

# PROJECT TEAM MEETING MINUTES

June 10, 2003

1. **ATTENDANCE:** Daniel Wilkens – Sand Hill River Watershed Administrator, April Swenby – Sand Hill River Watershed Administrative Assistant, Roger Hanson – Sand Hill River Watershed Board Chairman, Jim Larson – Houston Engineering, Rolland Gagner – Union Lake/Sarah Improvement District, Gary Huberty – DNR Fisheries, Randy Huelskamp – NRCS, Jody Horntvedt – Project Team Facilitator, Penny Doty – West Polk SWCD, Mike Vavricka – MPCA, Gary Lee – East Polk SWCD, Dan Grunhovd – landowner, Brian Dwight – BWSR, and Tom Raster – Corp of Engineers.
2. **AGENDA REVIEW:** No new items were added to the agenda. Wilkens gave a review of the minutes. The May 13, 2003 tour minutes were approved.
3. **PROJECT PRIORITY LIST:** Wilkens reviewed the priority list given to the project team by the Sand Hill board of managers as follows: Fish Passage, Garden Slough, Maple Creek Diversion, Area northeast of Rindahl, Section 17 of Sletten, Bradley Lake Storage, and Union Lake Detention.
  - a. **FISH PASSAGE:** The fish passage was first reviewed with the Project Team. After much discussion with the Project Team, Horntvedt reviewed and revised the Fish Passage’s objective, goals, and strategies to be the following:

**PROJECT OBJECTIVE:** Make the Sand Hill River a viable fishery.

- GOALS:**
1. Open river for expanded habitat (spawning, cover, feeding, over-wintering, access to pools)
  2. Expand fishing opportunities
  3. Control erosion and sediment
  4. Improve water quality (turbidity, suspended solids, dissolved oxygen)

**NOTE:** USACE 1135 Project (Restoring natural resource attributes to Corps projects)

- STRATEGIES:**
1. Modify Texas Crossing and four drop structures along the Sand Hill Ditch
  2. Add 7-9 rock riffles below the drop structures in the Sand Hill Ditch
  3. Realign and add riffles at the West Mill Crossing

To be Completed:	Start:	Finish:	Person(s) Responsible:
Provide profile (reviewing the decisions that brought us to this point)	ASAP to Raster		SHRWD (Houston engineering) & Roger Hanson (history)
Prepare PRP ~ Preliminary Restoration Plan	July 1, 2003	August 2003?	USACE (Tom Raster) [SHRWD “monitor progress”]
ERR/EA Ecosystem Restoration Report/Environmental Assessment	August 2003	August 2004	USACE (Tom Raster) [SHRWD “monitor progress”]
Funding Identified (cost-share with USACE and/or MNDNR) EAW Need to check if this would be needed.			SHRWD

Permits  
 \*DNR Waters?  
 \*NPDES  
 Construction  
 Permit~MPCA)  
 \*MPCA 401 Water  
 Quality  
 Monitoring Plan

SHRWD and USACE

Pre-construction monitoring Summer  
 2002

DNR Fisheries and RRV WQ team

Post-construction monitoring  
 Start building  
 Project completed

Some funds available from USACE

Tom Raster updated the project team on the Corps' Section 1135 project, which will hopefully help fund the fish passage project. Raster reminded the group that we're in the Preliminary Restoration Plan (PRP) phase, i.e., preparing a reconnaissance-level, relatively quick and dirty, \$10,000 max, report for MVD reviewers to demonstrate that there is a Federal interest and cost-effective project that warrants investing in a full-blown feasibility study, which they call the Ecosystem Restoration Report (ERR). He said that the Corp wants to invest just enough effort in the PRP to move ahead ... not too much, and certainly not too little. He estimated that the PRP should be done in a couple months.

Raster explained that Section 1135 [and 206] project approval uses the cost per Habitat Unit (HU) to demonstrate cost effectiveness, the lower the better, with \$2000/HU, a figure he wants to stay under and, if endangered species are targeted (which isn't the case for the SHR 1135), that can expand the cost-effectiveness window. Chairman Hanson asked if the feasibility study could then be slanted just by the choice of the species. Raster said that could be a possibility. Wilkens asked if they could use the acreage of the Red River, as the Fish Passage will benefit the Red. Raster was unsure but if need be, we could possibly make that the case.

The project team discussed the fact that the SHRWD PT and Board had, in effect, pre-selected the recommended plan, i.e., rock rapids at the four drop structures plus several riffle features in the project reach. That pre-selection posed a couple potential issues: (a) limited HUs and (b) questions about alternatives.

Raster explained that the Habitat Evaluation Process (HEP) is used to estimate the number of HUs generated by the project. The HU calculation is based on the improvement in Habitat Suitability Index (HSI) for a target species times the acreage affected. Raster's was concerned that a target fish species (e.g., walleye) will produce only a limited number of HUs for the SHR 1135 because of the relatively small surface area of the river; therefore, the \$/HU might turn out to be fairly high. However, Raster conceded that the estimated cost of the SHR 1135 is likewise fairly low. The net effect might keep the \$/HU in an acceptable range but, at this time, he doesn't know the bottom-line.

Raster also noted that, even with the 1135 project, fish cannot ascend the West Mill Road crossing, about 4 miles east of the upstream end of the Corps channelization project (perhaps 8+ stream miles). Therefore, the number of benefiting stream miles (hence, acreage ... hence, HUs) will be greatly constrained. He said that the PRP's recommended plan would include a fix for the West Mill Road crossing on the basis that a fix is necessary to allow the overall project to function properly. However, he cannot guarantee that MVD reviewers will see it that way: they could rule that it's well outside the old Corps' project limits, was improperly installed by the township (or whoever), and is the responsibility of someone else. He said that he'd like to have "Plan B" ready if MVD concludes that a fix for the West Mill Road crossing is not an allowable part of the 1135 project. Therefore, the PT will explore alternate sources of funding, e.g., the DNR.

Raster said that, likewise, the PRP's recommended project would include the Texas crossing that's near the downstream end of the project reach. That Texas crossing is also cited as a fish barrier due to high flow velocities through the three RCP culverts. However, MVD reviewers might contend that the township replaced a washed out bridge with the Texas crossing ... and, thus, fixing the problem is the responsibility of the township or some other local unit of government. Raster asked for additional background information in case MVD reviewers ask for it. Hanson will provide a "history" of the Texas crossing.

Raster commented that MVD reviewers could ask what alternatives to the recommended plan were considered and why they were rejected. I've brought up the concept of meandering the straight-line channelized reach within a setback-levee riparian corridor (à la the Hay Creek design). A meandered channel would provide superior HSIs and more acreage and, thus, greatly increase the HUs. However, because the channelized portion of the SHR is so deeply entrenched, it should be relatively easy to show that this alternative would require so much excavation that the cost would be prohibitive. Larsen can provide available cross sections but Wilkens pointed out that available cross sections are from the mid-1980s and probably do not reflect the fact that the channel has down cut about 10 feet, which would exacerbate the excavation quantities for a meandering scheme. Wilkens stated that this down cutting contributes to the severe bank stability problems along much of this reach that makes the SHR one of the biggest contributors of sediment to the Red River of the North.

Another option that reviewers are likely to ask about is the restoration of the original SHR channel. Steve Gebhardt (DMA) and Raster explored the idea of restoring some or all flow to the original SHR alignment during a site visit in March 2003. However, the PRP could cite several reasons why restoration of the original SHR channel isn't practicable: (a) According to Wilkens, the bottom of the original channel is at least 8 feet above the current channel. Therefore, a weir would have to be installed in the current channel to pond water high enough to divert flow down the original channel ... and that flow blockage would cause flooding during high-flow situations. (b) Much of the original channel shown on USGS quad maps has been obliterated by farmers. Therefore, restoration of the old channel would be expensive, would disrupt current farming practices, and would likely invoke serious landowner opposition. (c) The remaining remnants of the original channel couldn't handle present-day flows.

Wilkens will call Don Buckhout (DNR) to ask if the SHR 1135 requires a mandatory State EAW.

The group discussed monitoring: Pre-construction monitoring was started in the summer of 2002 by the DNR - Fisheries and Red River Valley WQ team. Raster noted that the Section 1135 authority allows us to add to the project a 5-year-long, cost-shared post-construction monitoring program not to exceed 1 percent of cost of the ecosystem restoration features.

- b. **MAPLE CREEK DIVERSION (MELVIN SLOUGH):** Maple Creek Diversion (Melvin Slough) was reviewed with the Project Team. After discussion with the Project Team, Horntvedt reviewed and revised Melvin Slough's objectives, goals, and strategies to be the following:

**PROJECT OBJECTIVE:** Reduce flooding on Maple Creek

- GOALS:**
1. Reduce flooding directly downstream from Melvin Slough
  2. Improve wildlife habitat between Melvin Slough and Kittleson Creek
  3. Reduce erosion downstream on and/or adjacent to Maple Creek
  4. Improve recreation

- STRATEGIES FOR CONSIDERATION:**
1. Construct diversion from Melvin Slough south to Kittleson Creek
  2. Store water with delayed release into Maple Creek

3. Gated control structures (for either diversion and/or storage structures)
4. Wetland storage areas along diversion route to Kittleson Creek
5. Land use to address run-off issues
6. Run-off retention
7. Develop downstream channel to protect it from "breakouts"
8. "Bounce" on Melvin Slough (may be connected to #2 above)

To be Completed:	Start:	Finish:	Person(s) Responsible:
Written history and/or current efforts in this area of the watershed for PT members	ASAP!	July 8, 2003	SHRWD (Dan) to contact Terry Wolfe
Input from DU (Jon Schneider) on possibilities	ASAP!	July 8, 2003	SHRWD to contact Jon
Update engineering			SHRWD (engineering)

Sand Hill Board Chairman Hanson suggested that when Polk County rebuild road #41, much of the Maple Creek flooding would be handled with ease. Huelskamp suggested that having a downstream channel to catch the minimal runoff would be sufficient. Wilkens included that the NRE benefits of the project may be more beneficial than flood control. To explore these options in further detail, Jon Schneider and Terry Wolfe need to review the project.

- c. **BRADLEY LAKE:** After discussion with the project team, Horntvedt developed the following table outlining Bradley Lake:

- GOALS:**
1. Improve fish habitat
  2. Flood storage/control to protect Lake Sarah
  3. Water quality

- STRATEGIES FOR CONSIDERATION:**
1. Raise the level of the lake

To be Completed:	Start:	Finish:	Person(s) Responsible:
Conversation with landowners			SHRWD
Verify regulations about change in water levels		Report back July 8, 2003	Gary Huberty (will check with Bob Merritt)
Engineering (lake elevations and hydrology...drainage area and runoff)		Report back July 8, 2003	Houston

Gary Huberty again reviewed his opinion with the project team stating that in the past, raising a lake level does not necessarily improve the fishery. He would be unable to show the project team evidence that it would improve, however, he could show evidence that it would not improve. Rolland Gagner asked if aeration would help if they monitored the lake levels. Huberty responded by saying that is not necessarily always the answer. He stated that in his experience, a diffuser would keep minnows alive, but desirable fish are vulnerable to low oxygen levels.

Huberty also pointed out that he understood that 100% approval was needed by all the landowners. If the lake is raised, many landowners are going to lose their sandy beaches and docks that have been placed in the water. He would check on the regulations regarding 100% landowner approval.

Engineers will need to determine the drainage area.

Funding for the project was brought up. Gagner suggested that the Union Lake/Sarah Improvement district could possibly help with costs.

- d. UNION LAKE DETENTION:** Funding for the Union Lake Detention project was discussed. Gary Lee stated that the SWCD has money available if the landowner is interested. Lee stated that ownership has recently changed and he does not know who the owner is.

It was also suggested that the NRCS might have funding available to pay 50% of the costs. Huelskamp stated that if that were the case, the landowner would need to apply for NRCS funding. Gagner will relay this information to the Union Lake/Sarah Improvement District.

Raster suggested maybe this could be looked at as a land treatment project. He questioned if it could be placed in CRP. Wilkens stated that could be a good solution, maybe even upland wetland restoration.

Gagner will try to determine who the new landowner is.

Horntvedt developed the following outline of the project.

- GOALS:**
  - 1. Land treatment to prevent erosion
  - 2. Water quality

- STRATEGIES FOR CONSIDERATION:**
  - 1. EQIP available to landowners
  - 2. Low head dam
  - 3. Drop structures
  - 4. Wetland restoration

To be Completed:	Start:	Finish:	Person(s) Responsible:
Information on EQIP to landowners			E. Polk SWCD
Information on LID			Rolland Gagner

- e. SECTION 17 OF SLETTEN:** The project team decided the objective for this project is mainly flood storage. The SWCD and the watershed will work together to find land treatment options.

The project team determined that engineers need to develop a quad map to identify the pool area, land uses, etc. Larsen will try to have this completed by the next project team meeting.

- f. AREA NE OF RINDAHL:** Before further discussion can take place regarding this project, it was decided that Les Peterson should bring maps of the area for the next meeting. It was also

decided that Larsen should bring maps showing the drainage area, land use, available storage, etc.

- g. GARDEN SLOUGH:** Dan Grunhovd – local landowner was concerned that the storing of water could affect his feedlot permit. He is concerned that PCA may limit his ability to continue or expand his dairy operation if water is stored below his building site. Lisa from PCA would be able to answer those questions. The PT would like Lisa to view Dan Grunhovd’s property and make a presentation to the PT at it’s next meeting. Bob Merritt should attend the next meeting to discuss the possible wetland concerns. Also Curt Borchert from Norman County SWCD should be contacted to evaluate the WACA concerns.

The project team began suggesting possible strategies to make the project successful. Huelskamp suggesting building the dam next to the road rather than over the road. Larsen agreed that might be the best solution where a dam is concerned.

<b>PROJECT OBJECTIVE:</b>	<b><u>Controlled release of water to both the Sand Hill River and Red River</u></b>		
<b>STRATEGIES FOR CONSIDERATION:</b>	1.	<b>Hold water in Garden Slough</b>	
	2.	<b>Multiple-storage sites</b>	
	3.	<b>Control release of water from CD47</b>	
	4.	<b>Control erosion</b>	
	5.	<b>Lateral ditches (wetland restorations)</b>	

<b>To be Completed:</b>	<b>Start:</b>	<b>Finish:</b>	<b>Person(s) Responsible:</b>
<b>Develop quad maps (<i>max. storage site elevation, cross-section at dam site, water storage capacity, drainage area</i>)</b>	<b>February 2003</b>	<b>March 2003</b>	<b>SHRWD to work with engineer (need landowner permission)</b>
<b>Maps and aerial photos</b>		<b>July 8, 2003</b>	<b>Houston Engineering</b>
<b>PT review information available and brainstorm possible strategies</b>		<b>July 8, 2003</b>	

**10. ADJOURN:** Meeting was adjourned at 2:44 PM. The next meeting will be July 8, 2003 at 10:30 am at the Sand Hill River Watershed District office in Fertile, MN.

**Minutes respectfully submitted:**

**April Swenby, Administrative Assistant**