



Paul Stoutenburgh Preserve (PSP) Engineering Designs & Draft Permits

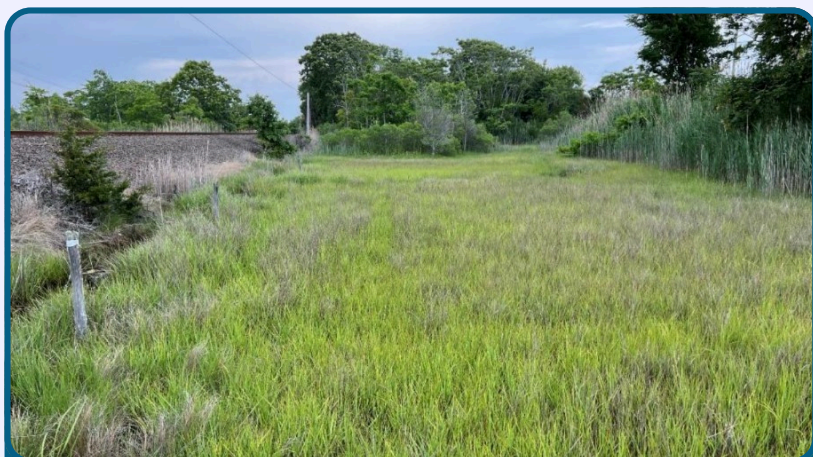


Overview

The Paul Stoutenburgh Preserve (PSP) in Southold, NY, is experiencing the ecological impacts of tidal restriction, leading to the dominance of Common Reed (*Phragmites australis*), a highly invasive species. These conditions are largely due to limited tidal flow from the Peconic Estuary, caused by undersized & partially obstructed culverts along the water's path into the area. **The contractor assessed several solutions aimed at restoring natural tidal dynamics to increase water flow & deter *Phragmites* spread. Infrastructure-based restoration uses targeted upgrades to naturally restore tidal dynamics**, offering a minimally invasive, cost-effective alternative to dredging. This approach improves wetland resilience, supports native plant communities, & emphasizes adaptive planning through interagency collaboration & engineering-informed restoration.

CCMP Actions

ACTION 31: Use available habitat quality assessment & climate change resiliency tools to prioritize wetland restoration projects identified in the 2020 PEP Habitat Restoration Plan, & implement the top priority projects



Partners

Town of Southold
Suffolk County Dept. of Health Services
LIRR
NYSDOT

Ecological & Community Benefits

- Restored Wetland Ecology
- Improved tidal flow will increase wetland resilience & restore native plant communities.

Adaptive Planning & Collaboration

Highlights the importance of interagency communication, jurisdiction clarity, & engineering-driven ecological restoration.

Status & Funding

Contract executed & completed using 100k in Suffolk County Health Capital Funds.

Tidal Restriction Challenges

Current culvert infrastructure severely limits tidal exchange

- 24" culvert under the Long Island Railroad (LIRR)
- 24" culvert under NYS Route 25
- 18" culvert under Old Main Road (installed in 2013)

Preferred Restoration Approach

Culvert Replacement for Hydrologic Restoration. After evaluating multiple options, the preferred design calls for replacing the Old Main Road culvert with an 8 ft wide x 3 ft high concrete box culvert.

This replacement would:

- Enhance tidal flow to the PSP wetland
- Increase salinity & water levels
- Reduce conditions favorable to *Phragmite*

Pending Repairs & Dependencies

- LIRR has completed culvert maintenance
- Repairs to Route 25 culvert by NYSDOT remain pending
- Restoration benefits are contingent on full tidal pathway functionality

Infrastructure-Based Restoration

This approach uses targeted infrastructure upgrades to naturally restore tidal dynamics, representing a minimally invasive, cost-effective alternative to dredging or extensive regrading.

Stakeholder Coordination & Permitting

- All necessary permit documents have been drafted for Town submission as Southold Town & NYSDOT work out plan forward
- Project paused pending resolution of ownership & permitting issue

