

Green Meadow Project Team

Regular Meeting
February 27, 2014

A meeting of the Green Meadow Project Team was held on Thursday, February 27, 2014, at the Wild Rice Watershed District (WRWD) Office. Project Team Members in attendance included: Duane Erickson, WRWD Manager; Mike Christiansen, WRWD Manager; Shawnn Balstad, Natural Resources Conservation Service; Emily Siira, Department of Natural Resources; Tara Mercil, Minnesota Pollution Control Agency; Mark Christianson, Soil and Water Conservation District; Larry Puchalski, US Army Corps of Engineers; Steve Bommersbach, Norman County Commissioner; Dave Vilmo, Landowner; Mark Chisholm, Landowner. Others in attendance included: Chuck Fritz, International Water Institute; Henry Van Offelen, Department of Natural Resources; Jerry Bents, Houston Engineering; Kevin Ruud, WRWD Administrator; and Tara Jensen, WRWD Bookkeeper. Project Team members who were absent included: Curt Johannsen, WRWD Manager; Brett Arne, Board of Water and Soil Resources; and Diane Ista, Landowner.

At 9:00 am, Fritz began the meeting by presenting a brief overview of the Project Team goals, process, steps, roles and responsibilities, decision making process, and rules and expectations to those in attendance.

The Project Team next reviewed the DRAFT Problem Statement that was approved at the last meeting, noting that the dates and frequency numbers for flood damage areas still need to be added to the document. Balstad also noted that she did find old ECP of recorded damages which she is still planning on analyzing. She will check to see if there is an ability to release the documents and if she is able will bring them to the WRWD office to make copies for further review. If she is unable to release the documents she will complete the analysis in her office and report back to the Project Team with the information that was contained within them.

Fritz next moved to establishing the goals and objectives for the Project Team. Each of the two main goals is broken into objectives, each having their own description. Fritz presented the two main goals being:

- 1 – Reduce local, regional, and basin wide flood damages to public and private infrastructure.
- 2 – Improve the health of natural resources in the Green Meadow subwatershed.

Fritz asked the Project Team for any corrections or additions to the two main goals presented. All Project Team members were either in favor of or neutral to adopting the two presented goals.

Engineer Bents summarized the four objectives for the first main goal:

- 1 – Reduce subwatershed peak volume and flows
Reduce peak flows by 10-15% and flood volumes by 40-45% from the Green Meadow Subwatershed area.

Balstad asked for clarification regarding the percentage ranges that were set. Engineer Bents detailed how the peak flow and flood volume numbers are calculated. Fritz added that the percentages set do not need to be hit and rather are established as goals. Vilmo asked if the percentages were attainable. Engineer Bents stated that the percentages can be obtained, dependent on the strategy chosen. Following discussion regarding the percentages, Fritz asked the Project Team for any corrections or additions to the first objective. All Project Team members were either in favor of or neutral to adopting the objective presented above.

2 – Improve overall dam safety of the existing Green Meadow Dam

Improve the ability of the Green Meadow Dam to handle large rainfall or runoff events without overtopping the emergency spillway. Specifically, strategies should reduce the risk of the structure's failure resulting from a 100 year rainfall or runoff event.

Fritz asked the Project Team for any corrections or additions to the second objective. All Project Team members were either in favor of or neutral to adopting the objective presented above.

3 – Reduce the risk of road damages

Eliminate the risk of road overtopping and washout (i.e. State Highway and County State Aid Highway (50yr) and Local/Township (10-25yr)).

Engineer Bents commented that the description should state “reduce” the risk, rather than eliminate. When asked for clarification, Engineer Bents added that the i.e. portion is in reference to what level of flooding the roads are built to withstand. Based on the frequency of traffic, the roads are designed to withstand levels of flooding to ensure that traffic is not halted. Balstad added that she would recommend adding that the plan will be consistent with current design standards. Fritz asked the Project Team for further corrections or additions to the third objective. All Project Team members were either in favor of or neutral to adopting the objective presented above, with the following changes to the summary:

Reduce the risk of road of overtopping and washout to be consistent with current design standards (i.e. State Highway and County State Aid Highway (50yr) and Local/Township (10-25yr)).

4 – Reduce agricultural land damages

Reduce damages to agricultural fields from a 10 year 24 hour runoff event.

Fritz asked the Project Team for any corrections or additions to the fourth objective. All Project Team members were either in favor of or neutral to adopting the objective presented above.

Van Offelen summarized the six objectives for the second main goal:

1 – Improve Hydrologic Conditions

Reduce peak flows and the volume of peak runoff through the watershed by at least 20%. Hydrologic conditions of this watershed are considered “flashy”. Flows reach a peak quickly and the drop to low flow conditions. In addition, there is extended periods of low/no flow in some watercourses compared to conditions found historically.

Van Offelen explained the term “flashy” to the Project Team. Vilmo asked if it was necessary to state “at least” because it seems to set a minimum standard that needs to be achieved. In the interest of time, Fritz asked the Project Team to focus on approving the objectives at this time and the summaries can be changed in the future dependent on concerns presented today. Fritz asked if the Project Team had any changes or corrections to the first objective. All Project Team members were either in favor of or neutral to adopting the first objective as presented above.

2 – Protect Existing Upland, Wetland, and Aquatic Habitats

Protect the existing habitats from degradation and loss. The existing habitats in the subwatershed which provide benefits to fish and wildlife and water quality should be protected.

Mercil felt that the objective should include enhancing the habitats as well protecting them. Fritz asked if the Project Team had any other changes or corrections to the second objective. All Project Team members were either in favor of or neutral to adopting the second objective with the changes as follows:

*Protect **and enhance** existing upland, wetland, and aquatic habitats.*

3 – Restore Wetland and Grassland in High Priority Areas

Restore at least one wetland and grassland complex with a minimum of 640 acres within the high priority area of the subwatershed for wetland and grassland restoration.

Siira asked for clarification if the restoration would be one wetland and one grassland area. Van Offelen stated that the objective was to restore one block that contains both wetland and grasslands, not one of each. Clarification of *high priority* areas and their determination was asked for. Following a short break, Van Offelen revisited maps presented at a previous meeting detailing the high priority areas. There would be no enforcement of restoring wetland and grassland areas, rather the Watershed would be encouraged to work with organizations such as Prairie Partners to support the restoration of wetland and grassland which is on a voluntary basis. Chisholm stated that he felt that the Green Meadow Subwatershed already contains a large amount of grassland, wetland, and conservation areas and he is not in favor of taking large amounts of land out of agricultural production. Fritz asked if Chisholm would agree with

the objective of restoring at least one wetland and grassland complex if a minimum size was reduced to one tenth of an acre, setting the starting point lower. Chisholm agreed that he would be in favor of restoration on a much smaller scale. Siira asked if the Project Team wanted to specify that they are specifically going to focus on restoration in High Priority areas, or if they wanted to look at the subwatershed as a whole for this objective to be met. Fritz suggested that the approval of objective three be tabled until the next meeting pending changes to the objective and summary.

4 – Improve Stability of Priority Watercourses

Improve the stability of the Spring Creek and State Ditch 68 below the Green Meadow Dam and other watercourses with substantial lateral erosion, aggradation, and/or downcutting.

It was determined that the Project Team was in favor of changing the objective to the following:

Improve stability of watercourses

Fritz asked if there were further changes or corrections to the fourth objective. All Project Team members were either in favor of or neutral to adopting the fourth objective as corrected above.

5 – Reduce Sediment and Nutrient Loading from High Priority Upland Sources

Reduce sediment and nutrient loading from high priority areas.

Balstad commented that she felt again that the objective should not include the high priority classification. Vilmo asked for clarification regarding the nutrient loading. Fritz and Mercil both stated that often times the nutrients are attached to the sediment, making them one in the same. Fritz added that including the reduction of nutrient loading speaks to water quality which could potentially increase funding opportunities. Fritz asked if there were any further corrections or changes to the fifth objective. All Project Team members were either in favor of or neutral to adopting the fifth objective with changes as follows:

Reduce sediment and nutrient loading from upland sources

6 – Improve Soil Health

Improve soil health by implementing best management practices including but not limited to: cover crops, residue management, and no-till/strip tillage

Fritz asked the Project Team if there were any correction or changes to the sixth objective. All Project Team members were either in favor of or neutral to adopting the sixth objective as presented above.

Following the discussion regarding goals and objectives, the Project Team reviewed strategies based on flood reduction measure and how it applies to early, middle, and late timing zones, noting that the Green Meadow Subwatershed is located in the early to middle upstream area in the Red River of the North Basin. The additional resources team provided additional information regarding each strategy and how its implementation would be applied to the current subwatershed conditions. Primary strategies are those which could stand alone, secondary strategies would be difficult to implement since the programs are on a voluntary basis. The secondary strategies would be good in addition to primary solutions.

Fritz asked the Project Team for comments or suggestions regarding “Reduce Flood Damage” and the 5 strategies which it contained. Being no comments or suggestions all Project Team members were either in favor of or neutral to the decision of moving all potential strategies forward to the next phase of the process.

Fritz moved along to the “Increase Conveyance Capacity” section. All Project Team members agreed that the subcategory “diversion” was not a viable strategy and it was eliminated at this point. Vilmo stated that he felt channelization would be in violation of objectives that were set. All Project Team members agreed that “channelization” was not a viable strategy and it was eliminated at this point. Discussion turned to the drainage subcategory. Manager Christiansen stated that he felt this was similar to the issue of channelization. Mercil added that drainage could increase flashiness. Mercil and Siira both felt that the option should be eliminated from consideration, other project team members felt that it should remain for consideration. Engineer Bents suggested that if it was left for consideration it would be on the contingency that it was not the sole strategy. Commissioner Bommersbach added that he felt that allowing more drainage above the structure would provide more water, which adds to the already present problem, making it larger. In consideration of time constraints, Fritz suggested that the Project Team change direction at this time and focus solely on items that were presented by the additional resources team as “red” or not viable strategies. The remaining six red highlighted items all fell under the subcategory “Protection/Avoidance”. All Project Team members were in favor of or neutral to eliminating urban levees, farmstead levees, agricultural levees, evacuation of the floodplain, floodproofing, and warning and emergency response from future consideration.

Fritz presented the Project Team with an assignment for the next meeting, giving each of them a large map of the Green Meadow Subwatershed and asking them to determine locations where they would place possible strategies. He reminded the Project Team to refer back to the range of strategies and determine how they can fit the goals. Administrator Ruud added that at this time the Project Team input should be minimally influenced by the additional resources team. Van Offelen also invited those who are able to attend the March conference meeting (March 25 and 26) in Detroit Lakes to do so and provide attendees with input that they have regarding the Project Team process.

The next three Project Team meetings were set for:

- Friday, March 28th 9:00 am
- Wednesday, April 23rd 9:00 am
- Wednesday, May 28th 9:00 am