



## 2018 Wet Pond Update\*

For those of you who may be new to WFCA, the ponds are required as retention ponds for flood control. *(Correction: Only pond #7 is required for storm water control)* However, aesthetics *(and health issues)* becomes a serious concern for those living next to the ponds, and since the ponds add to the property values for all WFCA residents, their status affects all WFCA. Unfortunately, the ponds have

not received the best maintenance to keep them attractive and viable since they were installed approximately 25 years ago. The responsibility to improve their condition has and will be a major concern for the current and future WFCA Boards.

**Background information:** The ponds flow from pond 1 through to pond 7. Each has been constructed with a liner to prevent water from seeping into what could be underground karsts. To recirculate the water, a pump is installed at pond 7 to return the water to pond 1. Concrete weirs direct overflow from one pond to the next. Fountains are installed in pond 6 and 7 to aerate the water. A company is contracted to treat for algae growth. Fish and typical water-based animals live in the ponds. Burrowing animals are removed. *(An electrical line has been damaged and there is no longer electricity to power the pump in pond #7 or an aerator/fountain on pond #7 or #6. An issue with restoring the line with Duke has become a moot point as the ponds have become too shallow to support mechanical equipment, especially during periods of drought. The option of solar powered fountains is being pursued as an alternative. Additionally, when fountains were functioning, a landscaping twine become entangled which required a repair at a significant cost. Until the depth of the ponds can be increased, it has been decided to postpone addressing the issue of pumps and fountains.)*

### Challenges:

- Water run off comes from many sources: streets and properties, but most significantly from other neighborhoods such as the sports park across Highland Street.
- Over the years sediment from run-off, water fowl waste and general vegetation has accumulated causing the ponds to become so shallow that the company charged with treating the ponds can no longer access the water from boats. This impedes their ability to treat the algae.
- Pond 7 has become so shallow that the pump cannot be used to circulate the water.
- Pond 3 has developed an area of sludge and muck that has become very unsightly most of the year. The manner in which pond 3 has devolved, also inhibits the ability of water to effectively flow through to pond 4.
- The electric line to the pump and fountains has been damaged and is no longer operative.
- The dry seasons have caused the liners to be exposed around the edges. Sunlight causes the exposed liner to deteriorate and contribute to the erosion problems.
- Erosion has occurred throughout the system. Starting two years ago previous Boards decided to start with repair to ponds 1 & 2. This was a major and expensive undertaking. In addition to some unexpected repairs, the ponds were dredged, new liners installed, banks were rebuilt and flexamat was fitted around the edges to prevent future erosion.
- The unappealing and sometimes smelly algae build up has become a significant problem, especially as a result of the shallow water. Shallow water does not provide enough oxygen for quality aquatic life and the abatement of algae.
- A new invasive plant, creeping primrose, appeared last summer. Typically, it is spread by the geese which populate the ponds. *(The treatment seems to have abated the spread of this vegetation considerably. A visit to other urban*

ponds shows evidence that they, too, are dealing with this issue.)

- The caulking in the concrete joints of the weirs has deteriorated which has led to additional water loss. *(These have since been repaired.)*
- The earth under some of the concrete drains directing water from the streets has eroded compromising the integrity of the drains and exacerbating the erosion issues.

#### **So what is next for the ponds? *(updates are noted in red and italics,)***

- We are very happy to announce that the renovations to Ponds 1 & 2 have been successful. We are now waiting for new foliage to appear around the banks. *(There have been two attempts to seed the flexamat with limited success. The rain washes away some of the planting, while birds and waterfowl eat the seeds. The option to plant sprouted plants is now being explored.)*
- A professional pond management company has been contracted to create a comprehensive plan to identify short and long range tasks. The plan should be presented to the Board within the next couple of weeks. Until which time only the growth problems are being addressed. *(The Davey's report was submitted and can be found on the website. But the following can be anticipated:*
  - A pond committee composed of residents, a Board representative and WFCA management has been formed to focus on the pond issues. *(The pond committee is actively researching options, gathering input and addressing issues.)*
  - A new electric meter and line will be installed. *(Complications have prevented the installation of the meter and line. Now the committee is considering solar powered options.)*
  - A benefactor has agreed to donate a large sum towards creating a rain garden in Pond 3 that will receive water runoff, keep water pooled in Pond 3 and provide a pleasing display of foliage. The plants will improve the aesthetics of the area and attract butterflies and birds. The Board has agreed to make this a priority. However, the sediment and issues in pond 3 will need to be corrected before work can begin on the rain garden next to the bridge on Winslow Farm Dr. *(The benefactor remains interested in providing financial support, but there are on-going discussions as to the details as to the conditions and the possible recipient under which they funds will be granted. Additionally, the WFCA is positioning itself to apply for future grants..)*
  - The expansion joints have been replaced in the weirs on both ends of pond 2 and the weir between ponds 3 and 4 will be next *(All weirs have been caulked and sealed)*
  - The algae has been treated twice already and the ponds are clearer than even a week ago. Creeping primrose, though it detracts from the ponds' aesthetics, does serve to decrease the amount of algae that accumulates and to encourage fish and other water critters. It is best treated after it blooms and it will take at least two years to kill it. *(Treatments will continue during the summer of 2019, but it is too early to assess the amount of invasion. An experimental application of muck-eating bacteria to ponds 1, 2, and 3 was initiated and will continue for two years.)*
  - Aerators (fountains): The build-up of algae clogs the mechanisms. Recently one aerator had to be sent for costly repair due to a filament from a weed eater becoming entangled in the motor. The fountains will be operated as water levels and algae build-up permit once the electrical line is replaced. *(The increased rain from the 2019 spring has left the ponds full and flowing through the system except for pond #3. Even this early in the season the muck is extremely deep and the water level almost non-existent in the north end. Considerable debris was left under the bridge with the floods in February. At this time the pump and aerators are not operating, nor are they needed.)*

#### **ADDITIONAL UPDATE 2019:**

- *An added complication is that the City of Bloomington has been charged by the state to establish standards for urban watersheds. It is unclear how the new standards could impact the WFCA pond project. The consensus of the pond committee members is that major changes should not be undertaken until the new standards have been identified. This new development has forced a slowdown in the progress toward a long-term plan.*

- *The significant flood that occurred in February 2019 caused many pond committee members to focus their attention to issues of flooding in any option that is considered. A subsequent engineering study confirmed that an alternative plan involving dry creek beds and rain gardens is technically feasible.*

*Thank you for your understanding as we work through these issues within the constraints of our budget. This will not be a short-term project. In addition to the practical issue of water drainage, we truly believe the beauty of the ponds adds value and benefits to our entire community*

*\*updates are inserted for 2019 status*