



Missoula County  
South Avenue Bridge Project

BR 9032(65)  
CN 6296000

Subject:	Preliminary Resource Agency Meeting	Meeting Location:	HDR Engineering Inc. Office 700 SW Higgins Street, Suite 200 (Clark Fork Conference Room)
Meeting Date:	August 18th, 2016 9 AM to 12 PM (Mountain)	Conference Call Information:	Call-in: (866) 583-7984 Code: 9457685

### Meeting Purpose:

The purpose of this meeting is to discuss the permitting and construction of the new South Avenue Bridge over the Bitterroot River in Missoula, MT. The intent is to discuss resource-specific concerns and regulatory requirements well in advance of project implementation in an attempt to inform the design process moving forward and ultimately streamline the permitting process.

### Discussion Items:

The following items are planned for the meeting.

<b>01</b>	<b>Introductions</b>
1.1	Project Team
1.2	Attendees/agencies present

<b>02</b>	<b>Project Status &amp; Updates</b>
2.1	Project overview and schedule
2.2	Bridge alternatives analysis and Preferred Alternative
2.3	Hydraulics
2.4	Maclay Bridge removal
2.5	Environmental documentation
2.6	Public involvement process and Technical Design Committee (TDC) coordination

<b>03</b>	<b>Resource Topics and Considerations</b>
3.1	Water Quality
3.1.1	Deck drainage
3.1.2	MS4 and stormwater requirements
3.2	In-stream Construction
3.2.1	Pier type and configuration
3.2.2	Scour protection
3.2.3	Temporary structures
3.2.4	Timing restrictions
3.2.5	Maclay Bridge removal (structure and pier/abutment removal)
3.3	Permitting
3.3.1	Floodplain
3.3.2	Section 404/401
3.3.3	DNRC Easement
3.3.4	SPA 124
3.3.5	Storm Water (MPDES) and MS4
3.4	Recreation
3.4.1	Permanent river access/parking areas
3.4.2	Recreational/floater access during construction
3.5	Restoration and Revegetation
3.6	Project Limits and Potential Future Improvements
3.7	Additional Geotech and Utilities
3.8	Other Considerations

#### 04 Other Items

- 4.1. Written comments can be emailed to Erik Dickson, Missoula County Project Manager: [edickson@missoulacounty.us](mailto:edickson@missoulacounty.us)  
4.2. Project website accessible at: <http://www.southavenuebridge.com/>  
4.3. MDT Maclay Bridge Planning Study: <http://www.mdt.mt.gov/pubinvolve/maclay/>

## SUMMARY OF ENVIRONMENTAL COMMENTS

### Summary of Resource Agency Comments from the 2012 Maclay Bridge Planning Study

The following provides a summary of the notable comments received from the resource agencies included in the May 21, 2012 resource agency workshop as noted in the 2012 Maclay Bridge Planning Study (pg. 8).

- **Floodplain/Hydraulics** – The Bitterroot River has migrated to the west over the years. Riprap was put in as mitigation in the 70's and 80's. The bridge is at a pinch point in the floodplain. In the case of a replacement bridge, Missoula County would have a “no increase” requirement for the 100-year base flood elevation. An exception may be allowed if a CLOMR is prepared, reviewed and approved by FEMA. After the CLOMR, a LOMR would have to be completed. This process can be very time consuming, and would allow for a 0.5 foot increase of the 100-year base flood elevation, and only after hydraulic modeling shows it would not affect adjacent property.
- **Bridge Deck Drainage** – Drainage from the bridge currently flows off the deck structure. Impacts resulting from drainage off new bridge deck should be considered. Bridge deck drainage should be channeled off the bridge and possible detained/retained before discharge.
- **Bridge Span** – If a new bridge is constructed, the largest span practicable should be utilized to minimize impacts within the floodplain.
- **Induced Growth** – An evaluation of impacts related to induced growth should be conducted if a project is developed.
- **Vehicle/Wildlife Conflicts** – Impacts to potential vehicle/wildlife collisions should be analyzed if speeds are increased as a result of a project identified from the study.

### Additional Environmental Comments Received Between 2015 and Present

**MT Fish, Wildlife & Parks (email correspondence from Ladd Knotek, FWP, to Greg Robertson, Missoula County, Nov. 25, 2015)**

- **Riparian Buffer along O'Brien Creek:** The proposed bridge alignment and current approach easement run parallel and adjacent to lower O'Brien Creek. As bridge and approach locations are designed and surveyed, a substantial (50-100 ft.), no disturbance buffer should be included along O'Brien Creek and at the confluence with the Bitterroot River. A large public investment has been made in this reach over the past 15 years through restoration work, fish passage improvements, as well as adoption and enforcement of protective subdivision covenants.
- **Minimizing Public Access and Disturbance on west end of proposed bridge:** With the current easement alignment, the mouth of O'Brien Creek and fish holding water just downstream in the Bitterroot River lie directly adjacent to the west end of the proposed bridge. Both physical disturbance and public access should be limited at this location to minimize impacts to congregations of fish using this location. Specifically, mitigate measure should be incorporated to protect and enhance the buffer between the bridge and the confluence area, as well as discourage bank angling there.
- **Maintain Public access at Maclay Bridge Location and provide adequate public river access at east end of South Avenue site:** Public demand for river access is high in lower Bitterroot River reaches adjacent to Missoula. This includes access for angling, as well as other recreationists (e.g. tuber/floaters). Reasonable public river access and parking opportunity should be maintained at the Maclay Bridge site and on the East end of a new bridge location at South Avenue. These sites will be important components of the overall public river access plan for the Lower Bitterroot River reach near Missoula.

- Restore natural features to Maclay site if bridge is removed: If a new crossing is constructed at South Avenue, infrastructure associated with the Maclay Bridge should be removed and natural river features should be restored. This would include removal of bridge piers, pilings and abutments to an elevation below maximum scour depth, restoration of riparian buffers, and pulling back approaches to restore a normal cross-sectional width for this reach.
- Design of new bridge should not constrict the Bitterroot River cross-sectional (bankfull) width, should minimize riparian disturbance, and consider location of bridge piers to minimize collection of floating debris (LWD).
- General Biological Information regarding Fish Species affected by Project: Lower O'Brien Creek in the project area supports westslope cutthroat trout (WCT), RainbowxWCT trout hybrids, brown trout, brook trout, mountain whitefish, and sculpin. The lower Bitterroot River has a similar species composition. No viable population of bull trout has ever been detected in O'Brien Creek and population densities are extremely low in the lower main stem Bitterroot River. However, the mouth of O'Brien Creek is likely used seasonally by bull trout as it acts as a thermal refuge in summer and early fall. The lower Bitterroot River also provides important over-winter habitat for bull trout as this reach is heavily influenced by groundwater and generally maintains slightly higher over-winter temperatures than the Clark Fork River just downstream.

**Clark Fork Coalition (letter from Christine Brick, Clark Fork Coalition, to Dan Harmon, HDR, Jan. 07, 2016)**

- Construct the bridge such that piers can be placed outside of the active channel to the greatest extent possible. However, if mid-channel or floodplain piers prove necessary, they should be designed to be as hydraulically efficient as possible such that they don't cause excessive scour, deposition, or hazard to watercraft.
- Consider the rural characteristics of the neighborhood and design a bridge that reflects those values.
- Consider the increased traffic on the South Avenue approach as well as on the Blue Mountain Road. To what extent will a new bridge result in increased traffic on either South Avenue or blue Mountain Road? How can these impacts be mitigated? Will additional road maintenance be required on the Blue Mountain Road if traffic increases? Given that this road is adjacent to the river, the impact of additional de-icer application should be considered.

**U.S. Fish & Wildlife Service (comment summary of email correspondence from Mike McGrath, USFWS, to Becky Holloway, HDR, Aug. 12, 2015 and Sep. 1, 2015)**

- The USFWS supports the FWP recommendation for a 50-foot minimum avoidance area around the mouth of O'Brien Creek and preventing anglers from being able to access O'Brien Creek mouth area due to its importance as a refuge for fish.
- Regarding in-water work in FMO habitat (of bull trout), the USFWS typically recommends a July 1 through August 31 work window. However, given the high water temperatures of the Bitterroot River, an argument for a wider work window could be made.
- The following conservation measures are intended to avoid, minimize, and mitigate effects to individual yellow-billed cuckoos and their respective habitat:
  1. Adjust project timing to avoid disruption of individual yellow-billed cuckoos within riparian areas from June 1 through July 31.
  2. Avoid or minimize the removal of yellow-billed cuckoo habitat, typically riparian vegetation.
  3. Replace/replant removed riparian vegetation.
- Project vicinity observations of the yellow-billed cuckoo have been documented in 1980 and 2012. The USFWS is currently more focused on migratory habitat for the yellow-billed cuckoo in western Montana than nesting habitat and recommends MDT and FHWA conduct protocol surveys (e.g., June, July, August) for the yellow-billed cuckoo in the year prior to construction.