

# Understanding Community Attitudes about Aging Dams

*A Guidebook for Assessing Local Community Interest*



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USDA-Natural Resources Conservation Service  
Illinois  
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section **1**

# Overview

*Introduction*

*Purpose  
of the  
Guidebook*

*Guidebook  
Organization*

## Introduction

---

Americans have been damming rivers since the beginning of their national history. Dams were integral to the settlement of the United States. The dams and their impounded waters were used to operate grain mills, control floods, water livestock, move timber, irrigate farmland, and more. Over two thousand dams were built between European settlement and 1900.

### **Dam Removal Facts...**

- *According to American Rivers, nationwide more than 465 dams have been removed in all regions of the United States, with the most recorded removals in Wisconsin.*
- *Most dam removals occurred in the 1980s and 1990s. The year in which there were the most removals was 1998, when 29 structures were taken out.*
- *The total number of documented dam removals is small. Since the 1920s, just over 0.5 percent of dams in the national inventory have been removed. (Aspen Institute, 2002. Dam Removal)*
- *All types of dams have been breached, from water supply to hydroelectric, flood control to recreation. Removed dams have been publicly and privately owned, and some have been abandoned.*

It was in the 20<sup>th</sup> century however, that most of America’s dams were constructed. Dam building was driven by a growing population and their needs, irrigation of the West, and the engineering advancements that made them possible. Massive dam projects were undertaken by federal agencies such as the U.S. Army Corps of Engineers. Other dams were built by private industry. Thousands of small local dams were built with support of Soil Conservation Service (now NRCS) through its small watershed programs. There are now an estimated 2.5 million dams on American rivers and streams.

Today attention is focused on the consequences of this legacy. These dams are aging. Currently, more than one quarter of dams in the United States exceed their 50 year projected life span. By the year 2020, 85 percent will be more than 50 years old. Some dams have outlasted their original purpose and are without any

## section 1

### Overview

### *Purpose of the Guidebook*

official function, though many continue to provide important societal benefits. Others have been abandoned because they are no longer economically viable or do not comply with modern safety standards. Dam owners who need to renew regulatory licenses must demonstrate a public interest in the dam's operation. As the nation's dams age, become obsolete, or are abandoned, decisions must be made to restore, rebuild, or remove them.

Rehabilitation of dams may be appropriate when they perform flood control, municipal water supply, recreational, and other community functions. However, for nonfunctional aging dams, removal is increasingly being considered as an alternative to remediation and repair. Dams can be dangerous to people fishing, swimming and boating near them. Deteriorating dams are a threat to human life and property if they fail. They have significant negative environmental impacts, by creating deep still pools that fragment rivers, block fish passage, and degrade water quality. Maintaining, fixing, and updating old dams to solve their safety and environmental problems can be prohibitively expensive, particularly when an obsolete dam doesn't generate revenue. For purposes like flood control, there may also be less costly, non-structural alternatives.

Some local communities, however, strongly object to dam removal. Especially when a dam is situated on a major waterway important to the town, changing the river by taking out a dam is threatening. Though the dam may have no official function, the impounded reach of river has become the focus of community events and activities. It is a source of community pride and image. It is often lined with trails, parks, and local establishments; depicted in the town logo; frequented by visitors; and promoted by business and developers. To local citizens, the river with its dam and impoundment is the way it has "always" been and the way it "should" be. Without the dam and its pool, some say, the beauty of the river, the desirability of the community as a place to live, and the viability of the entire "River Town" is at risk.

## ***Purpose of the Guidebook***

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This guidebook is a tool for understanding community attitudes about dams and dam removal projects. It can be used by anyone who has an interest in what happens to a dam, including dam owners, decision-makers, and concerned citizens. The guidebook describes methods for learning:

- **How important are the dam, waterway, and related features to the local community?**
- **Why are they important?**
- **What do people like and dislike about current conditions near the dam?**
- **What impact do people think removing the dam will have?**
- **What are the preferences of local people for the dam and waterway?**



Understanding community attitudes informs the planning process by indicating how much public interest there is in the issues. It reveals local concerns that can be incorporated early on so the potential for misunderstanding, conflict, and delay is reduced. It identifies misconceptions that can be addressed with education. Ultimately, understanding public attitudes can help people make and implement better dam and river management decisions.

## ***Organization of the Guidebook***

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The guidebook has six sections:

- Section 1** describes some of the reasons why dam removal has become an important river management issue.
- Section 2** gives a brief primer on community attitude assessments: what they are and why they are useful; who can conduct attitude assessments; and a little insight to the complexities of the work.
- Section 3** details how to do basic attitude assessments using interviews, observation, existing information, and focus groups.
- Section 4** describes how to go beyond a basic attitude assessment with public surveys.
- Section 5** has considerations for involving the public in dam management decisions.
- Section 6** consists of case studies of communities in the Fox River watershed in northeastern Illinois. General themes are discussed first, followed by a brief description of the findings for each town.

*section* **2**

# **Introduction to Attitude Assessments**

*What are they?*

*Why do them?*

*What are the limitations?*

*What are the methods?*

*Who can conduct attitude assessments?*

## ***What are attitude assessments?***

---

In this guidebook, “attitude assessment” refers to the process of gathering information about the subjective opinions, beliefs, feelings, and perceptions of people in a community.

## ***Why do attitude assessments?***

---

Attitude assessments highlight the human and community dimensions of the dam removal alternative. They give insight to what people think, feel, and believe about rivers, dams, and dam management strategies.

### **Organize an appropriate planning process**

Knowing what people think about rivers and dams informs the planning process. An abbreviated planning process with few public input activities may be warranted if the local community expresses little interest in the dam. Contrast when people are strongly attached to a dam and impoundment. Clearly this demands a more collaborative approach with the community most impacted by changes to the river.

### **Develop effective educational initiatives**

Attitude assessments reveal current understanding about river function, conditions, and management impacts. Local people may have factually accurate opinions as well

## section 2

### Introduction to Attitude Assessments

#### *What are the limitations?*

as beliefs rooted in rumor, fear, and misinformation. These opinions, whether technically accurate or not, will be engaged by citizens to either support or impede dam management decisions. Understanding public attitudes focuses the educational program. Misconceptions, stakeholders, appropriate messages, and more can be identified.

### **Implement optimal management strategies**

Understanding public opinion is a critical first step for making good decisions that are actually implemented. People tend to make and support better decisions if they are involved in a professional manner and given accurate information. Failure to incorporate local issues and concerns early on is likely to lead to delays, conflict, misunderstandings, misinformation, or legal action. It can also damage working relationships for a long time.

#### ***Understanding community attitudes is critical for...***

1. *Organizing an appropriate planning process.*
2. *Developing effective educational initiatives.*
3. *Implementing optimal management strategies with less misunderstanding, conflict, and delay.*

## ***What are the limits of attitude assessments?***

---

### **Cannot be the sole criteria for making decisions**

Attitude assessments cannot be the sole basis for evaluating the merits of dam management alternatives. Functional, safety, economic, environmental, and other criteria— which are not discussed in this guidebook— must be considered along with community opinions. Sometimes all considerations taken together necessitate actions that are not consistent with local public opinion.

### **Must be updated**

Attitude assessments give insight to the community at a particular point in time. They cannot predict what people will do or think in the future. Conditions change, priorities shift, new information is collected. Public opinion evolves as people share and learn from each other and are affected by activities in their towns. Although attitude assessments may still be informative several years hence, updates will be required.

### **Must be separate from education, persuasion and advocacy**

The purpose of the attitude assessment is to identify the subjective impressions, opinions and beliefs about the community, river, and dam. During the attitude assessment, it may be tempting to correct “misinformation,” inform the public of the

“facts,” or try to persuade them of alternative points of view. However, if a shift is made from learning what people think to telling them what they should think, the results will be very inaccurate. Education, persuasion, and advocacy should be a clearly distinct and separate process, left to other people and organizations after the attitude assessment is complete.

## ***What methods are used to understand public attitudes?***

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### **Survey Research**

The most accurate way to understand community attitudes is to ask the opinion of every individual member of the community. Because this is exceedingly impractical, random samples of the community can be surveyed. Because the sample data can be extrapolated to the population, surveys are the only source of attitude information that is representative of the entire community. Surveys provide *quantitative* attitude information, such as the number and percent of people throughout the community with particular opinions.

### **Interviews and Focus Groups**

There are also *qualitative* methods for understanding community attitudes. Interviews and focus groups with community members give insight to some of the attitudes people have about the issues. Although the results are not representative of everyone’s opinions, they can generally reveal attitudes, values, motivations, and misconceptions in the community.

### **Ideal Methodology**

Using both qualitative (interviews or focus groups) and quantitative (survey) methods increases the accuracy of attitude assessments. Interviews or focus groups familiarize the researcher with the issues and attitudes in the area, and are used to develop the surveys. Surveys identify the prevalence of various attitudes throughout the community. Additional focus groups or interviews can follow the surveys to enhance understanding of its findings.

### **Practical Methodology**

Although the combination of interviews, focus groups and surveys is ideal, it is not realistic for many dam management projects. Surveys take time, expense, and professional expertise that may exceed available resources. If there is a widespread lack of public interest in the issues, surveys about dams may not provide meaningful results or they may be unduly subject to response bias. Even with expert help it can

## section 2

### Introduction to Attitude Assessments

be difficult to develop good questionnaires that don't overwhelm respondents, provoke controversy, or unintentionally reinforce misconceptions.

#### Who can conduct attitude assessments?

#### For more on Attitude Assessment Methodology in this guidebook...

##### Section 3

1. Interview community members
2. Visit the dam and community
3. Review existing information
4. Focus groups with stakeholders

##### Section 4

5. Survey the public

While survey data is much more reliable and precise than interview and focus group results, surveys may be hard to justify when public opinion is only one of several factors that must be considered. When primary decision-makers are interested in public opinion but must also consider safety, financial, environmental and other factors, qualitative data from interviews and focus groups may be sufficient.

You need to identify an approach that is appropriate for your dam management project. Section 3 suggests a methodology for basic attitude assessments that relies on qualitative methods: interviews with community members, visits to the dam and community, and focus groups with stakeholders. Section 4 describes considerations for going beyond this basic approach with public surveys.

## Who can conduct attitude assessments?

Community attitude assessments must be conducted by individuals who do not have and are not perceived to have an interest or stake in the community, river, or dam. Biased individuals or those viewed as biased seriously undermine the accuracy of the results.

### Who can do attitude assessments?

Individuals who do attitude assessments should work for organizations like universities, consulting firms, or state or federal agencies that do not own, operate, or otherwise have a stake in the issues. The ideal researchers also:

• Do not live, work, or regularly recreate in the community where the dam is located or in nearby

communities that may be affected by the river or dam.

• Do not professionally or personally participate in work, activities, or organizations that have an interest or stake in the river or dam. Examples include environmental advocacy organizations, local government officials and staff, and recreational or other relevant special interest groups.

• Are able to convey their lack of bias and interest in the outcome of the dam decision-making process to people who participate in and use the attitude assessment.

• Are skilled in data collection techniques and understand the complexities of social science research.

## **Challenges of Social Science Research...**

**The challenge of the social sciences is to take the highly subjective process of gathering information about attitudes, opinions, perceptions, and expectations into systematically collected social data that can be used in decision-making. You may need to seek professional help from people who are skilled in data collection techniques and understand the complexities of social science research. Sections 3 and 4 give suggestions.**

### **1. Opinions are not always understood by asking questions.**

People may not know what they think or cannot articulate what they think. The issue may not be within someone's relevant experiences, so they have few opinions about it. Sometimes people do not know what they value until it is threatened or lost. So it can be difficult to gauge how much people care, until that issue and its implications becomes a significant focus of their attention. Or the questions may call for answers that people are unwilling or unable to give at all or give reliably.

### **2. Attitudes are affected by planning and management activity.**

The amount of attention on river and dam issues in the area will influence the opinions of the community being studied. The quality and nature of the interactions also matter. For example, unilateral decision-making in one community with an unfavorable outcome may put other communities on the defensive. Asking people their opinions in interviews or surveys and their interactions in focus groups also changes opinions.

### **3. The advantages and disadvantages of the methodology affect the results.**

Interviews and focus groups are subject to the influence of dominant personalities, group dynamics, the willingness of people to participate, the skill of the facilitator and more. Surveys can be poorly written, antagonize the public, and be undermined by errors and biases in sampling, questions, respondents, analysis, etc.

**Regardless of the techniques employed, users of the information must be informed about the limitations of the methodology, and its impact on the interpretation and use of the results.**

## **section 2**

### **Introduction to Attitude Assessments**

**Who can conduct attitude assessments?**

# section 3

## section 3 Methodology

### Introduction

#### Step 1 Interviews

#### Step 2 Observation

#### Step 3 Existing Information

#### Step 4 Focus Groups

#### Step 5 Final Report

# Basic Attitude Assessment Methodology

## Introduction

---

This section describes how to do basic community attitude assessments in four steps:

- 1. Interview people who are very knowledgeable about the situation.**
- 2. Visit the dam and surrounding area.**
- 3. Review existing information.**
- 4. Conduct focus groups with people who have a stake in what happens to the dam.**

For most dam issues, basic attitude assessments provide an understanding of community attitudes that will be adequate for decision-making. Although the results cannot be quantified or extrapolated to the entire community, the basic methodology enables you to generally describe people's opinions about the issues.

Qualitative information about public attitudes may be enough for projects where the responsible parties are interested in public opinion but will maintain final decision-making authority. It may be sufficient when public opinion is being considered along with other criteria, such as safety, financial or environmental. The basic attitude assessment also works for dam management projects that have little time and money for investigating social aspects of the issues. Compared to other methods, it is quick, easy and inexpensive to do. Rather than requiring extensive data analysis and summary reporting, the information is immediately available for decision-making.

The basic methodology also sets the stage for subsequent work. The results of the basic attitude assessment can be evaluated to determine if additional public input activities are needed. Some complicated dam projects, for example, may require public surveys to gather attitude information that statistically represents the entire community. The basic methodology is a good prerequisite for developing quality surveys. Surveys can be used to investigate the prevalence throughout the community of attitudes identified in the interviews and focus groups.

## section 3

### Methodology

#### Step 1 Interviews

You will need to identify an approach that is right for your particular dam and community. Before you begin, read about both basic attitude assessments and considerations for going beyond the basic approach. Section 4 has guidance about supplementing the basic methodology.

Worksheets are included which can be used to do a basic attitude assessment. You will be able to complete Worksheet 1 on page 15 by doing the first three steps (interviews, visiting the dam and community, and reviewing existing information). The remaining worksheets will help you do step 4 (focus groups).

## **Step 1: Interviews**

---

### **What are interviews?**

Interviews involve meeting with people individually for about an hour to ask about their dam, waterway and community perspectives. Interviews are the best way to obtain a lot of in-depth information. The interview can be tailored to each individual, the interviewee can bring up issues that the researcher overlooked, and probing questions can be used to elicit more information.

But interviews are time consuming. To be worthwhile, the person being interviewed needs to have a lot of relevant information to share. Therefore for basic attitude assessments, interviews should be reserved for people who are practically “experts” in the local dam, waterway, or community or who have the keenest interest in what happens to the dam.

### **What skills are needed?**

You may already have the ability to conduct successful interviews. The best interviewers are able to establish a rapport with respondents. They can simultaneously ask questions, listen, remember, and record answers. They keep the focus on relevant topics. They are also aware of the influence of their own subjectivity, biases and opinions on the outcomes. To improve your interview skills, seek the advice of a qualitative researcher at a college, Cooperative Extension office, or state or federal natural resources agency.

Helpful resources are also available from the USDA-Natural Resources Conservation Service’s Social Sciences Institute Web site at <http://www.ssi.nrcs.usda.gov>:

**People, Partnerships and Communities, “Listening Skills,” PPC 006. June 1997.**

**People, Partnerships and Communities, “Requesting and Preparing for a Meeting with a Community Leader,” PPC 017. July 1998.**

**People, Partnerships and Communities, “Working with Community Leaders,” PPC 043. June 2000.**



## Who should be interviewed?

The people who request your help with the attitude assessment should be able to apprise you of the basic facts of the situation. At a minimum you should also talk to:

- √ **The dam owner.**
- √ **At least one official community representative such as the mayor, city council member, or township supervisor.**
- √ **One or more people who have a stake in the issues, such as property owners near the dam.**

Depending on the results, you may want to talk to other “key informants”. A maximum of five or ten interviews with people who are the most “in the know” or have the strongest interest in the issues will be sufficient for basic attitude assessments.

## What questions should be asked?

Use Worksheet 1 to develop your interview questions. Modify the questions so they are appropriate for your issues and the people being interviewed.

Ask about the status, condition and function of the dam; the importance of the dam, related features and the waterway in the area; and prior dam or waterway planning and management activity. Who will be primarily responsible for deciding what happens to the dam? What alternatives are being considered?

Inquire about the basic demographic characteristics of people in the area. Ask a community representative for an estimate of the number of people, typical occupations, dominant race/ethnicity, average income, and average education level in the area. Later this will be used to ensure focus group participants are roughly representative of the community.

Inquire about the current level of citizen interest in the dam and waterway. Who might care about the dam, waterway and surrounding area: property owners, special

**Step 1**  
**Interviews**

### **When Interviewing...**

*A common rule of thumb is to keep interviewing new people until you learn no substantively different ideas.*

## Doing Good Interviews...

- |  |  |  |
|--|--|--|
| <p>ö <i>Make the interview worth their time. Make it a pleasant experience. Help them make a contribution by using what you learn.</i></p> <p>ö <i>Be neutral: do not judge, correct, or challenge the interviewee.</i></p> <p>ö <i>Start with easy questions, save negative or more complicated ones until the end.</i></p> | <p>ö <i>Ask lots of open-ended questions (requiring more than a “yes” or “no” answer).</i></p> <p>ö <i>Avoid an overly scripted reading of questions.</i></p> <p>ö <i>Keep questions focused on the pertinent issues, but also follow the lead of interviewees who</i></p> | <p><i>reorder or bring up unanticipated topics.</i></p> <p>ö <i>Ask probing follow-up questions as necessary.</i></p> <p>ö <i>Share the results without identifying the person’s name or position, unless you are given explicit permission.</i></p> |
|--|--|--|

## section 3

### Methodology

#### Step 2

##### Observation

interest organizations, business interests, neighboring towns, etc? Is there disagreement among stakeholders about dam functions, benefits, and management strategies? This information will be used to organize the focus groups and decide if surveys or other techniques are needed.

#### Step 3

##### Existing Information

Ask the interviewee to speculate about the perspectives of the stakeholders about the issues. What do people tend to think about current conditions near the dam? What impact do people think various management strategies will have on the waterway and in the community? This information will be used to develop focus group questions.

### **How are interview results recorded?**

During the interviews you can record participant responses on Worksheet 1. The version of Worksheet 1 in the Appendix has space for taking notes. However, the fluid, open-ended nature of interviewing may make it more practical for you to use ordinary notebook paper to keep notes. Slow note takers may want to tape record the interview. Afterwards write up a brief summary and/or record your findings on Worksheet 1.

### ***Step 2: Observation***

---

Depending on your project, some of the questions on Worksheet 1 can be answered by visiting the dam and the surrounding area. Observe the condition of the dam, impoundment, and riparian corridor. Note the land use in the vicinity of the dam. Visit any recreational, business or civic facilities near the dam, observe public interactions, and note the general aesthetics of the area. Briefly tour the town, if there is one, where the dam is located. Look for the community's welcome sign, official logos, banners, and commemorative signage. Notice areas of decline and growth, traffic patterns, and the character of homes, community buildings, and businesses. If necessary, also generally familiarize yourself with other nearby communities in the region.

### ***Step 3: Existing Information***

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To complete Worksheet 1, you may need to supplement your initial interviews and visit to the dam with secondary data. Ask your interviewees, the local library, chamber of commerce, or historical society for any readily available records that can familiarize you with the dam, waterway, and community. Request relevant newspaper clippings, research reports or agency studies, meeting minutes, community comprehensive or other plans, newsletters, or town promotional materials. If necessary you can look up demographic characteristics at <http://www.americanfactfinder.com>.

# Worksheet 1: About the Dam and Community

*This worksheet will help you gather basic information about the dam and waterway, the local community setting, and public attitudes. Some of the information can be gathered by interviewing people, some requires visiting the area, and others may only be available from existing information. It depends on the dam and community situation.*

*All the worksheet questions will not be relevant to every dam management project. Use a combination of interviews, visits to the dam and community, and review of existing information to answer the questions that are pertinent to your project.*

## 1. Who owns the dam?

- |   |   |
|---|---|
| <input type="checkbox"/> Private individual | <input type="checkbox"/> Federal government |
| <input type="checkbox"/> Business           | <input type="checkbox"/> Public utility     |
| <input type="checkbox"/> Local government   | <input type="checkbox"/> Ownerless          |
| <input type="checkbox"/> State government   | <input type="checkbox"/> Legally abandoned  |

## 2. How functional is the dam?

- Highly functional
- Moderately functional
- Not at all functional

## 3. What functions does the dam currently provide?

- |  |   |
|--|---|
| <input type="checkbox"/> Recreation              | <input type="checkbox"/> Hydroelectric power generation |
| <input type="checkbox"/> Flood control           | <input type="checkbox"/> Fish and wildlife ponds        |
| <input type="checkbox"/> Fire and farm ponds     | <input type="checkbox"/> Debris control                 |
| <input type="checkbox"/> Mine tailings and other | <input type="checkbox"/> Navigation                     |
| <input type="checkbox"/> Water supply            | <input type="checkbox"/> Aesthetics                     |
| <input type="checkbox"/> Irrigation              | <input type="checkbox"/> Other:                         |

## 4. How old is the dam?

- 56 or more years old
- 40-55 years old
- 39 or fewer years old

## 5. What is the apparent overall condition of the dam?

- |                                    |                                    |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> Very poor | <input type="checkbox"/> Good      |
| <input type="checkbox"/> Poor      | <input type="checkbox"/> Excellent |
| <input type="checkbox"/> Moderate  |                                    |

## 6. How big a safety hazard is the dam believed to be?

- Serious hazard
- Moderate hazard
- Little to no hazard

**7. What dam management strategies are generally being considered?**

- Restore it to its original condition:
- Enhance to a “better” condition:
- Remove it:

**8. How will decisions be made about what happens to the dam? Who is primarily responsible? How large a role will public opinion play?**

**9. How visible is the dam and impoundment to the public?**

- Highly visible
- Moderately visible
- Little to no visibility

**10. How accessible is the dam and impoundment to the public?**

- Highly accessible
- Moderately accessible
- Little to no accessibility

**11. Describe the land use near the impoundment (Check all that apply):**

- |   |   |
|---|---|
| <input type="checkbox"/> Houses, apartments and other residences  | <input type="checkbox"/> Recreational land and facilities (parks, trails, etc.) that are accessible by the public |
| <input type="checkbox"/> Commercial businesses and offices  |   |
| <input type="checkbox"/> Industrial businesses  | <input type="checkbox"/> Farms (crops, pasture, woods, ponds, and buildings associated with the farm operation)   |
| <input type="checkbox"/> Government buildings   | <input type="checkbox"/> Undeveloped land that is not accessible to the public                                    |
| <input type="checkbox"/> Civic or cultural sites (museums, community centers, schools, landmarks, etc.) |   |

**12. What is the density of residential, commercial, or industrial development near the impoundment?**

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> High density   | <input type="checkbox"/> Low density |
| <input type="checkbox"/> Medium density | <input type="checkbox"/> None        |

**13. Describe the land use in the downstream vicinity of the dam (Check all that apply):**

- |   |   |
|---|---|
| <input type="checkbox"/> Houses, apartments and other residences  | <input type="checkbox"/> Recreational land and facilities (parks, trails, etc.) that are accessible by the public |
| <input type="checkbox"/> Commercial businesses and offices  |   |
| <input type="checkbox"/> Industrial businesses  | <input type="checkbox"/> Farms (crops, pasture, woods, ponds, and buildings associated with the farm operation)   |
| <input type="checkbox"/> Government buildings   | <input type="checkbox"/> Undeveloped land that is not accessible to the public                                    |
| <input type="checkbox"/> Civic or cultural sites (museums, community centers, schools, landmarks, etc.) |   |

**14. What is the density of residential, commercial, or industrial development in the downstream vicinity of the dam?**

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> High density   | <input type="checkbox"/> Low density |
| <input type="checkbox"/> Medium density | <input type="checkbox"/> None        |

**15. Weather permitting, how often do people tend to do the following near the dam?**

	Very Frequently	Frequently	Occasionally	Rarely	Never
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Look at the scenery, birds, and other wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Canoe, kayak, or raft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat, jet ski, or use other motorized watercraft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other → What?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**16. How closely tied are recreational, civic, or cultural activities and sites to the dam and impoundment?**

- The dam and impoundment are integral to the sites
- The dam and impoundment are moderately important to the sites
- The dam and impoundment have little to no importance to the sites
- Not applicable

**17. What are the demographic characteristics of people in the area?**

- Number of people:
- Typical occupations:
- Predominant race/ethnicity:
- Average income:
- Average education:
- Other:

**18. In general, how interested are people in the dam issues compared to other issues in the community?**

- Much more interest
- A little more interest
- About the same interest
- A little less interest
- Much less interest

**19. Who is the most interested?**

	Very Interested	Moderately Interested	Little Interest	No Interest
Property owners near the dam/waterway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community members who do not live near the dam/waterway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreationalists*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmentalists*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Businesses*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural, civic and social groups*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elected officials, staff, consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other watershed communities → Which?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Identify organizations:

**20. In general, how much agreement is there among stakeholders about the dam issues (current conditions, strategies, and consequences)?**

- Complete agreement
- Moderate agreement
- Little agreement
- No agreement

**21. What do people think about current conditions of the dam and waterway?**

	Excellent	Good	Fair	Poor	Not Applicable
Visual attractiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of water*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The smell of the water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality for people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality for wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of riparian habitat for wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition and stability of the banks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of public access*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of recreational opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of recreational facilities ( <i>shelters, restrooms, trails, playgrounds, boat docks, etc.</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crowdedness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Clarify “too much” or “too little:”

**22. What opinions do people have about the impact of the dam on the waterway?**

- Overall conditions:
- Amount of water:
- Quality of water:
- How good the waterway is for recreation:
- How good the waterway is for fish and wildlife:
- Number of fish in the waterway:
- Type of fish in the waterway:
- Oxygen in the waterway:
- Sewage treatment:
- The smell of the waterway:
- Mosquitoes and other bugs near the waterway:
- Bank erosion:
- Public enjoyment of the waterway;
- Public enjoyment of the community near the waterway:
- Business and industry near the waterway:
- Property values along the waterway:
- Other:

**23. Do people have any of the following attitudes about the dam, impoundment and other integral features?**

- Is visually attractive
- Makes the waterway visually attractive
- Is a safety hazard
- Is no longer needed
- Is a special, unique site
- Is a community landmark
- Represents the history of the community
- Encourages people to visit the waterway
- Encourages people to visit the community
- Adds to the character of the community
- Is important to people in the community
- Other opinions:

**24. What impact do people tend to think the dam management strategies will have on...?**

- Overall conditions:
- Amount of water:
- Quality of water:
- How good the waterway is for recreation:
- How good the waterway is for fish and wildlife:
- Number of fish in the waterway:
- Type of fish in the waterway:
- Oxygen in the waterway:
- Sewage treatment:
- The smell of the waterway:
- Mosquitoes and other bugs near the waterway:
- Bank erosion:
- Public enjoyment of the waterway;
- Public enjoyment of the community near the waterway:
- Business and industry near the waterway:
- Property values along the waterway:
- Other:

**25. What do stakeholders think should generally happen to the dam?**

	Restore to its original condition	Enhance to a "better" condition	Remove
Property owners near the dam/waterway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community members who do not live near the dam/waterway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recreationalists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmentalists	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural, civic and social groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elected officials, staff, consultants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other watershed communities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Step 4: Focus groups

---

### Step 4 Focus Groups

#### What are focus groups?

With the basic methodology, information about local community attitudes is primarily obtained by doing one or more focus groups. Focus groups are carefully planned discussions with 8-10 people. During the discussion, people share their opinions and build on each other's ideas. A skilled facilitator fosters a comfortable, nonthreatening atmosphere and leads the discussion.

#### What skills are needed?

This section describes considerations for focus groups that are specific to dam management issues. It does not include all the practical guidance you need to effectively organize and conduct focus groups. If you lack experience doing focus groups, you will need professional help. A qualitative researcher can help you identify stakeholders, determine the number of focus groups to conduct, write discussion questions, facilitate the discussion, and summarize the results. Contact a local college, Cooperative Extension office, or state or federal natural resources agency for help finding a professional facilitator in your area.

You may also find the following references useful:

**The Wilder Nonprofit Field Guide to Conducting Successful Focus Groups: How to Get the Information You Need to Make Smart Decisions. Judith Sharken Simon. Published by Amherst H. Wilder Foundation, St. Paul, Minnesota, 1999.**

**People, Partnerships and Communities, "Focus Groups," PPC 001. USDA-NRCS Social Sciences Institute, January 1997. Available at <http://www.ssi.nrcs.usda.gov>.**

#### How should focus groups be organized?

Use what you learned in Steps 1, 2 and 3 (interviews, observation, existing information) to decide:

##### **Stakeholders...**

*are people who have an interest in, or will be directly or indirectly affected by what happens to the dam, waterway or community as a result of the dam management*

- **Which stakeholder groups to include.**
- **If separate sessions are needed for each stakeholder group or if they can be combined in fewer sessions.**

Consider which groups of people have a stake in the issues, how extensive the attitude information needs to be, the interest of stakeholders, and available resources. Following information about these considerations, there are four examples beginning on page 22.

##### **— Which groups of people have a stake in the issues?**

Focus group participants are people who have an interest or stake in the dam, waterway, or affected communities. Stakeholders include adjacent property



owners; civic, recreational, environmental and other interest groups; everyone who lives, works and recreates in the area; and nearby communities that will be affected by the decisions.

Worksheet 2 describes categories of stakeholders that may need to participate in the focus groups. Use the results of your interviews, observation, and existing information to decide which stakeholders on Worksheet 2 are relevant to your dam project.

Stakeholders are listed according to how commonly they are consulted in dam management decisions. Most dam management issues involve some consultation with adjacent property owners (Group 1), but few entail working closely with downstream communities (Group 6).

## Worksheet 2: Stakeholders in Dam Management Issues

*Use this worksheet to identify the groups of people who have an interest or stake in your dam management project. Stakeholders are people who are interested in, or will be directly or indirectly affected by, what happens to the dam.*

		Is this group relevant to your project?
Group 1	Residents, landowners, and business owners located near the dam, integral features, or waterway.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Group 2	Recreational, environmental, civic or other relevant groups with an interest in the dam, waterway or community.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Group 3	Unofficial community “leaders,” such as longtime local residents; teachers; scout leaders; heads of civic, social and other groups; local business owners; etc.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Group 4	Ordinary residents who are typical of the socio-economic characteristics of the community.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Group 5	Individuals, regardless of where they live, who visit the dam and related features.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Group 6	Other communities that may be affected by what happens to the dam.	<input type="checkbox"/> Yes <input type="checkbox"/> No

### — How much information about the attitudes of each stakeholder group is needed?

Separate focus groups with a representative sample of stakeholders will yield the most extensive information about the opinions of that group. For example, to best describe the opinions of people who own property along the river, conduct one focus group with a sample of property owners. To describe the opinions of people who participate in local recreational and environmental organizations, conduct a separate session with a sample of these stakeholders.

## section 3

### Methodology

#### Step 4 Focus Groups

Alternatively, stakeholders can be combined in logical categories. For example instead of two separate sessions, adjacent property owners and local recreational and environmental organizations can participate in a single focus group. This provides insight to the opinions of “those with a direct stake in the dam and waterway.” However, combining stakeholders diminishes the ability to describe the opinions of “adjacent property owners” distinct from “recreational and environmental groups.”

You can also do only one focus group with representatives of everyone who has a stake in the issues. This is more efficient but provides less extensive information. It can also be difficult to organize one broadly representative session of 20 or fewer people.

### What about public surveys?

**Section 4: Adding Public Surveys to the Basic Attitude Assessment** explains when a public survey is needed. One focus group representing all stakeholders will probably be sufficient when a public survey is planned. This is because only general information is needed to identify attitudes that will be tested in the survey.

## Dam Project Example 1

- The dam has no official function according to the dam owner and regulators. However, local people throughout the community value the dam and related features for aesthetic, social, recreational, and other reasons. Other communities in the watershed are also concerned, and they may have different opinions about the function, value, and impact of the dam.
- Stakeholders cannot agree on the extent of the economic, safety, environmental, and other problems associated with the dam. Nor can they agree about how significant these problems are compared to the dam’s local societal benefits.
- There is no consensus about how to best preserve the local benefits of existing conditions while minimizing the economic, safety, environmental, and other problems associated with the dam.
- The costs of implementing any strategies are likely to exceed what local stakeholders are able or willing to pay. Public funds must be sought to implement any dam management alternatives.

Because this situation is quite complicated, you will want to get the most extensive and reliable information from the focus groups. If you have the resources to do so, consider six separate sessions with representatives of each of the groups identified in Worksheet 2. For greater expediency, consider three combined sessions:

**Focus Group 1:** Property and business owners located near the dam; local recreational and environmental or other dam/waterway-related interest groups; local people who regularly frequent the dam and related features.

**Focus Group 2:** A representative sample of members of the community where the dam is located (unofficial community “leaders” and ordinary residents who do not live near the dam); and business, civic and general community groups.

**Focus Group 3:** Elected officials, staff and consultants; unofficial “leaders” from neighboring affected communities; and nonlocal recreational, environmental, civic or other relevant interest groups.

— **How complicated are the issues?**

More complicated dam issues tend to require the more extensive stakeholder input that comes from multiple separate focus groups. The public may have a greater need for involvement in the decision-making. There may be widespread interest in the issues and greater potential for controversy about management strategies. Broad public support will also need to be demonstrated when solutions are expected to exceed local resources.

Complete Worksheet 3 to gauge the complexity of your dam and community issues.

## Worksheet 3: Complexity of Dam Issues

*Evaluate the complexity of the issues in order to identify stakeholders to include in focus groups. More complex dam and community issues tend to require more stakeholder input. Complete this worksheet using the results of the initial interviews, visits to the dam and surrounding area, and review of existing information (Steps 1, 2, and 3 of a basic attitude assessment). Complicated dam and community issues have more “very true” and “somewhat true” answers.*

<b>Complexity is greater when:</b>	<b>Is this true of your dam project?</b>		
The dam is located on a waterway that is highly visible and important to the community.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
There are many interested people, communities, and groups with a stake in what happens.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
There is disagreement among stakeholders about the functions, benefits, and disadvantages of the dam and integral features.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
There are numerous environmental, safety, economic, and other problems that need to be addressed.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
There is little consensus among stakeholders about how to solve the problems or the impact of various solutions.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
Changes to the dam will have or are perceived to have significant impact on the waterway, related features, the community in which it is located, or neighboring towns.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
Changes to the dam will trigger environmental, safety, and other laws.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true
The sources of funds to implement solutions have not been identified.	<input type="checkbox"/> Very true	<input type="checkbox"/> Somewhat true	<input type="checkbox"/> Not at all true

## section 3

### Methodology

#### Step 4 Focus Groups

#### — How interested are stakeholders?

Regardless of the importance of the issues, there may be a lack of interest among community members. If the dam issues are not critical in the community, multiple focus groups may simply not be feasible. Instead consider one session with a sample of people that are representative of all the stakeholders. If necessary, supplement with more in-person interviews or other public input activities such as facilitated public meetings.

#### — What resources are available?

Also consider your available resources. Multiple focus groups take more resources, so it is advantageous to combine stakeholders in fewer sessions when it will not undermine your purpose. Although they are much less time consuming than surveys, focus groups do take considerable effort to organize. You will need about one month of planning time. Each focus group lasts about two hours. Plan an additional few hours after the discussions for reviewing and summarizing the results.

### Which people should be invited?

Ask people who are familiar with the area to suggest potential participants. Ideal participants are:

- **Willing to participate in a discussion in which different points of views are shared.**
- **Able to articulate their opinions in the company of strangers.**
- **Generally familiar with the issues, the community, or the opinions of their peers.**

### ***Dam Project Example 2***

- Although the dam has no official function according to the dam owner and regulators, local people throughout the community value the dam and related features for aesthetic, social, recreational, and other reasons.
  - Dam owners, regulators, local communities, and other interested people and organizations readily agree that the deteriorating dam provides significant societal benefits that must be maintained.
  - There is widespread consensus that the dam should be repaired because of the importance of these benefits and the fact they cannot be achieved through other means.
  - There is a lack of consensus about how to best resolve safety, economic, or environmental problems with the dam to the satisfaction of all interested parties.
  - All interested parties are willing and able to pay all costs for dam repair.
- This situation is considerably less complicated than Example 1 because of widespread consensus about the dam. Because solutions have not yet been selected, a single focus group with adjacent property owners, interest groups, and unofficial community “leaders” (groups 1, 2, and 3) can provide insight to what people value about existing conditions.

To achieve representative focus groups with 10 or fewer participants, invite people who “wear multiple hats.” For example, a property owner near the dam who operates a community business and is active in local civic affairs represents several categories of stakeholders. Talk with everyone in advance to ensure their participation is appropriate.

Good focus groups have the right mix of people with different characteristics. People should have some things in common but also have enough variety to stimulate a good discussion and elicit diverse perspectives. Consider for example, a single focus group of stream-side property owners. The common theme is that everyone owns property along the waterway. Diversity is achieved by ensuring all participants don’t know each other and that they have riparian property throughout the community, not just along the same reach. Also try to get people with a variety of socio-economic characteristics (age, income, education, gender, etc.) that are roughly representative of this stakeholder group.

People who are active in the community, who might unofficially be considered “leaders” in the community, tend to make good focus group participants. These key community members can represent the views of less interested citizens, because everyone who has a theoretical stake in the dam may not be willing to be personally involved. “Ordinary residents” for example, are probably not very enthusiastic about participating in focus groups about dams. Recreational, environmental, business or civic groups in the area may also be able to represent the general interests of the community.

### ***Dam Project Example 3***

- The dam is located on a minor tributary on the outskirts of town. There are several private property owners who live near the dam and impoundment. There are no public recreational features near the dam.
  - The dam has long outlasted its original purpose; however, it is now valued for aesthetic reasons by adjacent landowners. Other community members seem unconcerned.
  - Dam owners, regulators, local communities, adjacent landowners, and a local environmental organization disagree about what should happen with the dam. There are significant safety, economic, or environmental problems with the dam.
  - Funds for various dam management alternatives are probably available locally.
- Because there is a lack of consensus about how to handle the dam, this situation will benefit from one focus group with adjacent property owners, interest groups, and unofficial community “leaders” (groups 1, 2, and 3). Depending on the potential for widespread community concern, additional public input may be necessary.

## section 3

### Methodology

## What questions should be asked?

### Step 4 Focus Groups

The focus group questions need to provide information about public attitudes that will be useful to your dam management project. Use the results of your initial inquiries (interviews, observation, existing information) to identify what is needed for your project. Then develop questions based on these needs.

Most projects will benefit from information about:

- **How people feel about existing conditions—what they like, dislike, want changed, want maintained.**
- **Whether the waterway and dam is valued in the community, in what ways it is valued, and by whom is it valued.**
- **Opinions about the potential impact of dam management strategies on the waterway, in the community, and in neighboring communities.**
- **General information about the community, what is important, how it is changing, and how it deals with problems.**

### **How to Develop Focus Group Questions**

1. *Identify what information is needed.*
2. *Brainstorm questions that will get the information.*
3. *Prioritize your list by eliminating topics that are “nice to know.” Keep only questions that are “necessary to know.”*
4. *Organize the questions so that the easiest ones come first, and the harder or more negative questions come last.*
5. *Test the questions by practicing with a few people before conducting the focus group.*

Use Worksheet 4 to prepare questions for the focus groups.

### **Dam Project Example 4**

- The dam is privately owned, has no useful function, and is located on a minor tributary. There are few private property owners near the site and no public facilities or features.
- The dam owner intends to remove the dam. People are unlikely to dissent.
- Removal of the dam is expected to comply easily with relevant regulations. Impacts will be largely limited to the local site.
- Funds to remove the dam are readily available from the dam owner.

A discussion with nearby property owners (group 1) should be sufficient because the dam is isolated and nonfunctional and there is little public interest.

Evaluate the results to ensure additional focus groups are not needed.

# Worksheet 4: Sample Focus Group Questions

*Use this worksheet to prompt your thinking about some of the questions to ask focus group participants. All questions may not be relevant to all dam management projects. You may also need to add questions.*

## **Attitudes about Existing Conditions**

1. What do you like about the dam, its related features and the waterway near the dam? What do you want to be kept the same?
2. What do you dislike about the dam, its related features and the waterway near the dam? What do you think needs to be improved?
3. What impact do you think the dam has on the waterway (overall conditions, water quality, water quantity, erosion, habitat, recreation, etc.)?

## **Community Interest**

1. In what ways, if any, is the waterway important in this community? To what groups is it most important?
2. In what ways, if any, are the dam, impounded area and other features important in this community? To what groups is it most important?
3. How important are dam and waterway issues compared to other issues in the community?

## **Attitudes about Dam Management Strategies**

1. What do you think should happen with the dam? Should the dam be restored to its original condition? Enhanced to a “better” condition? Be removed entirely? What are the opinions of other stakeholder groups?
2. What impact might restoration/modification/removal of the dam have on the waterway (overall conditions, water quality, water quantity, erosion, habitat, recreation, etc.)? In this community (public enjoyment of the area, recreation, property values, local economy, nuisance wildlife, etc.)? In other communities?
3. Which of these possible impacts are most important to you?

## **About the Community**

1. What other issues are important in this community?
2. How has the community dealt with other important issues? Who made the decisions? What process was used to make the decisions? How satisfied were people?
3. How would you describe this town? What is it like? How would you describe people in this town? What do they value, what are their interests?

## section 3

### Methodology

#### Step 4 Focus Groups

### How are focus group results recorded?

The facilitator will not be able to take detailed notes during the focus groups. Appoint someone else to be primarily responsible for documenting participant comments. Immediately after the discussions, the facilitator can add comments and observations to the recorder's notes. Later, prepare a summary report that generally describes opinions without transcribing every comment or recording the names of participants. You may want to share the summary report with focus group participants to ensure accuracy.

#### **Focus Groups...**

*can be taped with video or cassette. If you tape, assure participants that the tape will be kept confidential. Prepare a written summary report that maintains participants' anonymity.*

## Writing the Final Community Attitude Report

After interviewing key informants, visiting the dam and community, reviewing existing information, and doing focus groups with stakeholders, you will have worksheets completed throughout the process and notes and/or summaries from the focus groups. Use this information to write a final report documenting your findings. It will probably be useful to describe:

- A brief profile of the community and the demographic characteristics of residents.
- Basic facts about the dam and its community setting.
- A description of the method used to understand community opinions. Note the limits of qualitative research for representing opinions of the entire community. Describe any challenges that occurred and how they may affect interpretation of the results. Suggest any additional work that may be needed.
- A summary of the major attitudes. Note groups that expressed particular attitudes and exceptions to dominant opinions among participants.
- Identify values or priorities of the community, according to participants.
- Highlight any fears, rumors or misconceptions that may be useful for educational purposes.

Section 6 has the final reports for three case studies using the basic attitude assessment methodology.

### **When writing a final report...**

- Do not reveal names or personal identities.
- Include anonymous quotes but avoid a verbatim transcript.
- Organize attitude information under logical headings.
- Include copies of worksheets as supplemental material.



# Adding Public Surveys to the Basic Attitude Assessment

## ***Introduction***

---

The basic attitude assessment has an important limitation: it cannot be quantified or extrapolated to the entire community. Instead, interviews and focus groups provide qualitative, or descriptive, information that gives insight to community attitudes. The basic approach reveals the opinions of community leaders, key stakeholders, and other community members. Only public surveys indicate whether people throughout the community have similar opinions. You need to determine if the basic attitude assessment is sufficient, or if a public survey is necessary.

## section 4

### Public Surveys

## *What are surveys?*

---

### *Is a survey necessary?*

Unlike interviews and focus groups, which ask a small group of people slightly varying questions, surveys ask many people the exact same questions. Surveys are delivered by mail, via the Internet, over the telephone, or in person.

The primary advantage of surveys over interviews and focus groups is that the results can be used to describe the opinions of the entire community. Surveying a randomly selected sample of people in town enables one to describe the opinions of the entire town with a reasonable level of statistical confidence.

## *Is a survey necessary?*

---

Surveys yield the most rigorous and representative data. This makes sense for very complicated dam issues, especially when the potential for conflict and controversy is high. Surveys may be justified when public opinion is a paramount factor in the decision making.

### ***Stop at the basic attitude assessment when...***

- *The most rigorous and representative data is not required, because:*
  - *Complexity is such that community interest and potential for conflict is low.*
  - *Public opinion is only one of several considerations.*
  - *The objective is to simply raise awareness about the importance of public input in decisions.*
- *The time, money and professional help for a quality survey is not available.*

Compare the information needs of your dam management project to expected outcomes. Interviews, observation, existing information, and focus groups:

- **Suggest how much interest there is in the issues.**
- **Identifies stakeholder groups that are probably the most concerned.**
- **Reveal some stakeholder opinions.**

Surveys identify:

- **The number and percentage of people who are interested in the issues.**
- **The number and percentage of people with particular opinions.**
- **How opinions of some people differ from others.**

Use Worksheet 5 to compare expected outcomes with your information needs.

# Worksheet 5: Outcomes of Basic Attitude Assessments and Public Surveys

*Use this worksheet to determine if the qualitative information of the basic attitude assessment will meet the needs of your dam management project, or if a survey of the public is necessary.*

Outcomes of Basic Attitude Assessments	Is this needed for your project?	
How much interest there is in the issues.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Which stakeholder groups are probably the most concerned.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
General insight to community attitudes, based on community leaders, key stakeholders, and other community members.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Outcomes of Public Surveys		
Number and percentage of people interested in the issues.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number and percentage of people with particular opinions.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
How the opinions of some stakeholder groups differ from others.	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## ***What resources are needed?***

---

Although surveys are commonly used, they are difficult to do well. Poorly written surveys can antagonize citizens, result in bad data, and waste everyone’s time and money. You will need professional help determining the sample size and method, compiling a population list, writing good questions, increasing response rates, and minimizing sources of error. Good written references are:

**How to Conduct Your Own Survey: Leading Professionals Give You Proven Techniques for Getting Reliable Results. Priscilla A. Salant and Don A. Dillman. Published by John Wiley and Sons, Inc. 1994.**

**People, Partnerships and Communities, “Designing Surveys for Conservation Activities,” PPC 014. USDA-NRCS Social Sciences Institute, June 1997. Available at <http://www.ssi.nrcs.usda.gov>.**

Quality surveys can be time consuming and expensive, depending on sample size and staff availability. It is not uncommon to take one year from original conception of the project to final results. Each questionnaire is usually several dollars for copying and postage, plus professional and administrative costs associated with the survey development and analysis.

### ***What if resources are lacking?***

*Use the basic attitude assessment to raise awareness of the need for (and resources to support) more insight to public opinion.*

## section 4

### Public Surveys

#### To whom can surveys be sent?

#### What questions can be asked

## Challenges with Surveys about Dams...

Surveying the public about their attitudes about dams is challenging. It is hard to capture the complexity of the issues without intimidating or exhausting respondents. Response bias can be a problem when only the most interested and concerned citizens take the time to respond. Surveys about potentially sensitive issues like dam removal may antagonize or alarm residents.

Project sponsors may be uncomfortable surveying the entire community without having an immediate forum for “correcting” misconceptions.

Interviews and focus groups have similar challenges; however, because they are not intended to be representative of the entire community, their limitations may be less critical.

## To whom can surveys be sent?

Surveys can be distributed to the same stakeholder groups that are the subject of the interviews and focus groups:

- **Residents, landowners, and business owners who are near the dam or waterway.**
- **Participants in recreational, environmental or other relevant groups that have an interest in the dam, waterway or community.**
- **Unofficial community “leaders”, such as longtime local residents; teachers; scout leaders; heads of civic, social and other groups; local business leaders, etc.**
- **Ordinary residents who do not live near the dam or waterway.**
- **Individuals, regardless of where they live, that visit the dam and related features.**
- **Elected officials, municipal staff, consultants and unofficial leaders of neighboring communities.**
- **Ordinary residents of neighboring communities.**

Sending surveys to one stakeholder group (e.g., people who own property) provides information only about that stakeholder group— not the entire community. This may be adequate for your purposes. However, if you need to extrapolate survey results to the entire community, you must obtain contact information for the entire community. A random sample of people from the population list is selected to receive the survey or, if the population is small enough, everyone on the list is surveyed.

### Sources of contact information...

- City water and sewer recipients may closely approximate a town, but only if most residents receive services. Phone books have a similar limitation.
- Plat books, tax records, and lists of USDA program participants may be reasonably comprehensive for agricultural areas.
- Always consider the limitations of the population list in the survey analysis. Clearly explain the implications to people using the results.

## What questions can be asked?

Base survey questions on the information needed for your dam management project. Ask questions about river function, for example, if you plan to use the results to

## **Typical Steps for a Mail Survey**

*The methodology for basic attitude assessments is a good prerequisite for developing public surveys. Pre-testing is also required. Then questionnaires need to be distributed, data analyzed, and results summarized.*

1. Identify purpose.
2. Develop a time line for survey development, distribution, analysis, and summary reporting.
3. Conduct interviews and/or a focus group and review existing information to familiarize yourself with the issues and attitudes.
4. Develop a draft questionnaire.
5. Pretest the questionnaire with a representative sample of stakeholders.
6. Develop a population list.
7. Select a sample according to the appropriate sampling methodology.
8. Consider publicizing the survey to increase response rate.
9. Distribute a cover letter alerting respondents to the upcoming survey.
10. Distribute the survey with another cover letter.
11. Follow up with a reminder letter or postcard.
12. Follow up nonrespondents with an additional letter and survey.
13. Consider additional follow up (e.g., by phone).
14. Develop spreadsheet for data entry.
15. Enter data.
16. Analyze results.
17. Produce summary report.

develop an educational program. If you need to learn if stakeholder opinions vary according to where they live, ask them to identify their general location in the town and their views about dam management alternatives.

You can use the survey to determine how prevalent attitudes identified from interviews and/or a focus group are throughout the entire community. You may have learned for example, that some people believe removing dams will drain water from the entire river system. The survey can be used to determine how common this misconception is throughout the community.

Focus on questions that will make a difference in decisions about the dam. If you already know there is a lot of local opposition to dam removal, then it may not be useful to learn from a survey the exact percentage of people opposed to removal. Instead you may want to use the survey to learn why maintaining the dam is so important to residents, and which aspects of current conditions are a priority.

Worksheet 6 on the following page includes sample, draft questions that may be helpful for your survey development. The questions have not been refined or tested. They must be tailored to your purpose, the information needed for your project, and conditions in the project area.

Worksheet 6 is not a complete survey. Additional questions will be needed to identify the dam and community, categorize respondents, and more. You will also need an introductory letter.

# Worksheet 6: Sample Draft Questions

**Worksheet 6**

*Use this worksheet to begin developing a public survey about dams. Seek professional help to revise the questions for the project area. You will also need to develop “screening” questions to identify the dam, community of interest, characteristics of respondents, their location in the community, etc.*

## **I. ABOUT THE COMMUNITY**

**1. In your opinion, what are the *most important* issues being faced by this community? Check all that apply in each of the topics A-I, listed below.**

### **A. Natural Resources**

- Quality of drinking water
- Sedimentation in rivers, lakes and wetlands
- Enough water for drinking, irrigation, etc.
- Decline in the quality of the soil
- Aquatic habitat (availability of good wetlands, rivers and lakes for wildlife)
- Solid waste disposal
- Soil erosion ( farm fields,  streambanks, or  residential and commercial construction sites)
- Concerns about the \*\*\* dam located at \*\*\*
- Other:

### **B. Growth and Development**

- Population growth
- Character and quality of housing
- Commercial and residential development
- Traffic congestion
- Affordable housing

### **C. Decline**

- Population loss
- Vacant or boarded up buildings
- Loss of local businesses
- Access to shopping and services

### **D. Infrastructure**

- Condition of roads and streets
- Flooding and stormwater management
- Adequate sanitary sewer system
- Provision of drinking water

### **E. Services**

- Quality of education
- Community aesthetics
- Change in school-age population ( crowded schools or  school closings, consolidations)
- Litter in streets, roads and parks
- Public transportation
- Availability of child care
- Recreational opportunities
- Police/Fire protection
- Preservation of historic sites
- Availability of medical services

**F. Leadership**

- Effective local leadership
- Citizen participation in decisions
- Conflict between people and groups

**G. Economy**

- Lack of local jobs
- Loss of major employers
- Lack of jobs paying adequate wages

**H. Agriculture, and Other Industries**

- Farm economy
- Loss of family farms
- Odor and noise from farms or factories
- Large confinement livestock operations
- Abandoned mines

**I. Social**

- Drug and alcohol abuse
- Crime and safety
- Discrimination in jobs or housing
- Concerns about private property rights

Other:

**2. In general, how important are dam and river issues compared to other issues which concern you?**

- Much more important than other issues
- A little more important than other issues
- About the same importance as other issues
- A little less important than other issues
- Much less important than other issues

**3. How much do you agree or disagree with the following statements about this community?**

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
This is a family-oriented town	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This community is rapidly growing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This community is declining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This community values its past	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall this community has more going for it than do other communities in this area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The economic outlook for this community seems poor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The economic outlook for this community seems good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residents in the community know each other well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residents in the community actively participate in community affairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decisions in the community are made by a small group of people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The community does a good job of planning for the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The community deals effectively with its problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The leadership in the community can be trusted to do what's best for the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most people in the community can be trusted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, people are satisfied living in this community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other descriptions:					

**section 4**

**Public  
Surveys**

**Worksheet 6**

**II. ABOUT THE DAM AND RIVER**

**4. How do you view the following aspects of the river near the dam?**

	Excellent	Good	Fair	Poor	No Opinion	Not Applicable
The smell of the water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual attractiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The amount of water*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality for people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quality for wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Condition and stability of the riverbanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of public access*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of recreational opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of recreational facilities (shelters, restrooms, trails, playgrounds, boat docks, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crowdedness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of riparian habitat for wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Clarify “too much” or “too little:”

**5. How much do you agree or disagree with the following statements about the dam?**

The dam...	Strongly Agree	Agree	Strongly Disagree	Disagree	No Opinion
Is visually attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Makes the river visually attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a safety hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is no longer needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a special, unique site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a community landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Represents the history of the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encourages people to visit the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encourages people to visit the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adds to the character of the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is important to people in the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other opinions:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**6. How much do you agree or disagree with the following statements about the pool of water created by the dam?**

The pool of water...	Strongly Agree	Agree	Strongly Disagree	Disagree	No Opinion
Is visually attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Makes the river visually attractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a safety hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is no longer needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a special, unique site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a community landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Represents the history of the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encourages people to visit the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



The pool of water...	Strongly Agree	Agree	Strongly Disagree	Disagree	No Opinion
Encourages people to visit the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adds to the character of the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is important to people in the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other opinions:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. Which of the following pairs of statements best reflect what you think about the impact of the dam on the river? For each pair indicate which opinion you most agree with—the one on the left or the one on the right—by circling the appropriate number between them.**

- 1 = **Strongly** agree with opinion on the LEFT
- 2 = **Mildly** agree with opinion on the LEFT
- 3 = **Undecided**
- 4 = **Mildly** agree with opinion on the RIGHT
- 5 = **Strongly** agree with opinion on the RIGHT

The dam...	Agree with opinion on the LEFT	1	2	3	4	5	Agree with opinion on the RIGHT	The dam...
Is good for the river	1	2	3	4	5			Is bad for the river
Is good for recreation on the river	1	2	3	4	5			Is bad for recreation on the river
Is good for fish and wildlife	1	2	3	4	5			Is bad for fish and wildlife
Adds oxygen to the river	1	2	3	4	5			Takes away oxygen from the river
Reduces erosion on the banks of the river	1	2	3	4	5			Increases erosion on the banks of the river
Creates deep pools of water needed by fish	1	2	3	4	5			Has no impact on the water level needed by fish
Prevents water from flowing out of the river	1	2	3	4	5			Has no impact on the water level in the river
Other opinions about dam impacts:								

### **III. ABOUT DAM MANAGEMENT STRATEGIES**

**8. What impact do you think removing the dam might have on the river and the community?**

What impact might dam removal have on...	Very Positive	Positive	No Impact	Very Negative	Negative	No Opinion	Not Applicable
How the river will temporarily look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the river will permanently look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of water in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How good the river is for fish and wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of fish in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type of fish in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How good the river is for recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specific recreational features associated with the dam → What?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public enjoyment of the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public enjoyment of the community near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business and industry near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property values along the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewage treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability of the community to comply with water quality regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment being held back by the dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The smell of the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquitoes and other bugs near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other impacts of removal:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**section 4****Public  
Surveys****Worksheet 6****9. How important are these possible impacts of dam removal to you?**

	Very Important	Moderately Important	Little Importance	No Opinion	Not Applicable
How the river will temporarily look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the river will permanently look	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of water in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How good the river is for fish and wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of fish in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type of fish in the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How good the river is for recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specific recreational features associated with the dam → What?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public enjoyment of the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public enjoyment of the community near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Business and industry near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Property values along the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sewage treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability of the community to comply with water quality regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sediment being held back by the dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The smell of the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquitoes and other bugs near the river	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other impacts of removal:					

**10. What do you think should happen with the dam?**

- Restore it to its original condition
- Enhance it to a “better” condition
- Remove it entirely

# section 5

## Public Involvement in Dam Management Decisions

### ***Introduction***

---

Deciding what to do about aging obsolete dams is challenging. Involving the public can make it even more so. Communities can have a stake in the issues but there is little understanding about how to integrate their interests in the problem solving. This section has suggestions for involving the public in ways that fit the dam and community situation.

### ***Levels of Public Involvement in Local Decisions***

---

How actively involved the public is in community issues varies. Most issues require only that people be kept informed of decisions and activities. This is an *Information-Only* approach to public involvement. Some issues require periodic input from the public. This is called *Consultation*. Occasionally community members must be involved in all aspects of the problem solving. This is *Collaboration* with the public.

The approach to public involvement can change. Community leaders may plan to simply keep the public informed about decisions (information-only), but people express strong interest, concern, and the need to participate in the problem-solving process. More extensive consultation with the public therefore is conducted. Ultimately decisions are made more collaboratively than was originally anticipated.

## section 5

### Public Involvement

#### Levels of Public Involvement

## Information-Only

Information-Only involves one-way communication between the decision-makers and the public. This is essentially a “take-it or leave-it” approach where the people who make and implement the decisions tell the public what is happening.

Information-Only is appropriate when the issues are routine, public support is implicit, and there is little immediate public impact. Information-only should not be used when people expect and want more involvement in the decision-making. If inappropriately used, information-only techniques can antagonize the public.

This method cannot be used to characterize the opinions of the entire community. Instead, a small minority of people most impacted by the issue can be expected to provide feedback.

Methods for informing the public about decisions and actions include:

- **Distributing notices, brochures, and leaflets**
- **Briefing the media through press releases and press conferences**
- **Giving presentations to interested groups and organizations**
- **Dedication ceremonies and tours**
- **Public meetings, depending on how they are conducted**

## Consultation

Consultation seeks information from the public about specific topics. For example, community leaders may present several alternative solutions to a problem to the public and ask for their feedback about those choices. Consultation provides little opportunity for the public to develop ideas. Rather, it involves telling the public about the ideas that have been identified and asking people to comment on them. Consultation is appropriate when decision-makers need information from the community about the nature or impacts of problems and feedback about solutions. With consultation, public input may or may not influence the decisions.

Methods for consulting with the public include the *Information-Only* techniques described above, plus:

- **Surveys**
- **Interviews**
- **Focus groups**
- **Advisory committees**

Attitude assessments described in this guidebook involve “consulting” the public about their opinions about rivers and dams.

## Collaboration

Collaboration occurs when everyone who has an interest or stake in a problem works together to solve that problem. Collaboration entails the highest level of public

**Collaborative Planning Process**

1. *Understand existing conditions*
2. *Decide what everyone wants*
3. *Determine ways to get there*
4. *Carry out the ideas*
5. *See what happens*

involvement in the decision-making process. Instead of decision-makers telling the public what has been decided (information-only) or asking the public their opinion and then making decisions (consultation), collaboration means people *decide together*. Stakeholders work in partnership with technical experts to gather information about the problem and its impacts, develop ideas for

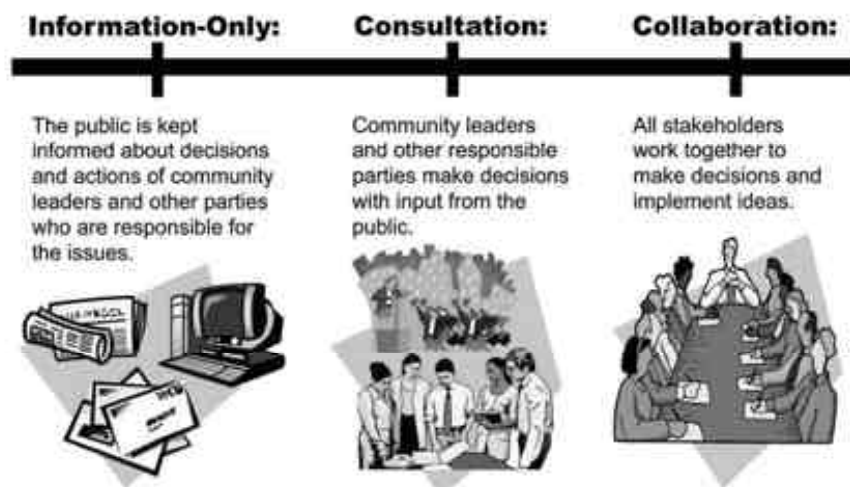
solutions, and make decisions. Accordingly, it requires more time, greater commitment, and a more professional and complex approach.

Of course, collaboration usually cannot involve the literal participation of every individual community member. Instead collaboration usually relies on advisory committees of individuals who are representative of all stakeholders to lead the process. Other techniques like focus groups or informational meetings are used to get feedback from less active members of the public. Thus collaboration uses the same techniques as *Information-Only* and *Consultation*, but does so as part of a process where the public, community leaders, technical experts, and other stakeholders make decisions together. Attitude assessments about dams can be part of a collaborative problem-solving process.

Collaboration is not always necessary, appropriate, or possible. Complicated issues that lack broad community consensus and the resources to address them tend to be most effectively addressed with a more collaborative process.

There are many planning processes that collaboratively involve the public in addressing local problems. The USDA-Natural Resources Conservation Service, for example, uses a locally-led conservation planning process to bring people together to address common problems according to their objectives. The process hinges on developing strong local interest and involvement among those who have a stake in their natural resources.

**Range of Public Involvement**



The information-Only, Consultation, and Collaboration levels of public involvement represent benchmarks on a continuum. In between are many variations. Public involvement can change over time.

## ***Working with the Public about Dam Issues***

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### ***Working with the Public***

The entire range of *Information-Only*, *Consultative*, and *Collaborative* approaches can be appropriate for interacting with the public about dam issues. What is best depends on the complexity of the community/dam/river situation, stakeholder interest, who will be making the decisions, and the availability of resources. The results of community attitude assessments can inform your consideration of these issues.

### **Complexity of the Issues**

The more complicated the issues, the more consultative and collaborative the planning process generally needs to be. Worksheet 3 in Section 3 lists characteristics that tend to complicate dam projects. Complex community, river, and dam issues usually benefit from having the local public as an integral part of the problem solving. It can lead to better decisions that have the support and commitment of the community, are responsive to local needs, and meaningfully reflect the interests of all stakeholders.

### **Stakeholder Interest**

In general, the greater the complexity of the issues the more likely the public will want, expect, and need to be involved in dam management decisions. A simple isolated dam with no useful function is unlikely to attract much interest from residents. So information-only methods make sense. Much more attention will be focused on changes to a dam and impoundment at the center of town in a highly urbanized watershed. Thus more consultative and collaborative approaches will be required.

Different “publics” will have different need for involvement. The community in which the dam is located may want to be the most involved, because they will experience the immediate impact of any dam changes. Although everyone in the community has a stake, people who live near the dam and impoundment will be more concerned than people who live away from the waterway. Others who may be highly interested are people who visit, work, or recreate in the area. Depending on the situation, the local community and key interested groups and individuals will probably need to be consulted about their opinions. They may also want to be more collaboratively involved in the decision making.

Because rivers, creeks, and streams are not static entities that stay within the local area, upstream and downstream communities and groups may also have a strong interest in their neighbor’s dam. Depending on the expected impacts and their level of interest and concern, people, communities, and organizations throughout the watershed may need to be kept informed, consulted, or involved in the decision making.

The state and national public also has a stake in dams. State and federal agencies represent the public’s interest in natural resource management and protection through

their regulatory authorities to protect natural systems. They enforce laws like the Clean Water Act, the Endangered Species Act, the National Environmental Policy Act, and others that are relevant to dam management issues. Agencies often make the final decisions about dams because they own or regulate them. Otherwise they must be consulted during the planning process.

State and national interests in dam management may also be based on the use of public funds and technical assistance to build, remove or repair dams. Since the 1940s, thousands of small local dams were built with public money through programs like the Flood Control Act of 1944 and the Watershed Protection and Flood Prevention Act of 1954. There continues to be a public interest in the safety, environmental, funding, and liability issues associated with these dams. Consultation and/or collaboration with state and federal agencies is necessary when public funds or assistance is used in dam repair, remediation or removal projects.

## **Decision-Making Authority**

The suitability of Information-Only, Consultation, and Collaboration for solving dam management problems depends on which stakeholders will make the decisions. Collaborative planning only works when people can make decisions cooperatively. Community leaders, dam owners/operators, regulators, and other responsible parties must be willing and able to make decisions about the dam in partnership with the public. The public must be very interested in the issues and want to actively participate in the decision making.

More consultative approaches are warranted when the primary decision-makers are interested in public opinion but want or need to maintain final decision-making authority, or when the public is not highly motivated to be involved. When decisions will be made irrespective of public opinion, then information-only approaches are appropriate.

Avoid involving the public in ways that imply they have a greater influence on the decisions than they actually do. Consider for example, when the dam owner and regulators must make final decisions based on many considerations, including local public opinion. Consultation with the local community is usually appropriate, as long as they understand the decision-makers will consider their perspectives along with other factors. Under these circumstances, collaboration would give the erroneous impression that the local public has decision-making authority.

### **Who Decides?**

*The suitability of Information-Only, Consultation, and Collaboration for solving dam management problems depends on which stakeholders will make the decisions.*

**Information-Only:** *Primary decision-making authority is with those who are ultimately responsible for the dam such as dam owners, operators, and regulators. Other stakeholders— i.e., the public— are informed about those decisions.*

**Consultation:** *Final decision-making power is with the dam owners, operators, and regulators, but the input of the public is sought before decisions are made.*

**Collaboration:** *All stakeholders— including dam owners, operators, regulators, and the public— work in partnership to make decisions about dams. Decisions are made after everyone reaches consensus.*

## section 5

### Public Involvement

### Public Involvement Examples

## Available Resources

Collaborative planning requires much greater skill and resources than do approaches not involving the public in the decision making. Experts are needed to help facilitate the process, resolve conflicts, keep people focused and progressing, and reach consensus. Badly executed collaborative processes can be far worse than not including citizens at all. Absent the time and skills to carry out a professional collaborative process, more consultative methods of involving the public may be warranted.

Collaborating with the public also takes time. Two years of planning work is not uncommon, depending on the complexity of the problem. If the dam situation does not warrant elaborate collaboration, then information-only or consultation may be more expeditious. Keep in mind though, when handled incorrectly, very complicated problems can take many, many years to resolve.

### **Characteristics of Good Collaboration**

*Best Practices for Government Agencies, from Society of Professionals in Dispute Resolution (1997) provides these guidelines for using collaboration:*

1. First consider if a collaborative approach is appropriate.
2. Stakeholders should be supportive and willing to participate.
3. Agencies should support the process and provide sufficient resources.
4. An assessment should precede the collaboration.
5. Ground rules should be established and agreed upon by everyone.
6. Sponsoring agencies should ensure the facilitator's neutrality and accountability to all.
7. Agencies and participants should plan for implementation from the beginning.
8. Policies governing the process should not be overly prescriptive.

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## **Public Involvement Examples**

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Consider the following scenarios to help determine if the public should be kept informed of dam management decisions, consulted about their opinions, or collaboratively involved in the decision making.

### **Example 1. Information-Only is probably sufficient:**

- The dam is privately owned, has no useful function, and is located on a minor tributary. There are few private property owners near the site and no public facilities or features.
- The dam owner intends to remove the dam. People are unlikely to dissent.
- Removal of the dam is expected to comply easily with relevant regulations. Impacts will be largely limited to the local site.
- The dam owner will pay costs associated with removing the dam.



**Example 2. Also suitable for *Information-Only* approach:**

- Dam owners, regulators, local communities, and other interested people and organizations readily agree that the deteriorating dam provides significant societal benefits that must be maintained.
- There is widespread consensus that the dam should be repaired because of the importance of these benefits, the fact they cannot be achieved through other means, and because technical experts are able to resolve safety, economic, or environmental problems with the dam to the satisfaction of all interested parties.
- All interested parties are willing and able to pay all costs for dam repair.

**Example 3. *Consultation* with the public is probably needed:**

- The dam is located on a minor tributary on the outskirts of town. There are several private property owners who live near the dam and impoundment. There are no public features or facilities.
- The dam has long outlasted its original purpose; however, it is now valued for aesthetic reasons by adjacent landowners. Other community members seem unconcerned.
- Dam owners, regulators, local communities, adjacent landowners, and a local environmental organization disagree about what should happen with the dam. There are significant safety, economic, or environmental problems with the dam.
- Funds for various dam management alternatives may not be available locally.

**Example 4. More *Collaborative* involvement of the public may be necessary:**

- The dam has no official function according to the dam owner and regulators. However, local people throughout the community value the dam and related features for aesthetic, social, recreational, and other reasons. Other communities in the watershed are also concerned, and they may have different opinions about the function, value, and impact of the dam.
- Stakeholders cannot agree on the extent of the economic, safety, environmental, and other problems associated with the dam. Nor can they agree about how significant these problems are compared to the dam's local societal benefits.
- There is no consensus about how to best preserve the local benefits of existing conditions while minimizing the economic, safety, environmental, and other problems associated with the dam.
- The costs of implementing any strategies are likely to exceed what local stakeholders are able or willing to pay. Public funds must be sought to implement any dam management alternatives.

# section 6

## section 6

### Case Studies

#### *Introduction*

#### *About the Communities*

#### *General Findings*

#### *Batavia Case Study*

#### *St. Charles Case study*

#### *Geneva Case Study*

## Case Studies

### ***Introduction***

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Batavia, Geneva, and St. Charles, in northeastern Illinois, were selected as case studies. The three communities are located in the Fox River basin, which covers over 1700 square miles of the Chicagoland area. Throughout the watershed, decisions are being made to repair, modify or remove aging dams. There are 15 dams on the Fox River owned by the Illinois Department of Natural Resources. Local municipalities own other dams. Some provide important recreational, water supply and other benefits. Some are considered nonfunctional.

Dam removal has been a contentious issue in the Fox River region ever since some citizens in Yorkville, Illinois vigorously fought removal of their dam in the late 1990s. Residents argued the importance of the dam to the community. Some said that without the dam, the beauty of the river and the town would be sacrificed. It is unfair, they argued, for Yorkville to make this sacrifice when other Fox River communities are able to keep their dams. A “Save Our Dam” group was organized, and a petition circulated to repair rather than breach the dam. The passion of their protest caught most natural resource professionals by surprise. Clearly there was a lack of understanding about public opinion about dams.

The purpose of the Batavia, Geneva, and St. Charles case studies is to begin to collect information about community attitudes to inform decision-making about dams on the Fox River. A general understanding of the attitudes of people in the communities where the dams are located can help suggest appropriate public involvement strategies, identify educational needs, and shed light on the preferred dam management alternatives of local people.

## section 6

### Case Studies

#### About the Communities

#### General Findings

Secondly the case studies are intended to guide decision-makers about how to understand public opinion about dams. Because projects rarely have the luxury of unlimited dollars or time, a general understanding of community attitudes needs to be achieved efficiently and cost effectively. People need help determining if more time-consuming surveys or other public input activities are appropriate. Guidance is needed about how to use the findings in public education and decision making.

### About the Communities

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Where once the Fox River watershed had quiet farming and manufacturing villages, now the area is highly urban and still growing rapidly. It is the most populous region in Illinois. Eleven percent of the state's people live in the watershed. Since 1980 the population grew 30%. In the last 10 years, urban developed land increased 25%. The watershed economy provides 12% of the state's jobs and generates 13% of its personal income.<sup>1</sup>

The Fox River runs through the historic middle of Batavia, Geneva and St. Charles. Downtown small retail, restaurants, and service establishments have replaced factories and summer cottages that once lined the river. Today the river is a focal point for recreation. A recreational trail follows the Fox from Elgin to Aurora. The river is also an important water supply source for some of the Fox River Valley communities, though the case study communities rely on groundwater.

### General Findings

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Focus group and interview results were generally quite similar for the three communities. Everyone emphasized the importance of the Fox River to the history, identity, character, economy, and quality of life in the communities. Attitudes about the environmental consequences of dams and how rivers function varied. However, most people closely link protection of the aesthetic and recreational values of the river to the overall quality of life in the community, especially in the face of the region's tremendous growth and change. They are concerned that changing the river by taking out dams may ultimately undermine the quality of life in the region.

#### Some Fox River Community Values...

- *Appreciation and importance of the Fox River to the history, identity, character, economy, and quality of life in the communities.*
- *Protect and maintain quality of life: family and recreational amenities, existing aesthetics, public access, property values, and local economic growth and stability.*
- *Protect and enhance community investment in recreational, aesthetic and other unique amenities associated with the river.*

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<sup>1</sup> Illinois Department of Natural Resources. "The Fox River Basin: An Inventory of the Region's Resources." *Critical Trends Assessment Program*. 1997.

## ***Some Attitudes About the Way Rivers Work...***

*People in the Fox River communities expressed many views about river function and the impact of dams on rivers. Some insights were factually accurate, some seemed based on rumors, fears and misconceptions.*

- Rivers are like bathtubs. If dammed they are full of water, if undammed they empty out.*
- Remove all the dams on a river and the whole river will empty out from top to bottom (or at least, the water will be much lower throughout the system).*
- There is a narrow deep channel in the center of the river that will be revealed when the water goes down. Without the dam, all that will be left of the river is this narrow deep channel.*
- There are adjacent springs that the fish go to, and lowering stream flow will eliminate access to these springs.*
- Lowering the stream flow will reveal land that people can buy, sell and build on. Property owners will be responsible for the care, maintenance and liability associated with this new land.*
- You can't have any recreation on a river without dams.*
- All dams on the river need to be removed in order to realize any ecological benefits.*
- The fishing is better on rivers with dams. Without dams there will be little to no quality fishing on the river.*
- If the water level falls there will be big bug problems, "mud flats", and "swamp land".*
- Dams provide rapids that are aesthetically pleasing. Without the dam there is no way to get that effect in a stream.*
- The streambanks will erode without the dams, because the water will move faster and weaken trees and other longstanding vegetation.*
- Silt has not accumulated behind the dam.*

# Batavia Case Study

## *Batavia Case Study*

### ***Methodology***

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Batavia was selected first because it had two deteriorating dams that were candidates for removal. The primary purpose was to begin to understand public opinions about dams in the Fox River watershed, and to devise a methodology that could generally benefit dam management projects. As a research project, the attitude assessment was not intended to directly influence outcomes in Batavia.

The original plan was to do in-person interviews followed by a community-wide survey. Attitude information from the interviews would be used to develop the survey and to enhance understanding of its findings. The survey would provide quantitative data about the attitudes of people throughout the community.

However when the questionnaire was ready, management alternatives for the two dams in Batavia were being considered. A consultant was leading the planning for the south dam, owned by the Batavia Park District. A citizen advisory committee was appointed to work with officials. The owner of the second dam, the Illinois Department of Natural Resources, was studying strategies and consulting the city about its findings. A public survey was feared potentially disruptive to these efforts.

Local natural resource professionals, who had already encountered citizen protest about a dam in nearby Yorkville, were also sensitive about interacting with the public. Would asking opinions about dam removal and other strategies alarm people? Without an immediate opportunity to educate, they feared the survey might reinforce misconceptions. And what if the final decisions were contrary to local public opinion, since community attitudes were only one of many factors being considered?

It was clear that without being fully integrated in the planning process, a public survey was not appropriate. Consequently, the Batavia attitude assessment was limited to interviews with community members. Other Fox River case studies could explore less controversial alternatives to a public survey that might fit better with any on-going planning.

Because the Batavia results are qualitative, they are not representative of opinions of all community members. Instead, they generally describe some perspectives of local people about the importance of the Fox River in Batavia, their attitudes about the dams, and their views about the impact of dam removal.

## ***Interview Sample and Questions***

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### ***Batavia Case Study***

Participants were identified by asking city and agency staff for suggestions. Staff identified people representing a broad range of interests and demographic characteristics, and who are generally interested and active in the community. Each interviewee was also asked to suggest other people who should be interviewed. A total of 15 interviews were conducted. Each interview lasted from 1 to 2-1/2 hours.

Interviewees tended to be highly involved in the community. Some were long time residents and others were newcomers. A few held elected positions in the community, though most did not. About half owned property or businesses near the dam and along the river. One quarter recreated on the river or at related features. Interviewees included teachers, municipal staff, business owners, retired council members, scout leaders, homemakers, construction workers, and more. The youngest interviewee was in her mid-30's, the oldest was over 70.

Fifteen-minute interviews were also done with people who were near the river. Twelve people who were recreating along the river or near the dam were briefly interviewed. Another ten interviews were with people who were working at downtown businesses near the dam and at the Batavia historical museum. These interviewees were asked their opinions about current conditions, the dam, and general dam management strategies. They were also asked how often and for what purposes they come to the river/dam area.

## ***Community Attitudes***

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### **About Batavia**

Batavia was described as family-oriented with a strong sense of community. People cited many recreational features, community events, clubs, and services that cater to families. They are especially proud of Batavia's "small town" culture. One noted, "The town is very welcoming. We're not fancy, pretentious or exclusive." They talked about the care the city takes to honor and preserve its history. Events like "Batavia through the Ages" and "Windmill City Fest" recognize the past. There are many annual traditions, like "Christmas Tree Lane" and the "Brotherhood Banquet." The government complex is located in the historic Appleton Building, where the town's trademark windmills were produced. The Depot museum displays local artifacts.

The biggest issue in Batavia is growth and development. Interviewees noted residential and commercial development throughout the Fox River valley has increased property values and improved retail access. However, they lamented traffic congestion, loss of open space, and the effects of a growing population on the small town and family friendly character of the community. One man explained, "We don't want to be

## section 6

### Case Studies

#### *Batavia* Case Study

another ‘Don’t-Know-Your Name’ Town. We’re trying to maintain that hometown feeling.” Interviewees said the town had traditionally been more blue collar or working class than neighboring St. Charles and Geneva, but increasing numbers of “corporate newcomers” are blurring that distinction.

A city official said, “The city is under tremendous change and transition. We want to give it our town’s picture and presence.” Batavia recently declined to build another sewage treatment plant, capping its capacity at a maximum population of 33,000. There is a minimum one-acre lot size requirement on the growing west side of town. Proposals for a new bridge over the Fox River in Batavia were being debated. Some citizens were protesting the commercial development of Braeburn Marsh. One man, citing teddy bears on the fence of a soon-to-be demolished grade school said, “You’d have opposition here to everything in the world.” Another resident explained, “People are more aware of what made Batavia, Geneva and St. Charles so special. We need to do something about that now.”

### Interest in the Dams

Interviewees are familiar with both dams. They said people in the community are more aware of the north than the south dam, because the north dam is in the center of town and visible from a main thoroughfare. One woman estimated, “Ninety percent of people in this town don’t even know there is a south dam.”

Long-time male residents recalled childhood memories playing or fishing near the dams. An older man explained, “That dam was our life when we were kids... Those are childhood memories that will stick forever.” Another recalled his father helping build the north dam; a woman said her husband hung out at the south dam with friends as a teenager. Newcomers to Batavia and all the female interviewees said they do not have any personal experience with the dams but they do use the Riverwalk trail and other amenities near the river. Women also tended to focus more on safety issues. They wondered if the aging structures were a safety hazard, and worried about it being an attractive nuisance for young people.

### Current Conditions

People explained the Fox River is a focal point of Batavia. The river physically divides the community; most people drive by it everyday. It motivated its settlement and continues to be a major asset in its development. The downtown centers on it, and it is believed to be important to the local economy. A city official said, “We’re a river town and now in the last ten years, that’s an economic benefit. It’s being used to redevelop the downtown. Commercially speaking, we’re using it as an amenity.” The primary recreational features of the town— built with tremendous volunteer and city effort— are integral to the river. Residents bring visitors there. Most community activities take place near the downtown and the river. A business owner explained,

“People are down here. They walk [the river]. They fish it. It’s good for the downtown. It’s a subtitle to an economic development tool for the downtown.”

People praised the beauty of the Fox River. Several compared the Fox to rivers in Canada and Minnesota. “Look at the rapids. You’d have to go to Minnesota to see stuff like that,” said one person. Another explained, “It’s one of those natural things. It’s peaceful, unbuilt, and not commercial. That’s becoming increasingly rare around here.” Others said, “Truly this is God’s country,” “I don’t know what else you could ask for,” and “It’s a treasure.”

Although people said the dams themselves aren’t particularly attractive, they make the river beautiful. Interviewees said the dams create “really nice water” that is pleasant and relaxing to look at, attracts birds, and creates ideal fishing spots. Especially people who were on the trail, fishing, or sitting near the north dam said they enjoy the sound and look of the water. People described the north dam as a destination point, a place to rest while walking the trail, or to stop to visit with friends.

Interviewees also emphasized the importance of the existing “people-friendly” enhancements to the river. The Riverwalk, Depot Pond, windmill display, museum, and native gardens were built to “highlight and showcase” the river. They serve modern uses of the river. One person explained, “There have always been community activities downtown, but the river has become more of a focal point in the last ten years. It’s not a manufacturing community anymore. Now we have yuppies and they’re more recreation-oriented. With affluence we have more time for leisure. We want to live in nice areas.”

According to residents, recreation is critical to community and family life in Batavia. However, people do not want the boating, jet skiing, etc. like some of the other Fox River communities. Said one, “We don’t want a lot of recreational development. We don’t want the hassles. I don’t know of anyone who would want it.” Another commented, “People in Batavia enjoy the peace and quiet of the river. They don’t want powerboats. We want to protect the Riverwalk and the native gardens. We want it the way it is now.”

Interviewees also talked about how people care for and take pride in the river. “People consider it a natural resource that has to be taken care of.” Civic groups do volunteer clean ups. The city worked with IDNR to build the Riverwalk so it benefited the fish. A local garden club planted the native species along the path and is working to reduce invasive purple loosestrife. Some people are sensitive to the impact of development on the river. Said one, “It’s a stress on the river from all the pavement. It’s brown after a rain and disgusting. All the fertilizers from lawns and farms. We have big, big challenges.”



## section 6

### Case Studies

## Dam Management Strategies

### *Batavia* Case Study

People said removing the Batavia dams will make a narrower river with less water. One man was adamant, “It will dry the river up. There won’t be any water.” The mud flats that appear in July and August will persist year round. People will be able to walk out to the islands. With less water, erosion of the islands and riverbanks will increase. If all Fox River dams are removed, some people speculated, the water level will fall throughout the entire system.

Several interviewees explained dams are beneficial to the river because they create or allow access to deep pools and springs needed by fish. They add oxygen to the water. Without the dams, said one resident, “It would be a little stream, not a body of water that fish need. Then you’d have hardly any fish. There’d be no place for them to spawn.” Several interviewees who heard removing dams is beneficial to river health said all dams on the river need to be eliminated to achieve any ecological benefits.

However, several interviewees said their efforts to learn more about dam removal convinced them it would improve the health of the Fox River. One man explained he was initially opposed to the idea until he fished a Wisconsin stream where a dam was removed. Now he is a strong advocate for removal in Batavia.

People worry about the impact of dam removal on people. Will communities be able to meet demands of a growing population for wastewater treatment and drinking water? They wonder if a narrow shallow river will expose land that will be privately developed. One person argued that “money” is motivating talk about dam removal. Another commented, “We need to invest in areas we can all share, not just have a few houses on the river. I’m sick of people buying things up and you can’t go there because you don’t have the money.”

Two interviewees are leery of the potential for controversy. One was familiar with what happened in Yorkville. She commented, “I hope we can prevent that from happening here. We don’t need another divisive issue in Batavia.” The bridge issue has been very contentious, she explained.

Changes to the river threaten existing recreational features and public access to the river. “The Riverwalk is the main thing people take pride in. It would be tragic if it was done wrong. We must protect the work that has been done,” noted an interviewee. A city official explained, “We don’t want to take away the accessibility of the river to the populace. We don’t want to lose the open space and the chance for people to recreate. Keep the river accessible. Don’t privatize it.” Some think recreation on the river will be impossible without dams. One person said, “It will go from 300 foot wide to 50 foot wide. There will be no boating.”

The aesthetic impacts of dam removal are a major concern. People say with less water the river will be swampy, smelly and full of mosquitoes. “It would smell and be so dry. You’d always smell it, it would be so low.” The deep pools created by the dams

would be replaced by muddy, weedy wetlands. It will be unpleasant to use existing recreational trail, parks, and other facilities near the river. The views to the north and south of Fabian parkway (near the north dam) will be sacrificed. Consequently, interviewees speculated, people in Batavia oppose any change in the water level. Most people, they said, want “a river; not wetlands.”

Interviewees are concerned that negative aesthetic impacts threaten the entire “River Town.” Batavia—and its recreational features, community activities, and downtown economy—are intimately connected to the river. So having “smelly wetlands” in the middle of town, instead of the Fox River, is detrimental to the whole community. “Batavia is tied to the river. Removal would hurt the aesthetics of the river and therefore it would hurt the community,” said one resident. Another explained, “I can’t argue with people who say its better to not have dams. It’s great for the ecological systems. But it’s extremely detrimental for the community. All the downtowns are struggling. Why will you go downtown when it stinks?”

# St. Charles Case Study

## ***Methodology***

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Telephone interviews were conducted with key informants from the Fox River Ecosystem Partnership (a river advocacy group), state agencies, and municipal staff and consultants. The purpose of the interviews was to become familiar with the St. Charles situation in preparation for a stakeholder focus group. Interview topics followed Worksheet 1 in Section 3. Interviewees were asked to suggest participants for the focus group, consistent with guidelines in Section 3.

Sixteen people participated in the discussion. They represented a range of interests, professions, demographic characteristics, and residential situations. Several people worked for the city, a few worked for local natural resource organizations. Two people represented recreational organizations associated with the river. There were several people who owned property near the dam or river. Participation of average citizens not representing a local group or not residing near the river was the hardest to achieve. Fifteen “ordinary” residents were contacted, but only two came to the meeting.

The focus group was conducted in conjunction with a related research project. The combined agenda limited the time available for the focus group to one hour. Consequently, the focus group revealed less detailed information than the interviews in Batavia. The focus group addressed the same topics as Worksheet 4 in Section 3.

After the focus group, participants worked with another researcher to develop a computer model for making decisions about dams. They identified their objectives for dam removal, modification, or repair to original conditions. This exercise complemented the focus group by providing a summary of the major objectives of stakeholders about the dams. The focus group was also a good warm up for the computer exercise. Sharing their views seemed to make them more amenable to identifying objectives for strategies they might personally oppose.

Brief interviews were also conducted with six people who were recreating near the dam or visiting the downtown area of St. Charles.

Although the dam situation in St. Charles is complex, only one focus group with a representative sample of community members was conducted. A single focus group seemed adequate because:

- The attitude assessment was not integrated in the existing planning and decision-making process in St. Charles.
- A primary purpose was to raise awareness of the need for public input in dam management issues. The initial focus group could be a starting point for more collaborative problem solving between local communities, dam owners, agencies, and other interested stakeholders in the Fox River watershed.
- Public opinion is likely to be only one consideration. Because of the existing development in the area, financial limitations and other factors, community attitudes will probably not be a primary factor in the decision-making.

The St. Charles attitude assessment relied on qualitative data, so the results are not representative of opinions of all community members. Instead, they generally describe some perspectives of local people about the importance of the Fox River, their attitudes about the dams, and their views about the impact of dam removal.

## ***Community Attitudes***

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### **About St. Charles**

The most important issues in St. Charles are population growth, residential and commercial development, land use change, and traffic congestion. Additional bridges on the river are a contested regional issue. Local employment is becoming more of a concern with the recent loss of Arthur Anderson, General Mills, and a large hotel. School crowding is a problem. A new second high school is being built.

People have resisted new construction that is inconsistent with the character of existing development, such as when multi-family high density housing is proposed for single family neighborhoods. Environmental quality issues— such as loss of open space or impact on the Fox River— has been a basis for protesting new development. Some people say, however, that people are simply weary of development in St. Charles.

### **About the Fox River**

The Fox River is critical to the St. Charles community. According to residents, it's a key part of the town's identity, history, and character. It attracts people to the area. One man explained, "We used to turn our back on the river. Now it's our best asset." The river is marketed and promoted in new development. People are "proud of the

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### Case Studies

#### *St. Charles Case Study*

town's investment over the last 20 years cleaning up the river under the Clean Water Act." This investment, they say, has been paid back tenfold.

Recreation is an important dimension of the community's connection to the river. Although some say its underutilized during the week, on weekends the river is crowded with bikers, walkers and runners, and people sailing, kayaking and canoeing. Focus group participants said recreation is a primary mechanism for people interacting in the community. It's very important to residents. They said people in the community tend to want more opportunities for recreation, more access to the water, more services, and more public riverside parks, places and paths. The downtown planning effort currently underway is working to improve recreational amenities and pedestrian access to the river.

### **Current Conditions**

The existing aesthetics of the Fox River is highly valued. According to one participant, "The river, the dam, the Mill Race Inn... It's part of our identity, our ambiance. It's why we have the growth here. It's why people want to live here." People understand that historically the river "had less flow." Small dams, they say, don't create much of a pool, but the dam in St. Charles does. The pool of water created by the dam is a primary aesthetic feature of the area. When asked if the dam was important, one woman corrected, "The resource is the pool of water. The dam makes the pool— that's the resource we value." However they acknowledged the dam has a "dangerous connotation" for public safety: they think people have drowned near it.

People are concerned about the water occasionally being too low. It gets "very muddy" by the Mill Race Inn. There is some debate about how much water should be released from upstream locks. One person explained, "Sometimes you can see the knees of the ducks, it's so low!" There is a problem with bank erosion. People don't like having so much concrete on the banks. Noise pollution from jet skis and the like is an issue for some people who live near the river.

Participants said the dam is not very good for the river ecologically. It traps debris and sediment that is harmful to the river. It reduces oxygen in the water. But they think the water quality of the river has greatly improved over the last 15-20 years. One explained, "There is a perception that the river is polluted, but it's cleaner than you think." Most of the participants said water quality is now quite good. Wildlife habitat is also good. There are nuisance wildlife issues. Focus group participants generally said they are not concerned about a loss of wildlife habitat in the region or near the river. They say the Park District in St Charles has done a good job of acquiring parcels as development occurs.

## Dam Management Strategies

Focus group participants speculated that currently most people in St. Charles are not very concerned about river or dam issues. The people who live near the river are the most interested. Citizens in St. Charles “like quiet, small town life” and are most concerned about the river as it relates to recreational amenities. Although the dam is not currently an issue in St. Charles, people think if dam removal were being considered, there would be a great deal of community interest and concern.

People want to “maintain the status quo” near the river. They like the dam as it is and they want to preserve the recreational opportunities it affords. Participants speculated, “People fear you can’t have recreation near the river without the dam.” They say the water level will be lower if the dam is removed. The dam is important to the community because recreation is important and the river is important. They strongly feel the dam and impoundment near the dam are special and unique, are important community landmarks, represent the history of the community, and encourage people to visit the area. They are highly visible parts of the community as well. People see the river, dam and pool when they go across town. One woman explained, “The dam was our signal that we were almost to grandpa’s house.”

People say removing the dam will “shrink boatable space,” create a smaller channel, and cause the river to meander more. One person explained, “If the dam were removed, it will cause the river to run back and forth with some high ground in spots.” People said this would be “more naturalized” but it would not be as good for recreation (except for making good portages for canoes, said one person). There would be no impact on flood control they said because the dams provide no flood control benefit.

One person estimated, “Ninety-five percent of people in St Charles would say, ‘I don’t want you to change the dam.’” People said the impact of dam removal on the public enjoyment of the river, of the community near the river, and on business and industry near the river would be “very negative.” Some people think there will be an increase in mosquitoes near the river and the river will smell. The “ambiance” of the dam, pool and river is important to local businesses. What would the impact be on property values, they worried? Everyone would be harmed without a dam, and some recreational businesses in St. Charles would “cease to exist.”

But people conceded, “The dam is old and unsafe, so something has to be done.” Generally focus group participants said, any strategy to fix the dam must maintain existing recreational benefits, preserve the aesthetics of the pool, minimize ecological impacts, and add to the quality of life in the community. One man explained that he wants a “compromise solution,” which will provide better aquatic habitat and fish passage while maintaining recreation. Another summarized for the group: “We like our dam. The only thing that would make it better is a compromise dam that will be better for the fish.”

# Geneva Case Study

## Geneva Case Study

### **Methodology**

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The same methodology used in St. Charles was also used in Geneva. Telephone interviews were conducted with key informants, and one focus group was done with stakeholders. As in St. Charles, a single focus group was conducted because the assessment was separate from local planning, its purpose was to raise awareness of the value of collaborative problem solving, and public opinion is likely to be only one of many considerations. Worksheet 4 topics were addressed in the focus group, however, there was not enough time to ask general questions about the community. Brief interviews were conducted with people who were fishing near the dam or visiting downtown Geneva. Results are qualitative and not necessarily representative of all community members.

Obtaining a broadly representative group of stakeholders was more difficult in Geneva than it had been in St. Charles. People are very sensitive about the dam, and they were anxious to express their concern about the issues. A contributing factor was that Batavia announced its support for IDNR removal of its north dam during the time the Geneva focus group was being organized. Shortly before that, Batavia had also decided to remove the Park District-owned south dam. In contrast, the St. Charles focus group was conducted during a relative lull in dam management activity in the Fox River valley.

People in Geneva were very concerned about “sending a message” to IDNR about their opposition to dam removal. Whereas the people in Batavia and St Charles were quite willing to speculate about the opinions of people who might not share their personal perspectives, Geneva focus group participants seemed concerned that doing so would be used to endorse dam removal in their town.

Despite every effort to avoid this, most of the focus group participants have a direct personal stake in the river. They either own property near it, or represent a downtown business or an organization that is tied to it. Consequently, the perspectives of community members without a direct connection to the river were not well represented in the discussions. It is not known whether other stakeholder groups might have different perspectives about the river and dam. Individual interviews or another focus group with these stakeholders could have compensated for this lack of representativeness. Because lack of time precluded additional work, however, it is important to keep in mind that the focus group was less broadly representative of the entire community than was true of the St. Charles focus group or the Batavia interviews.

## ***Community Attitudes***

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### ***Geneva Case Study***

#### **About the Fox River**

Focus group participants emphasized their appreciation for the beauty of the Fox River and the value it adds to the quality of life in their community. They talked about the “natural beauty” of the riverfront, its wildlife and what a “gorgeous place it is to be.” They commented on the longevity of current conditions: “For a hundred years it’s always been that way.” Another praised the classic Midwestern aesthetic of the Fox River. “It’s the horizontal line of the river that is so appealing,” he explained. “In the Midwest the horizontal line is so attractive. What I love about the river is its horizontality.”

When asked if the dam is important to Geneva, people were adamant. “It’s not about the dam,” said one person, “It’s the river we care about!” People said the river is integral to their history, character and appeal. They said the river is part of the “charm” of living in Geneva. It is a unique asset that not many communities have in Illinois. “The town is here because of the river,” explained a focus group participant. Another said, “It is one of the core reasons people live here and come to the downtown to shop.” People say visitors from all around the world come to Geneva and they invariably comment “what a special place” or “what a neat place” it is, because of the Fox River. One person explained, “There is a beautiful view when you come over the hill on the east side of town.”

#### **Impact of the Dam**

According to some participants, “dams aren’t the source of problems” with the Fox River. A few blame water quality problems on the “ancient, overtaxed” sewage treatment plants, though at least one person disagreed with this opinion, citing modern technological improvements to the system.

River water quality is better now than it was 25 years ago, according to most participants. One person explained, “You see game fish now that were extinct 25 years ago. The river is restoring itself.” Another explained, “Sure some research says the dams hurt the river but you can’t dump crap in it.” A couple people said they aren’t sure about the impact of dams on water quality, and more information is needed. One person said the dam slows the water flow, so it reduces bank erosion.

Several participants noted the dam is good for attracting “small mouth bass, walleye and a few muskies.” “It’s an impoundment fishery,” one person explained. “I’m worried we’ll lose the deeper pools that exist that are good for those particular fish.” Another person added, “It’s a simple math issue: More water equals more habitat equals better fish, but it’s a different variety of fish.”



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One man said, although he likes the free flowing sections of the river, the deep pools provide a different aesthetic and also permit recreation that would not otherwise be possible. The dam provides habitat for migratory waterfowl. “An avid birdwatcher” described the eagle she saw there in January.

Participants say there are negative aspects to the dam. Canoeist fear going over it. There have been several deaths in the past five years.

### Dam Management Strategies

The dam provides a constant height to the water level in the river, explained participants. They discussed the recent decision to remove the dams in Batavia. The water will “change dramatically” in Batavia. The river will be narrow, without any water.

People explained that dams make recreation possible on the river. People come from all over Chicago for skulling on the river. None of this would be possible, they say, without dams. “The racing skull and kayaking will be impossible.” In Geneva, “if the dam wasn’t there you couldn’t even put a kayak in there.”

In the spring and summer there is a “good amount of water” only when there is a substantial rain. One person speculated that the banks are formed during this time of heavy rainfall. Later when the water is low, there are “ugly mud flats” 50 foot wide. “This gives a clear picture of what it will be like without the dams.”

The dam is important for water quality compliance, according to some participants. One man explained that the dam provides an “aerated blanket of water” that is important for NPDES permitting requirements. A reduction in water level will be detrimental to water quality in the river, some said. Dam impounds silt that is beneficial. Silt has dangerous organic material that is trapped by the dam instead of polluting downstream.

Others disagreed with this, noting the marked change in habitat from a deep pool with a silt bottom behind the dam to a free flowing ripple and pool bottom below the dam. This encourages different kinds of species. Explained one person, “It’s a different fishery, so you can’t say this isn’t having an impact.”

People said the dams may become increasingly important to the growing Fox River Valley as a source of water supply. One man explained Geneva relies on well water that is expensive to treat. Elgin and Aurora mix river water with well water. “People need to consider the impact of removing dams on our source of drinking water,” warned a participant. Another countered a recent study in Geneva noted adequate groundwater supply.

Some said, without dams on the Fox River, the water will flow faster and erosion will increase.

A primary concern is aesthetics and the impact of changed aesthetics on property values, local businesses and community life. One man lamented “the loss of the pool and trading that for mudflats, cattails and purple loosestrife.” People say it will result in a loss of recreation for families and children. Another said, “We don’t want our kids wading in mudflats.”

Without a dam, in the summer the river will have “dead fish and it will smell.” One longtime resident described conditions in the river when he was a child and predicted similar conditions should the dam be removed. He explained, “DNR said it would be 50% narrowed and a depth of 2-3 feet instead of 5-6 feet. It will expose the deep ancient channel of the river.” He predicted property values will go down in the whole town but especially in the historic district near the river.

People worried about the impact on fishing. There would be less fish without the water. “Just rocks would be there” said one person. A fisherman said, “The river would go to hell. See that water under the bridge? It would be down to a trickle.” Another said without the dams, “All the fish will go to St. Charles. Now, the dam blocks them.” One man worried about invasive species that had recently been in the news. He explained, “If you work for the state you should know there is a 45 pound carp down there. Without the dam it will go upstream and I hear those carp will eat everything.”

“The economic impact is very real,” according to participants. Dam removal will lead to the “immediate demise of certain businesses that cater to recreationalists” or that focus on the river such as the Mill Race Inn. “It’s an anchor for the downtown, it’s a draw for the community,” explained one person.

One participant summed up everyone’s comments about the dam by saying, “It’s part of Geneva—historically, recreationally, and aesthetically, and I like it that way.” Participants say they favor modifying the dam but not removing it. Focus group participants strongly advocate a “compromise” solution: a dam that maintains the water level, allows fish passage, solves safety problems, and preserves the aesthetic and recreational amenities of the area.