



2016

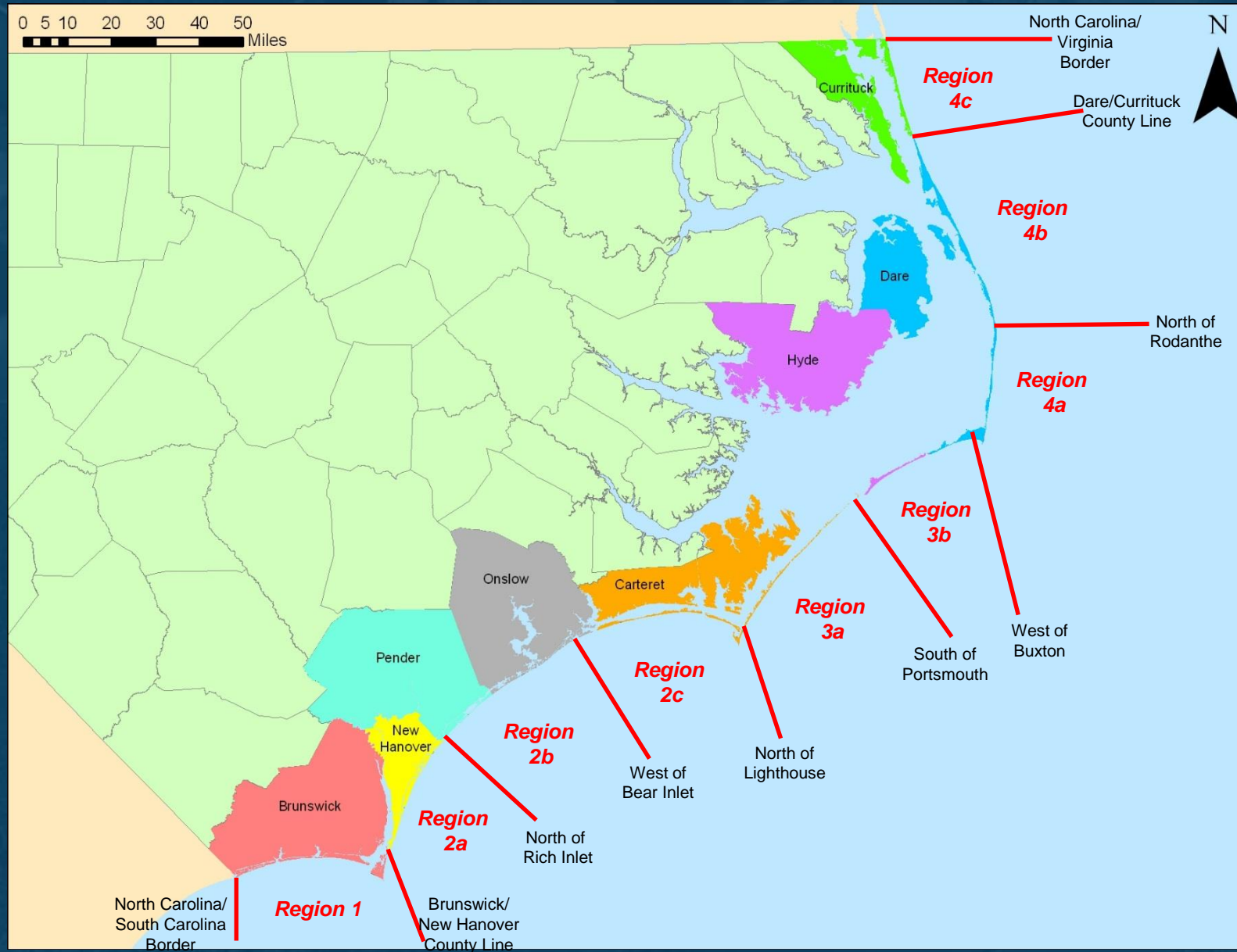


BEACH AND INLET MANAGEMENT PLAN (BIMP)

- **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 REGIONS



BIMP (2009) – Beach/ Inlet Value and Benefits

- **Creates Jobs and Economic Impacts (\$4.8B and 62,000 Jobs)**
 - Beach Tourism
 - Commercial/ Recreational Fishing
 - Marinas/ Recreational Boating
 - Etc.
- **Sustains Property Values And Reduces Vulnerability**
- **Habitat for Wildlife Resources**
- **Protects Public Infrastructure**

BIMP (2009) – Annual Expenditures to Maintain

- Total Spent Annually is \$55M to \$60M, ultimately rising to \$75M to 85M Annually
- Federal Interest potentially providing \$15M to \$30M
(Deep Draft and Long-Term authorized projects)
- State/ Local Share is \$25M to \$30M annually, rising to \$60M to \$70M annually.
- Maintaining AIWW and Inland Waterways is \$5M to \$10M
- Total State/Local Investment may grow to \$70M to \$80M

BIMP (2009) – Beach/ Inlet Value and Benefits

- Return On Investment (ROI) Is ~ \$60 For Every \$1 Spent On Beach/ Inlet Management Spent
- ROI Would Increase With Deep Draft Port Economic Benefits Added

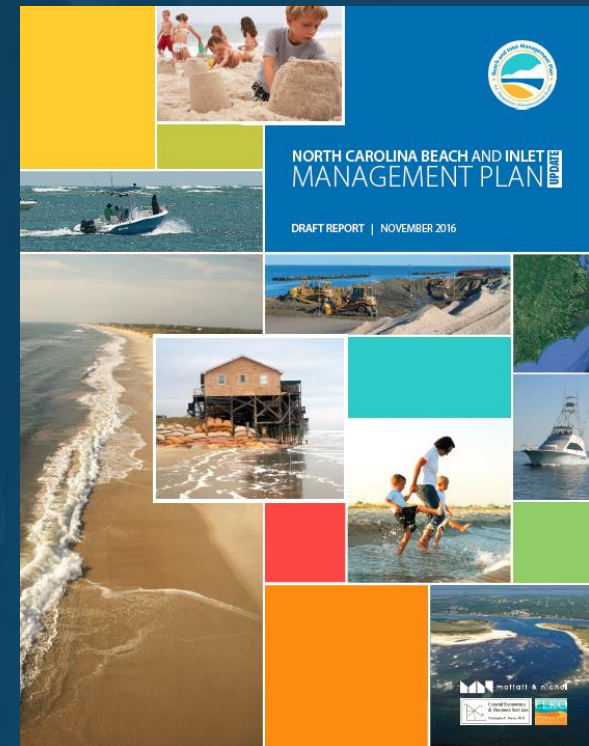


BIMP (2016 UPDATE) – HB 97 2015

- Update Dredging/Beach Nourishment/Sediment Resource Databases
 - Collect Data from Universities, USACE, Local Municipalities
- Refine Projections and Estimate for Beach and Inlet Funding
 - Update Dredge/ 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 & FEMA Engineered Beach Case Studies
 - Dr. Nicole Elko leading Other State Funding Sources
- Stakeholder/ Public Input
- Final Report
 - Draft November 2016
 - Final December 2016



BIMP (2016 UPDATE) – HB 1030 Section 14.22

- Literature Review/Executive Summary of Beach Nourishment Benefits (Economic, Storm Mitigation, Safety)
 - Focused on Existing Studies for Out-of-State Projects (Rita, Sandy)
 - DCM/DEQ lead
- Property Ownership Study
 - Electronic List of Addresses (In-County, Other NC County, Outside NC)
 - County Register of Deeds lead
- Economic Impact Study of 8 Coastal Counties
 - Travel/Tourism, Job Creation, Tax Revenues
 - Department of Commerce lead

BIMP (2016 UPDATE) – Economic Benefit Analysis

- **Analyses and Procedures Similar to 2009 – Baseline Years of 2014-2015 (Dataset Dependent)**
- **Sectors Included In Study**
 - Coastal Property At Risk
 - Beach Recreation
 - For-Hire (Charter and Head Boat) Recreational Fishing
 - Private Boat Recreational Fishing
 - Shore and Pier Fishing
 - Commercial Fishing
 - Seafood Processing and Packaging
 - Marinas
 - Marine Services (Scuba, Wind Surf Board, Paddle Board Rentals, Etc.)
 - Salt Water Boat Building
 - Deep Draft Port Activity

BIMP (2016 UPDATE) – Economic Benefit Analysis

- "Economic Impacts" Is a Measure of "Gross" Economic Effects.
Items Included In Economic Impacts Include:
 - Sales (Economic "Output"),
 - Labor Income (Includes Wages, Salaries, and Sole Proprietor/Partnership Income),
 - Capital Income (Rent, Interest, and Corporate Dividend Income),
 - Employment,
 - State and Local Government Tax Collections
- Direct Economic Impacts
 - Based on Local and State Government Agency Data and Reports, Academic Studies, and Relevant Consulting Studies.
 - Multiplier Effects Calculated Using IMPLAN Economic Input-output Modeling Software

BIMP (2016 UPDATE) – Economic Benefit Analysis

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

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Coastal Property At Risk – All Oceanfront Counties – All Value

Owner Type	All Parcels	Total Value (\$)	% of Total Value (\$)
Coastal Resident	334,608	64,513,960,749	58.5%
NC Resident	77,346	19,173,101,641	17.4%
US Resident	90,989	26,392,936,232	23.9%
Unknown	2,952	160,101,258	0.1%
Total	505,895	\$110,240,099,880	100.0%

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Coastal Property At Risk – All Oceanfront Counties – 1998 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%
Total	20,446	\$11,725,102,104	10.6%

BIMP (2016 UPDATE) – Economic Benefit Analysis

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

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%
Total	18,349	\$11,124,349,580	10.1%

BIMP (2016 UPDATE) – Economic Benefit 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%
Total	2,097	\$600,752,524	0.5%

BIMP (2016 UPDATE) – Economic Benefit 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%
Total	2,319	\$818,798,524	0.7%

BIMP (2016 UPDATE) – Economic Benefit 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 Benefit 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
Total		\$1,662,190,984	\$3,335,713,884	38,642	\$128,152,589	\$124,600,983	\$264,114,963	\$89,672,622
Total with Statewide Effects		\$1,662,190,984	\$4,741,454,600	48,718	\$155,806,220	\$163,107,645	\$375,840,980	\$89,672,622
Difference		N/A	\$1,405,740,716	10,077	\$27,653,631	\$38,506,663	\$111,726,017	N/A

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Shore and Pier Fishing

Region	County	Annual Pier/Bridge/Jetty Fishing Consumer Surplus (2013-2014)	Annual Shore/Bank Fishing Consumer Surplus (2013-2014)	Total Annual Pier/Shore Fishing Consumer Surplus (2013-2014)
Region 1	Brunswick	\$991,114	\$736,164	\$1,727,278
Region 2a	New Hanover	\$3,546,463	\$1,262,593	\$4,809,056
Region 2b	Pender	\$1,245,356	\$903,358	\$2,148,714
Region 2b	Onslow	\$754,108	\$1,771,077	\$2,525,185
Region 2c & 3a	Carteret	\$8,583,907	\$3,507,270	\$12,091,177
Region 3b	Hyde	\$0	\$81,875	\$81,875
Region 3b, 4a, 4b	Dare	\$10,953,961	\$14,395,428	\$25,349,389
Region 4c	Currituck	\$0	\$262,994	\$262,994
Total		\$26,074,909	\$22,920,759	\$48,995,668

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Marine Recreational Services (Canoe/Jetski Rentals, Ecotourism, Etc.)**

Region	County	Marine Recreational Services: Direct Impact Annual Sales (2013-2014)	Marine Recreational Services: Total Impact Output/Sales/ Business Activity (2013-2014)	Marine Recreational Services: Direct Impact Employment (2013-2014)	Marine Recreational Services: Total Impact Employment (2013-2014)	Marine Recreational Services: Total Local Tax Revenue (2013-2014)	Marine Recreational Services: Total State Tax Revenue (2013-2014)	Marine Recreational Services: Total Federal Tax Revenue (2013-2014)
1	Brunswick	\$965,017	\$2,026,972	161	168	\$79,141	\$73,473	\$148,750
2a	New Hanover	\$3,328,528	\$6,991,418	556	581	\$279,800	\$260,743	\$588,100
2b	Pender	\$1,087,866	\$2,285,012	182	190	\$81,232	\$73,550	\$117,992
2b	Onslow	Included in Pender Co. totals.						
2c, 3a	Carteret	\$1,938,733	\$4,072,218	324	339	\$165,938	\$158,888	\$298,050
3b	Hyde	Included in Dare Co. totals.						
3b, 4a, 4b	Dare	\$3,726,270	\$7,826,856	622	651	\$274,230	\$273,294	\$638,101
4c	Currituck	Included in Dare Co. totals.						
Total		\$11,046,413	\$23,202,475	1,844	1,929	\$880,340	\$839,947	\$1,790,992

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Commercial Fishing

Region	County	Commercial Fishing: Direct Impact Landings Value at Dockside (2015)	Commercial Fishing: Total Impact Output/Sales/ Business Activity (2015)	Commercial Fishing: Total Impact Employment (2015)	Commerical Fishing: Total Local Tax Revenue (2015)	Commerical Fishing: Total State Tax Revenue (2015)	Commerical Fishing: Total Federal Tax Revenue (2015)
1	Brunswick	\$2,908,338	\$3,818,922	291	\$49,497	\$44,819	\$83,190
2a	New Hanover	\$2,086,239	\$4,157,968	303	\$64,883	\$86,615	\$215,926
2b	Pender	\$1,645,650	\$2,087,987	224	\$23,703	\$32,142	\$58,461
2b	Onslow	\$5,475,273	\$7,342,059	462	\$90,820	\$122,561	\$241,061
2c, 3a	Carteret	\$18,878,984	\$30,948,572	1,141	\$454,489	\$674,400	\$1,494,921
3b	Hyde	\$9,119,176	\$14,359,864	404	\$186,196	\$279,299	\$634,555
3b, 4a, 4b	Dare	\$19,418,969	\$33,901,965	637	\$451,123	\$681,536	\$1,677,495
4c	Currituck	\$0	\$0	0	\$0	\$0	\$0
Total		\$59,532,630	\$96,617,338	3,462	\$1,320,711	\$1,921,371	\$4,405,610

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Seafood Packing and Processing

Region	County	Seafood Packing & Processing: Direct Impact Sales (2015)	Seafood Packing & Processing: Total Impact Output/Sales/ Business Activity (2015)	Seafood Packing & Processing: Direct Impact Employment (2015)	Seafood Packing & Processing: Total Impact Employment (2015)	Seafood Packing & Processing: Total Local Tax Revenue (2015)	Seafood Packing & Processing: Total State Tax Revenue (2015)	Seafood Packing & Processing: Total Federal Tax Revenue (2015)
1	Brunswick	\$8,754,780	\$12,207,659	28	60	\$113,825	\$116,174	\$278,935
2a	New Hanover	\$6,396,545	\$7,986,394	20	35	\$67,044	\$68,934	\$169,729
2b	Pender	\$5,045,670	\$6,299,762	16	28	\$51,550	\$55,711	\$133,884
2b	Onslow	\$16,787,540	\$20,960,052	53	93	\$175,090	\$181,781	\$445,449
2c, 3a	Carteret	\$57,884,182	\$72,271,191	182	321	\$591,386	\$639,122	\$1,535,929
3b	Hyde	\$28,133,484	\$36,103,348	87	156	\$289,886	\$312,759	\$787,276
3b, 4a, 4b	Dare	\$59,087,801	\$78,344,977	186	355	\$641,043	\$693,219	\$1,828,269
4c	Currituck	\$0	\$0	0	0	\$0	\$0	\$0
Total		\$182,090,002	\$234,173,385	572	1,047	\$1,929,825	\$2,067,701	\$5,179,471

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Charter/Head Boat Fishing

Region	County	Charter/Head Boat Fishing: Direct Impact Expenditures (2015)	Charter/Head Boat Fishing: Total Impact Output/Sales/ Business Activity (2015)	Charter/Head Boat Fishing: Direct Impact Employment (2015)	Charter/Head Boat Fishing: Total Impact Employment (2015)	Charter/Head Boat Fishing: Total Local Tax Revenue (2015)	Charter/Head Boat Fishing: Total State Tax Revenue (2015)	Charter/Head Boat Fishing: Total Federal Tax Revenue (2015)	Charter/Head Boat Fishing: Annual Consumer Surplus (2015)
1	Brunswick	\$6,394,213	\$9,792,965	124	196	\$269,458	\$254,069	\$506,008	\$7,059,111
2a	New Hanover	\$4,544,826	\$9,416,977	168	225	\$223,846	\$249,709	\$587,117	\$8,365,220
2b	Pender	\$535,547	\$713,856	26	31	\$20,226	\$20,591	\$34,450	\$1,033,735
2b	Onslow	\$1,778,442	\$2,379,549	66	84	\$71,332	\$68,514	\$117,184	\$2,848,193
2c, 3a	Carteret	\$6,298,731	\$10,958,324	164	249	\$287,464	\$332,110	\$665,284	\$10,856,531
3b	Hyde	\$641,940	\$917,020	14	20	\$23,458	\$25,986	\$46,354	\$1,444,972
3b, 4a, 4b	Dare	\$17,169,280	\$31,564,717	330	549	\$679,979	\$828,472	\$1,967,118	\$36,479,985
4c	Currituck	\$1,012,887	\$1,772,272	22	34	\$42,601	\$50,723	\$107,692	\$2,279,954
Total		\$38,375,865	\$67,515,681	914	1,388	\$1,618,364	\$1,830,175	\$4,031,208	\$70,367,700

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Private Recreational Boating

Region	County	Private Boating: Direct Impact Expenditures (2015)	Private Boating: Total Impact Output/Sales/ Business Activity (2015)	Private Boating: Total Impact Employment (2015)	Private Boating: Total Local Tax Revenue (2015)	Private Boating: Total State Tax Revenue (2015)	Private Boating: Total Federal Tax Revenue (2015)	Private Boating: Annual Consumer Surplus (2015)
1	Brunswick	\$8,096,145	\$15,826,696	206	\$711,394	\$676,644	\$1,347,635	\$444,417
2a	New Hanover	\$6,818,450	\$15,757,131	180	\$600,102	\$578,963	\$1,259,790	\$334,278
2b	Pender	\$636,932	\$965,397	15	\$56,510	\$50,724	\$78,837	\$31,840
2b	Onslow	\$4,531,687	\$6,866,651	107	\$411,954	\$350,110	\$560,611	\$237,817
2c, 3a	Carteret	\$16,890,990	\$34,062,716	447	\$1,538,620	\$1,515,059	\$2,724,400	\$914,525
3b	Hyde	\$2,118,716	\$3,424,742	48	\$175,915	\$163,236	\$262,891	\$138,434
3b, 4a, 4b	Dare	\$35,983,667	\$75,640,399	898	\$2,737,458	\$2,814,916	\$6,377,792	\$3,352,767
4c	Currituck	\$3,998,185	\$7,309,934	96	\$343,837	\$342,535	\$620,644	\$372,530
Total		\$79,074,771	\$159,853,665	1,997	\$6,575,790	\$6,492,187	\$13,232,600	\$5,826,607

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Boat Building

Region	County	Number of Firms	Boat Building: Direct Impact Sales (2015)	Boat Building: Total Impact Output/Sales/ Business Activity (2015)	Boat Building: Direct Impact Employment (2015)	Boat Building: Total Impact Employment (2015)	Boat Building: Total Local Tax Revenue (2015)	Boat Building: Total State Tax Revenue (2015)	Boat Building: Total Federal Tax Revenue (2015)
1	Brunswick	3	\$16,122,642	\$24,377,564	58	138	\$527,742	\$485,598	\$1,246,796
2a	New Hanover	4	\$2,779,766	\$5,172,869	10	30	\$118,123	\$107,232	\$288,281
2b	Pender	2	\$6,949,415	\$8,601,972	25	39	\$119,620	\$115,027	\$329,180
2b	Onslow	1	\$5,559,532	\$6,881,577	20	31	\$39,806	\$92,021	\$263,344
2c, 3a	Carteret	16	\$70,050,102	\$105,916,314	252	601	\$2,292,950	\$2,109,839	\$5,417,114
3b	Hyde	0	\$0	\$0	0	0	\$0	\$0	\$0
3b, 4a, 4b	Dare	11	\$108,410,872	\$174,251,830	390	960	\$3,433,372	\$3,219,478	\$9,065,317
4c	Currituck	1	\$1,389,883	\$2,233,998	5	12	\$44,018	\$41,275	\$116,222
Total		38	\$211,262,212	\$327,436,125	760	1,811	\$6,575,632	\$6,170,470	\$16,726,255

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Marinas

Region	County	Number of Marinas (2015)	Marinas: Direct Impact Sales (2015)	Marinas: Direct Impact Employment (2015)
1	Brunswick	23	\$7,659,272	173
2a	New Hanover	48	\$15,891,573	358
2b	Pender	7	\$2,308,776	52
2b	Onslow	14	\$4,580,904	103
2c, 3a	Carteret	85	\$28,140,677	634
3b	Hyde	4	\$1,154,388	26
3b, 4a, 4b	Dare	29	\$9,647,384	217
4c	Currituck	3	\$989,475	22
Total		213	\$70,372,449	1,586

BIMP (2016 UPDATE) – Economic Benefit Analysis

- Deep Draft Ports
 - If No NC Ports, Increased Transportation Costs Equal \$32.8M/yr
 - Operating Revenues Have Increased from \$32.4M (2005) to \$43M (2015)
 - Including All Jobs and Activities Associated with Ports Shows That Ports Have A Considerable Effect

Port	Sector	Direct Impact Output/ Revenues (2015)	Total Impact Output/Sales/ Business Activity (2015)	Direct Impact Employment (2015)	Total Impact Employment (2015)	Total Local Tax Revenue (2015)	Total State Tax Revenue (2015)	Total Federal Tax Revenue (2015)
Morehead	NCSPA Operations	\$11,700,000	\$19,594,575	43	121	\$170,442	\$241,971	\$839,089
Morehead	Other Operations at Port	\$41,729,747	\$69,886,894	120	400	\$607,907	\$863,025	\$2,992,732
Wilmington	NCSPA Operations	\$29,900,000	\$58,037,814	170	433	\$622,845	\$863,664	\$3,299,674
Wilmington	Other Operations at Port	\$138,751,516	\$269,325,573	798	2,019	\$2,890,323	\$4,007,847	\$15,312,201
Total		\$222,081,263	\$416,844,855	1,131	2,973	\$4,291,516	\$5,976,508	\$22,443,697

BIMP (2016 UPDATE) – Economic Benefit Analysis

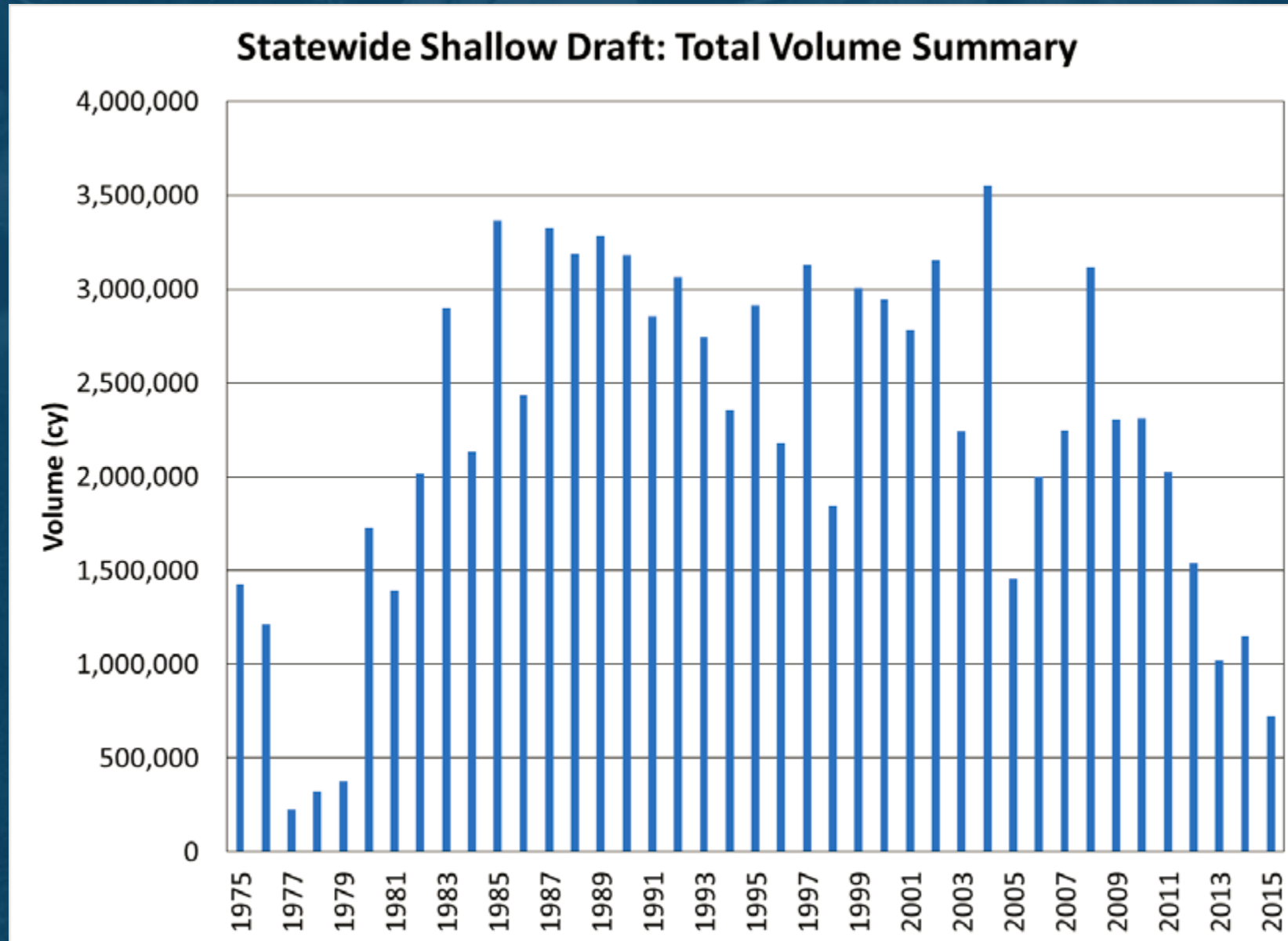
- Scenarios – 50% Reduced Beach Width and Inlet Depth (Selected Inlets)
 - 50% Reduced Beach Width
 - \$524M/yr in Tourism, 6,074 Jobs and \$15.3M/yr in Lost Consumer Surplus
 - 50% Reduced Inlet Depth (Selected Inlets – Ocracoke, Barden, Bogue, North Topsail, Carolina Beach, and Lockwoods Folly)
 - Tens of Millions/yr and Hundreds of Jobs Lost in These Six Inlets Alone

BIMP (2016 UPDATE) – Economic Benefit Analysis

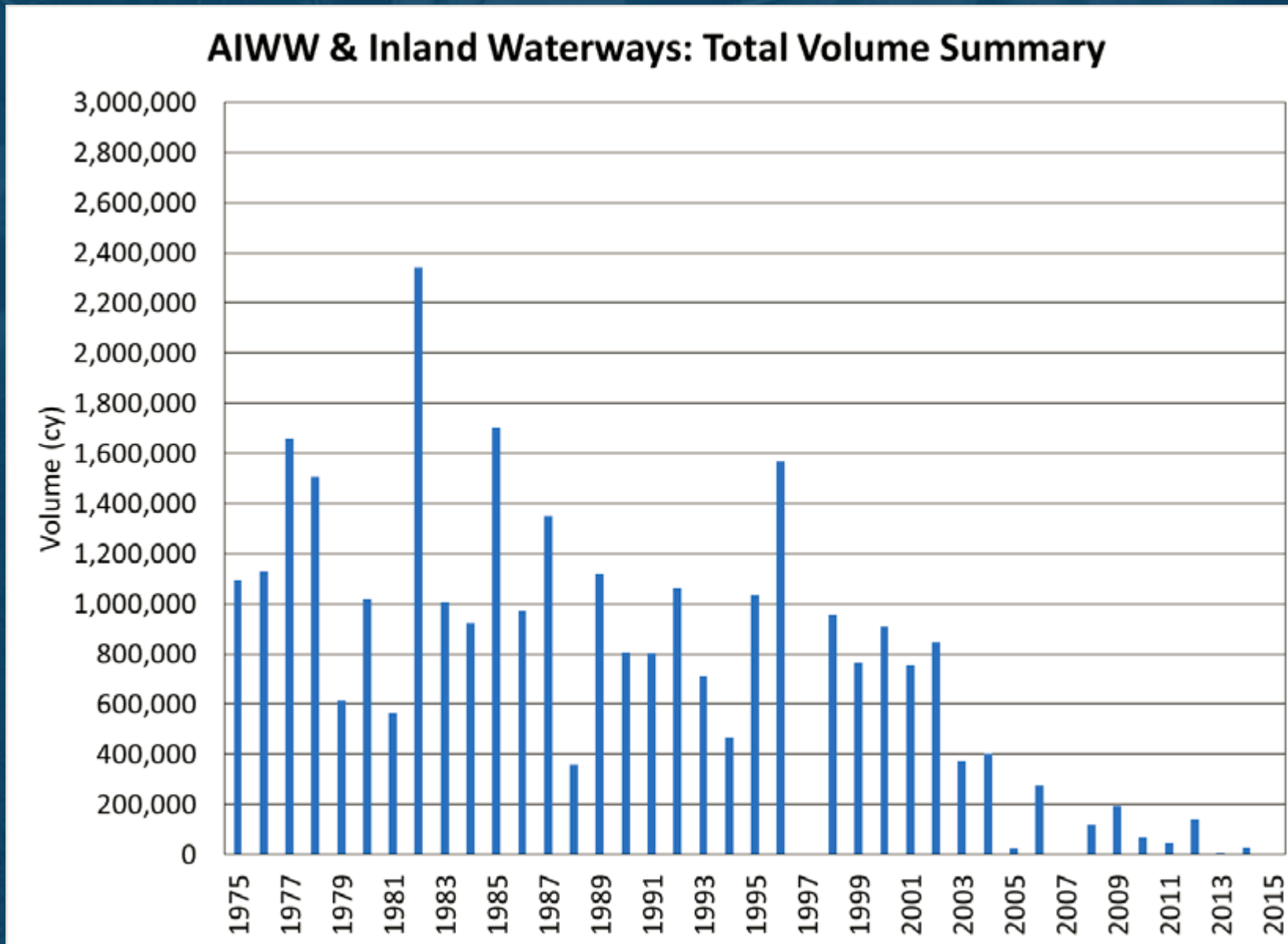
- Summary

Sector	Direct Impact Expenditures	Total Impact Output/Sales/ Business Activity	Total Impact Employment	Total Local Tax Revenue	Total State Tax Revenue	Total Federal Tax Revenue	Annual Consumer Surplus
Beach Recreation (2013-2014)	\$1,662,190,984	\$4,741,454,600	48,718	\$155,806,220	\$163,107,645	\$375,840,980	\$89,672,622
Shore and Pier Fishing (2013-2014)	-	-	-	-	-	-	\$48,995,668
Marine Recreational Services (2013-2014)	\$11,046,413	\$23,202,475	1,929	\$880,340	\$839,947	\$1,790,992	-
Commercial Fishing (2015)	\$59,532,630	\$96,617,338	3,462	\$1,320,711	\$1,921,371	\$4,405,610	-
Seafood Packing and Processing (2015)	\$182,090,002	\$234,173,385	1,047	\$1,929,825	\$2,067,701	\$5,179,471	-
Charter/Head Boat Fishing (2015)	\$38,375,865	\$67,515,681	1,388	\$1,618,364	\$1,830,175	\$4,031,208	\$70,367,700
Recreational Boating/Fishing (2015)	\$79,074,771	\$159,853,665	1,997	\$6,575,790	\$6,492,187	\$13,232,600	\$5,826,607
Boat Building (2015)	\$211,262,212	\$327,436,125	1,811	\$6,575,632	\$6,170,470	\$16,726,255	-
Marinas (2015)	\$70,372,449	-	1,586	-	-	-	-
Deep Draft Port Activity (2015)	\$222,081,263	\$416,844,855	2,973	\$4,291,516	\$5,976,508	\$22,443,697	-
NC TOTALS	\$2,536,026,589	\$6,067,098,124	64,911	\$178,998,398	\$188,406,004	\$443,650,812	\$214,862,598

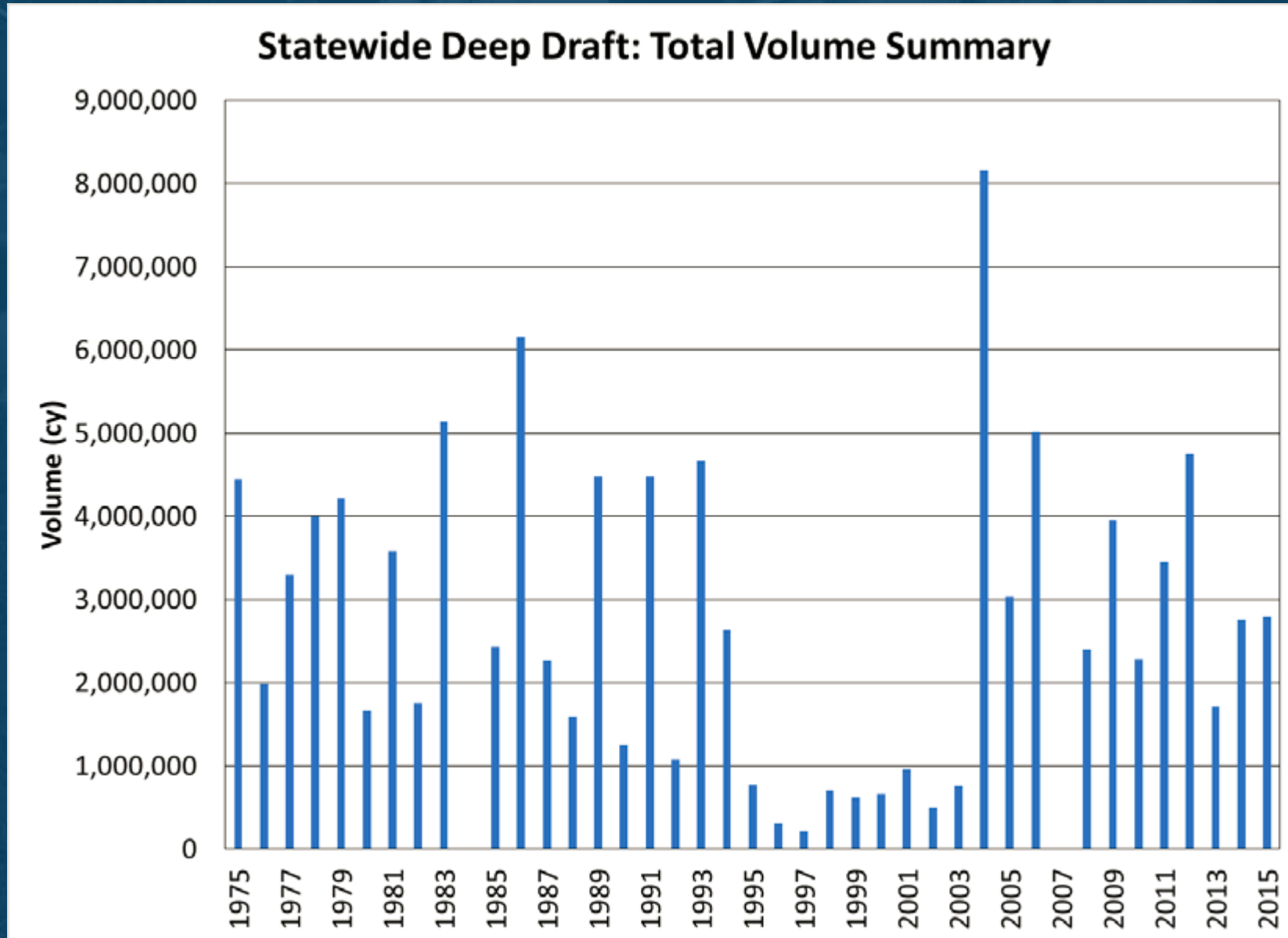
BIMP (2016 UPDATE) – Funding Need – Dredging



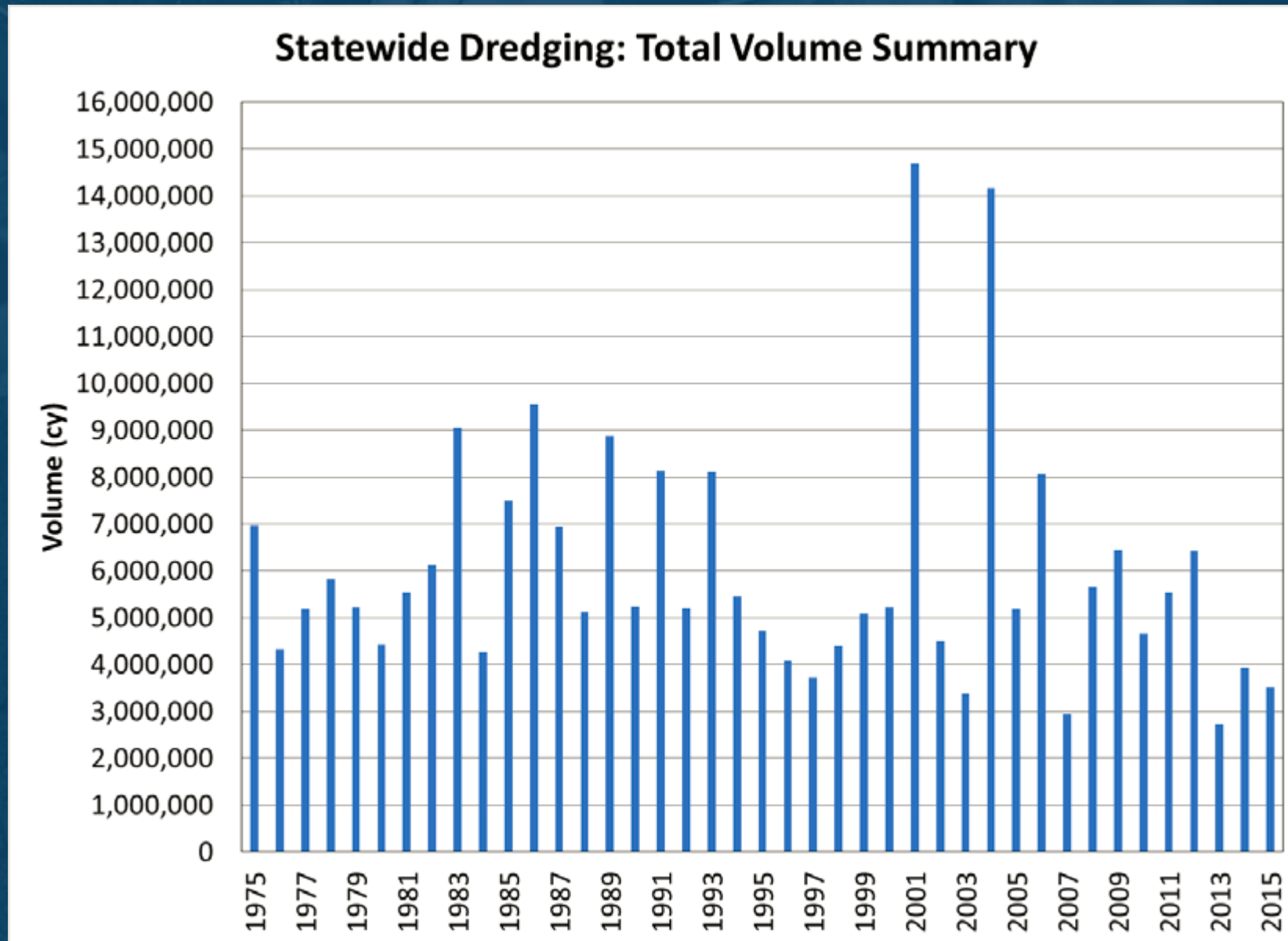
BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging

Table IV-1: Summary of Statewide Dredging Volumes (1975-2015)

Location	Shallow (cy)	Deep (cy)	Total (cy)	Average Volume (CY/YR)
Region 1	7,832,507	86,703,332	94,535,839	2,305,752
Region 2a	7,393,055	-	7,393,055	180,318
Region 2b	14,380,414	-	14,380,414	350,742
Region 2c	6,645,789	38,541,862	45,187,651	1,102,138
Region 3a	863,949	-	863,949	21,072
Region 3b	8,135,110	-	8,135,110	198,417
Region 4a	278,527	-	278,527	6,793
Region 4b	45,629,291	-	45,629,291	1,112,910
AIWW & Inland Waterways	29,748,396	-	29,748,396	725,571
StatewideTotal	120,907,038	125,245,194	246,152,232	6,003,713
Statewide Average	2,948,952	3,054,761	6,003,713	N/A

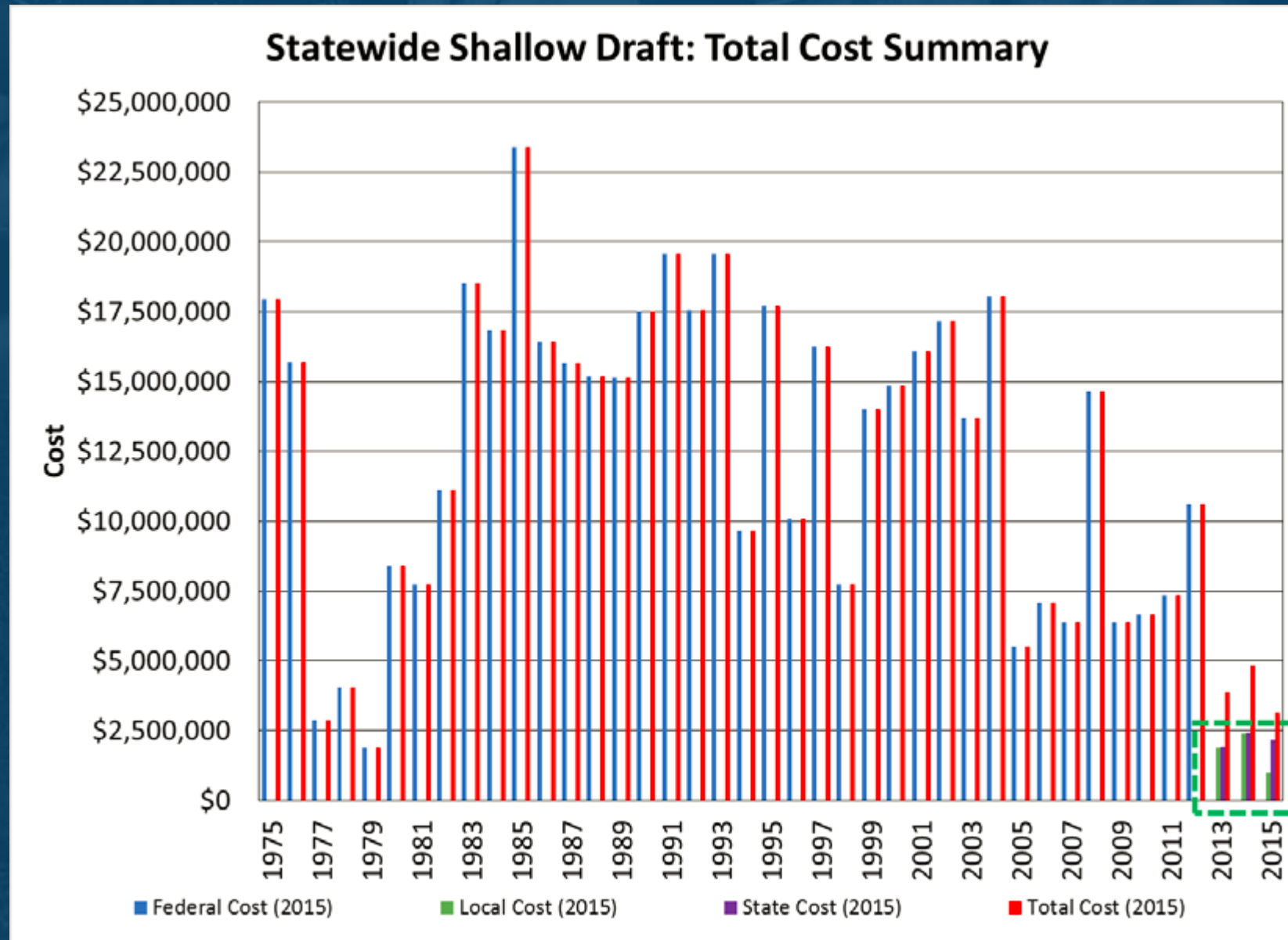
Table IV-3: Summary of Statewide Dredging Volumes (2010-2015)

Location	Shallow (cy)	Deep (cy)	Total (cy)	Average Volume (CY/YR)
Region 1	597,025	15,800,902	16,397,927	2,732,988
Region 2a	732,305	-	732,305	122,051
Region 2b	1,114,350	-	1,114,350	185,725
Region 2c	656,734	1,985,434	2,622,168	437,028
Region 3a	-	-	-	-
Region 3b	1,935,443	-	1,935,443	322,574
Region 4a	143,650	-	143,650	23,942
Region 4b	3,580,760	-	3,580,760	596,793
AIWW & Inland Waterways	289,767	-	289,767	48,295
StatewideTotal	9,050,034	17,766,336	26,816,370	4,469,395
Statewide Average	1,508,339	2,961,056	4,469,395	N/A

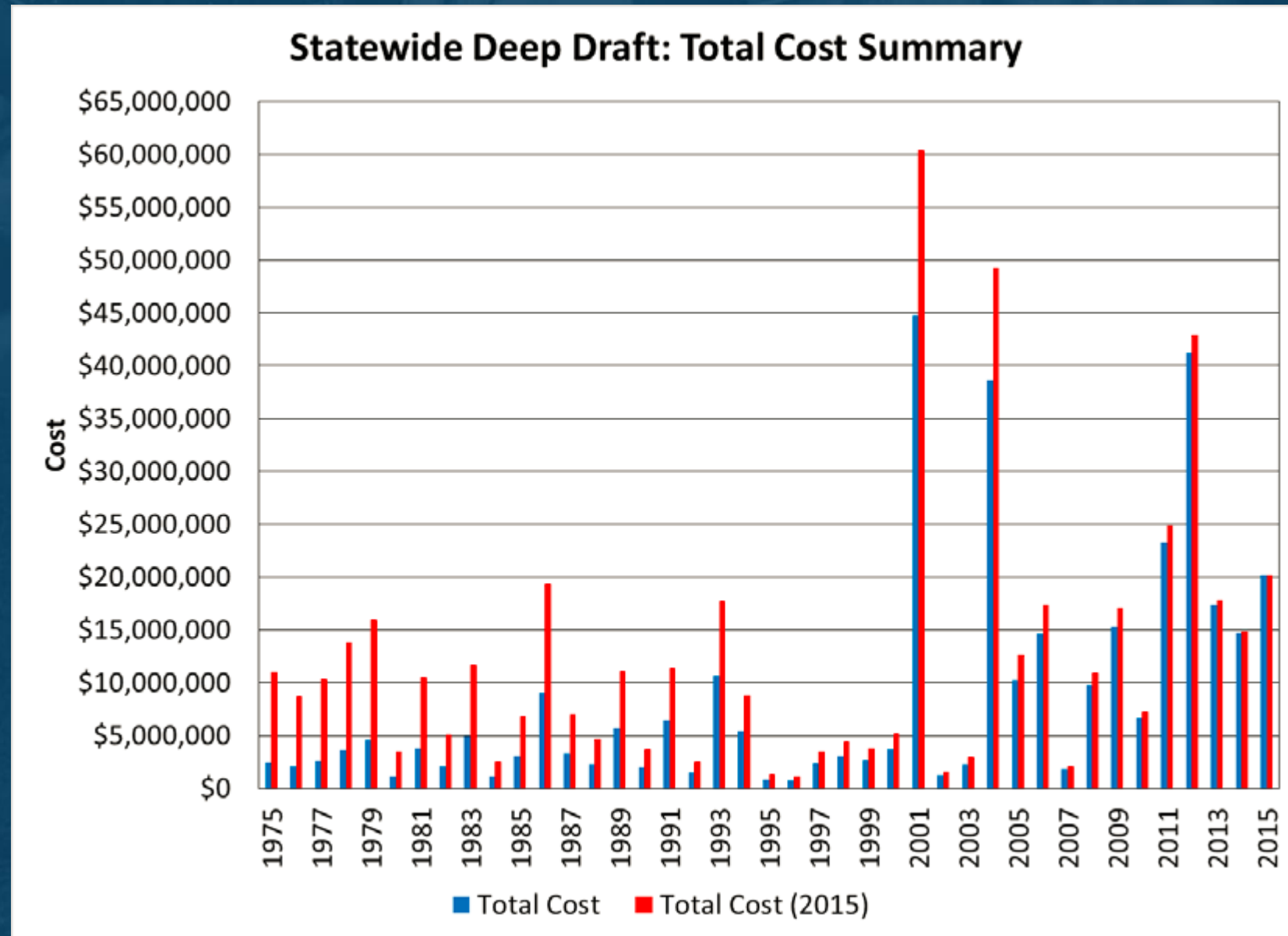
Table IV-2: Summary of Statewide Dredging Volumes (2005-2015)

Location	Shallow (cy)	Deep (cy)	Total (cy)	Average Volume (CY/YR)
Region 1	2,124,170	28,641,073	30,765,243	2,796,840
Region 2a	1,893,565	-	1,893,565	172,142
Region 2b	3,849,533	-	3,849,533	349,958
Region 2c	1,344,686	5,679,426	7,024,112	638,556
Region 3a	-	-	-	-
Region 3b	3,248,554	-	3,248,554	295,323
Region 4a	151,650	-	151,650	13,786
Region 4b	7,277,712	-	7,277,712	661,610
AIWW & Inland Waterways	904,155	-	904,155	82,196
StatewideTotal	20,794,025	34,320,499	55,114,524	5,010,411
Statewide Average	1,890,366	3,120,045	5,010,411	N/A

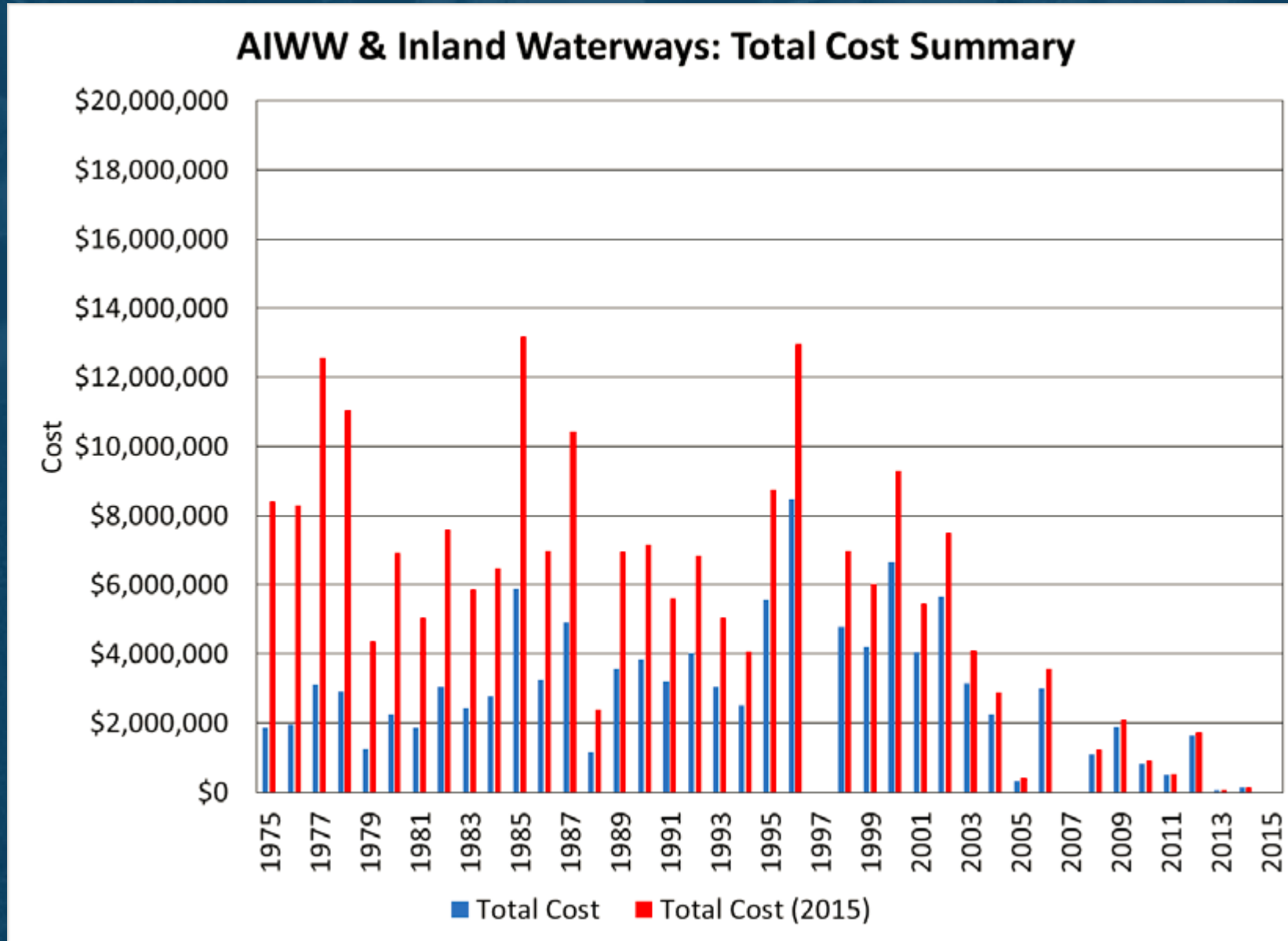
BIMP (2016 UPDATE) – Funding Need – Dredging



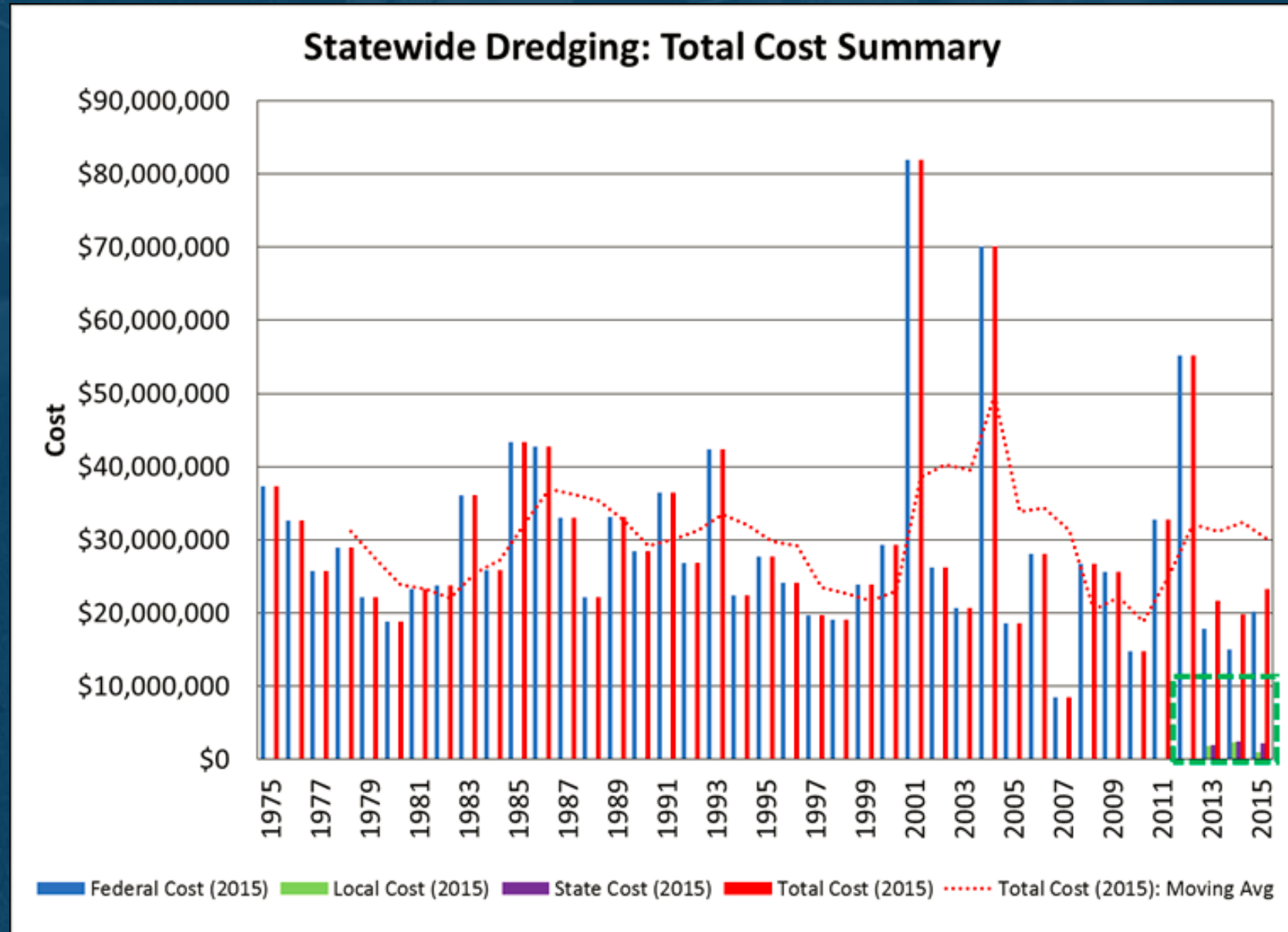
BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging



BIMP (2016 UPDATE) – Funding Need – Dredging

Table IV-4: Dredging Costs - Statewide (1975-2015)

Location	Shallow			Deep	Total	Average Cost
	Federal	State	Local	(2015 \$)	(2015 \$)	(2015 \$/ yr)
	(2015 \$)					
Region 1	\$ 38,191,224	\$ 514,440	\$ 454,090	\$ 338,524,877	\$ 377,684,630	\$ 9,211,820
Region 2a	\$ 29,343,028	\$ 571,418	\$ 489,818	-	\$ 30,404,263	\$ 741,567
Region 2b	\$ 56,692,490	\$ 811,343	\$ 545,395	-	\$ 58,049,229	\$ 1,415,835
Region 2c	\$ 29,739,641	\$ 200,384	\$ 200,384	\$ 168,980,388	\$ 199,120,796	\$ 4,856,605
Region 3a	\$ 4,873,704	-	-	-	\$ 4,873,704	\$ 118,871
Region 3b	\$ 45,124,573	\$ 1,949,541	\$1,634,291	-	\$ 48,708,406	\$ 1,188,010
Region 4a	\$ 2,547,286	\$ 147,935	\$ 147,935	-	\$ 2,843,157	\$ 69,345
Region 4b	\$ 278,365,020	\$ 2,314,018	\$1,868,023	-	\$ 282,547,062	\$ 6,891,392
AIWW & Inland Waterways	\$ 219,790,621	-	-	-	\$ 219,790,621	\$ 5,360,747
Statewide Total	\$ 704,667,587	\$ 6,509,079	\$5,339,936	\$ 507,505,265	\$1,224,024,866	\$ 29,854,192
Statewide Average	\$ 17,187,014	\$ 158,758	\$ 130,242	\$ 12,378,177	\$ 29,854,192	N/A

Table IV-5: Dredging Costs - Statewide (2005-2015)

Location	Shallow			Deep	Total	Average Cost
	Federal	State	Local	(2015 \$)	(2015 \$)	(2015 \$/ yr)
	(2015 \$)					
Region 1	\$ 4,889,139	\$ 514,440	\$ 454,090	\$ 153,045,008	\$ 158,902,677	\$ 14,445,698
Region 2a	\$ 4,673,967	\$ 571,418	\$ 489,818	-	\$ 5,735,202	\$ 521,382
Region 2b	\$ 9,685,578	\$ 811,343	\$ 545,395	-	\$ 11,042,316	\$ 1,003,847
Region 2c	\$ 4,391,679	\$ 200,384	\$ 200,384	\$ 34,909,439	\$ 39,701,885	\$ 3,609,262
Region 3a	-	-	-	-	-	-
Region 3b	\$ 15,270,320	\$ 1,949,541	\$1,634,291	-	\$ 18,854,152	\$ 1,714,014
Region 4a	\$ 163,685	\$ 147,935	\$ 147,935	-	\$ 459,555	\$ 41,778
Region 4b	\$ 25,504,507	\$ 2,314,018	\$1,868,023	-	\$ 29,686,548	\$ 2,698,777
AIWW & Inland Waterways	\$ 10,670,284	-	-	-	\$ 10,670,284	\$ 970,026
StatewideTotal	\$ 75,249,159	\$ 6,509,079	\$5,339,936	\$ 187,954,447	\$ 275,052,620	\$ 25,004,784
Statewide Average	\$ 6,840,833	\$ 591,734	\$ 485,449	\$ 17,086,768	\$ 25,004,784	N/A

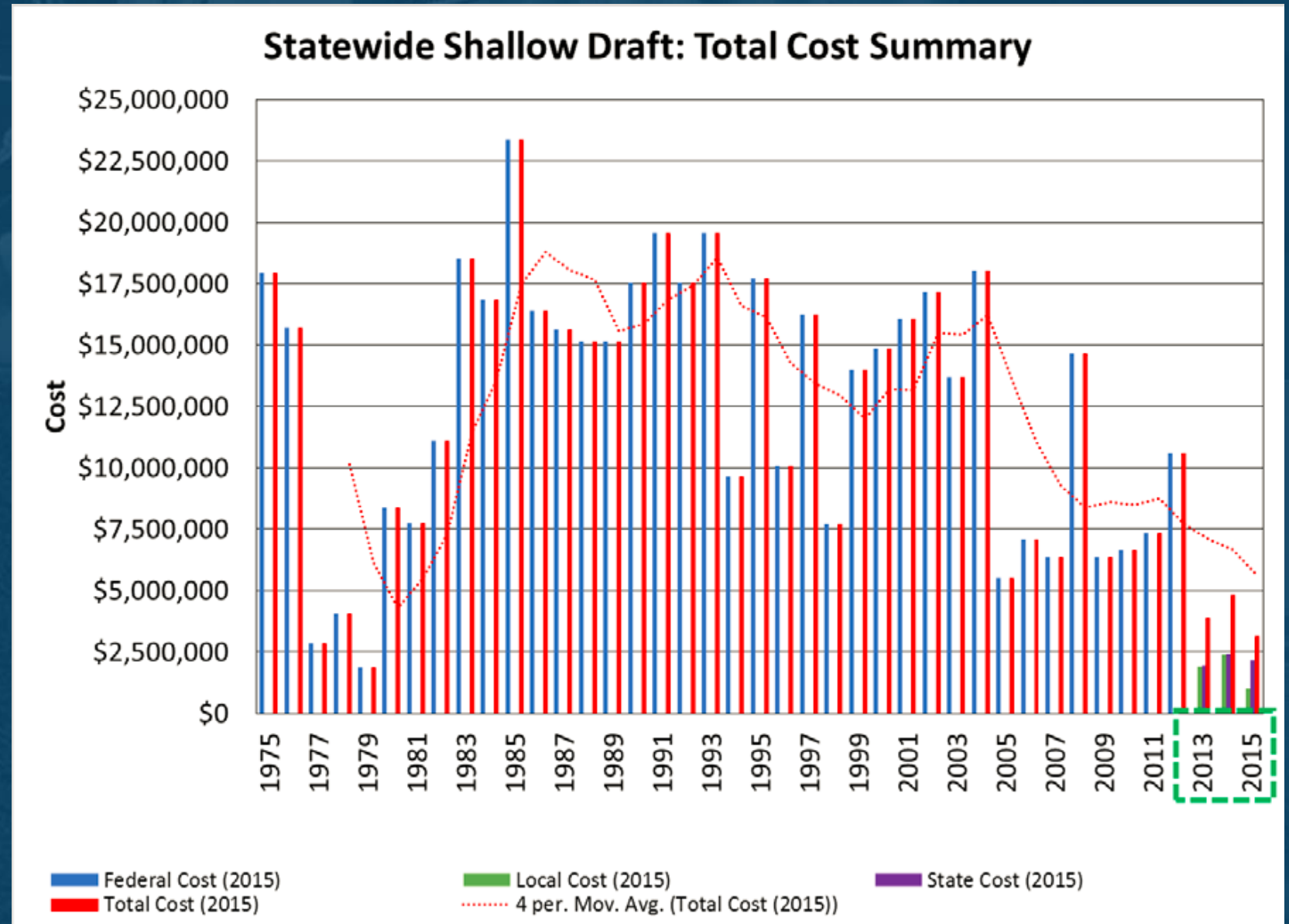
BIMP (2016 UPDATE) – Funding Need – Dredging

Table IV-6: Dredging Costs - Statewide (2010-2015)

Location	Shallow			Deep	Total	Average Cost
	Federal	State	Local	(2015 \$)	(2015 \$)	(2015 \$/ yr)
	(2015 \$)					
Region 1	\$ 996,018	\$ 514,440	\$ 454,090	\$ 103,146,635	\$ 105,111,183	\$ 17,518,530
Region 2a	\$ 1,473,364	\$ 571,418	\$ 489,818	-	\$ 2,534,599	\$ 422,433
Region 2b	\$ 2,075,660	\$ 811,343	\$ 545,395	-	\$ 3,432,398	\$ 572,066
Region 2c	\$ 1,643,355	\$ 200,384	\$ 200,384	\$ 24,683,145	\$ 26,727,267	\$ 4,454,545
Region 3a	-	-	-	-	-	-
Region 3b	\$ 5,594,282	\$ 1,949,541	\$ 1,634,291	-	\$ 9,178,115	\$ 1,529,686
Region 4a	\$ 139,273	\$ 147,935	\$ 147,935	-	\$ 435,144	\$ 72,524
Region 4b	\$ 12,678,053	\$ 2,314,018	\$ 1,868,023	-	\$ 16,860,094	\$ 2,810,016
AIWW & Inland Waterways	\$ 3,384,839	-	-	-	\$ 3,384,839	\$ 564,140
Statewide Total	\$ 27,984,845	\$ 6,509,079	\$ 5,339,936	\$ 127,829,780	\$ 167,663,639	\$ 27,943,940
Statewide Average	\$ 4,664,141	\$ 1,084,846	\$ 889,989	\$ 21,304,963	\$ 27,943,940	N/A

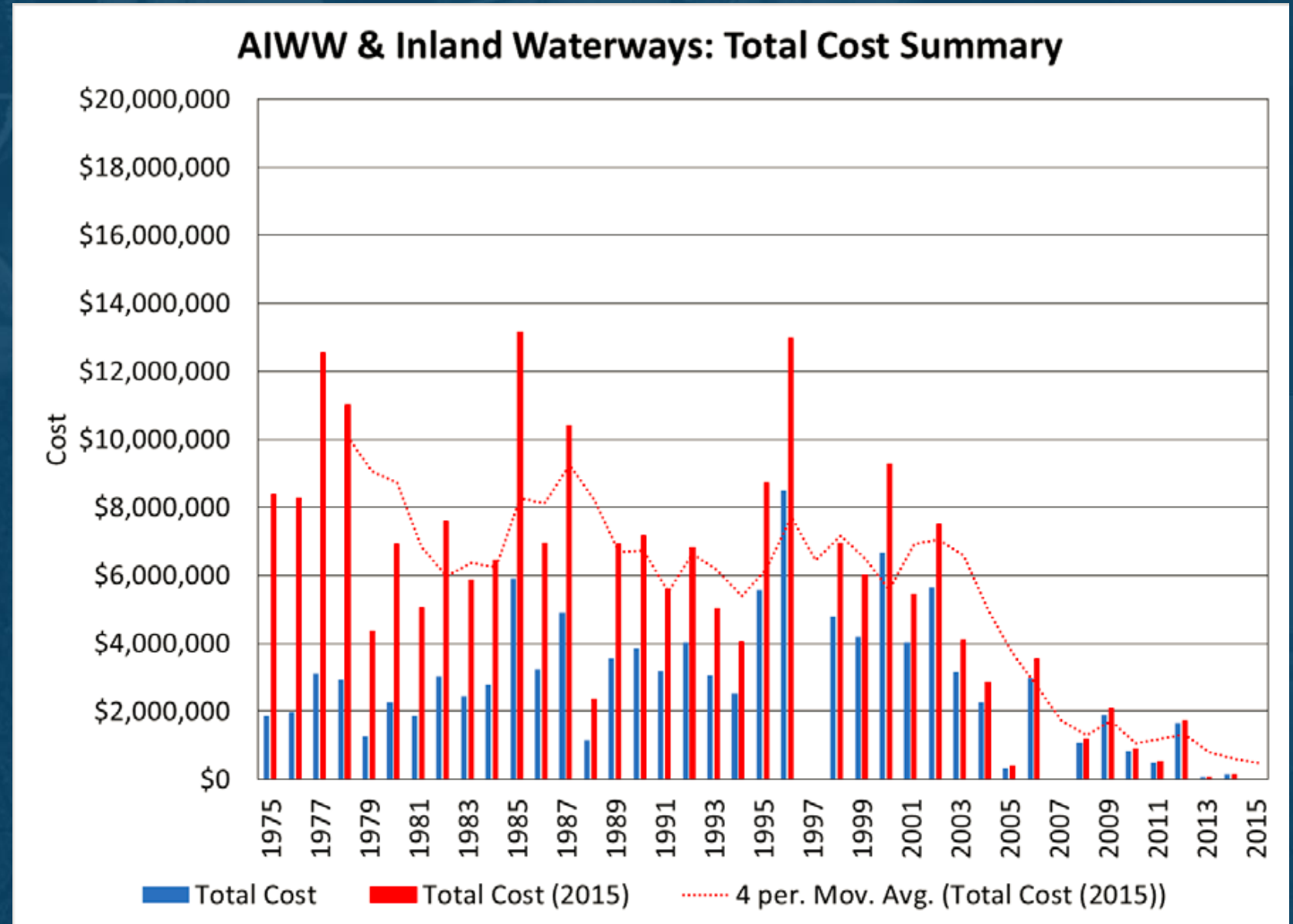
BIMP (2016 UPDATE) – Funding Need – Dredging

- Shallow Draft
– \$16.25M/yr



BIMP (2016 UPDATE) – Funding Need – Dredging

- AIWW/Inland
 - \$7M/yr
- Total Shallow Draft
 - \$23.25M/yr



BIMP (2016 UPDATE) – Funding Need – Dredging

- Deep Draft Funding Need
 - NC Ports Are Losing Ground Nationally to Other Ports Based on Tonnage
 - Funding Is Strained
 - NCGA Set Up Fund But No Appropriation to Date

“We Can’t Wait” Ports Compared to North Carolina Ports

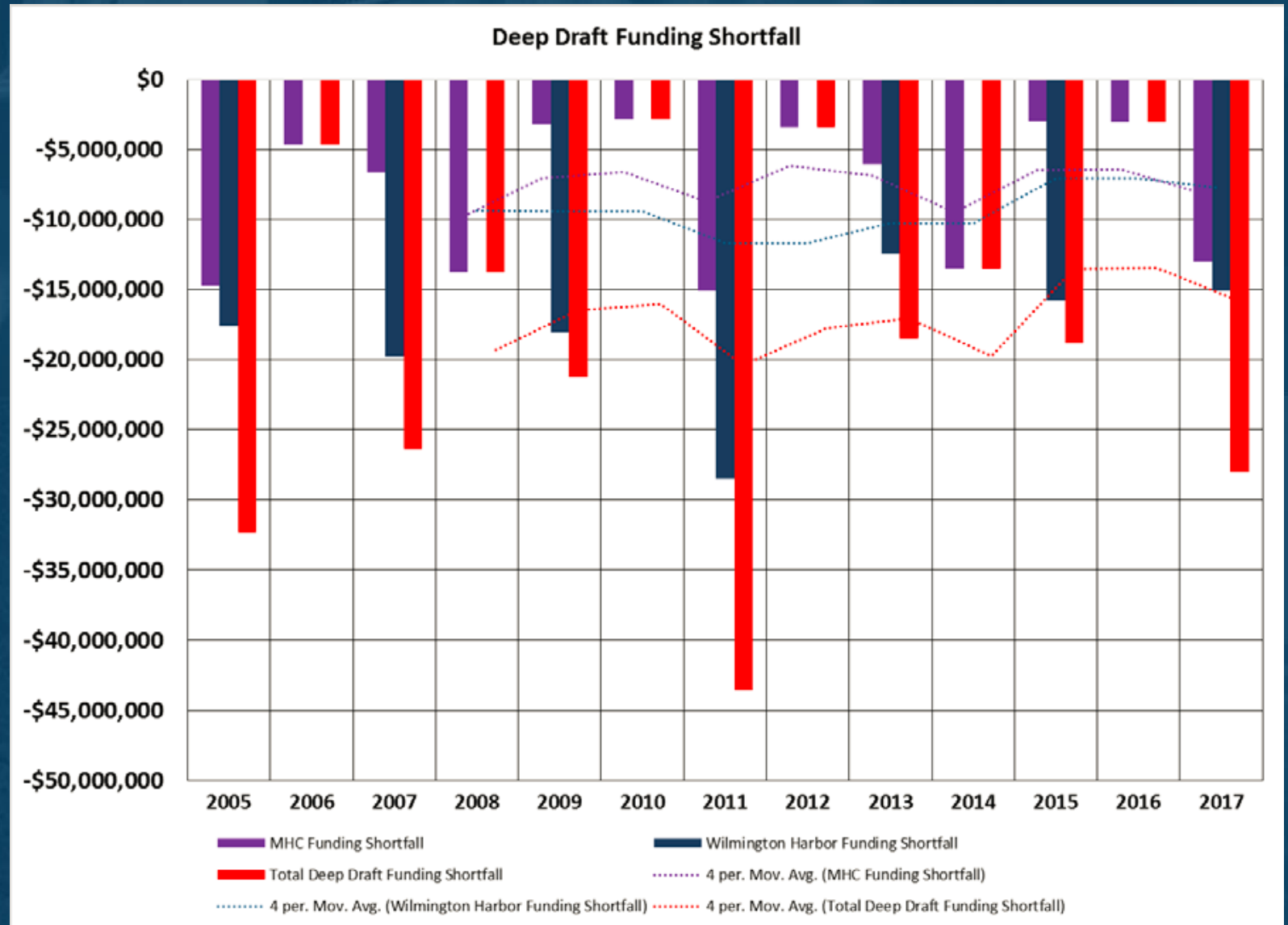
	Norfolk		Savannah		Charleston		Jacksonville		Miami		Wilmington		Morehead City	
Year	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)	Rank #	Total Cargo Volume in Short Tons (Domestic and Foreign)
2010	15	41,569,373	19	34,681,656	39	17,985,995	34	19,117,823	62	6,959,725	60	7,428,160	81	3,497,666
2011	15	47,352,771	19	35,459,297	37	17,916,618	39	16,827,591	62	7,177,761	63	6,972,535	82	3,569,512
2012	15	46,219,206	20	37,132,066	33	19,105,017	39	15,415,144	62	6,993,927	64	6,718,650	86	3,248,655
2013	14	48,893,636	23	31,990,023	35	18,525,276	38	16,471,608	63	7,125,341	65	6,778,483	88	3,425,689
2014	14	47,999,943	22	34,359,148	33	19,847,051	38	17,300,602	65	7,142,109	77	5,887,971	100	2,623,640



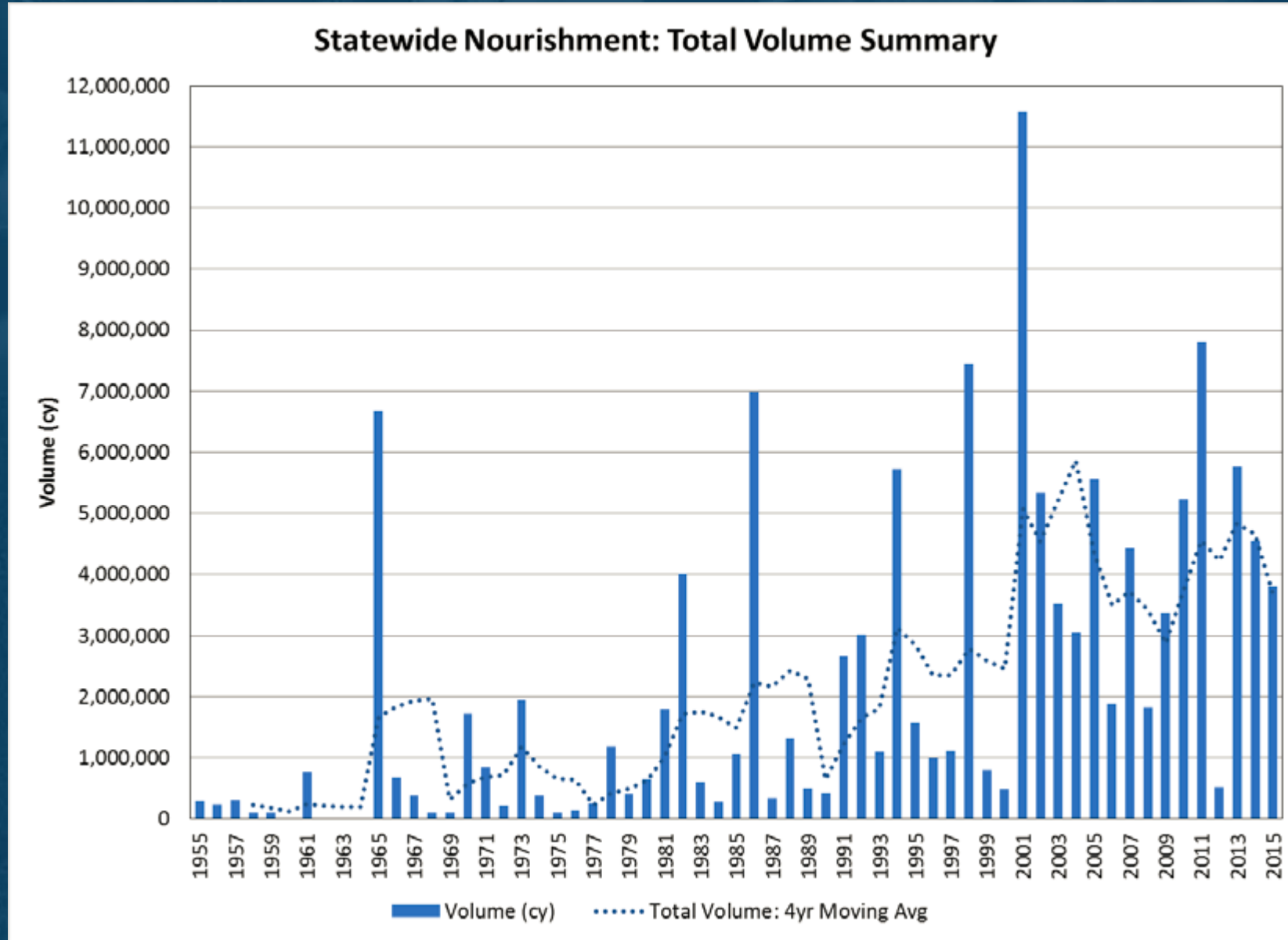
BUILDING STRONG®

BIMP (2016 UPDATE) – Funding Need – Dredging

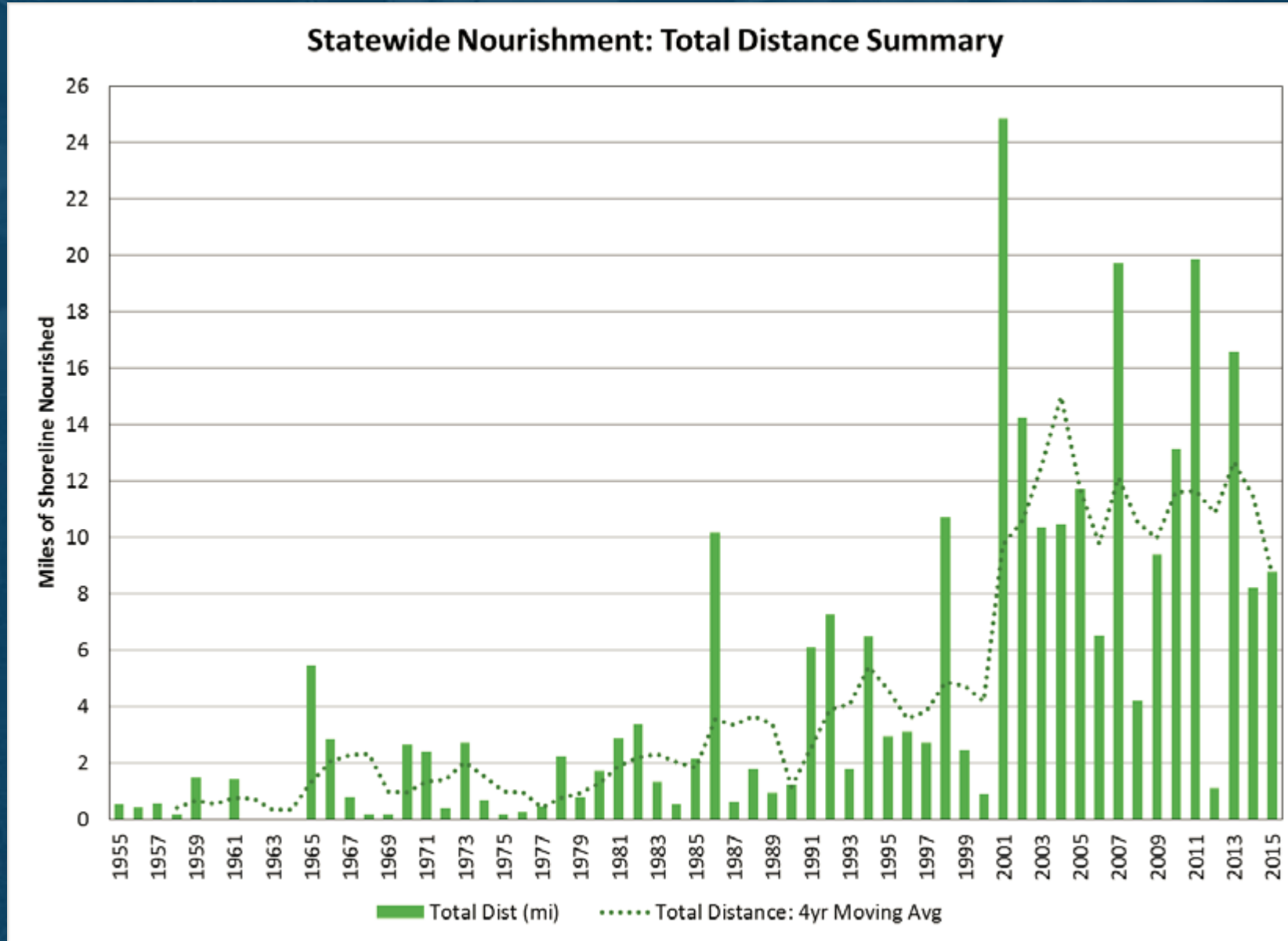
- Deep Draft Funding Need
 - \$17.5M Average Annual Shortfall
 - \$10M/yr to Wilmington Harbor
 - \$7.5M/yr to Morehead City Harbor



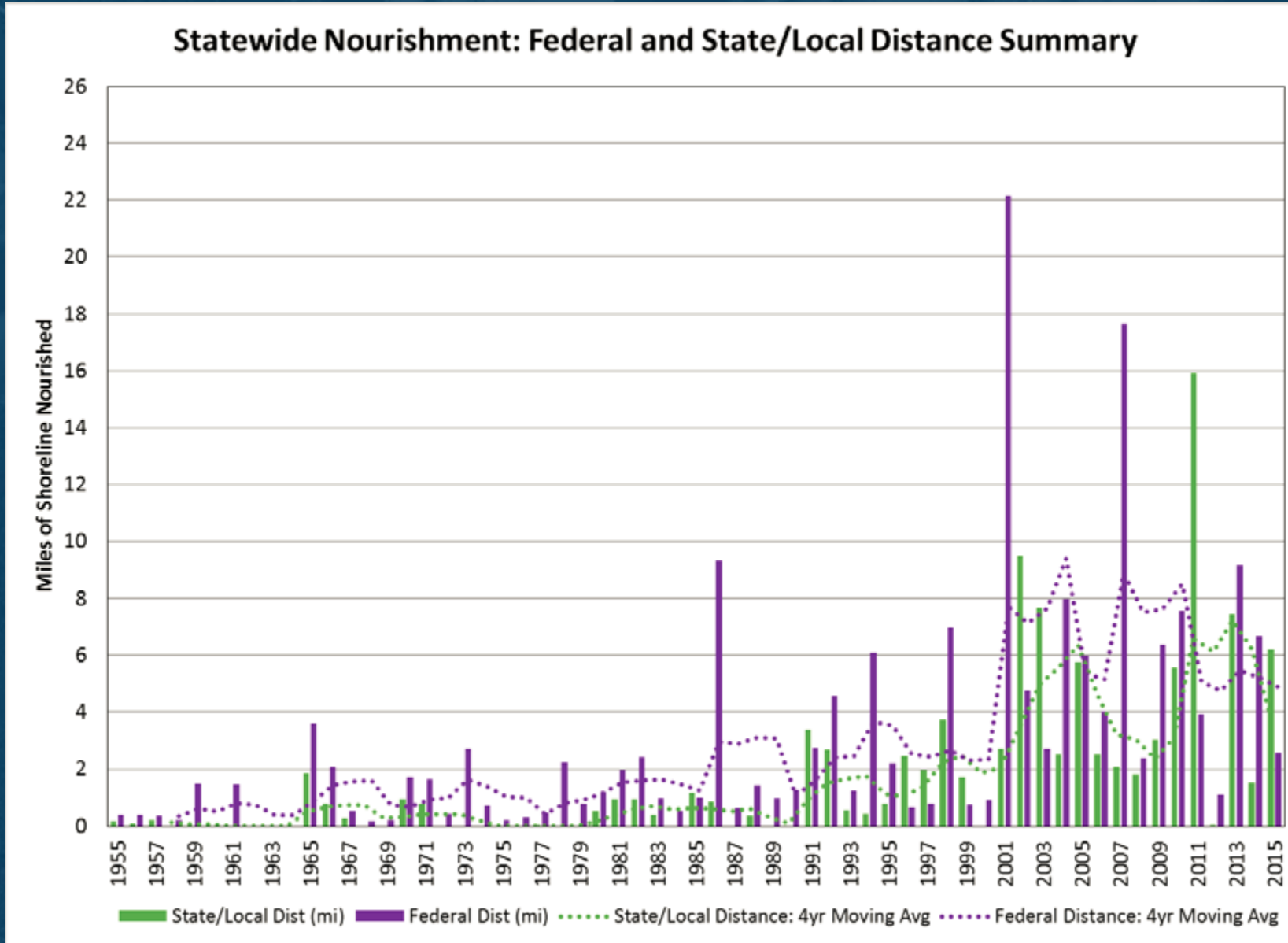
BIMP (2016 UPDATE) – Funding Need – Beaches



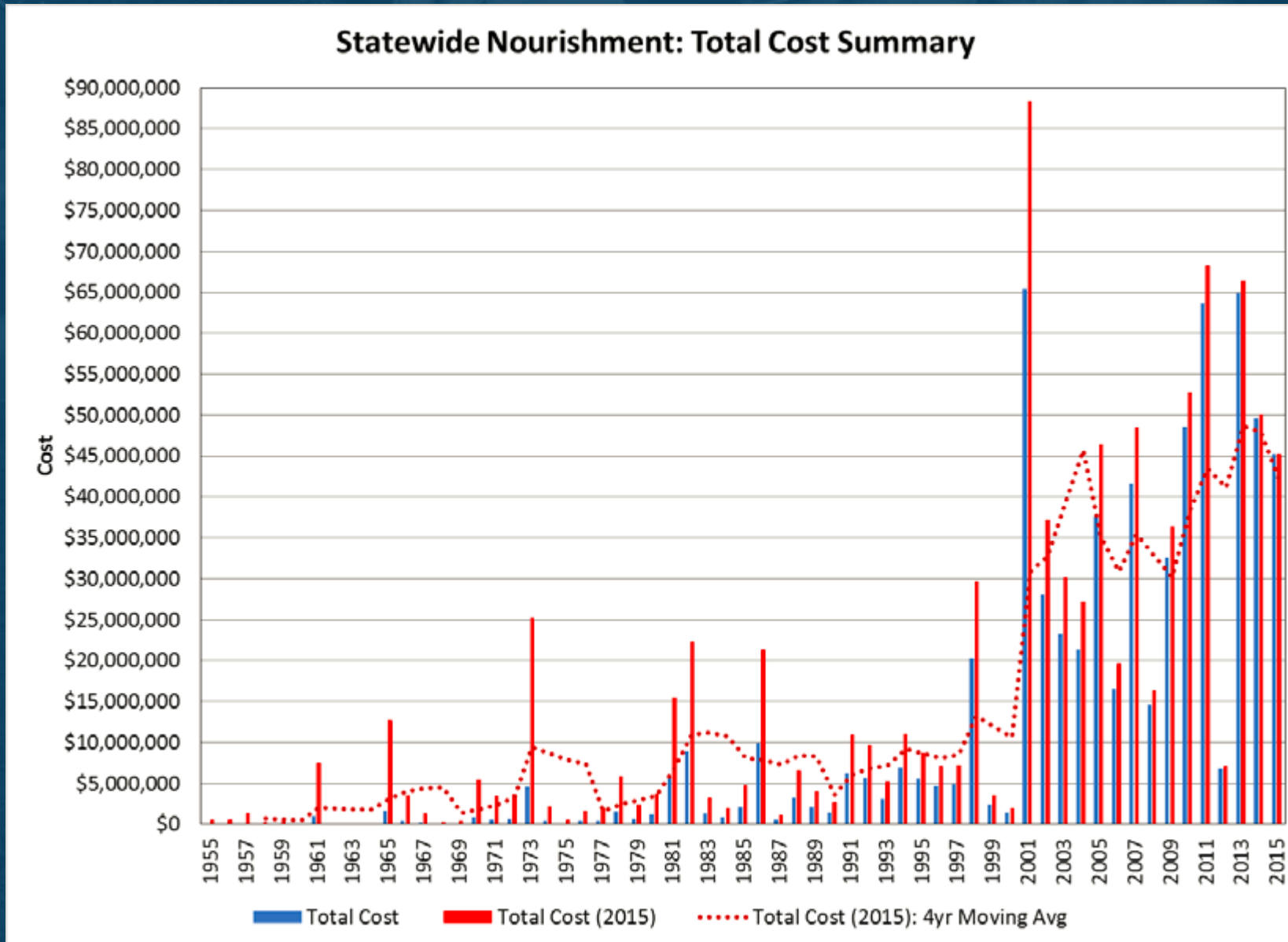
BIMP (2016 UPDATE) – Funding Need – Beaches



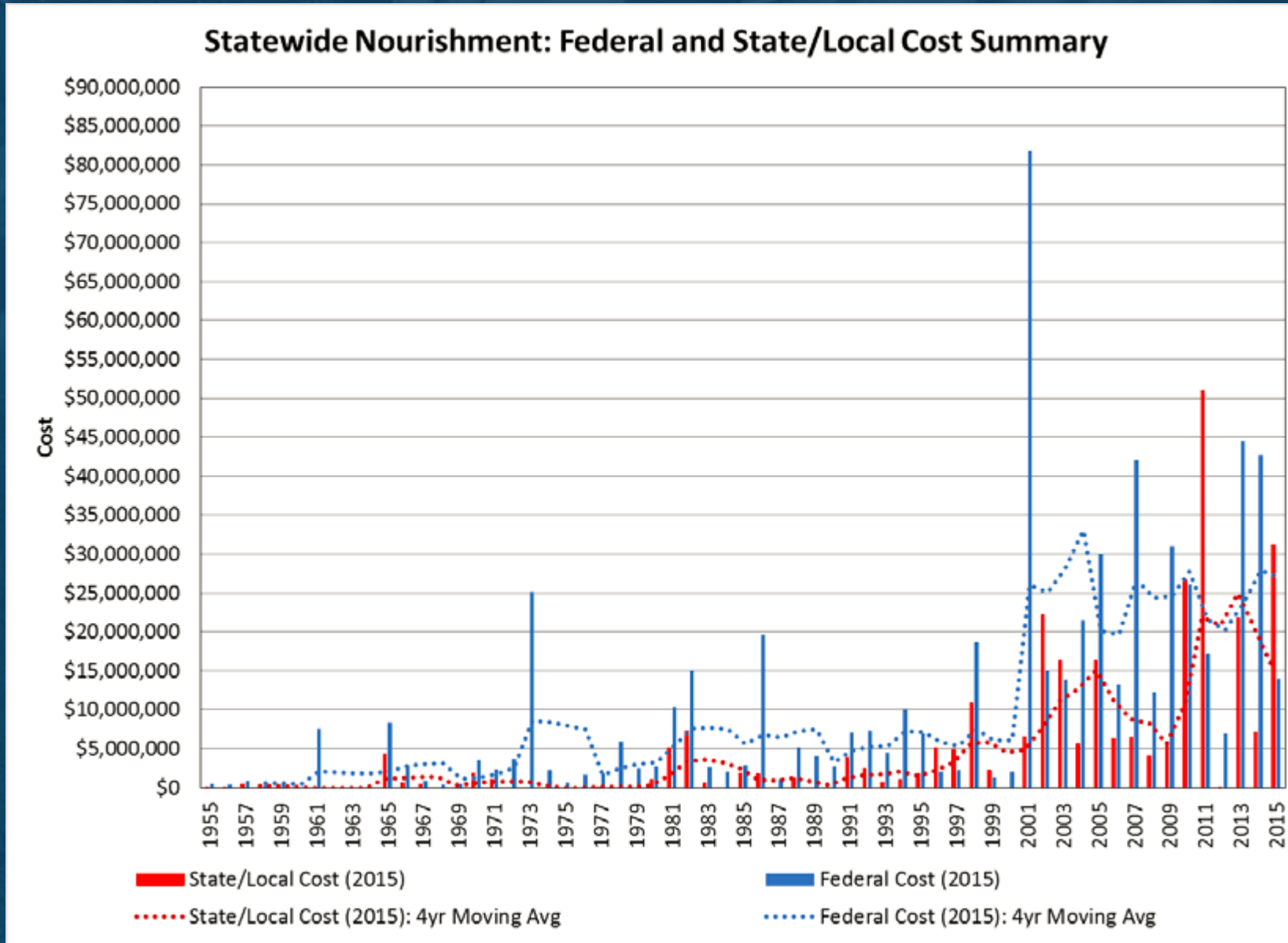
BIMP (2016 UPDATE) – Funding Need – Beaches



BIMP (2016 UPDATE) – Funding Need – Beaches



BIMP (2016 UPDATE) – Funding Need – Beaches



BIMP (2016 UPDATE) – Funding Need – Beaches

Table IV-7: Beach Nourishment Summary Data – Statewide (1955 – 2015)

Region	Number of Times Nourished	Total Volume Nourished (cy)	Cumulative Distance (mi)	Federal Cumulative Distance (mi)	State/Local Cumulative Distance	Total Cost (2015 \$)	Federal Cost (2015 \$)	State/Local Cost (2015 \$)
Region 1	90	27,128,912	67.5	44.9	22.6	\$230,064,720	\$178,097,117	\$51,967,603
Region 2a	100	49,825,675	89.8	53.3	36.5	\$255,208,455	\$155,760,621	\$99,447,835
Region 2b	24	5,800,308	16.4	5.1	11.3	\$64,717,434	\$22,880,753	\$41,836,682
Region 2c	43	26,527,019	73.1	50.4	22.7	\$183,547,263	\$125,072,421	\$58,474,842
Region 3b	12	1,403,863	2.1	2.1	0.0	\$16,244,041	\$16,244,041	\$0
Region 4a	4	3,430,083	4.5	4.5	0.0	\$46,795,723	\$46,795,723	\$0
Region 4b	25	14,654,244	27.0	17.0	10.0	\$108,670,297	\$70,102,679	\$38,567,618
STATEWIDE TOTAL	298	128,770,104	280.4	177.3	103.1	\$905,247,933	\$614,953,355	\$290,294,579
STATEWIDE AVERAGE (/yr)	N/A	2,110,985	4.6	2.9	1.7	\$14,840,130	\$10,081,203	\$4,758,928

Table IV-8: Beach Nourishment Summary Data – Statewide (2005 – 2015)

Region	Number of Times Nourished	Total Volume (cy)	Cumulative Distance (mi)	Federal Cumulative Distance (mi)	State/Local Cumulative Distance	Total Cost (2015 \$)	Federal Cost (2015 \$)	State/Local Cost (2015 \$)
Region 1	33	11,798,725	29.3	18.4	10.9	\$124,146,226	\$87,704,045	\$36,442,180
Region 2a	29	9,223,965	22.8	12.6	10.2	\$84,092,335	\$48,328,672	\$35,763,663
Region 2b	16	4,944,355	14.2	2.9	11.3	\$57,859,113	\$16,022,431	\$41,836,682
Region 2c	17	9,851,817	36.7	27.3	9.4	\$99,183,667	\$74,647,467	\$24,536,201
Region 3b	0	-	-	-	-	-	-	-
Region 4a	1	1,618,083	2.0	2.0	0.0	\$19,551,603	\$19,551,603	\$0
Region 4b	5	7,328,053	14.2	4.2	10.0	\$72,249,867	\$33,682,249	\$38,567,618
STATEWIDE TOTAL	101	44,764,998	119.2	67.4	51.8	\$457,082,811	\$279,926,468	\$177,156,343
STATEWIDE AVERAGE (/yr)	N/A	4,069,545	10.8	6.1	4.7	\$41,552,983	\$25,448,770	\$16,104,213

BIMP (2016 UPDATE) – Funding Need – Beaches

Table IV-9: Beach Nourishment Summary Data – Statewide (2010 – 2015)

Region	Number of Times Nourished	Total Volume Nourished (cy)	Cumulative Distance (mi)	Federal Cumulative Distance (mi)	State/Local Cumulative Distance	Total Cost (2015 \$)	Federal Cost (2015 \$)	State/Local Cost (2015 \$)
Region 1	17	6,988,510	15.5	9.4	6.2	\$75,555,796	\$45,702,984	\$29,852,812
Region 2a	15	5,809,947	15.1	9.4	5.7	\$55,910,164	\$35,848,559	\$20,061,605
Region 2b	11	4,417,041	12.8	1.5	11.3	\$51,748,384	\$9,911,702	\$41,836,682
Region 2c	7	3,681,703	12.2	8.7	3.5	\$41,030,480	\$32,975,928	\$8,054,552
Region 3b	0	-	-	-	-	-	-	-
Region 4a	1	1,618,083	2.0	2.0	0.0	\$19,551,603	\$19,551,603	\$0
Region 4b	2	5,180,925	10.0	0.0	10.0	\$45,953,898	\$7,386,280	\$38,567,618
STATEWIDE TOTAL	53	27,696,209	67.7	31.0	36.7	\$289,750,325	\$151,377,056	\$138,373,269
STATEWIDE AVERAGE (/yr)	N/A	4,616,035	11.3	5.2	6.1	\$48,291,721	\$25,229,509	\$23,062,211

BIMP (2016 UPDATE) – Projections and Cycles

- Average Nourishment Interval Across the State Is 4.5 years
- ~ 45% of Potentially Managed Shoreline Historically Managed

Region	Historical Total Managed Shoreline (mi)	Historical Federal Managed Shoreline (mi)	Historical State/Local Managed Shoreline (mi)	Current Total Managed Shoreline (mi)	Current Federal Managed Shoreline (mi)	Current State/Local Managed Shoreline (mi)	Managed and Potentially Managed Shoreline (mi)	Total Shoreline (mi)	Nourishment Interval (yr)
Region 1 Total	16.4	11.1	5.3	16.4	11.1	5.3	33.0	40	4.5
Region 2a Total	14.0	7.9	6.1	14.0	7.9	6.1	17.3	31	3.5
Region 2b Total	8.4	0.7	7.7	8.4	0.7	7.7	21.6	38	4.3
Region 2c Total	20.5	11.6	8.9	20.5	3.0	17.5	24.3	45	5.2
Region 3a Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41	-
Region 3b Total	1.0	1.0	0.0	1.0	1.0	0.0	5.5	30	-
Region 4a Total	2.0	2.0	0.0	4.9	2.0	2.9	10.9	35	5.0
Region 4b Total	12.5	2.5	10.0	20.1	2.5	17.6	35.6	43	4.6
Region 4c Total	0.0	0.0	0.0	0.0	0.0	0.0	19.1	23	-
TOTAL	74.8	36.8	38.0	85.3	28.2	57.1	167.3	326	4.5

BIMP (2016 UPDATE) – Projections and Cycles

- **Currently \$50M Annually for Beach Nourishment**
 - **\$25M Annually Federal Cost For 36.8 Miles Of Shoreline**
 - **\$25M Annually State/Local Cost For 38.0 Miles Of Shoreline**
 - **Assuming a Unit Cost of \$10.5/cy - \$25M over 38 miles/4.5yr = 53 cy/ft - Reasonable**
 - **With Funding Shifts and Recent Projects, Now Need to Plan for 57.1 Miles of State/Local Managed Shoreline – $57.1/38 = 1.5$ Ratio**
 - **Equals \$37.5M Annual State/Local Cost – SAY \$40M**
 - **Including Buffer for CSDR, Storm Recovery, Upfront Support Engineering/Environmental – SAY \$40 – 50M**

BIMP (2016 UPDATE) – Projections and Cycles

- Potential Need Statewide Fund for Beaches
 - \$20M -\$35M Annually Depending on Cost Share

Table IV-11: Current State/Local Beach Nourishment Funding Need Cost Share

Cost Share		\$40 M Total State/Local		\$50 M Total State/Local	
State	Local	State	Local	State	Local
25%	75%	\$10,000,000	\$30,000,000	\$12,500,000	\$37,500,000
33%	67%	\$13,200,000	\$26,800,000	\$16,500,000	\$33,500,000
50%	50%	\$20,000,000	\$20,000,000	\$25,000,000	\$25,000,000
67%	33%	\$26,800,000	\$13,200,000	\$33,500,000	\$16,500,000
75%	25%	\$30,000,000	\$10,000,000	\$37,500,000	\$12,500,000

BIMP (2016 UPDATE) – Projections and Cycles

- 167.3 Total miles – 28.2 Federal miles = 139.1 Potential State & Local miles/57.1 Current State & Local miles = 2.44 Ratio
- State/Local Costs of Beach Nourishment May Increase By 244% Once All Developed Shorelines Need Management
- State Fund for Beaches May Reach \$50M - \$70M/yr – 10-15 Years In the Future If Current Trends Continue

Table IV-12: Ultimate Future State/Local Beach Nourishment Funding Need Cost Share

Cost Share		\$95 M Total State/Local		\$105 M Total State/Local	
State	Local	State	Local	State	Local
25%	75%	\$23,750,000	\$71,250,000	\$26,250,000	\$78,750,000
33%	67%	\$31,350,000	\$63,650,000	\$34,650,000	\$70,350,000
50%	50%	\$47,500,000	\$47,500,000	\$52,500,000	\$52,500,000
67%	33%	\$63,650,000	\$31,350,000	\$70,350,000	\$34,650,000
75%	25%	\$71,250,000	\$23,750,000	\$78,750,000	\$26,250,000

BIMP (2016 UPDATE) – Funding Need

- **State Fund for Shallow Draft Projects – Ultimate Need May be \$23.5M/yr.....With Local Match Included, Current Capacity With Shallow Draft and Lake Dredging Fund is \$28.5M/yr**
- **State Fund for Deep Draft Projects - \$17.5M annually – Separate Appropriation from General Assembly Recommended**
- **State Fund for Beach Nourishment - \$20M - \$35M annually**

BIMP (2016 UPDATE) – Funding Sources

- **Literature Review & Interviews**
 - **The Economic Value of N.C. Beaches/Inlets**
 - **Examples of Investment in Beaches/Inlets**
 - **Other State's Funding Sources**
 - **Municipal/Community Models**
- **The Cost of Doing Nothing**
 - **Examples from In- and Out-of-State Communities**

BIMP (2016 UPDATE) – Funding

- A State Dedicated Beach Preservation Fund Is Justified
- NC's 8 Coastal Counties Are A Huge Economic Engine!
 - In 2014, Visitors Alone:
 - Spent \$3 Billion (B)
 - Produced \$130 Million (M) In State Sales Tax
 - Supported 31 M Jobs
 - All Consumers, Private Sector, 2014 Spending:
 - \$9.3B In State Taxable Sales
 - \$1.2B In Food Service Sales
 - \$2.2B In Real Estate Transfers
 - \$1.3B In Lodging Sales

BIMP (2016 UPDATE) – Funding

- **Creation of an Atlantic Coast Development Region Should Be Investigated**

Table V-2. Coastal Counties in a Hypothetical Atlantic Coast Economic Development Region (EDR) – 2014 Economic Importance of NC Visitor Expenditures (USTA, 2015).

Member Counties	Expenditure (millions (M))	Payroll (M)	Employment	State Tax Receipts (M)	Local Tax Receipts (M)	2014 Region Population (ACCESSNC)
Brunswick	\$496.32	\$91.36	5,190	\$22.19	\$29.75	118,836
Carteret	\$324.72	\$57.21	3,200	\$14.12	\$18.84	68,811
Currituck	\$144.18	\$26.53	1,540	\$5.96	\$6.60	24,976
Dare	\$1,019.30	\$207.24	12,300	\$47.06	\$45.15	35,104
Hyde	\$33.17	\$6.28	380	\$1.51	\$1.79	5,676
New Hanover	\$507.90	\$113.27	5,680	\$23.82	\$20.11	216,298
Onslow	\$217.29	\$39.40	1,750	\$11.02	\$8.11	187,589
Pender	\$89.63	\$15.19	790	\$4.16	\$6.13	56,250
Atlantic Coast Region Total	\$2,832.51	\$556.48	30,830	\$129.84	\$136.48	713,540

BIMP (2016 UPDATE) – Funding

- Creation of an Atlantic Coast Development Region Should Be Investigated

Table V-3. 2014 Comparison of a Hypothetical Atlantic Coast EDR to other NCPED Economic Development Regions: Economic Importance of NC Visitor Expenditures (USTA, 2015).

Eight Economic Development Regions (NCPED, 1997)	Expenditures	Payroll	Employment	State Tax Receipts	Local Tax Receipts	Number of Counties
	(M)	(M)		(M)	(M)	
Hypothetical Atlantic Coast EDR (ACEDR)	\$2,832.51	\$556.48	30,830	\$129.84	\$136.48	8
Advantage West	\$2,988.64	\$588.02	28,650	\$148.13	\$116.31	23
Carolina	\$6,526.01	\$1,895.44	62,250	\$311.90	\$156.02	12
Global/Eastern	\$1,067.14	\$179.10	9,040	\$57.01	\$24.78	11
Northeast	\$359.85	\$46.00	2,250	\$19.19	\$14.70	13
Southeast	\$855.50	\$140.14	6,950	\$45.66	\$18.47	8
Piedmont Triad	\$2,802.11	\$549.24	24,590	\$149.18	\$61.81	12
Triangle	\$3,891.25	\$968.17	40,380	\$191.08	\$107.69	13
TOTAL	\$21,323.01	\$4,922.59	204,940	\$1,051.99	\$636.26	100
ACEDR as % of Whole	13.30%	11.30%	15.00%	12.30%	21.50%	8.00%
ACEDR Ranks	4 th	4 th	3 rd	5 th	2 nd	7 th (Tie)
EDR Averages	\$2,665.38	\$615.32	25,620	\$131.50	\$79.53	NA
ACEDR vs. EDR Averages	\$167.13	-\$58.84	5,210	-\$1.66	\$56.95	NA

BIMP (2016 UPDATE) – Funding

- Beach Preservation Funding 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 [#]
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) – Funding

- **Possible State Cost Share Formulas**
 - 50% State, 50% Local – Florida & Past Shallow Draft Match
 - 67% State, 33% Local – Current Shallow Draft (Tiering)
 - 75% State, 25% Local – NJ, TX
 - ~~100% State – DE~~
- **If 50% State Cost Share, If \$40M - \$50M Total Annual Need
Then...Fund Revenues ≈ \$20M - \$25M/Yr**
- **If 67% State Cost Share, If \$40M - \$50M Total Annual Need
Then...Fund Revenues ≈ \$27M - \$34M/Yr**

BIMP (2016 UPDATE) – Funding

- Hypothetical Revenue Sources for a State Beach Preservation Fund (projected add'l tax revenue generated in the 8 coastal counties alone)
 - New State Tax Increases:
 - \$25M – Seasonal 0.5% State Sales Tax
 - \$15.1M – 1% State Meals Tax
 - \$10M – Additional Land Transfer Fee (\$1/\$500)
 - \$26.4M - \$0.001 Ad Valorem Tax per \$100 of Non-Resident Properties
 - A New 2% State Occupancy Tax Increase:
 - \$21.2M – State OT
 - Reallocating Existing Revenue:
 - \$24.2M – Half Of The Existing State Sales Tax Revenues On Short-term Lodging

BIMP (2016 UPDATE) – Funding

- Increasing State Sales and Use Tax (FY 14-15\$ in Thousands)

Table V-6. Hypothetical State Revenues Generated in the Eight Coastal Counties if a New Seasonal Sales and Use Tax ("State Sales Tax") is Implemented (Dollars in Thousands).

Coastal Counties	May-September, 2015*		Estimated 2015 Additional Seasonal Tax Revenues IF a State Sales Tax Rate Increase of:		
	Reported Taxable Sales*	Reported Gross Tax Collections*			
			0.75%	0.50%	0.25%
Brunswick	\$698,520	\$33,219	\$5,239	\$3,493	\$1,746
Carteret	\$526,304	\$24,964	\$3,947	\$2,632	\$1,316
Currituck	\$311,286	\$14,816	\$2,335	\$1,556	\$778
Dare	\$892,484	\$42,463	\$6,694	\$4,462	\$2,231
Hyde	\$40,003	\$1,912	\$300	\$200	\$100
New Hanover	\$1,749,219	\$83,257	\$13,119	\$8,746	\$4,373
Onslow	\$805,410	\$38,356	\$6,041	\$4,027	\$2,014
Pender	\$191,759	\$9,155	\$1,438	\$46	\$479
Totals:	\$5,214,985	\$248,143	\$39,112	\$25,162	\$13,037

*Estimated sum of monthly taxable sales and gross NC sales tax collections for May, June, July, August and September 2015 based on June-October monthly sale tax data reported by NCDOR (2016).

BIMP (2016 UPDATE) – Funding

- **New State (Food and Beverage) “Meals” Tax** (FY 14-15\$ in Thousands)

Table V-8. Hypothetical State Revenues Generated in the Eight Coastal Counties if a State Food and Beverage ("Meal Tax") Tax is Implemented (Dollars in Thousands).

Coastal Counties	FY 2015-16 Taxable Sales*	Projected Additional FY Tax Revenues IF a New State Meal Tax of:		
		1.00%	0.50%	0.25%
Brunswick	\$193,130	\$1,931	\$966	\$483
Carteret	\$139,775	\$1,398	\$699	\$349
Currituck	\$40,482	\$405	\$202	\$101
Dare	\$196,894	\$1,969	\$984	\$492
Hyde	\$13,110	\$131	\$66	\$33
New Hanover	\$569,941	\$5,699	\$2,850	\$1,425
Onslow	\$57,698	\$577	\$288	\$144
Pender	\$303,591	\$3,036	\$1,518	\$759
Totals:	\$1,514,622	\$15,146	\$7,573	\$3,787

* Except for Dare County, sales were based on sales and use tax returns by NC restaurants, cafeterias, grills, etc. (Business Group 306) (NCDOR, 2016). The projected Dare County meal tax revenues are based upon increasing its existing meal tax (EROB, 2016b).

BIMP (2016 UPDATE) – Funding

- New Land Transfer Tax** (FY 14-15\$ in Thousands)

Table V-10. Hypothetical State Revenues Generated in the Eight Coastal Counties if an Additional Land Transfer Tax is Implemented (Dollars in Thousands).

Coastal Counties	Estimated Taxable Values*	Projected Additional Tax Revenues IF Fee of:			Tax Revenue IF One Dollar Per Transfer Value of:		
		1.00%	0.50%	0.25%	\$1/\$250	\$1/\$500 ⁺	\$1/\$750
Brunswick	\$1,112,349	\$11,123	\$5,562	\$2,781	\$4,449	\$2,225	\$1,483
Carteret	\$503,605	\$5,036	\$2,518	\$1,259	\$2,014	\$1,007	\$671
Currituck	\$320,226	\$3,202	\$1,601	\$801	\$1,281	\$640	\$427
Dare	\$541,202	\$5,412	\$2,706	\$1,353	\$2,165	\$1,082	\$722
Hyde	\$20,117	\$201	\$101	\$50	\$80	\$40	\$27
New Hanover	\$1,561,472	\$15,615	\$7,807	\$3,904	\$6,246	\$3,123	\$2,082
Onslow	\$654,082	\$6,541	\$3,270	\$1,635	\$2,616	\$1,308	\$872
Pender	\$325,896	\$3,259	\$1,629	\$815	\$1,304	\$652	\$435
Totals:	\$5,038,946	\$50,389	\$25,195	\$12,597	\$20,156	\$10,078	\$6,719

*Estimated using reported net proceeds of collected excise taxes (i.e. one dollar on each \$500 in real property conveyed, etc.) for a given county during FY 2013-14 (NCDOR, 2016).

+The NC current excise (stamp) tax rate is \$1 on each \$500 on or fractional part of real property conveyed to another person; this is equivalent to a 0.20% tax rate levied on the conveyed values.

BIMP (2016 UPDATE) – Funding

- **New State Occupancy Tax (OT) on Short-term Rentals** (FY 14-15 \$ in Thousands)

Table V-12. Hypothetical State Revenues Generated in the Eight Coastal Counties if a New State Occupancy Tax (OT) is Levied on Short-Term Lodging Sales (2014-15 Fiscal Year Dollars in Thousands).

Coastal Counties	Taxable Lodging Sales*	Projected Additional FY Tax Revenues IF a New State OT of:		
		1.00%	1.50%	2.00%
Brunswick	\$135,480	\$1,355	\$2,032	\$2,710
Carteret	\$102,170	\$1,022	\$1,533	\$2,043
Currituck	\$155,356	\$1,554	\$2,330	\$3,107
Dare	\$405,802	\$4,058	\$6,087	\$8,116
Hyde	\$7,115	\$71	\$107	\$142
New Hanover	\$185,020	\$1,850	\$2,775	\$3,700
Onslow	\$46,975	\$470	\$705	\$939
Pender	\$21,885	\$219	\$328	\$438
Totals:	\$1,059,802	\$10,598	\$15,897	\$21,196

*FY 2015-16 taxable sales reported on sales tax returns by NC hotels, motels, house rentals, etc. (Business Group 708) (NCDOR, 2016).

BIMP (2016 UPDATE) – Funding

- **New Real Property Tax (Ad-Valorem) on Non-Residents** (FY 14-15 \$ in Thousands)

Table V-14. Hypothetical State Revenues Generated in the Eight Coastal Counties if a New Real Property (ad-valorem) Tax is Levied on Real Property Owned by Non-Residents (Dollars in Thousands).

Coastal Counties	Assessed Valuation of Real Property in Coastal Counties:		Projected FY Revenues IF a New Property Tax Levy (Per \$100 of Valuation):		
	All Coastal County Property*	Non-Resident Owned Coastal Property			
			0.0005	0.00075	0.001
Brunswick	\$21,725,662	\$4,238,731	\$2,119	\$3,179	\$4,239
Carteret	\$16,785,208	\$3,866,808	\$1,933	\$2,900	\$3,867
Currituck	\$6,817,317	\$3,722,798	\$1,861	\$2,792	\$3,723
Dare	\$14,005,354	\$7,538,670	\$3,769	\$5,654	\$7,539
Hyde	\$1,685,258	\$837,578	\$419	\$628	\$838
New Hanover	\$29,781,013	\$3,361,123	\$1,681	\$2,521	\$3,361
Onslow	\$12,863,257	\$2,123,949	\$1,062	\$1,593	\$2,124
Pender	\$6,651,035	\$699,992	\$350	\$525	\$700
Totals:	\$110,314,104	\$26,389,648	\$13,195	\$19,792	\$26,390

*Source: Section II. The column values also includes property owners with residency status that can not be determined; only 0.1% (\$161.1M) of the column's grand total.

BIMP (2016 UPDATE) – Funding

- **Reallocation of Existing State Sales and Use Tax on Short-term Rentals** (FY 14-15\$ in Thousands)

Table V-15. Hypothetical Scenario for State Revenues Derived from Short-Term Lodging Sales in NC Coastal Counties by Reallocating 50% or 100% of Existing North Carolina Sales and Use Tax Collections (Dollars in Thousands).

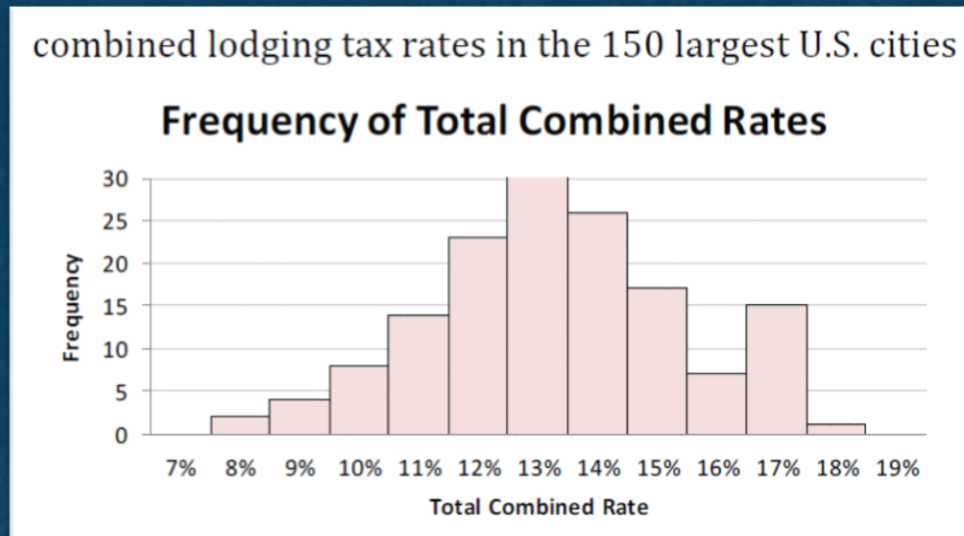
Coastal Counties	Taxable Lodging Sales*	Gross Tax Collections	Projected FY Tax Revenues IF a Reallocated Percentage of:	
			100.0% of 4.75%	50.0% of 4.75% (or 2.375%)
Brunswick	\$135,480	\$6,453	\$6,453	\$3,226
Carteret	\$102,170	\$4,862	\$4,862	\$2,431
Currituck	\$155,356	\$7,383	\$7,383	\$3,692
Dare	\$405,802	\$340	\$340	\$170
Hyde	\$7,115	\$19,318	\$19,318	\$9,659
New Hanover	\$185,020	\$8,810	\$8,810	\$4,405
Onslow	\$46,975	\$2,243	\$2,243	\$1,122
Pender	\$21,885	\$1,043	\$1,043	\$522
Totals:	\$1,059,802	\$50,452	\$50,453	\$25,227

*FY 2015-16 taxable sales reported for sales tax returns by NC hotels, motels, house rentals, etc. (Business Group 708) (NCDOR, 2016).

BIMP (2016 UPDATE) – Funding

- Lodging Taxes Comparisons – Brunswick County (Typical)

State Sales Tax	4.75%
County Sales Tax	2%
County Occupancy Tax	1%
Municipal OT	5%
TOTAL TAXES:	12.75%



*Source: 2016, HVS Lodging Tax Report

Example Large Urban Area Lodging Taxes*	
Kansas City, MO	18.35%
Birmingham, AL	17.50%
San Antonio, TX	17%
Atlanta, GA	16%
Virginia Beach, VA	15.50%
Charlotte, NC	15.25%
Long Beach, CA	15.00%
New York, NY	14.75%
Washington, DC	14.50%
Jersey City, NJ	14%
Las Vegas, NV	14%
Honolulu, HI	13.75%
Charleston, SC	13.50%
Durham, NC	13.50%
Miami, FL	13%
Raleigh, NC	12.75%
Orlando, FL	12.50%
Anchorage, AK	12%
Oceanside, CA	11.50%
Ft. Lauderdale, FL	11%
Knoxville, TN	10%

BIMP (2016 UPDATE) - FEMA Engineered Beach

- **Many Local Projects Have Incorporated a FEMA Engineered Beach**
 - **Offers Benefit of Beach Volume Loss Replacement During a Presidentially Declared Disaster Event If:**
 - **Beach Was Constructed by Placement of Imported Sand (of Proper Grain Size) to a Designed Elevation, Width, and Slope**
 - **Maintenance Program Involving Periodic Nourishment with Imported Sand Has Been Established and Adhered to by the Applicant**
 - **Maintenance Program Preserves the Original Design**

BIMP (2016 UPDATE) - FEMA Engineered Beach

- **Many Local Projects Have Incorporated a FEMA Engineered Beach**
 - **To Document Eligibility of the Beach as a Designed and Maintained Facility, the Applicant Should Provide the Following to FEMA**
 - **All Design Studies, Plans, Construction Documents & As-Builts for Original Project and All Subsequent Renourishments**
 - **Documentation and Details of the Maintenance Plan, Including How the Need for Nourishment is Determined and Funded**
 - **Pre- and Post-Storm Profiles that Extend at least to the Seaward Edge of the Sub-aqueous Nearshore Zone (Closure Depth, Usually -15 to -20 ft)**

BIMP (2016 UPDATE) – Funding Recommendations

- Hypothetical Revenue Sources for a State Beach Preservation Fund (projected add'l tax revenue generated in the 8 coastal counties alone)
 - Single New Source
 - New 0.5% seasonal State sales tax, which will generate \$25M
 - Combined New Source
 - New 1% State Meals Tax, Which Will Generate \$15.1M, And
 - An Additional Land Transfer Fee Of \$1/\$500, Which Will Generate \$10M
 - Reallocating Existing Revenue
 - \$25.2M – Half Of The Existing State Sales Tax Revenues On Short-term Lodging

BIMP (2016 UPDATE) – Return on Investment

- Is It Worth The Investment? – Shallow Draft Dredging
 - Current Shallow Draft Fund (\$19 Million/Yr) Is Adequate To Meet Both Current And Future Projected Needs And Should Be Kept As Is
 - Based On Results From Section II, The Shallow Draft Inlets In NC Provide \$651.8 Million In Direct Impact, \$908.8 Million In Indirect Impact, And 13,220 Jobs.
 - Approximates a ROI Of \$34.3/\$1 To \$47.8/\$1 Depending On Whether Economic Multiplier Effects Are Considered



BIMP (2016 UPDATE) – Return on Investment

- Is It Worth The Investment? – Deep Draft Dredging
 - Deep Draft Port Fund Should Be A Recurring Appropriation Of \$17.5 M/yr by the Legislature as Part of Its Investment in Ports. As a Condition Of Fund Use, All Beach Compatible Material Must Be Placed Directly On Adjacent Beaches.
 - Ports Bring An Estimated Economic Impact Of \$222.1 M (Direct) And \$416.8 Million (Indirect) With 2,973 Jobs.
 - ROI Of \$12.7/\$1 To \$23.8/\$1 Depending On Whether Economic Multiplier Effects Are Considered



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

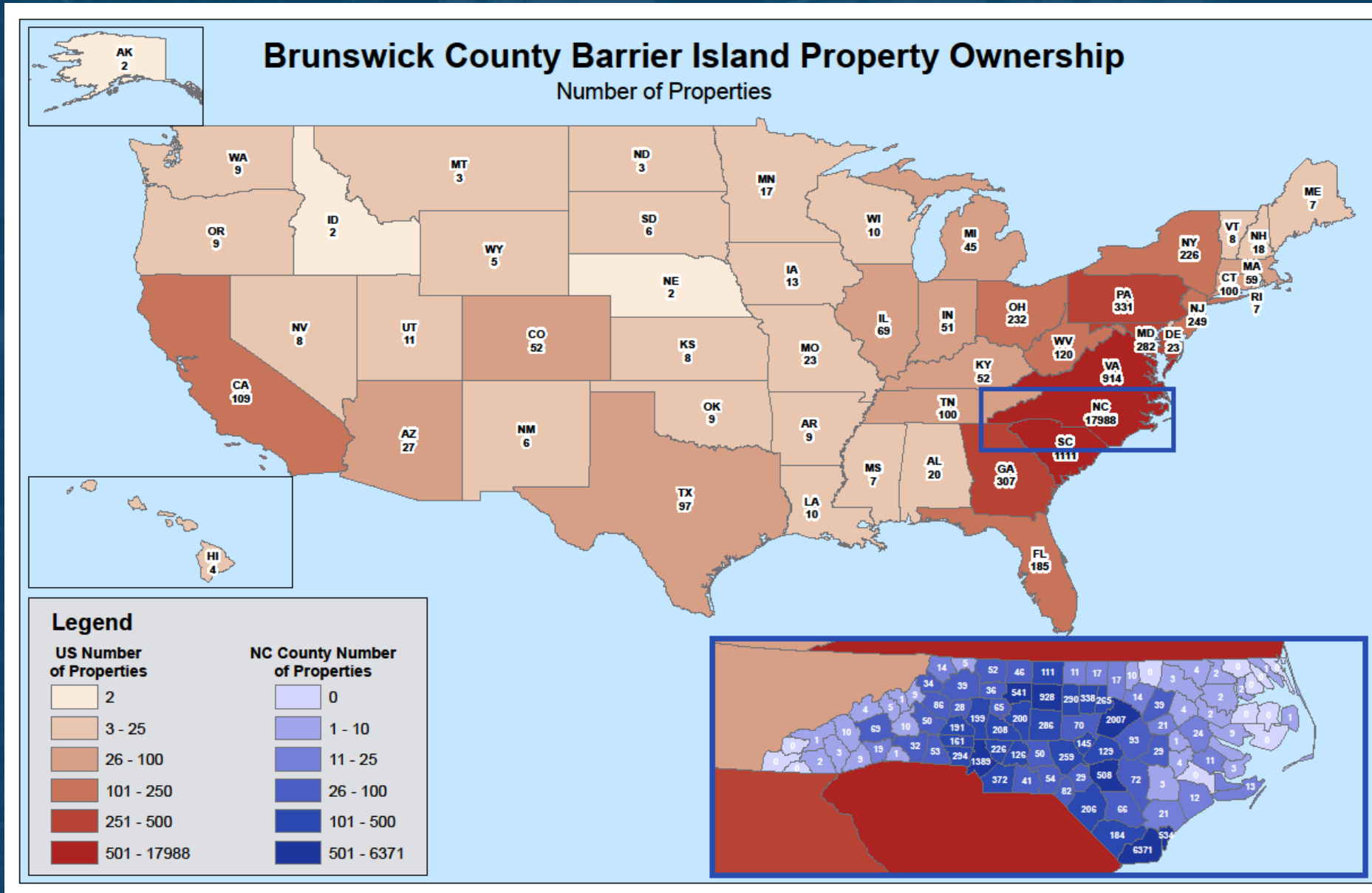


BIMP (2016 UPDATE) – Return on Investment

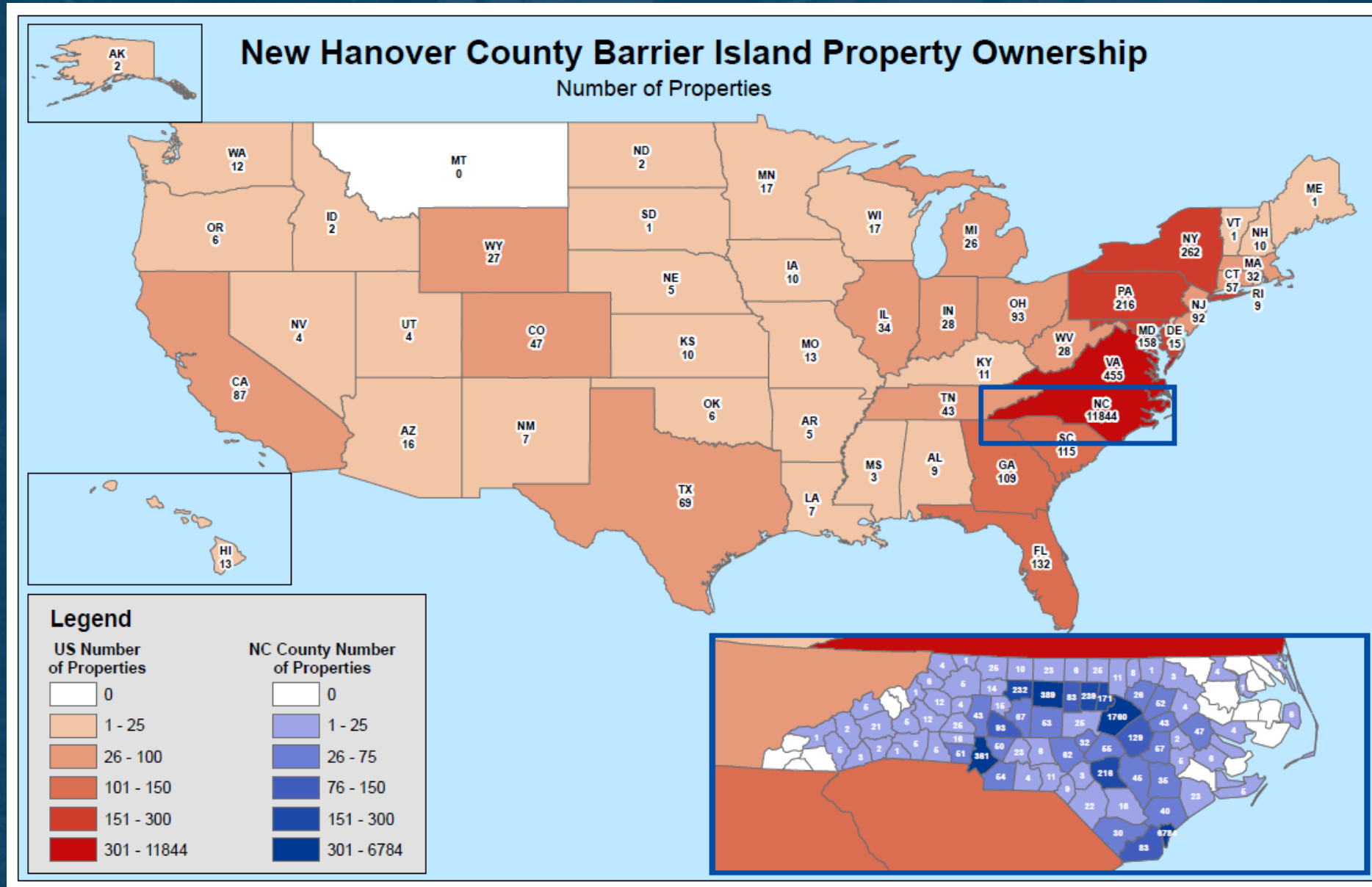
- Is It Worth The Investment? – Infrastructure
 - Lastly, Since These Projects Should Be Viewed As Infrastructure Projects, NCDOT Spending By County Was Investigated From 2013 – 2015
 - Roughly \$1.17 Billion Had Been Spent In Wake, Mecklenburg, Guilford, And Forsyth Counties During That Time While \$778 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



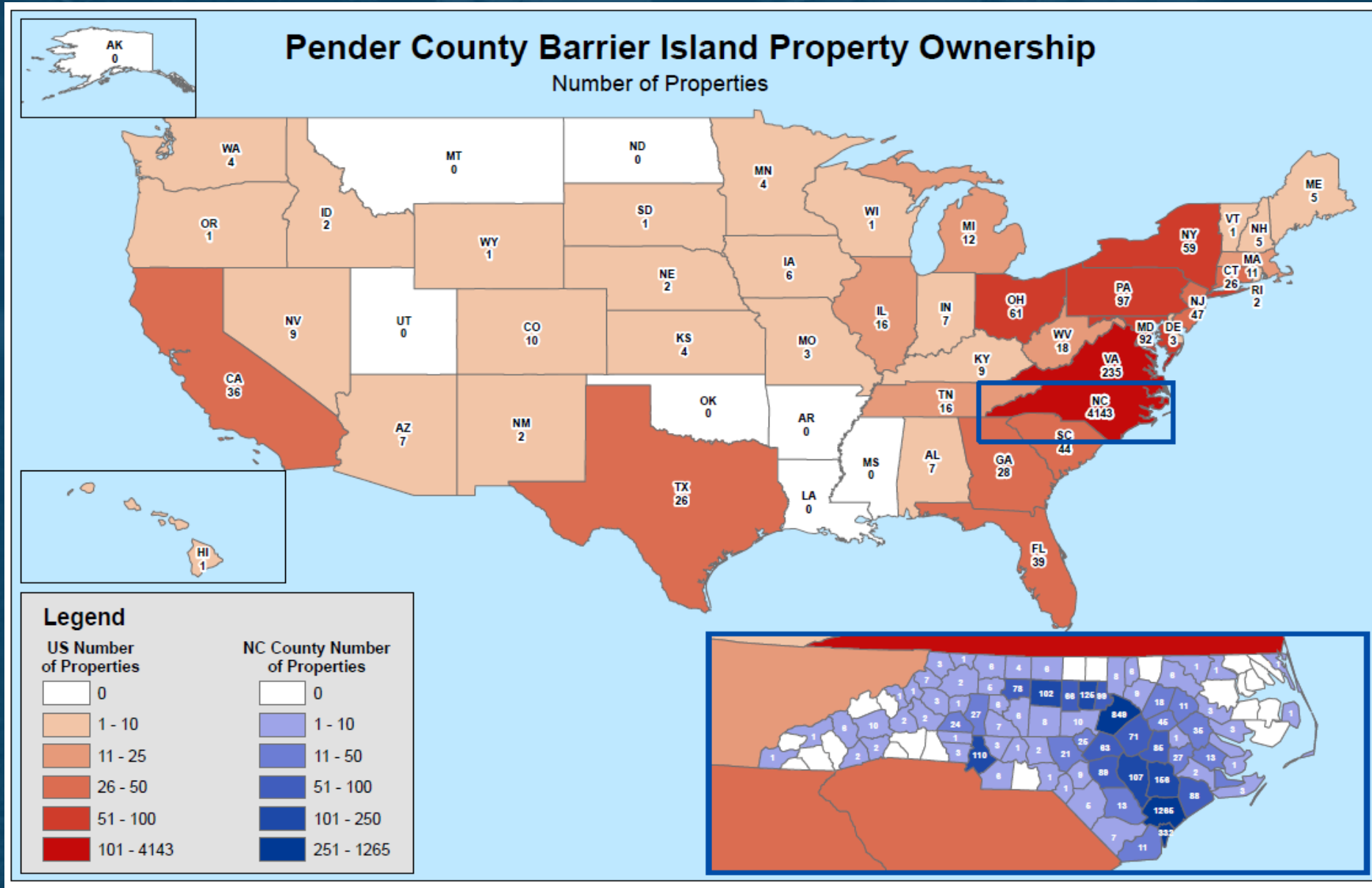
BIMP (2016 UPDATE) – Reach of the Beach



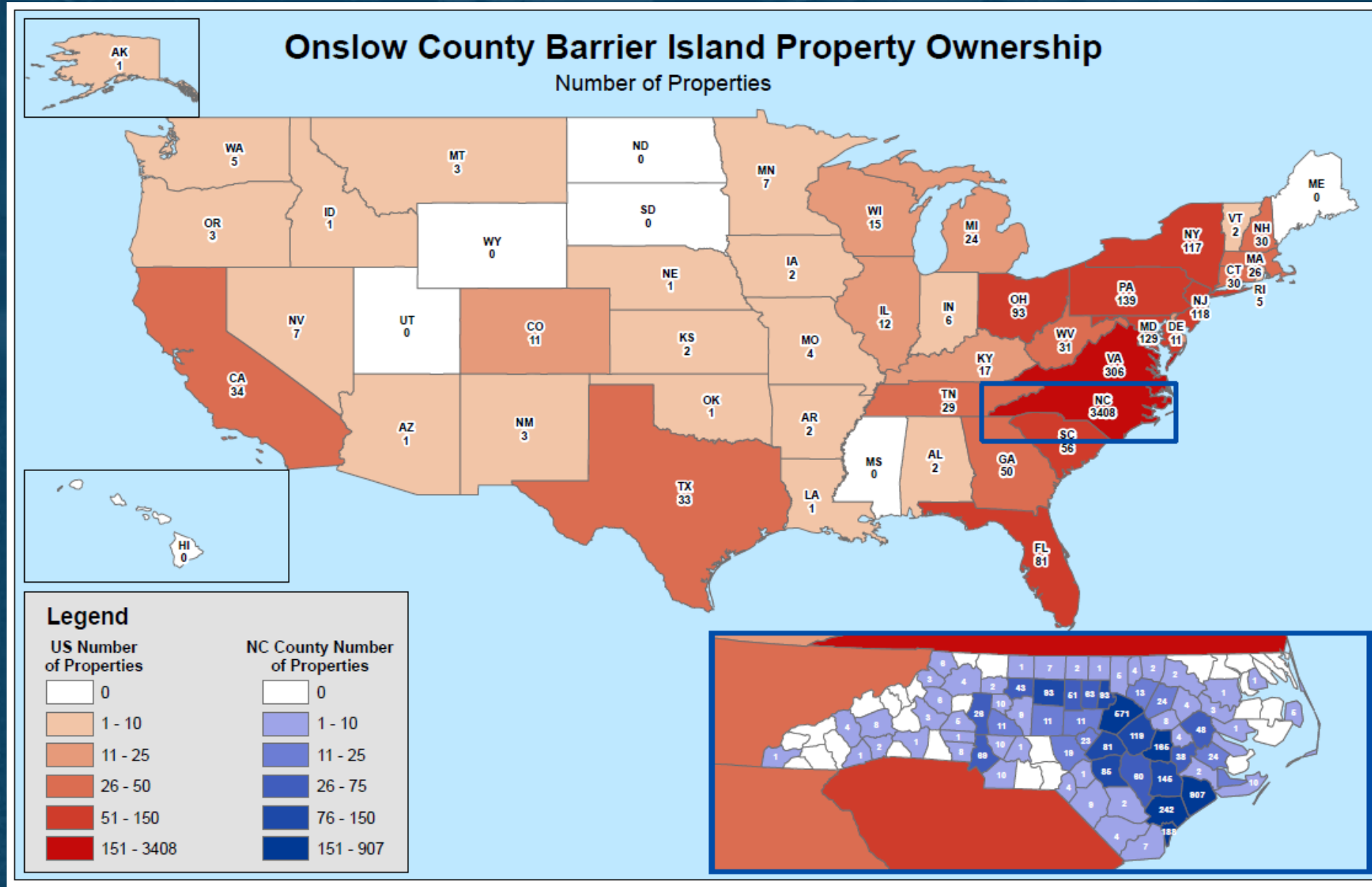
BIMP (2016 UPDATE) – Reach of the Beach



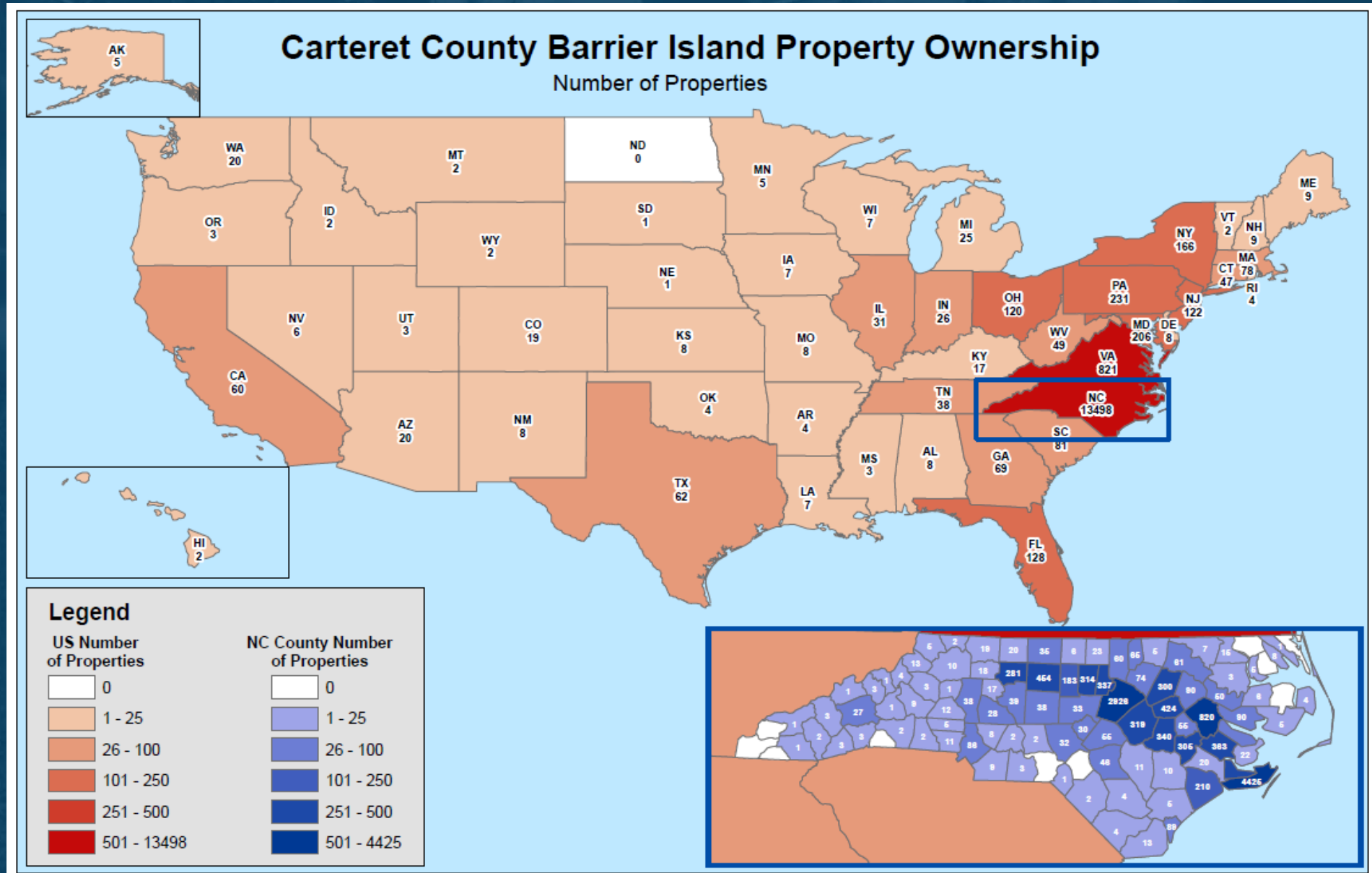
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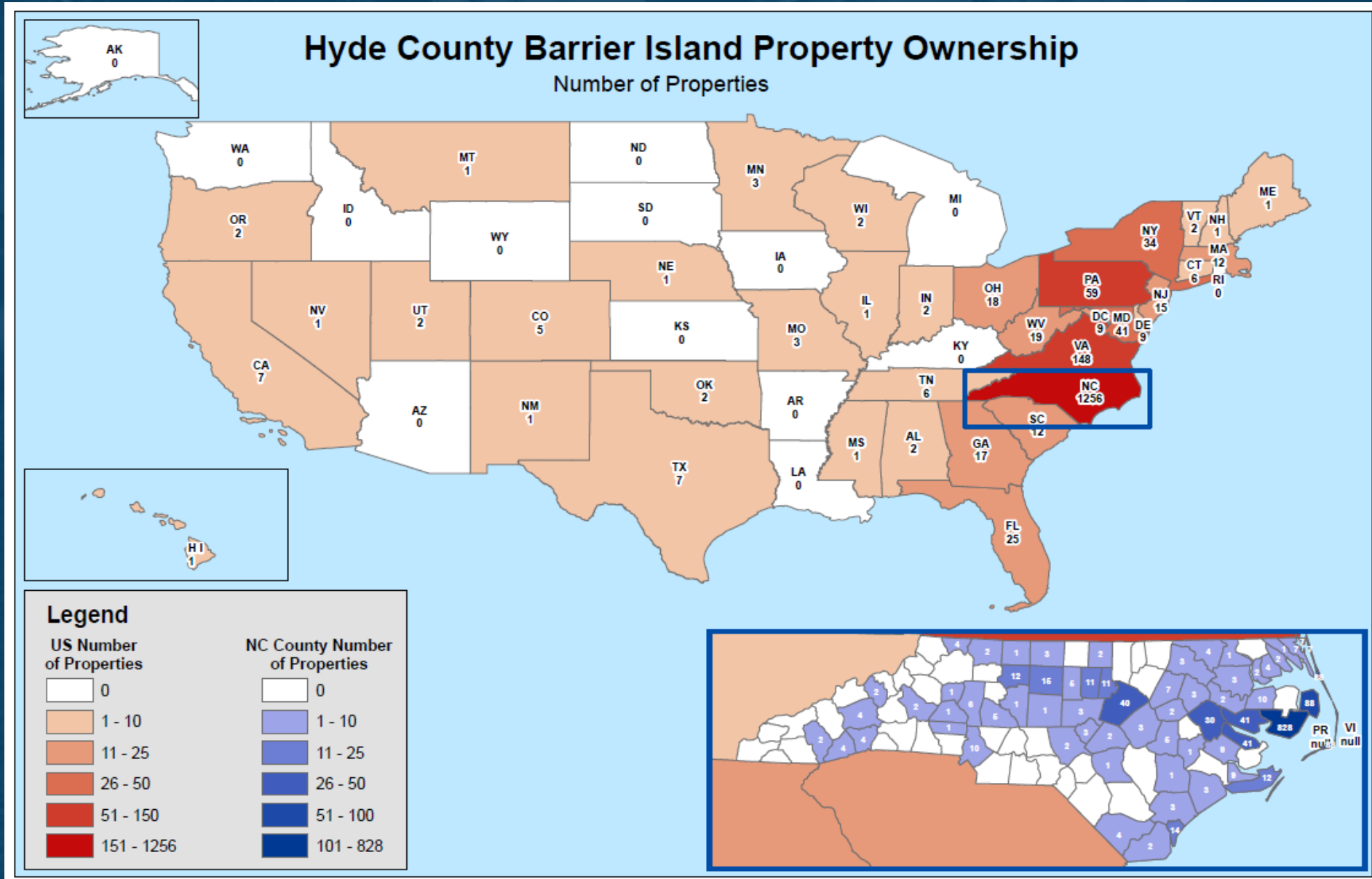
BIMP (2016 UPDATE) – Reach of the Beach



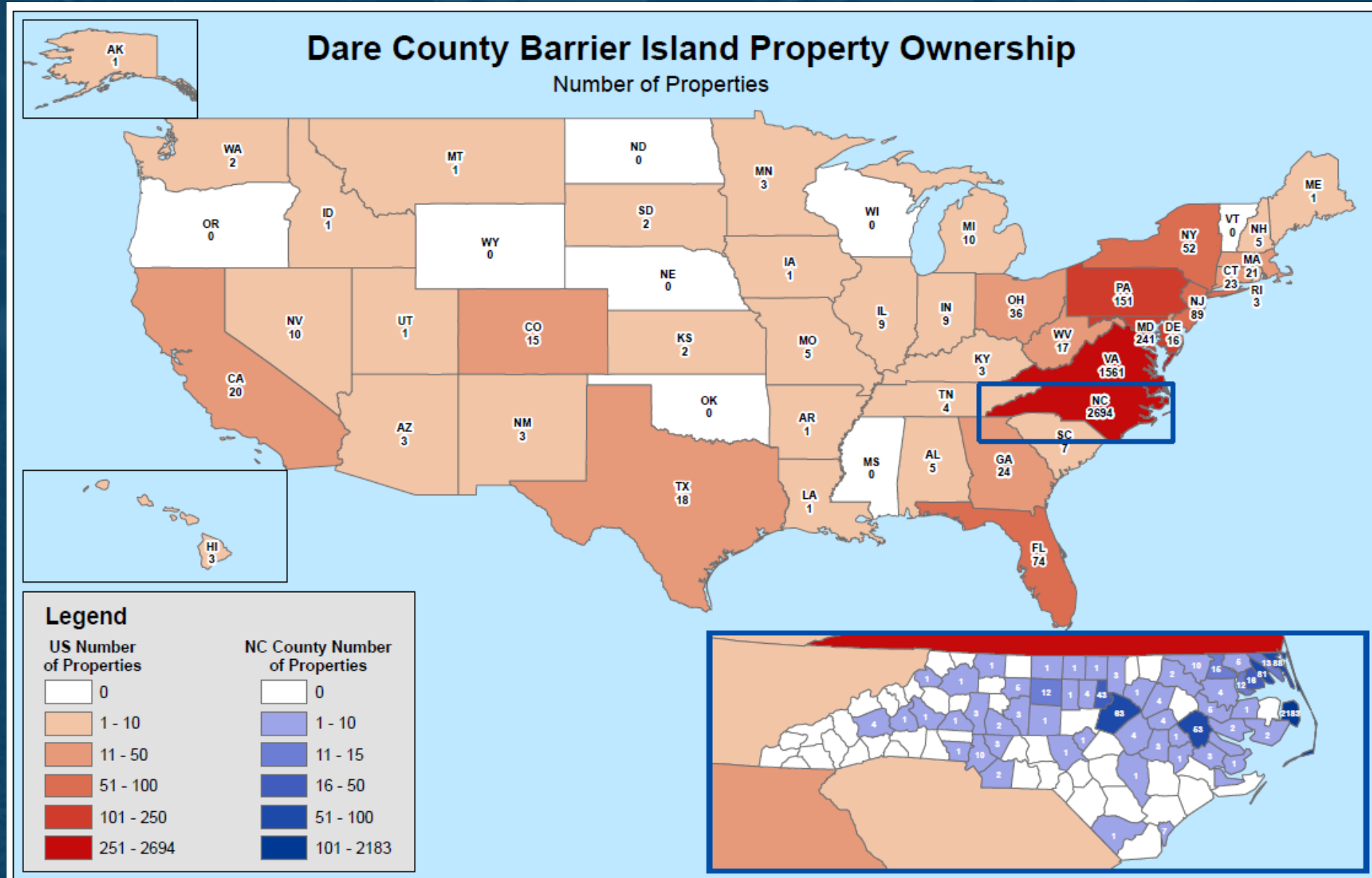
BIMP (2016 UPDATE) – Reach of the Beach



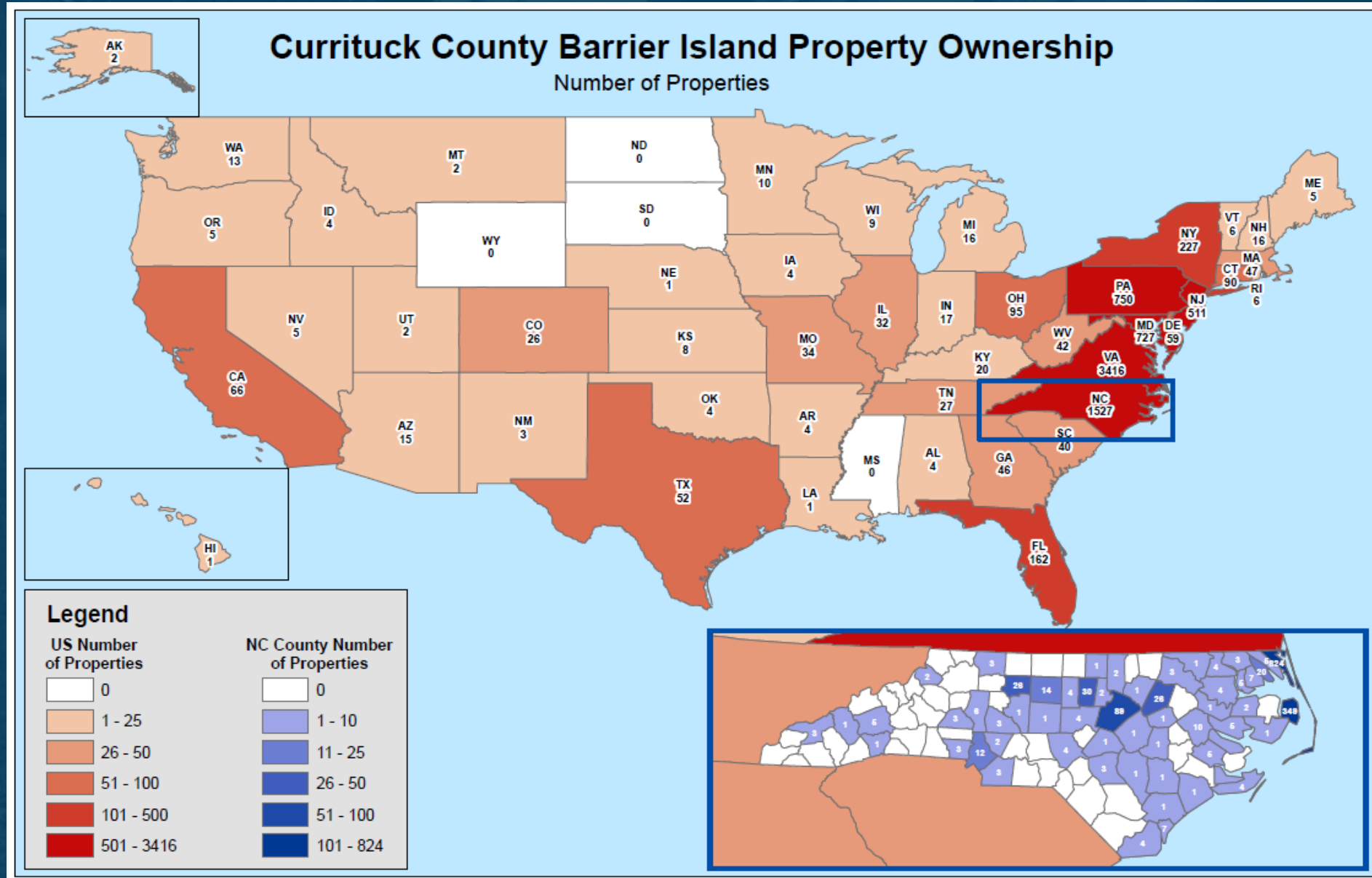
BIMP (2016 UPDATE) – Reach of the Beach



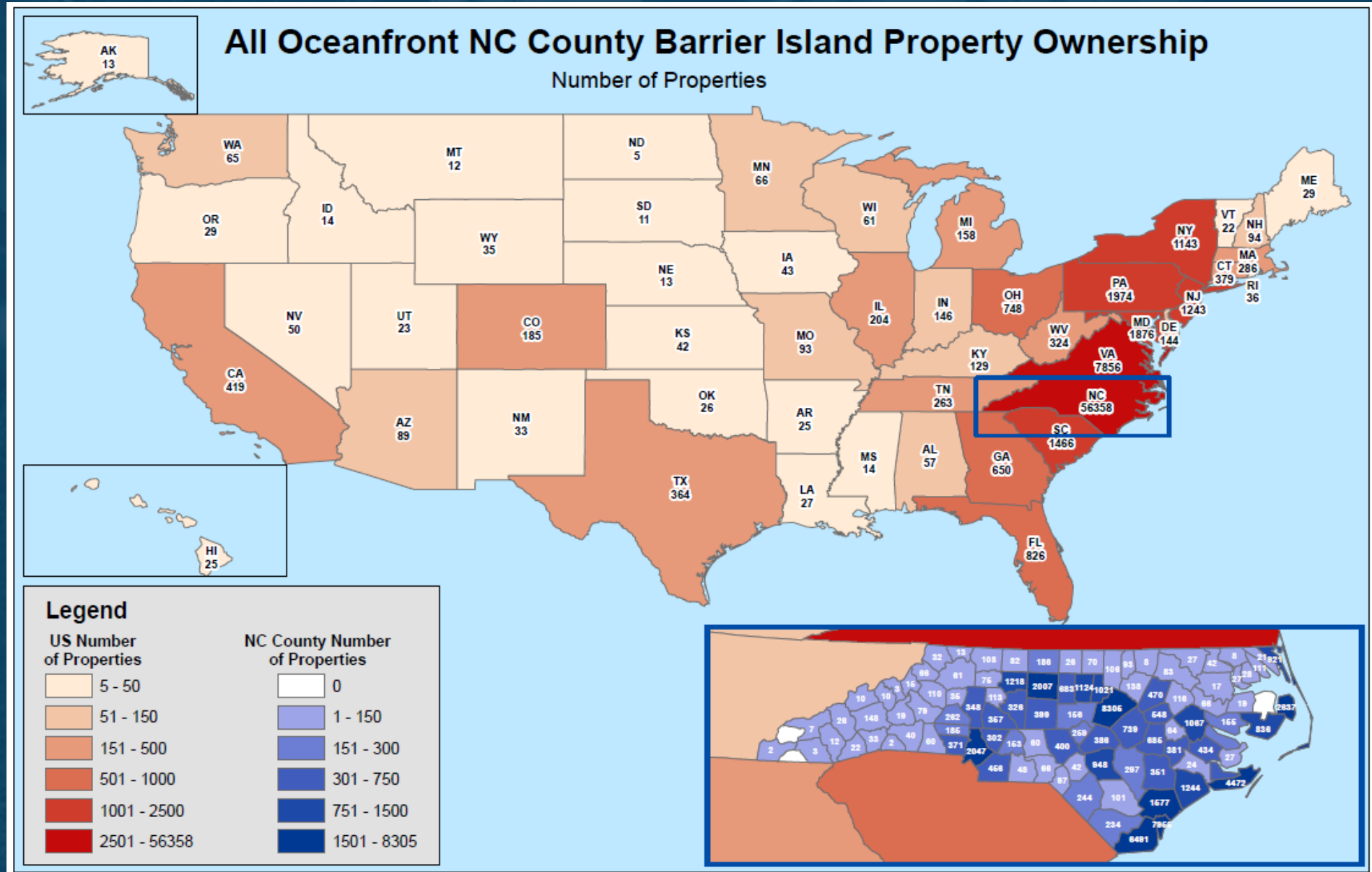
BIMP (2016 UPDATE) – Reach of the Beach



BIMP (2016 UPDATE) – Reach of the Beach

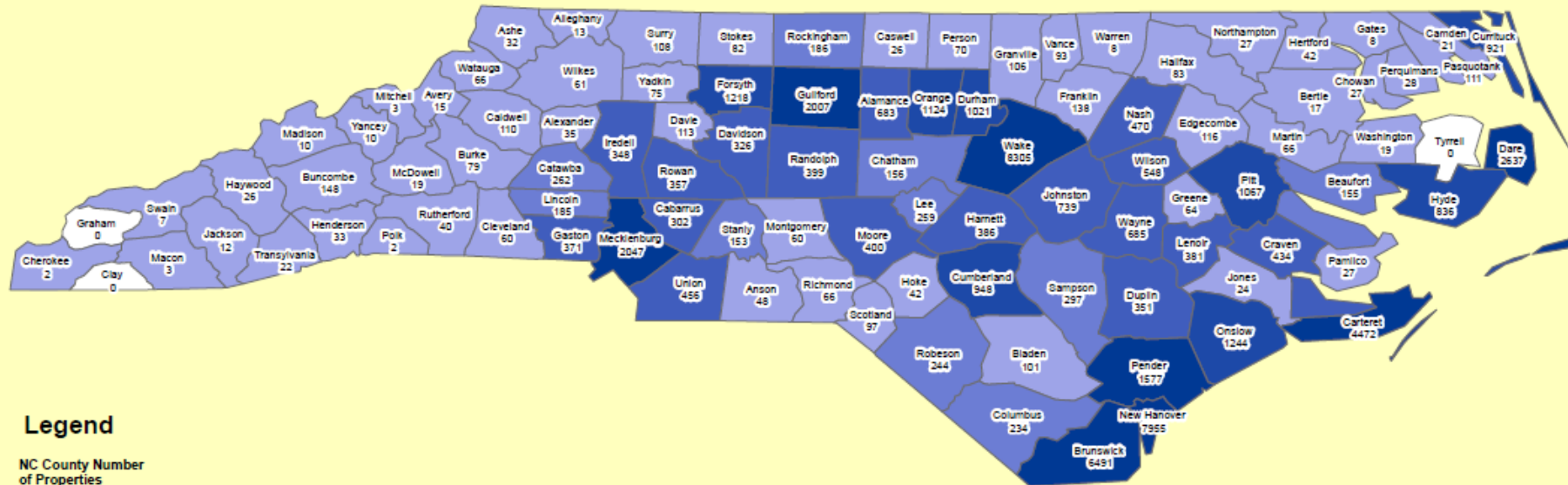


BIMP (2016 UPDATE) – Reach of the Beach



BIMP (2016 UPDATE) – Reach of the Beach

All Oceanfront NC County Barrier Island Property Ownership
Number of Properties



Legend

NC County Number
of Properties

