AGENDA
Peconic Estuary Solute Transport Model Meeting
Wednesday, May 5th, 2021
1:30pm – 3:00pm

Zoom Conference Call Information
Click the below link to the Join Zoom Meeting through your computer
https://us02web.zoom.us/j/84993943753?pwd=UldhTTY1OTdsZnNDTS9zbnlBU2cxQT09
Meeting ID: 849 9394 3753

Or call in on your phone
+1 646 558 8656
Access Code: 849 9394 3753
Password: 287184
Find your local number: https://us02web.zoom.us/u/kczL5sugfk

1:30 PM Welcome & Introductions – Sarah Schaefer (PEP Program Coordinator)

Zoom Call Participant list:
Don Walter (USGS), Jack Monti (USGS), Debbie Aller (CCE), Ronald Busciolano (USGS), Sarah Schaefer (PEP), Joyce Novak (PEP), Elizabeth Hornstein (PEP), Matthew Scalfani (CCE), Mike Jensen (SCDHS), Michele Golden (NYSDEC), Molly Graffam (CCE), Kevin McDonald (TNC), Pat Aitken (PEPC), Camillo Salazar (SC), Chris Clapp (TNC), Josh Halsey (PLT), Lauren Scheer (PEP), Nora Catlin (CCE), Veronica King (Town of Brookhaven)

1:35 PM Peconic Estuary Solute Transport Model Review and Update - Don Walter (USGS, Hydrologist) and Jack Monti (USGS, Hydrologist)

Click here to review Solute Transport Model project information and past meeting agendas and attendance

2:15 PM DISCUSSION

2:55 PM Next Steps for the Solute Transport Model and Meetings – Sarah Schaefer
PEP TAC Meeting- TBD

3:00 PM Adjourn

Follow-ups from the meeting:

1. USGS will present at the next scheduled PEP Technical Advisory Committee meeting on August 18th 10am-12:30pm. USGS will present on Solute Transport Model and results for 3-5 priority scenarios. PEP will send USGS the 3-5 scenarios for review. Purpose of presentation will be to give the TAC some preliminary tangible results from the model that can be used to inform decision-making (with the understanding that the Solute Transport Model will not be finalized at this time and this will not be a data release). **The draft Priority 3-5 Scenarios as well as the original scenario list are attached here for your review and comment by 6/28/21.**
2. Coordination of priority waterbodies identification from Towns- on 6/2/21 Sarah sent out a shapefile that includes 145 principal waterbodies within Suffolk County to PE municipalities to see if there are waterbodies of interest within each of the municipalities to have refined results for- responses were requested by 6/30/21. **Principal waterbodies shapefile is linked here:** https://drive.google.com/drive/folders/1NDvhFV-BRDLZ0bcqmtfYw28OIc5IrBgS?usp=sharing

3. Sharing of appropriate slides from the 5/5/21 meeting with meeting attendees- linked in my email (*Note please do not distribute as the information is provisional).

FINAL DRAFT Peconic Estuary Solute Transport Model Scenario List for August 18th, 2021 TAC Meeting

For the August TAC meeting the USGS will be presenting updates on the Peconic Estuary Solute Transport Model. We discussed at the last Solute Transport Model meeting providing USGS 3-5 top priority scenarios that USGS would be able to have results for at this August TAC meeting to give the TAC members tangible results to walk away with concerning the base scenarios/scenarios that will be useful in the near future.

The original prioritized scenario list we finalized with the TAC/ Solute Transport Model group is attached below. PEP suggests we prioritize the scenarios like below for the TAC meeting, 1 being the first and 5 being the last.

Please provide comment by 6/28/2021.

Scenario Prioritization	Description	Notes
1. Base scenario	"Pastoral"/ pre-development nitrogen load.	
2. Base scenario	Potential Future/full build-out in watershed at the current allowable density.	**Detail from SCSWP:** For purposes of the SCSWP, Suffolk County Department of Economic Development and Planning developed the conditions used for potential future build-out which were based on the more stringent of Suffolk County Sanitary Code Article 6 or local zoning for all: Vacant Parcels without development restrictions, Agricultural parcels without development restrictions, and Subdividable low density residential parcels.
3. Scenario 1	Full Implementation of Wastewater Treatment upgrades (I/A OWTS, sewering and clustering) in 6 Peconic Estuary Management Areas.	**Detail from SCSWP:** 6 Peconic Estuary Management Areas- Peconic Estuary Restoration and Protection Area I, II and III, Sag Harbor Cove and Connected Creeks, West Neck Bay and Creek and Menantic Creek, & Peconic Estuary Restoration and Protection Area IV.
4. Scenario 3	**Full Implementation of Wastewater Treatment upgrades (Scenario 1) in Phases:** 1) Full Implementation of Wastewater Treatment upgrades in 0-2 year groundwater contributing area.	**Detail from SCSWP:** 1) 0-2 year groundwater contributing area in all priority areas ranking 1,2,3,4 2) Phase II area- Surface

	2) Full Implementation of Wastewater Treatment upgrades in 0-2 year groundwater contributing area and Phase II area. 3) Full Implementation of Wastewater Treatment upgrades in Phase III area.	water and groundwater priority area 1. 3) Phase III area- Surface water priority area 2-4 and Groundwater priority area 2. 2-25/50 Year Contributing Area.
5. Base scenario	No nitrogen load reduction action in watershed.	

FINAL DRAFT Peconic Estuary Solute Transport Model Scenario List

Updated as of May 21st, 2020

The USGS-PEP Solute Transport Modeling Project is developing a subregional solute transport model of the Peconic Estuary ground watershed to assess the time-varying discharge of nitrogen into fresh and coastal waters within the Peconic Estuary watershed. Once the model is complete it can then be applied to run a limited set of scenarios to estimate resulting nitrogen loading rates over time. These tools will provide valuable insights into how nitrogen discharge likely will change in response to nitrogen mitigation efforts within the watershed to guide local, state and regional management actions.

The Peconic Estuary Partnership wants to ensure that our partners can effectively use the PE Solute Transport Model to guide nitrogen mitigation efforts and wants to make sure that the set of scenarios that the model runs are representative of local, state and regional management actions. Our stakeholders discussed and provided comment on a list of potential scenarios at the November 2018, May, August and December 2019 PE Solute Transport Model meetings. Scenarios reference the Suffolk County Subwatersheds Wastewater Plan (SCSWP).

Prioritization of the scenarios considered the scale of the scenario application among partners and current data availability.

Any comments or feedback should be directed to sarah.schaefer@suffolkcountyny.gov

Scenario Prioritization	Description	Notes
*Climate change scenarios can be a subset to each scenario.		i.e. draught, increased intensity of precipitation events, rising groundwater levels.
Base scenario	"Pastoral"/ pre-development nitrogen load.	
Base scenario	No further nitrogen loading to the watershed.	
Base scenario	No nitrogen load reduction action in watershed.	
Base scenario	The reduction in atmospheric deposition of nitrogen BUT no on the ground nitrogen load reduction action in watershed.	
Base scenario	Potential Future/full build-out in watershed at the current allowable density.	**Detail from SCSWP:** For purposes of the SCSWP, Suffolk County Department of Economic Development and Planning developed the conditions used for potential future build-out which were based on the more stringent of Suffolk County Sanitary Code Article 6 or local zoning for all: Vacant Parcels without development restrictions, Agricultural parcels without development restrictions, and Subdividable low density residential parcels.
1	Full Implementation of Wastewater Treatment upgrades (I/A OWTS, sewering and clustering) in 6 Peconic Estuary Management Areas.	**Detail from SCSWP:** 6 Peconic Estuary Management Areas- Peconic Estuary Restoration and Protection Area I, II and III, Sag Harbor Cove and Connected Creeks, West Neck Bay and Creek and Menantic Creek, & Peconic Estuary Restoration and Protection Area IV.
2	**Implementation of Full Implementation of Wastewater Treatment upgrades (Scenario 1) at 3 "speeds":** 1) as laid out in the SWP; 2) 50% faster, assuming the industry and revenue source can accommodate a more aggressive program ; and 3) 50% slower, assuming the industry and/or funding source can't support the recommended timeline.	

3	**Implementation of Full Implementation of Wastewater Treatment upgrades (Scenario 1) in Phases:** 1) Full Implementation of Wastewater Treatment upgrades in 0-2 year groundwater contributing area. 2) Full Implementation of Wastewater Treatment upgrades in 0-2 year groundwater contributing area and Phase II area. 3) Full Implementation of Wastewater Treatment upgrades in Phase III area.	**Detail from SCSWP:** 1) 0-2 year groundwater contributing area in all priority areas ranking 1, 2, 3, 4. 2) Phase II area- Surface water and groundwater priority area 1. 3) Phase III area- Surface water priority area 2-4 and Groundwater priority area 2. 2-25/50 Year Contributing Area.
4	**Potential mitigating Town actions- Land Management:** Up-zoning from 0.5 acres to 1 acre., Land preservation and easements- according to CPF/ Town and County Comprehensive Plan lists; Land preservation according to 2019 PEP Critical Lands Protection Strategy.	
5	**Potential mitigating Town actions- Existing STPs:** 1) Implementation of Peconic Estuary watershed Potential Sewer Expansion Projects from SCSWP. 2) Increasing other existing STP capacity/ expansion, STP water reuse projects.	**Detail from SCSWP:** Based on Wastewater Management Response Evaluation Findings, these are parcels that were identified as benefitting from additional sewer expansion.
6	Full Implementation of Proposed Sewering Proposals in Peconic Estuary Subwatersheds.	**Detail from SCSWP:** Existing Sewer Proposals- Riverside Revitalization Project, Springs School District sewer project, Downtown Montauk Sewer project.
7	**On the ground Fertilizer Management Actions in watershed and implementation of fertilizer best management actions in the watershed:** 1) The LINAP Turf Fertilizer Recommendations: -Residential/Turf Fertilizer: Maximum of 1.8 lbs N/1,000 sqft annually. -Golf Courses: Maximum of 2.7 lbs N/1,000 sqft annually. - At least 50 percent of the nitrogen in any turfgrass fertilizer product should be “slowly available nitrogen.” 2) Complete elimination of residential fertilizer.	Detail from LINAP Turf Fertilizer Recommendations.
8	Increase in N load from 10, 20, 30% etc. of agricultural land switching over to livestock production.	
9	Impacts of implementing soil health BMPs.	
10	Implementation of Shallow Narrow Drainfields.	
11	Model what wastewater management actions are needed to meet groundwater quality and quantity protection goals.	Get Load Reduction Goals from SCSWP and Towns.