

MEETING MINUTES

GROUNDWATER WASTEWATER DISCHARGE CITIZEN ADVISORY COMMITTEE

MONDAY, FEBRUARY 24, 2025

ROPEWALK ROOM

26 COURT ST • PLYMOUTH, MA 02360

Called to Order: 6:00 PM

Members Present: David Golden (chair), Mark Champagne, Bill Doyle, Martin Enos (arrived at 6:14 pm), Rose Forbes (Clerk), Hampton Watkins (Vice Chair)

Members Absent: Josh Bows

Others in Attendance: Doug Pinard (Department of Public Works [DPW]), Jonathan Hobill (Massachusetts Department of Environmental Protection [MassDEP]), and members of the public including Tom Fugazzi, Mary Gatslick, Kyle Gatslick, Matt Hoagland, and Janice Goodman.

PUBLIC COMMENT

No initial public comments.

MEETING MINUTES

Mr. David Golden asked the CAC if there were any comments on the November 25, 2024 and January 27, 2025 meeting minutes. Hearing no comments, Mr. Golden asked for a motion to accept the minutes together. Mr. Hampton Watkins made a motion to accept the minutes and Mr. Bill Doyle seconded. The motion passed 5 in favor, none against, no abstentions, and two not present.

Substance		Approve November 25, 2024 and January 27, 2025 Meeting Minutes				
Last Name	First Name	Yes	No	Abstain	No Vote	Not Present
Bows	Josh					X
Champagne	Mark	X				
Doyle	Bill	X				
Enos	Martin					X
Forbes	Rose	X				
Watkins	Hampton	X				
Golden	David	X				
TOTALS		5	0	0	0	2

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION PRESENTATION (MassDEP) – MR. JONATHAN HOBILL

Mr. Jonathan Hobill works for the MassDEP's Southeast Region in water and wastewater and 21e programs. He provided information on the wastewater treatment plant history, operation, permits, and potential for operational improvements. He also discussed nitrogen and phosphorus loading and referred to the Draft Estuaries Report which is available on the Town of Plymouth website at <https://www.plymouth-ma.gov/1262/Wastewater-Treatment-Plant-Groundwater-D>.

Mr. Hobill stated, starting approximately 10 years ago, the wastewater treatment plant was not operating well creating problems with water quality in Plymouth Bay which resulted in permit violations associated with the discharge to the ocean outfall. In addition, the Food and Drug Administration (FDA) decided to increase the area of safety around the outfall for shellfish classification purposes which caused a change in classification from "fully approved" to "conditionally approved." As a result of this change, shellfish could no longer be sold in Europe (but could still be sold to the rest of the international market). The combination of the violations and the classification change was part of the reason for moving the treated wastewater discharge to the wastewater treatment plant infiltration beds. Mr. Hobill noted that as long as the outfall is part of the permitted discharge, even if it is not used, the shellfish classification will not change.

Mr. Hobill acknowledged the wastewater treatment plant has been operating properly and has not received any violations in the last two years, and possibly longer. He would need to review the records to determine when the last violation occurred.

Mr. Hobill noted the existing permit for the wastewater treatment plant will need to be amended if the treated wastewater discharge is moved from the ocean outfall to the infiltration beds. Additional monitoring will likely be required along with an adaptive management process for nitrogen and phosphorus.

Mr. Marty Enos informed Mr. Hobill about recent cyanobacteria blooms in Russell Mills Pond. Mr. Doug Pinard asked if the abandoned cranberry bogs upstream of Russell Mills Pond could still be a source of phosphorus which might contribute to the algae blooms. Mr. Hobill affirmed the abandoned cranberry bogs could still be leaching phosphorus but there are best management practices that could be implemented to reduce the phosphorus loading.

Mr. Enos asked why should we risk contamination of the groundwater if we don't have to and asked Mr. Hobill what his opinion was of tertiary treatment at the wastewater treatment plant. Mr. Hobill responded that tertiary treatment can help remove/reduce phosphorus but he believes the biggest bang for the buck is optimization of the treatment plant for nitrogen while employing cheaper options (i.e. alum) for phosphorus removal.

Mr. Bill Doyle commented that the Eel Grass in the harbor has declined by 7% due to the outfall discharge of treated wastewater and also erosion.

Mr. Hampton Watkins commented about the hydraulic mounding in the aquifer caused by discharging treated wastewater into the infiltration beds. He stated the hydraulic mound will move downgradient toward the ocean but will also flow into Warren Wells Brook. Mr. Hobill agreed and stated as the hydraulic mound increases, the water will flow directly to Eel River and Warren Wells Brook.

Mr. Hampton Watkins stated that eventually (in several decades) the phosphorus loading will exceed the sorption capacity of the sandy soils. Mr. Hobill responded the loading rate can be measured by maintaining the permitted discharge to the ocean outfall while increasing loading to the infiltrations beds in a stepwise fashion and measuring the phosphorus concentrations in monitoring wells.

Mr. Golden asked Mr. Hobill if MassDEP has any concerns with using the wastewater treatment plant infiltration beds for discharge of treated wastewater. Mr. Hobill responded yes but the suggested incremental loading management can help analyze the impacts.

Mr. Golden asked Mr. Hobill if tertiary treatment would be required in the permit. Mr. Hobill stated he was not sure since the infiltration beds have not been used as maximum infiltration rates and the computer models have not been validated. Mr. Hobill also stated that additional tertiary treatment might have a higher life cycle environmental impact.

Mr. Golden then summarized the approach should be to maintain the effluent discharge of treated water to the ocean outfall while increasing the discharge to the infiltration beds in a stepwise manner while conducting sampling to determine if there are any impacts and to be judicious with tertiary treatment.

Ms. Rose Forbes asked Mr. Hobill if MassDEP is concerned about contaminants other than nitrogen or phosphorus in the wastewater effluent. Mr. Hobill stated there are several types of contaminants that could be present in wastewater including per- and polyfluoroalkyl substances (PFAS), pharmaceuticals, personal care products, microplastics, etc. However, the impacts are not well understood. Ms. Forbes stated there are private wells downgradient of the infiltration beds that could be impacted by discharge of emerging contaminants.

PUBLIC COMMENT

Ms. Janice Goodman asked where the monitoring locations for the wastewater treatment plant are. Mr. Hobill described the locations. Mr. Pinard stated there are monitoring locations right at the infiltration beds and downgradient.

Ms. Mary Gatslick asked if existing septic systems on Warren Ave and Long Pond Road could be connected to the wastewater treatment plant to add necessary load for better operation, rather than bringing in sewage from other towns. Mr. Hobill responded MassDEP is looking at the wastewater treatment plant operation permit along with the Comprehensive Wastewater Management Plan (CWMP) to review septic systems. Mr. Pinard stated that the CWMP is also evaluating additional wastewater treatment plants.

Ms. Mary Gatslick stated she is concerned with the phosphorus loading into Eel River and believes tertiary treatment for phosphorus should be implemented now and modify later if necessary rather than waiting to see if a problem develops. Ms. Gatslick asked if MassDEP has tested the soils for phosphorus. Mr. Hobill stated the soils have been tested and the groundwater is tested quarterly.

Mr. Matt Hoagland stated he is struggling to understand how there is a cyanobacteria problem in Eel River but MassDEP does not consider the river to be impaired. Mr. Hobill stated he has not been notified of any algal blooms in Eel River and stated part of the issue might be cycling of the old phosphorus from the abandoned cranberry bogs and not from the wastewater treatment plant. Mr. Hoagland asked if Mr. Hobill was saying there will not be a phosphorus load in the Eel River from the wastewater treatment plant. Mr. Hobill stated he does not believe there is an issue with phosphorus at the plant. Mr. Hoagland then asked if a Total Maximum Daily Load

(TMDL) could be evaluated for Eel River considering other sources including the cycling of nitrogen and phosphorus. Mr. Hobill stated the Eel River has not been found to be impaired but will continue to evaluate the health of the ecosystem. He stated the warmer weather has been implicated in an increase frequency of cyanobacteria blooms.

Mr. Hobill asked how many cyanobacteria blooms have occurred in Russell Mills Pond. Mr. Enos responded the most recent one occurred after the 2016 discharge into the infiltration beds when the Town's sewer lines were being replaced. Mr. Hobill commented that droughts (less dilution) in addition to warmer water can also cause blooms.

Mr. Kyle Gatslick stated that more treatment (i.e. tertiary treatment) is a proactive, instead of a reactive, approach. Mr. Golden responded that tertiary treatment will be part of the wastewater management evaluation.

CHEMICAL DATA AND OUTSTANDING ACTION ITEMS

Mr. Golden stated these two items will be tabled until the next meeting given the time left for the meeting.

NEW BUSINESS/OLD BUSINESS

Ms. Forbes asked for a status update on the Environmental Impact Report (EIR). Mr. Golden stated Neal Price from Horsley Witten will attend the March CAC meeting to provide an update. Mr. Golden asked if there was any additional old business. There was none.

Prior to wrapping up the meeting, Mr. Hobill stated he wants to hear concerns from the public and stated this input will be incorporated into the permit.

MEETING SCHEDULE

The next meeting is scheduled for March 31, 2025 in the Rope Walk Room.

Adjourned: 8:05 PM

Respectfully Submitted,
Rose Forbes, Clerk