

**Red Lake Watershed District
Pine Lake Area Project Work Team
Meeting Notes
December 19, 2014**

The meeting was convened by Myron Jesme, Administrator, Red Lake Watershed District (RLWD) at 9:30 a.m. The following Project Team members (or their alternates) were present:

Myron Jesme (RLWD)	Dan Stenseng (Clearwater Co. Comm.)
Nate Dalager (HDR Engineering, Inc.)	Dan Sauve (Clearwater Co. Hwy. Dept.)
Les Torgerson (RLWD)	Jody Beauchane (Polk Co. Hwy. Dept.)
Gene Tiedemann (RLWD)	Randy Rue (Queen Township)
Lee Coe (RLWD)	Mark Larson (Eddy Township/Landowner)
Loren Sanderson (RLWD)	Les Roos (Landowner)
Dan Thul (MnDNR)	Larry Peterson (Pine L.Twp/Sportsman Club)
Gary Barnard (MnDNR)	Ken Schmalz (Landowner)
David Rave (MnDNR)	Juane D. Johnson (Landowner)
Larry Puchalski (USCOE)	Terry Sorenson (Landowner)
Matt Fischer (BWSR)	Terry Vonasek (Landowner)
Denise Oakes (MPCA)	

Myron Jesme welcomed the Project Team members and introductions were made. Jesme distributed the Red River Basin Watershed Districts-Project Team Handbook.

Engineer, Nate Dalager, HDR Engineering, Inc. discussed the Project Team process, Project Team Handbook and the mediation process.

Dalager discussed the Concurrence Points Guidance, that the U.S. Army Corps of Engineers uses as a four step process to identify the project purpose, alternatives, narrow down to one or a series of alternatives and then select the least environmentally damaging alternative.

Dalager discussed the Project Team's ability to move forward with alternatives with consensus of the Project Team.

Dalager discussed the meeting held this past summer with the landowners and two things that precipitated hosting today's meeting. The RLWD received a letter from POOPLA (Property Owners of Pine Lake Association), concerning the water levels on Pine Lake and water quality issues. Secondly, the RLWD has the expanded distributed detention strategy which is an approach to reduce flooding along the Red Lake River, its tributaries, and on the Red River of the North. Dalager discussed the basin wide goals of 35% peak flow reduction at Crookston and 13% volume reduction at Crookston. Dalager discussed existing detention sites and drainage areas within the District. Prior to the 1997 flood, the RLWD had approximately 231,500 ac.ft. of storage and since then have added an additional 8,650 ac.ft. of storage. As part of the reduction of mainstem flooding on the Red River of the North, the RLWD evaluated the District as to where they could store water and where the topography is advantageous to store water. Dalager discussed the use of Lidar within the Red River Basin that could potentially store water in areas with 20 sq.mi. of drainage or larger and that could handle a 3" to 4" runoff event. Smaller drainage areas are also considered if appropriate. Dalager also looked at permitting complexity, additional consideration was given to the early,

middle and late timing concept. Thru this evaluation Dalager came up with generalized areas that could have the potential to have a retention benefit to the District. Dalager discussed the four quadrants within the District that were determined. Dalager stated that in his opinion thru the evaluation, the District cannot reach the basin goal of 35% reduction at Crookston without doing mainstem retention. As part of the 20% flow reduction initiative, the evaluation of the District identified the Pine Lake Area as a potential Flood Damage Reduction opportunity.

Dalager and Jesme discussed the history of Pine Lake along with the fluctuation of lake levels. In 1980, the Clearwater County Board petitioned the District for improvements to Pine Lake. The project consisted of a sheet pile dam with two adjustable stop log bays. Pine Lake has a runoff of 45 sq.mi. drainage area, which causes rapid increase in lake elevation, which has led to flooding concerns in 13 of the last 33 years, and lower lake levels in late summer, fall and winter resulting in water quality issues. Dalager discussed the existing outlet structure and how the levels of flooding affect the cabin owners, alternatives to modify the outlet and upstream storage. Dalager explained the conceptual lake outlet. Loren Sanderson discussed the stoplog elevations and operation of the structure. Discussion was held on water quality concerns, aeration, and the depth of the lake. Dave Rave stated that bounce on Pine Lake is good for a lake, because as it bounces you add vegetative productivity to the lake, which is good for waterfowl. Dalager stated that part of the concept is to moderate the fluctuation. Discussion was held on maintaining low flow elevations as part of the operating plan.

Les Torgerson questioned the permitting barriers. Jesme stated that the Project Team along with permitting agencies can address these issues as the process moves along.

Dalager stated that the RLWD Board of Managers toured Pine Lake and area upstream of Pine Lake last spring. Dalager discussed various alternatives he proposed to the Board and previous studies completed on Pine Lake. The Board discussed retention and that this area is a good area for retention for the overall District's goals. Dalager showed a map of the 45 sq.mi. drainage area of Pine Lake, stating that moving forward we will discuss areas eligible for retention and if there are landowners willing to consider it.

Discussion was held on a small DNR retention pond in the area. Rave stated that this area is a Wildlife Management Area (WMA) with a structure that is currently drained down. As part of the WMA plan, the pond is drained down every five years to clean the structure and remove cattails which helps increase fertility. Rave stated that the structure is a drainage culvert that drops down with boards to raise or lower the level with a stoplog outlet structure in place. Dalager asked Rave if this site could be used as a multiple purpose site for flood damage reduction and Natural Resource Enhancement (NRE), etc. Rave stated that it is possible. The property was bought for hunters and wildlife habitat. Jesme stated that the District has partnered with other local, private, state and federal entities before on projects that have multiple purposes for flood damage reduction and habitat. Jesme indicated that he is aware of various nesting concerns with impoundment projects and associated bounce. Rave responded that timing for nesting is huge, when floods occur in the spring the DNR does not want the lake bouncing while nesting is going on, but he indicated they would be open for discussion. Jesme stated that some of these concerns would be addressed in the operating plan. Terry Sorenson stated from a landowner's perspective, they have the same concern as the DNR in regard to nesting.

Dalager stated that several local benefits could be lake level moderation, water quality benefits, longer duration of base flows, upstream storage, significant downstream flood damage reduction, and more desirable water levels in summer and fall.

Dalager stated that he would like to identify problem areas from the project work team.

Dan Sauve stated that downstream, he has seen the Lost River very dry several times. Gary Barnard discussed maintaining protected flows for fish habitat, stating that we do have fish kills in stream due to fish getting caught in pockets of water. Barnard also stated that there are some designated trout streams in the area. Trout streams have groundwater supply to help maintain the trout as groundwater has cooler temperatures. Trout streams are located in Nessett Creek. No assessments have been completed since the late 1980's, but the designation remains in case the management efforts to get trout back in there comes back. Trout streams do take a certain amount of management effort. Habitat would need to be suitable to support trout. Some trout streams in this area do have a landowner easement. It is possible to un-designate an area as a trout stream as they are currently in the process in Beltrami County where there is no landowner easement. Trout streams also include additional permitting hurdles. Barnard stated that the control of beavers in a trout stream area is crucial to maintaining a trout stream.

Sorenson stated that the lake to the north of his property, is somewhat deeper than 2 feet, has fish in it, but is 2 feet lower in elevation than the Lost River on his property. The lake is 1298 feet, and the river on his property is 1300 feet. They are not connected in any way.

Dan Thul stated that any area that is classified as protected waters would require a DNR permit. For the DNR to issue a permit to adjust lake levels it would have to be for public benefit, not private benefit. Jesme stated that the District does not want to arbitrarily flood a lake and if there was a plan to do so, it would have to meet the permitting and environmental review requirements. Sorenson stated that some of these lakes are not connected. Pike Lake is spring fed with no outlet. Jesme stated that we would look at the drainage area of these lakes and determine what could be done. Sorenson referenced that both lakes he is referring to are visible on the map. Dalager stated that they are both in the subwatershed but probably only outlet on extreme conditions. Thul and Jesme both stated that we do not want to flood non-contributing areas. Sorenson stated that on the first map that was distributed it encompassed the entire area. Jesme stated that the earlier referenced map was not intended to be presented as a project but more so an area to investigate as a concept. Jesme also indicated that this is the type of conversation that we must have to go thru and throw out areas that are not feasible.

Mark Larson stated that there will need to be thought put into where the dams would be as some won't work. Dalager stated that those sites would come out of a study, but none of these sites would move forward without these types of project team meetings. This process gives us focus on concepts and general areas. Larson stated that this could affect the upstream of the Lost River and Pine Lake. He further stated that there are specific areas that would store water. Dalager and Jesme discussed models that are used for tools to focus on the area, but not necessarily that all areas will be feasible for retention. A model helps to look at areas that may have a chance but some may not be beneficial. Sorenson stated that a beaver put in a dam that killed approximately 15 acres of trees. Larson stated that from his standpoint as a farmer, we do not have a problem storing water in the spring, but they do have a big problem storing water in the summer, and that he needs that land as pasture land. Sorenson stated that he is not a farmer, but could lose a lot of hardwood trees. Jesme stated that typically hardwood trees are not in a wetland, but you could flood trees that are near a wetland.

Jesme stated that the study would allow us to look at more specific areas in detail and then they would bring that back to the project work team.

Jesme asked the group if there was any erosion issues or water quality concerns. This is not just a flood damage reduction focus. If there are bank failures in the area, we could address them.

Torgerson asked if the goals of the project could be reached without a mainstem project. Is the Lost River considered to be a mainstem river and is this under consideration or not touchable. Thul stated that there are concerns with storing water on a mainstem river due to environmental issues and fish habitat. It has permit complexity because of the potential of environmental uses.

Dan Sauve stated at the Lost Lake, right down the middle of a valley, it is part of the Lost River and a trout stream.

Dalager showed on a map several obvious areas for potential sites, one area where Mark Larson pastures, with two roads that intersect and could work as low dikes after modification. An additional area is the WMA, where the DNR has a current structure.

Rave questioned how many acres of row crop are in the drainage area, stating that there are ways to retain water by tiling. Larson stated that there is no tiled fields in the area.

Thul asked if there is any drained wetlands or basins that could be restored and used as storage, or restorable seasonal wetlands. Matt Fischer stated that the farm bill and EQIP could help with funding on some of these.

Dalager stated that these type of projects would require easements. There is federal money attainable for flowage easements for flood damage reduction, use it for spring flooding as an easement. Landowners would be compensated.

Dalager asked lake property owners in attendance if we have captured their concerns. Terry Vonasek stated that upgrading the control structure would be a good idea as it seems that it would affect the least amount of people, and would be fairly cost effective. Vonosek asked if going forward would everything have to move forward as a group or could upgrading the structure be separated in case the upstream retention does not move forward. Jesme discussed a project located in the western area of the District known as the Grand Marais Project. For the Grand Marais Project, the District looked at many areas, but kept it as a project team concept. Jesme stated that it is the District's intent to notice everyone at the table whether we are talking Pine Lake landowners or upstream landowners. Everything is at the table and everyone sitting here has to be aware of what is being proposed. As discussion goes on, we may have to ask additional people attend the work team meetings as they may be affected. This is a process, we don't know who to ask until we start talking about and evaluating alternatives.

Vonasek asked if there is a requirement to release a set amount of water from the outlet of Pine Lake. Thul stated that the existing operating plan is set for a certain amount of low flow to be released downstream. Loren Sanderson stated that the fixed amount is a foot lower than the top of the stoplogs.

Dalager discussed goals and objectives and that everyone has their own:

- RLWD-Flood Damage Reduction for all seasons, water quality, beaver control

- Clearwater County Hwy Dept-changes in flooding, changes in structures, Intersection at #115 and #20, beaver control.
- Pine Lake landowners-manage water levels, reduce low/high water levels, minimize and compensate landowners for flooding impacts due to potential FDR project operation, aesthetics, water quality.
- BWSR-opportunity for farm programs (EQIP, ag land easements, RIM programs, RIM grassland easement thru the ag land easements).
- DNR Fisheries-Pine Lake fishery and not making that condition worse as this area is consistent in winter kill. Improving winterkill would be great.
- DNR Fish & Wildlife-minimize flooding, maintain the quality of vegetation, maintain emergent vegetation on the outside. Concerned about Little Pine and maintaining good habitat. Little Pine WMA some land is owned by DNR.
- Corps-follow concurrence points process, if this is a variety of different strategies some of this could fall under general permit. Corps would need to look at secondary impacts to see if there is any changes in impacts from the existing condition to a new condition. Larry Puchalski did mention that portions of the alternatives that may move forward may not need to follow the concurrence point process.
- Townships-Larry Peterson-immediately below the dam would be the first township road, Mark Larson with Eddy Township-they do have trouble with Nessel Creek and problems with culverts on the road.

The RLWD will work on crafting a problem statement and bring it to a separate meeting.

Dalager asked if the agencies in attendance felt it was necessary to hold a natural resources meeting. It was the consensus of the group, that a meeting is not necessary until more information is available. The structure design and how the operating plan is something that would need discussion.

Dalager stated that from what he has heard today, no one in attendance is opposed to the modification of the outlet structure of Pine Lake.

Jesme discussed the next steps of the project. The RLWD and Project Work Team can't get answers without doing some studies. This project team process allows us to apply for pre-engineering dollars from the Flood Damage Reduction Work Group through the Project Acceleration Grant. We have to identify tasks to help us move along, we need evidence to be able to proceed or stop. Jesme also stated that we need to come up with some goals for the Engineer to bring back information so we can make some decisions and go on. Guidance from the Project Work Team is needed as to the next step to apply for funding for pre-engineering.

Barnard stated that it would be helpful with the structure to get an idea on what the original structure was and why the structure was designed and then changed. Dalager stated that there is a report available that this structure was based on.

Peterson discussed the outlet of the dam and the area between the lake itself and the structure. Peterson discussed the aeration process on the lake, and that when the structure is flowing it is taking off the top most highly oxygenated water of the lake. Is there any way this can be designed to remove lower more stagnant water to help with the aeration? Jesme answered that this could be looked at in the design process. Thul discussed a flexible type pipe that could reach into the lake to take the lower water. Peterson stated that if structures are installed upstream of Pine Lake for

retention areas, when that water comes thru low land area it could bring in more stagnant water and put out the good water at the wrong time of the year. Barnard stated that this is why the dam operation is crucial to maintain what we currently have and preserve it. Jesme stated that there is structures we can use to help oxygenate waters.

Jody Beauchane asked if where the existing structure is located, could the channel upstream be cleaned out? Sanderson indicated that this option was looked at years ago and could be part of an overall project proposal.

Rave stated that this structure is not working because of high water levels and to keep in mind in the near future we could have lower levels or as some have said higher levels depending upon the climate.

Larson asked about talking to other upstream landowners for ideas. Jesme stated that this is the real job of the landowners present at today's meeting to get ideas/input. There are different mind sets out there and not everyone can be sitting at this table we would hope that landowners bring back alternatives or ideas. Larson stated that if we had a landowner meeting in the evening, he would be able to get several landowners present.

Jesme stated that the District can help the landowner with making justifiable decisions to apply for programs. Thul stated that there is \$50 million earmarked for projects in the Red River Basin for projects to help store flood waters.

Dalager stated that one of his items would be to flush out some retention site concepts to help make conversation with landowners productive. It would give the landowners an idea of what the landscape would look like. Dalager stated that he would like to see us go to Gonvick, and have discussions with landowners. Dalager would also like to see some alternatives for outlets. Dalager would need direction by the RLWD Board of Managers to proceed with these items. Jesme stated that Dalager will need some guidance by the RLWD Board. Dalager discussed the costs to meet with landowners and a sketch of a design for the outlet. Thul stated that Flood Damage Reduction funding is critical if other watershed districts have applied for funding. Dalager stated that he will have a discussion with the RLWD Board and will keep the Project Work Team advised on the next steps.