***Buffalo Flats Floodplain Restoration Project***

***Focus Group Meeting #2***

***6:30-8:30 p.m.; Thursday, February 23, 2023***

## *Attendance*

*Focus Group Members:*

In person: Willard Bertrand, Donna Beverage, Andrea Malmberg, Tony Malmberg, Dick Middleton

Virtual: Bryan Endress, Pat Kennedy, Jake Kimbro, Kathy Kirby, Cassie Miller-Peterson, Cathy Nowak

*Project Staff:* Jim Webster, Union Soil and Water Conservation District (USWCD), Aaron Bliesner (USWCD), Deric Carson (USWCD), Matt Cox (Inter-Fluve), Kira Christensen (U.S. Bureau of Reclamation), Curt Ricker (USWCD Board Member/Director)

*Facilitation Team:* Susan Hayman (Ross Strategic), Tess Wendel (Ross Strategic)

The meeting was livestreamed via YouTube for public viewing. The meeting presentation slides can be found on the project website at: http://buffalo-flats.org/public-involvement/

## *Welcome and Meeting Framing*

The meeting began shortly after 6:30 p.m. with a welcome from Jim Webster, Union Soil and Water Conservation District (USWCD), and introductions of project staff and focus group members. Susan Hayman followed with an overview of the meeting objectives, agenda and guidelines related to group conduct.

## *Overview: Little Creek's 30% Conceptual Design*

Jim reviewed the overall project goals and objectives, current design/implementation phases timeline, and provided some comparisons with the Southern Cross project site from 2017. He reminded members that all project updates and resources can be found on the project website: buffalo-flats.org. Part of the overview included a summary of the different regulatory requirements the project is following at the federal, state, county, and city level. These regulations—including those required by the Federal Emergency Management Agency, Union County, City of Union, etc.—include safeguards for the public and the environment. For the complete list of regulatory requirements please see the presentation slides, slide 16.

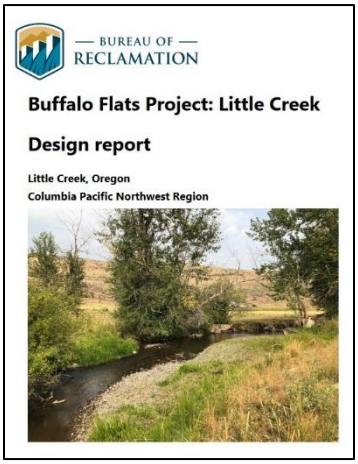


*Figure 1: 30% Design Report -View full report at buffalo-flats.com/resources*

Before Matt Cox began his presentation, three focus group members raised their hands when Matt asked how many had reviewed the design documents prior to the meeting.

Matt presented the technical details of the 30% floodplain restoration design for Little Creek. The presentation began with a conceptual sketch of the future land condition goal. This was followed by a

walk-through of the 30% floodplain design images, including the proposed cut and fill maps and planting and seeding maps for the wetland, riparian and transitional zones. The cut and fill maps, including the cross-sectional view of Little Creek (Slide 21) show the original channel that will be filled and separate, shallower channels that will be created throughout the floodplain. Matt explained that as the channels approach the downstream project boundary, swales will bring the water back together into the existing channel.

Matt and the Inter-Fluve team have modeled potential flooding as part of the 30% design. Matt walked through an image of a 100-year flood during existing conditions and under the current design. FEMA requires a 100- year flood model, and this model was refined using data from some large flood events in 2021. This model demonstrates that the split of water over High Valley Road remains the same in proposed conditions as in current conditions.

### *30% Design Question & Answer/Discussion Period*

Matt and Jim then took questions from Focus Group members.

A focus group member asked for additional clarification about how the plans affect the spring flooding on Little Creek and whether there will be impacts to Israel Ditch. The project team noted there will be no impact to Israel Ditch. The project area should allow for more water to be absorbed during flooding and will release slowly throughout the season. The same amount of water entering Buffalo Flats will leave the property—it will just move more slowly downstream.

Matt defined a willow trench (bright green lines on Slide 22) for another member, noting that they are linear, shallow trenches excavated to a depth that is below the water table, and then willow cuttings are placed in a vertical standing position along the trench. The trench is backfilled with the willow tops exposed to help slow and filter the water.

Another focus group member asked how climate change was considered during model design. Matt responded that climate change has not been specifically incorporated but they anticipate that climate change may result in reduced snowpack, which may result in lessening spring flood peaks while rain-driven events may become larger.

A focus group member commented that it appears the Little Creek design is not alleviating flooding contrary to originally stated project goals. Matt responded that they expect the project to help buffer the peaks of shorter duration flood events but it can't fully prevent all flooding—the modeling completed this past year forecasts that during a longer duration flood event the "sponge" will likely completely fill. The project design is focused on making sure that existing conditions aren't exceeded for high flood areas like the split over High Valley Road and Little Creek. Storage on the floodplain will help buffer the peaks of shorter duration flood events.

Matt also clarified that during modeling they were also making sure that the design under flood conditions doesn't impact the Kofford Road bridge over Little Creek.

A focus group member asked about how the design will function during drought/low flow conditions, particularly with regard to fish. Matt responded that the floodplain should be able to store more water during high flows, which means more water will be released during low flows. For significant drought conditions, however, the project might want to include a design for a low flow notch. The member

asked for additional clarification that flow rates on Israel Creek downstream would not be affected. USWCD staff noted that pre-wetting ditches results in less water absorption during flow and, as a result, flow rates should not be affected.

Jim answered a question as to whether a thermal analysis had been done relative to the lower water depth in these channels as a result of the project. Jim replied that the water in the floodplain channels should be cooler because the design is set up to allow more surface water to interact with the cooler shallow ground water. Jim noted that this water exchange along a stream valley is called "hydraulic spiraling," and has been shown in other areas to create an upwelling of cool water in the stream channel.

A focus group member commented that they believe the water will be fully soaked up by the land and not head downstream, and they are worried about neighbors downstream not getting enough water. They also commented that they don't understand the purpose of the project if it isn't fixing flooding issues. The same member also noted they believe the water won't get cooler but will heat up as it becomes shallower. Aaron responded that water temperatures at the Southern Cross project have not increased; he noted that Little Creek runs less water.

Another question was asked about what monitoring has been done to determine where the water is traveling across the project. They also voiced a concern about fish not being able to get past Godley Road and how that could influence fish being able to take advantage of this project. Matt responded that some monitoring has been done, and the next step of this project is installing more monitors in more locations to really look at where the ground water is and tease out how it will interact with the surface water. These monitors will be installed during the design phase to help the team learn from them prior to construction. They remain in place after the project is completed to monitor the situation and allow for project adjustments. Monitoring activities will also include digging some pits to look at soil stratification.

A focus group member clarified that the floodplain connections and side channels are designed to return waters to the creek, as flood waters recede it's engineered to go back into side channels that go back into mainstem. So, in the summer when people are irrigating the water will be just in the main channel, not out over the floodplain, am I understanding that correctly? Jim confirmed that yes, the water will start to form its own low flow channels.

Another focus group member noted that they had worked at OSU Hall Ranch property on Catherine creek where the focus was examining the sinuosity of the creek (how much the creek meanders) and monitoring its temperature and fish conditions over a 30-40 year period. They found that the floodplain restoration work that increased the rivers meandering has resulted in increased rearing and that water temperatures have not increased. They also noted that the water quality has improved and the riparian corridor (plants/habitat) is in much better shape.

A focus group member asked whether the Little Creek project would be located entirely on private land. Jim confirmed that the project would be located entirely on private land.

Tony Malmberg, Buffalo Flats Project landowner, highlighted that this project is an example of the typical water cycle, where water can run-off quickly, soak into the ground, or evaporate. While the

project is not going to solve all the water issues, projects like this will help ensure that as much water as possible is staying on the land to support people, animals and plants.

Facilitator Susan Hayman asked for final questions and thoughts about the Little Creek project before moving into a break. One member voiced their interest in seeing modeling results related to drought and how that relates to fish passage. Matt noted that part of the regulatory requirements include showing enough depth of water for fish to move during low flow, and there will be more information available as the Little Creek project design is further fleshed out.

Another member asked whether downstream landowners have senior water rights? Jim confirmed that yes, there are senior water rights downstream of Buffalo Flats[1].

Jim responded to another question asking about whether there had been any studies on the impact to local economies from these projects. Jim noted he wasn't aware of any studies, but that the local economic impact would be large with projects employing local contractors, providing business to hotels, restaurants, and nurseries, purchasing rock and other local materials, etc. Another focus group member followed up that the economic impact and associated benefits will only be temporary while the project is under construction.

A focus group member noted there is still a lot of design work to be done between the 30% and 80% design phases.

*----SHORT BREAK---*

### *Catherine Creek Update:*

Jim summarized that the Catherine Creek portion of this project is still in its preliminary phase. Jim reviewed two options for moving Oregon State Highway 203 to get it out of the Catherine Creek floodplain. This would allow for Catherine Creek to be "re-meandered" into a more naturally functioning channel and floodplain. He confirmed that the Oregon Department of Transportation (ODOT) will be working on a feasibility study for moving the highway for the next year or so.

A focus member expressed surprise ODOT was doing the feasibility study, since this member had been told that Highway 203 was one of ODOT's lowest maintenance highways. Jim confirmed that ODOT had agreed to the feasibility study because there may be several benefits to moving Highway 203, such as reducing ice and drifting snow. They also would remove the dangerous curve near the Kofford Road intersection (triangle). Another focus group member affirmed that the highway curve is not set up for large trailers and trucks.

A focus group member asked how long it will take to "fill up the sponge." Is this accomplished in a single season or multiple seasons? Matt clarified that it likely will happen every year—that during a flood event it fills and then slowly drains out—and confirmed it is not a multi-year event.

A focus group member noted that it seems like this project is good for fish but not sure it is good for hay and livestock production—that it doesn't support agriculture.

[1] Irrigation water rights for all irrigators will not be injured by this project. In fact, the project presents opportunities to improve conditions at diversion points and conveyance systems. (Project Website FAQs)

A focus group member asked who is responsible if something catastrophic happens. Jim explained that this design planning process is set up to imagine all of the worst-case scenarios and then mitigate for them. Aaron affirmed that the project team from USWCD is responsible for the projects they implement and will be monitoring the project, looking for issues preventively, and taking care of them before they become a problem.

A focus group member noted that this is private property and owners have the right to do as they wish on their property.

Andrea Malmberg, Buffalo Flats Project Landowner, responded to the member who had concerns about whether the project would be beneficial for hay and livestock production (agriculture). Andrea noted she and Tony are proponents and advocates for livestock farming. They believe that livestock and fisheries are not a zero-sum game, and that managed livestock can help improve soil quality (she also expressed livestock grazing would be a great addition to the Southern Cross property). At Buffalo Flats, they are looking at grazing solutions without hard fencing, and ultimately want this project to show the conservation district and BPA that livestock, fish, and the environment can co-exist.

A focus group member asked whether this project would affect people on State Ditch[2]. Matt and Aaron noted that the diversion will be moved slightly upstream and have a fish screen installed, but these actions shouldn't affect water flow, and the water will be delivered to the same location. Aaron also affirmed there will be no change to Swackhammer Ditch and Prescott Ditch. Matt noted there is an old pipe where Swackhammer Ditch crosses Little Creek, and in the design plans there is a riffle there where the elevation would be raised approximately one foot—it could be a good opportunity to replace the old pipe when this is done.

Susan noted conditions focus group members would like to see modeled as the Little Creek design progresses:

- Model what would happen in an extremely low-flow year/drought
- Model the CFS in high flows now vs. when the floodplain is added
- Model predicted rainfall in a worse-case scenario

A focus group member noted they are excited about this project because, in addition to flood mitigation, when flood water is allowed to sit on the floodplain there is an opportunity for sediment deposition which would increase soil nutrients and benefit agriculture. The member also provided a copy of a peer-reviewed article (available on project site: http://buffalo-flats.org/resources/).

### *Project Next Steps and Final Reflections:*

**Little Creek:** Jim confirmed that the next milestone will be the 80% design milestone. The project team has received comments from Bonneville Power Administration and the Regional Review Team (RRT). The goal is to finish 100% design by the end of 2023 and begin implementation in 2024. The team is working on permits and regulations alongside the design requirements.

[2] No changes will occur to ditches or points of diversion without consent by ditch users. Any changes to the infrastructure to include diversions, ditches, screens, or access will be approved by stakeholders through an alternative design selection process (Project Website-FAQs buffalo-flats.org)

**Catherine Creek**: The overall timeline is still unknown. The project team is working with ODOT on the feasibility of moving the highway, looking at alternatives for powerline placement on the Catherine Creek side of the road, and completing a cultural resources investigation. Updates will be posted on the project site and the focus group will be informed if there is movement towards the 15% design milestone on Catherine Creek.

*Final Reflections from focus group members (paraphrased):*

- People may be over-reacting to what they think this project may be. Encouraged members to talk to folks involved with Southern Cross restoration project. Reminded others that it's private property, and to look at the big picture. The project is not going to flood Union, it won't take neighbors water rights. Nay-sayers need to step back and relax a little bit.
- Naysayers are where you get ideas and think through questions you might not have thought of before. And properly managed land may be viewed differently by different people.
- Still feel they are getting up to speed on the project. For projects like this there are always hopes, fears, and concerns, and it's good to talk through all of those together. Appreciate all the dialogue and remember, the design is only at 30%, and there is still quite a ways to go.
- Noted they are very excited about this project and that it is a good link with Southern Cross and OSU's Hall Ranch restoration improvements for Catherine Creek.
- Very excited about the project. Excited about improved fish and wildlife habitat from riparian vegetation. Birding will explode on that property. Noted that there is a long way between the 30% and 80% design milestones.
- Believes in property rights, but not when they jeopardize other people's property. Appreciated hearing who would be responsible for damage below this property if it happens—hadn't previously received a satisfactory answer to that question.
- Pro-personal property rights, not anti-project, and not anti-new jobs to this area. Worried, however, about this project's location and the damage that might happen, including putting people in a flood zone who previously weren't in a flood zone. Concerned the project may hurt people with water rights below this project. If flooding isn't being reduced, then why is the project necessary?

Tony Malmberg, Buffalo Flats Project Landowner, expressed appreciation for the contributors and comments. He acknowledged that the everyone knows so much more now than they did 10 years ago and he appreciates all the knowledge.

Andrea Malmberg, Buffalo Flats Project Landowner, shared that the community is already using Buffalo Flats as a learning place for Union high school and grade school students. Eastern Oregon University is coming to visit the property, doing studies on birds and long term transects in terms of soil cover, compaction, and water infiltration. She reflected that Buffalo Flats is already a gathering of knowledge and continued learning.

Jim and Susan closed the meeting. Susan encouraged members to visit the project website for updates and to reach out to Jim and the USWCD team with any questions. Jim thanked everyone for attending

the meeting and being a part of the Focus Group to provide input and exchange ideas. By trying to bring together ecological and conservation goals with agricultural goals for maintaining a viable agricultural business, the SWCD is in a perfect position to lead this project. Jim believes this project is well positioned to show the connections that can be made between meeting fish recovery and conservation objectives while supporting agriculture. Jim noted that the project team has assembled as much technical expertise as they can to ensure that this project is a success. He appreciated the differences in opinion on project actions and perceived outcomes and thanked everyone for their participation.

The meeting adjourned at 8:35pm.