Canal Water Quality Committee Report
To SBTC Meeting
For December 13, 2024
Submitted by Robert Biciocchi, Liaison

Over the last several CWQ monthly meetings, the Committee has discussed the state of our Canals' Water Quality measurements caused by the design and structural challenges of the Canal system and its role as a Stormwater catch basin from the surrounding Coastal Highway and other adjacent local roads and properties.

To address the longstanding challenges with canal water quality, the CWQ Committee's consensus recommendation is the following actions for Council consideration this fiscal year:

- Development of a comprehensive **master plan and hydrodynamic model** of projected water quality and levels resulting from a portfolio of prioritized canal projects;
- An emphasis on mitigating **stormwater runoff** at the sources by reconditioning highway rain gardens, completing the check-valve drain controls updates, GIS recording of known infrastructure and gap analysis, and lessons learned review to modify canal clean up and ongoing maintenance;
- Pursuit of Grants and Town Funding to initiate a Pilot Project to address our number one challenge – lack of **tidal flow and circulation**, which would provide insight into the benefits to Water Quality and help with Flooding remediation; and,
- Completion of the updated sediment sampling, scoping, and estimated cost for **dredging.**

The Committee is researching the existence of any planned or ongoing projects by State agencies, DELDOT, for Route 1 stormwater management, Inland Bay Resilience Studies, US Army Corp of Engineers projects (Back Bay project), and DNREC programs beneficial to our Canal network that SBTC might align itself with.

The Committee has been working on ways to use funds for Canal clean-up judiciously, with minimal dollars for maximum effect. One example is reducing the fall cleanup to one effort, which is best timed before Thanksgiving week, which saved several thousand dollars.

As a next step, the Committee recommends that the SBTC prioritize developing a Canal Master Engineering Plan with a customized hydrodynamic model. This plan would be a reference repository for the growing set of new, digitized Town information and prior studies, to use by all Engineering firms in determining the optimal order of these highlighted and other potential projects based on their effect and cost/benefit impact.

The Committee is also interested in briefing the Council in an near term SBTC session about the Tidal Flow Canal Circulation Pilot initiative in concept.