

# Forge River Watershed Management Plan

## Project Kick-Off Meeting

Prepared For:

**Town of Brookhaven**  
**Department of Planning**  
*Division of Environment*



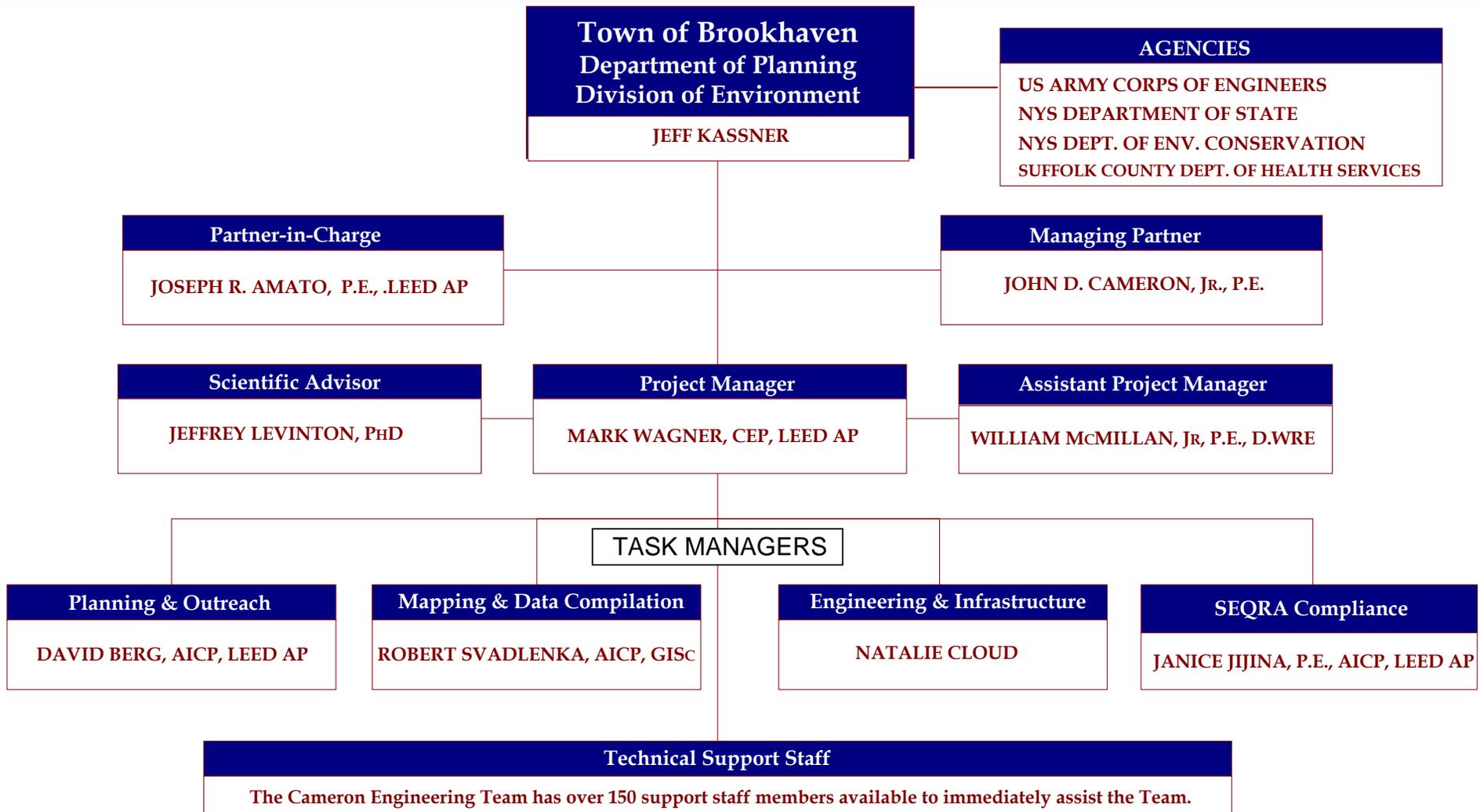
*April 5, 2010*



Cameron Engineering & Associates, LLP



# Project Team



# ***Project Background***

1. Contract with CEA/CH2M executed in December 2009
2. Integration with the US Army Corps of Engineers (USACE) planning process in early 2010
3. Data collection, literature review and agency coordination has begun
4. Project team pre-kick-off held in late February 2010



# *Project Deliverables*

- Forge River Watershed Management Plan (Plan):
  - Comprehensive existing conditions report
  - Watershed management strategies
  - Integration with USACE feasibility study
  - Prepare RFP for TMDL development



# Forge River: Review

## ➤ Symptoms of the Problem

- Water quality decline over many years
- Hypoxia, fish kills, noxious odors
- Fewer recreation and commercial opportunities

## ➤ Source of the Problem - Nitrogen

- Groundwater flow
  - On-site wastewater systems and fertilizer use
- Forge River sediments
  - Accumulated duck farm waste and stormwater-borne silt & sediment
  - Decay of algae and aquatic plants
- Atmospheric deposition
- Surface Water Flow
  - Stormwater
  - Streamflow



# Forge River: Review

- Solutions discussed
  - Remove or isolate sediment nitrogen
  - Reduce nitrogen input to groundwater
  - Reduce nitrogen input to stormwater
  - Improve estuarine circulation
- Phased implementation strategy



# Forge River: Review

## Study Approach

- Engage/involve stakeholders
  - Watershed Advisory Committee
  - Town website, public workshops, other
- Develop Watershed Management Plan
  - Characterize watershed and its problems
  - Understand nitrogen balance
  - Prioritize and rank sub-watersheds
  - Screen alternatives with stakeholders
- Develop restoration & nitrogen management plan
  - Evaluate regulatory/programmatic solutions
  - Short (1-3 yrs), med (3-5 yrs), long term (>5 yrs)



# *Plan Components: 10 Tasks*

1. Project Scoping Meeting (completed)
2. Community Outreach Plan (submitted)
3. Watershed Characterization (in progress)
4. Subwatershed Prioritization
5. Evaluation of Regulatory & Programmatic Environment
6. TMDL (Background Research for Procurement)
7. SEQRA Compliance Outline
8. Management Strategies Screening
9. Community Meetings & Workshops
10. Final Report



# ***Task 1. Project Scoping Meeting***

- Pre-Kick-Off meeting held late February 2010
- Agency coordination defined
  - Town of Brookhaven (Environment Division & District 6)
  - US Army Corps of Engineers
  - NY State Department of Environmental Conservation
  - Consultants (Cameron Engineering & CH2M HILL)
  - Note: Suffolk County will be a member of project team
- Reports and project data provided to consultants
- Formal Scoping Meeting April 5, 2010



# Task 2. Community Outreach Plan

- Elements
  - Identify all key individuals and organizations
  - Watershed Advisory Committee input and feedback
    - WAC meetings
    - Public workshops
    - Web pages



# Tasks 3, 4, & 5. Watershed Analysis

## Task 3. Watershed Characterization

- Literature Review
- Comprehensive Inventory: Data collection, mapping & analysis

## Task 4. Subwatershed Prioritization

- Evaluate and rank subwatersheds per weighted criteria

## Task 5. Evaluate Regulatory & Programmatic Environment

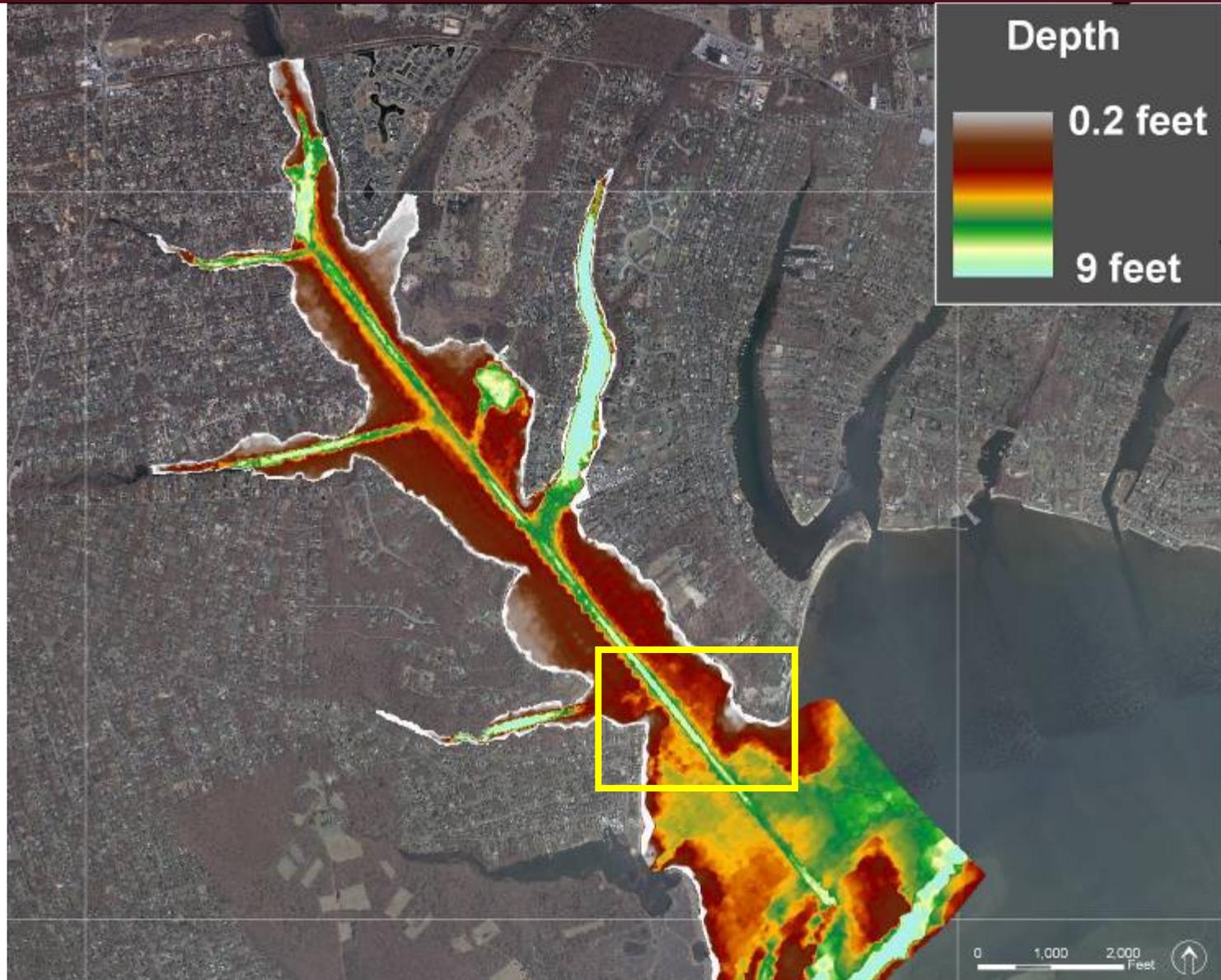
- Define roles & responsibilities of agencies and NGOs



# Tasks 3, 4, & 5. Watershed Analysis

DATA  
COMPILATION:

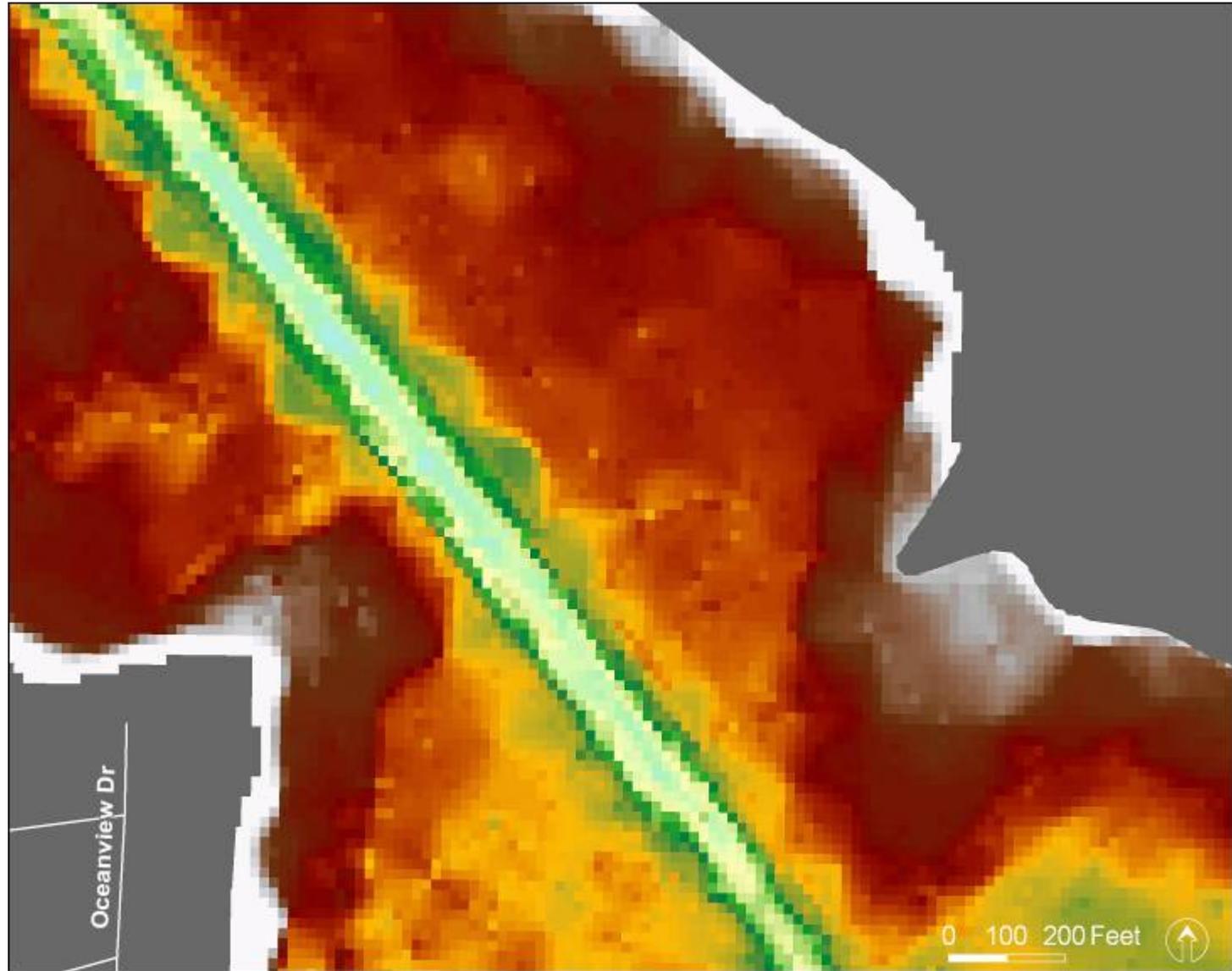
Bathymetric  
Model



# Tasks 3, 4, & 5. Watershed Analysis

DATA  
COMPILATION:

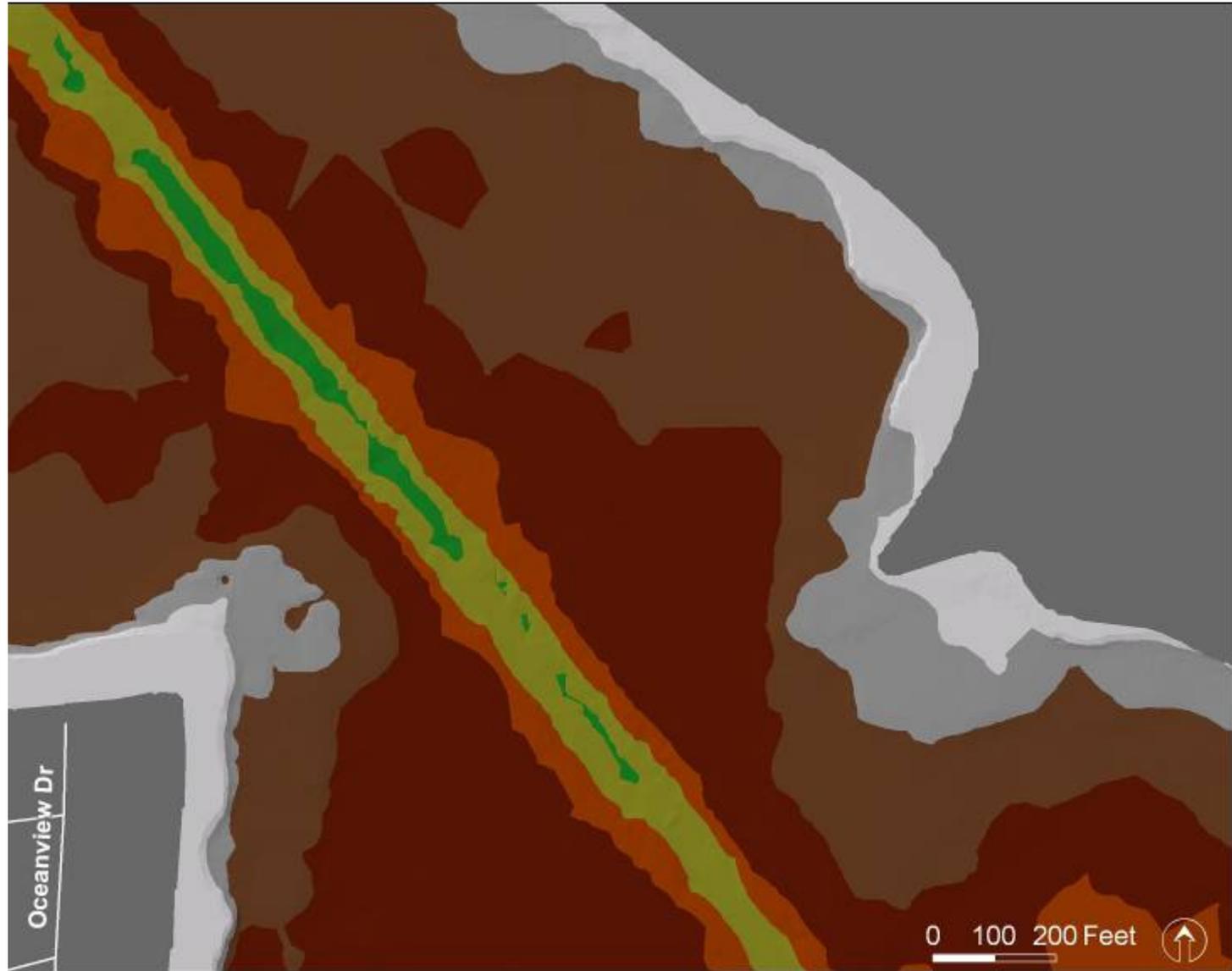
Bathymetric  
Model



# Tasks 3, 4, & 5. Watershed Analysis

DATA  
COMPILATION:

Bathymetric  
Model



# Tasks 3, 4, & 5. Watershed Analysis

DATA  
COMPILATION:

Water Quality Data  
(Suffolk County DHS)



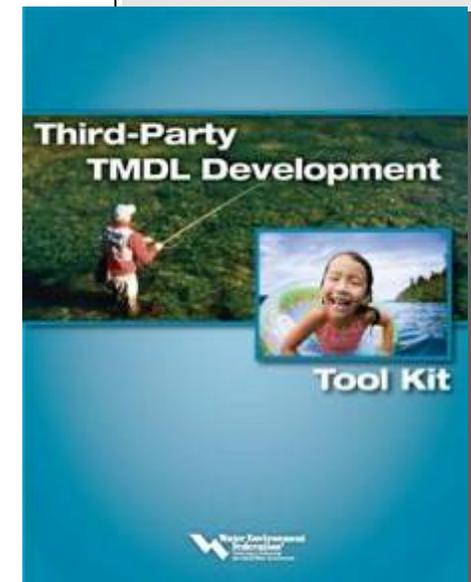
# Tasks 3, 4, & 5. Watershed Analysis

DATA  
COMPILATION:  
Test Well Data  
(Suffolk County DHS)



# Task 6. TMDL Procurement RFP

- TMDL RFP development will be “fast-tracked”
- Procurement process will be separate
- Consultant team will:
  - Identify data gaps
  - Recommend model to be used
  - Estimate costs
  - Prepare Request for Proposals (RFP)
- TMDL funding has been secured



# Task 7. SEQRA Compliance

- Identify potential adverse environmental impacts from Plan implementation
- Prepare Full Environmental Assessment Form Part I
- Assist with Full EAF Parts II and III



# ***Task 8 -10. Strategies & Plan Development***

## **Task 8. Identify and Describe Management Strategies**

- Watershed protection & restoration strategies
- Phasing of strategies

## **Task 9. Public Meeting**

- Present strategies for public review and comment

## **Task 10. Final Forge River Watershed Management Plan**

- Incorporate comments from Public Meeting
- Finalize plan with agency input



# *Schedule*

- July 2010: Watershed Characterization Report
- Sept 2010: Subwatershed Prioritization, TMDL Update
- Dec 2010: Draft Management Strategies, TMDL RFP
- Jan 2011: Final Public Meeting
- March 2011: Final Watershed Management Plan



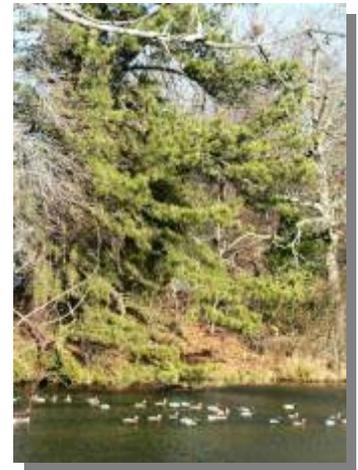
# ***USACE Planning Process***

- Implemented by two-phase plan (PMP)
  - Phase I – Existing Conditions / Alternative Screening
  - Phase II – Alternatives Design and Evaluation
- PMP Phase I:
  - Assess existing conditions within project area to formulate solutions, and ensure sustainability
  - Partner with Town on feasibility study



# ***USACE Planning Process***

- PMP Phase II:
  - Initiated when Town and Corps see sustainable solution
  - Evaluate and scale alternatives
  - Conceptual designs and preliminary costs
  - Preparation of draft environmental document
  - Public review process



# *Forge River Watershed Management Plan*



## **Discussion**

