Ridgeway Nature & Garden Club

FOLIAGE PLANNING TO MAINTAIN RETENTION POND

INTRODUCTION

Since the work of a retention pond is to hold stormwater and treat pollutants in the water, they are designed to:

- Capture and retain contaminated runoff, controlling stormwater quantity and quality.
- Have plants in and around the pond that treat the contaminated water via their natural filtering processes. So it is important that retention ponds be surrounded by natural vegetation of varying heights. The plants also improve bank stability, prevent erosion of bare soil, increase pollinators, and increase aesthetic benefits.
- Divert water to the retention pond by a network of underground pipes connecting storm drains to the pond. The highly regulated and permitted system allows for large amounts of water to enter the pond, and the outlet lets out small amounts of water as needed to maintain the correct water level to capture and treat contaminants.

Retention ponds protect our groundwater:

- Without a retention pond, stormwater from heavy rain, melting snow, and recent construction with all its sediment, pollutants, nitrates, and debris would quickly pass into our groundwater. Our Driftless Area is made up of bedrock of dolomite and limestone which is continually dissolved by water. This area has connected cracks and layers between rocks that easily transport water. Sinkholes, shallow soils, springs, and disappearing streams are found in Karst regions. This makes us more vulnerable for surface pollutants to reach our groundwater.
- Our pond is part of the effort to prevent stormwater and its pollutants from running quickly, without filtering, into our groundwater. This helps prevent pollutants from reaching our aquifers.

OVERALL GARDEN CLUB GOALS:

Goal 1. Function: Maintain the function of the water retention pond itself so that costly dredging or repair is not frequent.

A. **Prevent passage of soil into the pond** that would eventually fill the pond or clog piping:
   1) Avoid bare soil on hillsides that could cause soil erosion into the pond.
   2) Spread seeds as soon as possible on bare soil after any burns to prevent erosion.
   3) Plant appropriate sedges & forbs (flowers) along shoreline to hold soil on the pond's bottom & water's edge.

B. **Prevent entry of nutrients** (eutrophication) and debris that may cause toxic blue-green algae blooms:
   1) Avoid using fertilizer on hillsides leading to the pond.
   2) Avoid surface runoff of pesticides, herbicides, and phosphorous compounds into the pond. Use only spot herbicides, dabbing rather than spraying when possible, especially near the pond's edges.
   3) Keep grass clippings and leaves from entering the pond.
   4) Add a balance of submerged plants, floating plants, and edge plants in the pond to maintain pond ecology and keep the water clean.
   5) Maintain forbs (flowers) and sedges on the pond edges to cleanse fluids heading to pond.

Goal 2. **Promote an environment of flora and fauna in its natural rhythms** by creating, preserving and maintaining the pond with its adjoining hillsides, tree line, and paths:

A. Offer the opportunity for people to connect to nature and increase a sense of community through beautification and education.

B. **Establish wildflower meadows/prairies on the hillsides around the pond** of native forbs (flowers) and short prairie grasses. Our plan includes a higher percentage of flowers than a native prairie, which helps to:

C. **Create pollinator habitat** to support the endangered rusty patched bumble bee, which has been sighted at the pond.

PROCESS FOR ESTABLISHING WILDFLOWER MEADOWS AT THE POND:

Having researched several methods of establishing wildflower meadows and having checked with several restoration companies to work with, we recommend the following:

1. **Use the interseeding method of planting**, because it fits most closely with our above goals:
   a. it leaves the soil bare the least amount of time, so that there is the least chance of soil eroding into the pond
   b. it uses small amounts of the herbicides that could harm water quality and wildlife.

2. We have commissioned Quercus Land Stewardship to create a detailed 5-year plan for establishing our wildflower meadows. The Garden Club will pay $500 for their professional advice. Quercus is very knowledgeable about the interseeding method and has experience working around retention ponds. See:

Quercus Land Stewardship, 4681 County Rd JJ, Black Earth, WI 53515
608-767-3553, https://quercuslandstewardship.com

3. We are unable to afford to hire Quercus to actually do the work around the pond, and their schedule is often full. We have found another company that also is experienced with the interseeding method. The Garden Club plans to hire:

Indigenous Restorations, LLC, c/o Steve Fabos
W8707 Sawmill Rd., Blanchardville, WI 53516
608-513-9638, www.indigenousrestorations.com

Their website explains: "Indigenous has completed a multitude of prairie and oak savanna restoration projects with U. S. Fish & Wildlife, The Nature Conservancy, The Prairie Enthusiasts, Wisconsin DNR and several private landowners."
We met with Steve Fabos at the pond and are excited to work with him. These are their estimated prices:

Prescribed burn $405
Broadcasting seed $324 (two times in first year- after Spring burn and in Fall)
Weed removal/Spot spraying $216 to $432 per time (depends on what weeds are present)
TOTAL ESTIMATED COST YEAR ONE: $1500-$2000 (depending on if need weed removal once or twice)

OUTLINE OF STEPS IN CREATING WILDFLOWER MEADOWS via the Interseeding Method:

Year One (2022):

1. **Controlled burn:** As soon as possible, mow burn breaks as close to the ground as possible and have a controlled burn on all sides of the pond. Include extensions into the tree line as feasible. This creates bare ground for spring seeds. Hailey is in contact with the Ridgeway Fire Department to schedule a burn soon and to thank them with a $500 donation.
2. **Seed:** grasses & appropriate forbs (flowers) as soon as possible after the burn. We may cover some parts lightly with straw to help prevent erosion. We will also purchase some flowering annuals and some plugs to speed covering the soil.
3. **Remove weeds:** manually pulling garlic mustard & rag weed; cut & dab invasives like multiflora rose; **spot spray as needed** with herbicides specific to the type of plant and safer for use near water.
4. **Possible mowing:** We await hearing from Quercus & Indigenous about whether mowing is needed for weed management.
5. **Autumn Seeding**: remaining forbs in Fall (most forbs need to overwinter before they can sprout). The snow and following Spring burn will help the seeds contact the soil.

Future Years:

The interseeding method requires an **annual Spring burn for 5 years** to discourage invasive and undesirable plants and suppress the grass that is already growing on the site. We will be asking the Ridgeway Fire Department to do this. We will add seed after each burn as needed. Continue removing weeds.

Appearance:

The interseeding method can take longer than some methods, but is worth the wait. In the third year we will start to see prairie plants, in the 5th year we should start to have blooming hillsides. This can help encourage building of new homes.

QUESTIONS:

1. Do you want us to burn and seed **the dam** (sides and/or top), or do they intend to keep it mowed all the time? Mowing will probably encourage people to walk across it. We were told by the engineer that we should avoid that.

2. We are assuming that the Village/Public Works will continue **mowing** at the pond, such as the paths through the wildflower meadow, around benches, and the portion of the outlot where we're are not yet planting anything. How do we communicate with Public Works so that they know where mowing is needed and where mowing must be avoided so that plants aren't damaged?

3. How wide should the paths be to accommodate the village mower?

4. Is Public Works able to help us with watering? We would like to plant some shrubs along the **path from Tallman Ct. to the pond**, so that people can tell where the path is. However, we are concerned that we will not be able to water them, as we expect it to be necessary for our members to keep watering our other gardens along Main Street this year, especially if the drought continues. If the village isn't able to help with watering, fewer shrubs will be planted this year. Or we can **mark the path with metal posts instead**, if the Village wants us to do that.

5. Is the village still planning on **installing a sign** to help people know where the path to the pond is? The Garden Club will leave up the small sign we have put at the beginning of the path.

6. The **3 trees we planted at the pond** last year would still benefit from watering, and it is very difficult for us to carry large amounts of water that far away from the road, so it would be great if the Village could help with that too.

Thank you! The Garden Club continues to be grateful to the Village for allowing us to create beautiful outdoor spaces for residents to enjoy.