefits are similar to A1. Under A2 group medians across the dimensions for both towns ranged between 1.5 to 2 on the impact rating scale, with perceptions that current trends will continue and any changes that occur being beneficial. In contrast, Kahlotus and Washtucna residents perceived the clearest array of adverse impacts due to the implementation of A3. Medians of group ratings for both communities ranged from -3 for Washtucna's Vision & Vitality to Kahlotus's -5 ratings across all four dimensions. Justifications given by both communities included a perception of a shrinking agriculture base, loss of population, decreased job opportunities, increased utility rates, decreased tax base, poor roads and highways from increased trucking, as well as factors such as leadership decline and lack of recreation and tourism opportunities. Specifically, adverse local factors such as a decrease in job opportunities in Kahlotus (particularly Corps employment) was given as a justification for the negative impact rating.

#### *Holistic Assessment of Risks:*

The Productive Dryland Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Kahlotus and Washtucna are small communities highly dependent on agriculture. Given their proximity to the Tri-Cities' river ports, the negative impacts associated with increased transportation costs with the implementation of A3 are minimal compared to the Highly Productive Dry-land Agriculture Community Types. Because these communities have a low to medium level of resiliency and low economic diversity, their ability to adapt and respond to change is limited. However, negative effects to these communities could be moderated if they retain their strong, active community organization and leadership. Therefore, this community type has a moderate level of risk associated with the implementation of Pathway A3.

Because of replicate groups within the community forums, the credibility of the information received is adequate. However, this community type included only two towns, both of which were pilots. Therefore, the trustworthiness of these findings are limited and care must be taken when applying these to other communities with similar characteristics.

### 3.3.1.4 - The Multiple Natural Resource Use Community Type

#### *Affected Environment:*

As Table 3-1 shows, Riggins and Weippe are the smaller and less economic diverse communities in the group of towns of the Multiple Natural Resource Use type, while Orofino and Enterprise are larger, more economically diverse towns. These communities range from the isolated, timber town of Weippe and the recreation and tourism-dominated town of Riggins, to the more diverse, resource-use oriented communities of Enterprise (mostly farming and ranching, forestry, tourism, government) and Orofino (mostly forestry, tourism, government). All of these communities have dealt with economic transition due to changes in Federal land management practices and markets for their natural resource-based products. All have been involved in efforts to further integrate nature-based tourism into their economies. The natural amenities and rural lifestyle of all of the towns under this category are a major draw and contributor to their quality of life.

As Table 3-2 shows, forum participants in the Multiple Natural Resource Use Communities type consistently rated their community's Vision & Vitality and Place dimensions highest of the four on the as good as it can be end of the 1999 community situation scale. The justifications for these ratings are based on the participants seeing their community as being well-organized, strong in the areas of civic and political leadership, able to mobilize community groups and individuals to work together, and a high quality place -- in terms of clean air and water, attractive scenery and open-spaces, being safe and crime free, and generally having a good appearance. The next highest rated dimension was People, which scored mid-range on the rating scale. Ratings for this dimension were justified in terms of positive characteristics such as good, friendly people with good values, pride in their community, and who are actively involved in their towns. These positive characteristics were off-set by negative characteristics such as decreasing and aging populations, families becoming less stable, less wealth in the communities, and high public assistance. The Jobs & Wealth dimension was rated lowest for these communities. Its ratings were most oriented towards the as bad as it can be end of the community current situation scale. The commonly given justifications were low paying jobs, low employment for youth, decreasing job opportunities, a weak economy and high poverty.

As communities in transition, all four of the communities of this type face new challenges. Enterprise and Riggins see themselves attracting retirees and telecommuters. Residents of Weippe see themselves as having to commute further and further to find work in forestry and the forest products area. Orofino continues to work to protect its natural resource heritage, while it, like Weippe, focuses on how to capitalize on its location near the Lewis and Clark Trail and close to numerous high quality recreation resources.

### *Environmental Effects:*

The towns included under this type are located upriver from the Lower Snake River, and they are affected to the extent their local fisheries in the Clearwater and Grand Ronde Rivers are dependent on the Lower Snake for healthy salmon runs.

As Table 3-3 shows, it was apparent that active and involved residents of some towns, like Orofino and Weippe, shared the philosophies and concerns of farmers downriver from them when the forum participants from these upriver towns rated the impacts from A3 (dam breaching). Other communities, like Riggins and Enterprise, have a tourism economy that is somewhat dependent on natural amenities, and their active and involved residents perceived their community getting worse or staying the same under A1 (the existing system). Riggins participants perceived that three of the four community dimensions would improve under A3.

The invited participants at both Riggins and Enterprise saw their communities being adversely affected in 2020 if Pathway A1 or A2 were selected on three of the four dimensions (see Table 3-3). Riggins participants presented by a range from -1.5 to -2 on both A1 and A2, except for the Vision & Vitality dimension (with a median of 0), the same as the 1999 rating. A3 was seen as being clearly beneficial in this upriver, recreation-oriented town.

Orofino's invited participants perceived beneficial changes across all dimensions under either A1 or A2 (1 to 2). Under A3, Orofino participants' ratings were -3 or -4, the lowest of all the communities in this community type.

Weippe's invited participants reported some improvement, or at least no change in 2020 under A1 and A2. Their ratings for A3 were similar to those of Orofino and they too perceived adverse effects. The justification for the negative ratings were increased costs of living and negative impacts (economic, air and water quality, *etc.*) from increased road transportation. Both Orofino and Weippe participants voiced concerns about impacts to the forest products industry in the region.

Overall, the Multiple Natural Resource Use Community Type perceived natural river drawdown or dam breaching more positively, and as having greater potential to create beneficial effects, than did any of the other community types. The analysis of the impact rating justifications suggests that these communities see themselves less directly connected to the commodity transportation issues of the Snake River and more influenced by the recovery of the salmon. The recovery of the salmon, which would add to their nature based tourism product mix, also would simply provide more fishing opportunities as well as enhance their sense of place.

### *Holistic Assessment of Risks:*

The Multiple Natural Resource Use communities perceived a range of potential impacts associated with the implementation of Pathway A3, from somewhat beneficial to very adverse. Enterprise, Riggins, Orofino and Weippe are more distant from the immediate lower Snake River region yet could be beneficially affected by increased salmon runs. As suggested by their identified impacts and the travel and tourism nature of their local economy, Riggins, Orofino and Enterprise perceived some benefits from increased salmon runs and adverse impacts associated with declining salmon and steelhead runs under Pathways A2 and A3. However, participants in Orofino and Weippe in north central Idaho perceived adverse impacts associated with the implementation of Pathway A3, such as increased transportation and utility costs and possible effects on the traditional forest industry of the area. Given these communities' varied perceptions of the risks associated with A3, the mix of beneficial and adverse impacts, and their active, on-going efforts to adapt and respond to socio-economic changes, these communities have a low to moderate level of risk.

Because of the number of replicate groups within these community forums, the credibility of the information received is more than adequate. This community type included four towns with a high level of participation across a diversity of community interests within each of the forums. Therefore, the trustworthiness of these findings are high, yet care must be taken when applying these to other communities to the ensure community context (e.g., level and type of resource dependency and relationship to the salmon fishery) is matched.

#### **3.3.1.5 - The Columbia River Agriculture Community Type**

##### *Affected Environment:*

As Table 3-1 shows, communities of the Columbia River Agriculture Community Type typically are small to mid-sized in population, and they are located in the downriver region of the impact area as defined by the Army Corps of Engineers. These towns are farming or resource-based. While they are perceived to have good customs and small-town lifestyles, friendly people, and a high quality of life, they also have aging populations, poor services and declining appearance that are of concern to some in the community.

Represented in this assessment by Adams, OR, Stanfield, OR, and Umatilla, OR, these communities have a low to moderate rating of their economies, with clusters of ratings oriented towards the middle and "bad" end of the 1999 community situation rating scale (see Table 3-2). These communities' economies typically are characterized by dryland and irrigated agriculture, as well as government sector jobs and, in the case of Stanfield and Umatilla, some travel and tourism employment. Communities within this community type generally have low levels of economic diversity and local, well-paying jobs, as well as low resiliency, although Stanfield's situation has changed for the better with the establishment of a major wholesale distribution center and also rail expansion.

Hermiston, Oregon, is also becoming an important distribution center for the transportation of wholesale goods and is experiencing an increase in job opportunities and population. Likewise, Umatilla is located on a major transportation corridor to the Tri-Cities.

#### *Environmental Effects:*

The communities in the Columbia River Agriculture Type do not have a direct relationship with the Snake River, although some residents may occasionally use it for recreation purposes. They rely on transportation of their commodities through ports on the Columbia River. However, community residents have a general mistrust of the federal government, and they believe that if dams were to be breached on the Snake River, the Columbia River dams would face similar challenges. This belief and their fears of the consequences (which would be significant were the Columbia River dams to be breached) affected their perceptions of the proposed pathways.

Under the implementation of A1, forum participants from these communities perceive that the community dimensions would be beneficially affected if the existing system is maintained on into the year 2020, with group medians ranging from 1 on Adams' Place dimension to Stanfield's 4 across all dimensions and Umatilla's falling in between. There was little change in ratings from A1 to A2 for the three communities in this type. The five groups who attended the Burbank forum perceived that the future would bring significant improvement under both A1 and A2 (major system modification). Stanfield perceived the greatest benefits from the implementation of A1 and A2 as they generally rated a 4 on the community impact rating scale with exception of the People and the Place in A2.

In the case of A3 (dam breaching), all the communities generally see themselves as being adversely effected as a result of implementation of dam breaching with the exception of Stanfield. A divergence in group medians within the community forum was found in the case of A3, with the invited group perceiving that subsequent adverse impacts would be much worse (-5), while the perceptions of other participants were less negative. One explanation for this apparent split is the focus on impacts at a regional level rather than local, community level and the fear of that breaching would occur to the Columbia River dams in the future. Salient justifications given across all communities for their ratings included an increase in utility rates, shrinking agriculture base, job losses from an agricultural decline, increased traffic congestion, higher taxes and issues such as loss of parks and open spaces as well as decreasing air and water quality.

#### *Holistic Assessment of Risks:*

The Columbia River Agriculture communities perceived slightly to very adverse impacts associated with the implementation of Pathway A3 are communities in transition. However, given Adams, Stanfield and Umatilla's proximity to the Tri-Cities and the indirect nature of their relationship to the lower Snake River, risks associated with the implementation of A3 are minimal compared to other communities in the study. A confounding factor for this community type is the perception that removal of dams on the Snake River will result in the removal of dams on the Columbia River in the future.

Because of the number of replicate groups within the Stanfield and Umatilla forums, the credibility of the information received is adequate. However, care must be taken when using the findings from the Adams forum since there was only one, relatively non-diverse group present. This community type included three towns. Therefore, the trustworthiness of these findings are adequate, yet care must be taken when applying these to other communities of this type.

### **3.3.1.6 - The Lower Snake River Irrigated Agriculture Community Type**

#### *Affected Environment:*

Prescott, WA, and Burbank, WA, are representatives of the irrigated agriculture community type on the Lower Snake River. Prescott is a town involved in major transitions in all of the four dimensions of community: People, Jobs & Wealth, Place and Vision & Vitality. Prescott has been undergoing a social transition, with the incorporation of an expanding Hispanic population into the area's rural lifestyle, and culture and value differences will continue to make this a challenge, as it has been in Burbank. Both Prescott and Burbank are characterized by high ethnic diversity, with growing Latino populations, leading to increasing school enrollment.

Due to Prescott's lack of jobs, Walla Walla has become the place where many residents work, shop and send their children to school. Burbank has long functioned as a bedroom community for the Tri-Cities. Both communities characterize themselves as having poor job opportunities and low paying jobs. Burbank is an unincorporated community just outside the Tri-Cities in central Washington, and the community's low resilience classification is mirrored by its low ratings on the Vision & Vitality and Jobs & Wealth dimensions (see Table 3-2). Economic circumstances affecting these towns include dependence on irrigated agriculture and the increasing number of persons working elsewhere, a unstable and poor local economy, low wealth, high public assistance, and a lack of spirit and pride in community.

Like Burbank, forum participants in Prescott rated the Jobs & Wealth dimension among the lowest at the as bad as it can be end of the scale, and this situation, along with the infusion of new people, is placing stress on the community's leadership and organization capacity. The complexity and the dynamics of the social change taking place make it difficult for the community to have a clear vision of its future. As Table 3-1 shows, Prescott's has a low community resiliency rating, yet is faced with significant challenges. Its economic vitality associated with irrigated agriculture is critical to the continued survival of its school system and avoiding any increase in the local population's dependence on public assistance.

As Table 3.2 shows, the forum participants in these communities consistently rated their community's People and Place dimensions the most positively on the current situation scale, although the highest rating in this community type are only mid-scale. As an unincorporated town, Burbank is comprised of a school district, and it is not surprising that forum participants rated its Vision & Vitality dimension with the lowest median -- a "3" -- for any town examined in the assessment. The justifications for these ratings are based on the participants seeing their community as not being well-organized, lacking



community pride, unable to mobilize community groups to work together and individuals to become involved, and not being prepared for the future. Both communities of this type noted their perception of being under the control of outside forces, and the negative effects of an insufficient or decreasing tax base and fiscal support for community services. Despite these kinds of justifications, however, the Place dimension is the most positive of the four dimensions for this type, with characteristics like good schools, good parks and open spaces -- especially river-recreation ones related in the case of Burbank -- and a strong level of community participation, although the close-knit, cohesive sense of community is perceived to be declining.

#### *Environmental Effects:*

As Table 3-2 shows, the forum participants at both Prescott and Burbank reported median ratings for all four community dimensions for A1 and A2 that were identical: 1 in the case of Prescott and 2 for Burbank. The participants perceived both A1 and A2 as being beneficial to each of the four community dimensions, and comments indicated they did not perceive any significant difference between the two pathways. The impacts under A3 were clustered at the "much worse off and adversely affected" end of the impact rating scale (-4 to -5) for both towns on all four community dimensions. The justifications provided included irrigation and negative farm impacts, resulting in fewer agriculture jobs, as well as a ripple effect through the economy with less wealth, reduced tax revenues and an insufficient tax base, at the same time that infrastructure needs increase, due to increased trucking, traffic congestion, and roadway impacts.

#### *Holistic Assessment of Risks:*

Snake River Irrigated Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Prescott and Burbank are communities in transition with an increasing number of residents on public assistance and poor job opportunities. Coupled with the fact that these communities have a low level of resilience, the potential loss of irrigated agriculture lands from the implementation of A3 would have significant negative impacts these communities and their ability to adapt and respond to changes.

Because of replicate groups within the community forums, the credibility of the information received is adequate. However, this community type included only two towns, one of which was a pilot. Therefore, the trustworthiness of these findings are limited and care must be taken when applying these to other communities with similar characteristics.

### **3.4 - Key Findings**

Key findings presented in the report focus on four areas. One is the community typology that was developed on the basis of the community assessment. Findings also are reported about the impacts perceived by participants in the community forums, as well as findings about the resilience of the different types of communities assessed and the risk to them based on perceived impacts. The third area of findings focuses on participants' ideas about actions that could be taken to minimize the negative effects on communities of efforts to recover salmon runs, both generally and specifically looking across pathways and at each type of community. Finally, other, more general findings about the assessment process, participants in the forums, and the issue of salmon recovery are presented.

Trustworthiness (Erlandson *et al.*, 1993) of the findings were increased by using replicated groups, triangulation of sources (multiple community members) consistently following a set of rules and procedures, and maintaining a chain of evidence. Forum participants were asked to justify or explain the reasons behind their ratings to reduce the need of the researchers to interpret the meanings of the ratings. This approach allowed the reporting of the meaning using the words, and associated meaning, of the forum participants.

To enhance the transferability of the findings to other similar communities, the attempt is to present a description of each community, community type, individual, and the context of a community relative to the proposed pathways. Second, we purposely sampled diverse roles (yet the same roles) in each of the communities studied to elicit the maximum variation of viewpoints. Finally, we have tried to develop and make accessible a data base where ideas given by forum participants can be traced to the conclusions drawn.

By design, these findings do not represent all people who live in a particular community. Rather, they document the range of viewpoints held by the diverse type of people who live and are actively involved in community affairs. Random sampling was not used because it would not have insured the inclusion of all the different interests and leaders who make things happen at the community level.

#### **3.4.1 - Findings Related to Perceived Impacts**

Agriculturally based communities and ones closest to the segment of the Lower Snake River were those that perceived the impacts of Pathway A3, dam breaching and natural river drawdown, to their communities to be the most severe and adverse. These towns and cities in the "reservoir region" included the Tri-Cities (Trade Center Type) and the small farming towns of the Columbia Basin, the Palouse, and the Camas Prairie -- especially ones dependent on irrigated farming and dry-land agriculture for whom transportation costs would increase (Irrigated Agriculture Type and Productive and

Highly Productive Dry-land Agriculture Types). The farming communities in the "downriver region," which were asked to focus on their local environment and the Snake River, as opposed to the Columbia River, exhibited more of a "halo effect" in their assessment of impacts. This reflected their antipathy towards the Federal government and its activities, and their belief in a domino effect of dam breaching that eventually would extend to the Columbia and have major impacts on them, even if there were no direct impacts of Pathway A3 on the Snake River on them.

### **3.4.2 - Findings Concerning Community Resilience and Assessment of Risk**

A important contribution of the community assessment is of the risk to communities potentially impacted by the three Corps pathways, as based on the results of the assessment. Those results suggest that communities of some types would be at greater risk of being significantly affected by proposals to change the existing river system on the Lower Snake River than would other types. The degree to which a community is at-risk was assessed based on two factors: 1) the town or city's current community capacity to respond to change, which is dependent on the community's affected environment; and 2) the perceived degree and kind of impact the community would experience, or the environmental effects of a particular pathway, if each one of the three pathways was implemented. However, an exhaustive analysis of risk across communities examined in Phase I and Phase II is beyond the scope of this research. The following is a brief summary of the risk identified by forum participants and the degree of forecasted impacts as identified by

#### ***The Trade Center Community Type:***

Although Trade Center communities perceived substantial negative impacts associated with the implementation of Pathway A3, forecasted impacts vary across Kennewick, Pasco, Lewiston and Clarkston. The fact that these communities have relatively diverse, vibrant economies and active community vision and vitality, suggests that their ability to cope and respond to adverse changes to the environment at the community level is relatively high. Additionally, these communities are highly resilient trade centers that will continue to grow and change aiding them in their ability to respond to negative impacts.

#### ***The Highly Productive Dryland Agriculture Community Type***

The Highly Productive Dryland Agriculture communities perceived substantial negative social effects associated with the implementation of Pathway A3. Colfax, Genesee, and Pomeroy are communities in transition. With the increase in transportation costs associated with the A3, there would significant impacts to farmers and associated agriculture services and others dependent on barge transportation. Given that these communities have a low to moderate level of resiliency and ability to adapt and respond to change, they are at a high level of risk from significant changes to the external environment. These negative effects could be somewhat moderated by the high degree of vision and vitality exhibited by communities of this type.

### ***The Productive Dryland Agriculture Community Type***

The Productive Dryland Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Kahlotus and Washtucna are small communities highly dependent on agriculture. Given their proximity to the Tri-Cities' river ports, the negative impacts associated with increased transportation costs with the implementation of A3 are minimal compared to the Highly Productive Dry-land Agriculture Community Types. Because these communities have a low to medium level of resiliency and low economic diversity, their ability to adapt and respond to change is limited. However, negative effects to these communities could be moderated if they retain their strong, active community organization and leadership. Therefore, this community type has a moderate level of risk associated with the implementation of Pathway A3.

### ***The Multiple Natural Resource Use Community Type***

The Multiple Natural Resource Use communities perceived a range of potential impacts associated with the implementation of Pathway A3, from somewhat beneficial to very adverse. Enterprise, Riggins, Orofino and Weippe are more distant from the immediate lower Snake River region yet could be beneficially affected by increased salmon runs. As suggested by their identified impacts and the travel and tourism nature of their local economy, Riggins, Orofino and Enterprise perceived some benefits from increased salmon runs and adverse impacts associated with declining salmon and steelhead runs under Pathways A2 and A3. However, participants in Orofino and Weippe in north central Idaho perceived adverse impacts associated with the implementation of Pathway A3, such as increased transportation and utility costs and possible effects on the traditional forest industry of the area. Given these communities' varied perceptions of the risks associated with A3, the mix of beneficial and adverse impacts, and their active, on-going efforts to adapt and respond to socio-economic changes, these communities have a low to moderate level of risk.

### ***The Columbia River Agriculture Community Type***

The Columbia River Agriculture communities perceived slightly to very adverse impacts associated with the implementation of Pathway A3 are communities in transition. However, given Adams, Stanfield, and Umatilla's proximity to the Tri-Cities and the indirect nature of their relationship to the lower Snake River, risks associated with the implementation of A3 are minimal compared to other communities in the study. A confounding factor for this community type is the perception that removal of dams on the Snake River will result in the removal of dams on the Columbia River in the future.

### ***The Snake River Irrigated Agriculture Community Type***

Snake River Irrigated Agriculture communities perceived substantial negative impacts associated with the implementation of Pathway A3. Prescott and Burbank are communities in transition with an increasing number of residents on public assistance and poor job opportunities. Coupled with the fact that these communities have a low level of resilience, the potential loss of irrigated agriculture lands from the implementation of A3 would have significant negative impacts these communities and their ability to adapt and respond to changes.

### 3.4.3 - Findings Concerned with Minimizing Negative Impacts

#### 3.4.3.1 - General Observations

Participants at each community forum identified potential measures to minimize the negative socioeconomic impacts they identified for each Pathway. This brainstorming activity was designed to be open and unstructured in order that participants would feel free to provide any and all ideas about how to minimize impacts in their community. Several consistent and identifiable patterns emerged from these data. First, participants from nearly all communities found it necessary to propose measures that went beyond their community and were more regional in nature (see Table 3-4). Second, as much as participants were asked to suggest measures to address socioeconomic effects they often felt compelled to say something about biological issues as they related to the potential decline of salmon populations. Third, there often was great disparity between the kinds and magnitude of effects identified by participants for each Pathway and the measures they suggested to minimize the negative socioeconomic effects at the community level for that pathway. Fourth, communities and community types that were more directly dependent on, and would be more directly impacted by changes to the existing lower Snake River system demonstrated the greatest ability to articulate community level measures to minimize negative socioeconomic effects. A greater amount of diversity of brainstormed local socioeconomic measures also occurred across the facilitated groups in these communities. The community types where this was most prevalent were Highly Productive Dry-land Farming, Multiple Natural Resource and Snake River Irrigated Agriculture.

Community	Pathway A1		Pathway A2		Pathway A3	
	Local <sup>1</sup>	Regional <sup>2</sup>	Local <sup>1</sup>	Regional <sup>2</sup>	Local <sup>1</sup>	Regional <sup>2</sup>
<b>Trade Center Community Type</b>						
Clarkston	Increased local government involvement in salmon recovery efforts	Habitat improvement	Financial cost-shared by entire county	More effective modifications developed	Improved transportation systems (rail and highway access)	None
		Predation control			Plans for exposed lands	
		Increased hatcheries			Plans for economic diversification	
	Tax incentives to barging - dependent businesses					
Kennewick	Financial cost-shared by entire county	None	Financial cost-shared by entire county	None	None	Expansion of nuclear power

Lewiston	None	Increased research	Financial cost-shared by entire county	Increased research	Improved transportation systems (rail and highway access)	None	
		Develop new hatcheries		Develop new fish hatcheries	Cap on utility rates		
		Increased information and public education		Increased public information and education	Economic compensation to bargaining-dependent businesses		
				More effective modifications	Incentive for economic development		
				Reduce litigation	Financial cost-shared by entire county		
Pasco	Increased local government involvement in salmon recovery efforts	Stop salmon harvest	None	None	Compensation to farmers and migrant workers for lost jobs and land	Control of predators	
		Modification of ESA			Minimizing effects of hatchery fish on wild salmon		
					Expanding the capacity of power grids		
<b>Highly Productive Dryland Farming Community Type</b>							
Colfax	Increased local control over the river	Reduce salmon harvesting	Address short-term effects of implementation (school enrollment, population, housing, and roads)	More effective modifications to the dams	Improved transportation systems (rail and highway access)	None	
	Financial cost-shared by entire county	Improve habitat		Amend the ESA	Identified contingency plans		Increased grain storage facilities
		Funding for infrastructure modifications					
		Decreased over-the-road taxes					
		Decreased regulations on trucks					
		Modify restraints on CRP program					
		Strengthen social services of community (stress and health problems)					
		Job retraining					
		Business development incentives					
Genesee	Industrial diversification	Improve research (ocean conditions, predation, fish passage)	Financial cost-shared by entire county	Less expensive and more effective dam modifications	Road repair costs paid for externally	Development of alternative power sources	
	Increased grain prices				Job retraining		
	Implement activities to improve social cohesion				Incentives for economic diversification		
	Lower input costs for farming				Improved transportation system (supply of rail cars)		
	Lower taxes				Farmer-owned railroads		

Pomeroy	Diversify reservoir recreation	Increased fish farms	School and service grants to accommodate construction workers	Increased fish farms	Long-term financial compensation to farmers	Improved grain-loading facilities in the Tri-Cities	
	Increased government spending locally	Improved fish bypass technology	Grants to diversify local economy	Improve upstream migration and habitat	Aid to displaced farmers	Guarantee grain prices	
	Grain to agriculture lands to improve water quality	Eliminate habitat threats	Increasing recreational opportunities along the reservoirs		Economic diversification grants		
		Decrease Native American harvest	Increased governmental spending locally		Compensation for higher utility rates		
		Remove threat of dam breaching	Local labor for dam modifications		Infrastructure improvements (build and maintain railroad, grain storage, and provision of rail cars)	Cap on utility rates	
							Minimize disruption of barge traffic
			Modification to affected water wells				
			Conversion of exposed shoreline to private property				
<b>Productive Dryland Farming Type</b>							
Kahlotus <sup>3</sup>	--	--	--	--	--		--
Washtucna <sup>3</sup>	--	--	--	--	--		--
<b>Columbia River Agriculture Type</b>							
Adams	None	Enforce international fishing limits	None	Enforce international fishing limits	None	None	
		Ban commercial fishing		Ban commercial fishing			
		Invest in continued research		Invest in continued research			
		Increase coordination and harmony between responsible agencies		Increase coordination and harmony between responsible agencies			
Stanfield	Increase local involvement in salmon recovery decision making	Limitations on gill nets and ocean fishing	Increase local involvement in salmon recovery decision making	Limitations on gill nets and ocean fishing	Tax incentives for economic growth	Address increased risks of flooding in the floodplain	
				Improve regional transportation systems			
Umatilla	None	Regional monitoring of wild salmon	Financial cost-shared by entire county	Regional monitoring of wild salmon	Grants to diversify economy	None	
		Development of one comprehensive plan of action		Development of one comprehensive plan of action	Increased control of the river by local residents		Federal government funding for additional power plants

Snake River Irrigated Agriculture Type						
Burbank	None	Halt all fishing	None	Halt all fishing	Compensation for loss of property values	More fully involve Native Americans in fish recovery efforts
		Enforcement of international treaties		Enforcement of international treaties	Low interest loans to modify irrigation pumps	
		Improved habitat		Improved habitat	Job retraining	
		Improve barging technology		Improve barging technology	Assistance to dislocated workers	
					Farm relocation	
					Economic diversification grants	
					Grants to take advantage of increased fish runs	
					Funding to supplement schools	
					Improvements to Highways 12 and 124 (4-lanes)	
					Expanded rail and port facilities	
Modifications to river parks						
Measures to minimize dust and truck emissions						
Prescott <sup>3</sup>	--	--	--	--	--	--
Multiple Natural Resource Uses Type						
Enterprise	None	Improve salmon habitat	Preference to local contractors for modifications	Improve salmon habitat	Improve rail system with fair pricing	None
		Control predators	Compensation for unfunded mandates	Control predators	Grants and loans to businesses for economic development	
		Increase fishing regulations		Increase fishing regulations	Promote fish-related tourism	
		Improve hatcheries		Improve hatcheries		
		Modify ESA or declare fish extinct		Modify ESA or declare fish extinct		
		Improve regional coordination		Improve regional coordination	Improve regional coordination	
			Modification of the four Columbia River dams			
		Increased monitoring of the fisheries				



Orofino	Halt water augmentation from Dworshak Reservoir	None	Halt water augmentation from Dworshak Reservoir	None	Halt water augmentation from Dworshak Reservoir	None
	Offset negative trends in recreation visitation to Dworshak Reservoir		Offset negative trends in recreation visitation to Dworshak Reservoir		Offset negative trends in recreation visitation to Dworshak Reservoir	
	Compensation to the community for lost Dworshak Reservoir recreation		Compensation to the community for lost Dworshak Reservoir recreation		Compensation to the community for lost Dworshak Reservoir recreation	
	Revert Dworshak Reservoir to original commission		Revert Dworshak Reservoir to original commission		Revert Dworshak Reservoir to original commission Financial compensation to river shippers Investment in rail and road infrastructure Power cost-shared by the entire county	
Riggins	Monetary compensation for decrease in salmon runs	Water augmentation for salmon recovery	Monetary compensation for decrease in salmon runs	Water augmentation for salmon recovery	None	Subsidies to mitigate farmers increased transportation costs
		Banning commercial ocean fishing		Banning commercial ocean fishing		Subsidies for increased utility rates
		Predation control		Predation control		Improving rail transportation systems
		Limitations on gillnetting		Limitations on gillnetting		
Modifications to Columbia River dams	Modifications to Columbia River dams					
Weippe	Increased local involvement and control in salmon recovery	None	Preference to local contractors and labor for dam modifications	Restrictions on salmon harvesting (ocean and river)	Financial incentives to diversify local economic base	None
			Utility costs shared by the entire county		Strengthen tourism and outdoor recreation industries	

<sup>1</sup>Identified measures to minimize local adverse impacts.

<sup>2</sup>Identified measures to minimize regional adverse impacts.

<sup>3</sup>These communities were pilot communities, and no data was collected related to minimizing adverse impacts.

### **3.4.3.2 - Findings Across Pathways**

In general communities focused on regional measures such as the need to address habitat improvement, ocean and in-river harvest and the effects hatcheries under Pathways A1 and A2. Additionally, participants called for increased local involvement in salmon recovery decision making. For A2 and A3 participants identified the need to have the costs of implementation and utility rates shared by the nation and not borne by specific communities and the region.

Under Pathway A3, across all community types, participants noted the need for infrastructure improvements and economic assistance to diversify local economies and compensation to interests that currently depend on barging transportation. The focus of Downriver communities on regional and non-local level measures provides evidence they perceived their community would be less affected and/or more indirectly affected. Whereas the highly productive dry-land farming communities, which perceived direct socioeconomic effects on their community, identified specific and detailed measures to minimize negative these socioeconomic effects under Pathway A3. This ability to identify measures that parallel or correspond to the effects substantiates the contention that participants were able to see the interrelationships between proposed pathways and local environmental effects. This rational, logical reaction was probably not devoid of emotion, but it certainly less so than some of the reactions from downriver communities and communities in the Trade Center Community Type. It is interesting to note that these directly affected communities often rated A3 less negatively than indirectly impacted communities who based their rating justifications on highly charged perceptions such as if these dams go so too will the dams on the Columbia, federal government is bad and only interested in control, and other such comments based on mistrust.

### **3.4.3.3 - Findings By Community Type**

The following sections provide an overview of common themes identified across communities within community types and some unique measures identified at both the regional and local level to minimize negative impacts. It is important to note that these measures as identified by community participants are specific to the community. Although there may be common themes across all community types or within all community types there is not a "one-size-fits-all" action to minimize negative impacts across all communities. The impacts and the communities are unique and each community has different capabilities to deal with distinct direct, indirect and perceived impacts. To minimize the negative impacts of implementing any of these Pathways it would be prudent to assess and design mitigation strategies at the community, county, and regional level with direct input from these stakeholders.

### ***Trade Center Community Type***

Under the implementation of Pathway A1, Clarkston and Pasco identified the need for the local government to become more involved in salmon recovery efforts, while Kennewick participants identified the need for any costs incurred as a result of this Pathway to be spread out across all citizens across the country. Regional considerations tended to focus more on specific elements of the management of the waterway system and the fisheries themselves. Specific issues identified included a need to improve salmon habitat, reduce salmon predators, and to reduce or eliminate commercial and recreational harvest.

For A2, Clarkston, Kennewick and Lewiston each felt that if this pathway were to be implemented, all costs should be shared by the entire country. Regional considerations included the need to develop the necessary technology to make effective modifications to the dams.

Lewiston and Clarkston generally identified similar measures to minimize negative impacts with the implementation of Pathway A3. In particular, these communities identified a need for an improved infrastructure, including road and highway access. They also identified the need for economic development plans and incentives for businesses previously dependent on barge transportation. Few regional issues were identified.

### ***Highly Productive Dryland Community Type***

Under the implementation of Pathway A1, no local measures were identified across all communities. However, Colfax identified the need to increase local control over the Snake River and Pomeroy felt that measure needed to be taken to increase the diversity reservoir-related recreation as well as to increase government spending locally. Regional considerations tended to focus on the management of the river system and the fisheries themselves. Specific issues identified included addressing salmon fish passage, reducing salmon harvest, increasing habitat, and the possibility of amending the Endangered Species Act.

Colfax and Pomeroy identified the need to address the short-term effects of any increase in population due to an in-migration of construction workers to modify the dams with the implementation of Pathway A2. Similarly, Colfax, Genesee and Pomeroy all identified the need to develop more effective dam modification technology for salmon recovery. Specific local measures identified by Pomeroy participants included increased local spending by the government and to contract local labor for modifications, as well as increasing the number of recreation opportunities. Specific regional measures identified by Colfax included the need to develop contingency plans in the event predicted outcomes of salmon recovery do not meet threshold levels.

For the implementation of Pathway A3, the highly productive dry-land communities felt that significant steps would need to be taken to improve highway and rail transportation, improve grain storage, and guarantee the availability of rail cars for alternative modes of grain distribution. Additionally, Colfax, Genesee and Pomeroy each identified the need for business redevelopment and incentives for economic diversification to minimize

adverse impacts. Specific measures identified at the local level included Colfax's need to strengthen social services to handle increased implementation-related stresses and health problems. Genesee identified the need for job retraining, and Pomeroy felt that long-term compensation for displaced farmers would be required with the implementation of A3.

### ***Productive Dry-Land Farming Communities***

The two communities in this type were pilot communities and therefore were not given the opportunity to identify means of minimizing negative impacts to the community. It may be reasonable to assume that given the opportunity to identify mitigation these communities would identify actions similar to those identified by the highly productive dry-land farming communities. One distinction that might affect this assessment is that the direct financial impact to these farms and farmers would be significantly less than those in the highly productive dry-land farm types.

### ***Multiple Natural Resource Communities***

Under Pathways A1 and A2, no measures to minimize community level or regional impacts were identified across all communities. Specific local level measures for these Pathways included providing monetary compensation to communities for the declining salmon runs and the need to have increased local involvement and control in salmon recovery efforts. Specifically, Orofino was concerned about the minimizing the negative effects of continued flow augmentation from Dworshak on the recreation and tourism industry and the need to compensate the local community for losses.

Additionally under Pathway A2, community members identified the need to provide preferences to local contractors and laborers for modification activities on the four lower Snake River Dams.

Regional suggestions included the need to address declining habitat, improve hatcheries and to further restrict ocean and in-river harvest. Under A2, regional suggestions included the need to modify the four lower Columbia River dams with comparable fish by-pass technology.

Under Pathway A3, three of the four communities in this type identified local level measures to minimize community level impacts. Riggins did not identify any local level measures. Common ideas included economic assistance in the form of grants to assist in community development, economic diversification, and strengthening and promoting fishing related recreation and tourism as well as direct compensation to shippers affected by the loss of barge transportation. Suggestions related to infrastructure included the provision of improved rail and road access and service at competitive prices.

Although Riggins did not identify negative local level impacts under this Pathway, forum participants did identify regional measures to subsidize regional ratepayers and farmers who currently move their commodity on the river system and to improve the regional transportation system.

### ***Columbia River Agricultural Communities***

These communities tended to focus on regional level measures to minimize negative impacts across all Pathways and did not identify many salient local level measures although in general they tended to rate the Pathway A3 towards the very negative or adverse end of the scale.

Under Pathways A1 and A2, no measures to minimize community level or regional impacts were identified across all communities. Local level measures specific to individual communities for these Pathways included increasing local involvement in salmon recovery decision making and for A2 sharing the costs of implementation with the entire country. Regional measures included the development of a regional comprehensive plan of action and an increased coordination between responsible agencies. Other regional measures included continued investment in research, limitations on in-river and ocean harvesting and the enforcement of international fishing treaties.

No local level measures to minimize negative impacts under A3 were identified across all communities in this type. Specific measures included tax incentives and grants to promote economic growth and diversification as well as an improved transportation system. Umatilla participants identified the need for federal funding to complete the additional power plant. Stanfield participants identified the need to address the risks of flooding in the Columbia River flood plain as one regional measure.

### ***Snake River Irrigated Agricultural Communities***

Only one irrigated agricultural community, Burbank, provided information to minimize negative impacts. Prescott was a pilot community and therefore did not have the opportunity to provide this information. It may be assumed that there may have been many similarities between these communities.

Under Pathways A1 and A2, no local level measures were identified to minimize negative impacts. Regional suggestions included the enforcement of international treaties, improving habitat, halting in-river and ocean fishing and improving barging technology.

Under the implementation of A3, participants identified local measures to minimize impacts to the community's economy and infrastructure. These economic measures included financial compensation for losses, low interest loans, and direct assistance to dislocated agricultural workers. Suggestions to minimize community infrastructure and services included funding to support schools, highway improvements (US 12 and SR 124), expanded rail and port facilities, modification of river parks and measures to minimize the effects of increased trucking and dust emissions. One regional measure included the need to more fully involve Native Americans in the salmon recovery efforts.

### 3.4.4 - Other Findings

Rural communities are in transition and on-going changes, such as increased commuting for employment opportunities, their use as "bedroom communities," outmigration of youth, and the continuing consolidation of farms, are common place in participants' perception for their community's future. Findings also included the paradox that rural community residents generally oppose Federal government intervention, yet they are highly dependent on federal subsidies and government employment.

The research team was surprised by how willing participants, especially those in small towns, were to come out, discuss and learn from one-another. The community forum process took over four hours, yet few people left prior to the completion of the forums. Participants were very willing to share with their opinions with their neighbors and learn how others felt the community might be affected by the proposed pathways.

These discussions and sharing of ideas increased participants' comprehension of the complexity of the issues involved -- resulting in greater social learning and two-way communication between people and Corps of Engineers. The interactive process involved in the community forums provided a rich source of information and insights into key issues, concerns and perceptions of impacts. The team concluded from its analysis of the qualitative data, in particular, that people did see the linkages among specific social and economic impacts of the pathways across community dimensions.

Another general finding was that the concept of dam removal is a very emotional issue. Participants came to the forums with intense feelings, whether pro or con, on the various pathways. The research team noted that the level of interest in the issue is apparently higher in small towns, where it is the talk of the town. Proportionately, more people came to the forums in the small communities than in larger ones. Whereas, fewer people turned out in larger communities than larger ones. Many possible reasons could explain this phenomenon including the implementation effects were often perceived to be greater in smaller communities; in a city, residents are not as close socially or they feel less empowered; some people (large or small towns) feel that the Corps has already made their decision; many are burned-out and exhausted from previous meetings and rallies; or people believe that, in a larger community, they can rely on others to participate.

The assessment team noted that the common belief across all communities was that the Corps has already made a decision and that the interactive community forums were an attempt to rationalize a decision post-hoc. Also, the team experienced concern for who is ultimately in charge and responsible for decisions affecting salmon recovery, as well as frustration over the lack of local control over these decisions.

The complexity of the current situation, complete with a multitude of data sources and results, has lead to confusion amongst the public and has increased the anxiety over the lack of certainty in knowing what is happening and what is going to happen. Some of this is due to the sheer amount of information, while others find competing scientific information confusing. Many people were well informed, which was reflected in the quality of questions asked and their desire to understand the science behind the issue.

A halo effect was noted in forum participants' ratings, especially in communities that had little or no direct relationship to the Snake River. In these communities, participants believed that any actions to remove dams on the Snake River would lead to the removal of Columbia River dams ("if it happens on the Snake River, it won't be long before it happens on the Columbia River").

Mistrust was apparent at many of the forums where participants expressed concerns that they were somehow being manipulated by the government to give certain desired (by Federal agencies) answers. This finding shows how difficult the task of meaningful public involvement really is for Federal agencies.

## SECTION 4 - CONCLUSIONS

The community assessment conducted as Phase I in the direct impact region (southeastern Washington, northeastern Oregon, and north central Idaho) was effective in meeting its stated goals of 1) assessing the current characteristics and conditions of the region's communities (*i.e.*, *affected environment*); and 2) assessing residents' perceptions of the impacts on their communities of the three pathways being considered for salmon recovery on the Lower Snake River (*i.e.*, *environmental effects on the communities*). In a true two-way communication process, the UI research team informed the public about the information and data on the impacts of the pathways that decision-makers were assembling for evaluating those pathways and recommending a preferred pathway. At the same time, the public from a theoretical sample of the diversity of communities across the impact region informed the assessment team with their perceptions of the affected environment and the likely environmental effects of the pathways on their communities.

A typology of communities, or array of kinds of communities having common characteristics, emerged as a result of conducting the interactive process involved in the community forums. The typology depicts the range of kinds of communities that are found in the region, what they have in common, and what distinguishes among them in terms of significant differences. The community typology presented here is based on communities' relationships to the river, economic base and level of diversity, population, and other key factors identified in the community forums.

Another contribution of the community assessment is the identification of social and economic risk to communities that could result if the proposed pathways for salmon recovery were implemented. Findings suggest that different community types would differ in the extent to which communities would be at risk of being significantly affected by proposals to change the existing river system on the Lower Snake River.

This dominantly qualitative assessment of community perceptions has limitations. Results of this assessment must be interpreted, understood, and used within the qualitative and quantitative research framework. Care was taken to employ conservative statistical analyses such as the use of median ratings within communities and to use replication logic as opposed to sampling logic to make scientifically defensible inferences. The ratings presented and discussed here are not representative of the total population of the communities studied, but rather capture the diversity of perceived effects and associated justifications from citizens who are actively involved in their communities or interested in the salmon recovery issue. Finally, the ordinal scales used in this research have little utility without the companion use of the qualitative justifications.

The benefits and costs to local residents of the three pathways can vary within communities, as well as across communities and the geographic region being assessed. Nonetheless, given the legal requirement currently mandating the Federal government to recover the salmon stocks, understanding who the likely winners and losers are, and the trade-offs associated with the various pathways, is critical for sound



decision-making. To some people, the loss of the salmon stocks and the extinction of the affected species, should it occur, is an irreversible and unacceptable outcome. To other people, the loss of jobs, and potentially families and social services, not to mention the character of the place they call home, is irreplaceable. For them, the welfare of people living and working in the region, which depends on economic development and the area's built environment, is paramount -- irregardless of the impact on the runs of wild salmon.

## SECTION 5 - REFERENCES

Erlandson, D.A., E.L. Harris, B.L. Skipper, and S.D. Allen. 1993.

*Doing naturalistic inquiry -- A guide to methods.* Newbury Park, CA, Sage Publications.

Harris, C.C., McLaughlin, W.J., G. Brown, and D. Becker. Forthcoming.

*An assessment of small rural communities in the Interior and Upper Columbia River Basins.* General Technical Report. USDA Forest Service, Pacific Northwest Experiment Station, Portland, OR.

Miles, M., and M. Huberman. 1994.

*Qualitative data analysis: A source book of new methods.* Second edition. Newbury Park, CA, Sage Publications.

Strauss, A. and J. Corbin. 1990.

*Basics of Qualitative Research.* Newbury Park, CA, Sage Publications.

U.S. General Accounting Office (GAO). 1990.

*Case Study Evaluations.* Transfer paper 10.1.9. Program Evaluation & Methodology Division, GAO, Washington, DC.

Yin, Robert K. 1989.

*Case Study Research: Design and Methods.* Newbury Park, CA, Sage Publications.

## APPENDIX A - PRESENTED IMPACT INFORMATION

All information presented to the public was extracted from draft Corps and NMFS technical studies, reviewed with the authors, and presented to the public as preliminary and under review. Pathway 2 results from PATH on salmon recovery probabilities were presented as model results with disagreement between scientists about the assumptions about delayed mortality and the continuing review by NMFS and the Independent biological review team.

Presented Impacts	Pathway A1: Maintenance of Existing System	Pathway A2: Systems Modifications	Pathway A3: Natural River Drawdown
<b>Adams, Oregon</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Projected decrease in yellow perch, bluegill, crappie, and largemouth
	No significant changes in reservoir fish populations projected	No significant changes in reservoir fish populations projected	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating
	Decreased probability of future recreational fishing of wild salmon and steelhead	Decreased probability of future recreational fishing of wild salmon and steelhead	Primitive camping available at reemerging island in the river
			Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
			Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
			Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea Sites: North Shore Ramp - Remove boat ramp, parking lot, and toilets; Charbonneau - Close marina and swimming beach; Levey - Relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - Relocate boat ramp and toilets, day-use area, and campground without water, close swimming beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Grain and other commodities shift to rail and truck, which will increase trucking-related jobs and services
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	This will result in increased truck traffic from Eastern Washington and Idaho to ports on the McNary and John Day pools; increase in transportation costs; a decrease in net farm income, and less household spending and related jobs
	No change in average transportation costs	No change in average transportation costs	
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	
	Continued dredging for Snake River channel maintenance		
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of Lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Snake River
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation
		Dam breaching activities	

<b>Salmon Recovery</b>	48-year Chinook recovery probability	48-year Chinook recovery probability	48-year Chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over Pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recover
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">PATH 1998 Final Report and Executive Summary</a> (click on "wildlife" twice		
<b>Burbank, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15 percent loss in BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon. Projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish populations projected	No significant changes in reservoir fish populations projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future recreational fishing of wild salmon and steelhead	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea Sites: North Shore Ramp - Remove boat ramp, parking lot, and toilets; Charbonneau - Close marina and swimming beach; Levey - Relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - Relocate boat ramp and toilets, day-use area, and campground without water, close swimming Beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increases in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Increase of truck volume by 3 to 4 times
			Decrease in net farm income
			Potential increase in transportation costs of \$0.01 - \$0.05 per bushel for Walla Walla County
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of Lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Modification to 13 wells at a price of \$3.4 million
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Irrigation intakes modification costs of \$291 million
			Cost to replace/modify pump systems exceed the value of irrigated land along the river in Walla Walla County
			Potential loss of employment related to irrigated agriculture on the Snake River



<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation
			Dam breaching activities
<b>Salmon Recovery</b>	48-year Chinook recovery probability	48-year Chinook recovery probability	48-year Chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over Pathway 1. Preliminary reason for no improvement is assumption of delayed mortality.	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery??		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirement for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">PATH 1998 Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Clarkston, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon. Projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish populations projected	No significant changes in reservoir fish populations projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future recreational fishing of wild salmon and steelhead	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Bryan: Boyer Park and Marina - Relocate boat ramp, close marina and beach, access limited to north side of river; Illia Landing - Dunes would remain, close boat ramp, and access limited to south side of river
			Lower Granite Lake: Chief Timothy State Park - Relocate boat ramp, close marina and beach, and access limited to north side of river; Greenbelt and Southway - Relocate boat ramp; Nisqually John - Close boat ramp and day-use without water; Clearwater Ramp - Relocate boat ramp; Chief Looking Glass - Close boat ramp

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increases in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to port on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Asotin County - \$0.26 per bushel
			Decrease in net farm income
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Need to modify Clarkston Golf Course water intake, power supply, and utility building
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		40 percent of Asotin County well within 1 mile of Snake River would be modified
			Costs for modifications would be at least \$16.9 million dollars
			Increased capital expenses and increased short-term related employment
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities

<b>Salmon Recovery</b>	48-year Chinook recovery probability	48-year Chinook recovery probability	48-year Chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Probability model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery?		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">PATH 1998 Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Colfax, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon. Projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish populations projected	No significant changes in reservoir fish populations projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Bryan: Little Goose Landing - Close boat ramp and dock - primitive access; Central Ferry - Relocate boat ramp, close swimming beach-campground without water; Garfield Ramp - Close primitive boat ramp; Willow Landing - Close boat ramp, hunting, and fishing access; Illia Landing - Dunes would remain, close boat ramp; Boyer Park and Marina - Relocate boat ramp, close marina and beach, access limited to north side of river
			Lower Granite Lake: Wawawai Landing - Boat ramp and access road relocated, access limited to north side of river; Blyton Landing - Close boat ramp, limited access; Chief Timothy - Relocate boat ramp, close beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic in Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Whitman County - \$0.15 - \$0.20 per bushel Decrease in net farm income
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Increased costs to wells within 1 mile of lower Snake River. Potential loss of employment related to irrigated agriculture on the Snake River
	Farmers along the lower Snake River would continue to pump water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation Dam breaching activities

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over Pathway I. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery??		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state & local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">PATH 1998 Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Enterprise, Oregon</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15 percent loss in BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating; primitive camping available at reemerging island in the river; development camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvest	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lower Granite Lake: Wawawai Park - campground and day-use without water; Wawawai Landing - boat ramp and access roads relocated; Blyton Landing - close boat ramp, limited access; Nisqually John - close boat ramp and day-use without water; Chief Timothy - Relocate boat ramp, close beach; Swallows Park - Relocate boat ramp, close beach, close beach, and day-use area without water; Clearwater Ramp - relocate boat ramp
<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Wallowa County - \$0.06 per bushel
			Decrease in net farm income



<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Snake River
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region from 3-5 years
			Continued hatchery operation
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery??		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">PATH 1998 Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Genesee, Idaho**

<b>Power</b>	No change in regional energy productions	Slight increase in regional energy production due to system operations	15 percent loss in BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating; primitive camping available at reemerging island in the river; developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Bryan: Boyer Park and Marina - relocate boat ramp, close marina and beach, access limited to north side of river; Illia Landing - Dunes would remain, close boat ramp, and access would be limited to south side of river
			Lower Granite Lake: Wawawai Park - campground and day-use without water; Wawawai Landing - Boat ramp and access road relocated; Blyton Landing - close boat ramp, limited access; Nisqually John - Close boat ramp and day-use without water; Chief Timothy - Relocate boat ramp, close beach; Swallows Park - Relocate boat ramp, close beach and day-use area without water; Clearwater Ramp - Relocate boat ramp

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Latah County - \$0.15 - \$0.40 per bushel
			Decrease in net farm income, household spending, and related job
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated employment on the Ice Harbor reservoir
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation
			Dam breaching activities

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Kahlotus, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15% loss in BPA's energy capacity, 5% loss of regional energy capacity, reconfiguration of regional transmission, assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project), increase in consumer utility rates, and increase of jobs in related construction and operations
	No change in utility rate from this action	Demand for power in region may continue to grow	
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating; primitive camping available at reemerging island in the river; developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant change in reservoir fish population projected	No significant changes in reservoir fish populations projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Sacajawea: Windust - boat ramp relocated, close beach; Mathews - extended boat ramp
			Lake West: Devil's Bench - extended boat ramp and parking lot; Ayer - close boat ramp, docks, and facilities; Lyons Ferry - relocate boat ramp, close beach and day-use area; Lyons Ferry Marina - close boat ramp and marina
			Lake Bryan: Little Goose - close boat ramp, primitive access point; Central Ferry - relocate boat ramp, close beach
<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging along the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Increased grain transportation cost of \$0.01 - .10 per bushel in Adams County and \$0.03 - .04 in Franklin County currently transported on the lower Snake River
	No change in average transportation costs	No change in average transportation costs	Increase in truck traffic by 4-6 times through Washtucna from the current level in Kahlotus
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased maintenance costs of road system
	Continued dredging for Snake River channel maintenance		Increase in trucking-related jobs and services

<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)			

**Kennewick, Washington**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operations	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs



<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish populations projected	No significant changes in reservoir fish populations projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea: North Shore Ramp - remove boat ramp, parking lot, and toilets; Charbonneau - close marina and swimming beach; Levey - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Walla Walla County - \$0.01 -.05 per bushel, Franklin County - \$0.03 - .04 per bushel
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Irrigation intake modification costs on Ice Harbor Reservoir of \$291 million (estimated)
	Farmers along the lower Snake River would continue to pump water for irrigation purposes		Cost to replace/modify pump systems drawing from Ice Harbor Reservoir exceeds value of irrigated land in Walla Walla and Franklin Counties
			Potential loss of employment related to irrigated agriculture on the Snake River

<b>Implementation</b>	Implementation of previously planned upgrades to dams and future retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operation
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Lewiston, Idaho</b>			

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs
<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Bryan: Boyer Park and Marina - relocate boat ramp, close marina and beach, access limited to north side of river; Illia Landing - dunes would remain, close boat ramp, and access would be limited to south side of river

			Lower Granite Lake: Wawawai Park - campground and day-use without water; Wawawai Landing - Boat ramp and access road relocated; Blyton Landing - close boat ramp, limited access; Nisqually John - close boat ramp and day-use without water; Chief Timothy - relocate boat ramp, close beach, day-use area without water; Clearwater Ramp - relocate boat ramp
<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Nez Perce County - \$0.30 - \$0.33 per bushel
			Decrease in net farm income, household spending, and related jobs
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream

<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Water supply modification costs in Lewiston of at least \$11 million dollars
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Increased capital expenses
			Increased short-term related employment
			Potlatch Corp: Modification of primary plant intake and plant diffuser
			Lewiston Golf Club: Modification of utility building, water intake, and power supply
			Atlas Sand and Rock: Modification of utility building, water intake, and power supply
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Orofino, Idaho**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs
<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lower Granite Lake: Wawawai Park - campground and day-use without water; Wawawai Landing - Boat ramp and access road relocated; Blyton Landing - close boat ramp, limited access; Nisqually John - close boat ramp and day-use without water; Chief Timothy - relocate boat ramp, close beach, day-use area without water; Clearwater Ramp - relocate boat ramp

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Clearwater County - \$0.23 per bushel
			Decrease in net farm income
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Ice Harbor reservoir
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
		Dam breaching activities	



<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Pasco, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea Sites: North Shore Ramp - remove boat ramp, parking lot, and toilets; Charbonneau - close marina and swimming beach; Levey - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
	Continued dredging for Snake River channel maintenance		Potential increase in transportation costs: Walla Walla County - \$0.01 - \$0.05 per bushel; Franklin County - \$0.03 - 0.04 per bushel
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Irrigation intake modification costs on the Ice Harbor reservoir of \$291 million (estimated)
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Cost to replace/modify pump systems drawing from Ice Harbor reservoir exceeds value of irrigated land in Walla Walla and Franklin Counties
			Potential loss of employment related to irrigated agriculture on the Snake River

<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Pomeroy, Washington**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Bryan: Little Goose Landing - close boat ramp and dock - primitive access; Central Ferry State Park - relocate boat ramp, close swimming beach, campground without water; Garfield Ramp - close primitive boat ramp; Willow Landing - close boat ramp, hunting and fishing access; Illia Landing - dunes would remain, close boat ramp; Boyer Park and Marina - relocate boat ramp, close marina and beach, access limited to north side of river
			Lower Granite Lake: Wawawai Landing - Boat ramp and access road limited to north side of river; Blyton Landing - close boat ramp, limited access; Chief Timothy - relocate boat ramp, close beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River, grain and other commodities shift to rail and truck, increased trucking-related jobs and services, increased truck traffic from Eastern Washington to ports on the McNary and John Day pools, increase in transportation costs of at least \$0.15 - \$0.20 per bushel in Garfield County, decrease in net farm income
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	
		No change in average transportation costs	
		Continued dredging for Snake River channel maintenance	
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Well modification costs in Garfield County estimated to be \$3.8 million
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Potential loss of employment related to irrigated agriculture on the Snake River
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
		Dam breaching activities	

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Prescott, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production	Loss of 5 percent of the region's energy capacity
	No change in utility rates from this action	Demand for power will continue to grow	Loss of 15 percent of BPA's energy capacity
	Demand for power will continue to grow		Construct two 250-megawatt natural gas turbines in the Hermiston/Umatilla, Oregon, region, increasing jobs in related construction



<b>Recreation</b>	Continued reservoir recreation opportunities	Continued reservoir recreation opportunities	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	All existing recreation sites would remain open	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decline in commercial harvest rates and recreational fishing of salmon and steelhead	Decline in commercial harvest rates and recreational fishing of salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Sacajawea: Charbonneau - boat ramp relocated, close marina and beach; Fishhook - relocate boat ramp and parking lots, close beach; Windust - boat ramp relocated, close beach; Mathews - extend boat ramp
			Lake West: Ayer - close boat ramp, docks, and facilities; Lyons Ferry State Park - relocate boat ramp, close beach and day-use area; Lyons Ferry Marina - close boat ramp and marina
			Lake Bryan: Little Goose - close boat ramp, primitive access point

<b>Transportation</b>	No change in regional transportation system	No change in regional transportation system	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Traffic volume would continue at the current level	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
			Increase of truck volume by 3 to 4 times
			Potential increase in transportation costs of \$0.01 - \$0.05 per bushel for Walla Walla County
			Decrease in net farm income
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
<b>Water Supply</b>	No effects on water supply	No effects on water supply	Modification to 13 wells, at a price of \$3.4 million
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes	Irrigation intakes modification costs of \$291 million
			Cost to replace/modify pump systems exceed the value of irrigated land along the river in Walla Walla County
			Potential loss of employment related to irrigated agriculture on the Snake River
			Potential change in Prescott school enrollment and employment

<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine improvements, fish barging, and surface bypass collectors	Breaching of the four lower Snake River dams
	Cost of implementation would be \$551 million (average annual costs of \$63 million)	Cost of implementation would be \$664 - \$802 million dollars depending on modifications (average annual costs of \$62 - \$65 million)	Increased construction workers in the region for 3-5 years
	Slight increase in construction jobs	Construction impacts resulting in increased jobs	Preliminary total cost of implementation is \$1.1 billion over 10 years (average annual cost of \$67 million)
	Continued fish hatchery operation		Railroad and roadway damage repair
			Recreation access modification
			Restoration and revegetation on river banks within 10 years and related jobs

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Riggins, Idaho</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
		No change in average transportation costs	Increase in trucking-related jobs and services
		Continued dredging for Snake River channel maintenance	Decrease in net farm income
			Potential increase in transportation costs of at least \$0.17 per bushel for Idaho County
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary

<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Ice Harbor reservoir
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Stanfield, Oregon**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea Sites: North Shore Ramp - remove boat ramp, parking lot, and toilets; Charbonneau - close marina and swimming beach; Levey - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach
<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
		No change in average transportation costs	Increase in trucking-related jobs and services
		Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
			No increased transportation costs for Umatilla County
			Decrease in net farm income



<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Irrigation intake modification costs on Ice Harbor reservoir of \$291 million (estimated)
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Cost to replace/modify pump systems drawing from Ice Harbor reservoir exceeds value of irrigated land in Walla Walla and Franklin counties
			Potential loss of employment related to irrigated agriculture on the Snake River
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Umatilla, Oregon**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs
<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Wallula Sites: Potential increase in reservoir recreation visitors displaced from the lower Snake River
			Lake Sacajawea Sites: North Shore Ramp - remove boat ramp, parking lot, and toilets; Charbonneau - close marina and swimming beach; Levey - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach; Fishhook - relocate boat ramp and toilets, day-use area and campground without water, close swimming beach

<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Decreased probability of future wild salmon harvests	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Snake River
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
		Dam breaching activities	

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		
<b>Washtucna, Washington</b>			
<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity, 5 percent loss of regional energy capacity, reconfiguration of regional transmission, assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project), increase in consumer utility rates, and increase of jobs in related construction and operation
	No change in utility rates from this action	Demand for power in region may continue to grow	
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	

<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
			Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest
			Lake Sacajawea: Windust - boat ramp relocated, close beach; Mathews - extend boat ramp
			Lake West: Devil's Bench - extended boat ramp and parking lot; Ayer - close boat ramp, docks, and facilities; Lyons Ferry State Park - relocate boat ramp, close beach and day-use area; Lyons Ferry Marina - close boat ramp and marina
			Lake Bryan: Little Goose - close boat ramp, primitive access point; Central Ferry - relocate boat ramp, close beach

<b>Transportation</b>	Continued reservoir recreation opportunities	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	All existing recreation sites would remain open	Rail and truck traffic would continue at current levels	Increased grain transportation cost of \$0.01 - \$0.10 per bushel in Adams County and \$0.03 - \$0.04 in Franklin County currently transported on the Snake River
	No significant changes in reservoir fish population projected	No change in average transportation costs	Increase in truck traffic by 4-6 times through Washtucna from the current level in Kahlotus
	Decreased probability of future wild salmon harvests	Continued dredging for Snake River channel maintenance	Increased maintenance costs of road system
			Increase in trucking-related jobs and services
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
			All but the finest sediment will be deposited in Lake Wallula
			Very fine sediments would continue downstream of McNary to the Columbia Estuary
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Modification of Franklin County wells of \$9.6 million
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		Cost to replace/modify pump systems exceeds the value of irrigated land along the river in Franklin County
			Potential loss of employment related to irrigated agriculture on the Lower Monumental reservoir

<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Increased construction workers in the region for 3-5 years
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Railroad and roadway damage repair
	Continued fish hatchery operation		Recreation access modification
			Restoration and revegetation on river banks within 10 years
			Potential loss of Corps of Engineers employees living in the region
<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

**Weippe, Idaho**

<b>Power</b>	No change in regional energy production	Slight increase in regional energy production due to system operation	15 percent loss of BPA's energy capacity
	No change in utility rates from this action	Demand for power in region may continue to grow	5 percent loss of regional energy capacity
	Demand for power in region may continue to grow	If costs of modification are passed on to consumers, average monthly household utility rates would increase (actual amount pending)	Reconfiguration of regional transmission
			Increase in commercial utility rates of \$6.50 - \$36.00 per month
			Increase in household utility rates of \$1.00 - \$5.75 per month
			Assumed construction of natural gas power plants near Hermiston and Umatilla, Oregon (non-Federal project)
			Increase in related jobs
<b>Recreation</b>	Continued reservoir recreation opportunities	All existing recreation sites would remain open	Projected increase in smallmouth bass, pike minnow, and sturgeon; projected decrease in yellow perch, bluegill, crappie, and largemouth
	All existing recreation sites would remain open	Continued reservoir recreation opportunities	Rafting, canoeing, kayaking, tubing, drift boats, and jet boating. Primitive camping available at reemerging island in the river. Developed camping along the river would continue, but many campgrounds would be a few hundred feet from the river
	No significant changes in reservoir fish population projected	No significant changes in reservoir fish population projected	Old road and railroad beds would reemerge and become suitable for hiking, biking, and horseback riding along the shoreline
	Decreased probability of future wild salmon harvests	Decreased probability of recreational fishing of wild salmon and steelhead	Increased hunting opportunities
			Increased probability of future wild salmon and steelhead harvest



<b>Transportation</b>	No change in regional transportation system	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Discontinue barging on the lower Snake River
	Barging along the lower Snake River would continue as the primary mode of transporting wheat and barley from the region	Rail and truck traffic would continue at current levels	Grain and other commodities shift to rail and truck
	No change in average transportation costs	No change in average transportation costs	Increase in trucking-related jobs and services
	Traffic volume would continue at current levels	Continued dredging for Snake River channel maintenance	Increased truck traffic from Eastern Washington to ports on the McNary and John Day pools
			Potential increase in transportation costs: Clearwater County - \$0.23 per bushel
			Decrease in net farm income
<b>Air and Water Quality</b>	No change from the current situation is projected	No change from the current situation is projected	Increased truck and rail traffic
			Increased fossil fuel emissions (preliminary analysis indicates compliance with EPA air quality standards)
			50 percent of lower Snake River deposited sedimentation will be eroded and transported downstream
<b>Water Supply</b>	No effects on water supply	Farmers along the lower Snake River would continue to pump water for irrigation purposes	Potential loss of employment related to irrigated agriculture on the Ice Harbor reservoir
	Farmers along the lower Snake River will be able to continue pumping water for irrigation purposes		
<b>Implementation</b>	Implementation of previously planned upgrades to dams and retrofits and rehabilitation	Major system modifications, including turbine modifications and surface bypass collectors	Railroad and roadway damage repair
	Slight increase in construction jobs	Short-term construction and creation of related jobs	Recreation access modification
	Continued fish hatchery operation		Restoration and revegetation over next 10 years
			Increased construction workers in the region for 3-5 years
			Continued hatchery operations
			Dam breaching activities

<b>Salmon Recovery</b>	48-year chinook recovery probability	48-year chinook recovery probability	48-year chinook recovery probability
	Preliminary average mid-point estimate 49 percent (model runs show probability below threshold set by NMFS)	Model and results in review process. Pathway two model results show no improvement over pathway 1. Preliminary reason for no improvement is assumption of delayed mortality	Preliminary model results show average probability for spring/summer at 83 percent and for fall at 95 percent chance of recovery
	What is salmon recovery???		
	Eventual delisting of species (no longer in danger of extinction)		
	No regulatory oversight by Federal agencies		
	No legal requirements for state and local actions to consult with Federal agencies		
	Fishery management authority reverts back to state		
	<a href="#">1998 PATH Final Report and Executive Summary</a> (click on "wildlife" twice)		

## APPENDIX B - COMMUNITY DIMENSIONS USED IN THE INTERACTIVE COMMUNITY FORUMS

### The People

#### *Your Community's Social Make-Up*

This dimension refers to characteristics of individuals or households in your community. Characteristics relating to the individual or household might include your community's population size, how rapidly it is growing or losing population, its age and family structure, as well as the make-up of various groups of people, including their ethnicity, their values and lifestyles, and other kinds of diversity.

Some questions for you to think about:

- To what extent is your community's **population** increasing or decreasing in size?
  - Is your community's population **aging**? Is there an increasing amount of older people living in your community?
  - Are growing numbers of **retirees** living in or moving to your community?
  - To what extent is *ethnic diversity* an important element of the social make-up of your community? Is that **diversity** increasing or decreasing?
  - Is **school enrollment** increasing or decreasing?
  - To what extent do people have **extended families** living in your community? Are your relatives or children moving away?
  - Do most people in your community own their **own homes**? Has this changed in recent years?
  - To what extent are individuals and households on **public assistance** in your community?
  - What are the most **prevalent values** in your community -- how would you describe your community's **customs & lifestyle**?
  - Are **families stable** in your community?
- 
-

## Jobs & Wealth

### *Your Community's Economy*

This dimension refers to the major businesses and sources of jobs in your community, and the diversity of your economy in terms of the variety of businesses, industries, and financial assets (the amount of capital or wealth) available to support your community's services and activities.

The major businesses and industries of your community, such as manufacturing, services, retail and wholesale trade, agriculture, forestry, and government are interrelated and provide a source of jobs and income. The relative mix of jobs and income in these industries is an indication of your community's economic diversity.

Some questions for you to think about:

- How would you assess the **job opportunities** in your community -- are there many, and how well do they pay?
  - To what extent do people have to **commute** to other places to work?
  - What proportion of your community's adults are **unemployed**? How many people in your community are employed?
  - What is the **economic base** of your community -- do a few major industries or businesses dominate, or is your community **economically diverse**?
  - To what extent are **public sector jobs** a major part of your community's economy? Are many people employed by federal, state, county, and municipal agencies? To what extent are **schools** a major employer?
  - Where does **money go** from sales in your community -- does it flow out to other places? Is **income reinvested** in local businesses and the community or is it invested elsewhere?
  - How **wealthy** are people in your community? What is the proportion of households in your community living below the **poverty level**?
  - How costly is it to live in your community? How **costly are utilities** such as electricity where you live relative to other places in the U.S.?
  - Are **property values** comparatively high or low in your community?
- 
-

## The Place

### *The Character of Your Community*

This dimension refers to the characteristics of the human-built and natural environment of your community. Your community's physical infrastructure and built-environment includes characteristics such as the attractiveness of the downtown, the quality of the community's roads, and traffic safety and congestion, as well as the level of social services provided. Your community's natural environment includes characteristics such as parks, fields and rivers, as well as the attractiveness of the surrounding scenery.

Some questions for you to think about:

- What is the **appearance** of your community's central downtown and of its residential areas?
  - How many **storefronts are vacant** -- are they increasing or decreasing?
  - To what extent do **people shop** in your community opposed to elsewhere?
  - How adequate are the **social services** (*i.e.*, health, safety, and education) in your community? Are your medical facilities, community/senior centers, *etc.*, adequate? Are there an adequate number of doctors, parks, and police available in your community? How adequate are your schools?
  - How **safe and crime-free** do people feel in your community?
  - What are the **dominant modes of transportation** (*i.e.*, car, truck, railroad, and barging) that moves people and goods in your community?
- 1.
- How are the conditions of **roads and highways** in your community and region? Are they adequately maintained? Are you at a central crossroads?
  - Is there **traffic congestion** in your community? How **safe** are your streets?
  - Are there changes in your community's **land-use patterns**?
  - How is **land tenure and absentee ownership** of farms changing?
  - What is happening to the **size of farms** surrounding the community? Is there any annexing of farmland to residential areas?
  - To what extent does your community have **parks, open space and rivers**?
  - How **attractive** is the community's surrounding **scenery**?
  - What is the level of **air and water quality** in your community?
  - Overall, how would you describe the **sense of place** in your community? How **attached** are people to your community?

---

## Vision and Vitality

### *Your Community's Organization and Leadership Capacity*

This dimension refers to the characteristics of your community's social organizations, including the number of civic groups and their level of activity. This dimension also refers to your community's cohesiveness -- the extent to which people identify with your community, are committed to it, and work together to get things done. In addition, this dimension refers to the effectiveness and vitality of your community's government and its ability to accomplish its goals. Finally, this dimension refers to your community's vision for the future and your desire and preparedness to make that future a reality.

Some questions for you to think about:

- How many **civic organizations** are active in your community?
  - What is the level and quality of **political and civic leadership** in your community?
  - How large is your community's **budget**, and what is your level of **government expenditures**?
  - Has your community successfully used **bonds and levies** to pay for projects?
  - To what extent does your community have adequate **fiscal resources and tax revenues**?
  - Does your community have any economic **development** plans? Has the community engaged in a process of planning or zoning?
  - Has your community applied for and received **grants**?
  - To what extent does your community have **control** over influential events as opposed to being affected by outside forces?
  - How **prepared for the future** is your community? Has your community discussed its **vision for the future** and how to realize that vision?
  - How would you describe the level of **social activities** (*i.e.*, events and festivals) in your community? Are there many church or school activities?
  - How **friendly and interesting** is your community?
  - How do people respond to and **cope with change**? How would your community respond to future changes?
  - What is your community's level of **cohesiveness** or commitment to the community and ability to work together to get things done?
-