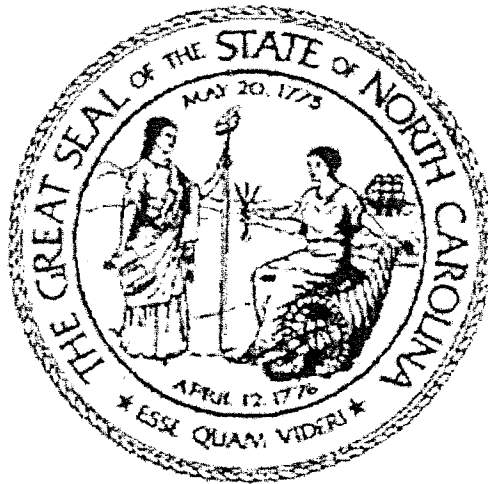


---

# OREGON INLET LAND ACQUISITION TASK FORCE

---



Report To The  
2014 Session  
Of the  
North Carolina  
General Assembly

May 2014

## **Executive Summary**

The Oregon Inlet Land Acquisition Task Force was established by Session Law 2013-138 (House Bill 707), ratified by the General Assembly on June 13, 2013 and approved by the Governor on June 19, 2013. Among other issues to study, the Task Force was to explore any and all options for acquiring Oregon Inlet and the real property adjacent thereto, and determining whether and to what degree the federal government will sell to the State Oregon Inlet and the real property adjacent thereto or exchange the property for State-owned real property.

In 1952 the establishment of the Cape Hatteras National Seashore transferred ownership of the property around the inlet to the U.S. Department of the Interior. North Carolina conveyed coastal lands to the federal government in a deed dated August 7, 1958, and recorded September 3, 1958, in the Dare County Registry of Deeds.

An open and navigable channel is needed to provide economic benefits to the region, dependable and safe waterway passage for commercial and recreational boats, and improved environmental benefits. The safety and navigability of Oregon Inlet has been the subject of a series of engineering, economic, and environmental studies by federal and state agencies since the 1960s. In 1968, in response to a request by the House and Senate Public Works Committees, the US Army Corps of Engineers (Corps) conducted a study as to the advisability of modifications to the inlet. The Corps made recommendations that led Congress to authorize dual rock jetties and a 20-foot channel for the inlet in 1970.

In 2003, the Council on Environmental Quality, the U.S. Army Corps of Engineers, and the Interior and Commerce Departments announced that they had reached agreement not to proceed with development of the proposed navigation project. The decision to cease work on the Oregon Inlet jetty project ended the 30-year planning and development effort. Since the 2003 decision, the channel through Oregon Inlet has been maintained through dredging by the US Army Corps of Engineers. However, the efforts of the Corps have not consistently maintained a channel to specification.

A sand management plan at Oregon Inlet is a viable option for dealing with the stabilization of the Inlet and a sand management plan could be incorporated into the Oregon Inlet design. The principles of natural sand management have been effectively used for stabilizing inlets for both water quality and navigation not only along the east coast of the United States but worldwide. Sand management can employ bypassing systems, construction of jetties, or a combination of both. Successful projects are environmentally safe while maintaining safe and navigable channels for boats.

The role of Oregon Inlet in maintaining water quality for the region cannot be overstated. Oregon Inlet is the only inlet functioning for water exchange in the upper Pamlico and Albemarle region. Given that there is insufficient water depth and hydraulic head to maintain multiple inlets, management is required to maintain an open inlet that can support both ecological and transportation functions. Without a constant exchange of water, the combined sounds have no way of flushing and therefore affecting the ecosystem. Many species of fish and other marine life that need both the ocean water and freshwater in order to spawn and complete other stages of their life cycles are impacted without access to and from the ocean.

The State Property Office of the Department of Administration contracted for an appraisal of the estimated fair market value of the 100% fee simple ownership of tracts of property both north and south of Oregon Inlet.

The subject property consisted of two tracts — Oregon Inlet North Point Tract of 530 acres owned by US National Park Service and Oregon Inlet South Point tract of 180 acres owned by US Fish and Wildlife Service. The appraisal concluded that the highest and best use of the property is recreational because land use restrictions removed all development rights (except for inlet stabilization structures). The "as is" market value estimate for the 710 acre subject property is \$29,963,000, rounded, or \$42,200 per acre, as of effective date of March 28, 2014.

The Department of Administration had preliminary discussions with officials of the US Fish and Wildlife in Atlanta relative to potential exchanges of property as it relates to Oregon Inlet. Of interest to US Fish and Wildlife were tracts of property that could join or connect existing federal property currently used as wildlife refuges and reserves. Although these discussions are in the very early exploratory stages and further detailed discussions will be scheduled, the aspect of possible exchange or acquisition of property with the federal government is a promising approach toward developing a workable and cost effective solution to the continual problems associated with keeping the Oregon inlet channel navigable and safe.

There has been considerable legal work done in previous years by private legal firms concerning the methods by which the State might re-acquire interests in ocean front property necessary to site the jetties needed to stabilize the channel of the Oregon Inlet. Those options are: purchase and sale; gift; exchange; and, condemnation. The Federal Government has the authority to sell or give to the State the necessary property interests and statutory provisions for receipt of gifts of real property interests by the State. The Department of Administration has contacted federal officials with US Fish and Wildlife for the purpose of opening a discussion regarding either the purchase or sale of property or exchange of property. As an alternative, while the reacquisition of the area set forth in N.C. Session Law. 2013-138 would be ideal, fee ownership of a large tract may not strictly be necessary. Permanent and temporary easements may be sufficient for the construction and maintenance of the needed jetties, especially considering that submerged land seaward of the foreshore still belongs to the State. The 1958 deed by which the State gave both fast and submerged land constituting the Cape Hatteras National Seashore contained language providing that the State retained ownership of the existing highways, that both the State and its political subdivisions having jurisdiction of the areas could establish new highways and, toward that end, could condemn any of the areas conveyed as if they were owned by a private individual. Regarding the acquisition of needed property for jetty construction, initiation of legal action against the federal government would probably be an action of last resort. It is always best to avoid legal action if possible if the objectives can be achieved through other means.

The need and value of a stabilized Oregon Inlet for regional economic viability, safety for commercial and recreational boats, and for environmental benefits has been well documented. Past efforts of dredging have proven to be largely ineffective in maintaining a reliable navigable channel through the inlet resulting in more frequent closures. Adequate funding for dredging of the Oregon Inlet continues to be an annual ongoing concern of the area residents that depend on a safe and navigable inlet for employment. Simply acquiring the property without alleviating the concerns of the federal government as it related to the Corps of Engineers' project for inlet stabilization will not lead to or, in all likelihood, achieve the desired results for resolving the shoaling and navigability issues of the inlet. The federal government concerns with the authorized Corps project involved four issues as follows:

- The effects of the jetties and sand bypassing system on the natural littoral processes;
- The perceived incompatibility of the jetties with the purposes for which the Cape Hatteras National Seashore and the Pea Island National Wildlife Refuge were established;
- The effects of the proposed jetties on the movement of larval organisms through Oregon Inlet; and
- The economic viability of the project.

Some of these issues persist today while others have been alleviated due to advances in science, policy, and economic conditions. There have been technological advances in the modeling used for shoreline and inlet

management analysis. Economic studies conducted in 2006 have concluded that the economic benefit of Oregon Inlet to Dare County and the surrounding region is very significant. Additional studies will be necessary to answer questions related to the ability of fish larvae to reach habitat in the sounds. These studies will aid in the design process of evaluating various engineering alternatives.

Therefore, the Task Force recommends pursuing the following initiatives in parallel:

- Continue discussions with federal officials on acquiring property or easements necessary for developing an effective and environmentally acceptable engineered solution to maintain the stability of Oregon Inlet.
- Continue the legal research regarding the title and ownership of the property north and south of the inlet within the description stated in Section 3.8 of Session Law 2013-138.
- Assess the feasibility of various engineered alternatives to address sand management and navigational issues at Oregon inlet.
- Based on the a selected engineering alternative, advance the project timeline and facilitate the permitting through preparation and documentation of relevant biological, physical, ecological and public trust information and dialogue with appropriate federal agencies involved in the permitting.
- Undertake a larval transport study to address the known concerns of federal agencies related to this issue.

Lastly, due to the importance of the Oregon inlet to the economic and environmental well-being of this part of North Carolina, the work of the Task Force needs to continue beyond the filling of the report.

---

## TABLE OF CONTENTS

---

### Table of Contents

I.	Introduction and Authorization.....	10
II.	Background.....	13
III.	Need for Navigability Stabilization.....	15
IV.	Sand management at Oregon Inlet and Environmental Impacts.....	18
V.	Acquisition of Oregon Inlet Property.....	18
	A.    Appraisal of Property.....	20
	B.    Consultation with Federal Officials.....	22
VI.	Options for Acquiring Property.....	23
	A.    Purchase and Sale, Gift or Exchange.....	23
	B.    Condemnation.....	23
	C.    Putatively Private Land immediately North of the Inlet.....	24
VII.	Recommendations.....	24
VIII.	References.....	27

---

## TRANSMITTAL LETTER

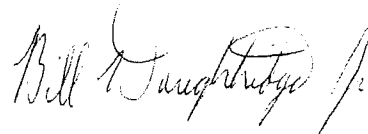
---

May 1, 2014

**TO THE SPEAKER OF THE HOUSE OF REPRESENTATIVES, THE PRESIDENT PRO TEMPORE OF THE SENATE, AND THE  
NORTH CAROLINA GENERAL ASSEMBLY**

The OREGON INLET LAND ACQUISITION TASK FORCE respectfully submits the following report pursuant to SL2013-138 to the 2014 Regular Session of the 2013 General Assembly.

Respectfully submitted,

A handwritten signature in cursive script, reading "Bill Daughtridge, Jr.", is positioned above the typed name.

Secretary Bill Daughtridge, Jr. (Chair)



---

# TASK FORCE PROCEEDINGS

---

The Oregon Inlet Land Acquisition Task Force met 4 times after the North Carolina General Assembly 2013 Regular Session.

## February 6, 2014

- Task Force Charges
  - Chair Bill Daughtride  
North Carolina Department of Administration, Secretary
- Oregon Inlet Overview
  - Harry Schiffman  
Dare County Oregon Inlet Advisory Task Force, Vice-Chair  
Oregon Inlet Legislative Liaison for Governor Jim Martin
- History of Oregon Inlet
  - Jerry Jennings  
North Carolina Department of Transportation, Division 1, Engineer
- Past Efforts
  - Bob Peele  
Wanchese Seafood Industrial Park, Director
- Sufficiency of the Boat Industry
  - Captain Paul Spencer  
Spencer Yachts, Inc., Proprietor
- Discussion and Planning
  - Senator Bill Cook, District 1

The Task Force met 10:00AM-1:30PM at the Coastal Studies Institute, Wanchese, NC

## February 26, 2014

- Oregon Inlet Terminal Groin
  - Tom Jarrett  
Project Manager/Engineer

The Task Force met 2:00PM-4:00PM at the Department of Administration, 116 West Jones Street, Raleigh, NC

## March 26, 2014

- Subcommittee Report Findings
  - Secretary Bill Daughtride, Chair

The Task Force met 2:00PM-4:00PM at the Department of Administration, 116 West Jones Street, Raleigh, NC

## April 24, 2014

- Current Conditions of Oregon Inlet
  - Sterling Baker  
North Carolina Department of Transportation, District 1, Maintenance Engineer
- UNC Coastal Institute
  - Dr. Nancy White  
UNC Coastal Studies, Director
- Sand Bypassing System
  - Dr. Billy Edge  
North Carolina State University  
Department of Civil, Construction and Environmental Engineering

The Task Force met 10:00AM-1:00PM at the Coastal Studies Institute, Wanchese, NC



---

## SUMMARY OF TASK FORCE PROCEEDINGS

---

This section of the report provides a brief summary of the Task Force meetings. It is not intended to be a complete, official record of those meetings.

### February 6, 2014

Dare County Board of Commissioners Chairman Warren Judge, welcomed Task Force and expressed gratitude to the North Carolina General Assembly for the initiative to stabilize the Oregon Inlet.

Harry Schiffman, Dare County Oregon Inlet Advisory Task Force Vice-Chair, provided an extensive PowerPoint of the geography, migration, economics, and past legislative attempts to sustain the Oregon Inlet.

Jerry Jennings, Division Engineer, represented the North Carolina Department of Transportation, explained the historical efforts; involving dredging and the correlation of the water transportation and the dependability of the bridge. Transportation is an integral aspect for the vitality of the region.

Bob Peele, Director of the Wanchese Seafood Industrial Park, presented ***Examples of Legislative and Permitting Efforts on the Manteo (Shallowbag) Bay Project***. The presentation explained the chronology of previous Federal and State administrations and the inconsistencies regarding legislative and permitting efforts.

Captain Paul Spencer proprietor of Spencer Yachts, Inc. shared the economic impact of an Oregon Inlet. The boat building industry has a significant value to area. He explained the inability to provide consistent customer service in executing the delivery of multimillion dollar vessels. Many boat builders are discouraged and are forced to leave the area.

Secretary Daughtridge assigned the following subcommittees: Fishing/Economics, Legal, Transportation and Safety, Environmental Impacts, Revenues, and "The Big Picture."

### February 26, 2014

Tom Jarrett, Project Manager/Engineer, Coastal Planning & Engineering, Inc., served on a Governor appointed task force to develop alternative plans to protect the Bonner Bridge, which spans the Oregon Inlet. He explained his alternative to place a terminal groin on the north end of Pea Island. Mr. Jarrett worked with the State of North Carolina to obtain the necessary special permits from the Fish and Wildlife Service and participated in the development of the detailed design and specifications for this work as a member of the District's design team. During his presentation he shared various phases of the project ranging from feasibility to general design. Mr. Jarrett explained breakwater and impacts of hurricanes on flow through the existing and improved inlet and detailed sediment budget studies for the project, working in cooperation with federal agencies, and a developed unique sand management plan for the inlet stabilization project.

Secretary Daughtridge instructed each committee to provide a rough draft of findings for next meeting.

March 26, 2014

Secretary Daughtridge presided, the Task Force subcommittee discussed reports and plan of action.

April 24, 2014

Sterling Baker, Division 1/County Maintenance Engineer provided an update of the current conditions of the Oregon Inlet. The water depth reported being two feet and incapable of dredging. The side cast dredge MERRITT will, once again, try to open the channel at the navigation span of the Bonner Bridge. If the MERRITT successfully dredges the channel to a controlling depth of six feet, the District will use the dredge CURRITUCK to continue dredging of the channel.

Dr. Nancy White, Director of the UNC Coastal Studies shared information relative to the scientific approach for environmental and economic elements to coexist. Dr. White elaborated on the need to sustain the Oregon Inlet for research and the local economy. It was her recommendation to conduct an intensive fish larvae study during the next few years.

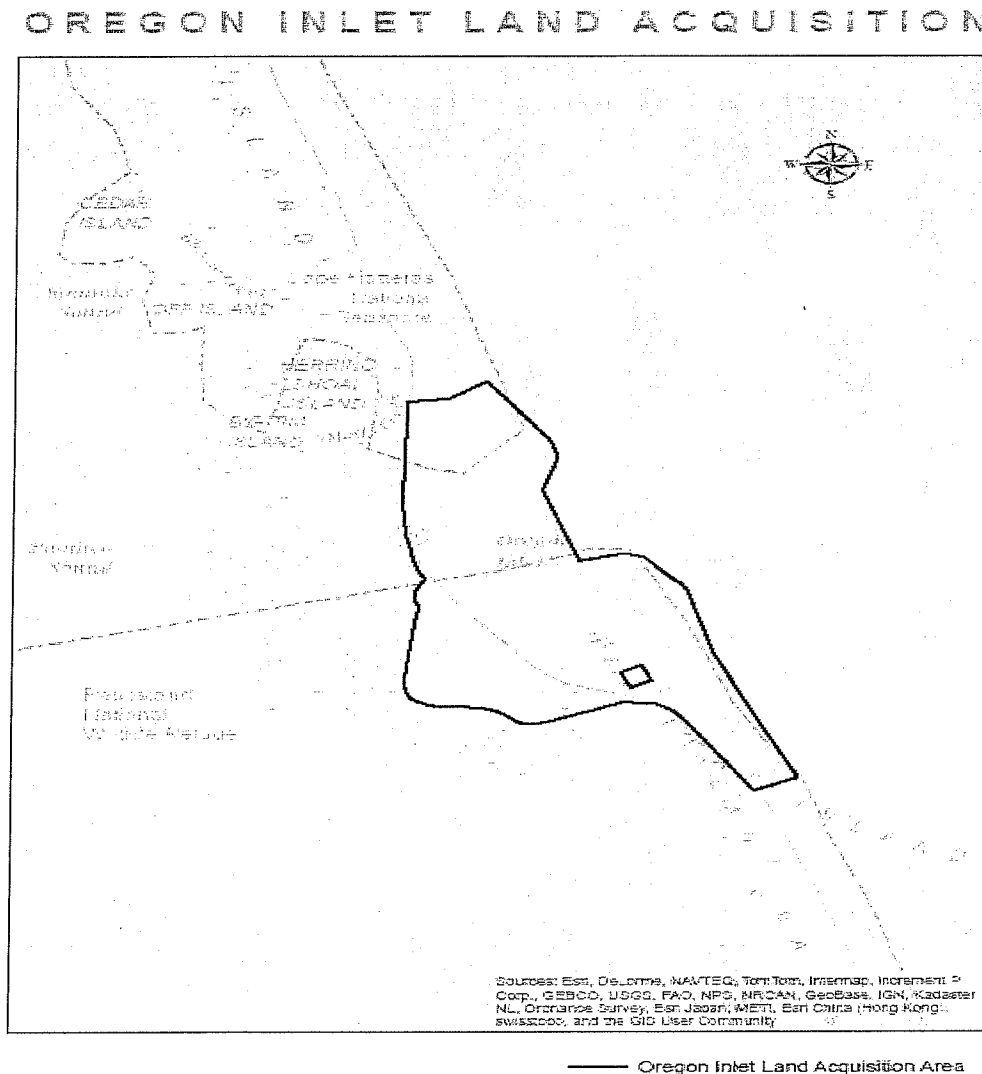
Dr. Billy Edge, Department of Civil, Construction, and Environmental Engineering for North Carolina State University, lectured on **Sand Bypassing and Jet Pumps, Oregon Inlet Application** and the environmental need for inlet stabilization.

After considerable Task Force member discussion that is reflected in minutes and electronic correspondence, the final report was adopted.

## I. Introduction and Authorization

Session Law 2013-138 (House Bill 707), ratified by the General Assembly on June 13, 2013 and approved by the Governor on June 19, 2013, created the Oregon Inlet Land Acquisition Task Force (Task Force) for the purpose of determining, reviewing, and considering the State's options for acquiring the federal government's right, title, and interest in Oregon Inlet and the real property adjacent thereto, including submerged lands. The purpose of the legislation was to enable the State to acquire property, to allow the State to preserve Oregon Inlet, and to develop long-term management solutions for preserving and enhancing the navigability of Oregon Inlet - which is both a critical transportation corridor and a critical source of commerce for the North Carolina's Outer Banks.

Section 3.8 of the act provided a particular description of the property to be acquired. The federally owned property to be acquired by the State is described by connecting latitude and longitude points listed in the legislation and graphically shown by the following figure:



The Task Force was charged with the following duties:

1. Consulting with the State Property Office and agencies and departments of the federal government, including the United States Department of Fish and Wildlife, United States National Park Service, Congressional Budget Office, and members of the North Carolina congressional delegation to establish the monetary value of Oregon Inlet and the real property adjacent thereto.
2. Determining whether and to what degree the federal government will sell to the State Oregon Inlet and the real property adjacent thereto, or exchange the property for State-owned real property. If the federal government expresses a willingness to exchange the property for State-owned property, the Task Force shall determine the identity of the State-owned property and the monetary value of the property.
3. Exploring any and all options for acquiring Oregon Inlet and the real property adjacent thereto, including condemnation of the coastal lands conveyed to the federal government in a deed dated August 7, 1958, and recorded September 3, 1958, in the Dare County Registry of Deeds.
4. Considering any other issues deemed relevant by the Task Force that are related to the acquisition of Oregon Inlet and the real property adjacent thereto.

The Task Force was directed to submit a report detailing its findings and recommendations to the Speaker of the House of Representatives, the President Pro Tempore of the Senate, and the General Assembly by May 1, 2014.

The Task Force was comprised of the following members:

(1)	The Governor or the Governor's designee, who shall be chair.	Bill Daughtridge, Jr. Secretary Department of Administration
(2)	The Commissioner of Agriculture and Consumer Services or the Commissioner's designee.	Zane Hedgecock Chief of Staff
(3)	The Secretary of the Department of Administration or the Secretary's designee.	Speros Fleggas Senior Deputy Secretary
(4)	The Secretary of the Department of Commerce or the Secretary's designee.	Bob Peele Director Wanchese Seafood Industrial Park
(5)	The Secretary of the Department of Environment and Natural Resources or the Secretary's designee.	Neal Robbins Director of Legislative and Intergovernmental Affairs
(6)	The Secretary of the Department of Public Safety or the Secretary's designee.	Greg Baker Commissioner of the Law Enforcement Division
(7)	The Secretary of the Department of Transportation or the Secretary's designee.	Malcolm Fearing NC Board of Transportation Division 1
(8)	The Attorney General or the Attorney General's designee.	Elizabeth (Beth) Leonard McKay Special Deputy Attorney General Transportation Section
(9)	Two members of the Senate appointed by the General Assembly upon the recommendation of the President Pro Tempore of the Senate.	Senator Bill Cook Senator Bill Rabon
(10)	Two members of the House of Representatives appointed by the General Assembly upon the recommendation of the Speaker of the House of Representatives.	Representative Chris Millis Representative Paul Tine
(11)	The chair of the Dare County Board of Commissioners or the chair's designee.	Warren Judge Chairman

The following subcommittees were appointed by the Chairman to aid the Task Force in reviewing and considering the State's options for acquiring the real property adjacent to Oregon Inlet:

<b>Environmental</b>	<b>Legal</b>	<b>Transportation</b>	<b>Economics</b>	<b>Revenues &amp; Savings</b>	<b>The Big Picture</b>
Neal Robbins Zane Hedgecock	Chris Millis Beth McKay Speros Fleggas	Greg Baker Malcolm Fearing	Bill Rabon Bob Peele	Bill Cook Paul Tine	Warren Judge

## **II. Background**

The geology of the Outer Banks and the susceptibility of these barrier islands to the forces of nature have been dealt with by local residents for hundreds of years. It is no secret that these islands are subject to strong tides, storms, and constantly shifting sand. Oregon Inlet has been the only passageway to the Atlantic Ocean from the Roanoke Sound from Virginia to the Hatteras Inlet at the southern tip of Hatteras Island, a distance of approximately 150 miles. The value of the inlet to commercial and sport fishing interest, boat building and tourism is important to the economic vitality of the region. Access to the Atlantic Ocean is important but of little value unless the access is reliable, navigable and safe.

The navigability issues of Oregon Inlet and numerous ancillary issues such as economic impacts and the environment have been studied and debated for over fifty years. One of the most succinct summaries of the issues involved with Oregon Inlet was prepared by the Ruckelhaus Institute of the Haub School of Environmental and Natural Resources at the University of Wyoming. The Dare County Oregon Inlet Task Force requested the assistance of the Ruckelhaus Institute to conduct a stakeholder assessment leading to an evaluation whether a collaborative problem solving approach could be used dealing with the Oregon Inlet issue. Sections of the Ruckelhaus report related to the background issues follow and were supplemented with information from a History of Oregon Inlet prepared by the Dare County Oregon Inlet Waterways Commission in 1992 and subsequently updated in 1998. An Updated Prospective for Oregon Inlet (2014) prepared by Mr. Harry Schiffman provided additional information related to the history and need for a navigable Oregon Inlet.

In 1952, the establishment of the Cape Hatteras National Seashore transferred ownership of the property around the inlet to the U.S. Department of the Interior. At the time, Dare County and the State of North Carolina supported the establishment of the National Seashore and the transfer of property. National Park Service personnel promised the citizens of Dare County, "The National Park Service and its staff stand ready to cooperate with you at all times in the development of your communities." It was not until years later that the federal ownership of Bodie and Pea Islands would become a pivotal issue blocking stabilization efforts. [1]

The safety and navigability of Oregon Inlet has been the subject of a series of engineering, economic, and environmental studies by federal and state agencies since the 1960s. In 1968, in response to a request by the House and Senate Public works Committees, the US Army Corps of Engineers (Corps) conducted a study as to the advisability of modifications to the inlet. The Corps made recommendations that led Congress to authorize dual rock jetties and a 20-foot channel for the inlet in 1970. [2]

The Department of Interior participated in the design of and supported the stabilization project at a cost of \$11 million in 1970. In the years following the 1970 authorization, federal environmental laws passed by Congress increased the regulatory authority of the Department of Interior over hardened structures such as jetties. Currently, federal law requires the Department of Interior to formally approve a transfer of property to the project's lead agency, the Corps of Engineers, before construction begins. In September 1980, the Department of Interior stated that due to more recent regulatory requirements and concerns, the land use permits for property needed by the Corps for the project would not be issued without specific congressional authorization. Since 1980, North Carolina Congressional representatives have unsuccessfully attempted to pass federal legislation through Congress mandating the needed land transfer. [1]

After the authorization of the stabilization project, the State of North Carolina began preparing for a more dependable and improved passage through the inlet. To meet its obligations under the 1970 authorization, the State of North Carolina opened the Wanchese Seafood Industrial Park in 1981 at a cost of \$8 million (Session Law 2013-211 renamed the Wanchese Seafood Industrial Park the Wanchese Marine Industrial Park). The Seafood Park offered fishermen a central location where seafood buyers, processors, distributors, and suppliers could be reached. However, since the inlet has never been stabilized, many fishing operations have moved out of state and the Seafood Park has expanded its clientele to include non-commercial fishing interests. [1]

Between the 1970 authorization and 2001, the Corps spent about \$10 million designing the stabilization project and studying whether it was economically and environmentally sound (US GAO, 2001). A number of agencies and organizations participated in the environmental (NEPA) reviews and provided substantive comments. [2]

Despite the many studies and modifications to the project that the Corps made since the stabilization study was first initiated, the US Department of Commerce (the Marine Fisheries Service, part of the National Oceanic and Atmospheric Administration or NOAA), the US Department of the Interior (National Park Service and the US Fish and Wildlife Service), various environmental groups, and other interested parties do not believe their concerns were adequately addressed by the Corps' analysis, and they have continued to oppose the project. In general, these parties contend that the Corps' economic analysis was unsound and that the jetty project will cause significant beach erosion and impede migration of fish larvae to habitat in the sound, potentially leading to a significant reduction in the overall fish supply (US GAO, 2001). [2]

On October 16, 2001, the US Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) asked the federal Council on Environmental Quality (CEQ), to help resolve outstanding issues concerning the Corps' proposal to construct the jetties on the inlet, arguing that the proposal would threaten the fisheries by interfering with larval fish movement and destroying essential fish habitat. On May 1, 2003, CEQ, COE, and the Interior and Commerce Departments announced that they had reached agreement not to proceed with development of the proposed navigation project. The decision to cease work on the Oregon Inlet jetty project ended the 30-year planning and development effort. Since the 2001 decision, the channel through Oregon Inlet has been maintained through dredging by the US Army Corps of Engineers. [2]

A related issue to the inlet is the placement and pending replacement of the Herbert C. Bonner Bridge that spans the inlet between Bodie Island and Pea Island along NC Highway 12. The bridge, a 2.7 mile span, was built in 1963. Constant beach erosion, severe weather and high volume of traffic have taken

its toll on the bridge. The NC Department of Transportation has spent nearly \$56 million on repairs, maintenance and special inspections since 1990 to fortify the bridge (NC DOT, 2013). The bridge handles about 2 million cars per year, and the state DOT ranks it a 4 on a scale of 1 to 100, with 100 being the safest (James, 2011). The Federal Highway Administration has approved a plan to replace the bridge. The final alignment for the bridge is being contested by various conservation organizations. The Southern Environmental Law Center and other conservation groups are pushing the state to consider a longer bridge replacement alternative. They advocate a longer bridge that bypasses the unstable part of the island and the wildlife refuge and travels instead through the Pamlico Sound to the village of Rodanthe and are litigating the issue (SELC, 2013). [2]

A final factor affecting the background for this assessment is the recent political change in North Carolina state government. In 2012, both houses of the state legislature switched majority parties from Democrat to Republican. At the same time, a Republican, Pat McCrory, was also voted into the governor's office. Governor McCrory and the state legislature have expressed significant interest and support in assisting Dare County in finding a solution to Oregon Inlet navigation issues. In July 2013 the General Assembly, headed by Republican Senate Leader Phil Berger, passed a bill signed by Governor McCrory that authorizes the creation of a task force to study the possibility of the state purchasing the land surrounding Oregon Inlet from the Department of Interior. The 13-member Oregon Inlet Land Acquisition Task Force was directed to study the state's options in acquiring the land. [2]

Through the years the Corps of Engineers has continued its dredging efforts to keep the navigational channel open. Dredging has proven only partially successful; the channel has rarely been open to authorized specifications. On numerous occasions the inlet channel has become impassable and the Corps of Engineers has had to conduct emergency dredging. Shoaling problems have been further complicated by the continued shift of the inlet south. Since its inception, the inlet has migrated more than two miles south causing navigation and infrastructure dilemmas for the region. [1]

### **III. Need For Navigability Stabilization**

History has plainly demonstrated that dredging alone cannot provide the safety and dependability that is needed to provide the economic and environmental benefits essential to the well-being of the numerous communities surrounding the many sounds, rivers, creeks, and seashores in northeastern North Carolina. Had the plan, developed by the Corps of Engineers to stabilize the Oregon Inlet and authorized by Congress in 1970, been implemented, the financial and environmental rewards were projected to be significant. Several economic studies have been performed to assess the economic benefits to the economy of the region, the most recent in 2006 by Moffatt & Nichol. The 2006 Moffatt & Nichol study commissioned by Dare County took into consideration four sectors: Commercial Fishing; Seafood Packing & Processing; Boat Building & Support Services; and Recreational Fishing & Tourism. Totals indicated Annual Economic Benefits of 9,851 Jobs to Dare County and the Surrounding Region, and \$43,645,421 of State/Local Government Taxes & Fees (2005 data). Due to deteriorating channel conditions and the resulting impact on the economy, an update study may actually reveal lower numbers today. However, the potential for new businesses such as operations and maintenance for offshore energy and service for luxury yachts is great, and the yield is a more diversified economy with skilled high-paid labor. [3]

Dare County have contracted with Moffatt & Nichol to update their 2006 economic benefit study. As of the filling of this report, the results of the updated study have not been provided to the Task Force. It is



the intent of the Task Force to fill an amendment to this report containing the latest and most recent economic study data provided by Dare County when available.

The research and data demonstrate that the return on investment would be tremendous. North Carolina, Dare County, and the surrounding region would not only retain and grow businesses they are now losing (if there were a safe and dependable channel at Oregon Inlet) but also capitalize on a great opportunity of economic development. A number of counties in the region that are among the poorest in the state would benefit. At least seven counties are tier 1 Economically Disadvantaged. There is great potential to generate much larger tax and fee revenues for governments with a dependable channel at Oregon Inlet. Opportunity exists for the preservation of existing jobs, the creation of additional jobs and stabilization of jobs in the off-season. A stable Oregon Inlet is a necessity for the state-owned Wanchese Marine Industrial Park to develop its potential economic impacts. There has been an annual impact reduction due to deteriorating inlet conditions and the economy. The reduction was \$64 million in 2011 as compared to impacts in 2005.

Safety considerations cannot be overlooked. An improved channel through the inlet would result in a reduction of loss of life and vessels at Oregon Inlet. At least 21 lives and numerous vessels have been lost due to hazardous conditions since stabilization efforts began. An improved channel would increase the accessibility for US Coast Guard and private towing companies to provide assistance to distressed mariners. The US Coast Guard Oregon Inlet Station responds to nearly 200 area calls (both in the channel and ocean-side) annually due to the turbulent waters that often catch vessels by surprise. Coast Guard assets use Oregon Inlet on a daily basis, often multiple times, to ensure safety of the recreational and commercial vessels that use the inlet. The inlet provides an invaluable access point for life-saving missions. The closest alternative Coast Guard stations are at Little Creek (North — 90 nautical miles) and Hatteras (South - 71 nautical miles). The lack of maintenance in Oregon Inlet has caused the inlet to be less safe due to shoaling, consequently increasing the number of vessels that run aground, capsize, etc., thus requiring an increased public safety presence while simultaneously jeopardizing response capabilities.

An open, stabilized inlet is critical for emergency ferry availability. Historically, the Bonner Bridge's integrity has been constantly jeopardized by naturally occurring erosion, potential for boat collisions, and weather. The potential for bridge closure necessitates the need for inlet/channel accessibility to establish DOT emergency ferry service for the approximate 4,000 residents of Hatteras Island, especially during hurricane season to ensure evacuation services. The need was most recently evidenced by the December 2013 Bonner Bridge closing. The potential for closure of Bonner Bridge also necessitates the need for inlet/channel accessibility to deliver emergency first responders, supplies, and other public safety support assets to isolated Hatteras Island residents in response to a natural disaster or emergency event.

The Oregon Inlet also provides emergency shelter for distressed vessels. As the only inlet along a 105 mile stretch of coast, the Inlet serves as a valuable option for ocean-side vessels that require emergency shelter from tropical storms, hurricanes, nor'easters and other inclement weather conditions. Hatteras Inlet, while located just south of Oregon Inlet, is not recommended (per Coast Guard) as a safe haven for vessels with drafts greater than five feet due to interior channel depths that are frequently less than six feet, a treacherous breaking bar, and misleading aids to navigation due to limited access to the inlet for Coast Guard buoy tending assets due to excessive shoaling. The nearest safe havens from Oregon Inlet are Chesapeake Bay (North — 90 NM) and Morehead City (South — 145 NM).

Secondary safety concerns involve inland emergency management and law enforcement response to natural disasters. Inland emergency management and law enforcement response is severely

hampered by extreme flooding caused by two factors:

- Lack of/inadequacy of "outlets" for the water flowing from inland tributaries. This water cannot escape through the narrow and shallow Oregon Inlet.
- Wind effect and storm surge are exacerbated during hurricanes and nor'easters that "push" the flood waters back inland because of an insufficient "outlet" volume.

Local Emergency Management officials have actually explored the possibility of purchasing specialty "watercraft" or a "hovercraft" type amphibious vehicle to respond to and rescue victims of boating accidents and shipwrecks caused by the treacherously unstable and shallow channel. These types of water craft are not only ineffective for rescue scenarios but they are also extremely expensive to purchase and maintain.

North Carolina has one of the greatest potentials on the east coast of the United States for development of offshore energy projects. Oregon Inlet would provide the nearest dependable and safe channel for support and emergency response vessels.

Commercial and recreational vessels would seek Oregon Inlet as a "Harbor of Refuge" due to inclement weather and/or for repairs. Oregon Inlet is the only authorized deep-water access for a distance of 220 miles along the coast of North Carolina. [3]

A functional Oregon Inlet could facilitate ancillary benefits for the environment with improved flushing of the Albemarle/Pamlico Basin providing the conditions needed to improve water quality. Farming operations in the region are impacted by the inlet. Crops can be destroyed by brackish waters. Salt water damage to crops may result when high wind tides force brackish water from the sounds back through drainage ditches and onto fields. This condition most often occurs with heavy rains and tidal surges from hurricanes. A restricted Oregon Inlet with increased tidal surges may result in an increase of flooding to farmland. With increased flooding by brackish waters, current crops can be destroyed and subsequent crops may also be harmed. Farmers in the Albemarle Sound region have had some problems over the years from brackish waters on their lands that caused immediate and long term crop loss.

Directly associated with flooding potential are the impacts on agriculture. If not allowed to quickly drain, brackish water can render crop land unsuitable for agriculture. When brackish water floods agricultural land, the salt is absorbed by the organic soils and this endangers plants by restricting their ability to absorb nutrients. Often, brackish water floods lead to complete crop loss. Once salt is introduced, it can take a few years for clean-up of the salt contamination. Farmers may apply gypsum or freshwater to lower the salinity levels for future plantings.

The Albemarle and Pamlico Sounds fill with fresh water from numerous river systems in eastern North Carolina. These rivers flow into the sounds and the water collects there waiting to flow into the Atlantic Ocean. The amount of time it takes for water to flow from such systems into the next water body (in this case the ocean) can influence water quality. For example, a longer period for water to leave the sounds and flow to the ocean can allow nutrients to collect for longer periods of time, leading to possible algal blooms. This condition could result in low dissolved oxygen causing adverse impacts on fisheries and other aquatic life. Closure of the Oregon Inlet could lead to longer time for waters in the Albemarle-Pamlico system to reach the ocean with the potential to create these adverse conditions.

Also, as an outlet during flooded storm conditions, a functional inlet could lessen flood threats to homes and infrastructure. Stabilizing the inlet would enhance the littoral migration of sand normally trapped in Oregon Inlet by allowing more sand to by-pass the inlet and nourish Hatteras Island beaches and help protect North Carolina Highway 12. In addition, it would aid in the stabilization of interior channels, reducing maintenance and protecting North Carolina's oyster planting efforts while reducing vessel groundings due to shifting shoals. [3]

Dredging efforts in Oregon Inlet have averaged almost \$7 million annually over the last ten years. These efforts have rarely yielded a channel to specifications. The current conditions have resulted in more frequent channel closures aggregating to approximately three months in each of the last three years. [3]

It has been predicted that as a stable and dependable channel, Oregon Inlet would draw many recreational boats and boaters to the area to fish, recreate, service and repair their vessels. The depleted local and historic boat building industry and related support services would benefit.

#### **IV. Sand Management at Oregon Inlet and Environmental Impacts**

The Task Force spent considerable time to understand the concepts of sand management and the associated economic and environmental impacts in implementation of a sand management project at Oregon Inlet. Tom Jarrett, P.E., Senior Vice President of Coastal Planning & Engineering of North Carolina, Inc., provided information on sand management at Oregon inlet. Mr. Jarrett worked for the U.S. Army Corps of Engineers for 34 years in the field of Coastal Engineering prior to joining Coastal Planning & Engineering of North Carolina, Inc., and has extensive experience dealing with coastal management issues in North Carolina. Mr. Jarrett believes that a sand management plan at Oregon Inlet is a viable option for dealing with the stabilization of the Inlet. Mr. Jarrett stated that a sand management plan could be incorporated into the Oregon Inlet design. The Corps of Engineers' last design did include a weir for cost savings and to alleviate environmental concerns of fish larvae in the near shore current to more easily access the inlet and sound. Further, based on his experience with the Corps of Engineers, Mr. Jarrett indicated only commercial fishing resources were considered in establishing the basis for economic justification for construction of the jetties by federal rules. Economic analysis of recreational fishing and boating and tourism dollars is not allowed in a cost benefit analysis. Essentially, according to Mr. Jarrett, only national interest such as commercial fishing could be factored into an economic analysis and justification for the project versus overall benefits to the local economy.

Masonboro Inlet was given as an example of a successful jetty project. Until the 1960s, the inlet was maintained by dredging; however, shoaling started to occur. A temporary relief jetty was developed on the north side to provide a navigation channel that could be centered. A south side jetty was developed to gain control of the inlet. Currently, the inlet provides a reliable channel for recreational and commercial fishing boats.

Mr. Jarrett commented that construction of the Bonner Bridge replacement would only fix the navigability problem temporarily. Sand management would continue to be an issue. Although the new replacement bridge has proposed two channels for navigation having three to five span openings suitable for clearance, there will be continued migration of the Bodie Island spit. There will come a time when the sand spit gets to the south end even with the new replacement bridge in place.

There are environmental benefits associated with stabilization of Oregon Inlet. It has been stated that the term "inlet" may be a misnomer in this case. Oregon Inlet is not an inlet at all, but an outlet to the ocean for sound and river water. If the inlet shoals over, it would essentially dam the water flow to the ocean. This would be critical in a hurricane event by restricting the outflow of water from torrential rains and creating inland flooding conditions. As part of an economic study proposal on Oregon Inlet, the consultant suggested to study the effects of the inland flooding impacts. Stated in the proposal was that there have been some observations of elevated water levels within the sounds of 6 to 10 inches. One theory as to the cause of this observed increase is that Oregon Inlet shoaling is not allowing adequate water exchange especially on falling tides. Although it is acknowledged that to relieve these conditions other inlets may open, these inlets would be shallow and not serve to effectively allow the outflow of water to preserve the water quality. A stabilized Oregon Inlet is vital to the water quality of the region.

The Outer Banks Chamber of Commerce has stated that it is imperative that there is an in- and out-flow for the waters of the Albemarle, Pamlico, Currituck and Croatan sounds. Without a constant exchange of water, the combined sounds have no way of flushing and therefore affecting the ecosystem. Many species of fish and other marine life that need both the ocean water and freshwater in order to spawn and complete other stages of their life cycles are impacted without access to and from the ocean.

The role of Oregon Inlet in maintaining water quality for the region cannot be overstated according to Dr. Nancy White, Director of the UNC Coastal Studies Institute in Wanchese. Dr. White noted that Oregon Inlet is the only inlet functioning for water exchange in the upper Pamlico and Albemarle region. Given that there is insufficient water depth and hydraulic head to maintain multiple inlets, management is required to maintain an open inlet that can support both ecological and transportation functions. Given the need for co-existence of sustainable ecosystems and society, inlets cannot be allowed to randomly open and close.

The principles of natural sand management have been effectively used for stabilizing inlets for both water quality and navigation, not only along the east coast of the United States, but worldwide. Sand management can employ bypassing systems, construction of jetties, or a combination of both. Successful projects are environmentally safe while maintaining safe and navigable channels for boats. Dr. Billy Edge with the Department of Civil, Construction and Environmental Engineering at North Carolina State University and Head of the Joint Program in Coastal Engineering at UNC Coastal Studies Institute provided information on other inlet stabilization projects in the United States and Australia. Constructed sand bypassing systems are designed to move sand from one side of an inlet to the other without filling-in the inlet. The deposited sand migrates down the shoreline naturally renourishing the beach. Essentially, constructed systems do what nature does while maintaining the stability of the inlet.

Oregon Inlet moves and continues to move to the south. Wave action transports sediment around and along the barrier island. The inlet is essentially a hole right through the barrier island and when the sand hits this area, the east to west tidal flows causes the sediment particles build up a bar or delta inside the inlet and off shore. The Nerang River Entrance in Australia was given as an inlet comparable to Oregon Inlet in terms of sediment transport. Jetties alone did not resolve all the problems with this inlet. Nerang employs a sand bypassing system with a jettied entrance which has worked well to maintain the navigable stability of the inlet.

Another example provided was Murrells River Inlet, South Carolina. This inlet employs a jetty system with a weir. The weir is low enough to allow sand and fish larvae to flow over it much like the Corps of

Engineers designed for Oregon Inlet in the late 1990s. The system at Murrells Inlet effectively puts sand in one place where it can be managed to the down drift side as it would have naturally occurred. A jetty system at Boca Raton, Florida also has a weir built into the jetty. Periodic maintenance and dredging of the inlet maintain the stability of the inlet. Not all stabilization systems are constructed for navigation purposes. The system at Lake Worth was to provide water quality enhancements and was not built for navigability. The concept for Oregon Inlet proposed by Dr. Edge that bears further study and consideration was shorter jetties than those designed by the Corps of Engineers with a sand migration or bypass system.

Dr. Edge concluded that a stable navigation channel was paramount for economic growth for the region. It would enable growth in the fishing industry and would provide long term support access for the development of off shore energy resources, whether it is oil and gas or renewable wind energy. The federal government is investing a significant amount of money in this industry and North Carolina needs to be ready to take advantage of opportunities in the industries of supply boats for this type of energy development. Further, uncontrolled sediment build up in the inlet challenges safety. A business friendly and safe navigational channel that has the depth capacity for supply boats is needed. There are effective solutions for inlet stabilization that are environmentally safe.

## **V. Acquisition of Oregon Inlet Property**

### **A. Appraisal of Property**

The State Property Office of the Department of Administration contracted for an appraisal of the estimated fair market value of the 100% fee simple ownership of tracts of property both north and south of Oregon Inlet. The purpose of the appraisal was to obtain a market value estimate of the fee simple interest in the subject property to guide the State in negotiations with the landowner for acquisition or exchange into State ownership. The subject property consisted of two tracts — Oregon Inlet North Point Tract of 530 acres owned by US National Park Service and Oregon Inlet South Point tract of 180 acres owned by US Fish and Wildlife Service. The tracts are located six miles southeast of Wanchese, in Nags Head and Kinnakeet Townships, Dare County, North Carolina. The subject property consists of oceanfront beach east of NC Highway 12.

The appraisal concluded that the highest and best use of the property is recreational because land use restrictions removed all development rights (except for inlet stabilization structures). The property was difficult to appraise because there were no comparable land sales on this kind of property. Available acreage sales were old requiring excessive market conditions adjustments and the subject acreage was assumed to be encumbered with no future development potential (except stabilization structures). Encumbered local sales did not exist.

The subject property is located north of Oregon Inlet on US National Park Service land and south of Oregon Inlet on US Fish and Wildlife Service land. The north point tract has 1.6 miles of frontage on the Atlantic Ocean, and the south tract has 1.5 miles of ocean frontage. It has State road access from NC 12. The survey description in Section 3.8 of House Bill 707 covers an estimated 2,043 acres of real property and submerged lands. The North Point and South Point Oregon Inlet real property acreage estimates are 530 acres and 180 acres, respectively.

The subject real property is situated on an inlet through a barrier island constantly changing by actions of wind and the ocean. The original Oregon Inlet, created by an 1846 storm event, has migrated

approximately two miles south on Bodie Island. A 1953 photo shows the north point of the inlet at about the same latitude as Oregon Inlet Fishing Center. Except for a small area (1,400') north of this latitude, the majority of subject land area on the north point was created by accretion in the last sixty years. The subject land area on the **north point** is approximately 9,500' x 2,400' between the ocean and NC Highway 12 and the Herbert Bonner Bridge and totals **530 acres**.

The subject **south point** lies between the ocean and NC Highway 12 and amounts to **180 acres**. This acreage excludes the old US Coast Guard Station site of 10 acres. The inlet side was stabilized with a rock terminal groin to protect the bridge approach on Pea Island. Approximately 60 acres of accretion resulted from the south boundary of the ten acre site, now owned by the State of North Carolina, to the terminal groin. A valuation of the 60 acres was included in the appraisal report.

The property contains four land types based on elevation and vegetation zones and generally runs east to west from the ocean to Pamlico Sound: (1) Barrier dunes on beach, (2) Dry sand flats behind the dunes which consist of vegetated flats, (3) Wet sand flats which are frequently flooded with no vegetation, and (4) Marshland.

In general, the two tracts — Oregon Inlet North Point and South Point — add up to 710 acres. The North Point, part of Cape Hatteras National Seashore, has been managed as a public park. The South Point, part of Pea Island National Wildlife Refuge has been managed for wildlife conservation.

The current use for both subject points is similar — recreational for oceanfront activity such as swimming, surfing, and fishing and wildlife conservation such as protections of migratory waterfowl and shorebirds.

Recent activity for protection of wildlife is exemplified in both federal agencies' emphasis on nesting site closure to the public on both points. Typically, the shorebird (Piping Plover, Terns, Oyster Catchers, and Skimmers) nesting sites are closed from April to September. Also, sea turtle nesting sites are marked as "closed area" between May and November.

There have been no prior sales of subject property in the last sixty years.

In the 1930s, Congress authorized protection of the first oceanfront beach located in Dare County, North Carolina and called it Cape Hatteras National Seashore Recreational Area. In the 1950s, acquisition was adequately funded and 40 plus miles of the national park area was established.

The Cape Hatteras National Seashore encompasses land areas in Bodie Island, Hatteras Island, and Ocracoke Island and both Bodie Island and Hatteras lighthouses.

The Pea Island National Wildlife Refuge was established in 1937 by act of Congress. The 12 mile barrier island encompassed 5,800 acres of ocean beach, sandflats, and marsh as well as 25,000 acres of submerged lands in the Pamlico Sound.

The subject North Point area was part of condemnation and declaration of taking on south Bodie Island recorded in June 1958. The subject North and South Point areas are part of deed conveyance from the State of North Carolina to the United States of American recorded in September 1958. This document describes both Seashore Park and Pea Island federally owned lands.

There is a disputed 298 acre area on the south tip of subject South Point claimed by W. A. Wirth estate and John Fletcher (10%). Oregon Inlet Users Association conveyed 1/10<sup>th</sup> interest to John Fletcher recorded in August 1993.

The appraisal of the property was based on a highest and best use analysis and market value estimate is based on data collection from the private, investment sector. For highest and best use, property must be valued as though vacant and available for development to its highest and best use even if the property's existing improvements do not represent the highest and best use of the site. The oceanfront property is considered vacant land requiring only this analysis. Capital improvements such as the park campground on North Point and terminal groin on South Point were not valued separately. Further, property was valued as if encumbered by land use restrictions on future development. Since the property is currently managed as a national park and refuge, the highest and best use for this tract is primarily recreational, i.e., fishing, swimming, surfing, and bird watching.

The subject 710 acre property was broken down into two components — 391 acres of oceanfront and oceanside upland and 319 acres of wetlands types such as marshland and wet sand flats. The absence of comparable oceanfront acreage sales encumbered to prevent development necessitated an oceanfront valuation methodology using dated sales and dramatic adjustments. The extracted per acre sales prices from wetlands sales provided an indicated value per acre for subject wetlands.

The **summation** of these two land components equaled an indicated value of a subject property as noted below:

	North Point Tract 530 Acre	South Point Tract 180 Acre Tract	South Point Tract 60 Acre
Oceanfront	\$17,325,000	\$12,000,000	\$4,050,000
Wetlands	\$ 598,000	\$ 40,000	\$ 12,000
	\$17,923,000	\$12,040,000	\$4,062,000
Total Valuation:			
Average/acre:	\$33,817	\$66,888	\$67,700

The "as is" market value estimate for the 710 acre subject property is \$29,963,000, rounded, or \$42,200 per acre, as of effective date of March 28, 2014.

## **B. Consultation with Federal Officials**

The Chairman of the Task Force had preliminary discussions with officials of the US Fish and Wildlife in Atlanta relative to potential exchanges of property as it relates to Oregon Inlet. Of interest to US Fish and Wildlife were tracts of property that could join or connect existing federal property currently used as wildlife refuges and reserves. The State Property Office prepared and forwarded to US Fish and Wildlife maps and descriptions of State-owned property adjacent or contiguous to federal property that may be of interest to the federal government in a land exchange. Likewise, US Fish and Wildlife was to prepare maps of property that it has an interest in acquiring. These discussions are in the very early exploratory stages and further detailed discussions will be scheduled after both parties have had an opportunity to review information provided to them. The aspect of possible exchange or acquisition of property with the federal government is a promising approach toward developing a workable and cost effective solution to the continual problems associated with keeping the Oregon Inlet channel navigable and safe.

## **VI. Options for Acquiring Oregon Inlet**

There has been considerable legal work done in previous years by private legal firms concerning the methods by which the State might re-acquire interests in ocean front property necessary to site the jetties needed to stabilize the channel of the Oregon Inlet. Those options are: purchase and sale; gift; exchange; and, condemnation. A brief discussion of those options is set out below. Also examined was the possibility that land immediately north of the inlet shown on Dare County land records to be in private hands might be helpful in obtaining the necessary lands.

### **A. Purchase and Sale, Gift, or Exchange**

The Federal Government has the authority to sell or give to the State the necessary property interests and statutory provisions for receipt of gifts of real property interests by the State. As reported in earlier sections of this report, the Department of Administration has contacted federal officials with US Fish and Wildlife for the purpose of opening a discussion regarding either the purchase or sale of property or exchange of property. As an alternative, while the reacquisition of the area set forth in NC Session Law 2013-138 would be ideal, fee ownership of a large tract may not strictly be necessary. Permanent and temporary easements may be sufficient for the construction and maintenance of the needed jetties, especially considering that submerged land seaward of the foreshore still belongs to the State. It is also possible that a proposal not seeking the fee to the lands in question would be better received by federal officials. Based on preliminary discussions described elsewhere in this report, some federal agency officials might have some interest in exchanging the property interests needed by the State for desired State lands near or abutting existing federal enclaves. No matter which of these methods of acquisition might be presented, any such cooperation with federal officials would of necessity be voluntary on their part. No matter how the necessary property interests might be acquired, the permitting of the construction by federal environment officials would be required to build the jetties.

### **B. Condemnation**

The 1958 deed by which the State gave both fast and submerged land constituting the Cape Hatteras National Seashore contained language providing that the State retained ownership of the existing highways, that both the State and its political subdivisions having jurisdiction of the areas could establish new highways and, toward that end, could condemn any of the areas conveyed as if they were owned by a private individual. Regarding the acquisition of needed property for jetty construction, initiation of legal action against the federal government would probably be an action of last resort. It is always best to avoid legal action if possible if the objectives can be achieved through other means.

The need for construction of the jetties as ordinary highway matters is highly debatable to directly protect either the existing or the proposed bridge over the inlet. However, what cannot be argued or disputed is the dynamic sand movement in the inlet around the existing Bonner Bridge. Both accretion and scouring occurs around the bridge supporting structure and, according to NCDOT officials, as much as a sixteen feet differential change in sand elevation can occur. Further, the lack of navigability through the designated navigation channel is a major issue involving safety of boats and the existing bridge. As the navigation channel becomes impassible except for the smallest of water craft, historically, boats have to go through the 3<sup>rd</sup> and 5<sup>th</sup> spans of the Bonner Bridge. The width between spans is only 35 feet. Most boats have a 20 foot width which leaves only 15 feet of total clearance. Trying to get through the spans due to the currents is dangerous and tricky. As a result, during April 2014, three boats, two



commercial and one recreational, hit the bridge. This is also problematic for "search and rescue" operations conducted by the Coast Guard. The Coast Guard is not allowed to go out through the spans, only through the navigation channel. Until the replacement bridge is constructed, the need for stabilization of the navigation channel is real and immediate.

Finally, it is at least theoretically possible to attempt a condemnation of property interests necessary to build the required jetties based on an alternative legal meaning of "public highway" as a navigable watercourse; seeking to invoke the condemnation provisions of the 1958 deed to protect that "highway." Such an action would require additional study and careful deliberation on the part of the State given the likelihood of prolonged litigation. However, such an argument may not be totally unreasonable or unprecedented given that the NC General Assembly enacted legislation in 1885 (Chapter 212) declaring the Yadkin and Great Pee Dee Rivers public highways.

### **C. Putatively Private Land Immediately North of the Inlet**

There is a parcel of land immediately north of the Inlet (the southerly portion of Bodie Island) that Dare County land records show as in private hands. The land of the record owners was condemned by the federal government in the 1950s. However, there appears to be a dispute over the description of the condemned parcel versus the accreted property line of the day of the condemnation judgment. A title search of this property will be performed; however, the legal work will not be completed in time to be included as part of this report. Of course if a hole exists in the federal government's title, the federal government could condemn any missing interests held by private owners, or any interests held by the State.

## **VII. Recommendations**

The need and value of a stabilized Oregon Inlet for regional economic viability, safety for commercial and recreational boats, and for environmental benefits has been well documented. Past efforts of dredging have proven to be largely ineffective in maintaining a reliable navigable channel through the inlet resulting in more frequent closures. Adequate funding for dredging of the Oregon Inlet continues to be an annual ongoing concern of the area residents that depend on a safe and navigable inlet for employment. Even the federal agencies that opposed the Corps of Engineers' construction of jetties are supportive of maintaining a navigable channel. By all accounts, the present situation with Oregon Inlet is quickly becoming unworkable requiring both an immediate and long term governmental response to improve the stability of the inlet.

The Task Force was charged to explore any and all options for acquiring Oregon Inlet and the real property adjacent thereto. Simply acquiring the property without alleviating the concerns of the federal government as it related to the Corps of Engineers' project for inlet stabilization will not lead to or, in all likelihood, achieve the desired results for resolving the shoaling and navigability issues of the inlet. Resolving the federal concerns and acquisition of the property go hand-in-hand and efforts in both areas need to be pursued in parallel. Initiatives and resources need to be applied in both areas.

To formulate recommendations and action items, it is important to understand the objections to the past inlet stabilization effort of the Corps of Engineers. In May 2003, a news release was issued by the US Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) regarding federal agencies reaching consensus ending the development of the Oregon Inlet Jetty proposal. The White House Council on Environmental Quality, the US Army Corps of Engineers, and the Interior and Commerce Departments announced that they reached mutual agreement not to proceed with a proposed navigation project at

Oregon Inlet on North Carolina's Outer Banks. The Council on Environmental Quality looked closely at the economic and environmental data and jointly with the other agencies determined that the uncertainties in projecting both the estimated economic and environmental effects, and the risk to important resources, weighed against proceeding with the project.

A report prepared by Coastal Planning and Engineering of North Carolina, Inc. for the Oregon Inlet Users Association in November 2012 and updated in December 2013, titled Conceptual Evaluation of Improvements to Oregon Inlet, North Carolina, reviewed the federal government concerns with the authorized Corps project. These concerns involved four issues as follows:

- The effects of the jetties and sand bypassing system on the natural littoral processes;
- The perceived incompatibility of the jetties with the purposes for which the Cape Hatteras National Seashore and the Pea Island National Wildlife Refuge were established;
- The effects of the proposed jetties on the movement of larval organisms through Oregon Inlet; and
- The economic viability of the project.

The report states that some of these issues persist today while others have been alleviated due to advances in science, policy, and economic conditions. There have been technological advances in the modeling used for shoreline and inlet management analysis. Economic studies conducted in 2006 have concluded that the economic benefit of Oregon Inlet to Dare County and the surrounding region is very significant and far outweighs the costs necessary to keep the inlet passable through dredging. In fact, the economic benefit to the Federal Government alone is more than 6 times the recent annual expenditures for dredging. Additional studies will be necessary to answer questions related to the ability of fish larvae to reach habitat in the sounds. These studies will aid in the design process of evaluating various engineering alternatives.

Therefore, the Task Force recommends pursuing the following initiatives in parallel:

- Continue discussions with federal officials on acquiring property or easements necessary for developing an effective and environmentally acceptable engineered solution to maintain the stability of Oregon Inlet.
- Continue the legal research regarding the title and ownership of the property north and south of the inlet within the description stated in Section 3.8 of Session Law 2013-138.
- Assess the feasibility of various engineered alternatives to address sand management and navigational issues at Oregon Inlet.
- Based on the selected engineering alternative, advance the project timeline and facilitate the permitting through preparation and documentation of relevant biological, physical, ecological and public trust information and dialogue with appropriate federal agencies involved in the permitting.
- Undertake a larval transport study to address the known concerns of federal agencies related to this issue.

In sum, the work of the Task Force needs to continue beyond the filing of this report. When the federal government ended development of the Oregon Inlet jetty proposal in 2003, there was

commitment and support for maintaining a navigation channel. The then Chairman of the White House Council on Environmental Quality, James L. Connaughton, stated “although we are not moving forward with this project, we are committed to working with the local community to improve navigation of the channel. We will continue to work with their elected leaders on other actions that can be taken toward those goals.” Further, NOAA committed to provide for “state-of-the-art” navigation aids to ensure that Oregon Inlet remains as safe passageway for commercial and recreational vessels. It is not believed that the federal government has successfully fulfilled its commitments to the local community in regards to the Oregon Inlet.

The situation involving the inlet has reached a critical point. The inaction of State government to keep the inlet open can be measured in dollars lost, vessels destroyed, and most tragically, in the loss of 21 human lives. Technological options now exist that will benefit North Carolina’s coastal ecology, economy and vastly improve safe navigation through the inlet. Important environmental concerns can now be balanced in an innovative way that will also offer a solution to the area’s sand-choked commercial and recreational fishing industries. Human safety, economy viability and environmental safeguards can all be enhanced – but taking no action, is no longer an acceptable option.

## **VIII. References**

- [1] History, Oregon Inlet Waterways Commission of Dare County, 1992.
- [2] Oregon Inlet Situation Assessment and Process Recommendations,  
The Ruckelshaus Institute, Haub School of Environment and Natural Resources,  
The University of Wyoming, 2013.
- [3] Updated Prospective for Oregon Inlet (2014), Harry Schiffman, 2014.