

PRIOR LAKE - SPRING LAKE

WATERSHED DISTRICT

Surface Water Modeling and Flood Damage Reduction Study

ADVISORY GROUP

Meeting Notes

MEETING DATE: THURSDAY, MAY 5, 2015

MEETING TIME: 6:30PM – 8:00PM

LOCATION: PRIOR LAKE CITY HALL, COUNCIL CHAMBERS

ATTENDEES: ANNETTE THOMPSON, *PRIOR LAKE CITY COUNCIL*
BILL KALLBERG, *LAKES ADVISORY COMMITTEE*
CHARLIE HOWLEY, *PLSLWD*
DAN KELLY, *SPRING LAKE ASSOCIATION*
DIANE LYNCH, *PLSLWD*
DONNA MANKOWSKI, *PRIOR LAKE ASSOCIATION*
GLENN KELLEY, *SPRING LAKE ASSOCIATION*
GREG WILSON, *BARR ENGINEERING*
JIM FITZSIMMONS, *SCOTT SWCD*
KATHY NIELSEN, *SPRING LAKE TOWNSHIP*
KIM SILVERNAGEL, *CITIZEN ADVISORY COMMITTEE*
MARK VIERLING, *SCOTT WMO*

OTHERS PRESENT: KATY GEHLER, *CITY OF PRIOR LAKE*
PETE YOUNG, *CITY OF PRIOR LAKE*
TROY KUPHAL, *SCOTT SWCD*
CURT HENNES, *PLSLWD*
WOODY SPIZMUELLER, *PLSLWD*
MAGGIE KARSCHNIA, *PLSLWD*

DISCUSSION:

1. First Community Meeting Debrief

- Greg from Barr Engineering provided a re-cap of the first community meeting on February 19th.
- When compiling the feedback from the community meeting, Barr Engineering was looking for themes/common answers to such questions as:
 - How were residents most impacted by the 2014 flood?
 - What were the main issues/concerns/remedies residents would like considered?
 - What are the most important outcomes?
- Bill Kallberg noted that the themes mentioned in Greg's presentation were consistent with the ones he has heard on the Lakes Advisory Council and in his time on the watershed district board.
- Jim Fitzsimmons recalled a comment from a different meeting in regards to a designated area upstream for storage near the intersection of 196 & Vergas Avenue. Greg noted that upstream storage is one of the flood damage reduction tools that we will be exploring, but that no single upstream storage area will solve the entirety of the problem.
- Curt Hennes asked if the historic second outlet at Spring Lake will be considered as a possible solution. Curt had heard Mayor Hedberg talk about this historic and no longer present outlet on the east side of the lake. Pete Young from the City noted that the elevations in this part of the watershed don't support an outlet.
- Charlie Howley asked if other strategies will be considered other than the three mentioned, such as buyouts, infrastructure improvements, and better engineering solutions for shoreline properties and along the outlet channel (preparing for flooding vs. preventing flooding).

2. Overview and Current Status of Watershed Modeling

- The larger watershed was broken down into four smaller sub-watersheds with known flow information from documented monitoring data.
- Calibrated the watershed model that was created using the 2014 flood event data, then used the calibrated model to adjust for different flood mitigation scenarios.
- Kim Silvernagel asked if the buyouts scenario was only for Prior Lake residents or for both Spring and Prior Lakes? Given that no homes were affected on Spring Lake, only secondary structures, the buyouts would likely not include Spring Lake.
- Is there data on how often flooding on Prior Lake has occurred? Understanding the urgency of the situation, we should also be thoughtful that this was a 500-year event and balance the solution with other end of the spectrum (drought) conditions when considering lowering the lake level.
- Preventing flooding vs. preparing for flooding. Should we consider adopting regulations that limit where you can build/landscape to prevent future damage? Require or fund raingardens and/or shoreline restoration?

3. Potential Modeling Scenarios for Improvement Strategies

- Greg summarized the three “What-if?” modeling scenarios:
 - Increase Outlet Structure Conveyance: max. 1 foot difference at peak lake level with highest cfs increase (highest scenario modeled)
 - Increase Storage in Spring Lake Basin: max. ½ foot difference at peak lake level with 2-foot outlet raise (highest scenario modeled)
 - Increase Storage in Spring Lake Watershed: max. just under 1 foot difference at peak lake level with 20% storage volume increase (highest scenario modeled)
- Kim Silvernagel asked if combined strategies will be modeled? Yes, once Barr has a good model going with the three base models, additional combined strategies will be tested. Greg stressed that a combination of strategies will likely be the solution.
- Charlie Howley asked if the model requires an identified storage area? Yes, it needs to be fairly detailed with its assumptions in order to be accurate with defined, actual solutions.
- At what lake level to people start sandbagging? Is there significant storage volume lost? Katy Gehler stated that sandbagging starts at a lake level of 904 for some homes, but the current building elevation regulations are at 910. The amount of storage lost behind the sandbag line is insignificant.
- Next step will be to determine how much the scenarios will cost. Some scenarios might have exponential growth as you increase the size (e.g. x acres of restoration might cost you y, but as you run out of willing landowners, the price per acre will increase).

4. Discussion of Draft Selection Matrix

- Greg presented a list of potential criteria that might be considered in the matrix such as:
 - Costs of projects: design/prep, construction, loss of property/use
 - Benefits/Impacts: ecological, water quality, etc.
 - Feasibility: regulations, available funding, etc.
- How/should an inconvenience cost be factored into the matrix? Such as loss of accessibility to property, loss in use of property, etc.
- Has there been a total \$ amount associated with the financial impact of the 2014 flood? Need to weigh the potential strategies against true necessity, realizing that this was a 500-year flood event and is not likely to occur again soon.
- Greg noted that the matrix will take into account things we can and cannot quantify. Factors are weighted so that we can hone in on what is most important.
- Timing will also be taken into account – how long will it take to implement?
- What will ultimately be our goals? What are we shooting for?
- Once we have determined the right solution, what agency will be in charge of finding the money and resources to implement it?
- FEMA is not a good source for preventative funding, unless the cost/benefit ratio is extremely high.

- Upstream storage has minimal consequential impact as opposed to other strategies like increasing the outlet which can affect downstream residents or installing a dam on Spring Lake which will impact Spring Lake shoreline owners.
- Every idea will be entertained as we look for the right solution.

Next Steps:

- The Advisory Group will be meeting again at the end of June. A draft matrix will be presented at that time.
- Updates to the study will be provided by email as the project moves forward.