## Green Infrastructure Successes of a National Estuary Program: Retrofits, Reforestation, & Regulations

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### Anchorage Canal Surface Drainage Area & Communities

South

Rethany

Middlesex Beach

Bethany Beach

Sea Colony

Highway 1 (DelDDT) Storm drain system outlet

Anchorage Canal -



Progress Towards Pollution Reduction Goals for the Anchorage Canal Drainage Area Stormwater Retrofit Demonstation Project



Project goal is a 40% reduction in Total Nitrogen and Total Phosphorus loads to the Canal and Bay





# Town of Dewey Beach



# Cost comparison for water quality restoration practices.



Weiland et al. 2009. Costs & Cost Efficiencies for some Nutrient Reduction Practices in MD.





#### Watershed Reforestation Model

- Identifies and ranks all agricultural parcels 10
  ≥ acres as candidates for reforestation
- Ranking criteria based on potential for both water quality & wildlife habitat improvements

### Watershed Reforestation Plan

- 7 project plans on publicly owned land and 2 project plans on privately owned lands
- Approximately 264 total planned acres
- 6,319 lbs/year of nutrient removal
- Additional ~600 additional acres planned since.



# **Reforestation....**



#### **Combats climate change:**

- 397,918,441 lbs. of CO2 sequestered over 20 years from this plan
- Equivalent to removal of emissions of 1,932 cars annually

# Restores dwindling habitat migratory songbirds:

- Wood Thursh
- Yellow-breasted Chat
- Northern Parula
- American Redstart
- Worm-eating Warbler

Prevents flooding and cleans the air!

# Regulations

- Education and advocacy for Countylevel ordinances to :
  - Reduce housing density of proposed developments near wetlands and waters
  - Expand forested buffers between new development and wetlands & waters
- Science driven decision making: NEP hallmark.
- Non-profit status of this NEP allows for needed advocacy and coordination.



Association of National Estuary Programs Annual Conference

# FALL 2019

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