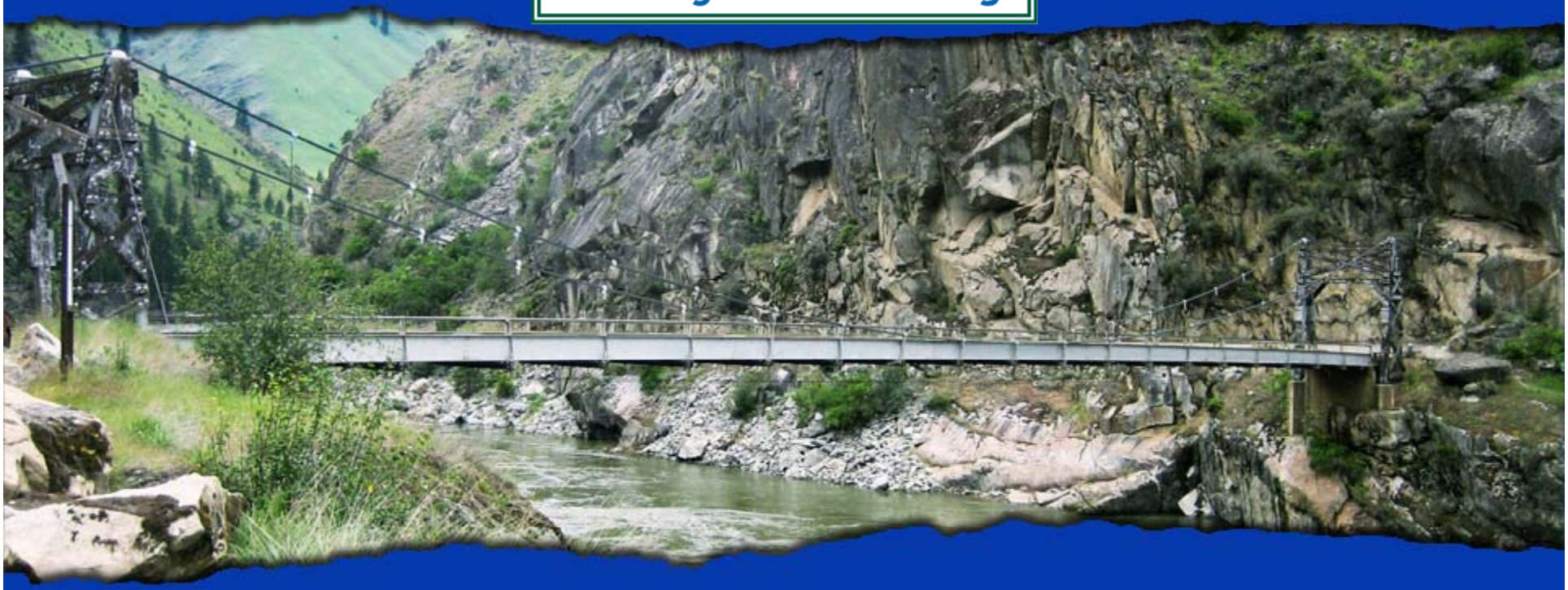
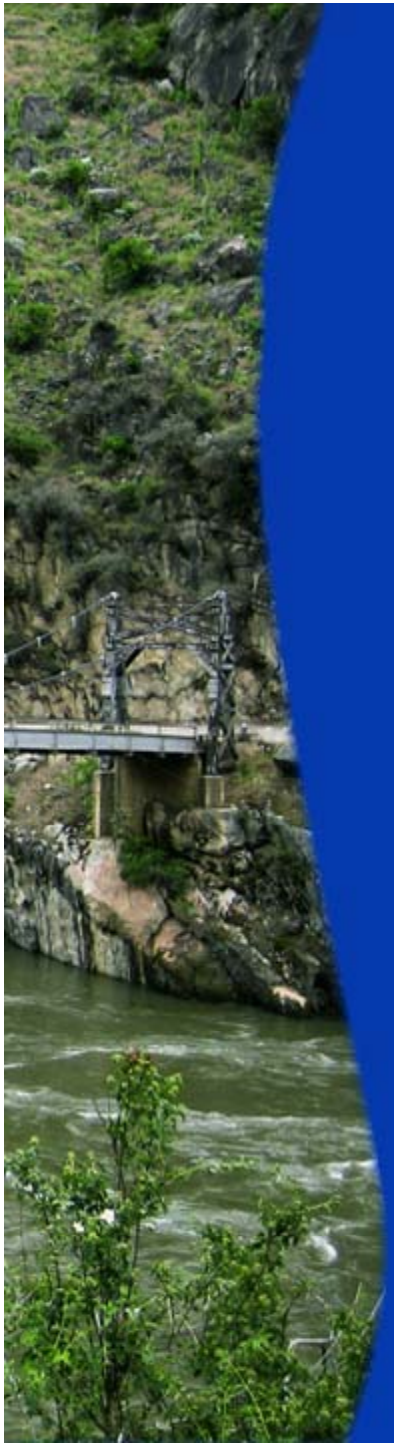
Manning Crevice Bridge



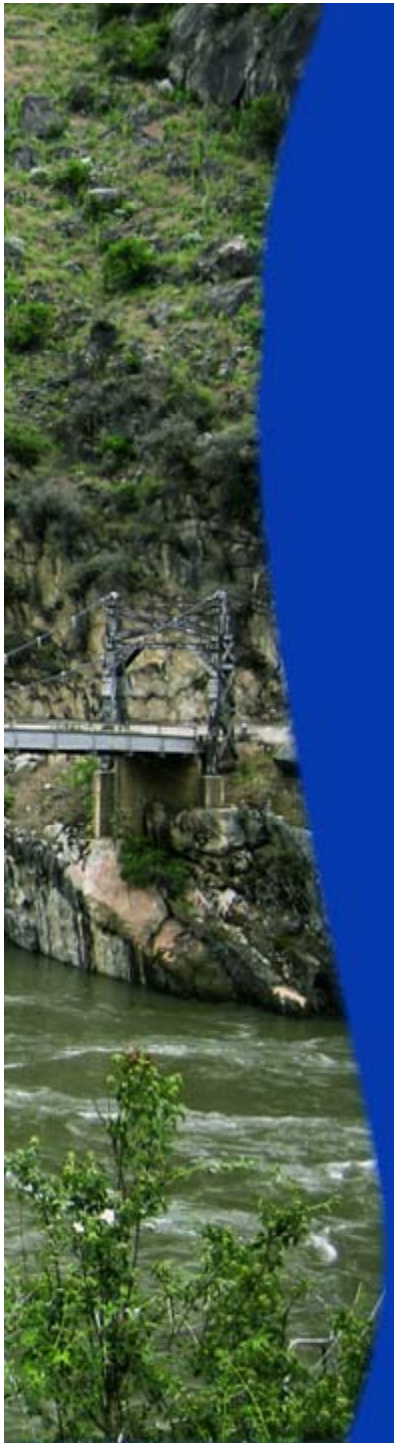
Public Meeting

September 21, 2010



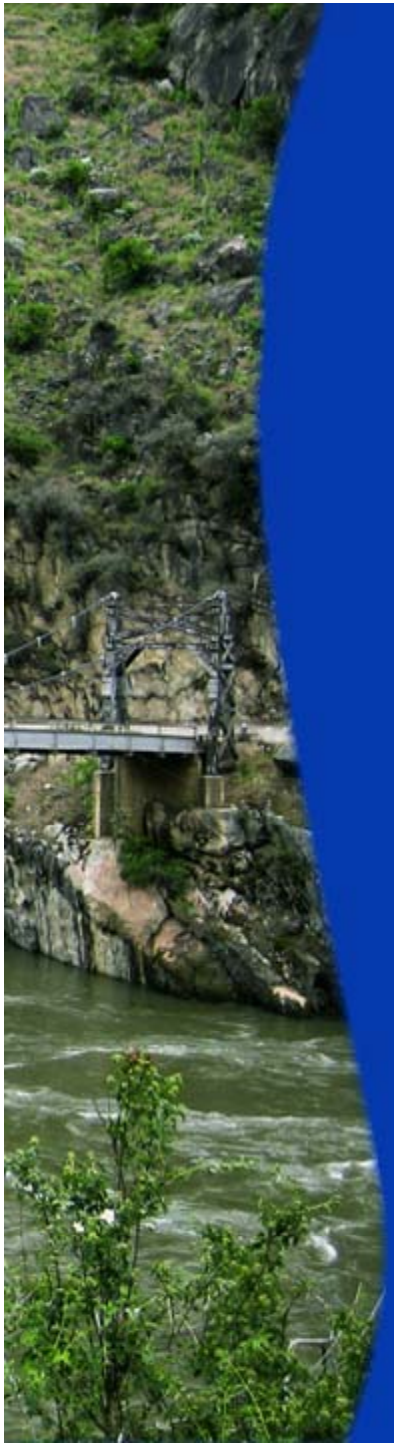
Please have a seat.

We will be starting the presentation shortly.



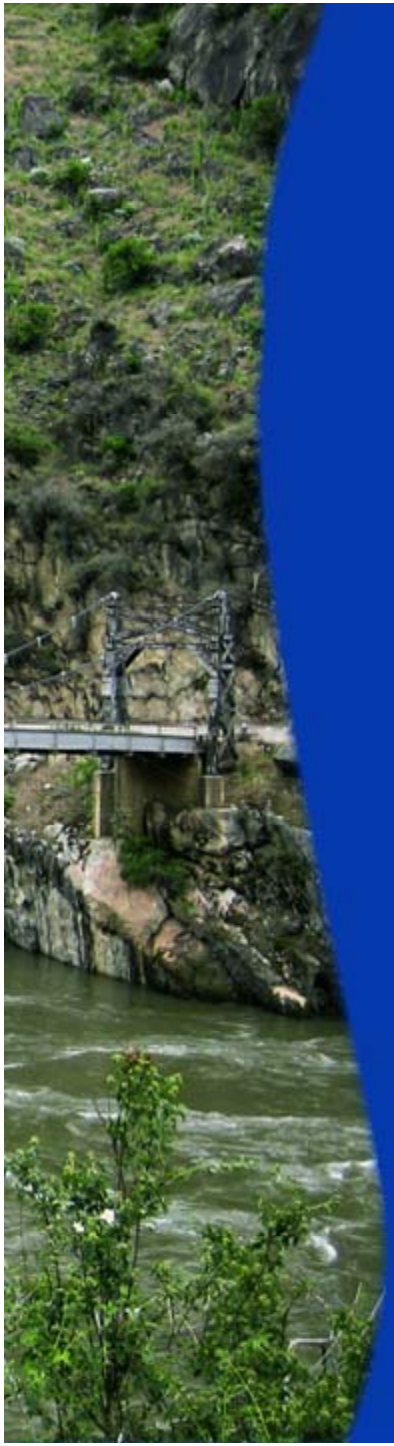
Agenda

- Project Team Introductions
- Project Overview
- Project Criteria and Requirements
- Alternatives Analysis
- Next Steps and How to Stay Involved
- Questions/Comments



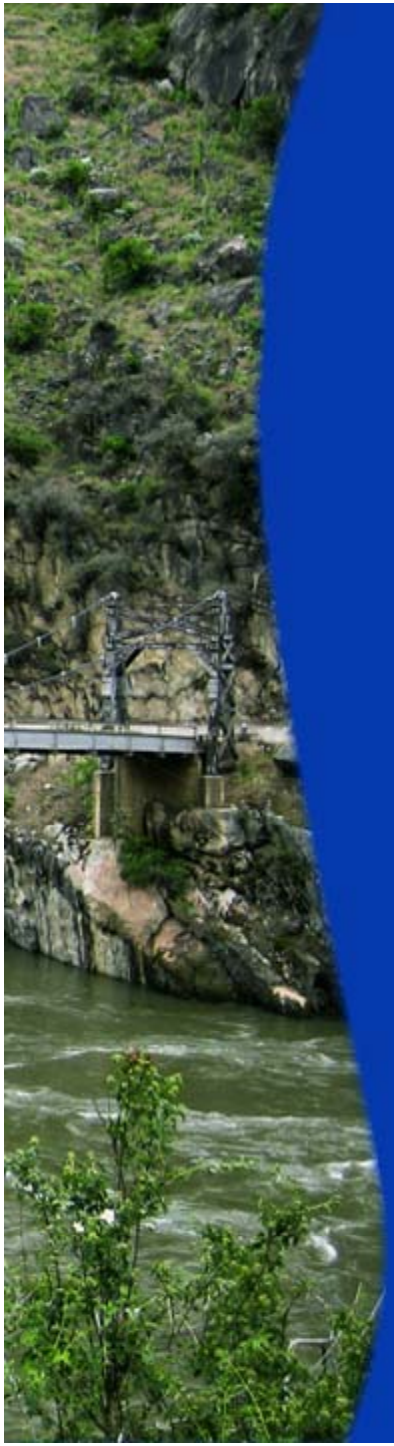
Manning Crevice Project Team

- Cooperative effort between Western Federal Lands Highway Division (WFLHD), Idaho County, and the U.S. Forest Service.
  - WFLHD Project Manager
    - Greg Gifford
  - Subconsultant Project Manager
    - Bryan Foote
  - Public Involvement Specialist
    - Kristin Lang



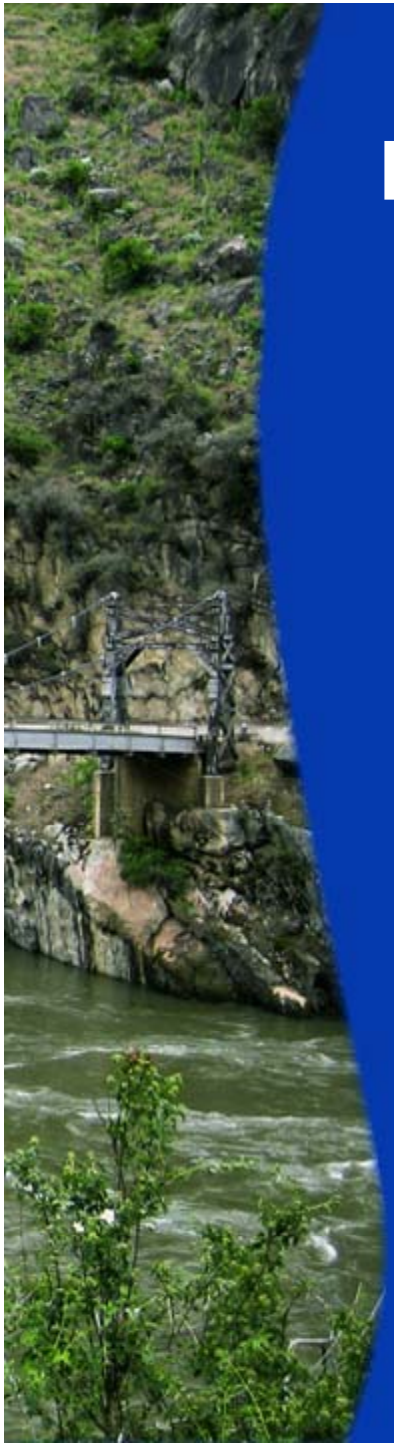
Project Overview

- **Manning Crevice bridge is a 248-foot long one-lane suspension bridge built in 1934 that carries Salmon River Road over the Salmon River.**



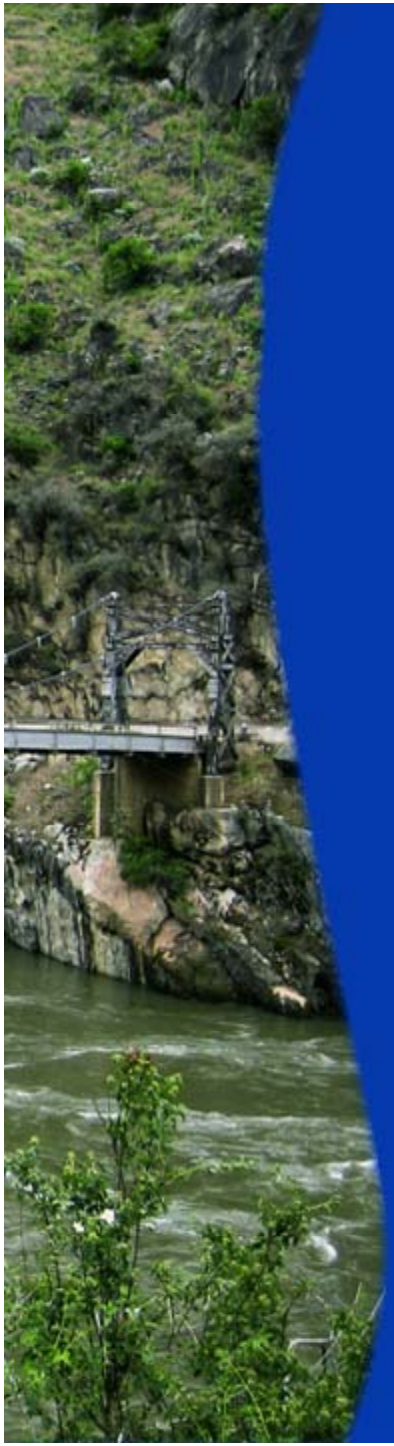
Project Overview

- Manning Crevice Bridge Deficiencies:
  - Not up to current bridge design standards
  - Limited width and load capacity
  - Limited vertical clearance
  - Inadequate turning radii for larger vehicles
- Draft concept study completed in early September 2010 to evaluate potential upgrades.
- Project funding included in the Idaho Transportation Department (ITD) Statewide Transportation Improvement Program (STIP) and the Idaho Forest Highway program.
- Scheduled for construction in 2013.



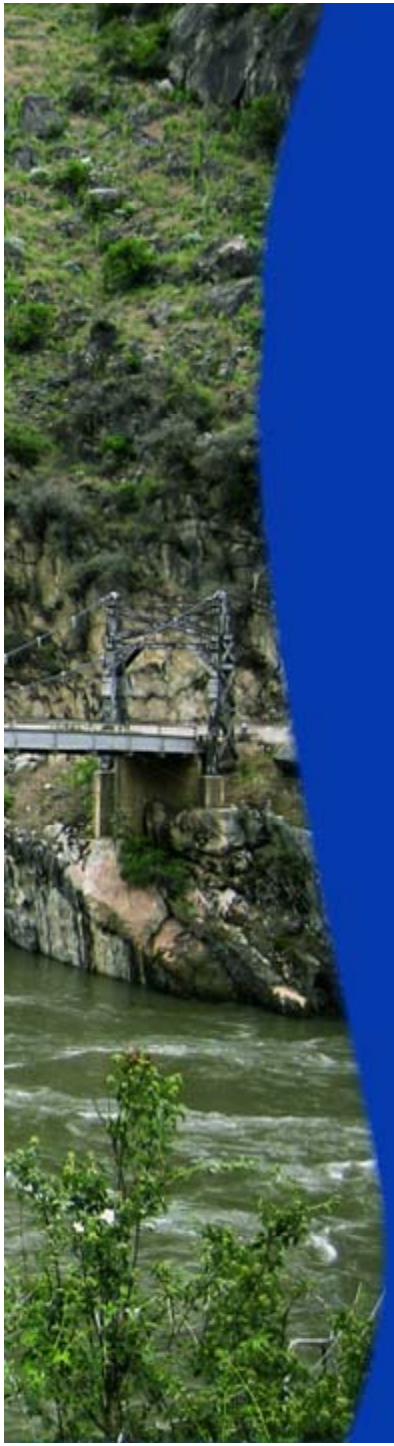
Project Criteria and Requirements

- Meet current bridge design standards
- Provide sufficient headroom for river use
- Approach road and structure must accommodate recreational vehicles, buses, and logging trucks
- No permanent construction in the river
- Structure outside the 100-year floodplain
- Traffic must be maintained during construction
- River use must not be interrupted during construction



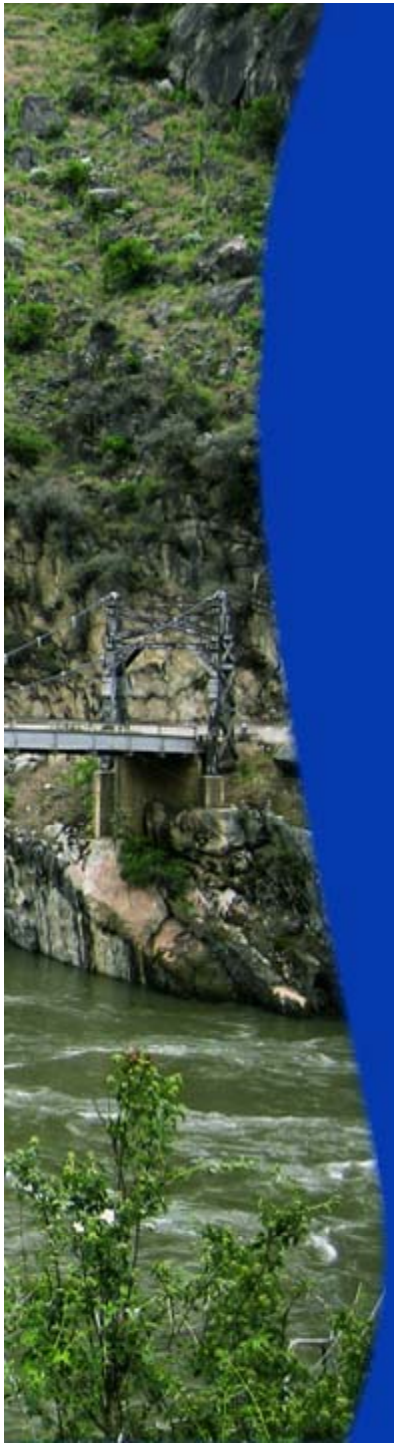
Screening Process

- The screening process criteria:
  - Constructability
  - Site and river impacts
  - Traffic impacts
  - Cost effectiveness
  - Long-term performance
  - Aesthetics

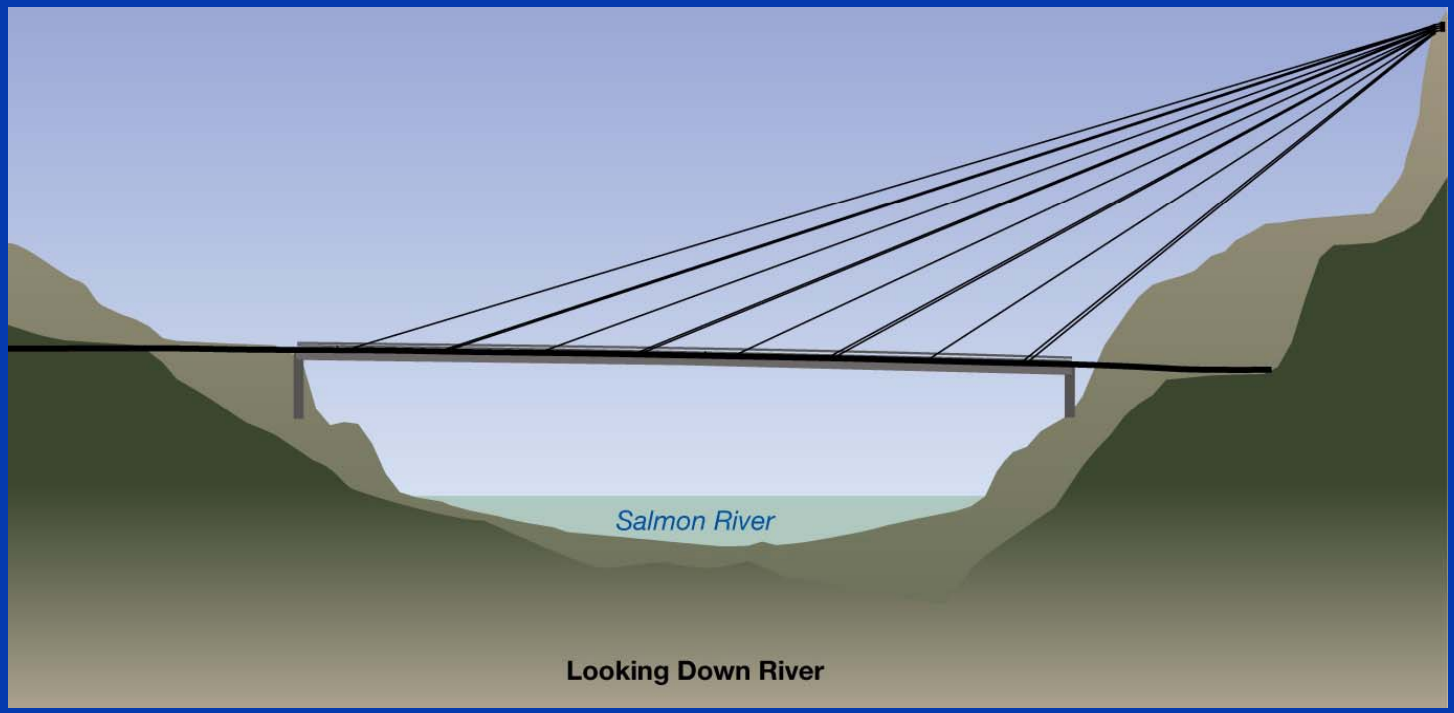


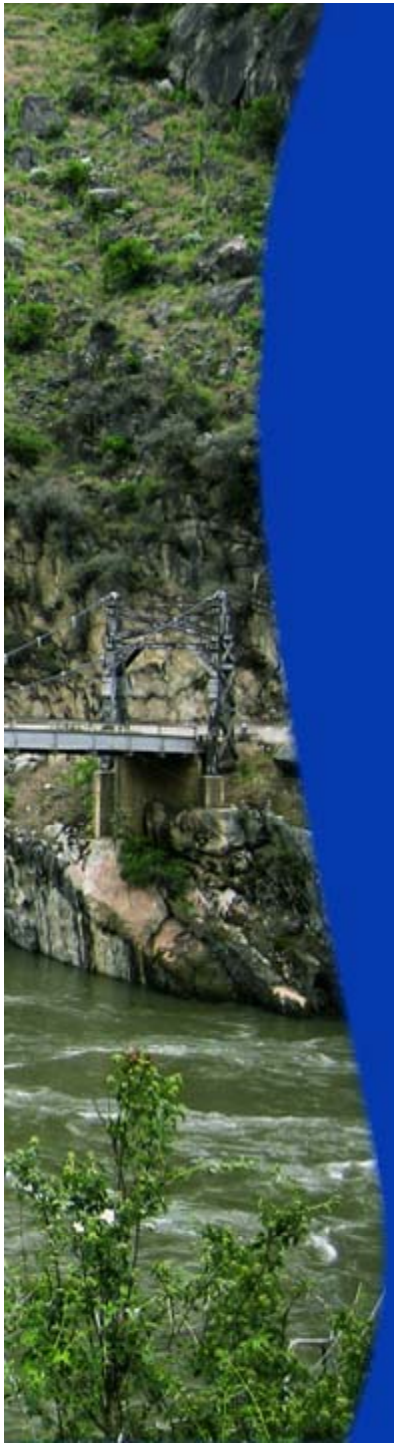
Alternatives Analysis

- In addition to rehabilitating the existing structure, four potential bridge alternatives were identified:
  - Steel girder bridge
  - Steel arch bridge
  - Cable-stayed bridge
  - Suspension bridge
- Of these five alternatives, three were carried forward for further analysis.



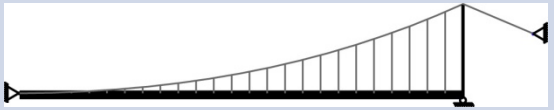
Alternatives Analysis: Cable-Stayed Bridge Alternative

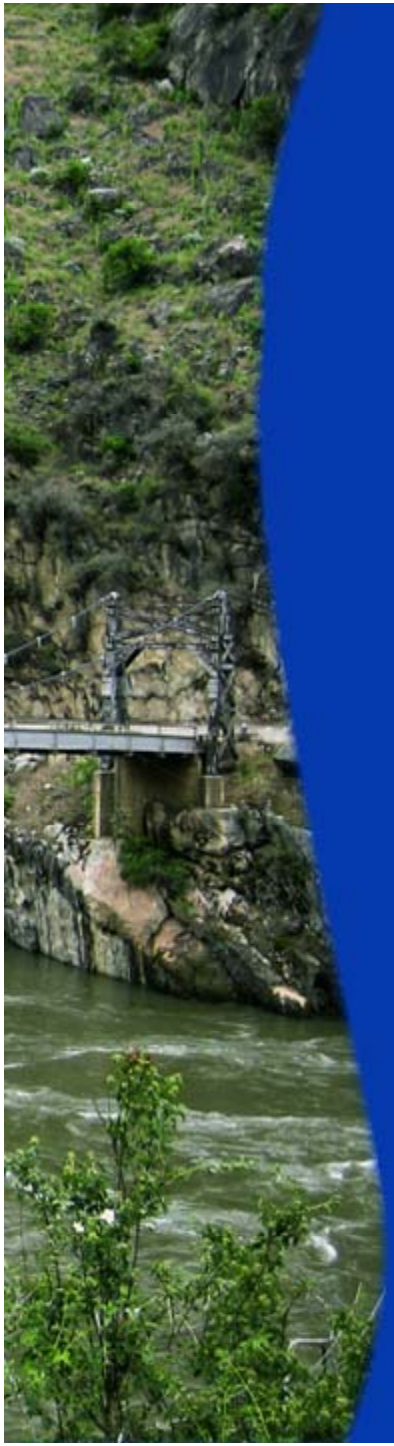




Alternatives Analysis: Suspension Bridge

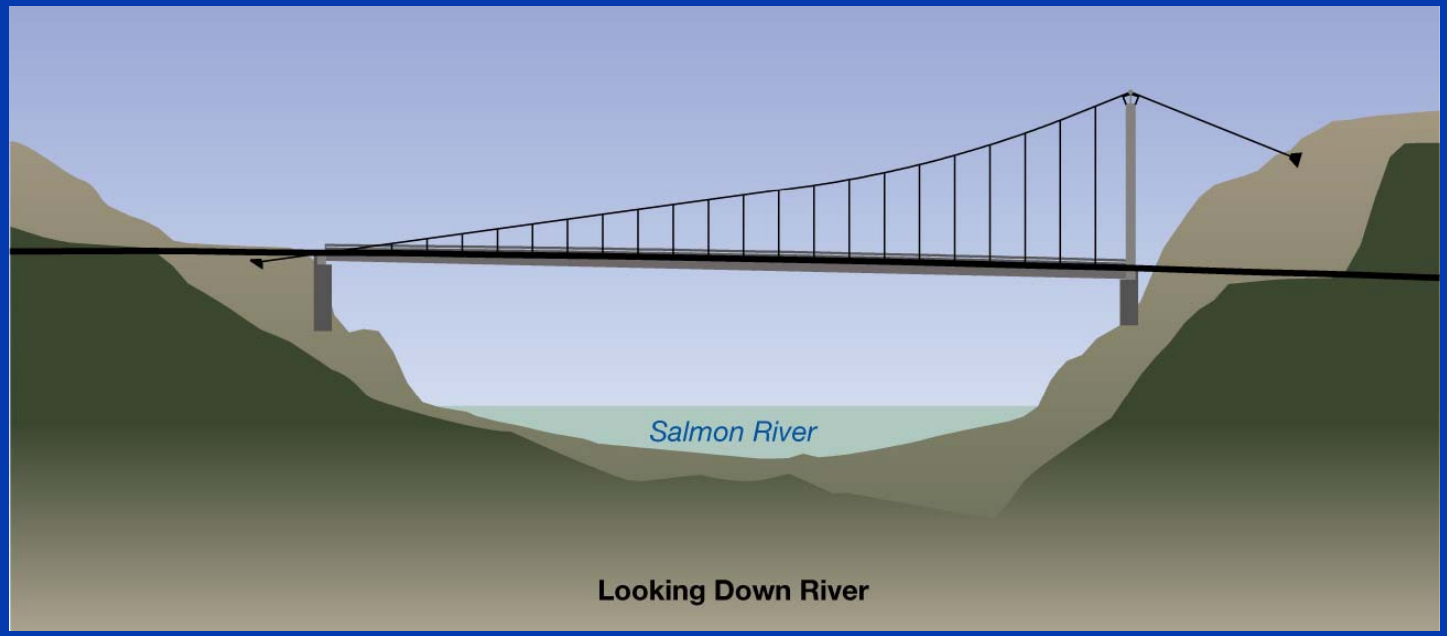
- Three variations were considered:

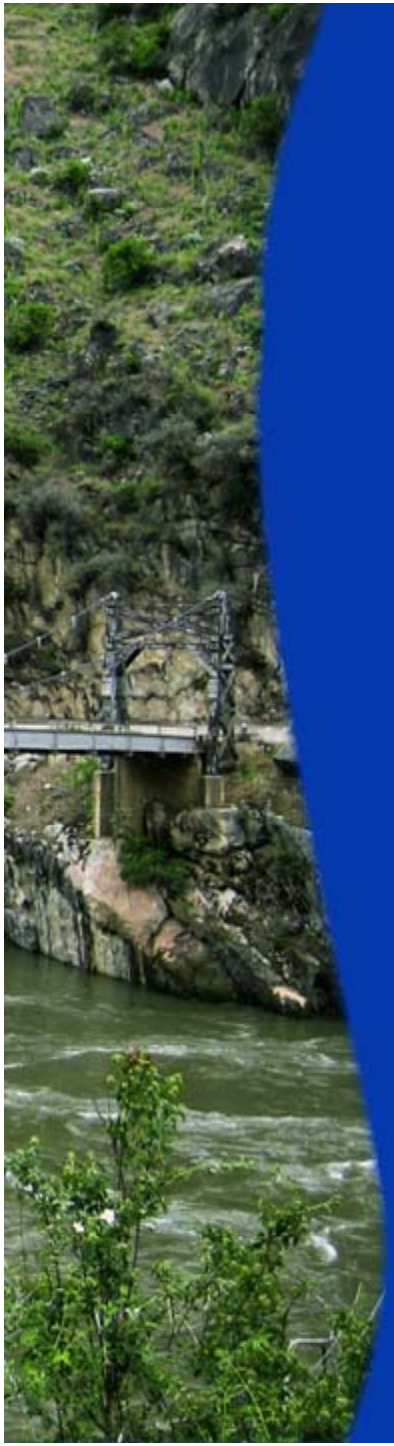
Bridge Type	
Symmetrical A - Suspension with towers bridge	
Symmetrical B - Suspension without towers bridge	
Asymmetrical one-tower bridge	



Alternatives Analysis: Suspension Bridge Alternative

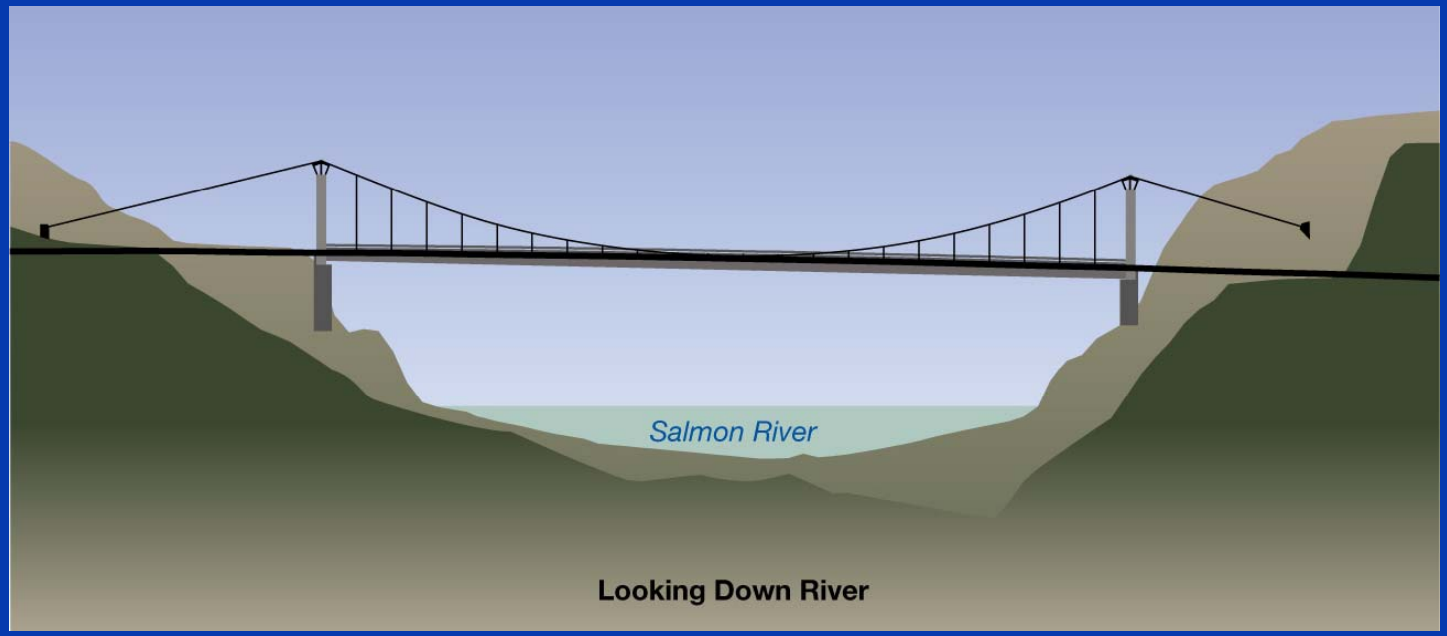
- **Asymmetrical One-Tower Bridge**

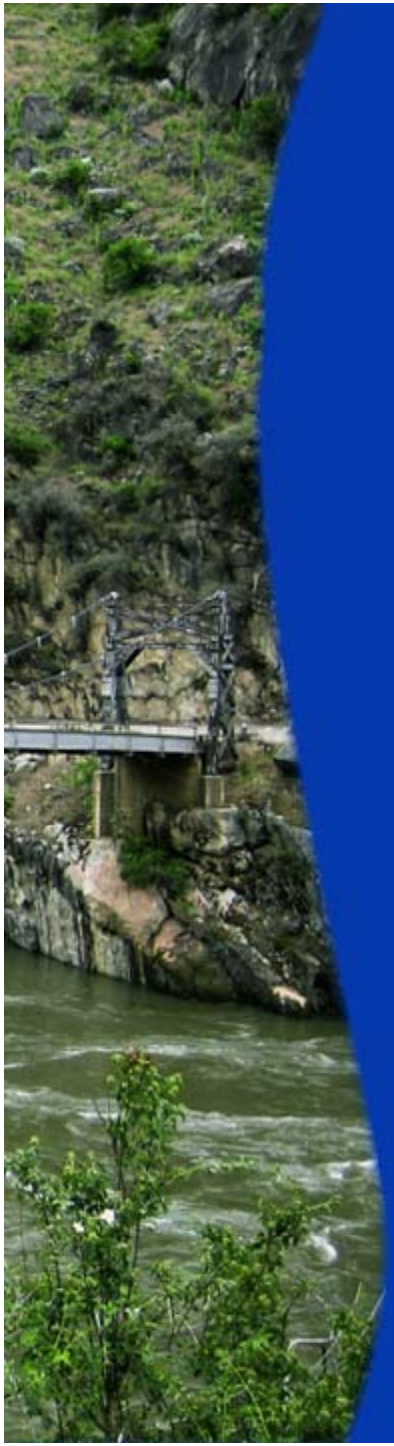




Alternatives Analysis: Suspension Bridge Alternative

- **Symmetrical A - Suspension with Towers Bridge**

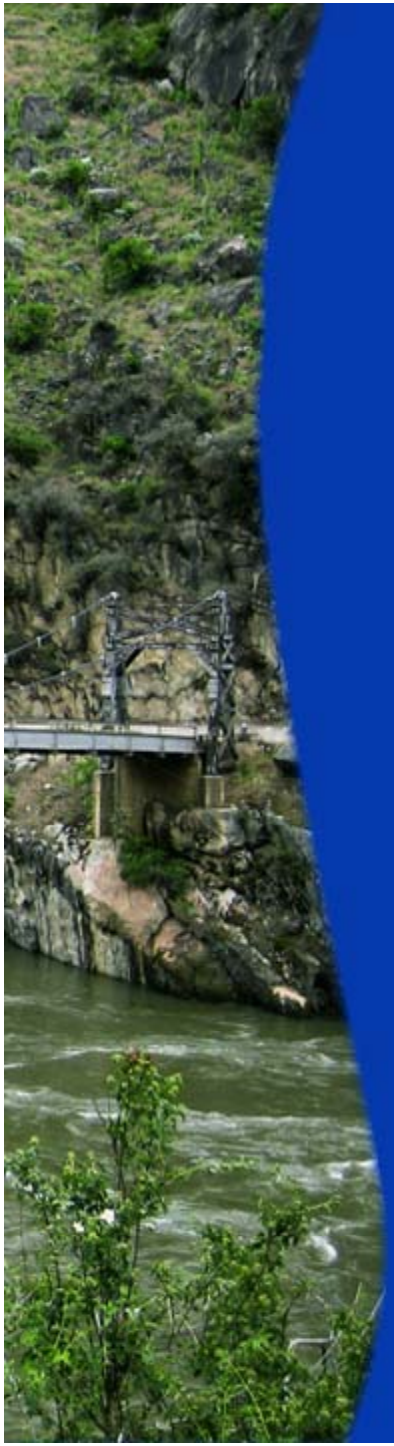




Alternatives Analysis:
Bridge Alternative Screening Summary

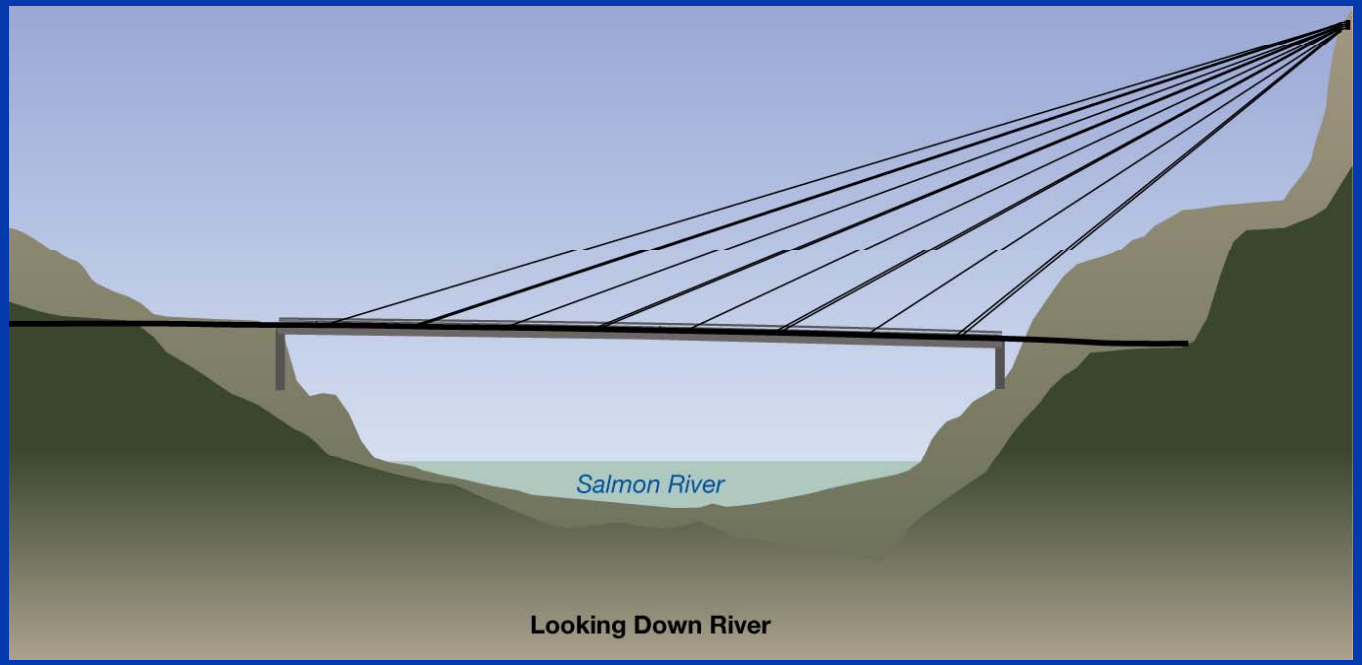
Alternative	Screening Criteria								Notes
	Constructability	Site Impacts	Temporary River Impacts	Traffic Impacts	Cost Effectiveness	Long-Term Performance	Aesthetics	Total	
Rehabilitate existing bridge	N	3	3	1	1	2	3	N	*Structures are not feasible due to site and project restraints and constructability problems.*
Steel girder bridge	1	1	1	2	1	3	1	10	
Steel arch bridge	1	2	1	2	2	3	2	13	
Symmetrical A - suspension with towers	2	2	3	2	3	3	3	18	*Long-term performance is rated high due to lower and more accessible anchorages. Aesthetics is rated high due to the similarity to the existing bridge and other suspension bridges over the river*
Symmetrical B - suspension without towers	1	2	3	2	1	2	3	14	*Aesthetics is rated good due to the elimination of the towers, which will cause the bridge to blend well into the environment*
Asymmetrical one tower suspension bridge	3	3	3	2	3	3	3	20	*Constructability, site impacts, cost-effectiveness, and long-term performance rated good due to the single tower and lower north anchorage. This structure is well suited to the site constraints and topography*
Cable-stayed bridge	2	3	3	2	2	2	3	17	*Site impacts rated good due to the use of single anchorage*

N = Not feasible 1 = Poor 2 = Satisfactory/Neutral 3 = Good

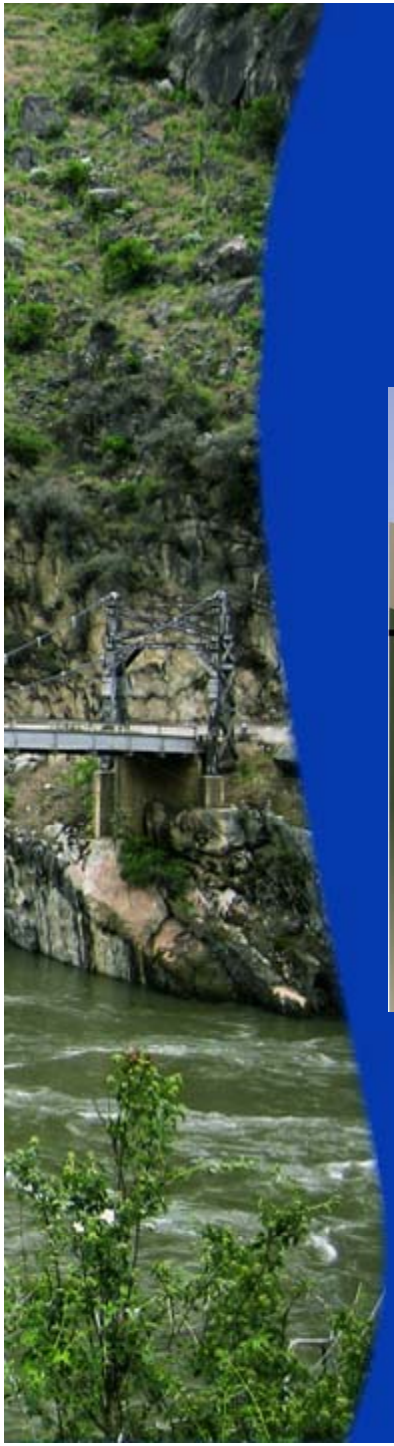


Alternatives Analysis: Recommended Structures

Cable-Stayed Bridge

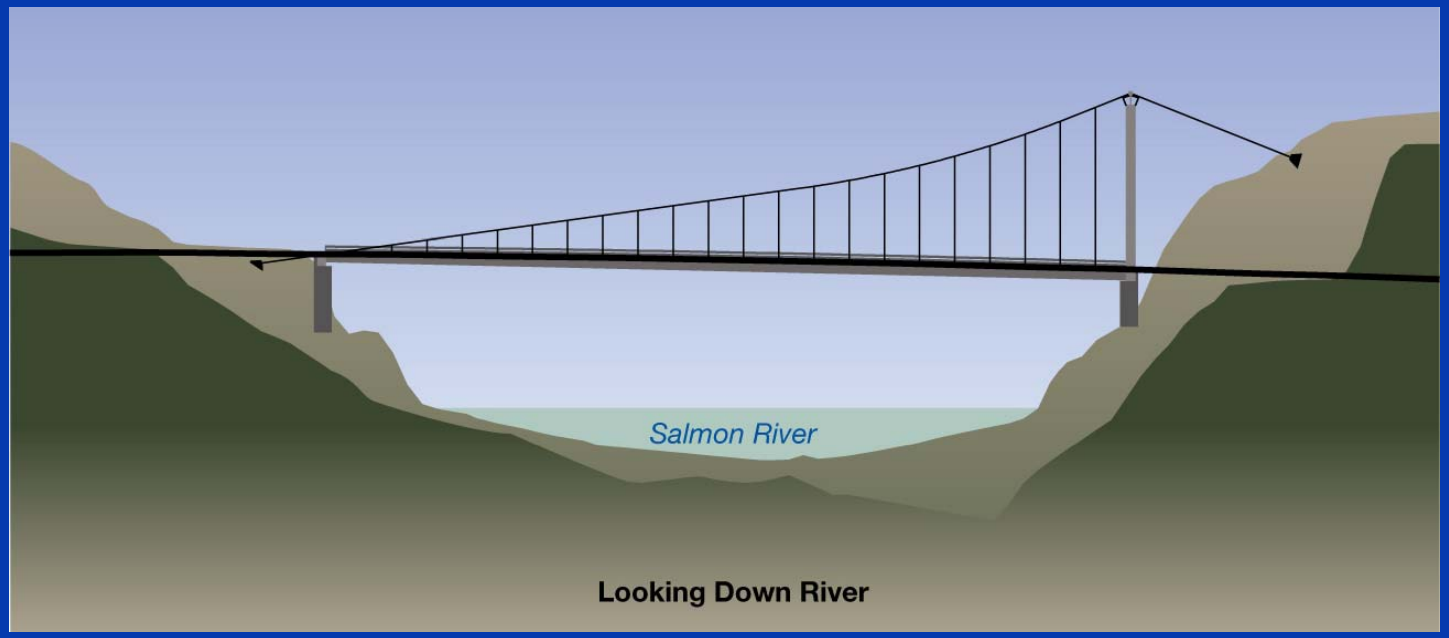


- Constructed from the north side
- Single anchorage minimizes site impacts
- No pylons (towers) to construct
- Minimal temporary river impacts

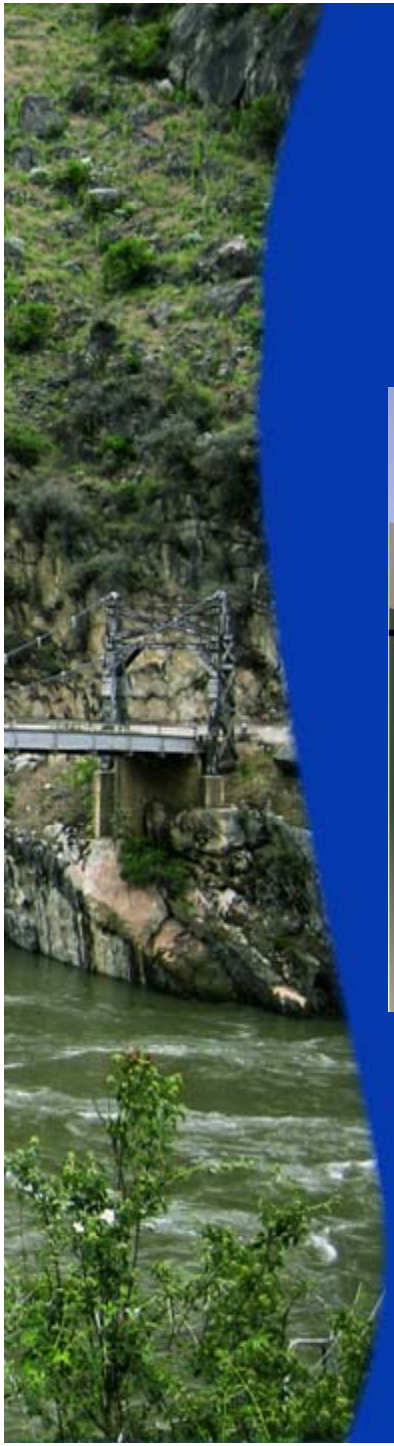


Alternatives Analysis: Recommended Structures

Asymmetrical One-Tower Bridge

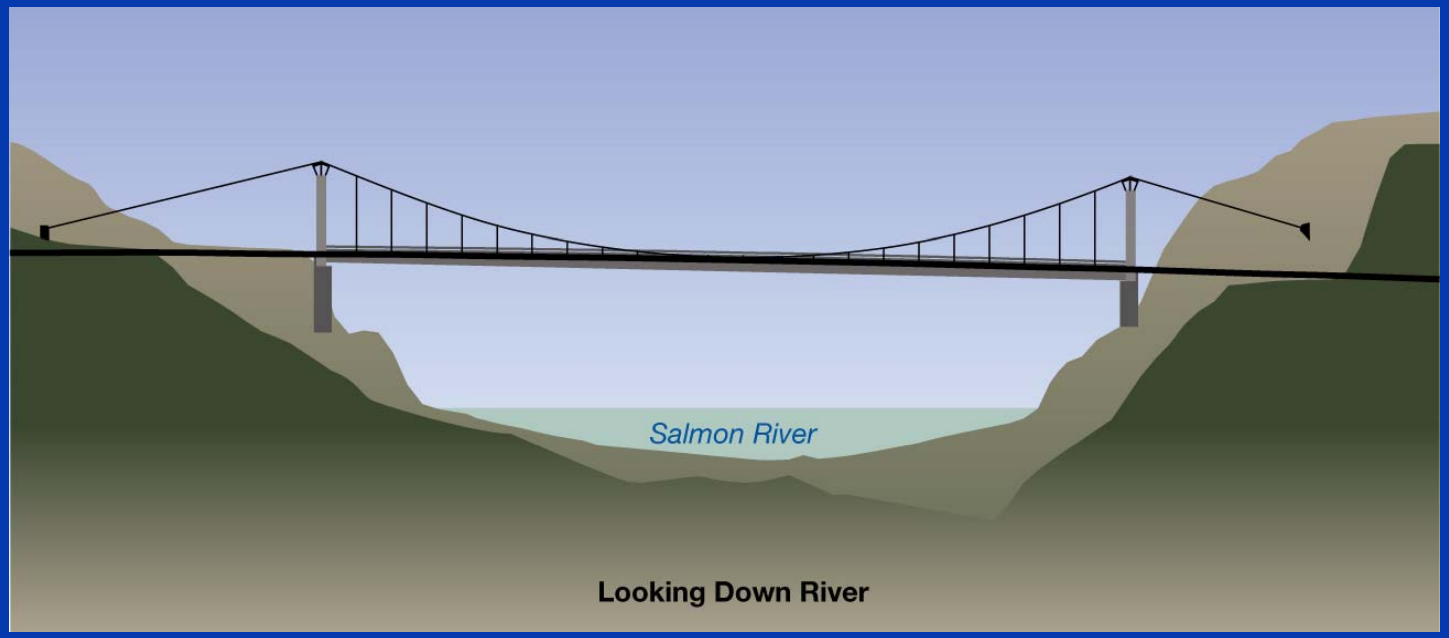


- Constructed from the north side
- Improved access and constructability
- Lower construction costs
- Eliminates tower and anchorage on the south hill side

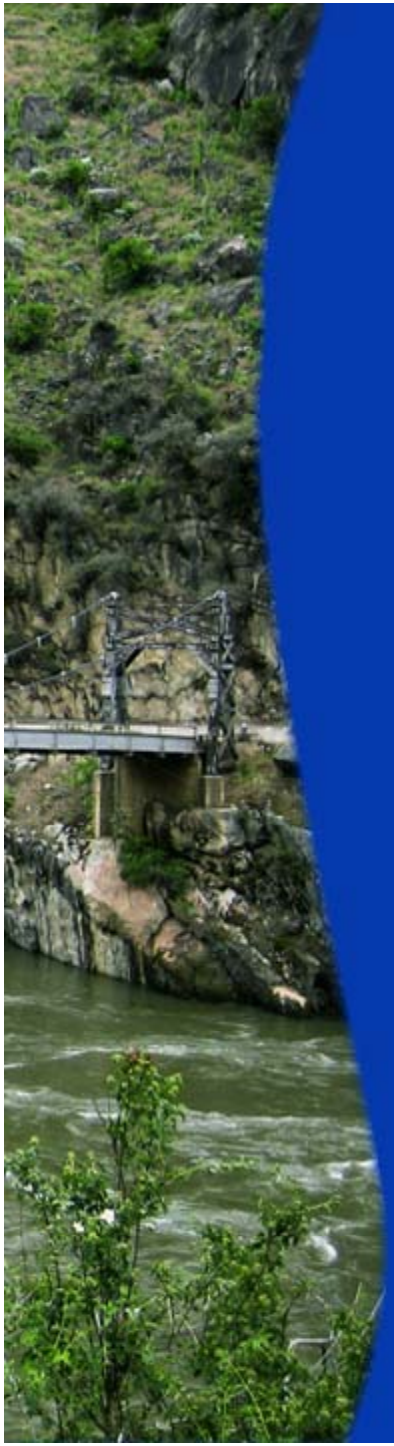


Alternatives Analysis: Recommended Structures

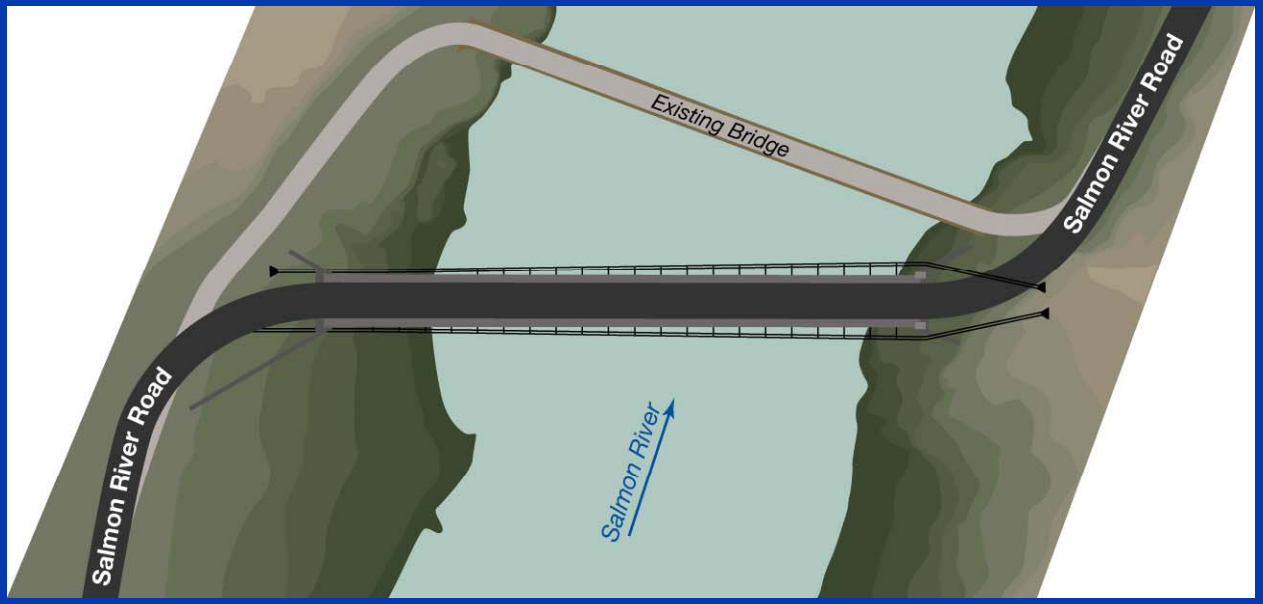
Symmetrical A - Suspension with Towers Bridge

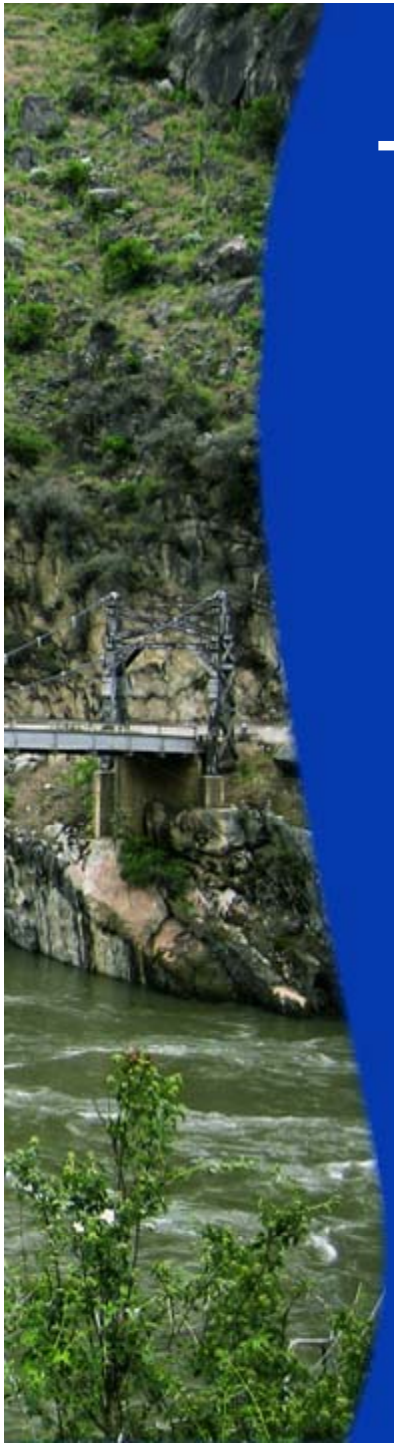


- Lower anchorages are more easily maintained
- Similar aesthetics to existing bridge



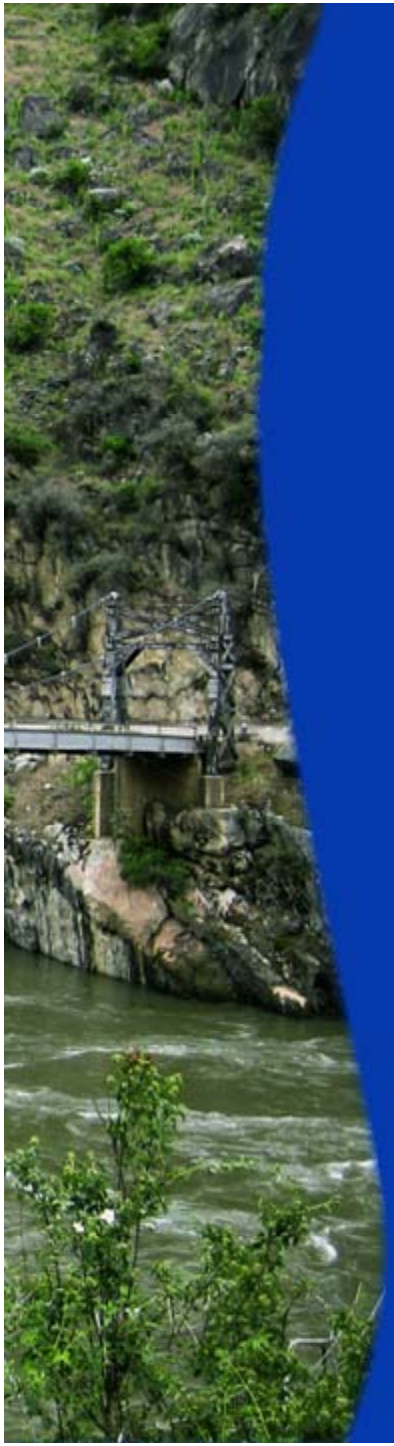
Alternatives Analysis: Construction Phasing





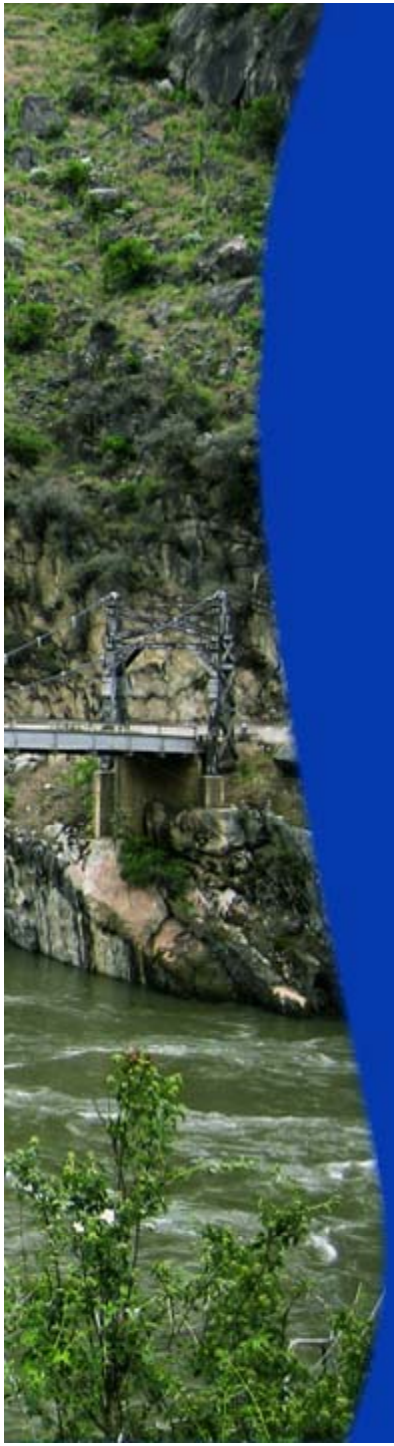
Temporary Impacts and Mitigation

Temporary Impacts	Proposed Mitigation
Traffic Delays and Potential Road Closures during construction	Provide public with advance warning of any potential road closures due to construction Restrict potential road closures to low traffic times (evenings, weekdays, etc.)
	Maintain traffic during construction Existing bridge remains open until construction is complete No interruptions to river use Minimal construction delays
Site Impacts	No permanent construction in river Recommended alternatives minimize temporary construction impacts to the river Restore existing site to its original or enhanced state



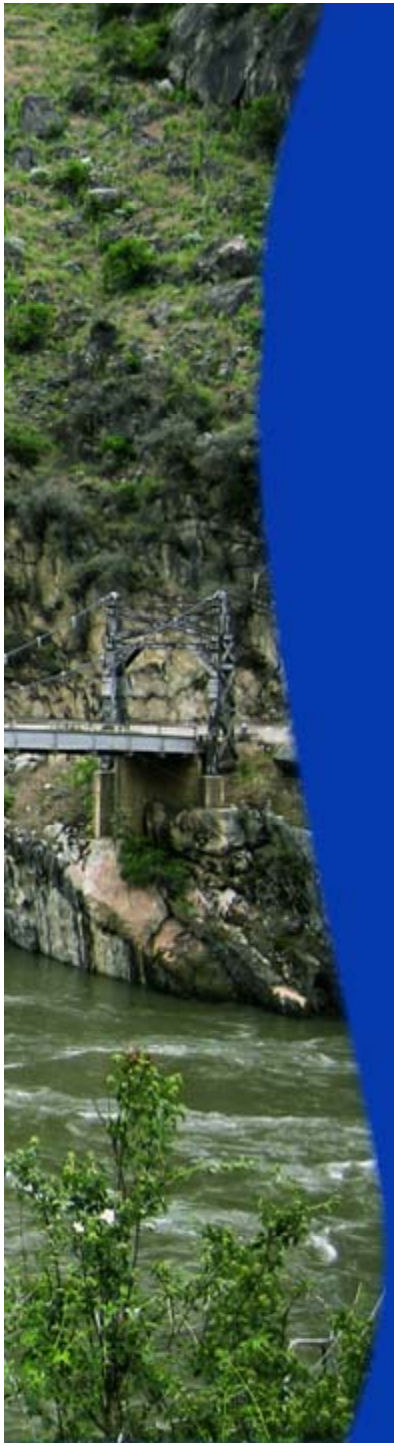
Additional Benefits

- **Safety** – Improved operational and safety design features while meeting current design standards.
- **Accessibility** – Easier access to accommodate recreational vehicles, buses, and logging trucks.
- **Aesthetics** – Incorporate design standards that minimize visual impacts and enhance aesthetics.
- **Maintenance** – Long-term maintenance costs would be considerably less than the costs to maintain existing bridge.



What Happens Next?

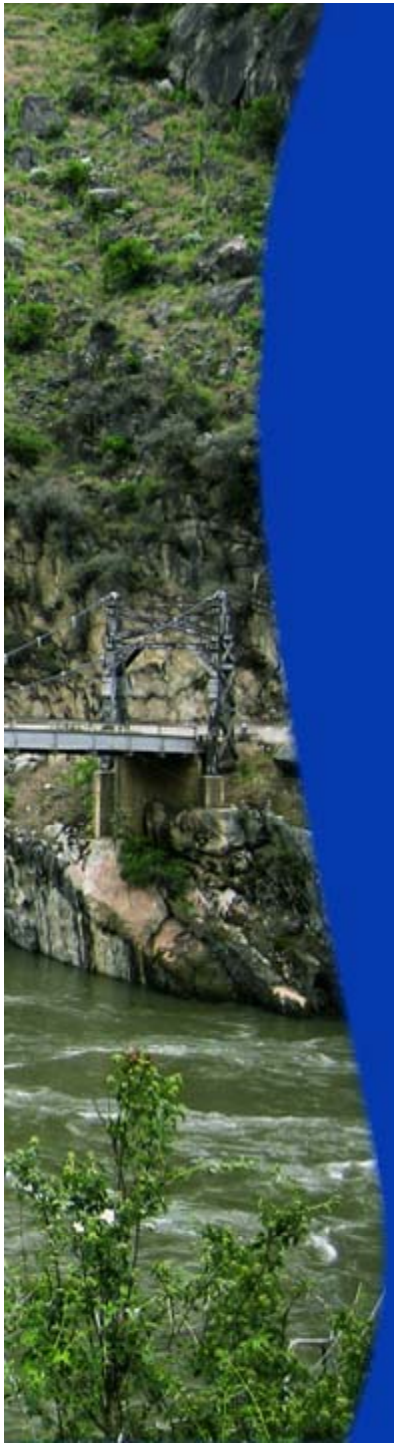
Milestone	Timeframe
Address Comments from Public Meeting and Stakeholders	October – November 2010
Final Alternatives Analysis Report	February 2011
Design	February 2011 – 2013
Construction	2013



How to Stay Involved

- **Website**
  - Join our online mailing list to receive e-mail updates on major milestones and construction delays.
    www.wfl.fhwa.dot.gov/projects/id/manning-crevice
- **Email**
  - manningcrevice@pbsj.com
- **Mail**
  - Mail your comments to the Project Team

    Manning Crevice Project Team
    PBS&J
    4601 DTC Boulevard, Suite 700
    Denver, CO 80237



Questions/Comments?