

LITTLE MISSOURI SCENIC RIVER COMMISSION  
Meeting Minutes  
August 29, 2007  
Dickinson, ND

Attendees: Alvin Nelson - McKenzie County, Ray Clouse - Golden Valley County, Merle Clark - Slope County, Arik Spencer - Parks and Recreation Department, Linda Weispenning – State Water Commission  
Also Present: Jennifer Turnbow - Kadrmas, Lee & Jackson, Jerry Kreeg - Kadrmas, Lee & Jackson  
Not Present: Billings County, Slope County, Dunn County, ND Department of Health  
Meeting Notice and Agenda: Attachment A

Chairman Alvin Nelson opened the meeting asking all to introduce themselves.

Jennifer Turnbow and Jerry Kreeg of Kadrmas, Lee & Jackson (KLJ) then made a presentation (Attachment B) to the Commission offering background on a Billings County crossing of the Little Missouri River and the current process underway. KLJ explained the Federal Highway Administration, North Dakota Department of Transportation, and Billings County are working as joint lead agencies to conduct an Environmental Impact Statement (EIS) with the assistance of Kadrmas, Lee & Jackson, Inc. The EIS will analyze a proposed new river crossing over the Little Missouri River in Billings County and McKenzie County, excluding the National Park units from the project study area.

Additional background included a review of existing crossings in the field, agency and public scoping meetings to solicit input regarding the project's purpose and need as well as a range of reasonable alternatives including no action. Numerous comments received from the agency and public scoping meetings cited the Little Missouri State Scenic River Act, Chapter 61-29 North Dakota Century Code, stating that the project may not comply with the Act.

The specific purpose of requesting this meeting, KLJ noted, is to seek guidance from the Little Missouri Scenic River Commission, if the river crossing structure alternatives comply with the Little Missouri State Scenic River Act. The alternatives include: (1) cement plank, (2) low water crossing, (3) box culvert, and (4) bridge.

The first alternative presented was concrete planks installed at stream bed elevation, providing a solid bottom for vehicles crossing the river. Vehicles would still be required to drive through water with this alternative. Discussion ensued as to whether there were any crossings of this nature on the Little Missouri now, but none were known. KLJ felt this type of crossing would likely not meet the purpose and need of the proposed project. Concern was expressed by commission members as to the number of vehicles that may get stuck attempting to cross on this type of crossing and whether or not these planks would move over time.

The second alternative presented was a low water crossing, constructed above the normal water mark and allowing normal flows to travel through fluted sections of the crossing. This type of crossing allows vehicular travel to cross at most times of the year. These crossings are designed to be overtopped without being overly restrictive during high flow events. Discussion was held on the potential for this type of crossing to alter flow or impede the river and several commission members said they felt it would not as the 3V's Crossing is a similar structure and is already on the river. As to whether this structure would be determined to be an impoundment on the river, the State Water Commission noted that the State Engineer would make that determination as a permit from the Water Commission would be needed to proceed. If the State Engineer determined this structure was not in compliance with NDCC 61-29 from an impoundment standpoint, the Water Commission could not issue the permit, otherwise the Water Commission does not have regulatory authority.

KLJ noted that once a hand full of specific alternatives was identified, hydrology, cultural, environmental and other site specific studies would be done.

KLJ was asked for a sense for how the different public input meetings went. KLJ replied that the meeting in Medora, concerns were related generally to the specific location while the public meeting in Bismarck, concerns were more generally related to the cumulative impact to the badlands and the Eberts Ranch area.

The third alternative presented was a pre-cast reinforced concrete box culvert, placed in the stream channel allowing normal and most high water flows to travel through the boxes. This structure would provide a reliable year-long crossing of the Little Missouri River during most normal years. Concern was expressed by commission members on the ability to maintain this type of crossing from obstructions becoming lodged in the box culvert. The Commission asked KLJ as to whether river recreation would be impacted by a box culvert or if they had received any comments relating to this. KLJ responded that concern was expressed as to whether canoeists would have enough clearance to travel on the river without added obstruction. NDPRD noted that they did have concerns related to this impact. A concrete arch structure was also presented as being very similar to a concrete box culvert. KLJ was asked how channelization is defined as it related to this project and structure and KLJ responded that that this would not be viewed as channelization as a new channel was not being created.

The final alternative presented was the bridge structure. This type of structure would provide a reliable year-long crossing of the river except in extreme precipitation events.

KLJ concluded their presentation and asked the whether any of these types of river crossings would be in violation of the Little Missouri River Act.

In response to Kadrmas, Lee & Jackson, Inc. request for guidance from the Little Missouri Scenic River Commission as to whether the proposed crossing alternatives of the Little Missouri River complies with the Little Missouri River Scenic River Act, North Dakota Century Code (NDCC) Chapter 61-29, the Commission was in consensus that none would be in violation.

The Commission noted as this project progresses and specific alternatives are recommended for both structure type and location, the Commission will need to be presented with detailed information fully addressing the scope and impact of this project to the Little Missouri River. Only then will the Commission consider the project for compliance with NDCC 61-29.

The Commission also requests a six week notice before this project is brought for final consideration. This time is needed to provide for adequate review of the material, Commission members schedules and public notice.

The Commission asked that the Parks and Recreation Department send a letter on the Commission's behalf indicating the Commissions wishes (Attachment C).

Being the Commission had addressed the agenda items the meeting was moved closed.

Respectfully submitted  
Arik Spencer  
North Dakota Parks and Recreation Department  
On Behalf of the Little Missouri Scenic River Commission



John Hoeven, Governor  
Douglass A. Prchal, Director  
1600 East Century Avenue, Suite 3  
Bismarck, ND 58503-0649  
Phone 701-328-5357  
Fax 701-328-5363  
E-mail parkrec@state.nd.us  
www.NDparks.com

August 13, 2007

Kadrmas, Lee & Jackson, Inc., representing the Federal Highway Administration, North Dakota Department of Transportation, and Billings County has requested guidance from the Little Missouri Scenic River Commission as to whether a proposed low water crossing of the Little Missouri River in Billings County complies with the Little Missouri River Scenic River Act, North Dakota Century Code (NDCC) Chapter 61-29.

As such, Mr. Alvin Nelson, chairman of the Little Missouri Scenic River Commission has called a meeting. The meeting is scheduled for 7:00 p.m. MDT, August 29<sup>th</sup> at the AmericInn (229 15h St. W) in Dickinson. The agenda is as follows:

- 7:00 p.m. – Call to Order
- 7:05 p.m. – Introduction of Committee Members
- 7:15 p.m. – Little Missouri River Crossing Project Presentation
- 8:15 p.m. – Need for Future Meetings
- 8:30 p.m. – Adjourn

In preparation for this meeting I have attached the letter sent to the commission from the Kadrmas, Lee & Jackson outlining their request as well as a copy of Little Missouri River Scenic River Act, NDCC 61-29, for committee members to review. Jennifer Turnbow from Kadrmas, Lee & Jackson, Inc will be on hand to make a brief presentation and answer any questions you may have. Should you have any questions or cannot attend please feel free to call me at (701)328-5369.

Sincerely,

A handwritten signature in black ink, appearing to read "Arik Spencer", with a long horizontal flourish extending to the right.

Arik Spencer  
Recreation Division Manager

**Little Missouri River Crossing  
Environmental Impact Statement  
Project # FHO-02-04(001)  
PCN # 16970  
Billings County, North Dakota**

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## **Range of Reasonable Alternatives**

### **What is a range of reasonable alternatives?**

The CEQ (Council on Environmental Quality), Section 1502.14, requires that EISs (Environmental Impact Statements) examine all reasonable alternatives. In determining alternatives, the emphasis is placed on the term "reasonable". Alternatives are considered reasonable if they are practical and feasible from a technical and economical standpoint. The Do Nothing or No-Action alternative must always be included in the range of reasonable alternatives, although it may not always appear reasonable.

In accordance with SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), the lead agencies are developing the range of reasonable alternatives for the Little Missouri River Crossing EIS as a collaborative process. The lead agencies are involving the cooperating and participating agencies and the public, and considering the input received from these groups. After considering all the input, the lead federal agency (in consultation with the other lead agencies) is ultimately responsible for deciding the range of reasonable alternatives.

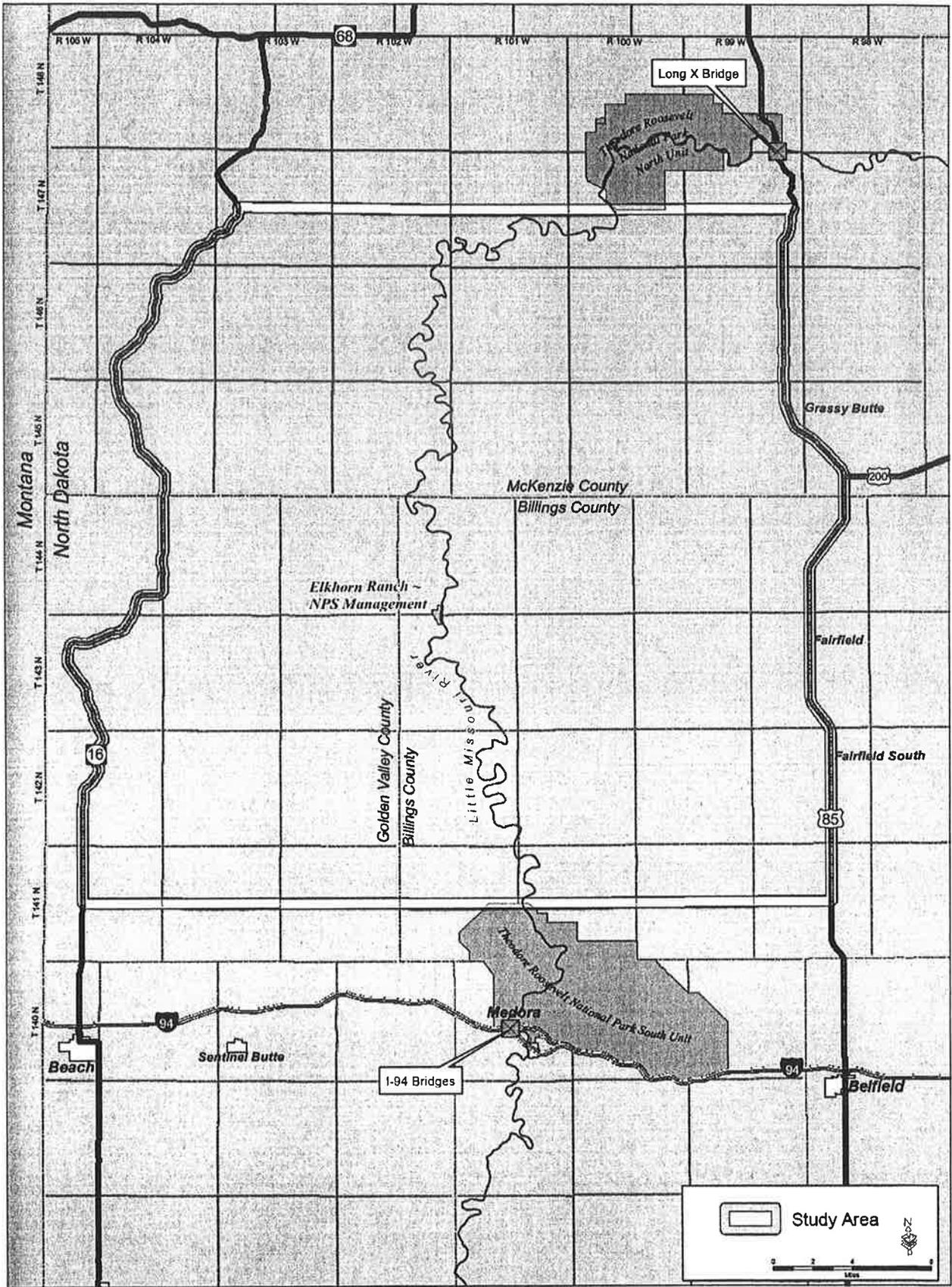
Agency and public scoping meetings were held on March 5 and 12, 2007. One of the objectives of these meetings was to garner feedback on the range of reasonable alternatives. As a result of input from agencies and the public, two key additions emerged: expansion of the study area and a proposed river crossing type.

The study area, originally stated as having a northern border of the Billings County line and the southern boarder of the Theodore Roosevelt National Park, was expanded to include a portion of McKenzie County up to the southern border of the North Unit of Theodore Roosevelt National Park. In addition, the southern boarder was changed to the northern boarder of the South Unit of Theodore Roosevelt national Park. The east border of US Highway 85 and west border of ND Highway 16 has remained the same throughout the project.

Original river crossing structure alternatives included a bridge, low-water crossing, or a box culvert. As a result of the scoping meetings, two alternatives were added to the original river crossing alternatives: concrete planks and concrete arch structure.

### **What is the study area for the proposed project?**

The proposed project is located within a study area between the northern border of the South Unit of Theodore Roosevelt National Park, the southern border of the North Unit of Theodore Roosevelt National Park, the eastern border of US Highway 85, and the western border of ND Highway 16. The NPS-administered Elkhorn Ranch has been excluded from the project study area. The following exhibit displays the study area.



## What alternatives are being considered for the proposed project?

The alternatives proposed for consideration include:

- Do Nothing
- Roadways
  - Use Existing Roadways
  - Construct New Roadways
  - Use A Combination of Existing and New Roadways
- River crossings
  - Concrete Plank at Stream Bed Elevation
  - Low Water Crossing
  - Concrete Box Culvert
  - Concrete Arch Structure
  - Bridge

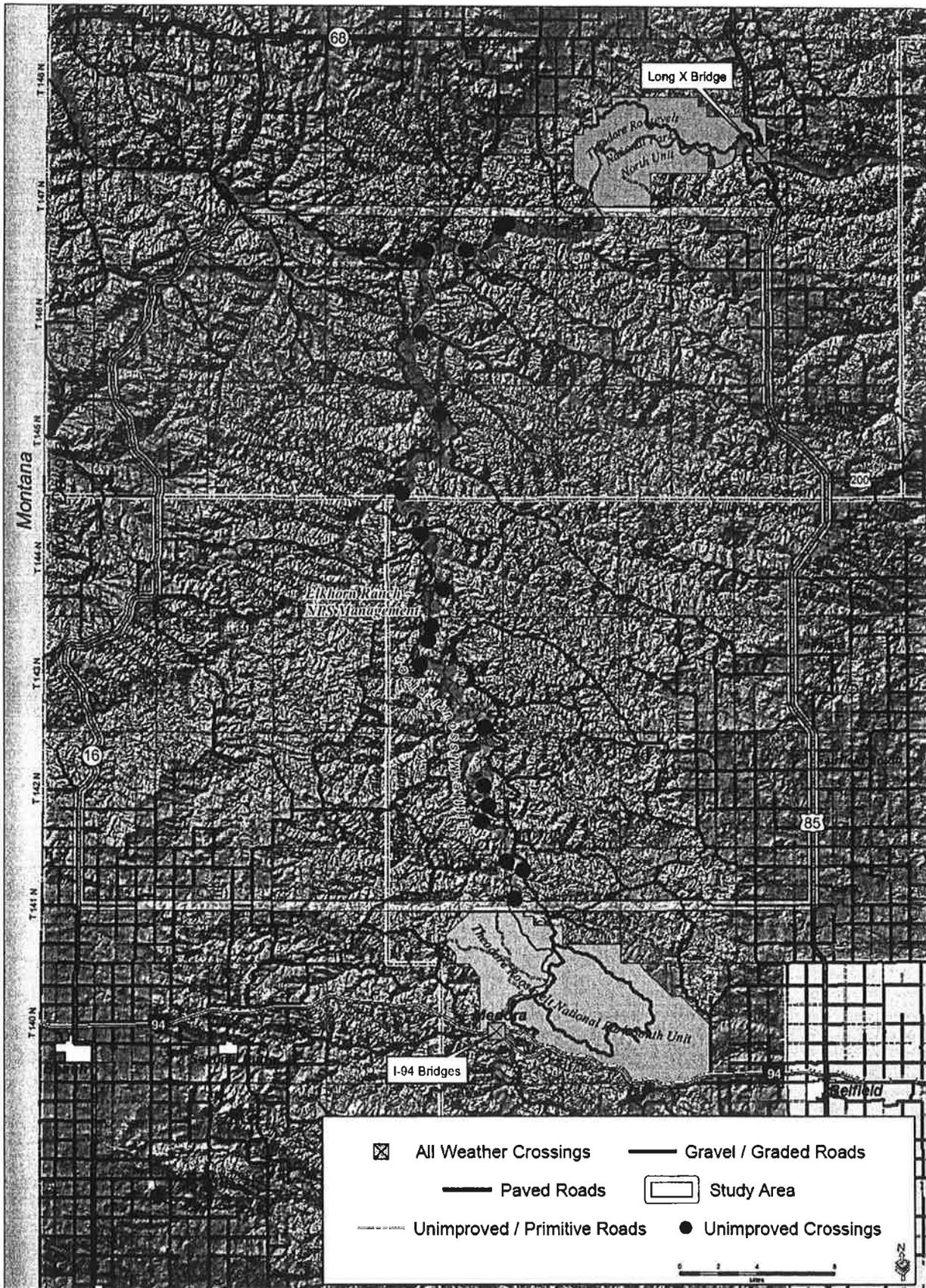
The proposed project has three different, but interconnected components in the development of alternatives. These components can be answered by exploring three essential questions: (1) Should the proposed project be constructed?; "if yes" (2) Where should the river crossing be located?; and (3) What type of river crossing should be constructed?

- (1) *Should the proposed project be constructed?* The lead agencies will develop and evaluate build alternatives as well as a Do Nothing or No-Build Alternative.

A Do Nothing or No-Build alternative is always included in this type of analysis to provide a baseline condition against which all other alternatives are evaluated. The no-build alternative is used to describe the existing conditions and anticipate what would happen if no improvements were made.

- (2) *Where should the river crossing be located?* The lead agencies are not proposing specific alignments or locations at this time, rather they are proposing general options that will be further developed and analyzed during the course of the project.

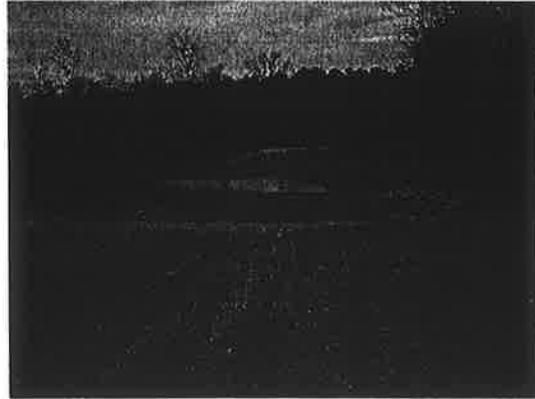
Three general options for connecting roadways are being proposed: the use of existing roadways, the construction of new roadways, or any combination of using existing roadways and constructing new roadways in the study area. The methodologies used to identify and evaluate specific alignment alternatives will be developed in cooperation with the cooperating and participating agencies. As a starting point, the following exhibit displays the existing roadways and crossing locations.



(3) *What type of river crossing should be constructed?* The lead agencies are proposing five different options:

a. Concrete Plank

A *concrete plank* uses strips or "planks" made of concrete, laid side by side in the river to provide a firm driving surface through the river. The planks allow vehicles to drive through shallow water without sinking into the river bottom. Of all the options under consideration, this would be useable for the least amount of time throughout the year because it does not elevate the roadway out of the water.



*Above: Example of a Concrete Plank*

b. Low Water Crossing



*Above: Example of a Low Water Crossing*

A *low water crossing* creates a low profile roadway that passes over the river. In periods of normal river flows, the roadway is high enough to be out of the water, with the river flows passing under the roadway through one or more culverts or openings. During periods of high river flows, the roadway would be submerged, allowing the river to flow naturally but not allowing traffic to cross the river. The height of the low water crossing and the amount of precipitation received affects how often the roadway is closed due to high water. The low water crossing is typically designed to allow for a smaller than 15-year storm event.

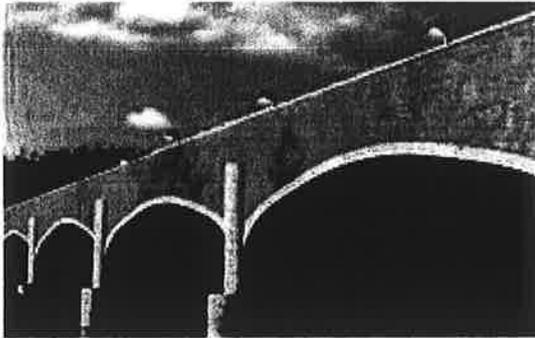
### c. Concrete Box Culvert

A *box culvert* uses large concrete culvert openings to allow the river to flow under the roadway. The culvert openings are usually rectangular shaped and include a concrete floor that sits slightly below the river bottom to allow for natural flow and siltation of the river channel. The culvert openings are generally large enough to allow the typical 15-year to 25-year storm event to pass through the culverts. Storm events larger than these will submerge the culverts and potentially over top the roadway.



*Above: Example of a Concrete Box Culvert*

### d. Concrete Arch Structure

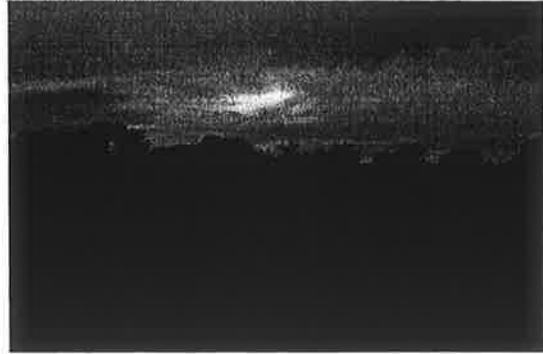


*Above: Example of a Concrete Arch Structure*

A *concrete arch structure* is similar to a concrete box culvert, with a rounded arch opening instead of a rectangular opening. The concrete arch structure does not have a concrete floor resting on the river bottom. Instead, the concrete arches are supported by a foundation wall (called a "pier") on each side of the arch. The concrete arch structure is designed similar to a concrete box culvert in that the culvert opening is typically large enough to accommodate the 15-year to 25-year storm event.

e. Bridge

A *bridge* would keep the roadway above the river. During periods of very high river flows, the river may flow across the roadway approaching the bridge. A bridge would be supported by foundation walls or piers, which may be within the river itself. A bridge is typically designed to accommodate the 15-year to 25-year storm event.



*Above: Example of a Bridge*