

**Comfort Lake – Forest Lake Watershed District and  
City of Forest Lake Joint Meeting  
Monday, February 2, 2015  
Forest Lake City Offices 1408 Lake Street South, Forest Lake, Minnesota 55025**

**1. Welcome and Introductions- Mayor Stegner and President Damchik**

Mayor Stegner called the workshop to order at 6:30 p.m.

Attendees representing Forest Lake: Mayor Stev Stegner; Councilmembers Mike Freer, Richard Weber, Ben Winnick and Ed Eigner, Don Heart (zoning administrator), Mark Peterson (public works); Tim Olson (Bolton-Menk, Inc); Ryan Goodman (city engineer) Aaron Parrish (administrator)

Attendees representing Comfort Lake-Forest Lake Watershed District (CLFLWD): President Richard Damchik, Managers Jackie Anderson, Jon Spence, Wayne Moe and Steve Schmaltz, Jerry Grundtner (Citizens Advisory Committee), Mike Kinney (district administrator) & Emily Schmitz (district technician); Brett Emmons (EOR, Inc)

**2. City Role in Water Quality- Aaron Parrish and Ryan Goodman**

Administrator Parrish summarized the city's role in water quality. A lot of the foundation of our work comes from our strategic planning and city plan. Water quality plays an integral part in the public works and park sections with the lake as a recreational aspect. We have operational and maintenance responsibilities for water. We are in two watershed districts, with the majority of the city in the Rice Creek Watershed District (RCWD). CLFLWD covers many of the tributaries to Forest Lake. RCWD administers the Wetland Conservation Act for the city. Policy questions to consider: what is the city or watershed district function for wetlands and water quality? The city is also active in lake improvements. We partner with the many lake improvement associations, not just for weed harvesting, but for water quality including boat inspections, treatment for curly leaf and rapid response for aquatic invasive species. We also partner with the watershed districts for these activities and development review. We issue permits and get feedback from a number of agencies. We try to balance out the resource needs with developers' needs. With redevelopment we have the opportunity for water quality improvements. The city is working on a substantial plat and we will collaborate with CLFLWD on this.

Tim Olson presented the city's role in reducing polluted storm water runoff through its Municipal Separate Storm Sewer System (MS4) permit. This is a U.S. Environmental Protection Agency (EPA) program administered by the Minnesota Pollution Control Agency (MPCA). Forest Lake has been an MS4 community since 2006. It is now going through permit reauthorization. The city is responsible for six commitments called minimum controls. Much of those have been established through the first permit cycle. Most updates will be ordinance updates and good housekeeping, with enforcement as a third component. New development restrictions: reduce runoff volume and control phosphorus discharge and suspended solids. This is the first time volume has played an important roll in water quality, groundwater recharge and controlling surface runoff. It is especially difficult in Forest Lake with the high water tables and clay soils. To help with these restrictions, we have looked at

mapping in town to identify regional facilities. Enforcement, another key component, is in pretty good shape, but we are going through some revisions. The final component of good housekeeping includes storm sewer system and municipal operations mapping, data collection, record retention and updating some policies. We are also looking at new ways to educate the public and city staff.

Ryan Goodman presented the city's permit process and existing infrastructure. Because of budget constraints, the city had never looked at storm sewers as an entire system before. Now with our 20-year capital improvement plan we have laid this out and related it to our complete mapping and asset management. We can now start prioritizing projects, funding and joint projects with the CLFLWD. With complete mapping we have more structures and more lineal feet of pipes than we thought, which will necessitate more prioritization and adjustments. We have about 40 miles of public storm sewer pipes, 188 ponds, almost 1,700 catch basins, almost 450 manholes, 55 weirs, etc. Each type of structure requires a different kind of maintenance such as cleaning out or rehabbing. For the first time, we now have a storm sewer capital plan.

Tim Olson presented the city's responsibility for the total maximum daily load (TMDL). We are trying to find the watershed characteristics and make sure each lake meets its intended beneficial use, which has water quality criteria. Each lake has a loading source—either natural or through runoff. The only impaired lake in the CLFLWD is Shields. It is impaired for excessive nutrients. There are some other impaired lakes downstream of Forest Lake. Although Forest Lake is not impaired, it is probably pretty close. What we do upstream of the lake is important. The TMDL report helps to define the maximum allowable load to the water body and still maintain its beneficial use. If the load is too high, we have to develop a way to reduce it. Waste load allocation is a combination of the runoff from the landscape and municipal operations and the MS4 system. Our challenge is to develop strategies to reduce those loads.

### **3. Watershed District Role in Water Quality- Michael Kinney**

Michael Kinney stated that the District is very pleased with the relationship that has been building with the city staff to focus on water quality. With the development of capital improvement plans (CIP) and management plans, there is an opportunity for collaboration and greater efficiency. Within the district management plan, we have adopted a process called adaptive management—a continuous process to monitor, evaluate, assess strategies and implement projects. As we learn overtime through monitoring, we adjust accordingly and narrow our focus. We look at both in-lake and stormwater runoff loads. The Minnesota Board of Water and Soil Resources (BWSR) oversees watershed districts and requires that plans are updated every 10 years, including review of the CIP. In Bone and Moody lakes, we just completed monitoring through our adaptive management process that helped us identify primary loading sites. We have also identified aquatic invasive species (AIS) that can affect lake quality. For example flowering rush has been found in Forest Lake, which is the only lake in Minnesota with this AIS. Along with in-lake activities, water quality starts on the land. The city has control over a lot of public right-of-ways. When we do analysis, we can see opportunities for water quality and flood control on the land that is controlled by the city.

With collaboration, the District can provide financial resources to get a water quality project done.

Brett Emmons provided an overview of watersheds and watershed districts. Water moves over property and political boundaries. That is one reason for the formation of watershed districts and water projects. Watershed districts just look at water, not community boundaries. In a natural landscape, water coming off the landscape is clean. When it comes off an urban landscape it is dirty or impaired. In a natural landscape, only about 10% of water runs off and about 50% seeps naturally into the ground to replenish our aquifers for drinking water or goes into streams, lakes or wetlands. The rest gets soaked up by plants or evaporates. When we change the landscape we change this water balance. Urbanization increases the amount of water running off and reduces the water seeping into the ground or flowing into water bodies. With the construction process, we try to contain water running off and going down stream. As the District developed its rules and standards, we recognized that not every construction project can contain its stormwater. For this reason, the District created a Stormwater Impact Fund. This sets up a regional fund so a regional practice can be implemented off-site when a site cannot accommodate on-site water retention.

#### **4. Summary of Past Collaboration- Mark Peterson**

Mark Peterson summarized successful City-District projects including:

- Castlewood and Stella's Restaurant using an iron-enhanced sand strip to filter and trap phosphorus
- Hayward and North Shore Trail using an iron-enhanced pond
- Street end treatments on 4<sup>th</sup> Ave NE, 2<sup>nd</sup> Ave NE and 2<sup>nd</sup> Ave SE using plant barriers (or buffers) at the end of the streets to trap phosphorus
- 8<sup>th</sup> St pond system—a joint project with the District, City and Washington County using a series of iron-enhanced strips
- An assessment on the south side of Forest Lake to determine the loading
- Target site with tree trenching and ditch cleaning

#### **5. Summary of Current Collaboration- Michael Kinney and Aaron Parrish**

Mr. Kinney summarized current collaborations including:

- The City and District have signed a cooperative agreement for a pond project. There is an absentee landowner and we are working on getting an easement.
- A hydrology assessment with the Washington Conservation District (WCD) on the north shore of Forest Lake to determine the loading from the drainage areas. Once loading is determined, reduction projects will be identified and prioritized.
- Shields Lake project. Because Shields is impaired, its discharge can impact Forest Lake. The District will be taking over the fish barrier and applying to the MPCA for a grant to validate/identify the high loading drainage areas.
- East side of 3<sup>rd</sup> Lake. This is tax-forfeiture property. The District has already completed an analysis that indicates the discharge is high. The District is working through the process for potential acquisition of the property or a joint project with the city.
- With Bixby Park, we are looking at the whole system. Bixby Park flows into different systems. The most important system is the shallow pond, which is

essentially functioning like a big phosphorus trap. We want to reduce the amount of runoff flowing into the pond to extend the life of the pond. Overall, the goal for the system is to bring spring water back into the complex to improve water quality and provide volume control.

Mr. Parrish and Mr. Goodman provided additional comments on the Bixby Park collaborative project. The city has had a longer-term conversation with the District about Bixby. The project involves utilization of city-owned property. There are different ownership structures that could be used such as dedicated parkland and/or tax-forfeited property. The District has funding through the state Clean Water Legacy Fund and is working on the design phase. The city has a draft agreement with the District. After review, staff has determined that the project will have no adverse impacts on the park master plan. From a staff perspective we are satisfied that we have all the information needed to bring the agreement forward to the council. From a policy perspective we will need: 1. An agreement for operations and for a long-term easement. 2. Cost associated with encumbrance of the property. The benefits to the city are: the project treats some of the stormwater from Forest Lake and helps with our MS4 permit and TMDL allocations. At the workshop in February or March, staff will ask for a decision.

#### **6. Shared Vision for Water Quality- Mayor Stegner and President Damchik**

Mayor Stegner asked for questions or comments on the shared vision for water quality.

Councilmember Eigner asked about who has the authority for future ordinances. City staff responded that for city operations and maintenance, the authority comes through our MS4 permit that is overseen by the MPCA. We comply with rules through a permitting process. As a city, we have to be taking proactive steps. There is an opportunity for improvement such as maintaining structures on a rotation schedule. These activities are funded through the stormwater management fee. With development, we review and have some discretion, but the District has more oversight, with direction from BWSR and the MPCA. Mr. Kinney added that water authority starts with the EPA and moves down to the state. Most states decide to establish rules on a state-wide basis. For implementation, many times the state will take the lead or ask or require local governmental units (LGUs) to do so. In this case, the City asked the District to take the lead.

Mayor Stegner noted that it looks like the Bixby Park is the signature project, and asked: what kind of benefits from loading reduction are you going to show after this project? Mr. Kinney responded that the calculated benefit will be 206 pounds of phosphorus reduction. The project will also substantially reduce flooding. There is a potential for greater phosphorus reduction, if an iron-sand structure is installed. Another questioner asked, if this project is not done, is there a potential that the city will have to do a project by itself if loading is increased? Mr. Kinney responded that we don't know if loading will increase, but with smaller projects as examples, such as Log Lane and some of the City's stormwater ponds, we have seen that as these structures get filled up with sediments they discharge downstream and so become a loading source. This is the result of urbanization. We are now attempting to get systems functioning as naturally as possible to improve water quality and prevent flooding at the most efficient cost. Again when we look at the stormwater ponds

around the city, maybe the District can assist in the evaluation of some of the city's ponds and wetlands and help identify the high loaders going into Forest Lake. This can help with the city's CIP prioritization process.

Mayor Stegner asked: how does the Bixby Park project load reduction compare to the City Center project? Mr. Peterson and Mr. Goodman responded that the benefit of the City Center project is that it will remove a significant percentage of the total phosphorus flow coming in. But Bixby is on a different scale, with over 500 acres of the watershed flowing into the lake. This one project attempts to remove 206 pounds of phosphorus or about 50% of the total load coming in. Collaboration is also a key component to Bixby, with the city being involved with the design and providing the land and the District doing the water quality calculations and monitoring the system. The collaboration is what made this successful for the legacy grant.

Councilmember Freer inquired: if the Bixby Park project is completed, what will be left of Bixby Park for use or redevelopment? Administrator Parrish responded that there has not been a lot of council discussion on this. Last fall we got the last bit of information needed to make a determination on the impact. Bixby Park is fairly encumbered and fairly wet. I am comfortable that the project will not adversely affect the park plan. In terms of development potential, most of the land is dedicated parkland or tax-forfeiture, so that potential is limited.

What percent of the Bixby project is wetland? How would it impact parkland and amenities? Mr. Goodman stated that the city had the District do additional calculations on the bounce--- how much bounce would occur; would it impact upland areas; how would it affect development; would it require wetland mitigation, which is required at a two to one ratio? Mr. Kinney explained wetland delineation and the DNR protection area. More than 90% of the project area is wetland and is proposed to be on the DNR part of the wetland-protected area. The project would not affect the upland area.

Councilmember Freer stated that his biggest issue with MPCA, EPA and regulators is the unfunded mandates. Some projects are voluntary, but we, as a city, are acting like all are being required. Of the projects, what are required now and what are voluntary until a later date? Mr. Kinney stated that the only project currently required is the Shields Lake TMDL. The others are taking a business approach to water management. Forest Lake is getting closer and closer to an impaired status. If you can mitigate in advance, it is cheaper. The District ranks projects by cost-benefit. If analysis indicates a high cost per unit reduction, we don't move forward. With 3<sup>rd</sup> Lake, the project we propose makes sense. We will wait with some of the other projects, using the adaptive management as our guide. Manager Schmaltz stated that prioritization is the key question and why a partnership is so important. Doing projects before a lake becomes impaired is more cost effective. For voluntary projects, the District can work with the City during its CIP process.

Manager Anderson provided some history and noted that the city is so much further along than when she first got involved in the 1990s. The watershed district was first formed by community petition because of the untreated urban stormwater from Forest Lake and Wyoming Township that was flowing untreated through an agriculture ditch through Bixby Park into Chisago County. Chisago County wanted Comfort Lake to be protected and to

become a watershed district priority. That is what started the collaboration between Forest Lake and CLFLWD. The city has plans for Bixby Park and the District would like a wetland retrofit to treat the stormwater from Forest Lake before it flows into Chisago County. The first treatment area is a tax-forfeiture property in Washington County. There will be a series of treatment ponds that will treat and slow the water. The shallow pond is in Chisago County. It was not intended to be the treatment area for Forest Lake. This is the District's project with the city of Forest Lake to treat the urban area that cannot be retrofitted. This was always intended as a collaborative project. Because we never had any storm drain mapping, we did not know where the inputs were coming from. The MS4 mapping project is significant to the project. The legacy grant was awarded two years ago. We had hoped to have this project going already. In order for the city to continue to develop, it has to have a way to treat its stormwater. This is what the Bixby project is about. We have done adaptive management to help identify linear retrofit projects along Broadway that will help avoid bigger projects in the future. Mr. Kinney added that one objective of this meeting is a shared vision for water quality. The data suggest we are getting closer to impaired water. Our collaboration is to address this. It was also noted that degraded water quality reduces property values.

Councilmember Winnick asked about pond maintenance. Staff responded that maintenance to remove sediment is typically done in the winter because it causes the least disturbance. Without maintenance sediment builds up and volume storage is lost, allowing downstream loading. Also sometimes the sediments are contaminated and need to be landfilled. By working with the District, the city can get some help with monitoring. Right now material monitoring is not funded in the city budget. The city has completed the storm sewer mapping and structure inventory and is now setting maintenance priorities.

Councilmember Winnick asked: when the ponds are cleaned out are they being upgraded to contain sediment or capture phosphorus? Mr. Goodman and Mr. Kinney stated that as an example with the Hilo Lane joint project, the cost was about \$100,000 for engineering and construction. Forest Lake contributed about \$25,000. The District did all the design and engineering. Now the runoff is being treated. With city street projects, we can retrofit and add sumps that provide easy access for cleaning. Retrofits have occurred with development projects. The improved filtering cleans the discharge to ponds, which extends the life of the pond and reduces maintenance. On the city end, we need to be more proactive with the maintenance, but it gets down to staff and budget. Manager Anderson stated that collaboration for water quality on existing and new structures is important. Treating locally, rather than installing large structures, is the most cost-effective approach, and the District wants to be involved.

Mayor Stegner stated that he is glad we got together to hear what is going on. We are right in the middle of strategic planning for the council and this fits perfectly. We heard from Mr. Parrish that we have more maintenance that needs to be done and we have funding in place with the stormwater management fee. Improving our water quality is important for all of us, especially with Forest Lake nearing impairment. We have a lot on our plate and we don't always think about water quality. It helps us to hear about this and we need the District's help.

Councilmember Eigner asked how the Shields Lake impairment affects development? And what is mandated? Administrator Parrish responded that with the new standards, the city needs to address water quality and rate control. The city is mandated to do a TMDL for Shields to reduce the loading and demonstrate how. We have permits that require demonstration, at some level, of an effort to make progress. We also have to demonstrate public education and CIP. Manager Anderson added that it is not just the TMDL, it is the stormwater, it's the volume and it's the rate control. All of it needs to be considered together. Under MS4, the city is responsible to treat its stormwater and reduce volume. Manager Schmaltz stated that this is a mandate for development or redevelopment and the city has 50 years of development that has already occurred. But as soon as a lake becomes impaired, then you really have to scramble to remove phosphorus. Mr. Kinney stated that the north side of Shields' drainage area meets the District rules. Within the Forest Lake drainage area, there are really three tiers of management: areas with no treatment, areas with some treatment and areas that meet the district's current standards. The first two tiers are of highest concern. For areas needing treatment, we ask what is most cost-effective project.

Councilmember Weber asked: what, if any, procedures in the last 10 years have we been involved with the Met Council? Responders summarized the roles of agencies dealing with water. The Met Council has been involved with water monitoring with watershed districts and overall with wastewater and water treatment. Recently, the council is becoming more involved with stormwater and is now coming out with water policies that include surface water. The Met Council requires cities to discuss stormwater in their comprehensive plans. But the MPCA is the main agency dealing with stormwater. Watershed districts approve LGUs' water management plans. Groundwater is becoming more significant. There is a significant policy shift from groundwater back to surface water. This is a reaction to a resource problem that was highlighted with White Bear Lake's drop in water level and the lawsuit settlement with the DNR.

Councilmember Eigner noted that phosphorus seems to be the number one component of how we measure water quality. What is the leading contributor or phosphorus—is it a naturally occurring source or decaying leaves or fertilizers? What should we be attacking? Mr. Emmons stated that we pay a lot of attention to phosphorus because it is the catalyst in algae blooms. But there are other factors such as temperature and volume. Also phosphorus in a system can continue to re-release. Monitoring helps determine the source of phosphorus. Mr. Kinney referred to Mr. Goodman's earlier comments about the miles of city pipes that move water unnaturally into water bodies. This concentrates the water and pollutants. Street sweeping helps reduce inputs into the pipe systems and into the water. Also we are trying to change the culture of construction activities to retain water on-site.

Councilmember Winnick asked: where does water in the Forest Lake system discharge? The District managers stated that the water discharges to the St. Croix River. A potential consequence is that flowering rush seeds will eventually make it into the St. Croix. Efforts are needed to stop rush at Forest Lake. There is a TMDL for the St. Croix and Forest Lake has a 33% reduction attributed to that larger water body. As Mr. Parrish pointed out, there is a layering with different agencies and different responsibilities. Water knows no political boundary and that is the purpose of watershed districts. From an historical perspective, the

north part of Forest Lake to Comfort Lake was a wetland complex that naturally captured sediments and controlled runoff. In the early 1900s this area was ditched. With Bixby Park we are trying to slow that water volume down.

Councilmember Winnick asked: does the District ever receive federal funds for projects? Manager Anderson responded that federal funding is a component, but the large part of funding comes from the state clean water legacy. Legacy helped fund the retrofit and Bixby park projects. That is what we are trying to do with collaboration. Collaboration between LGUs and watershed districts moves a project up on the funding scale. Funders are looking for collaboration.

Councilmember Weber asked if there any bills right now in the legislature that will affect what we are doing? Manager Anderson stated that she can't think of any, but the Minnesota Association of Watershed Districts monitors legislation and lobbies on behalf of watershed districts.

Councilmember Freer asked: what is the city's contribution to the Bixby Park project? The contribution requested is just cooperation and access to the land. The legacy grant provides \$360,000 and the district is contributing \$120,000. The district is concerned with the timeline. If the project does not get done in the allotted time, the grant funds are lost. The district does not have money set aside for land acquisition. If the project agreement is not signed, the district cannot move forward. Timing is becoming an issue. Administrator Parrish stated that the project is on council's February workshop agenda.

Manager Spence provided perspective on the Sunrise TMDL reduction that covers the whole reach from Forest Lake to the St. Croix. The phosphorus reduction required is 1,800 pounds, of which 200 pounds is needed from Bixby Park. There is a lot of work to do.

Mr. Goodman stated that he is always available to answer questions. All agreed it was a good meeting.

At Mayor Stegner's request a motion to adjourn was moved, seconded and passed. The workshop was adjourned at 8:09 p.m.

Submitted by  
Debbie Meister, MMC Associates