

Workshop

November 28, 2016, 11:15am at the County Commissioner's Chambers
Teton County Board of County Commissioners (BCC)
And
Teton Conservation District (TCD)

Topic: Snake River Restoration Project (SRRP) with US Army Corps of Engineers (USACE)

Introduction: The Snake River Levee System was constructed in the 1950s and 1960s and is ongoing today along the Gros Ventre River. The purpose was to constrain the river to prevent seasonal and catastrophic flooding. **The levees have three major negative and on-going effects on the environment;** 1) the river channel between the levees is “degrading” (digging a deeper and deeper channel), 2) mature riparian forest stages between the east and west levees were eliminated by the constricted force of floods, and 3) the riparian forest outside of the levees has been isolated from the temporary floods, shifting the forest type towards conifer.

History: In the late 1980's Wyoming's congressional leaders passed legislation authorizing an unprecedented funding measure of \$66.5 million dollars to the USACE to mitigate the negative environmental effects of the Snake River Levee System. **The authorization requires that the TCD and Teton County (TC) participate as “Local Partners”, providing a 35% match in funding, and the perpetual maintenance of any mitigation projects that may be implemented.**

In the early 1990's extensive analysis of the problems and mitigation plans identifying 12 mitigation projects were developed with TC and the TCD as the “Local Partners”. A single mitigation project was completed, Site #9, out of the 12 projects identified. Congress then failed to appropriate mitigation funds, and limited the commercial gravel extraction operations that had originally generated local matching funds. As a result all mitigation activities stopped.

Current Status: In 2015, the Army Corps of Engineers asked the local partners to re-invigorate mitigation efforts because the congressional authorization of \$66.5 million was still available. **The Local Partners currently have \$195,505.88 in credit that can be used for local matching funds moving forward.** With that in mind, TCD and TC re-evaluated the intended environmental outcomes overall project, the status of the Site #9, #3 and #4 projects, and their previous commitments . The Local Partners then met with USACE staff and communicated that they considered the existing projects to be undesirable and/or deficient.

Proposal to USACE: Adaptive management is envisioned in the original, 1994, SRRP plan. As a result, TCD would like the USACE to conduct hydrologic, environmental and engineering analysis of levee realignment projects and their ecological outcomes. The intent is to; 1) generate far more significant ecological mitigation for the money spent, 2) determine whether on-going and anticipated Local Partner projects can be used as matching funds, 3) eliminate the perpetual, project maintenance costs for the Local Partners, and 4) and potentially reduce future USACE's maintenance and flood-fighting costs.

Mitigation Project Concepts: The Problem: Our need to adapt the mitigation projects is based upon shortcomings and new information regarding the 12 original projects. The original concept calls for establishment of mature riparian forests between the levees by creating and armoring permanent islands. The shortcoming of this approach is that cottonwood forests are disturbance dependent. They require scouring floods and periodic inundation to regenerate. In addition, such floods can reinvigorate wetlands, fish spawning and many other types of plants and habitat associations. Furthermore, parts of the existing plan require additional levee and bank stabilization that will further isolate the riparian zone while allowing only small amounts of controlled water behind the levees. For the cost, the projects generate; 1) inadequate levels of rejuvenating disturbances and amounts of water in unnatural patterns, 2) unrealistic management and maintenance obligations for the Local Partners, and 3) depend on private lands that are not under the control of Local Partners.

The Potential Solution: Strategically allow the distance between the levees to be widened in specific locations that capitalize on local terrain features and public land ownership and/or control. The purpose of such actions would be to:

- 1) Passively bring more existing riparian forest under the dynamic influence of the Snake River, perpetuating ecological health of those zones
- 2) Capitalize on natural terrain features that would sustain flood protection but may also reduce USACE flood fighting costs
- 3) Use a mitigation approach that eliminates the Local Partners maintenance obligations and long-term costs
- 4) Provide the opportunity to alter hydrologic energy to strategically reduce river bed down cutting and erosive pressures on the levee.

Action and Next Steps:

The TCD Supervisors request that the BCC consider signing the provided, non-binding Letter of Intent to the USACE. TCD Supervisors have already signed the agreement. The executed letter allows the USACE to seek an appropriation from Congress out of the \$66.5 million dollars that are authorized to employ their expert hydrologists, engineers, estimators and biologists. The USACE efforts would analyze the potential outcomes, costs and risks of the new project concepts. They can also then provide detailed project planning and guidance as to how the Local Partners can generate and use new matching funds in the future.

Questions and Concerns

Question: What if there are unintended consequences and riverine actions (See WGFD Letter)?

Answer: *Signing the Letter of Intent initiates USACE funding for the full analysis of potential projects by the USACE engineers, hydrologists and biologists. Mitigating actions or unintended outcomes falls largely to the USACE as part of completing any particular project.*

Question: Where could the matching funds potentially come from?

Answer: *There is currently \$195,505.88 of credit for Local Partner matching funds. The Letter of Intent is non-binding and initiates USACE efforts for the cost and project analysis, including the identification of new potential Local Partner matching “Work-In-Kind” actions, the potential for private match funding. Each potential restoration project would be phased to require only a subset of the total matching amount. Potential planned or on-going activities that may qualify as in-kind match are:*

- 1) BLM Land transfer costs*
- 2) Construction costs of the new stockpile yard*
- 3) Construction costs of the haul road to the new stockpile yard*
- 4) Reclamation costs of the Walton Quarry*
- 5) Mitigation costs of the Henry’s Road slide*
- 6) Annual TCD groundwater well monitoring costs*
- 7) R-Park quarry restoration and wetland mitigation costs*
- 8) Snake River Bridge park costs*
- 9) North Snake River Bridge costs*
- 10) Upgrade costs of Highway 22 at the Snake River*
- 11) Several large private contributors and organizations have expressed interest*
- 12) Private land wetland and stream restorations*
- 13) Private land conservation easements*
- 14) North American Wetland Act, Yellowstone to Yukon and other grants*

Question: What about demands on staff time?

Answer: *This process will require multiple years. TCD and TC staff time will be required at an undetermined level over those multiple years in order to track match funding expenses, provide planning input, and meet with the USACE, seek matching fund grants and contributions. It is possible that the new types of projects being evaluated may not be feasible and that will end the SRRP program.*

Question: What about competing uses in the project areas?

Answer: *There is likely to be concerns with competing uses on a site by site basis. For example; 1) Terrestrial Recreation and Access: It is likely that as much recreational opportunity will be created as will be altered, with potentially improved aesthetic benefits, 2) Cattle Grazing: It is likely that grazing agreements will need to be adapted but not eliminated, 3) Fishing: Actions may significantly benefit the Snake River fishery and fishing opportunities, 4) Housing: it is unlikely that any reduction for housing opportunities would be affected or funding diverted, 5) Transportation: Transportation planning on Highway 22 can dove-tail into the proposed projects and may benefit from them.*