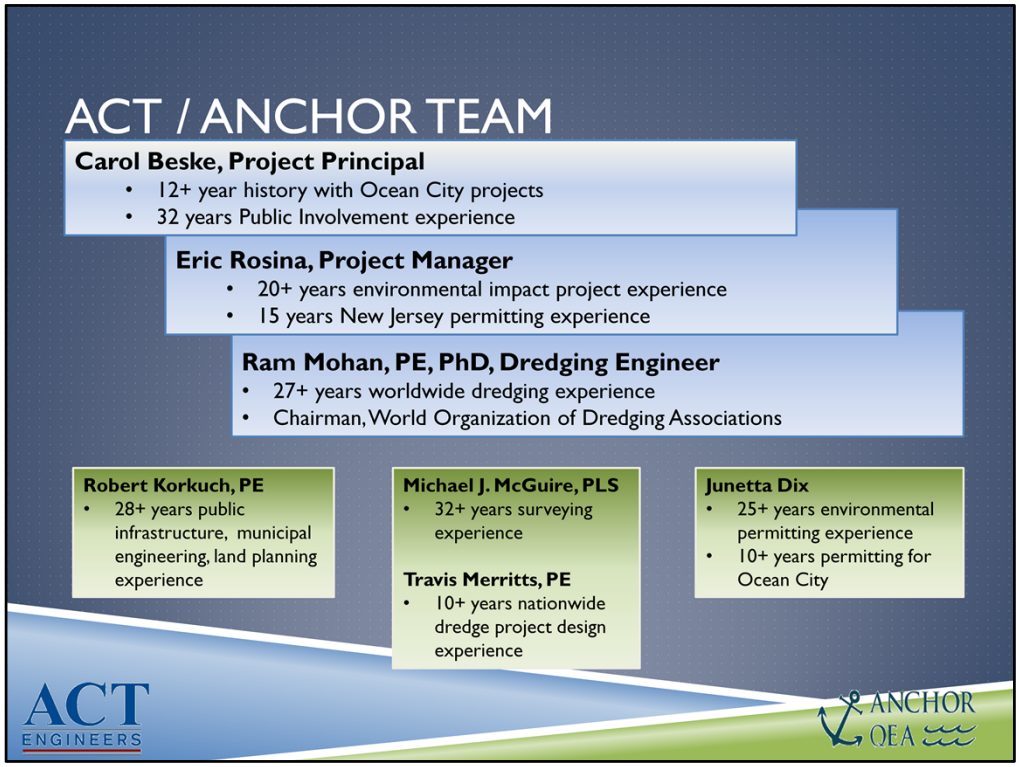
# OCEAN CITY DREDGING PROGRAM UPDATE

Mayor Jay Gillian and City Council

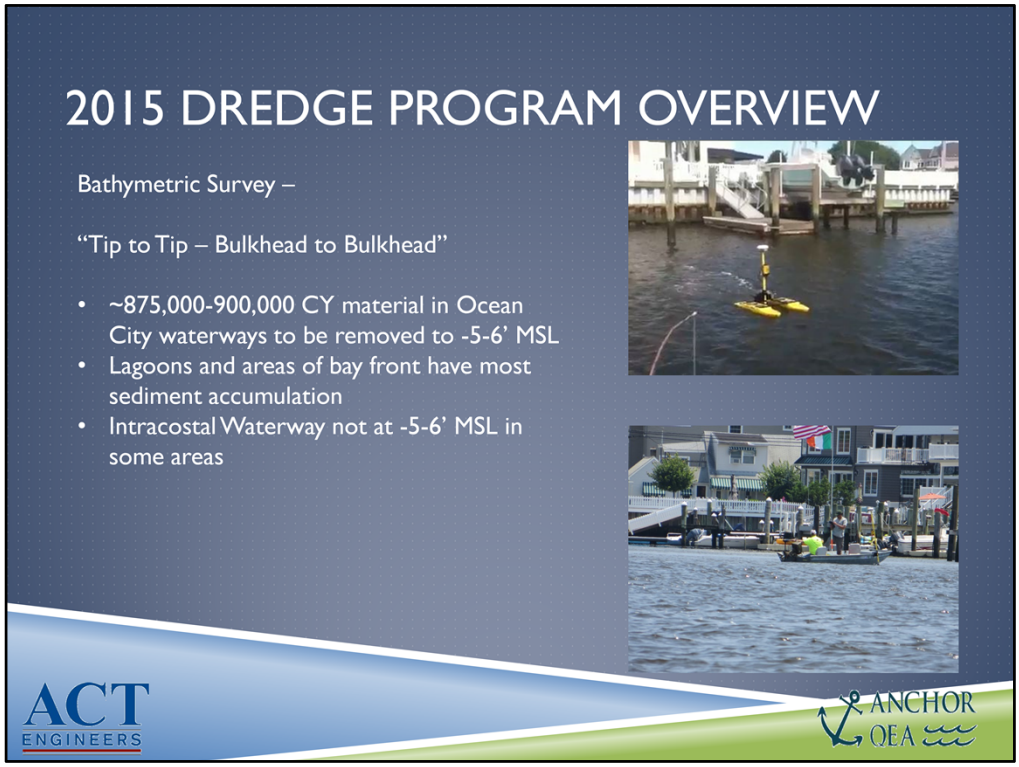
Ocean City Free Public Library
January 25, 2016 7:00 PM

ACT ENGINEERS

ANCHOR QEA




Project Team




The ACT/Anchor Team conducted a Bathymetric Survey of Ocean City's bay front. The survey included the entire bay front, each of the lagoons and all private slip areas. In addition, the survey included historical navigable routes to the Intercoastal Waterway. We appreciate the cooperation of City residents and guests as we spent many days in the City's waterways.

Around the room we have prepared exhibits depicting the bathymetry of Ocean City's waterways. This detailed survey is a key component of future dredge permits, contract and material management models for the City.


The 2015 Ocean City dredge program was limited to Snug Harbor as this was the most impacted area of the back bay. The City Contract was designed to mechanically remove sediment within the central channel area to a design depth of -5' MSL with a 1' over-dredge allowance. Materials were anticipated to be handled through the Route 52 CDF and shipped to Wildwood to be utilized as Landfill Cap material.


The City's permits contain a prohibition for turbidity generating activity after October 1 which the team was able to have waived through December 31, 2015. This extension allowed the contractor to complete the center channel dredging to a depth of -3' MSL. Materials were handled through the Route 52 CDF for the first time since it's construction by NJDOT and shipped to both Wildwood and Cape Materials for landfill cap and blending and reuse respectively. While the team anticipated that the contractor would have time to conduct some private slip dredging before the end of the year, delays prevented this from happening.

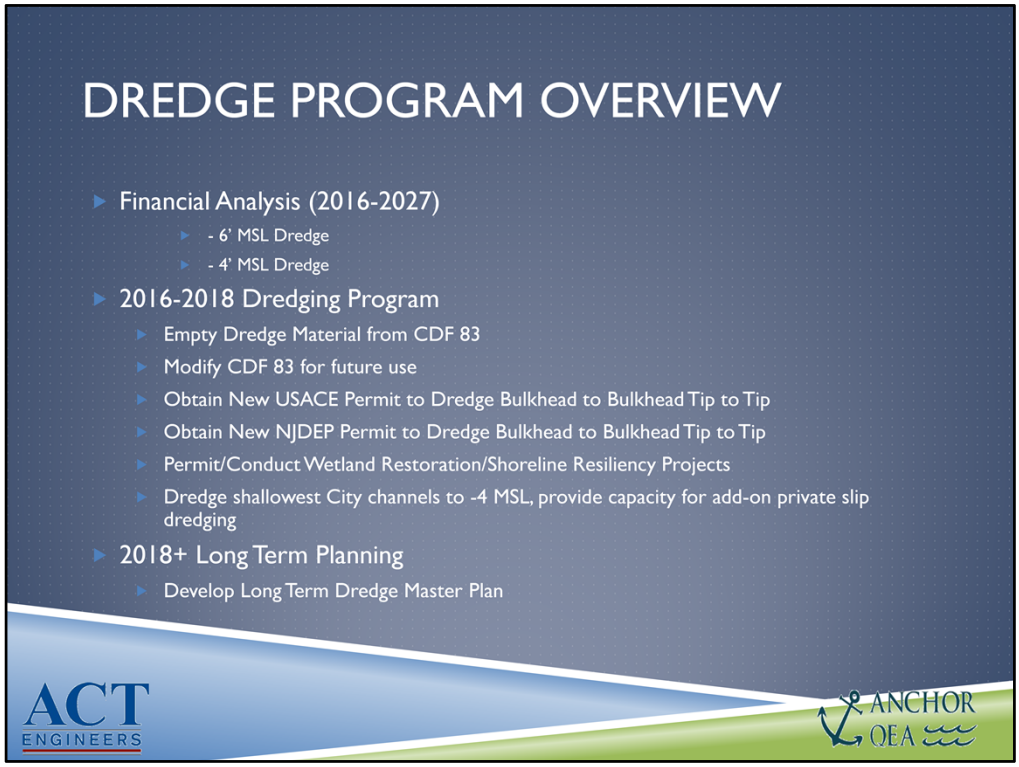

Ocean City's dredging program is subject to the review of multiple State and Federal agencies. Including the NJDEP, USEPA, USACE, US Coast Guard, NOAA's National Fish and Wildlife Service, and both the US and NJ Fish and Wildlife Services.

These reviews result in restrictions that affect when dredging activities can be conducted. Even though the Winter Flounder restriction was recently lifted South of Absecon Inlet, the overlap of these timing restrictions means that the July 1 remains the start of Ocean City's dredge season under the current permits.


In 2015, the ACT/Anchor team evaluated Ocean City's current dredging permits and programs. Maintenance of navigable waterways, development of usable CDF Capacity, and building shoreline resiliency were identified as key first steps to Ocean City's dredging program.

The team developed design plans for a Temporary Roadway to empty CDF 83 to provide a near term solution for material placement and handling. The USACE permit for this project is currently pending and construction is currently anticipated to begin when the permit is received.

In addition, the Team has worked with the City to identify key sites to strengthen the shoreline resiliency along the back bay. The team is continuing to work within the grant process (National Fish and Wildlife Foundation) to evaluate each of these site and submit permit applications to complete this important project to protect the City.

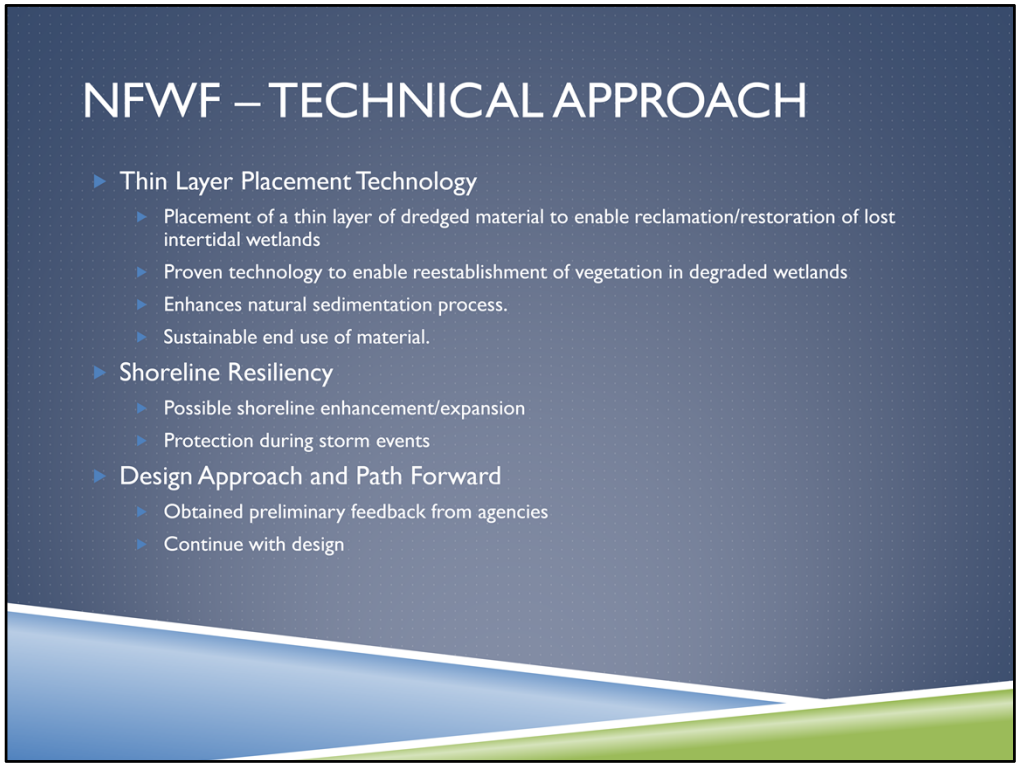



The Team continues to work with the City to develop a financial model that meets the project goals. This includes the evaluation of both a 6' and 4' dredge prism across the back bay.

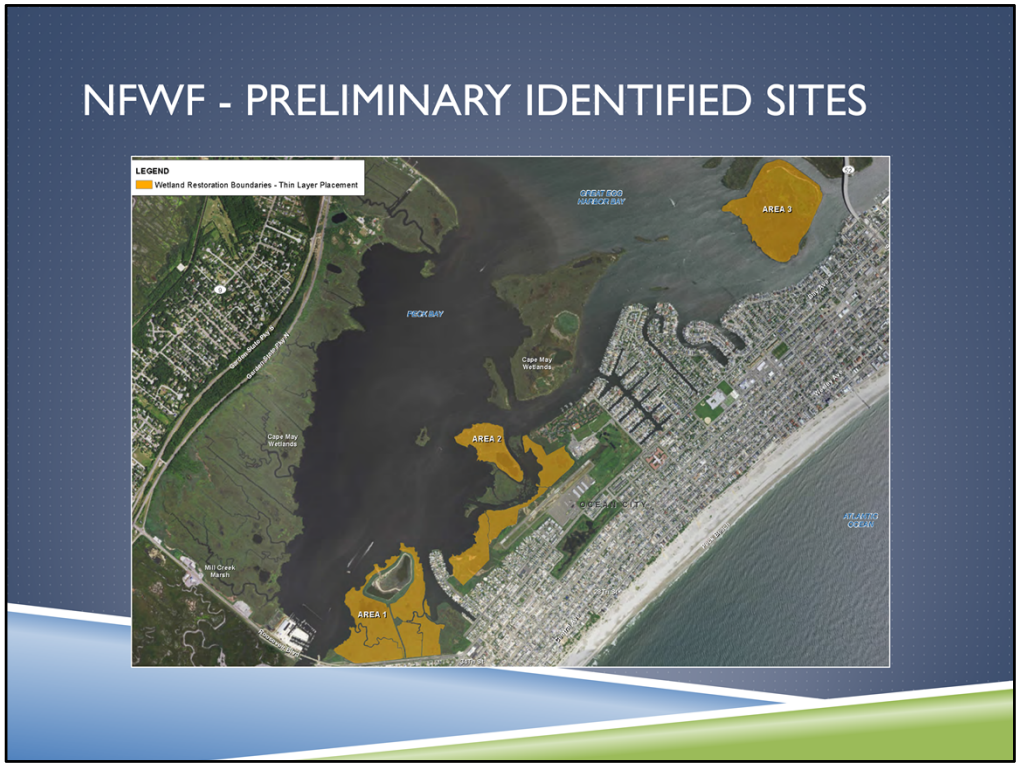
The near term programming looks to restore/enhance the material capacity related to CDF 83, obtain required permits for City-wide dredging and key shoreline resiliency projects, and dredge the shallowest City channels to a depth of -4' MSL. In addition, the team is aware of the need for dredge material handling capacity for the private slips and will continue to work with owners to meet this demand.

We are also evaluating our near term actions in light of developing a Long Term Dredge Master Plan for Ocean City.

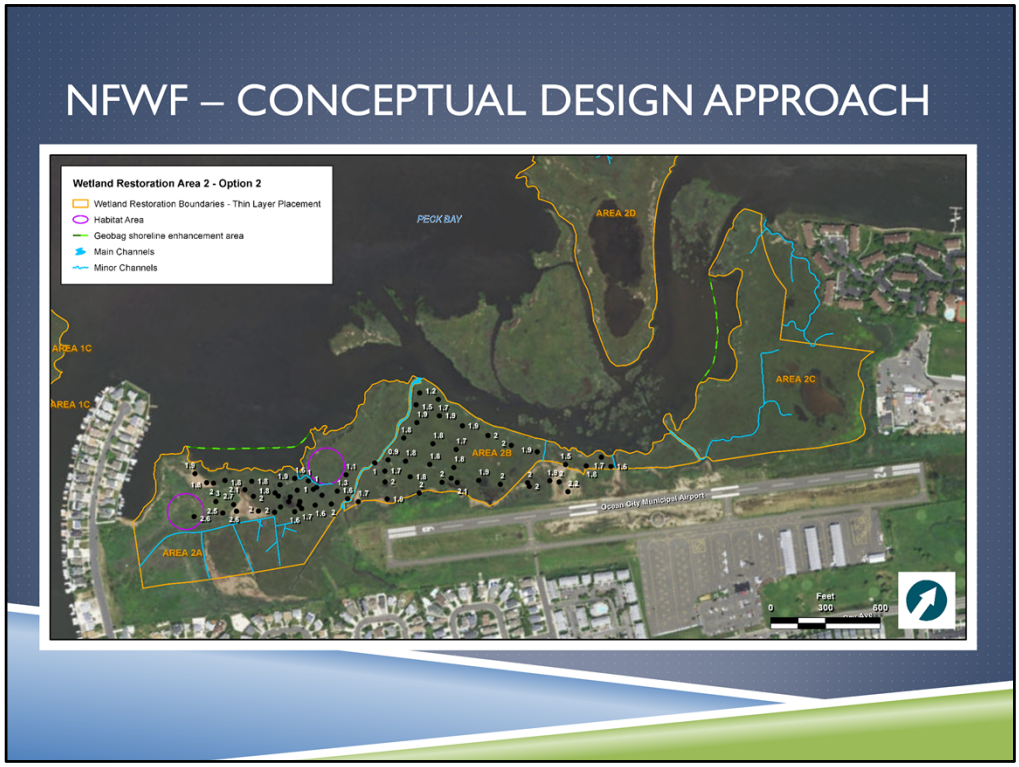

The NWFW grant obtained by the City provides for investigation and design of wetland restoration along the back bay as a beneficial reuse of dredged material.
It is consistent with national practices for reusing dredged material beneficially, and helps achieve three goals – improved coastal resiliency, enhanced habitat value, and economic benefits through possible storm damage reduction.




Thin layer placement of dredged material has been studied well in the past 20-30 years, by the U.S. Army Corps of Engineers, and its beneficial aspects well documented.
While initial smothering of vegetation is expected during placement, plants normally revegetate more vigorously after one to two growing seasons.
The restored marsh, if designed properly, will also provide shoreline resiliency.
ACT/Anchor/JNDI met with regulatory agencies and obtained preliminary feedback on the project in January.




We have identified three potential areas where thin layer placement can be beneficial.
The three areas are wetlands surrounding CDF 83 vicinity (Area 1), wetlands behind OCNJ airport (Area 2), and Cowpens Island (Area 3)
All three areas have distinct benefits and some drawbacks.
Per the feedback from the recently held regulatory agency meeting, ACT/Anchor will be preparing a detailed engineering evaluation of these alternatives.
Once completed, that will be presented to the agencies for their approval.




The site that appears to offer the best advantage seems to be the wetlands behind the OCNJ airport.
The green lines show the possible shoreline expansion of wetlands to provide additional storm resiliency benefits.
Another habitat friendly feature that we are evaluating are the bird islands, which are raised features selectively placed over existing wetlands.
Depending on the tide levels and local topography, anywhere from 6 inches to 12 inches of material could be placed along these areas.
We will be advancing the design details for this project, and preparing construction bid documents this year.
This is part of the City's long term master plan of sustainable management of future dredged material.

# QUESTIONS/COMMENTS

**Comments:**
OceanCity@actengineers.com

**Carol Beske**
**609-918-0200**