

## Schaake Property Habitat Improvement Project - Planning Group Meeting #1

ATTENDEES: Planning Group Participants

COPIES: Planning Group Participants  
Lisa Wuttke/Reclamation

FROM: CH2M HILL

DATE: October 28, 2009

### Overview

On October 28, 2009, the U.S. Bureau of Reclamation (Reclamation) hosted a planning meeting for the Schaake Property Habitat Improvement Project. More than 35 people attended the meeting from 1:00 to 4:00 pm at the Hal Holmes Community Center in Ellensburg, Washington. (The list of Planning Group participants is attached to this meeting summary.)

The 285-acre Schaake property, named after the former landowner, is located on the Yakima River just southeast of Ellensburg. The property previously supported a slaughterhouse and stockyards. In 2003, Reclamation purchased the property as part of the Yakima River Basin Water Enhancement Project (YRBWEP) program because of its high potential for salmonid and steelhead habitat improvement. Through the Schaake Reach, levees on both banks have disconnected the river and floodplain, restricted the river's ability to build and maintain side-channel habitat which is important for salmonid refuge and rearing, and caused down-cutting of the river bottom. Reclamation would like to set back a left bank levee and create new side channels on its property. This meeting provided an opportunity for Reclamation to update the attendees on the current status of the project and future plans. In addition, the meeting provided a forum for members of the Planning Group to raise issues, concerns, and questions and help shape success criteria for the project.

### Reclamation and CH2M HILL Presentation

Walt Larrick/Reclamation opened the meeting by welcoming the group and providing some project history. Walt introduced CH2M HILL as the contractor that would be working with Reclamation during the next phase of the project. Mark Bransom/CH2M HILL introduced himself as the meeting facilitator, reviewed the agenda, and initiated self-introductions from Planning Group participants.

Staff from CH2M HILL and Reclamation then shared a PowerPoint presentation. (The presentation is included with this meeting summary and will be posted at a Reclamation website.) Steve Clayton/CH2M HILL provided a project overview, including a description of the project site and overall goals and objectives. Jeff Graham/Reclamation described six previous stakeholder meetings and their outcomes, including the plan to allow Twin City Foods (TCF) to locate a lagoon on the Schaake property. Rob Hilldale/Reclamation

presented results from five previous studies (soils and hydraulics), and he explained how these studies have incorporated feedback from the stakeholder meetings. Steve then described the current Phase 1 work plan and potential future phases of the project, and Mark shared the proposed approach for Planning Group involvement, including a second Planning Group meeting and a general public meeting, tentatively scheduled for early April and late April, respectively.

### Twin City Foods and HLA Presentation

Jeff then invited Twin City Foods (TCF) to share an update on the initial planning for the lagoon. Ted Pooler from Huibregtse, Louman Associates, Inc. (HLA) in Yakima described the current spray field operation and proposed storage lagoon as follows:

- Current conditions:
  - No storage or treatment is available for wastewater effluent (vegetable processing)
  - Wastewater is applied to spray fields (approximately 150 acres)
  - Concerns exist with over-application
- Proposed design:
  - Lagoon will store late fall effluent for irrigation the following summer
  - Lagoon will be lined and aerated with a capacity of approximately 35 million gallons
  - Footprint will be roughly 20 acres with depth of 10 to 12 feet
  - Lagoon will only extend a few feet deep into the existing ground surface because of the high ground water table
  - Lagoon design may include one or two treatment cells in addition to the main storage cells
  - Initial concepts include square and triangular configurations
  - Proposed levee may form part of the lagoon embankment
  - Preliminary location is at the east end of the old stock yards and may require a slight shift of the proposed levee alignment
- Operating goals/outcomes:
  - Over-winter storage should allow application of wastewater at near-agronomic rates
  - Convert biochemical oxygen demand (BOD) into settleable solids
  - Anticipate improved groundwater quality, less soil saturation, and higher soil oxygen content
- Schedule
  - TCF would like to construct next spring and summer
  - Ecology requires TCF submit design by April 2010 (permit condition)
  - Given likely review period delay, construction may not commence until 2011

The following questions and answers (*italicized*) were shared following the lagoon presentation:

**Q:** Is the final lagoon location set and will adequate review time be allowed?

*A: The location is not finalized. Permit requirement is to have the lagoon design complete by April 2010; 6 month Ecology review time anticipated. Initial SEPA review was conditionally approved, but size and location may have changed. Reclamation shared that a spring 2010 design completion goal will likely not allow for sufficient time to address the agency's land use review and approval.*

**Q:** When must the lagoon be operational?

*A: TCF indicated the lagoon must be on-line no later than fall 2011 in order to maintain operations at the Ellensburg facility.*

**Q:** Has NW corner of property (between proposed levee and I-90) been considered for the lagoon location?

*A: Not to this point because of possible odor issues, but it is now being considered.*

## Facilitated Group Discussion

Following a short break, the group reconvened. Mark facilitated a discussion that allowed meeting participants to share their questions, issues, and concerns. Meeting participants were also encouraged to share what they considered as “success criteria” for the project.

## Question and Answer Session (Q&A)

The following questions and answers (italicized) were discussed:

**Q:** What is the plan for left bank levee #2? Will it be removed/relocated?

*A: Not specifically addressed. Discussion turned to other topics.*

**Q:** What is the schedule for finalizing the proposed levee setback alignment?

*A: Hoping for next spring, depending on funding and discussions with TCF and City of Ellensburg. The team must first get a solid grasp on site complexities (Wilson Creek, etc.).*

**Q:** Is funding in place to meet the aggressive schedule?

*A: Phase 1 is in place (Fiscal Year 2010). Phase 2 (design) and Phase 3 (construction) funding is unsecured.*

**Q:** Will there be work in the river to achieve channel-floodplain interaction?

*A: Preference is for no in-channel work. Rather by allowing flows to spread onto the floodplain, the channel would be expected to aggrade (deposit material) thereby trending toward increased channel complexity and channel-floodplain interaction.*

**Q:** What would the change in flood frequency be?

*A: Without left bank levee in place, model results suggest a 5 to 7 year flood is required to overtop banks. More frequent interaction may be possible with side channels in place.*

**Q:** Could we get additional benefits from lagoon?

*A: May be possible to provide benefits for wildlife or waterfowl.*

**Q:** What is the size of the proposed levees?

*A: Initial modeling assumption was 4 feet, but height was thought to be dependent on level of protection required by USACE. Cathie DesJardin/USACE clarified that USACE will not require protection strictly based on levee setback; rather, level of protection will be determined by facility-specific requirements. (The current understanding of meeting participants is that protection for a 100-year event for TCF lagoon will be required and that 500-year protection currently exists for the*

*Wastewater Treatment Plant (WWTP), but these need to be confirmed.) FEMA accredits levees and revises maps to remove areas from floodplain following accreditation. USACE will perform hydraulic and geotechnical analyses, but the project must first have a public sponsor (this cannot be another federal agency). Following analyses, USACE recommends a levee for FEMA accreditation (only good for 10 years). City's WWTP requirement (500 year) is based on elevation and is currently protected, so it would only need additional levee protection if setback creates deflection toward facility.*

**Q:** Will levee be removed or breached?

*A: Levees were removed entirely in model scenarios.*

**Q:** Will the entire river enter side channels?

*A: No, the elevation would be set with the intent that only a portion would enter.*

**Q:** What happens to Tjossem Ditch (head gate, fish screen, downstream property) during high flows with a levee setback?

*A: Access channel and head gate maintained. Floodplain velocities would be low (not erosive), but the ditch might require post-flood clearing of debris.*

**Q:** Will Reclamation have to do a NEPA document?

*A: Likely yes, once levee alignments are finalized.*

**Q:** How will the timing work (to meet TFC, Ecology, etc. requirements)?

*A: Not sure if all schedule constraints can be met.*

**Q:** Right bank landowner (Frank Payne) received letter from County about Riverbottom Road becoming new levee (old will not be repaired). What happens to the Yakima River water surface elevation (WSE) with a left bank levee setback?

*A: WSE will most likely be reduced, but the magnitude of reduction depends on final levee configuration and the flow. County says Right Bank Levee #2 breached this winter and no longer blocks flow continuously.*

**Q:** Where will levee material come from?

*A: USACE manual will guide material selection, but the source is yet to be determined.*

**Q:** Will stakeholders receive progress updates?

*A: Minutes from this meeting (Planning Group meeting #1) will be distributed. Email or web updates will be considered.*

## **Success Criteria**

The following success criteria were proposed:

- Maximize floodplain function. Properly functioning riparian habitat includes adequate revegetation in the restored floodplain.
- Maximize opportunities to improve habitat value of the entire project (including lagoon) for other species (not just fish).
- Maintain irrigation flows in Tjossem Ditch without additional maintenance beyond existing conditions (i.e., concerns of plugging from debris).
- Maintain river flows similar to existing conditions near the City property boundary (when choosing setback levee location and alignment).

- Reduce flooding on private properties.
- Continue cooperation and communication to improve water quality (e.g., TDML and nutrients present in old feedlot soils).
- Consider mitigation banking to allow agencies to build mitigation credits.
- Look for opportunities to incorporate Hansen Gravel Pits into overall, long-term project objectives (e.g., mitigation banking).
- Maintain the WWTP outfall. Integrity of the pipeline and discharge point must be maintained if side channels are created and/or if main river channel shifts.

## Path Forward

The meeting ended with a brief summary of the next steps of Phase 1 of this project.

- October to December 2009
  - Review of existing resources (ongoing)
  - Site visit (10/27/09)
  - Planning Group meeting #1 (10/28/09)
  - Technical analyses (ongoing)
- January to April 2010
  - Preparation of draft Phase 1 report
  - Planning Group meeting #2 (early April)
    - Share draft report and request feedback
  - Public meeting (late April)

## Post-Meeting Feedback

Following the meeting, Scott Nicolai with Yakama Nation followed up with Reclamation by email to propose a revision to the levee alignments that would maximize floodplain habitat on Reclamation's property. Reclamation has reviewed this suggestion and prepared an updated levee alignment that incorporates Scott's input and provides protection for Interstate 90, the TCF lagoon, and the TCF spray field.

Exhibit 1 prepared by Reclamation shows two levees and the 20-acre lagoon fit into the upper northwest corner, the furthest upstream location possible on Reclamation's property. The upstream levee could provide protection for Interstate 90, and the lagoon would be designed by TCF to the required level of protection. In this exhibit, the lagoon is almost 350 feet away from Wilson Creek, and the WWTP is not surrounded by a levee because its existing elevation is considered to be above the 500-year event water surface elevation. The downstream levee is shown in the exhibit to protect the spray field, but this location may

affect Wilson Creek. Both the upstream and downstream levee alignments are recommended by Reclamation for further consideration.



Exhibit 1. Currently Proposed Alignment for Two Levees on the Schaake Property based upon Input from the October 28, 2009, Planning Meeting