



"Increasing State Dredging Capacity Through the Beneficial Re-use of Dredged Material"

Sea Isle City 5th Street Landfill Remediation Project

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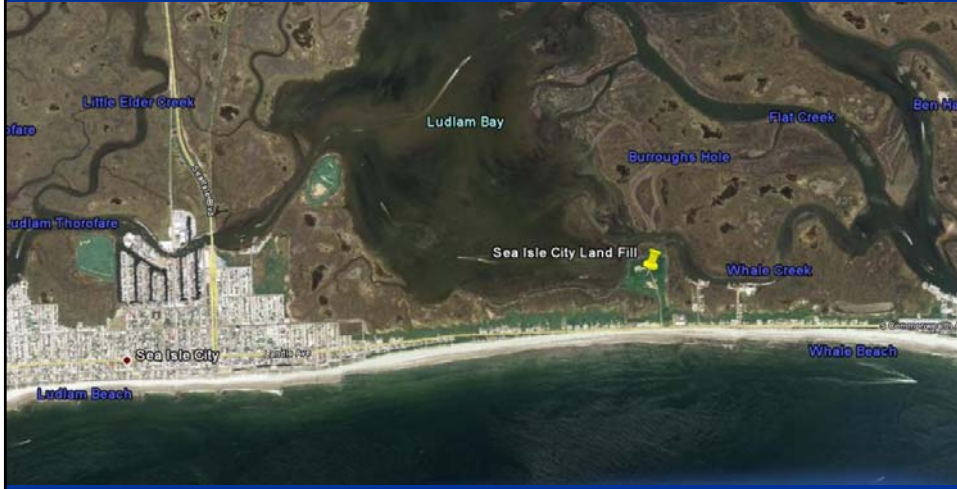
Outline

- Project History
- Project Summary
- Proposed Project
 - Description
 - Tasks
 - Funding



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Sea Isle City 5th Street Landfill



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Sea Isle City 5th Street Landfill

- Municipal Facility*
- Area - 20 Acres*
- Closed 1980*
- No Official Closure*
- 2007 NJDEP Site Visit Issues
 - Site Access
 - Site Use
 - Erosion



* data from NJDEP

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Landfill Issues - Usage



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Landfill Issues - Erosion



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NJDEP Course of Action

- Better Control of Access to the Landfill
- Better Control of Public Works Activity
- Remove all Surface Debris from the Landfill
- Stabilize the Eroded Bank and Eliminate Discharge of Leachate from the Landfill

From April 2007 letter from Michael Hansen (NJDEP)

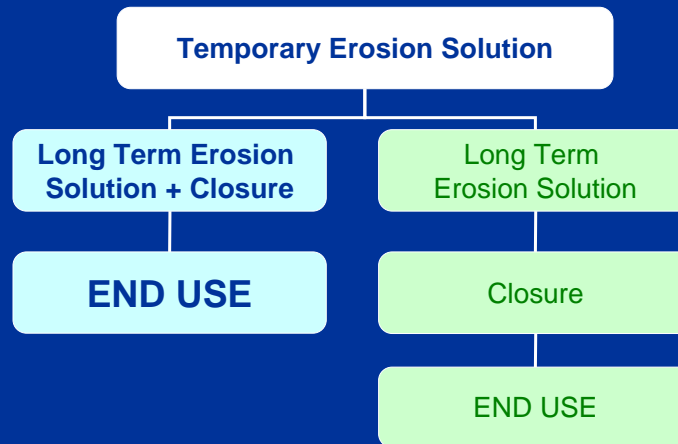


Stabilize the Erosion

- SIC Hired ASG to Investigate the Erosion of the Western Bank of the Landfill
 - ASG Assessed Erosion (loss of ~2.6 acres)
 - Developed a Temporary and Long Term Erosion Solution
- SIC Proceeding with Temporary Erosion Control
- Long Term Solution Must be Implemented



SIC Options



What is the Future of the Landfill?

Public Input

Passive Park? Other Uses?

Proper Closure is Necessary

Closure is Regulated by NJDEP SWRM



Landfill Closure

Purpose of Proper Closure

- Physical Barrier
- Pollution Control
- Necessary for End Use
- Closure Regulations (NJDEP)
 - Erosion Control
 - Final Soil Cover

Material is Needed for Closure ~75,000 cy



Material Options

- Material Quality is Regulated by NJDEP
- Material Needs to be Suitable for Plant Growth
- Typical Material Options
- Alternative Material Options





Partnership with NJDOT

Material is Needed
for Landfill
Closure



NJDOT Seeks to
Beneficially Re-Use
Dredged Material

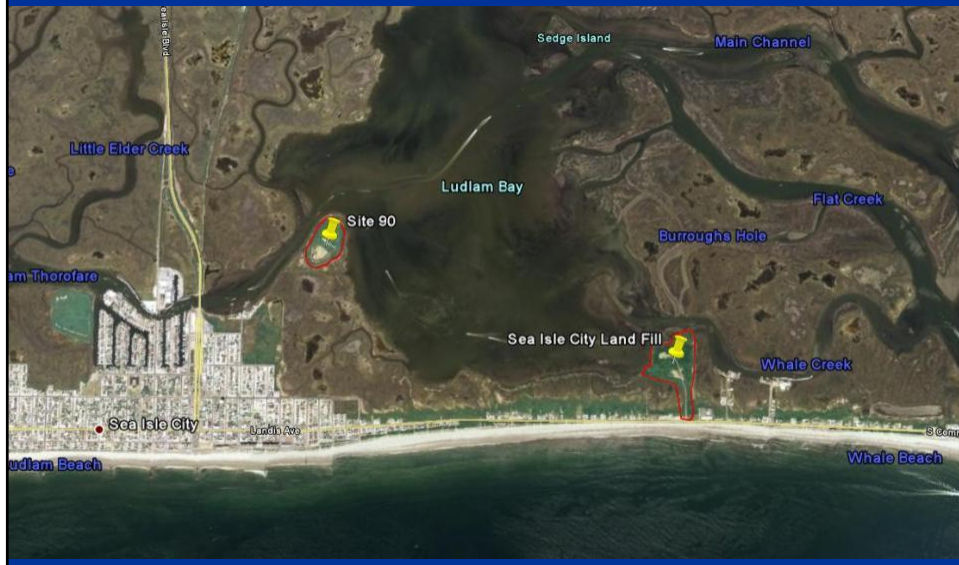
Beneficially Re-Use Dredged Material for Landfill Closure!!!

WIN - WIN



State Dredging

- Dredging is Needed for Navigation Channels
- State is Responsible for Providing Capacity for NJICWW Dredging
- Dredged Material Placement Options
 - Confined Disposal Facility (CDF)
 - Beneficial Re-Use



Site 90 - CDF

- NJDEP Owned
- Area - 12 acres
- 1963-2000
- ~375,000 cy
- Limited Capacity





If:

Clean Material can be Excavated
from Site 90 and Utilized in the
Closure of the Sea Isle City Landfill...



Benefits to Partnership

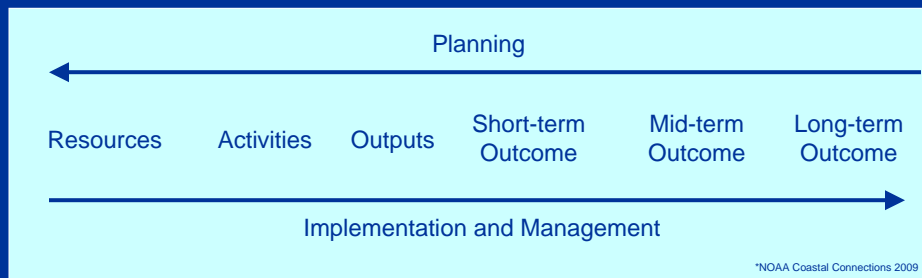
- Local
- Environmental
- Economic
- Boating
- Funding





Project Planning

- Start with an End Goal
 - Landfill End Use
 - Increase State Dredging Capacity



Pre-Planning

- Meeting with Sea Isle City (June 2008)
- Meeting with NJDOT (July 2008)
- Joint Permit Process Meeting (Jan 2009)
- Meeting with NJDEP (Feb 2009)
 - Bureau of Coastal Engineering
 - Office of Dredging and Sediment Technology
- Project Proposal (March 2009)



Increasing State Dredging Capacity Through the Beneficial Re-use of Dredged Material



Project Description

- Use Dredged Material from Site 90 for Official Closure of the Sea Isle City Landfill

Project Goals

- Increase State Dredging Capacity
- Official Closure of Sea Isle City's 5th St Landfill
 - Erosion Control
 - Preliminary Landfill Development Plan



Estimated Project Timeline

2009

2010

2011

**Site Investigation,
Engineering, Design,
and Permitting**

Construction

Phase I - Total Cost ~\$433,000

Phase II - Estimated Cost ~\$X,000,000



Who is Involved?

- Sea Isle City
- NJDOT
- NJDEP
- Ocean and Coastal Consultants, Inc.
- Amy S. Greene Environmental Consultants, Inc.
- Golder Associates, Inc.



Project Outline

- Pre-Planning*
- Site Investigation
- Engineering and Design
- Permitting
- Preliminary Landfill Development Plan
- Wetlands Mitigation (if necessary)

*Initiated June 2008

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Site Investigation

- Landfill
 - Survey
 - Wetlands Delineation
 - Environmental Study
 - Waste Delineation
 - Groundwater Seep
Water Quality
 - Gas Migration
Investigation



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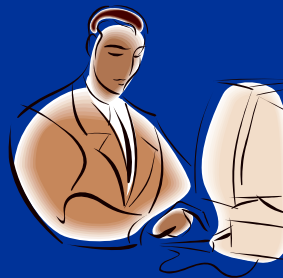
Site Investigation

- CDF
 - Material Sampling and Testing (SAP)
 - Site Survey
 - Wetlands Delineation
 - Local Hydrographic Survey
 - Local Dredging Needs
 - Site Capacity
 - Dike Erosion/Stability



Engineering and Design

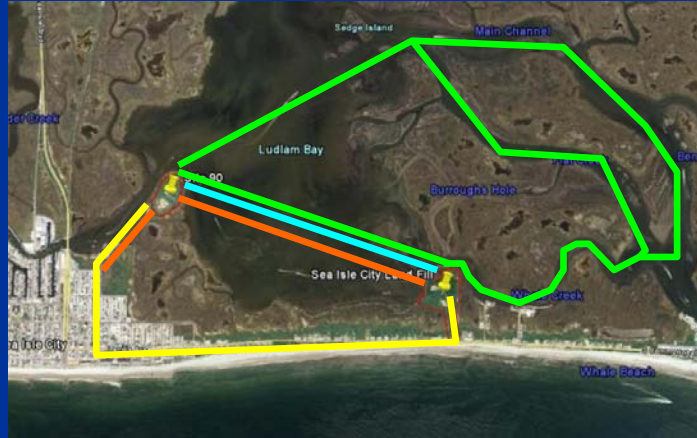
- Landfill
 - Shoreline Erosion Control
 - Coastal Impact Alternatives Analysis
 - Closure Plan
 - Re-Vegetation Plan
- CDF
 - Material Transportation
 - Site Reconstruction
- Construction Estimate





Material Transportation Options

- Truck
- Conveyor
- Barge
- Hydraulic



Permitting

- Landfill
 - USACE NWP #38
 - NJDEP
 - Tidelands Grant
- CDF
 - AUD
 - NJDEP
 - USACE





Landfill Development Plan

- Closure Needs to Consider End Use
- Concept Design
 - Community Input
 - Landscape Architect
 - Landfill Closure Plan
 - Re-Vegetation Plan



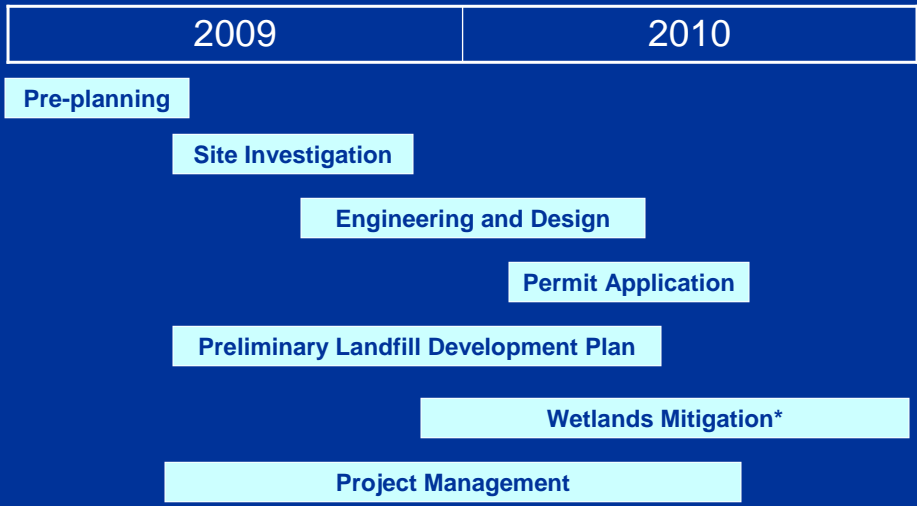
Wetlands Mitigation*

- * If Necessary
 - Site Identification
 - Site Investigation
 - Mitigation Plan





Estimated Project Timeline



* If necessary



Funding

Engineering, Design, & Permitting (current)

- Separated by Task
 - Landfill Related
 - CDF Related
 - Common Interest (50/50)

Construction (future)

- Cost Share (State % - SIC % TBD)



Funding

Total Project Cost - \$432,578

Sea Isle City - \$244,196

NJDOT - \$188,382



This Project Benefits:

- Sea Isle City
- New Jersey
- Environment

