COON CREEK WATERSHED DISTRICT
Request for Board Action

MEETING DATE: October 22, 2018
AGENDA NUMBER: 18
ITEM: Orphan Pond

AGENDA: Discussion

ACTION REQUESTED

BACKGROUND
At the October 8, 2018 meeting the Board received a letter from the City of Spring Lake Park concerning the maintenance responsibility of the pond on University Avenue south of 85th (AJ Orphan Pond). The city indicated that it strongly encourages and expects the District to assume maintenance of the pond.

At that meeting the Board directed staff to research, evaluate and clarify the issues surrounding the pond and the City’s position on the District assuming ownership and maintenance responsibility. A review of the Six City WMO records and inquiries with the cities as to the purpose and history of the pond has turned up the following:

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/10/2003</td>
<td>Pond design plans finalized by WSB (estimated cost $243,000; + $14,500 engineering)</td>
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<tr>
<td>9/11/2003</td>
<td>Advertisement for bids posted</td>
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<tr>
<td>10/3/2003</td>
<td>Bid opening (at least 8 plan holders)</td>
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<tr>
<td>10/8/2003</td>
<td>Preconstruction conference</td>
</tr>
<tr>
<td>10/13/2003</td>
<td>Fridley City Council awarded project to Park Construction for $128,162.72</td>
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<tr>
<td>10/13/2003</td>
<td>Anticipated start of pond construction</td>
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<tr>
<td>10/16/2003</td>
<td>6 cities minutes “The Cities of Blaine and Spring Lake Park will be mainly providing the annual maintenance” and resolution (03-03) approving MNDOT/6 Cities agreement 85790</td>
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<tr>
<td>10/24/2003</td>
<td>Pond as-builts provided</td>
</tr>
<tr>
<td>10/27/2003</td>
<td>MNDOT Maintenance Agreement (85790) indicates 6 cities to maintain pond</td>
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<tr>
<td>1/15/2004</td>
<td>6 Cities minutes indicate pond construction complete except for some minor landscaping.</td>
</tr>
<tr>
<td>4/12/2017</td>
<td>Issue 17-49 City of Blaine potential IDDE complaint-salt from mall and organic matter from overwintering waterfowl</td>
</tr>
<tr>
<td>4/18/2017</td>
<td>Requested original pond design information from MN DOT</td>
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</table>
4/27/2017  MN DOT did not have pond plans but provided available design plans of projects adjacent pond
5/2/2017  Requested and obtained original pond design information from WSB
5/25/2017  Met with City of Blaine onsite to discuss pond condition and maintenance needs
2/14/2018  Responded to excess waterfowl overwintering in pond
3/2/2018  Digitized original design plan to GIS
3/5/2018  Responded to call about pond being white color
3/7/2018  Mario surveyed pond and compared against design
4/25/2018  Issue 18-50 Met with Terry Randall onsite to discuss obstructed outlet and pond maintenance options
6/18/2018  CCWD Board visited pond as part of annual Board tour
6/25/2018  Met with Northtown Mall about potential future development and about pond
9/24/2018  Responded to obstructed outlet and requested MN DOT to remove obstruction while onsite for other work
9/27/2018  District receives letter from the City of Spring Lake Park concerning the pond and requests the Board to assume maintenance responsibility.
10/10/2018  Compiled and emailed summary of pond design and construction history
10/15/2018  Met with City of Blaine to discuss pond maintenance options

Drainage Areas and Storm Sewer Configuration
Disposition of the Cities:

Spring Lake Park: As noted in the September letter, the City has requested that the District assume maintenance responsibility for the pond.

Blaine: Blaine staff has indicated that they do not support the District assuming maintenance responsibility for the Orphan Pond. Their reasons were that the District isn’t really equipped to conduct the day-to-day maintenance needed on this pond.

The counter argument to that position is that most of the maintenance is now conducted through contracted services. With establishment of a special taxing district for maintenance, improvements and repairs to the pond, revenue could be raised from all contributing lands and pro-rated by the amount of water or pollution they contribute.

Relocation of the MTC Park and Ride and Expansion of Stormwater Storage:

Discussion with Blaine have indicated that no one knows when or if the MTC site will be moved either because of MTCs planning and funding process or because a member of the State Legislature lives immediately south of the alternative site discussed.

ISSUES/CONCERNS

Overall Pond Condition

An inspection of the pond was conducted and evaluated using District condition and maintenance standards. The following five issues were noted:

1. **Access for Maintenance**: Access to most of the pond is free and clear of obstructions. However, the shoreline of the northern and northwestern portion of the pond (in Blaine) is overgrown with brush and small trees which will impair access and contribute vegetative debris to the pond.

2. **Accumulation of sediment, debris & floatables**
   a. **Forebay at North End of Pond**: This forebay is filling with sediment. How much of the original pond has filled in has not been determined. Forebays are designed to perform several different functions, including sediment capture, this forebay is approaching it limit and needs to be maintained within the next couple of years.

   a. **Floatable Garbage**: A significant problem mentioned repeatedly by SLP Public Works is floatable garbage (cups, paper, etc). During low water conditions, this material can become entrained in the outlet pipe and contribute to clogging. Spring Lake Park staff believes the source of this floatable material is from Northtown Shopping Center.
i. One way of addressing this would be to install a skimmer device in the northern portion of the pond to isolate and concentrate the material making it easier and less expensive to remove.

A second source could be litter from University Avenue. These floatables would come from passing vehicles, or vehicles stopped at the light at University and Northtown drive.

NOTE: There are no measures of the amount of floatable garbage or descriptions of the potential source of the garbage (are they food service based, general debris, etc.)

3. **Erosion**

   **South Berm/Access Drive:** The southwest portion of this berm and the shoulder embankment for University Avenue experienced significant erosion and scouring during the September 2018 storm.

4. **Plants: Weeds, unwanted vegetation & Invasive plants**
   a. **Excessive Algal Growth** Pursuant to the September 2018 storm where the pond over-topped, Coon creek WD staff noted that the material plugging both the outlet pipe and emergency overflow was vegetative in nature and appeared to be algal mats. They were excessive (see photo below).
5. **Structural Condition & Integrity**
   
   **Outlet Structure:** The design of the outlet structure is easy to plug and difficult to clean.
   
The pipe outlet extends far enough back into the pond that the end of the pipe is only reachable with a backhoe.
   
a. One of the most significant issues for the City of Spring Lake Park is that the pipe clogs with vegetation and other debris resulting in water rises, requiring an urgent or emergency response by Public Works to prevent or alleviate flooding. During the 9/24/18 storm the outlet became plugged, ostensibly by vegetation, water rose to the emergency outlet, which also became plugged by vegetation (see photo above) and overtopped the berm/access drive washing away and scouring a significant part of the berm and damaging the shoulder of University Avenue.

**Past and Current Approach to Pond Maintenance**

The pond appears to have been maintained under a run-to-failure approach or “if it isn’t broken, don’t fix it” where generally no work is required. Maintenance & repair is performed only if needed to facilitate restoration of the hydraulic flowline for flood prevention and to alleviate erosion and sedimentation. Hazard trees are removed and removal of brush and trees from side slopes. While less expensive on an annual basis, run-to-failure is considerably more expensive over a period of 25-30 years due in part to replacement cost. Run-to-failure also foregoes the original reasons the pond was constructed and the general decline in functionality and level of service over time.

**Preliminary Maintenance, Repair and Capital Needs**

<table>
<thead>
<tr>
<th>Num</th>
<th>Problem</th>
<th>Proposed Action</th>
<th>Est Cost</th>
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<tbody>
<tr>
<td>1</td>
<td>Sediment accumulation in Forebay at North End of Pond</td>
<td>Clean Forebay</td>
<td>$5,000</td>
</tr>
<tr>
<td>2</td>
<td>Floatable Garbage</td>
<td>Install skimmer device in pond at city boundary</td>
<td>$15,000</td>
</tr>
<tr>
<td>3</td>
<td>Erosion</td>
<td>Repair South Berm/Access Drive</td>
<td>$7,000</td>
</tr>
<tr>
<td>4</td>
<td>Unwanted excess vegetation</td>
<td>Control Excessive Algal &amp; submerged veg growth</td>
<td>~$20,000</td>
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<tr>
<td>5</td>
<td>Outlet Design</td>
<td>Replace/modify outlet structure to eliminate clogging</td>
<td>~30,000</td>
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<tr>
<td></td>
<td>Estimated Preliminary Total</td>
<td></td>
<td>~$77,000</td>
</tr>
</tbody>
</table>
PRIOR DECISIONS

1. **10/16/2003**: 6 cities minutes notes “The Cities of Blaine and Spring Lake Park will be mainly providing the annual maintenance” and resolution (03-03) approving MNDOT/6 Cities agreement 85790.
   
   NOTE: 11 days later, on 10/27/2003, the MNDOT Maintenance Agreement (85790) indicated 6 cities was to maintain pond. Our Attorney’s opinion is that the MNDOT agreement is not binding on CCWD.

2. **9/27/18**: City of Spring Lake Park requests that Coon Creek WD assume maintenance responsibility for pond.

OPTIONS

Six general options are presented:

1. **Leave as is**: The City of Blaine Maintains the portion of the pond in their city and the City of Spring Lake Park maintains the portion of the pond in their city.

2. **Leave as is but with needed capital Improvements paid by Cities**: This is option 1 with the needed repairs and improvements to the pond made and paid for by the Cities.

3. **Leave as is but with needed capital Improvements paid by District**: This is option 1 with the needed repairs and improvements to the pond made and paid for by CCWD.

4. **CCWD assumes full responsibility for the Pond**: This option the District pay for both capital repairs and ongoing maintenance.

5. **Involve City of Fridley since they are a primary beneficiary**: This option also involves recognizing the existing substantial investment the City has made in constructing the pond.

RECOMMENDATION

Review and Discuss case to provide staff increased clarity of Board considerations and preference.

Direct staff to convene a meeting of all four parties involved (Blaine, SLP, Fridley, CCWD) to review the situation, add or correct pertinent facts in the hopes of developing a common understanding and report back to Board.
September 27, 2018

Tim Kelly
District Administrator
Coon Creek Watershed District
12301 Central Ave NE, Suite 100
Blaine, MN 55434

Dear Mr. Kelly:

I am writing to you to find out which entity is responsible for the maintenance on the University Avenue Storm Water Pond located south of 85th Avenue NE in the cities of Blaine and Spring Lake Park.

Please find attached a signed copy of the Maintenance Agreement between the Minnesota Department of Transportation (MnDOT) and Six Cities Watershed Management Organization for the University Avenue Storm Water Pond located in the southeast quadrant of TH 47 and 85th Avenue within the corporate limits of Blaine and Spring Lake Park.

When the Six Cities Watershed Management Organization dissolved, the City of Spring Lake Park petitioned to become a part of Coon Creek Watershed District (CCWD). It is our understanding that the City of Blaine also petitioned to become part of the CCWD. We believe that, since this storm water pond was constructed by the City of Fridley with MPCA Clean Water Partnership grant funds to reduce storm water flows into Springbrook Nature Center, Coon Creek Watershed District should be responsible for the ongoing maintenance of this pond. Very little storm water from Spring Lake Park enters this storm water pond – a majority of the water comes from Blaine and Coon Rapids. Since this stormwater pond serves four communities, it makes sense that a regional organization like Coon Creek Watershed District maintains this pond.

We strongly encourage and expect that Coon Creek Watershed District to maintain this pond to ensure that it functions correctly. The City of Spring Lake Park does not have the resources to maintain this regional stormwater infrastructure and it is unfair to the citizens of Spring Lake Park to pay to maintain infrastructure that primarily benefits Blaine, Fridley and Coon Rapids. Please feel free to contact me if you wish to discuss this matter further.

Sincerely,

[Signature]

Daniel R. Bucholtz, MMC
Administrator, Clerk/Treasurer

Enclosure

cc: Mayor Hansen and Members of the City Council
    Phil Gravel, City Engineer
    Terry Randall, Public Works Director