Calapooia Watershed Council

PO Box 844 / 136 Spaulding Ave / Brownsville OR 97327

Meeting Summary

Bowers Rock Technical Team Meeting

January 16, 2014

(Albany City Hall, 333 Broadalbin St SW, Albany 97321)

Meeting purpose: To provide an update on the design for the Little Willamette culvert crossing and answer remaining questions before the project moves forward to submit permits. Provide context on the Bowers Rock landscape to help frame future restoration efforts.

11:00 am Introductions

In attendance:

First Name	Last Name	Interest Group
Tara	Davis	CWC, Coordinator
Bud	Baumgartner	CWC, Council Co-Chair, Forester
Mark	Running	CWC, Council Co-Chair, Landowner
Connie	Burdick	CWC
Dave	Hulse	University of Oregon, Professor
Chuck	Knoll	Linn County, Engineer
Melinda	Butterfield	DSL, Local Area Coordinator
Karen	Hans	ODFW, Asst District Fisheries Biologist
Dennis	Wiley	OPRD, District Manager
Scott	Youngblood	OPRD, Park Ranger
Benny	Dean Jr	USACE, Project Manager
Omar	Ortiz	USACE, Project Manager
Josh	Sullivan	USACE, Project Manager
Crystal	Durbecq	Willamette Weed Cooperative
Peter	Kenegy	Local Farmer
Kate	Huber	Local Landowner
Ed	Rust	Local Landowner
Joe	Scheler	Local Landowner
Bill	Scheler	Local Landowner
Karen	Scheler	Local Landowner
Russell	Bartlett	RDG, Project Engineer
Denise	Hoffert-Hay	CC, Project Manager

11:15 am Presentation on 30% design for Little Willamette culvert replacement

Russell Bartlett, P.E. River Design Group

(Note: RDG's presentation was also scheduled to cover the potential culvert replacements on East Slough, but due to questions on the proposed culvert design, the material on the proposed projects was not presented at this meeting and will be re-scheduled for the March landowner meeting).

Presentation is available to view on-line at the Council's webpage: www.calapooia.org under the heading "Projects" then "Bowers Rock State Park Restoration".

Focus of the presentation was on the proposed design to improve flow connectivity and fish passage in the Little Willamette. In the original project proposal from 2012, Oregon State Parks requested a design for a pedestrian bridge. Meaning, the bridge would provide members of the public walking on the property access to the "island" forested portion of the park property. The crossing was also requested to be able to support the weight of vehicles used for future restoration of the island portion of the property. The current crossing provides 24 sq feet of conveyance; the proposed railcar bridge crossing would provide over 600 sq feet of flow conveyance.

The proposed deck is 13' in width. The railcar is 9' wide, boards installed over the crossing would widen the top surface (running surface) to 13'. The project's hydraulic modeling demonstrates existing and proposed water surface elevations. The flood flows at the crossing are not influenced by the conveyance of flows upstream from the crossing. Instead, they are influenced by the backwater effect of the mainstem Willamette River. The Willamette River narrows just downstream from Bryant Park and backs up flows to Bowers Rock, including into the Little Willamette. Once water levels are above even a 2-year event, flows in the Little Willamette are being affected by the mainstem processes.

During smaller winter storm events, the crossing will provide improved conveyance.

There were several questions/comments brought up for discussion throughout the presentation. These include:

1. Will the crossing provide railings? OPRD prefers removable railings that can be installed during the non-rainy months and removed during the winter months to prevent damage from wood debris in the channel.

RDG has not designed the project to include railings at this time, but the design can be revised to add removable railings per OPRD's request.

2. Could the site utilize two railcar bridges side by side to provide a larger bridge surface?

No.

3. Is a more traditional bridge approach (concrete spans) an option for the site?

The project's original intent, per the client's request (OPRD), was to provide a pedestrian crossing that would also support vehicle access for future site restoration actions. So, a traditional bridge approach was not how the project was originally envisioned.

The project engineer was in touch with ODOT to find out about the availability of recycled bridge beams (from the I-5 Willamette bridge work). There are no beams the appropriate size available. The beams that are available are all over-sized and would require two cranes to install them at the site. This option is cost prohibitive.

(Note: The project is in communication with Knife River (per the County's suggestions) on exploring the cost for having custom box beams poured for the site.)

4. How will flood flows impact the private neighbor's property?

The State Parks property is at a lower elevation than the neighboring property, as can be seen on the LiDAR. High water will move preferentially toward the Park property.

5. What is the scour potential for the bridge abutments? What size rock will be used? Linn County has recent experience with even over-sized riprap being impacted during large storm events. How will this rock be sized to prevent scour?

The rock size for scour protection has not been determined at the 30% design. It will be sized appropriately taking into account a factor of safety of 2.5 to 3.

6. Previous railcar bridges have washed out (2x according to neighbors). How will this railcar bridge be designed differently?

The project engineer was not aware the site had experienced two previous railcar bridge failings. Design information on those installations is not available to compare with this crossing.

This railcar bridge installation is being designed with a professional bridge engineering firm. This was likely not the case for the previous installations.

7. Why can't a low water ford be installed? Wouldn't a low water crossing be the best option?

Because of the bank height, installing a low water crossing at this site would require significant excavation. Low water crossings are usually more prone to catching debris because the ford is located in the channel bottom at an elevation that traps material as the water levels recede. They are typically very maintenance intensive. In addition, they are not accessible the entire year – a large portion of the year, they are unusable.

8. Has anyone examined moving the culvert to an alternate location? In the current location, one of the bridge footings would be on private property?

State Parks was not aware until 3 days before the meeting that the current crossing is partially on private property. They are working to have the property line surveyed in the coming week and will work with the project engineer to determine how the crossing can be moved downstream off private property.

The crossing will not move significantly from the proposed footprint. That would necessitate creating a road on both sides of the Little Willamette to create access. There is currently a road surface on the island from previous gravel extraction activities and the project will work to stay close to that alignment, but all on state park property. Creation of a new road would cut through the existing riparian gallery forest.

9. What about bridge maintenance? What happens when debris is caught on the bridge? There is no way to access the site during storm conditions.

OPRD is responsible for maintenance.

10. Who is currently maintaining the crossing and how often is debris clogging the pipe?

Scheler's have been conducting maintenance at the current crossing. Not clear how often it is blocked or partially blocked and requires maintenance.

11. Who will provide regular bridge inspections?

OPRD

12. Is each end of the crossing (where it ties into the banks) vulnerable to erosion?

This will be demonstrated for the project's floodplain permit.

13. At what flow (at the Albany gage) is there water in the bottom of the pipe (at the Little Willamette crossing?)

This was not explored as part of the project's 30% design.

14. Isn't the pipe in good condition? It appears to be providing flow.

The pipe is rusted through the bottom and not in good condition. It does not meet state fish passage standards.

15. There is another crossing in the Little Willamette, upstream from this crossing.

The upstream crossing is on private property. This phase of the project is only exploring projects on the State Parks property. Private landowners can work with the Council in the future on projects.

Improving habitat access is frequently done a piece at a time as landowners are willing and interested in pursuing projects.

16. There is a considerable amount of gravel in the channel. Won't this gravel be a passage barrier – another high spot in the channel that will create ponding and strand fish? Could this gravel be mined out to improve channel conditions?

The project can explore gravel removal as part of the permitting for the crossing. Potential that it can be wrapped into this project. Alternately, the gravel can be left in place for the first year to see if improved connectivity provides conditions to transport the gravel downstream.

11:55 am Presentation on SLICES framework; the science and information behind efforts to restore the Willamette floodplain and some of the tools being used to support these efforts.

Dave Hulse, Philip H. Knight Professor in Landscape Architecture, University of Oregon

Focus of the presentation was on the history of how partners have worked over the years to build knowledge of the Willamette River and to assess conditions while prioritizing potential restoration actions and working to engage stakeholders.

Dave Hulse and Stan Gregory (OSU professor in Fish and Wildlife Department) collaborated with stakeholders for a decade to examine the Willamette landscape in detail to develop a tool, "The Willamette River Basin Restoration Atlas" to use to communicate ideas for potential futures for the Valley in 2050 based on three different trajectories: current landuse, conservation approach and development. Dr. Hulse presented a video to illustrate how these alternate futures would look on the landscape. This document led to the development of another tool, SLICES, a framework for looking at available data sets for the Willamette. This on-line mapping can be done from any computer with internet access and allows users to see data on existing conditions. It does not provide restoration recommendations, it is a set of data that can be consulted to assist planning restoration actions.

A unique feature of Bowers Rock that was presented is the presence of cool water refugia at the confluence of the Little Willamette and the mainstem Willamette. This location has water temperatures 2 degrees C cooler than the mainstem (nearly 4 degrees F). This cool water is important for native salmonid species.

The SLICES framework can be downloaded at: http://ise.uoregon.edu/slices/main.html

12:20 am Questions

1. Won't this project's installation encourage more park usage? What is Parks' plan for the property?

   OPRD does not have a master plan for Bowers Rock State Park. There is no plan to develop one within the next 5 years. OPRD does plan to manage the park as a natural area – akin to the Luckiamute Landing State Natural Area north of Albany – with walking trails only. OPRD has been participating in all stakeholder meetings and has been meeting with landowners to discuss their concerns over public access.

2. Neighboring landowners have concerns over safety and response time. Who is responsible for patrolling the Park? Who should be called during an emergency situation?

   If there is an emergency, people should call 911. The dispatcher will send the closest emergency responder to the scene. Oregon State Police are responsible for safety at the Park, however for non-emergency situations (litter, noise, parking) there may not be an immediate response. OPRD has been in communication with law enforcement and with the neighbors on this issue.

3. Vegetation planning is not adequate. Five years is not enough time. What happens in ten or fifteen years when the people who planned the projects are on to the next thing?

Over the past 5 years, all vegetation planting projects undertaken by the Watershed Council have included 5-year contracts for maintenance (which includes weed management, supplemental irrigation and re-planting). This has become the standard for most vegetation work now funded with grant dollars. This was not the standard historically.

There is not funding available to extend these contracts to 10 or 15 years. Most sites in Western Oregon do not require a 10 or 15-year commitment to reach a "free to grow" stage.

12:20 am Overview on recent vegetation mapping at Bowers Rock State Park

Crystal Durbecq, Willamette Mainstem Coordinator, Benton Soil and Water Conservation District

Presentation is available to view on-line at the Council's webpage: www.calapooia.org under the heading "Projects" then "Bowers Rock State Park Restoration".

Focus of the presentation was on the project being done in partnership with local landowners, SWCDs, municipalities and others on mapping mainstem Willamette Vegetation with a focus on identifying areas with significant non-native vegetation as well areas with unique or intact native vegetation and to use this information to plan collaboratively for controlling invasives.

Bowers Rock has a 125-acre block of native riparian forest that represents the largest intact forest in the surveyed reach of the Willamette riparian area.

1. What is being done to control weeds?

OPRD has conducted some weed control on their property and will work with the partnership in the future on invasives control.

12:55 am Meeting adjourned