



moffatt & nichol



# Beach and Inlet Management Plan (BIMP)

- Statewide Plan to Best Manage Critical Beach and Inlet Resources
- Baseline Plan (2009)
  - Collect Physical and Economic Data and Identify Gaps
  - Define Beach/Inlet Management Regions
  - Stakeholder Process (Advisory and Public Input)
  - Develop Beach/Inlet Management Strategies
  - Evaluate Economic Value of Beaches/Inlets and Identify Funding Need
- Baseline Plan Updated Every 2 Years As Data Becomes Available (HB 1840 Section 13.99(d))

# BIMP (2016 UPDATE) – HB 97 2015

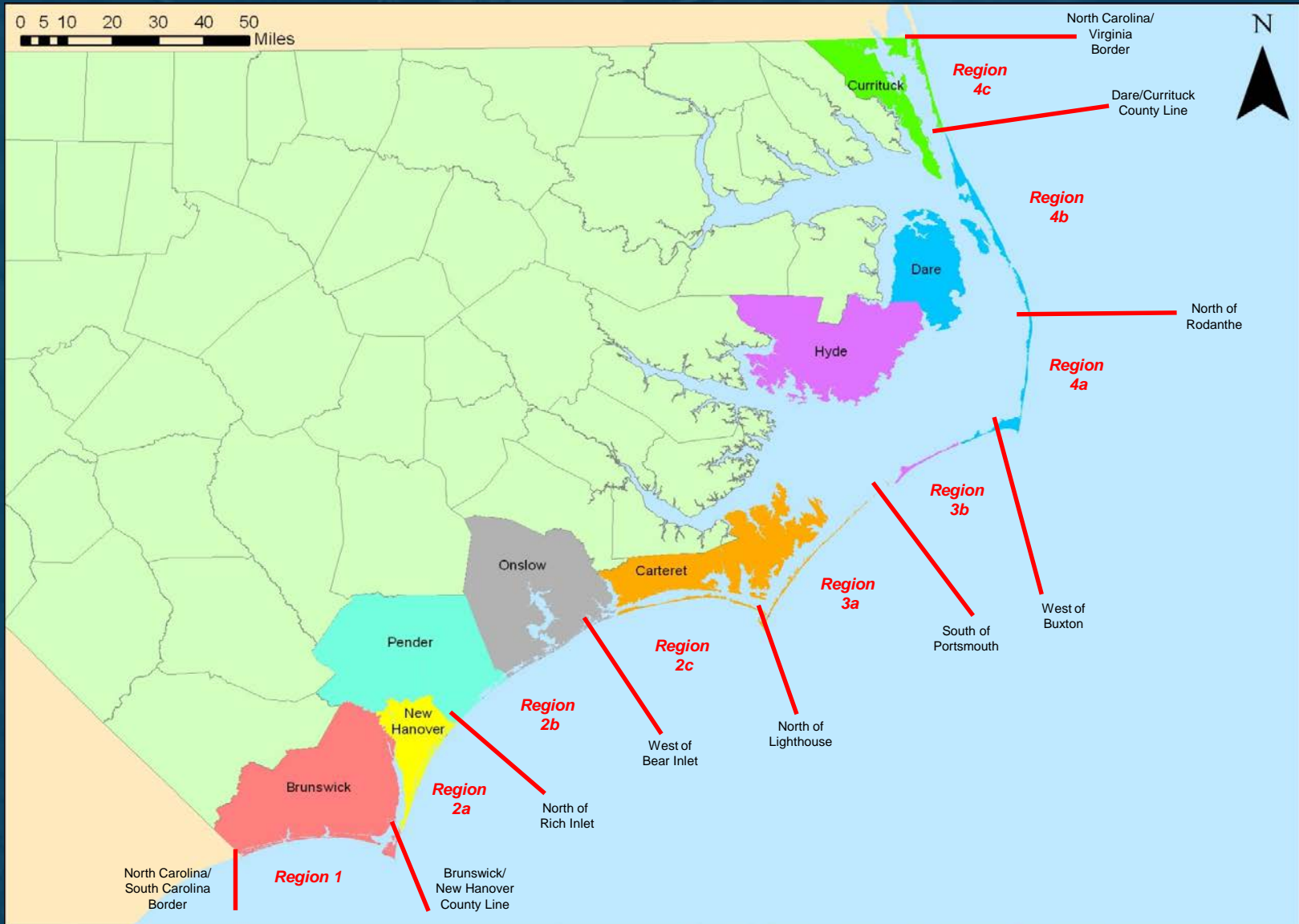
- Update Dredging/Beach Nourishment/Sediment Resource Databases
  - Collect Data from Universities, USACE, Local Municipalities
- Refine Projections and Estimate for Beach and Inlet Funding
  - Update Beach Nourishment Volume and Costs by Region and Statewide – Current and Ultimate Conditions
  - Develop a Maintenance Cycle for Beach and Inlet Projects Implementation (4-yr Cycle)

# BIMP (2016 UPDATE) – HB 97 2015

- Update Economic Benefit Analysis
  - Dr. Chris Dumas (UNCW) evaluate economic drivers/benefits
  - Deep Draft Ports Added
- Literature Review of Other States Funding Sources/Strategies
  - Dr. Nicole Elko Investigating Other State Funding Sources
- Stakeholder/ Public Input
- Final Report
  - Draft November 2016
  - Final December 2016



# BIMP REGIONS



# BIMP (2016 UPDATE) – Economic Effects Analysis

- Coastal Property At Risk
  - Properties Identified In Ocean Erodeable AEC – 90 X Setback Factor
  - Property Values Taken from NCOneMap
  - Property Ownership Also Included (County, NC, US)
- Comparison Made Between 1997 and 2011 Ocean Erodeable AEC
  - 1997 – Pre Widespread Nourishment Activities
  - 2011 – Representative of Current Nourishment Program

# BIMP (2016 UPDATE) – Economic Effects Analysis

- Coastal Property At Risk – All Oceanfront Counties – 1998 & 2012 Property Value At Risk

Owner Type	All Parcels	Total Value (\$)	% of Total Value (\$)
Coastal Resident	4,841	2,184,726,105	2.0%
NC Resident	7,250	3,552,741,030	3.2%
US Resident	7,973	5,966,919,481	5.4%
Unknown	382	20,715,488	0.0%
<b>Total</b>	<b>20,446</b>	<b>\$11,725,102,104</b>	<b>10.6%</b>

Owner Type	All Parcels	Total Value (\$)	% of Total Value (\$)
Coastal Resident	4,318	2,015,436,016	1.8%
NC Resident	6,061	3,143,148,553	2.9%
US Resident	7,626	5,945,429,993	5.4%
Unknown	344	20,335,018	0.0%
<b>Total</b>	<b>18,349</b>	<b>\$11,124,349,580</b>	<b>10.1%</b>



# BIMP (2016 UPDATE) – Economic Effects Analysis

- **Coastal Property At Risk – All Oceanfront Counties – 1998 - 2012 Property Value At Risk**

Owner Type	All Parcels	Total Value (\$)	% of Total Value (\$)
Coastal Resident	523	169,290,089	0.2%
NC Resident	1,189	409,592,477	0.4%
US Resident	347	21,489,488	0.0%
Unknown	38	380,470	0.0%
<b>Total</b>	<b>2,097</b>	<b>\$600,752,524</b>	<b>0.5%</b>



# BIMP (2016 UPDATE) – Economic Effects Analysis

- Coastal Property At Risk – Five Oceanfront Counties With Active Beach Nourishment Programs – 1998 - 2012 Property Value At Risk

Owner Type	All Parcels	Total Value (\$)	% of Total Value (\$)
Coastal Resident	554	193,348,189	0.2%
NC Resident	1,212	426,553,577	0.4%
US Resident	531	197,963,288	0.2%
Unknown	22	933,470	0.0%
<b>Total</b>	<b>2,319</b>	<b>\$818,798,524</b>	<b>0.7%</b>

# BIMP (2016 UPDATE) – Economic Effects Analysis

- Beach Recreation  
(Tourism)
  - Lodging
  - Parking
  - Gas, Rental Cars, Restaurants
  - Groceries, Shopping
  - Entertainment
  - Consumer Surplus
  - Direct and Multipliers Effects Included (County and State)



# BIMP (2016 UPDATE) – Economic Effects Analysis

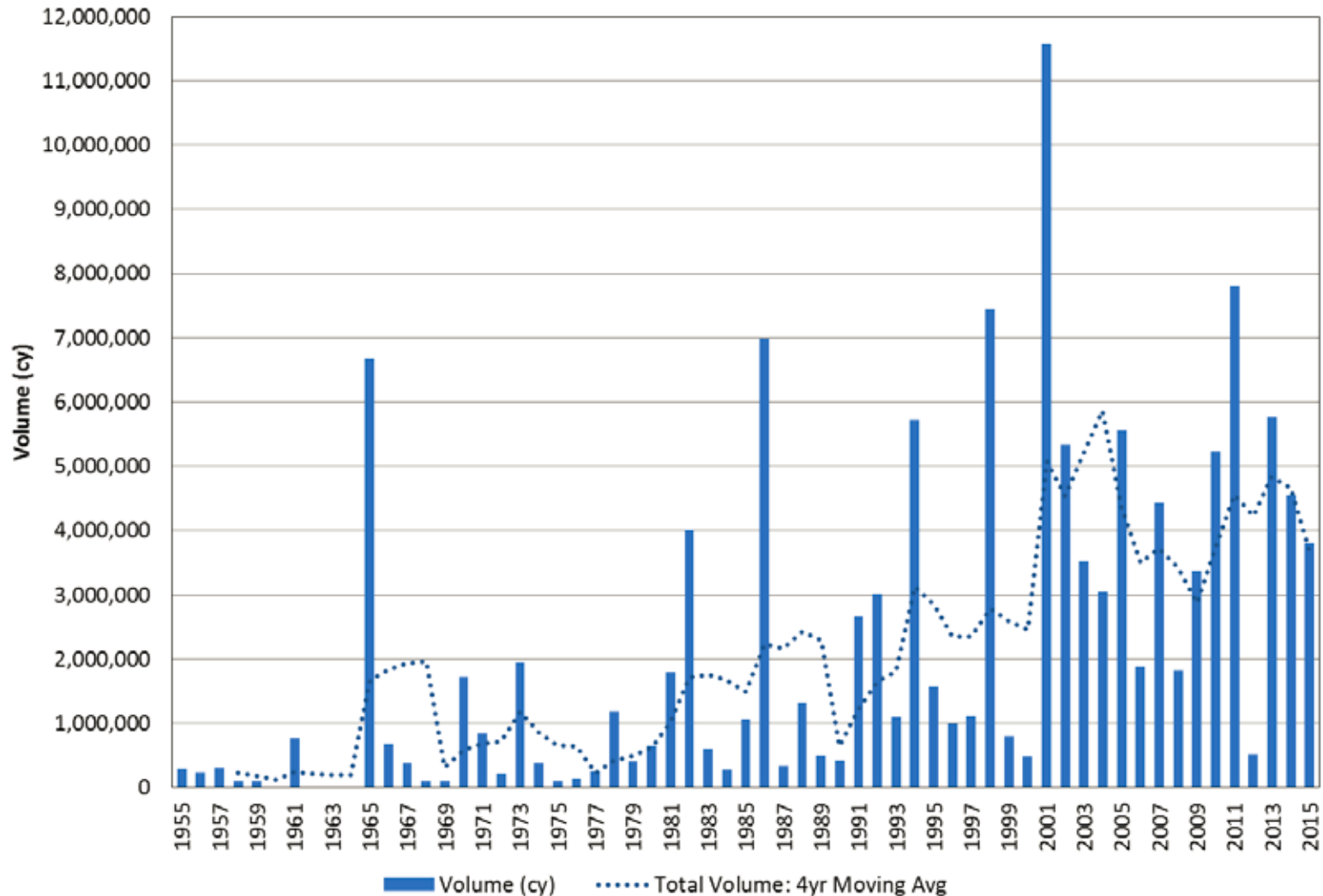
- Beach Recreation (Tourism)

Region	County	Beach Recreation: Direct Impact Expenditures (2013-2014)	Beach Recreation: Total Impact Output/Sales/Business Activity (2013-2014)	Beach Recreation: Total Impact Employment (2013-2014)	Beach Recreation: Total Local Tax Revenue (2013-2014)	Beach Recreation: Total State Tax Revenue (2013-2014)	Beach Recreation: Total Federal Tax Revenue (2013-2014)	Beach Recreation: Annual Consumer Surplus (2013-2014)
1	Brunswick	\$176,550,385	\$342,231,219	3,992	\$14,503,152	\$13,450,602	\$27,168,895	\$8,674,965
2a	New Hanover	\$207,361,596	\$465,814,306	5,539	\$17,431,052	\$16,243,823	\$36,637,640	\$29,957,391
2b	Pender	\$46,448,698	\$70,630,717	903	\$3,468,370	\$3,140,358	\$5,037,897	\$3,473,212
2b	Onslow	\$25,103,828	\$38,129,598	493	\$1,921,311	\$1,649,488	\$2,734,575	\$2,429,707
2c, 3a	Carteret	\$149,775,460	\$297,370,636	3,730	\$12,817,393	\$12,276,342	\$23,033,681	\$13,334,667
3b	Hyde	\$26,326,920	\$42,852,631	516	\$1,878,153	\$1,768,226	\$3,164,782	\$792,153
3b, 4a, 4b	Dare	\$715,788,182	\$1,509,328,075	16,942	\$52,677,495	\$52,497,776	\$122,574,325	\$21,537,405
4c	Currituck	\$314,835,916	\$569,356,701	6,528	\$23,455,662	\$23,574,367	\$43,763,166	\$9,473,122
<b>Total</b>		<b>\$1,662,190,984</b>	<b>\$3,335,713,884</b>	<b>38,642</b>	<b>\$128,152,589</b>	<b>\$124,600,983</b>	<b>\$264,114,963</b>	<b>\$89,672,622</b>
<b>Total with Statewide Effects</b>		<b>\$1,662,190,984</b>	<b>\$4,741,454,600</b>	<b>48,718</b>	<b>\$155,806,220</b>	<b>\$163,107,645</b>	<b>\$375,840,980</b>	<b>\$89,672,622</b>
<b>Difference</b>		<b>N/A</b>	<b>\$1,405,740,716</b>	<b>10,077</b>	<b>\$27,653,631</b>	<b>\$38,506,663</b>	<b>\$111,726,017</b>	<b>N/A</b>



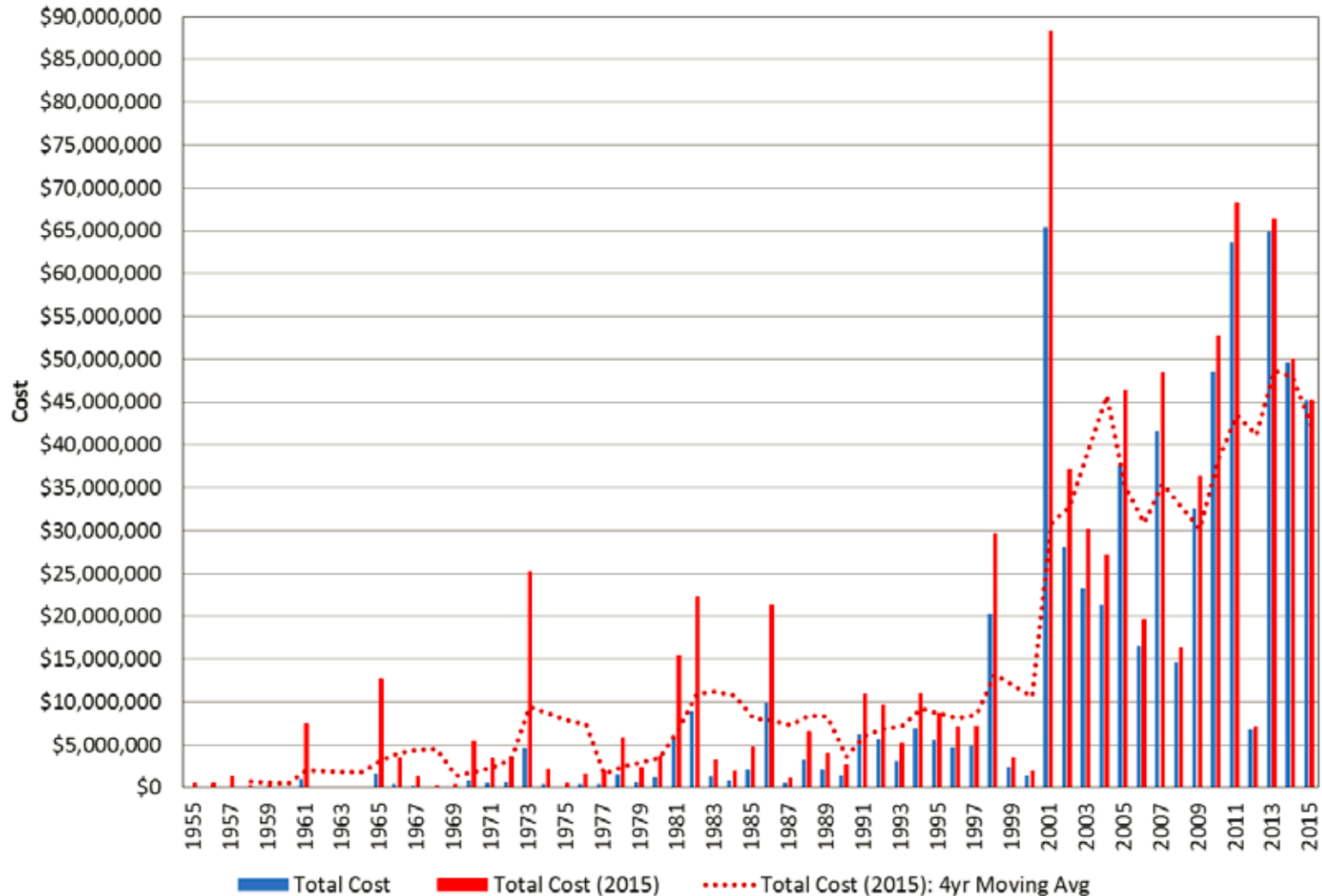
# BIMP (2016 UPDATE) – Funding Need – Beaches

## Statewide Nourishment: Total Volume Summary



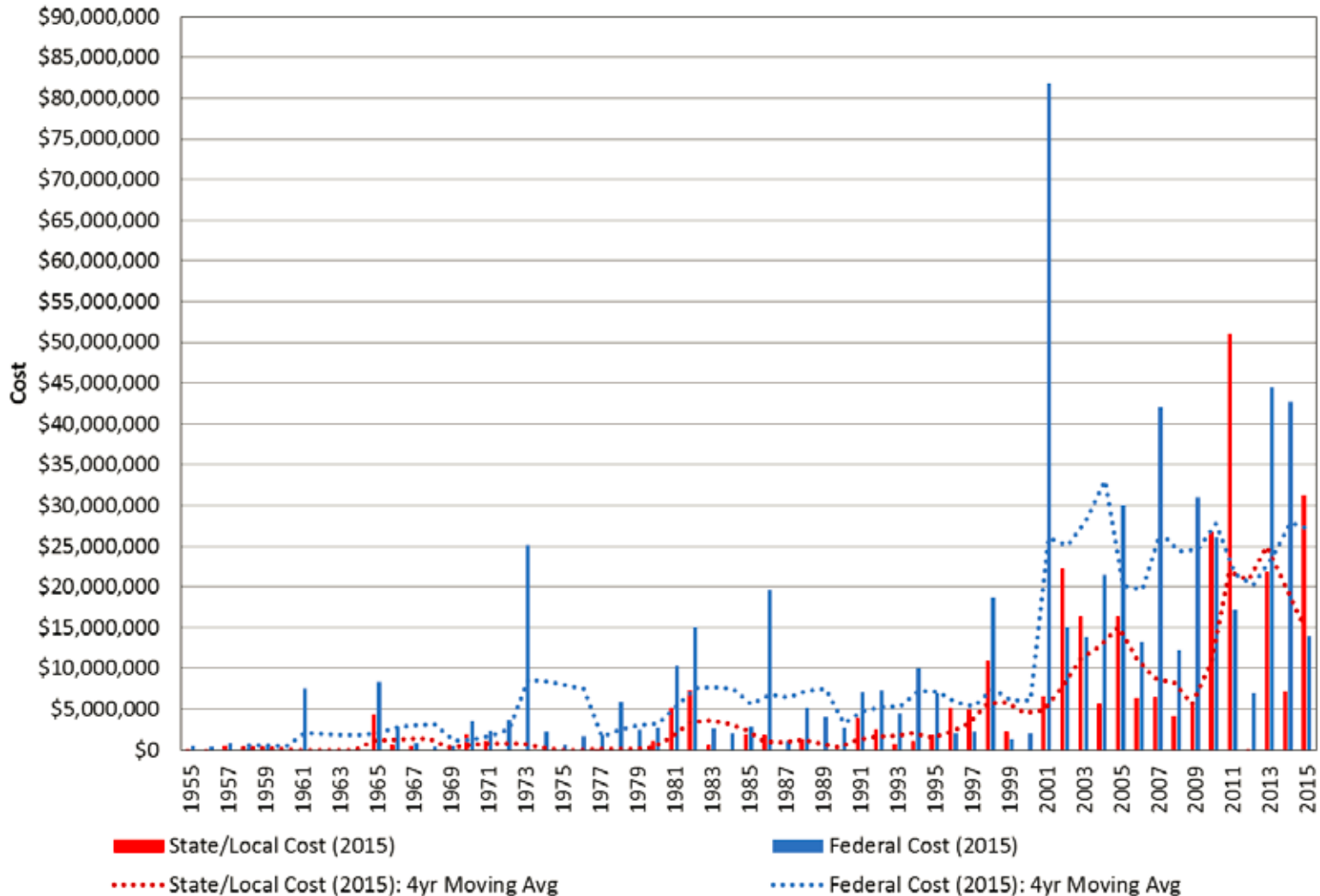
# BIMP (2016 UPDATE) – Funding Need – Beaches

## Statewide Nourishment: Total Cost Summary



# BIMP (2016 UPDATE) – Funding Need – Beaches

## Statewide Nourishment: Federal and State/Local Cost Summary





# **BIMP (2016 UPDATE) – Funding Need – Beaches**

- **Expectation Suggest the Recent Expansion of Managed Shoreline Projects will Continue.**
  - **Currently Approx. 74.8 Miles of Managed Shoreline in NC.**
  - **50/50 Split between Federal (36.8 Miles) and State/Local (38.0 Miles) Funding.**
  - **Additional Projects Expected to come On-line and Federal Funds Most Likely will Continue to Decrease.**
  - **Projects may be Expected to Cover Approx. 85.3 Miles of Shoreline with 66% (57.1 Miles) Managed by the State / Local Sponsor.**
  - **Equals Approx. 1.5% Increase in State/Locally Managed Shoreline.**
  - **Thus, State/Local Funding Need Increases from \$25M to \$40M.**

# BIMP (2016 UPDATE) – Funding Need – Beaches

- **Potential Need Statewide Fund for Beaches**
  - **\$20M - \$40M Annually Depending on Cost Share**

Cost Share		\$40 M Total		\$50 M Total		\$60 M Total	
		Construction only		Construction/ Studies/ Storm		Construction/ Studies/ Storm/ CSDR	
State	Local	State	Local	State	Local	State	Local
25%	75%	\$10 M	\$30 M	\$12.5 M	\$37.5 M	\$15 M	\$45 M
33%	67%	\$13.2 M	\$26.8 M	\$16.5 M	\$33.5 M	\$19.8 M	\$40.2 M
50%	50%	\$20 M	\$20 M	\$25 M	\$25 M	\$30 M	\$30 M
67%	33%	\$26.8 M	\$13.2 M	\$33.5 M	\$16.5 M	\$40.2 M	\$19.8 M
75%	25%	\$30 M	\$10 M	\$37.5 M	\$12.5 M	\$45 M	\$15 M

- **State Fund for Beach Nourishment - \$25M Annually as a First Target – Depending on Cost Share Could Range from \$20M - \$40M**

# BIMP (2016 UPDATE) – Funding

- Beach Preservation Funding Examples in Other States

STATE	DEDICATED?	SOURCE	% STATE COST SHARE	ANNUAL FUNDING
NJ	Yes	Real Estate transfer fee	75%	\$25 M*
FL	Yes	Real Estate transfer fee	50%	\$30 M*
DE	Yes	<u>State</u> tourist tax (1%) + general bonds	100%	\$1.5 M +
LA	Yes (wetlands + beaches)	Wetlands Trust Fund	variable	\$13-25 M
TX	No	CEPRA ( <u>state</u> sporting goods sales tax) + general fund	75%	\$5.5 M
SC	No	General Fund	variable	\$30 M <sup>#</sup>
VA	No	n/a	n/a	\$0

\*New Jersey And Florida's State Beach Advocacy Groups Are Requesting An Increase To \$50M/Yr

# One-time Allocation In 2016. State Beach Advocacy Group Requesting A Dedicated Source.



# BIMP (2016 UPDATE) – Return on Investment

- Is It Worth The Investment? – Beaches
  - Development Of A State Dedicated Beach Nourishment Fund Is Justified. Considering The Economic Impact To The Counties Outside Of The Eight Coastal Counties Alone, The Investment Of \$25 Million Provides \$1.406 Billion In Economic Impact (ROI = \$56/\$1) And Just Over 10,000 Jobs.
  - If The Eight Coastal Counties Are Included, The Economic Effect Goes To \$1.66 Billion Direct Impact (ROI = \$66.5/\$1) And \$4.74 Billion Indirect (ROI = \$189.9/\$1) With 48,718 Jobs



# BIMP (2016 UPDATE) – Return on Investment

- Is It Worth The Investment? – Infrastructure
  - Lastly, Since These Projects Should Be Viewed As Infrastructure Projects, NCDOT Spending By County Was Investigated From 2013 – 2015
  - Roughly \$1.17 Billion Had Been Spent In Wake, Mecklenburg, Guilford, And Forsyth Counties During That Time While \$778 Million Had Been Spent In The Eight Coastal Counties
  - Given That Overall NCDOT Investments Are Approximately \$1 Million/Mile Of Improvement, An Amount That Equates To 25 Miles Of Roadway Improvements Seems Reasonable





# BIMP (2016 UPDATE) – What's Next

- Next Steps
  - § 143-215.73M Created the Coastal Storm Damage Mitigation Fund in 2017. However, no funds have been allocated from the General Assembly.
  - Identify a Long-term Funding Source
  - Develop Prioritization Criteria/Decision Tree for Expenditure of These Funds