

South Bethany Canal Water Quality Committee
Meeting Conducted In-person and Zoom
June 11, 2024

Committee Members Present: John Beauregard, Town Council Liaison Bob Biciocchi, John Roberts, Pete Trelenberg, Chris Vanuga, Dave Wilson

Absent: Chris Carlyle

Guests: Town Council Member Bob Shields

The meeting was called to order at 10:00 am.

Members were welcomed to the first FY25 meeting and thanked for their continuing commitment.

Minutes from the April 15, 2024 meeting were approved.

Council Member Biciocchi was welcomed to the committee and spoke briefly regarding the work of the committee and its coordination with the strategic goals of the town, particularly with the new mayor and administration. He passed out a reference on Town Committee guidelines and suggested we review procedures for activities such as pursuing grants and projects and how to present them to the Council to be most effective and aligned with the Town strategic plan and capital plan. Our focus should be on engineering planning to generate concrete results. An updated strategic plan for the Committee will be developed, circulated before the next meeting and discussed at the next meeting.

The meeting began with a review of the algae harvesting. Harvesting was done for 5 days instead of the scheduled 10 days in the first week of May due to the lack of significant algae at that time. Only half of the budget was therefore used, and we can potentially use it if a bloom occurs subsequently if it can be coordinated with DNREC and Solitude. Members speculated why no bloom occurred in May as has been frequent in the past.

Discussion occurred regarding better timing of harvesting by predicting blooms. Questions were raised about whether the purchase of an optical device to help predict blooms and a harvester to remove the algae could be practical in any way. For example, could costs be shared with neighboring communities? More research needs to be done to prove the concept of predicting blooms before we approach the Council on the optical device, which costs about \$10,000. The question was also raised if the town maintenance workers could respond to help with the removal of organic debris from the canals on occasion. It was agreed that an ability to respond quickly to unexpected blooms is necessary.

Concerns were raised about some of the contributing factors promoting algae growth, including fertilizer on Route 1 vegetation, lawn fertilization, mowers blowing clippings into the canals, and the inability to maintain the forebay near the Anchorage canal. It's been five years since sediment was removed, and it is likely not being effective at this point in its intended function. We will ask the town manager to reach out to DelDOT again to request that it be serviced.

The next topic was regarding the established contract with Envirotech for monthly canal cleaning for the summer of 2024. The contract involves the removal of trash and organic material within reason. It excludes significant algae blooms or unexpected catastrophic storm events but can be contracted separately if warranted. The canal committee agreed to provide some oversight and/or sign-off role for monthly cleanings if members are notified when the cleanings occur.

Next, a detailed review of the concept for the considered Canal Flow Pilot program was given. Estimates were given for flow alterations if a conduit is placed at the end of two adjacent canals to connect and pump water from one to another. Cost estimates were also given for the pilot project. It was agreed that more study is needed. It needs to be mathematically modeled first. We need to explore whether this has been done elsewhere successfully before seriously considering funding and initiating the pilot project. The project would be set up as a temporary trial where data would be collected and would require a trench across the road. Follow-up will include looking into access along the Route 1 easement, proposing and discussing with DNREC to find out permits needed, etc. Action plan: contact DNREC via the PPT process and contact an expert for mathematical modeling. Summarize a formal proposal in a future meeting.

The plan for the Dredging project was discussed. The Woods Hole Study's findings need to first be updated before proceeding, as the prior study is 7 years old, and external dredging advisors noted this would likely not be acceptable to the regulators. This updated study will also provide a more current cost and quantity of spoils to be removed as well. The new mayor considers dredging a high-priority project both for water quality and as part of the resiliency plan to provide fill for recurrently flooding areas, and this should be the top priority for this Committee. This committee needs to move forward with the proposal to update the Woods Hole study. The chairman recommends everyone, including the Council, review the Woods Hole Group Study, which justifies the need for the dredging project. A discussion with guest and Council member Shield regarding the Resiliency Committee's activity regarding the integration of the dredging project and the use of spoils to help provide fill for the creation of berms to protect the areas of the town prone to flooding.

The monthly Water Quality Report was provided. The first week of June saw the first significant drop in the oxygen levels of the canals in general, with several locations below 4 mg/l. Factors contributing are higher water temperature, which decreases oxygen carrying capacity, decaying prior algae blooms, and poor circulation at the canal ends.

A discussion occurred about the huge amount of data available from the long-standing sampling program and its usefulness in analysis and planning. Harnessing the power of that analysis to promote the necessity of the projects that they indicate need to be done is necessary.

A comprehensive report will be generated about the water quality and canal committee activities. The idea of including some input from residents through a survey process will also be considered.

The University of Delaware is harvesting widgeon grass from the canals and would like our data to try to figure out why it is growing in the canals of South Bethany. They wish to propagate it in the bays nearby.

There was no public comment.

The meeting was adjourned at 11:34