



A RESOLUTION EXPRESSING THE CITY OF BOILING SPRING LAKES BOARD OF COMMISSIONERS OPPOSITION TO THE NORTH CAROLINA GENERAL ASSEMBLY'S PROPOSAL IN HOUSE BILL 97 TO REMOVE THE HISTORICAL 1879 NEW INLET DAM

WHEREAS, the City of Boiling Spring Lakes Board of Commissioners ("City") is committed to working with our sister coastal municipalities in being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the City recognizes that the City and other coastal municipalities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by all Brunswick communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, the City understand that, based on the analysis of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr.Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems-with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and the vicinity of Southport, creating associated water quality changes because reductions in water exchange in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events;

NOW, THEREFORE, BE IT RESOLVED, the City of Boiling Spring Lakes Board of Commissioners are opposed to SECTION 24.6(h) of the current version of HOUSE BILL 97

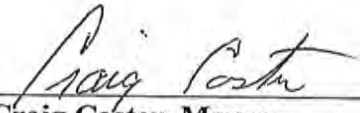
which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, the City of Boiling Spring Lakes Board of Commissioners stand in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.

BE IT FURTHER RESOLVED, the City of Boiling Spring Lakes Board of Commissioners call upon all North Carolina municipal and county governing bodies of North Carolina to pass resolutions similar to this one and that the League of Municipalities join in this effort.

BE IT FURTHER RESOLVED, the City of Boiling Spring Lakes urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

This the 14th of July, 2015

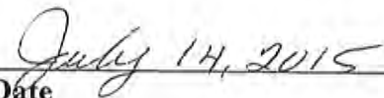


Craig Caster, Mayor

ATTEST:



Jane McMinn, City Clerk



Date



Resolution 15-2097

Town of Carolina Beach
Town Council



A Resolution Opposing the General Assembly's proposed House Bill 97 to remove the Historical 1879 New Inlet Dam

WHEREAS, Carolina Beach is a municipality in New Hanover County where a major economic force is tourism related to the coastal environment; and

WHEREAS, the Town of Carolina Beach endeavors to be a good steward of the coastal environment and its resources; and

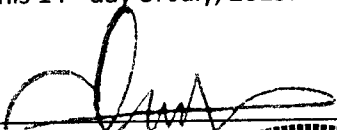
WHEREAS, the Carolina Beach Town Council understands that, according to the analysis of Erik Olsen, P.E., if the southern half of the New Inlet Dam is removed, numerous negative consequences will occur;

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems with the introduction of a second inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport to Oak Island, Bald Head Island and Fort Fisher, jeopardizing barrier island protection; and

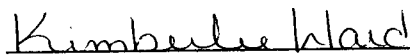
NOW, THEREFORE, BE IT RESOLVED, the Carolina Beach Town Council is opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, the Town Council of Carolina Beach Council Members urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism driven economy.

Approved this 14th day of July, 2015.



Dan Wilcox, Mayor



Attest: Kimberlee Ward, Town Clerk

7 14 2015

Date Signed

Town of Carolina Beach
Resolution No. 15-2097

1 | Page





Town of Caswell Beach

1100 Caswell Beach Road • Caswell Beach, NC 28465
(910) 278-5471 • Fax: 1-866-271-3641 • Website: www.caswellbeach.org

RESOLUTION #2015-009

RESOLUTION EXPRESSING OPPOSITION TO HOUSE BILL 97 AS PROPOSED BY THE NORTH CAROLINA GENERAL ASSEMBLY TO REMOVE THE HISTORIC 1879 NEW INLET DAM

WHEREAS, the Town of Caswell Beach is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the Town of Caswell Beach Board of Commissioners recognize that the Town of Caswell Beach and other coastal municipalities' economic survival depends on the sustainability of the existing environment; and this proposed legislation necessitates a strong response by coastal communities, environmental conservation organizations, and all interested persons and businesses to completely understand this potential economic and environmental threat; and

WHEREAS, the Town of Caswell Beach Board of Commissioners understand that the Southern half of New Inlet Dam is being considered for removal; and

WHEREAS, the Town of Caswell Beach Board of Commissioners and members of the public have many questions that have yet to be answered as to the potential impacts the proposed removal of the New Inlet Dam may have on the coastal geography and ecosystem.

NOW, THEREFORE, BE IT RESOLVED, that the Town of Caswell Beach Board of Commissioners are opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historic New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879, until the U.S. Army Corps of Engineers completes a detailed engineering study to determine the effects that removal of the New Inlet Dam will have on the Cape Fear area, and a proper amount of time is given for the public and interested parties to comment on said study.

Adopted this 9th day of July, 2015.

ATTEST:


Linda C. Bethune, NCCMC, Town Clerk


Deborah G. Ahlers, Mayor Pro Tempore

(SEAL)





Senator Bill Rabon
N.C. Senate
300 N. Salisbury Street, Room 311
Raleigh, NC 27603-5925

24 July 2015

Representative Frank Iler
N.C. House of Representatives
300 N. Salisbury Street, Room 639
Raleigh, NC 27603-5925

Dear Senator Rabon and Representative Iler;

The Town of Holden Beach wishes to express its support for the Village of Bald Head Island's opposition to Part V of Senate Bill 160 entitled "Removal of Navigational Obstructions for Ecosystem Restoration and Protection of Navigational Safety" as engrossed; then subsequently appended to House Bill 97 "2015 Appropriations Act" as Section 14.6 (h), "remove the Southern Component of the New Inlet Dam" and yield to their local knowledge and understanding of what's in the best interest for their community.

Thank You,

J. Alan Holden
Mayor
Town of Holden Beach

Cc: VBHI



**A RESOLUTION EXPRESSING THE OAK ISLAND
TOWN COUNCIL'S OPPOSITION TO THE
NORTH CAROLINA GENERAL ASSEMBLY'S
PROPOSAL IN HOUSE BILL 97 TO REMOVE
THE HISTORICAL 1879 NEW INLET DAM**

WHEREAS, the Town of Oak Island is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the Oak Island Town Council Members recognize that the Town of Oak Island and other coastal municipalities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by coastal communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, the Oak Island Town Council Members understand that, based on the analysis (included in this document) of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems-with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events;

NOW, THEREFORE, BE IT RESOLVED, the Oak Island Town Council Members are opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, the Oak Island Town Council Members stand in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.


BE IT FURTHER RESOLVED, the Oak Island Town Council Members urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

This the 14th day of July, 2015.



Mayor Betty W. Wallace

ATTEST:



Lisa P. Stites, CMC
Town Clerk





Town of Ocean Isle Beach

Resolution No. 2015 - 13

Date Adopted: July 14, 2015

RESOLUTION IN OPPOSITION TO THE NORTH CAROLINA GENERAL ASSEMBLY'S PROPOSAL IN HOUSE BILL 97 TO REMOVE THE HISTORICAL 1879 NEW INLET DAM

WHEREAS, the Town of Ocean Isle Beach is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the Board of Commissioners recognize the Town of Ocean Isle Beach and other coastal municipalities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by coastal communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, the Board of Commissioners of the Town of Ocean Isle Beach understand that, based on the analysis (included in this document) of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems-with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events;

NOW, THEREFORE, BE IT RESOLVED, the Board of Commissioners of the Town of Ocean Isle Beach are opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which

Town of Ocean Isle Beach

Resolution No. 2015-13

Date Adopted: July 14, 2015

proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, the Board of Commissioners of the Town of Ocean Isle Beach stand in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.

BE IT FURTHER RESOLVED, the Board of Commissioners of the Town of Ocean Isle Beach call upon all North Carolina municipal and county governing bodies of North Carolina to pass resolutions similar to this one and that the League of Municipalities join in this effort.

BE IT FURTHER RESOLVED, the Board of Commissioners of the Town of Ocean Isle Beach urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

This the 14th day of July, 2015



ATTEST:

Sue Stuhr
Sue Stuhr, Town Clerk

Debbie S. Smith, Mayor

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NEW INLET DAM REMOVAL

The following facts or coastal engineering opinions relate to a recent N.C. Legislative proposal (SB160) to remove the historical New Inlet Dam so as to allow for or encourage the reopening of New Inlet which has been closed since 1879. A potential purpose of the reestablishment of New Inlet is to foster a new major navigational channel between the Ocean and various locations within the Cape Fear River.

BACKGROUND

- In 1857, federal nautical charts clearly indicate that New Inlet was a relatively robust tidal inlet having a major influence on the environs of the lower Cape Fear River (see **Figure 1**). At the time, sailing lines existed through *both* New Inlet and the natural primary entrance to the Cape Fear River which is located to the south between Oak Island and Smith Island (known today as Bald Head Island). As an unstabilized inlet, New Inlet's mapped location has varied significantly throughout the years.
- Anecdotally, New Inlet opened in about 1761 during a storm event at a "haulover" location across the barrier island that had been physically lowered by fishermen dragging their boats over the narrow beach which lay between the river and the ocean. It is reported that the haulover was utilized by small craft desiring to avoid transit around or across Frying Pan Shoals located seaward of Cape Fear.
- Various levels of attempted engineered improvements by State interests intended to foster a reliable navigation channel between New Inlet and the City of Wilmington met with little success. Accordingly, portions of the Cape Fear River in the vicinity of the inlet suffered extensive problematic shoaling throughout the 19th Century. In the 1820's, the

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State of N.C. formally requested the assistance of the U.S. Army Corps of Engineers via the newly established Rivers and Harbors Act.

- Before 1853, no work had been performed with the goal of improving navigation at the southerly natural entrance to the Cape Fear River. At or about that time however, the historical premise of needing to improve navigation between New Inlet and Wilmington was eventually abandoned. For example, a Commission appointed by the then Secretary of War, Jefferson Davis concluded that prior engineering improvements “attempted” at New Inlet had *not* been sound and had actually impacted or reduced navigability to the City of Wilmington. Not unexpectedly, the Commission similarly deduced that as depths throughout New Inlet increased over time, corresponding depths at the Cape Fear River mouth had decreased. As a result, the Commission subsequently recommended that New Inlet be *closed* in order to attempt to restore naturally occurring navigable depths over the ocean bar at the River entrance back to their pre-1761 conditions. No major navigation works on the Cape Fear were accomplished however until after the Civil War.
- Records show that the Corps of Engineers resumed work on the lower Cape Fear River in 1870. Although New Inlet had been invaluable to the City of Wilmington during the Civil War, it was recognized to be a “liability” after the war due to its propensity for shoaling and lack of reliable depth over its ocean bar. Accordingly, in 1869, Congress authorized a reexamination of the river’s navigation system. In 1870, work on the Cape Fear River proceeded in three phases with the first point of order being the *closure of New Inlet and nearby swashes to the south*. On 14 June 1879, after several years of implementation of various levels of engineered works, New Inlet was physically closed – via the “New Inlet Dam”. However, the initial closure of the inlet increased tidal flows through various swashes through the island requiring an extensive second structure extending to the south entitled the “Swash Defense Dam”. With the entire tidal prism of the Cape Fear River finally confined to the River mouth, the Wilmington District, USACOE was ultimately able to successfully dredge, expand and maintain a federally

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authorized navigation project channel from the Atlantic Ocean to the Port of Wilmington over the subsequent decades.

- In 1913, the Ocean Entrance Channel was dredged to a depth of -26 feet. Since 2000, it has been authorized at a depth of -44 ft. (MLW). As a direct result of channel improvements to the Cape Fear River's hydraulic efficiency, the tidal range at the Port of Wilmington has increased from 2.7 ft. in 1911 to over 4.15 ft. today – due to continuing deepening and widening of the federally authorized navigation channel. Corresponding increases in tidal flow, as well as riverine salinity have likewise occurred.

PREDICTIONS

Based upon historical data, recent numerical DELFT3D modeling (using software licensed from Delft University of Technology in the Netherlands) of the Cape Fear River Entrance by the Village of Bald Head Island and fundamental coastal engineering principles associated with tidal inlet hydromechanics, the following opinions or predictions are rendered for consideration regarding any proposal intended to reopen New Inlet:

- The New Inlet and Swash Dam structures were both authorized by Congress and constructed by the U.S. Army Corps of Engineers. Their removal would therefore necessitate deauthorization by Congress. Such actions would be subject to NEPA and would necessitate appropriate physical and fiscal justification, an Environmental Impact Study and significant federal, state and public coordination. The physical and environmental consequences of reintroducing a second tidal inlet to the Cape Fear River would be significant.
- Similarly, both the nature and the age of the subject dam structures constitute “engineered features” that would qualify for their inclusion in the National Register of Historic Places. Hence, considerations regarding cultural resource impact because of structure removal or modification would be significant. Any associated change in channel alignment could likewise impact the documented site of the CSS Raleigh sunk immediately west of the

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inlet dam "Rocks". Any inlet related erosion – after inlet opening – could likewise threaten certain portions of the historical Ft. Fisher complex.

- The entire geomorphology of the entrance to the Cape Fear River as it currently exists – with its Congressionally authorized and routinely maintained federal navigation channel, is dependent upon a *no-flow* condition at New Inlet. Prior to its closure, New Inlet was a relatively robust flowing tidal inlet. With dam removal, the driving forces which influence tidal inlet creation and stability would be expected again to foster a large flowing inlet at its historical location near Fort Fisher. Major alterations to the Cape Fear River's salinity regime, essential fish habitat and entire eco-system – as they exist today – would be *inevitable* with the introduction of a second tidal inlet.
- Moreover, reopening of New Inlet would immediately serve to decrease tidal flow through the Cape Fear River mouth. Subsequently, shoal configurations conducive to today's hydraulic conditions at that location would be subject to significant change. The latter would substantially, influence littoral processes and sediment transport on both Oak Island and Bald Head Island. Federal navigation channel shoaling would be expected to increase significantly thereby requiring more frequent and larger contract dredging operations. Without same, commercial traffic to the Port of Wilmington would be impeded or reduced. To the West of New Inlet in the River, significant transport of sediment from the reopened inlet would result in major maintenance requirements because of shoaling at a location where large scale sediment deposition does not presently occur. Any effort to fix New Inlet at one location in order to meet modern day navigational depth requirements would in all probability necessitate the construction of jetties on the inlet's seaward side.
- The creation (or reintroduction) of *any* tidal inlet along *any* oceanfront shoreline immediately disrupts existing littoral transport rates. As a result, a newly formed tidal inlet becomes an immediate and significant sediment "sink" as ebb and flood tidal shoals at the inlet are formed over time. The net result is large scale erosion and recession of the

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adjacent barrier island shorelines which suffer the consequences of the newly established sediment budget. At Bald Head Island, the downdrift shoreline of East Beach (facing Onslow Bay) would suffer long-term and large scale accelerated erosion and shoreline recession due to a highly predictable sediment deficit caused by the reopened (and structurally stabilized) inlet to the north. East Beach presently is relatively stable and is among the most picturesque shorelines in North Carolina, with wide beaches, dune complexes and stately homes. A weakened barrier island upland would again be subject to frequent swash formation during storm events – further exacerbating beach erosion and sediment deficits southward thereof.

- A reduction in tidal flows through the mouth of the Cape Fear River would affect Caswell Beach, Fort Caswell and the two inlet/ocean facing shorelines at Bald Head Island. Changes in tidal flows within the AIWW and in the vicinity of Southport could occur. Associated water quality changes would be expected because of reductions in water exchange at these locations and in particular within the canalized (manmade) segment of the Intracoastal Waterway.
- The reintroduction of a new major inlet connecting the Cape Fear River with the Atlantic Ocean, and in particular one maintained for navigation, would allow for an increase in flooding due to storm surges associated with major storm events. As a result, flood insurance elevations at Southport and other locales within the influence of New Inlet may increase. Existing habitable structures built to today's 100-year storm elevations as established by FEMA, may be deemed non-compliant and subject to higher flooding risks and insurance rates. Increases in tidal range throughout the upper reaches of the Cape Fear River could be realized. If such occurred, corresponding vulnerability to flooding would increase proportionally.



ATTACH – Figure 1

**BOARD OF ALDERMEN
COMMUNITY BUILDING
223 E. BAY STREET**

**REGULAR SESSION MINUTES
JULY 9, 2015
SOUTHPORT, N.C.**

PRESENT: Mayor Robert D. Howard
Aldermen Mary Ellen Poole, Buddy Barnes,
Todd Coring, Emily Humphreys

ABSENT: Aldermen Jim Powell, Nelson Adams

STAFF PRESENT: Kerry McDuffie, City Manager
Michele Windham, City Clerk
Mike Isenberg, City Attorney
Jerry Dove, Police Chief
Charles Drew, Fire Chief
Melanie Trexler, Finance Director
Cindy Brochure, Tourism Director
Heather Hemphill, Parks & Recreation Director
B. Wayne Strickland, Building Inspector
John Allen, Community Development Specialist

A) Call to Order - 6:00 p.m.

Mayor Howard called the meeting to order at 6:00 p.m.

AGENDA

11. Consideration of Resolution in Opposition to Removal of New Inlet Dam

Alderman Poole motioned, second by Alderman Barnes to adopt the Resolution opposing the removal of New Inlet Dam. **Unanimous vote; motion carried.**

**A RESOLUTION EXPRESSING THE SOUTHPORT BOARD OF ALDERMENS'
OPPOSITION OF THE NORTH CAROLINA GENERAL ASSEMBLY'S PROPOSAL
TO REMOVE THE HISTORICAL NEW INLET DAM SO AS TO ALLOW FOR OR
ENCOURAGE THE REOPENING OF NEW INLET WHICH HAS BEEN CLOSED
SINCE 1879**

WHEREAS, the City of Southport is committed to recognizing and being a sound steward of the unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches on and around Southport; and

WHEREAS, the City of Southport Aldermen recognize that the City of Southport and her sister coastal municipalities' economic survival solely depends on the sustainability of the existing environment and

this proposed legislation calls for a strong response by Southport and surrounding coastal communities, environmental conservation organizations, and all interested persons and businesses to stand firmly in opposition to this serious economic and environmental threat; and

WHEREAS, the City of Southport Aldermen understands that, based on the analysis (included in this document) of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to major alterations to the Cape Fear River's salinity regime, essential fish habitat and entire eco-system-as they exist today- would be inevitable with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport on both Oak Island and Bald Head Island jeopardizing the barrier island protection they provide Southport; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events and result in possible flood insurance elevations at Southport and other adjacent communities causing higher flooding risks and insurance rates for existing habitable structures built to today's 100-year storm elevations, as established by FEMA; and

NOW, THEREFORE, BE IT RESOLVED, the City of Southport Aldermen are opposed to SECTION 14.6(h) OF THE CURRENT VERSION OF HOUSE BILL 97 which proposes to remove the historical New Inlet Dam so as to allow for or encourage the reopening of new inlet which has been closed since 1879; and

BE IT FURTHER RESOLVED the City of Southport Aldermen stand in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.

BE IT FURTHER RESOLVED the City of Southport Aldermen calls upon all North Carolina municipal and county governing bodies of North Carolina to pass similar resolutions to this one and that the League of Municipalities join in this effort.

BE IT FURTHER RESOLVED the City of Southport Aldermen urge Governor McCrory and the entire North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline whose natural beauty attracts a proven tourism-driven economy.

On Behalf of the City of Southport Aldermen:

July 9, 2015

/s/ Robert D. Howard, Mayor

Attest: /s/ Michele Windham, Clerk



**A Resolution Expressing the Sunset Beach Town Council
Opposition to the North Carolina General Assembly's Proposal in
House Bill 97 to Remove the Historical 1879 New Inlet Dam**

WHEREAS, the Town Council for the Town of Sunset Beach is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the Town Council for the Town of Sunset Beach recognizes that the Town of Sunset Beach and other coastal municipalities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by coastal communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, the Town Council for the Town of Sunset Beach understand that, based on the analysis (included in this document) of Erik Olsen, P. E., if the Southern half of the New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue; and

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and ecosystems-with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AICW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean would allow increased flooding due to storm surges associated with major storm events.

NOW, THEREFORE, BE IT RESOLVED, that the **Town Council for the Town of Sunset Beach** is opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and,

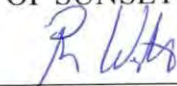
BE IT FURTHER RESOLVED, that the **Town Council for the Town of Sunset Beach** stands in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.

BE IT FURTHER RESOLVED, that the **Town Council for the Town of Sunset Beach** calls upon all North Carolina municipal and county governing bodies of North Carolina to pass resolutions similar to this one and that the League of Municipalities join in this effort.

BE IT FURTHER RESOLVED, that the **Town Council for the Town of Sunset Beach** urges Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

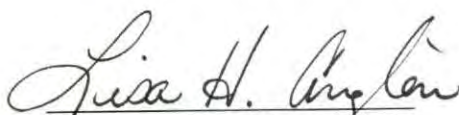
Adopted this the 21st day of July, 2015

TOWN OF SUNSET BEACH



Ronald Watts, Mayor

ATTEST:


Lisa H. Anglin, Town Clerk



**A RESOLUTION EXPRESSING THE VILLAGE OF BALD
HEAD ISLAND VILLAGE COUNCIL'S OPPOSITION TO
THE NORTH CAROLINA GENERAL ASSEMBLY'S
PROPOSAL IN HOUSE BILL 97 TO REMOVE THE
HISTORICAL 1879 NEW INLET DAM**

WHEREAS, the Village of Bald Head Island is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, the Village of Bald Head Island Council Members recognize that the Village of Bald Head Island and other coastal municipalities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by coastal communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, the Village of Bald Head Island Council Members understand that, based on the analysis (included in this document) of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems-with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events;

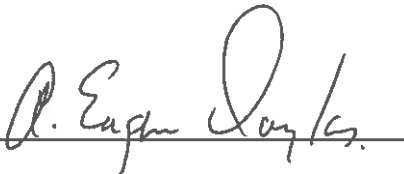
NOW, THEREFORE, BE IT RESOLVED, the Village of Bald Head Island Council Members are opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, the Village of Bald Head Island Council Members stand in solidarity with our regional coastal communities who may suffer long-term social, economic and environmental impacts of removing the New Inlet Dam.

BE IT FURTHER RESOLVED, the Village of Bald Head Island Council Members call upon all North Carolina municipal and county governing bodies of North Carolina to pass resolutions similar to this one and that the League of Municipalities join in this effort.

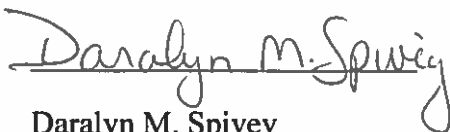
BE IT FURTHER RESOLVED, the Village of Bald Head Island Council Members urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

This the 19th day of June, 2015.



Mayor Pro Tem, A. Eugene Douglas

ATTEST:



Daralyn M. Spivey

Village Clerk



The Village of Bald Head Island

May 19, 2015

Senator Bill Rabon (*via e-mail*)
N.C. Senate 8th District
State Legislative Office Building
300 N. Salisbury Street, Room 311
Raleigh, NC 27603-5925

Representative Frank Iler (*via e-mail*)
N.C. House of Representatives 17th District
State Legislative Office Building
300 N. Salisbury Street, Room 639
Raleigh, NC 27603-5925

Subject: Village of Bald Head Island Concerns Related to SB 160, Part V., Removal of Navigational Obstructions for Eco-System Restoration and Protection of Navigational Safety

Dear Senator Rabon and Representative Iler:

First, let me thank you for your time and efforts over the past several years in working with the Village of Bald Head Island to assist in our efforts to mitigate the erosion along the "Point" adjacent to the Wilmington Harbor Federal Navigation Channel. Specifically, with your assistance in getting the necessary legislation passed, the Village's ability to permit and construct a terminal groin structure has come to fruition. Construction of this much needed improvement is underway.

We must be vigilant, however, in our efforts to protect Brunswick County's pristine beaches and maritime forest. Of significant concern is the proposed SB 160 legislation, specifically Part V., Section 5.1 (a-e), for the purported necessity to remove the Southern Component of the New Inlet Dam in order to reestablish the natural hydrodynamic flow between the Cape Fear River and the Atlantic Ocean.

If this proposed bill is passed and the Southern half of New Inlet Dam is removed, this would have serious negative consequences, the likes of which the Village has been dealing with at the "Point" for many years. The issues would be expanded to occur also at Fort Fisher and in the area of East Beach, which is directly to the South of Zeke's Island and of the portion of the inlet that would be reopened. Increased shoaling and maintenance dredging expense also would occur to the Wilmington Harbor Federal

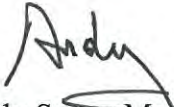
Senator Bill Rabon
Representative Frank Iler
Page 2
May 19, 2015

Navigation Channel. Increased salt water intrusion also may adversely affect Bald Head's Maritime Forest, a substantial and unique State-owned resource.

For your consideration is the attached White Paper of recognized coastal engineer Erik Olsen, P.E. Mr. Olsen, who has decades of experience with Coastal NC and these issues, offers his professional opinion of the likely adverse results of the proposed action. His opinions are shared by other coastal engineers who have reviewed the matter.

I would ask that you forward this information to your colleagues for their consideration. I am glad to discuss this or to provide any additional information that may be helpful.

Sincerely,



Andy Sayre, Mayor
Village of Bald Head Island

pc: U.S. Congressman David Rouzer, North Carolina 7th District
Senator Michael Lee, New Hanover County 9th District
Colonel Kevin P. Landers, Commander USCOE Wilmington District
Donald R. van der Vaart, DENR Secretary
Braxton Davis, DCM Director
Susan W. Kluttz, Cultural Resources Secretary
Laura Blair, Senior Director, External Affairs NCSPA
Jeff Warren, Senior Policy Advisor, Environment, Office of President Pro Tem

WHITE PAPER

NEW INLET DAM REMOVAL

The following facts or coastal engineering opinions relate to a recent N.C. Legislative proposal (SB160) to remove the historical New Inlet Dam so as to allow for or encourage the reopening of New Inlet which has been closed since 1879. A potential purpose of the reestablishment of New Inlet is to foster a new major navigational channel between the Ocean and various locations within the Cape Fear River.

BACKGROUND

- In 1857, federal nautical charts clearly indicate that New Inlet was a relatively robust tidal inlet having a major influence on the environs of the lower Cape Fear River (see **Figure 1**). At the time, sailing lines existed through *both* New Inlet and the natural primary entrance to the Cape Fear River which is located to the south between Oak Island and Smith Island (known today as Bald Head Island). As an unstabilized inlet, New Inlet's mapped location has varied significantly throughout the years.
- Anecdotally, New Inlet opened in about 1761 during a storm event at a "haulover" location across the barrier island that had been physically lowered by fishermen dragging their boats over the narrow beach which lay between the river and the ocean. It is reported that the haulover was utilized by small craft desiring to avoid transit around or across Frying Pan Shoals located seaward of Cape Fear.
- Various levels of attempted engineered improvements by State interests intended to foster a reliable navigation channel between New Inlet and the City of Wilmington met with little success. Accordingly, portions of the Cape Fear River in the vicinity of the inlet suffered extensive problematic shoaling throughout the 19th Century. In the 1820's, the

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State of N.C. formally requested the assistance of the U.S. Army Corps of Engineers via the newly established Rivers and Harbors Act.

- Before 1853, no work had been performed with the goal of improving navigation at the southerly natural entrance to the Cape Fear River. At or about that time however, the historical premise of needing to improve navigation between New Inlet and Wilmington was eventually abandoned. For example, a Commission appointed by the then Secretary of War, Jefferson Davis concluded that prior engineering improvements “attempted” at New Inlet had *not* been sound and had actually impacted or reduced navigability to the City of Wilmington. Not unexpectedly, the Commission similarly deduced that as depths throughout New Inlet increased over time, corresponding depths at the Cape Fear River mouth had decreased. As a result, the Commission subsequently recommended that New Inlet be *closed* in order to attempt to restore naturally occurring navigable depths over the ocean bar at the River entrance back to their pre-1761 conditions. No major navigation works on the Cape Fear were accomplished however until after the Civil War.
- Records show that the Corps of Engineers resumed work on the lower Cape Fear River in 1870. Although New Inlet had been invaluable to the City of Wilmington during the Civil War, it was recognized to be a “liability” after the war due to its propensity for shoaling and lack of reliable depth over its ocean bar. Accordingly, in 1869, Congress authorized a reexamination of the river’s navigation system. In 1870, work on the Cape Fear River proceeded in three phases with the first point of order being the *closure of New Inlet and nearby swashes to the south*. On 14 June 1879, after several years of implementation of various levels of engineered works, New Inlet was physically closed – via the “New Inlet Dam”. However, the initial closure of the inlet increased tidal flows through various swashes through the island requiring an extensive second structure extending to the south entitled the “Swash Defense Dam”. With the entire tidal prism of the Cape Fear River finally confined to the River mouth, the Wilmington District, USACOE was ultimately able to successfully dredge, expand and maintain a federally

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authorized navigation project channel from the Atlantic Ocean to the Port of Wilmington over the subsequent decades.

- In 1913, the Ocean Entrance Channel was dredged to a depth of -26 feet. Since 2000, it has been authorized at a depth of -44 ft. (MLW). As a direct result of channel improvements to the Cape Fear River's hydraulic efficiency, the tidal range at the Port of Wilmington has increased from 2.7 ft. in 1911 to over 4.15 ft. today – due to continuing deepening and widening of the federally authorized navigation channel. Corresponding increases in tidal flow, as well as riverine salinity have likewise occurred.

PREDICTIONS

Based upon historical data, recent numerical DELFT3D modeling (using software licensed from Delft University of Technology in the Netherlands) of the Cape Fear River Entrance by the Village of Bald Head Island and fundamental coastal engineering principles associated with tidal inlet hydromechanics, the following opinions or predictions are rendered for consideration regarding any proposal intended to reopen New Inlet:

- The New Inlet and Swash Dam structures were both authorized by Congress and constructed by the U.S. Army Corps of Engineers. Their removal would therefore necessitate deauthorization by Congress. Such actions would be subject to NEPA and would necessitate appropriate physical and fiscal justification, an Environmental Impact Study and significant federal, state and public coordination. The physical and environmental consequences of reintroducing a second tidal inlet to the Cape Fear River would be significant.
- Similarly, both the nature and the age of the subject dam structures constitute “engineered features” that would qualify for their inclusion in the National Register of Historic Places. Hence, considerations regarding cultural resource impact because of structure removal or modification would be significant. Any associated change in channel alignment could likewise impact the documented site of the CSS Raleigh sunk immediately west of the

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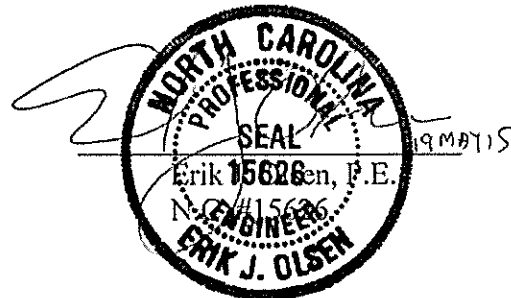
inlet dam “Rocks”. Any inlet related erosion – after inlet opening – could likewise threaten certain portions of the historical Ft. Fisher complex.

- The entire geomorphology of the entrance to the Cape Fear River as it currently exists – with its Congressionally authorized and routinely maintained federal navigation channel, is dependent upon a *no-flow* condition at New Inlet. Prior to its closure, New Inlet was a relatively robust flowing tidal inlet. With dam removal, the driving forces which influence tidal inlet creation and stability would be expected again to foster a large flowing inlet at its historical location near Fort Fisher. Major alterations to the Cape Fear River’s salinity regime, essential fish habitat and entire eco-system – as they exist today – would be *inevitable* with the introduction of a second tidal inlet.
- Moreover, reopening of New Inlet would immediately serve to decrease tidal flow through the Cape Fear River mouth. Subsequently, shoal configurations conducive to today’s hydraulic conditions at that location would be subject to significant change. The latter would substantially, influence littoral processes and sediment transport on both Oak Island and Bald Head Island. Federal navigation channel shoaling would be expected to increase significantly thereby requiring more frequent and larger contract dredging operations. Without same, commercial traffic to the Port of Wilmington would be impeded or reduced. To the West of New Inlet in the River, significant transport of sediment from the reopened inlet would result in major maintenance requirements because of shoaling at a location where large scale sediment deposition does not presently occur. Any effort to fix New Inlet at one location in order to meet modern day navigational depth requirements would in all probability necessitate the construction of jetties on the inlet’s seaward side.
- The creation (or reintroduction) of *any* tidal inlet along *any* oceanfront shoreline immediately disrupts existing littoral transport rates. As a result, a newly formed tidal inlet becomes an immediate and significant sediment “sink” as ebb and flood tidal shoals at the inlet are formed over time. The net result is large scale erosion and recession of the

WHITE PAPER

adjacent barrier island shorelines which suffer the consequences of the newly established sediment budget. At Bald Head Island, the downdrift shoreline of East Beach (facing Onslow Bay) would suffer long-term and large scale accelerated erosion and shoreline recession due to a highly predictable sediment deficit caused by the reopened (and structurally stabilized) inlet to the north. East Beach presently is relatively stable and is among the most picturesque shorelines in North Carolina, with wide beaches, dune complexes and stately homes. A weakened barrier island upland would again be subject to frequent swash formation during storm events – further exacerbating beach erosion and sediment deficits southward thereof.

- A reduction in tidal flows through the mouth of the Cape Fear River would affect Caswell Beach, Fort Caswell and the two inlet/ocean facing shorelines at Bald Head Island. Changes in tidal flows within the AIWW and in the vicinity of Southport could occur. Associated water quality changes would be expected because of reductions in water exchange at these locations and in particular within the canalized (manmade) segment of the Intracoastal Waterway.
- The reintroduction of a new major inlet connecting the Cape Fear River with the Atlantic Ocean, and in particular one maintained for navigation, would allow for an increase in flooding due to storm surges associated with major storm events. As a result, flood insurance elevations at Southport and other locales within the influence of New Inlet may increase. Existing habitable structures built to today's 100-year storm elevations as established by FEMA, may be deemed non-compliant and subject to higher flooding risks and insurance rates. Increases in tidal range throughout the upper reaches of the Cape Fear River could be realized. If such occurred, corresponding vulnerability to flooding would increase proportionally.



ATTACH – Figure 1



James R. Leutze, Ph.D., Chair
Chancellor Emeritus, UNC-Wilmington

Bill Keller, Vice Chair
COL USMC (Ret)
Former Onslow Commission, Sneads Ferry

Greg Loy, Secretary
Town Planning Director, Kill Devil Hills

Ned Barclay, Treasurer
Figure 8 Island / Wilmington

A RESOLUTION EXPRESSING NCBIWA'S OPPOSITION TO THE NORTH CAROLINA GENERAL ASSEMBLY'S PROPOSAL IN HOUSE BILL 97 TO REMOVE THE HISTORICAL 1897 NEW INLET DAM

WHEREAS, NCBIWA is committed to being a steward of the Region's unique coastal environment, including estuaries, marshes, barrier islands and pristine beaches; and

WHEREAS, NCBIWA Board Members recognize that coastal communities' economic survival depends on the sustainability of the existing environment and this proposed legislation necessitates a strong response by the coastal communities, environmental conservation organizations, and all interested persons and businesses to oppose this serious economic and environmental threat; and

WHEREAS, NCBIWA Board Members understand that, based on the analysis (included in this document) of Erik Olsen, P.E., if the Southern half of New Inlet Dam is removed, serious negative consequences will occur. Mr. Olsen has decades of experience with coastal North Carolina and these issues and his opinions are shared by other coastal engineers that have reviewed this issue.

WHEREAS, the negative effects may include but are not limited to alterations to the Cape Fear River's salinity regime, essential fish habitat and eco-systems with the introduction of a second tidal inlet. Additionally, hydraulic condition changes would substantially influence littoral processes and sediment transport at Oak Island, Bald Head Island and at Fort Fisher, jeopardizing barrier island protection; and

WHEREAS, changes in tidal flows through the mouth of the Cape Fear River could create alterations within the AIWW and in the vicinity of Southport, creating associated water quality changes because of reductions in water exchange and in

Tom Jarrett, P.E.
Volunteer Interim Executive Director

North Carolina Beach,
Inlet & Waterway Association

Post Office Box 440
Wrightsville Beach, NC 28480

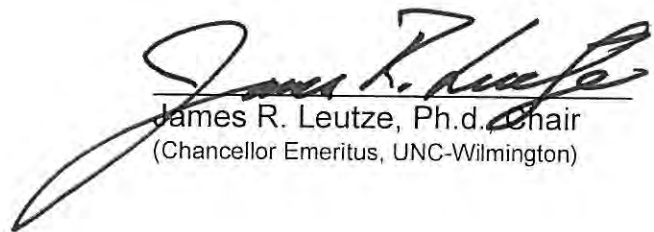
particular within the canalized (manmade) segment of the Intracoastal Waterway; and

WHEREAS, the reintroduction of a major inlet connecting the Cape Fear River with the Atlantic Ocean, would allow increased flooding due to storm surges associated with major storm events;

NOW, THEREFORE, BE IT RESOLVED, the NCBIWA Board Members are unanimously opposed to SECTION 14.6(h) of the current version of HOUSE BILL 97 which proposes to remove the historical New Inlet Dam to allow the reopening of New Inlet, which has been closed since 1879; and

BE IT FURTHER RESOLVED, NCBIWA urges all North Carolina municipal and county governing bodies of North Carolina to pass resolutions similar to this one and they urge Governor McCrory and the North Carolina General Assembly to oppose policies that risk the health, safety and sound environmental stewardship of North Carolina's coastline, whose natural beauty attracts a proven tourism-driven economy.

This 13th day of July, 2015



James R. Leutze, Ph.d. Chair
(Chancellor Emeritus, UNC-Wilmington)