

The Economic Effects of a Dredging and Maintenance Program for the AIWW in NC

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Acknowledgements



Atlantic Intracoastal Waterway

- 3,000-mile recreational and commercial waterway
- Natural inlets, rivers, bays, sounds and manmade canals
- Maintained by the US Army Corps of Engineers.
- Legislated minimum depth of 12 ft
- Shoaling or shallow water are problems along several sections of the waterway.

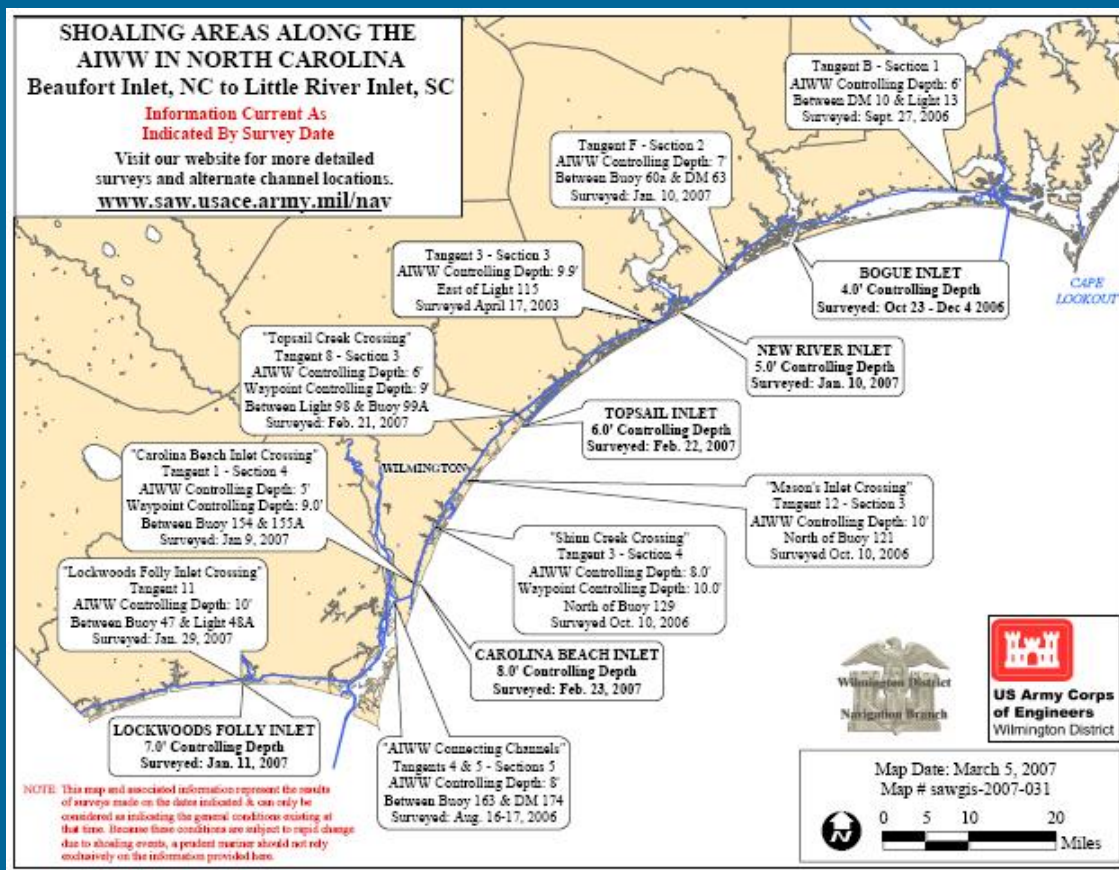


Senator Dole, 2006

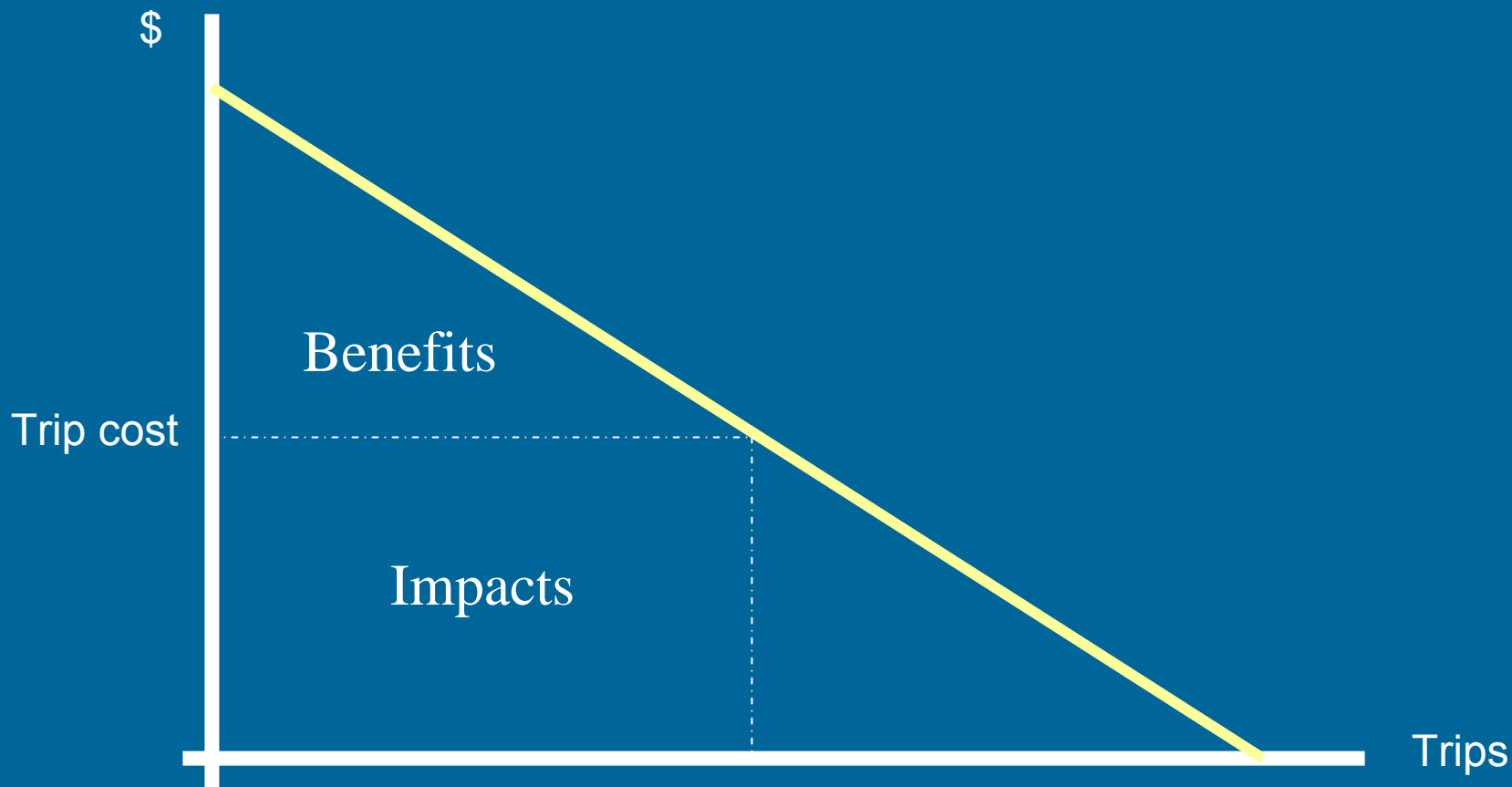
- "Overall, I believe the President has submitted a good budget that funds critical national priorities, ..., while at the same time holding the line on wasteful spending.
- However, I believe it falls short with regard to specific North Carolina needs. In particular, I am disappointed that crucial projects including ... [the] Atlantic Intracoastal Waterway, and North Carolina's Shallow Draft Navigation Inlets were under-funded."



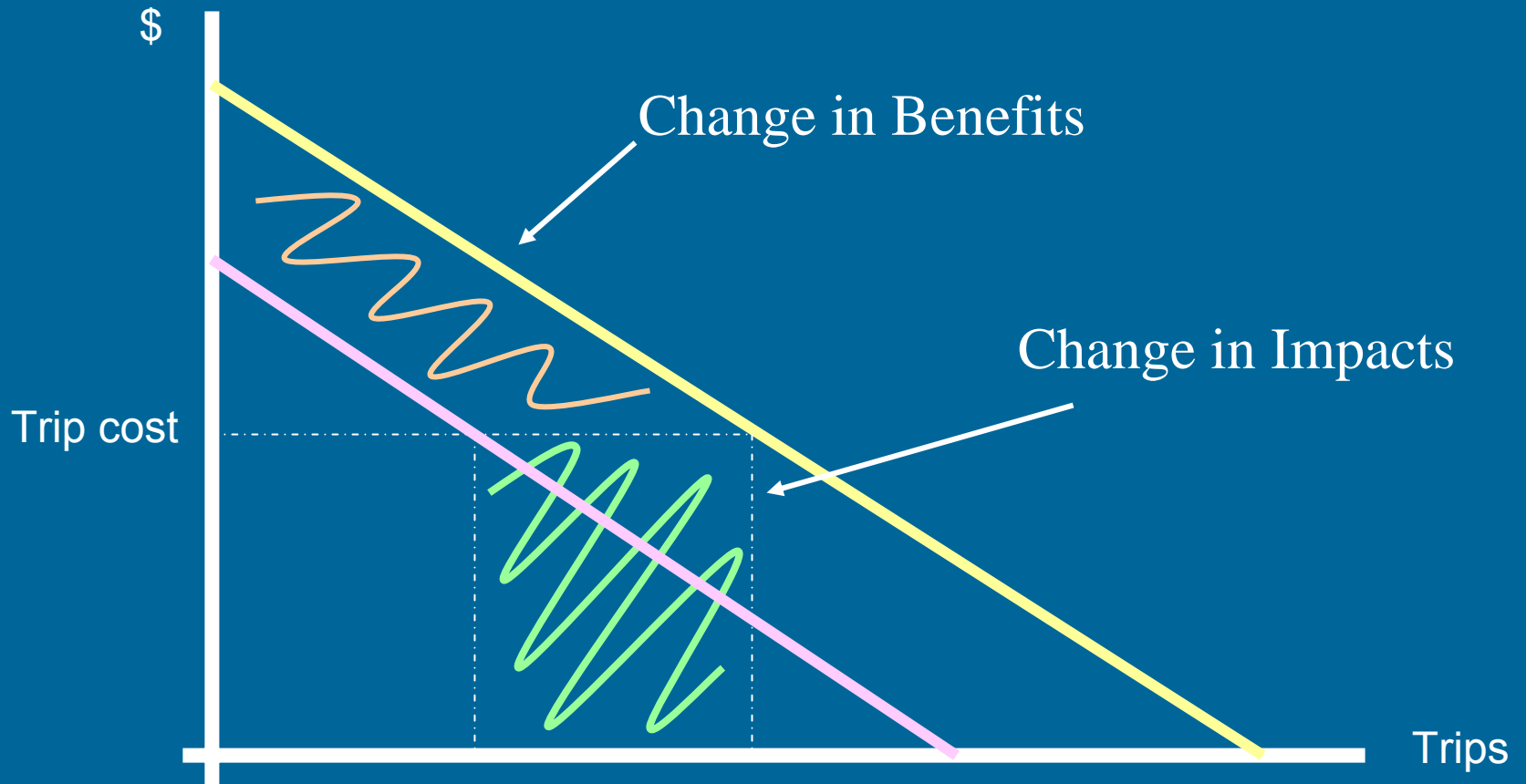
Shoaling Areas in NC



Recreational Benefits and Impacts



Change in Benefits and Impacts



Recreational Boaters' Survey

Location	County	Field Surveys	Percent
Coinjock Midway Marina	Currituck	32	2.72
Coinjock Marina	Currituck	26	2.21
Great Dismal Swamp Visitors' Center	Camden	4	0.34
Oriental	Pamlico	27	2.3
Beaufort Waterfront	Carteret	244	20.77
Beaufort Radio Island	Carteret	137	11.66
Morehead City 70 West Marina	Carteret	59	5.02
Swansboro Dudley's Marina	Onslow	14	1.19
Swansboro Casper's Marina	Onslow	42	3.57
Scott's Hill Marina	Pender	107	9.11
Wrightsville Beach Seapath Marina	New Hanover	277	23.57
Carolina Bch State Park	New Hanover	5	0.43
Southport Marina	Brunswick	201	17.11
		1175	100

Recreational Boaters' Survey

State	Number	Percentage
NC	1099	78.78
FL	67	4.80
VA	63	4.52
MD	35	2.51
SC	20	1.43
PA	18	1.29
NY/NJ	17	1.22
GA	10	0.72
CT	9	0.65
MA	8	0.57

- 34 states represented. Results for the “top ten” states are presented in the table to the left.
- One-in-five boaters on the AIWW is out of state.

Willingness to Pay

- Federal government funds for dredging of the Atlantic Intracoastal Waterway in NC are threatened.
- If dredging completely stops, the average depth of the NC portion of the Atlantic Intracoastal Waterway would be about 4 feet.
- A NC dredging and maintenance program would provide enough funding to maintain an average depth of 12 feet in the NC portion of the Atlantic Intracoastal Waterway.

Willingness to Pay, cont.

- The dredging and maintenance program would be funded by a \$A surcharge on your annual boating registration fee.
- Each registered boater with a boat longer than 16 feet using the NC portion of the Atlantic Intracoastal Waterway would be required to purchase a sticker each year to be placed alongside the registration number on the boat.
- Would you be willing to pay \$A in additional annual boating registration fees each year for this program?

Willing to Pay \$A?

\$A	WTP
\$10	87%
\$25	76%
\$50	63%
\$75	59%
\$100	47%

Determinants of WTP

- Income elasticity = 0.39
- Credible scenario = + \$20
- $\Delta WTP / \Delta \text{trip} = \0.48

Aggregate Willingness to Pay

- 355,453 boats registered in NC (2003)
- 211,318 with length greater than 16 ft
- 203,953 with zip codes in the range of AIWW sample
- Average WTP = \$90
- Aggregate annual WTP = \$18 million

Expenditures

			Average per Vessel	
	<u>Sample</u>	<u>Total</u>	<u>Within NC</u>	<u>Within County</u>
NC Residents	1099	\$514	\$463	\$383
Non-NC Residents	301	\$1,718	\$384	\$195

Expenditures by Category

<u>Category</u>	<u>Average Per Vessel</u>
Gas to Site	\$51
Launch Fees	\$11
Boat Fuel	\$318
Lodging	\$74
Restaurants	\$115
Groceries	\$89
Bait/Tackle	\$46
Other Supplies	\$69
Total	\$773

Baseline Economic Impacts (millions)

	Direct	Indirect	Induced	Total
Output	\$114	\$19	\$124	\$256
Labor Income	\$67	\$6	\$50	\$124

AIWW Revealed and Stated Preference Boating Trips

	Trips
Last year	38
Next year	42
Next year (12 ft)	42
Next year (4 ft)	23

Change in Economic Impacts with a 4 ft AIWW (millions)

	Total
Output	-\$103
Labor Income	-\$50

Economic effects of a change in AIWW depth from 4 ft to 12 ft (millions)

Benefits	\$18
Impacts (output)	\$103

Maintenance Costs

- \$11 million
- Source: Atlantic Intracoastal Waterway Association

Conclusions

- Net benefits are about \$7 million
- Local economic impacts are large

