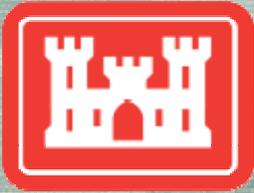
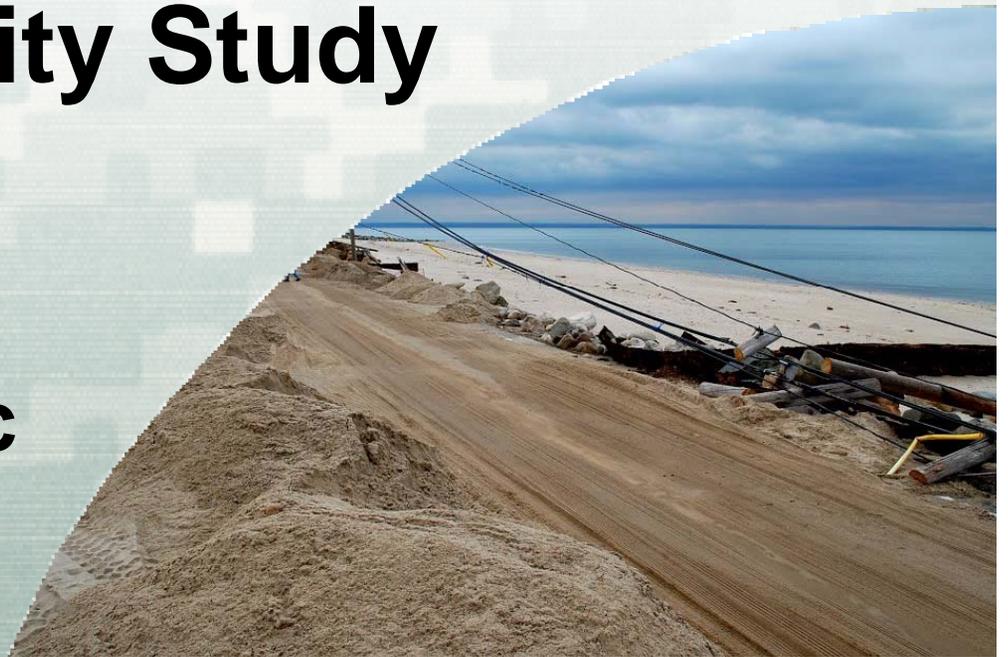


# North Shore of Long Island, Asharoken, New York Feasibility Study

**Asharoken, NY Public  
Meeting** June 3<sup>rd</sup>, 2014



New York District



# Agenda

- Overview of Corps process
- Project history before/after Sandy
- Current status of study
- Upcoming tasks for completion of study
- Local Responsibilities
- Schedule



# Corps Process

1. Congressional Authorization/  
Appropriation
2. Reconnaissance Study
3. Feasibility Study (*current phase*)
4. Design Phase
5. Construction (Initial Construction & Renourishment)
6. Operation and Maintenance



# USACE Coastal Basics

- “Corps Projects” are really joint “Corps, State, Municipal Projects”; Projects are planned and implemented with Local Sponsors. Each partner must support the plan & has a role.
- For Federal participation, must show benefits exceed costs.
- Benefits must contribute to National Economy (National Economic Development / NED Benefits)
- Select plan which maximizes benefits relative to costs.
- For Federal funds to be spent, the beaches must have Public Access that is open to all on equal terms



# Role of Project Sponsors

- Sponsors:
  - ▶ Non-federal Sponsor (NY State DEC)
  - ▶ Local Sponsor (Village of Asharoken)
- Roles:
  - ▶ Cost Sharing
  - ▶ Indemnification
  - ▶ Real Estate/Public Access
  - ▶ Operation and Maintenance



# Project Reaches



**BUILDING STRONG®**

# Project History Pre-Sandy

- ▶ Feasibility Study Agreements
  - DEC and Corps executed March 21, 2001
  - DEC and Village executed April 18, 2001
- ▶ Feasibility Study Progressing 2001 – 2008
  - Alternatives Analysis and Screening (2004)
  - Data Collection (Environmental, finfish, engineering, borrow area and sediment transport analyses)
- ▶ DEC Letter of October 22, 2008
  - Concerns with using Long Island Sound for borrow area



# Project History Pre-Sandy

- ▶ Corps Letter of May 27, 2010
  - Evaluated other borrow area options
  - No alternative borrow areas exist with appropriate sand quantities other than upland sand
- ▶ DEC Letter of December 17, 2010
  - Corps did not evaluate adverse impacts in economically important marine species
  - DEC still opposed to dredging in Long Island Sound



# Project History Pre-Sandy

- ▶ February 2012
  - DEC identified a plan that will allow the use of Long Island Sound as borrow
- ▶ Started negotiating the completion of the Study
  - Update legal agreements and PMP (scope of work)
  - Request Federal funds to complete Study
  - Formalize technical plan for the use of the borrow area in Long Island Sound
- ▶ October 2012 - Hurricane Sandy



# Project History Post-Sandy

- ▶ Sandy - October 29, 2012
- ▶ Damages to Asharoken Seawall
  - November 7, 2012 - DEC requested Corps to repair Seawall
  - Immediate action to have Seawall repaired under Corps' emergency authority moved quickly
  - Repairs completed January 2013
- ▶ Disaster Relief Appropriations Act of 2013
  - All Study costs after January 29, 2013 are 100% federally funded.
  - Expedited process for proceeding to construction
  - Federal funds available to construct



# Project History Post-Sandy

- ▶ Identified scope to complete Study into Spring 2013
- ▶ Legal agreements were amended in August 2013
- ▶ Corps received funding to finish Study in September 2013
- ▶ First step: review original alternatives
  - Due to significant sand losses, recognized that more than just sand needs to be considered.
- ▶ Developed December 2013 Draft Tentative Selected Plan
  - Shared with Mayor December 6, 2013
- ▶ National Grid sand placement December 2013
  - By February 2014 over half gone
  - Need to consider the effectiveness of sand-only solutions



# Problems

The problems in the study area are:

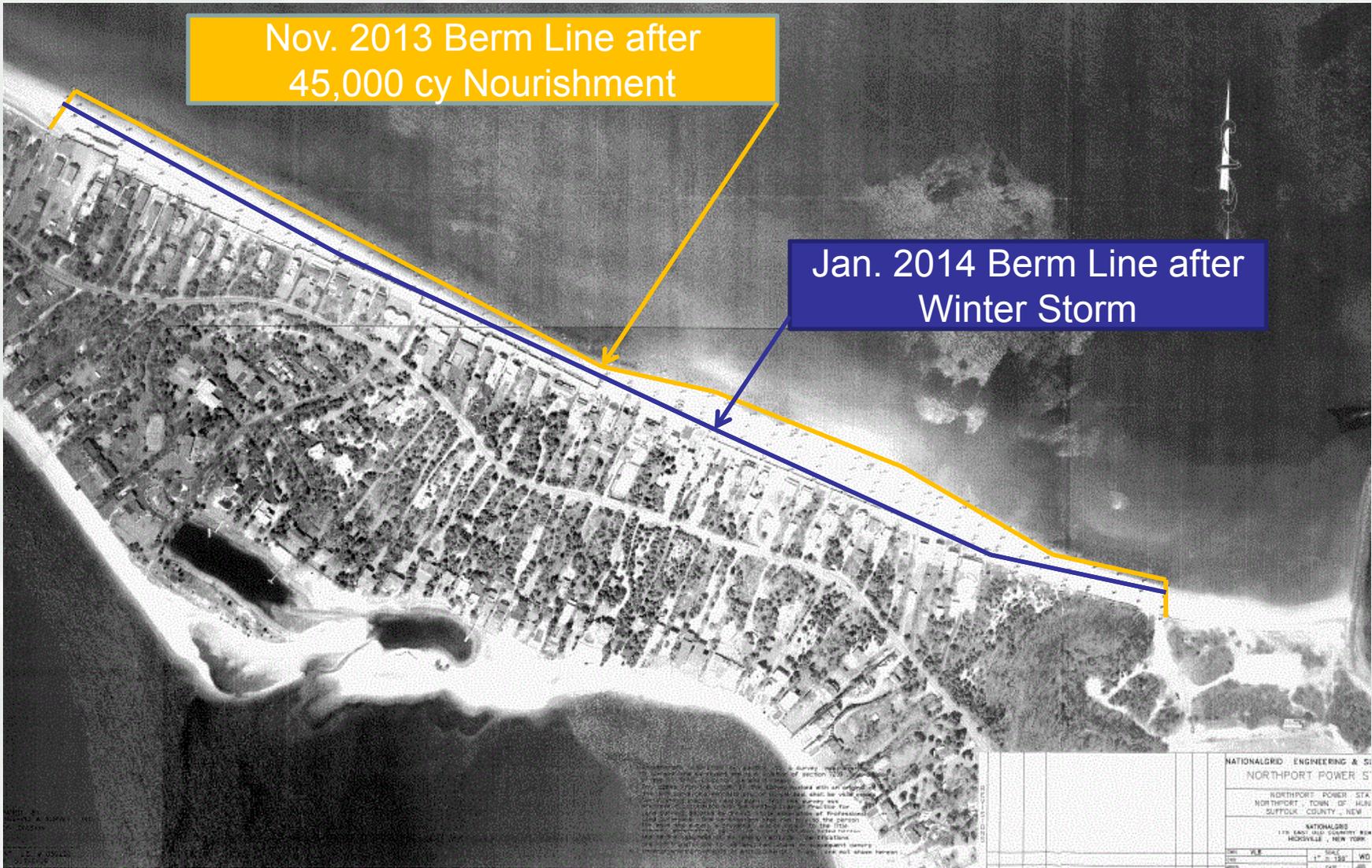
- Damage to structures caused by storm-induced wave attack, erosion, and flooding due to storms and high tides.
- Disruption to Asharoken Avenue, the only route to and from the Village of Asharoken and Eaton's Neck.





Nov. 2013 Berm Line after  
45,000 cy Nourishment

Jan. 2014 Berm Line after  
Winter Storm

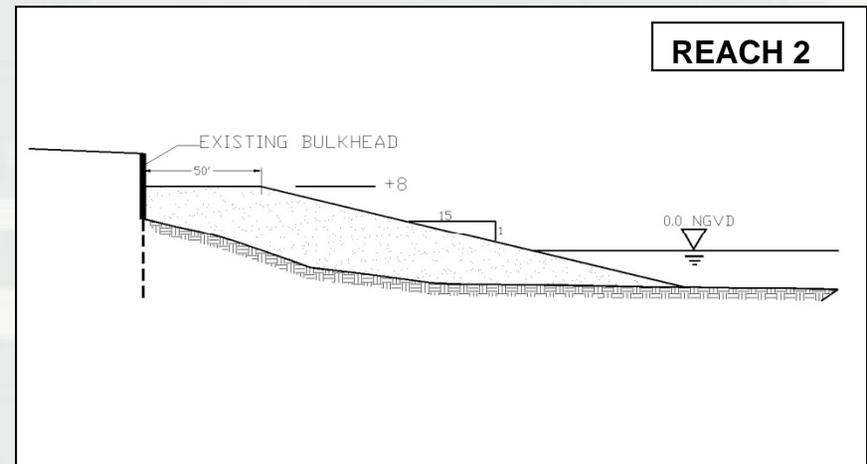
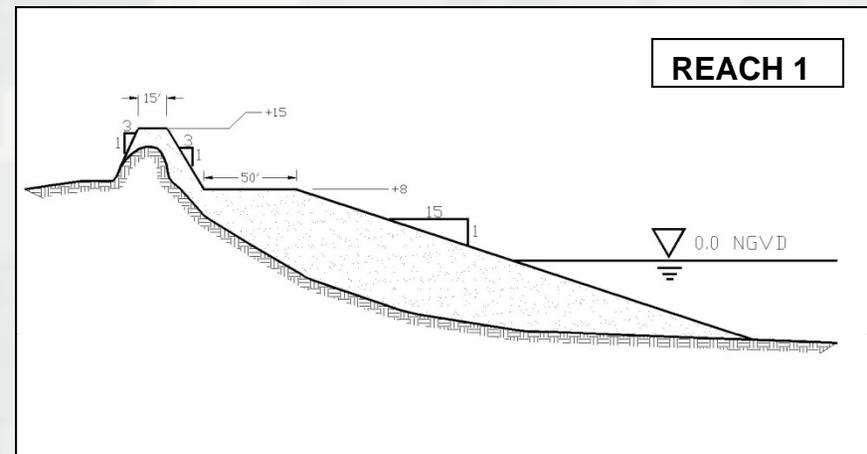


# Alternative Results, Pre-Sandy

Most Cost-effective Solution is a Beachfill Alternative.

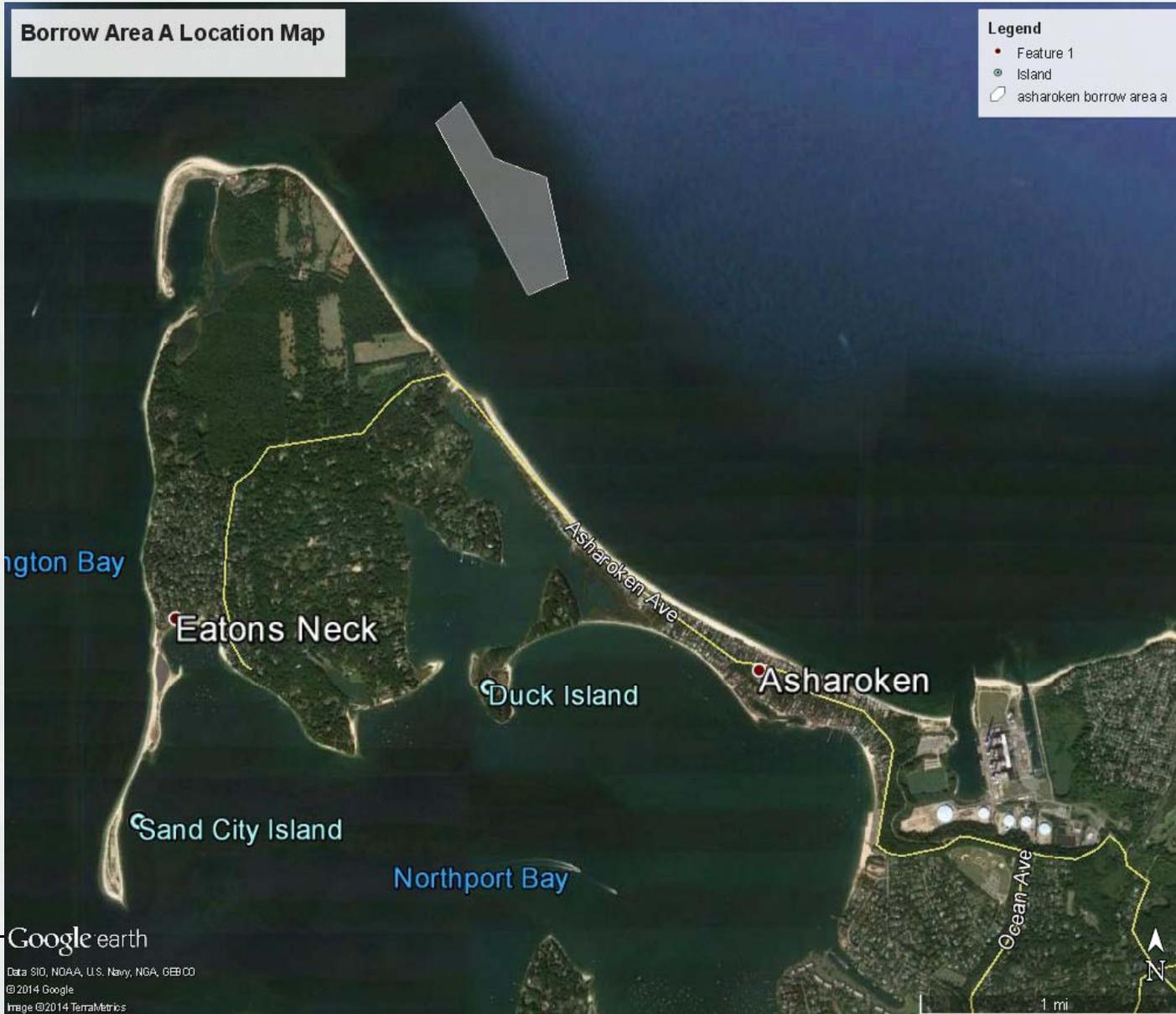
Optimal Scale includes:

- For Reach 1 fronting the road: Dune (+15 ft), Berm 50 ft wide at +8 ft NGVD
- For Reach 2 fronting the bulkheads: Berm 50 ft wide at +8 ft NGVD
- Initial Construction requires 600,000 CY (offshore)
- Renourishment is Approximately 125,000 CY every 5 years (assumed upland material & National Grid contribution)

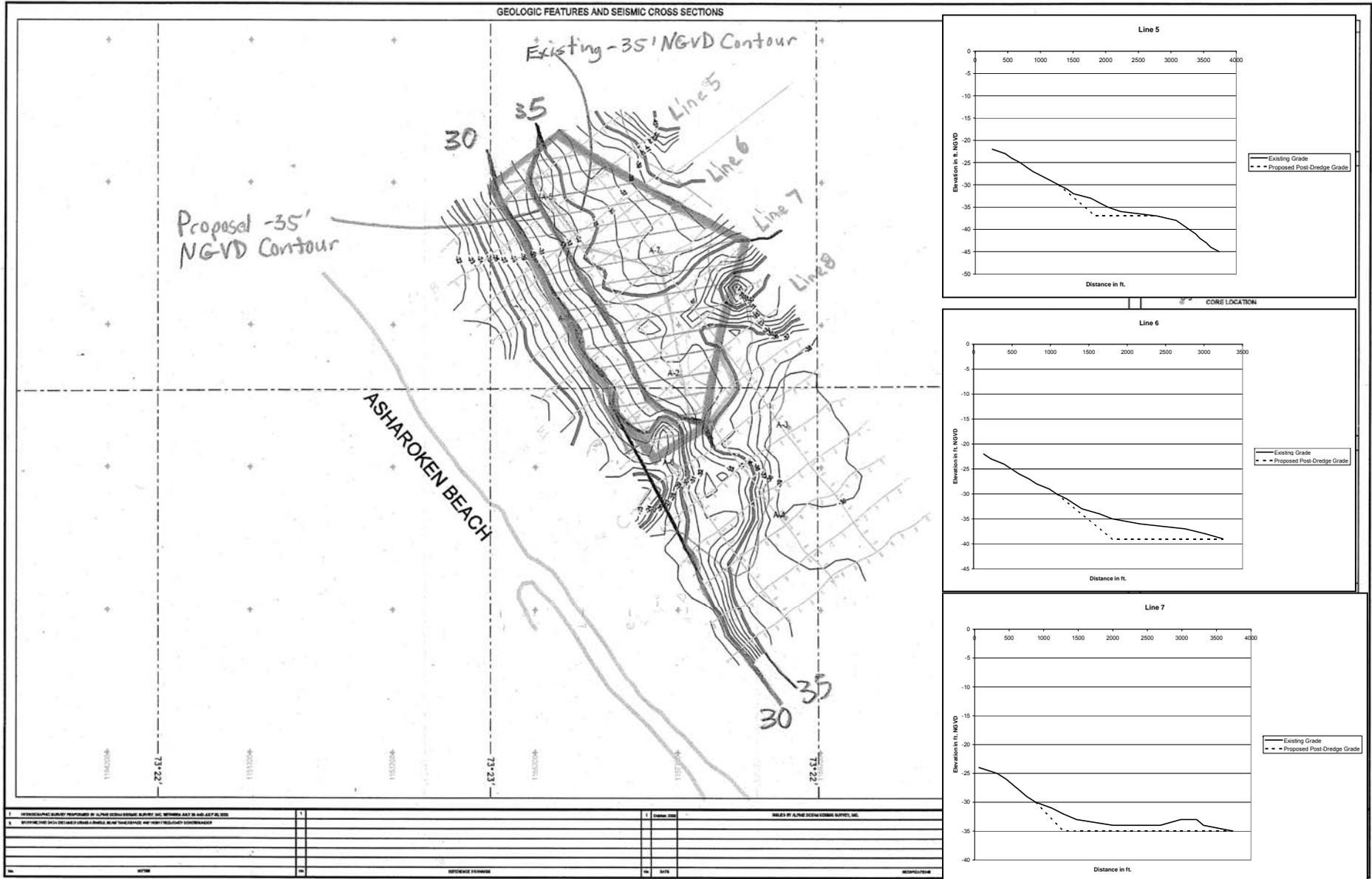


**BUILDING STRONG®**

# Borrow Area A, Dredging Plan



# Borrow Area A, Dredging Plan



# Alternative Update

- Prior to Sandy:
  - ▶ Beach Fill Plan:
    - 650,000 CY initially
    - 125,000 CY every five years  
(of this 125K CY, 15K CY/yr from powerplant, and 10K CY/yr from project)
- Current Evaluations:
  - ▶ Beach Fill Plan (as previously identified)
  - ▶ Beach Fill with localized Groins and/or Breakwaters:
    - 1) Tapered groins along the existing seawall
    - 2) Small scale groins or breakwaters in critical erosion area in the southeast end of the study area
  - ▶ Optimization of Scale (beach width) & Plan Selection



# Locations under consideration for structures



# Groin/Breakwater Consideration

- Potential to reduce localized erosion
- Reduced erosion results in reduced renourishment need (amount & frequency)
- Modeling is required (and underway) to evaluate effectiveness of structures and refine designs
- Structures can be recommended by demonstrating that initial costs are offset by future sand needs



# Current Study: Requirements & Refinements

- Update plans / layouts to current Topography
- Update Engineering Model as input in Economics
- Update Economics Model for Risk and Uncertainty
- Determine need & effectiveness of localized groins or breakwaters
- Verify Optimization of Scale
- Finalize Borrow Area Plans
- Finalize Public Access Plans (Local Sponsor)
- Identify Real Estate Needs and Real Estate Cost
- Selected Plan
- Draft Report



# Local Sponsor Responsibilities

- Local Sponsor = Village of Asharoken
  - ▶ Must cost share construction
  - ▶ Must commit to doing O&M
  - ▶ Must indemnify State and Federal Governments
  - ▶ Must obtain all necessary real estate



# Feasibility Study Costs

- Pursuant to 2001 Agreement:
  - ▶ 50% Federal and 50% non-Federal
  - ▶ Non-Federal cost is shared 70% State and 30% Village
- After January 29, 2013:
  - ▶ Remaining Study costs are 100% Federal
- Village cost of Study prior to 1/29/13:
  - ▶ Approximately \$327,500



# Construction Costs

- Initial construction costs are split 65% Federal and 35% non-Federal
- Renourishment costs are split 50% Federal and 50% non-Federal
- Non-Federal cost is shared 70% State and 30% Village
  - ▶ Village's 30% is equal to ~10.5% of total costs for initial construction and ~15% for renourishment



# Operation and Maintenance

- Village must maintain project once built
  - ▶ Maintain public access
  - ▶ Prohibit excavation and alterations
  - ▶ Grade and reshape dune to original elevations to repair erosion
  - ▶ Conduct quarterly inspections and take beach width measurements
  - ▶ Send quarterly inspection reports to State and Corps
  - ▶ Conduct post storm inspections
  - ▶ Participate in yearly inspection with State and Corps



# Real Estate Required

- Perpetual beach easements for all parcels where sand is placed
- Fee title for all parcels where structures are built
- Fee title for all public accessways to beach
  - ▶ Required width: 6 feet



# Public Access Overview

- Public accessways to beaches must be within  $\frac{1}{4}$  of a mile in each direction
- Fed and State funding requires public access open to all
- At least 2 additional access points required
- Local Sponsor responsible for developing a Public Access Plan



# Schedule / Next Steps

- Public release of draft Report: Feb 2015
  - ▶ Without Project Conditions: Jul 2014
  - ▶ Public Access Plan: Jul/Aug 2014
  - ▶ Modeling Efforts: Sep 2014
  - ▶ With Project Conditions: Nov 2014
    - Engineering
    - Environmental
    - Real Estate
    - Economics
  - ▶ Tentatively Selected Plan (TSP) Approved by HQ: Nov/Dec 2014
  - ▶ TSP Optimization: Dec 2014/Jan 2015



# Schedule / Next Steps

- Final/Chief's Report: Dec 2015
  - ▶ Concurrent Reviews: Jul 2015
    - Agencies
    - Public
    - Independent External Peer Review
  - ▶ More Reviews: Nov 2015
    - Multiple internal Corps reviews for HQ approval
- Chief's Report submitted to Assistant Secretary of the Army (ASA): Dec 2015
- ASA submits report to Congress: Dec 2015



# Schedule / Next Steps

- Design & Construction: Start in Dec 2015
  - ▶ Design (including advertising): 7-8 months
  - ▶ Project Partnership Agreement: 6-9 months
  - ▶ Construction:
    - Depending on conditions dredging 3-4 months
    - Current dredge work window: 1 Oct – 14 Jan



# Points of Contact

- **NYSDEC** at (518) 402-8185
  - ▶ Sue McCormick, P.E., Chief Coastal Erosion Management [sdmccorm@gw.dec.stte.ny.us](mailto:sdmccorm@gw.dec.stte.ny.us)
  - ▶ Matt Chlebus, Project Engineer [mjchlebu@ge.dec.state.ny.us](mailto:mjchlebu@ge.dec.state.ny.us)
  
- **USACE** at (917) 790-8627
  - ▶ Ronald Pinzon, Project Manager [Ronald.R.Pinzon@usace.army.mil](mailto:Ronald.R.Pinzon@usace.army.mil)



# Question & Answer Period

## Closing Remarks



**BUILDING STRONG®**