Reserve at Pilottown HOA

Stormwater and Bioretention Inspection Meeting Notes

March 16, 2026

On March 16, 2026, Karen Fleck, Karen Potocki, Beth Wells, and Larry Firment met with Hunter Reynolds from the Sussex Conservation District. The group conducted a walk-through inspection of both the bioretention swales and the stormwater management ponds in the community.

Bioretention Swale

In 2003–2004, the Sussex Conservation District designed the bioretention swale and the stormwater management pond for the Reserve at Pilottown. The plants installed in the bioretention swale were selected by the developer and approved by the Conservation District because they are native species with shallow root systems and strong water-absorption properties.

The center of the bioretention swale contains a perforated pipe system surrounded by gravel and mesh, with layers of concrete sand, peat moss, and mulch above it. This engineered soil mixture is approximately three feet deep and is designed to allow stormwater to quickly infiltrate into the ground.

The purpose of the bioretention swale is to capture and filter stormwater runoff and direct it away from homes into the stormwater management system.

Important: Lawnmowers should not drive any machinery into the bioretention area, as the weight can compact the engineered soil mixture and prevent the system from functioning properly.

Sediment Monitoring

The capped vertical pipes visible along the bioretention swale are monitoring pipes used to check for sediment accumulation within the underground drainage system.

If sediment accumulation is detected, the HOA will need to have the pipes jetted or cleaned and the source of the sediment will need to be identified.

The HOA should also periodically inspect the observation ports and catch basins (large drains) located at the end of the bioretention swales, where water enters the stormwater management areas, to ensure sediment is not accumulating.

Sediment accumulation is often caused by tree roots penetrating the mesh and drainage pipes. If pipes were required to be replaced due to sediment buildup, the trees causing the

problem would need to be removed, and many surrounding shrubs would likely need to be cleared to allow access for repairs.

Plant Health and Storm Damage

The Board also discussed with Hunter Reynolds the issue of shrubs dying due to age and changing climate conditions. Although the HOA's landscaping contractor applies pre-emergent treatments annually, the inspection noted that weeds are taking over in areas where shrubs have died or thinned out.

The group also observed damage caused by the Blizzard of 2026, which broke many of the larger inkberry, winterberry and bayberry shrubs. These species can grow quite large and may not withstand extreme weather events such as heavy snow and high winds.

Homeowners should note that they are responsible for maintaining and removing shrubs located within the bioretention area on their property.

The HOA will explore contracting with a stormwater management company to assist with long-term maintenance of the bioretention areas, including monitoring and treatment of invasive species such as weeds and volunteer trees. Note: Only aquatic-safe herbicides should be applied by state-licensed user anywhere that drains into wetland such as bioretention's and ponds.

Recap of Key Points

1. Homeowners own the land within the bioretention swale, while the HOA holds an easement for access and maintenance.
2. Some homeowners along University Drive have planted large evergreen trees along the edge of the bioretention swale. These may be affecting drainage, as sediment was observed in the end-of-line drain during the inspection.
3. The HOA will continue to be responsible for mulching the bioretention areas.
4. The HOA will likely add a new service contract with a stormwater management company to control invasive species, periodically inspect sediment traps, and monitor end-of-line drains.
5. Homeowners are responsible for maintaining shrubs within the bioretention area since the plantings are located on their property.

Best Practices for Bioretention Areas

6. Do NOT plant trees in the bioretention area.
7. Do NOT place rocks, landscape objects or any objects, or debris in the bioretention area.
8. Do NOT operate lawnmowers in the swale, as this compacts the engineered soil mixture and can impair drainage.
9. Homeowners should hard prune the large woody shrubs late November – February. (Make sure the leaves are dormant) If this is done, in a few years the shrubs will grow back and spread.
10. Trim shrubs periodically to maintain healthy growth between November and February.
11. Make sure vines are cut out of the large shrubs

12. If replacing shrubs, plant only native plants with shallow root systems.
13. Original plants are documented by building lot on the HOA Website under the Bioretention Heading
    https://www.reserveatpilottown.com/stormwater-landscape-mgmt/

a) SHRUBS -List of original/approved bioretention

1. Arrow Wood
2. Bayberry
3. Bottle Brush Buckeye
4. Button Bush
5. Blueberry
6. Inkberry
7. Spice Bush
8. Winterberry
9. Witch Hazel
10. *Note: These plants grown anywhere from 5' – 10' in height and Sussex Conservation does not recommend planting them*.

b) <u>Herbaceous species - Recommended</u>

1. Obedient Plant
2. Blue Flag
3. Joe Pye Weed

Homeowners who prefer a low-maintenance option may choose to leave the area mulched only.

Stormwater Management Pond

The HOA stormwater management pond is designed as a shallow water pond, typically 3–4 feet deep in certain areas, and includes forebays. Forebays are the areas where stormwater pipes from the streets discharge into the pond, allowing sediment to settle before water exits the main pond.

These forebays should be checked periodically for sediment accumulation. In the future, the forebays may require dredging, but it is unlikely that the entire pond would need dredging.

During the inspection, Sussex Conservation District performed a visual assessment and reported that the forebay located near the Davison and Fleck properties appears to be functioning properly. Since the community is now nearly fully built out, sediment accumulation should remain minimal going forward.

Hunter Reynolds also reported that the stormwater pond overall appeared healthy. However, one issue was identified: the outflow area where pond water drains into the wetlands is experiencing erosion and will need to be stabilized using landscape fabric and riprap stone. Also noted after the meeting by our stormwater management company, Tributaries, was the stormwater pond bank between **110 and 112 Seagull Drive** is currently collapsing into the forebay.

HOA Follow-Up Items

1) Contact a stormwater management company
   a) to mitigate invasive species within the bioretention areas
   b) Periodically check the observation Ports for sediment
   c) Periodically check the Catch Basins at the end of each bioretention for sediment

2) Obtain an estimate for repairing the eroding pond outflow, including installation of landscape fabric and riprap.
3) Obtain an estimate for repairing the stormwater pond bank between 110 and 112 Seagull Driver where the bank has fallen into the forebay.
4) Contact the landscaping contractor to remove three trees located within the bioretention area.