

# **The Topsail Beach BIS Program Beach and Inlet Management in Practice**

**Presented By:  
Chris Gibson, PE  
TI Coastal Services, Inc.**



# Why Would a Municipality Need a Beach and Inlet Management Plan?

We Have Beach Nourishment  
And We have Maintenance Dredging  
So.....?

As Costs Move from the Federal to the  
Smaller Local and State Governments  
Things Have to be Done More Efficiently.





# NCBIMP

**Commissioned by NCDENR in 2007**

**Completed 2011**

Document Was a Good First Step

Provided Significant Information for Planning Purposes

But, It Didn't Really Provide a Cohesive Action Plan.



# What Is Beach and Inlet Management?

It's a system-wide management strategy.

It's looking at beach erosion and inlet shoaling as a combined single process.

It's understanding the needs of all stakeholders and addressing their issues.

It's realizing the complexity of marine and upland environments and working to protect both.





# **Topsail Beach Planning**

Interim 1.0M CY Project Completed 2011

Long Term Planning Began During Project

Sand Source/Cost was Major Concern

USACE Shallow Draft O&M Money Dries Up

**USACE Decom's the Sidecast Dredge "Frye"**

Inlet Identified as Viable Renewable Resource

30 Year Management Plan Adopted June 2011

FINAL REPORT

Town of Topsail Beach:



30-Year Beach  
Management Plan

*Topsail Beach, North Carolina*



# **And This is Where The Shallow Draft Inlet Fund Was Born !**

Limited State Funds for Through NCDWR for Dredging and Nourishment

USACE has Inadequate Resources, Even if Funds are Available

Need to Find Alternative Navigation Management Methods

Necessity to be as Economical as Possible.



One Program's Trash is another Program's Treasure

OR

Our Town Isn't Sand Starved, It's just in the Wrong Place.





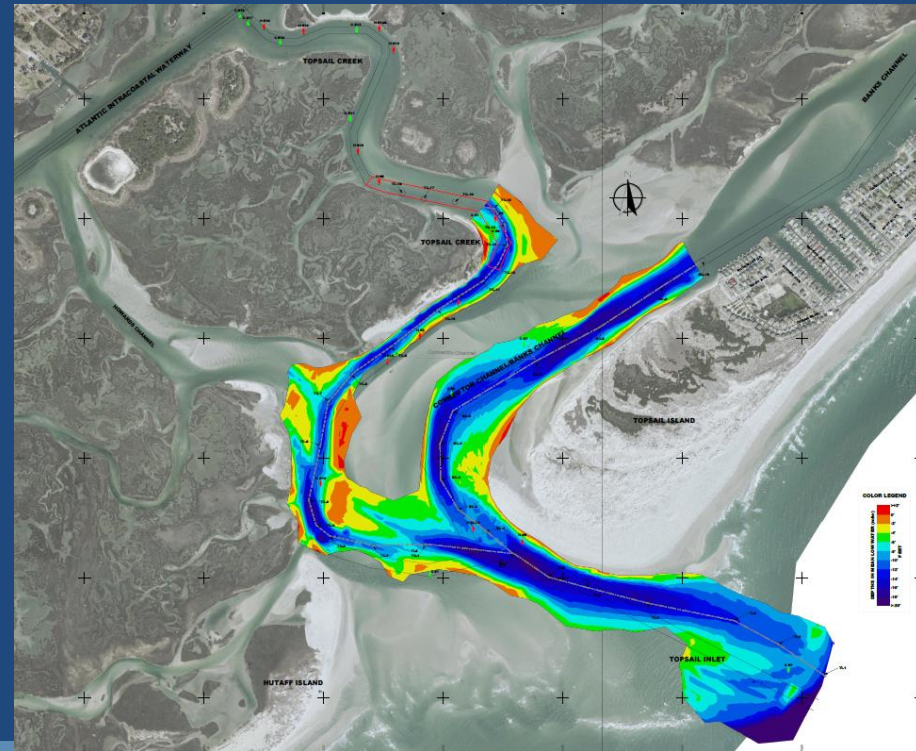
# Advantages to This Approach

Utilizes A High Quality Renewable Sand Resource

Eliminates Separate Navigation O&M Costs

Provides Higher Level  
of Navigation Benefit

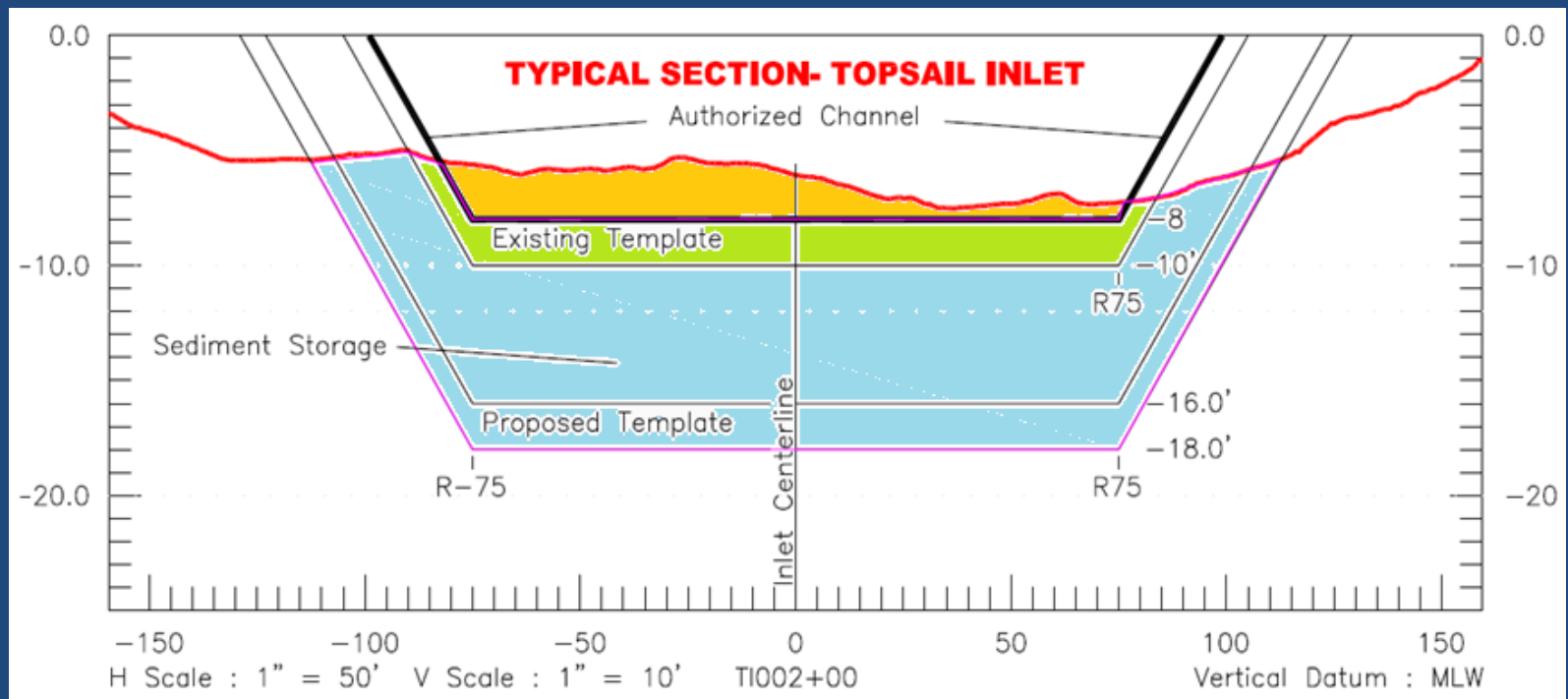
Minimizes New  
Impacts to the Environment





# Create a Manageable System

Dredge Schedule has to Match Nourishment Schedule



# Biggest Advantage is Getting Everyone to Have a Common Goal



Beach AND Inlet Management  
Benefits the Whole Community



# FUNDING

By-In From Beachfront, Sound and Interior Owners

This reduces complications in taxing methodologies

Ability to meet needs of people off-island as well

Tap into alternative sources





# **Be Financially Proactive**

Topsail Beach Began Process over a decade ago.  
Steady Revenue = Successful Project

2011 Tax Re-Evaluation - RATE NEUTRAL  
\$0.12 of Ad Velorem goes to beach Nourishment  
\$50/month for a \$500,000 home

Town & Pender County Room Occupancy Tax (ROT)

FEMA - Post Storm Funding

## **Shallow Draft Inlet Fund - Topsail Island's Baby**

Ultimately created a fully USER-BASED Funding Program



## 2014-2015 Project Statistics

6 Miles of Channel,  
4.5 Miles of Beach Nourished  
860,000 CY of Beach Nourishment

Town of Topsail Beach -	\$ 3.5 Million
Shallow Draft Inlet Fund -	\$ 3.0 Million
FEMA -	\$ 3.7 Million

---

TOTAL	\$10.2 Million
-------	----------------



# **Summary**

Look at the System as an Integrated Unit

**Use Every Dollar Twice**

Be Proactive Setting Aside Short and Long Term Funding

Design a Manageable Schedule

Be Nimble - Be able to Adapt

**And Lastly – Be Creative**

Don't Limit Your Ideas to Classic Methods





# Questions ?

