

## March 24, 2022 Pleasant Bay Watershed Work Group

Attending: Mike Giggey, Heinz Proft, George Meservey, Jeff Gregg, Dan Pelletier, Mark Nelson, Ed Eichner, Tim Pasakarnis, Drew Osei, Gerry Martin, Allin Thompson, Walter North, Fran McClennen, Chuck Bartlett, Bob Duncanson, Judith Bruce, Carole Ridley

### SNEP WG20 Next Steps discussion

The next steps were agreed to; see attached. SMAST will provide an updated scope for items 2,3 and 5 on the next steps document, and considering removal of task 4 from the existing scope. This will be an amendment to the existing contract. Items 2 and 3 will be scheduled for the July-September timeframe.

Ed will alert the WWG once he has commenced Task 1 and that should take about 1 month.

Wright Pierce will complete items 6 and 7 on the next steps list, and confirmed that the PB main subwatershed will be broken out to match the subwatershed listing in task 1 of the SMAST scope.

### Buildout discussion

Goal - The goal of the buildout analysis is to quantify additional watershed loads due to new development and redevelopment.

Methodology considerations - Buildout analysis should incorporate or address the following:

- be conducted on a parcel-by-parcel basis and subwatershed basis
- include new development of undeveloped parcels and more intensive development of developed parcels (redevelopment). The latter is difficult to assess. The Orleans buildout analysis used average water use for a subwatershed and applied a factor of increase (e.g., 10%)
- distinguish between building size/bedroom count and nitrogen load (lbs of nitrogen)

Baseline – There seemed to be agreement that the threshold between current development and buildout is the land use loading information in the 2021 MEP updated model. However it was agreed that the task 1 tables would be reviewed to see if there were any significant increases in buildout load since 2004 that need to be addressed. Individual towns will be responsible for addressing its buildout load by subwatershed, by undertaking nitrogen reduction measures or by entering into trading agreements with other towns.

Involvement of Planners – It was agreed that we will convene a group meeting of planners to go over the objectives of the buildout analysis, provide contextual information and discuss assumptions and methodology. Mike offered to prepare a

table showing the desired output of the buildout analysis to give planners an idea of what we are trying to accomplish. An initial build out analysis will then be developed and reviewed with each planner individually to get their assessment of whether this adequately reflects development potential in their town (how much growth and where it will occur). A revised buildout analysis will be developed that incorporates the input of planners. Dan Pelletier asked for the flexibility to consider contingencies such as 40B projects.

#### Watershed Permit Annual Report

The year 4 report is due in early August.

Mike is collecting water use data from towns and will be circulating sections of the report to update. At the April meeting he will present a proposal for updating nitrogen credits. A draft report will be available for discussion at the June meeting.

Drew mentioned that DEP is looking for indications of overall progress and also an indication of anticipated plan changes that will be reflected in the year 5 report.

There isn't yet a template for a year 5 report. The year 1-4 reports discuss progress within the framework of the TWMP. The year 5 report will propose changes to the framework/TWMP to reflect towns' changes to plans.

#### SNEP Watershed Implementation LOI Ideas

1. Water use analysis to re-evaluate the 10% consumption factor (irrigation use/metering, "large seasonal home" factor); develop consistent water use regulations; and possibly develop a template/protocol for watershed-based water use tracking
2. Pilot project for I/A system at golf course to reduce nitrogen load and possibly reuse effluent
3. Conduct assessment of four town regulations to reduce buildout/promote smart growth
4. Conduct assessment of four town regulations to enhance coastal resilience

#### Updates

Harwich – 4/4 public meeting to discuss CWMP update; survey work for RC and PB subwatershed design underway; PB watershed connections in process

Chatham – Phase 1D2A (Morton Rd to Rt 28) to go out to bid; seeking Bd of Health approval to extend sewer connections to 2 years (not 1 yr); no Town Meeting requests

Orleans – Ph 1 downtown sewer will be completed by 9/22; TM request for \$32M to construct Ph 2 sewers at Meetinghouse Pond; working with AECOM and Wright Pierce on next steps

Brewster – Stormwater bylaw received AG approval—requires stormwater treatment for anything above 500 sf of impervious surface of 5,000 sf of disturbance; Brewster considering opting out of C&I Water Resource Protection Fund.

DEP – working on Watershed Permit regulations; draft IUP (Intended Use Plan) includes PRB for Orleans; considering changes to SRF policies for non-traditional technologies but not IUP selection criteria; working with Brewster on possible SRF funding for a municipal IA program

Cape Cod Commission – Lake and Pond Atlas has been published and includes an annotated pond viewer tool. This will be connected to the water quality portal.

Next meetings (8:30 via Zoom)

April 28

May 26

**Suggested next steps, based on 2/24 WWG discussion, roughly in this order:**

1. Assume updated MEP attenuation factors (those set forth in SMAST 2021) are accurate for Upper Muddy Creek, Lower Muddy Creek and Tar Kiln (no action needed)
2. Develop an attenuation factor for Pochet Salt Marsh (new SMAST task – this summer?)
3. Conduct tidal flux analysis in Muddy Creek to refine attenuated load information for upper and lower Muddy Creek (new SMAST task – this summer?)
4. Review prior SMAST estimates of watershed loads and thresholds (Task 1 of SMAST scope).
5. Update threshold loads for current conditions incorporating new watershed loads (SMAST 2021; that is, 2011 to 2015 water use), new attenuation factor (including Pochet), new attenuated loads, new benthic loads, and conservative hydrodynamics (pre-2007 breach with Muddy Creek bridge). (New SMAST task)
6. Recompute town load removal responsibilities for each modeled subwatershed (TWMP Table 2) based on revised threshold loads, new watershed loads (without recent load removals) and new attenuation factors. (Wright-Pierce)
7. Recompute load removal credits achieved (Wright-Pierce).
8. Define buildout (timeframe, difference between existing load and future development/load, etc.) and update buildout analysis and determine buildout load and attenuated load, using most recent attenuation factor (Task 2 of SMAST scope)
9. Run updated 2006 MEP model with buildout load using most recent attenuation factors (Task 3 of SMAST scope)
10. Delete task 4 from SMAST scope