

# Tidal Extent - Wind Driven Water Levels (WDWL), August 2019 - NC Department of Transportation

File Geodatabase Feature Class



## Tags

Tides, tidal, Wind Driven Water Levels, WDWL, high tide, astronomical tide, tidal effects, lunisolar tide, wind tide, wind-driven water, National Oceanographic and Atmospheric Administration, NOAA, Office of Coastal Management, OCM, QL2, LiDAR, Digital Elevation Model, US Geological Survey, USGS, Hydrologic Unit, HU, fresh water, salt water, flooding, Oceans, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

## Summary

This dataset was originally created in July 2019 as part of the Project ATLAS initiative at NCDOT to support the Sweeping Environmental Group with project delivery in the development phase.

While tidal action is composed of many constituents, the most prevalent components are the gravitational forces of the sun and moon, which form the foundation of the semidiurnal tidal cycle. Additionally, wind is a key factor in tide formation. Areas represented in this layer are the extents of wind driven tides in the large open waters of Albemarle and Pamlico Sounds.

These data are used in the following workflows:

- NRTR
- PCE
- Mitigation
- Permitting
  - Section 10, 401, 404 Permit Type
  - Nationwide
  - General,
  - Individual,
  - Water Quality Certifications
- US Coast Guard
- CAMA AECs
- CAMA Consistency,
- CAMA Major

## Description

The Tidal Extent Wind Driven Water Levels (WDWL) dataset is a polygon layer depicting the areas of wind driven tidal impact.

The change in water levels due to wind were added to the MHHW elevation where this addition made a meaningful change to water elevation. A meaningful change was defined as raising the water elevation at least 0.5-foot higher than the predicted or observed MHHW elevation. It should be noted that, due to rounding, as little as a 0.25-foot rise in water elevation due to wind could change the predicted maximum water elevation by 0.5 foot. The combination of the MHHW level in conjunction with the additional wind-driven water rise (where applicable) was established for each 15-digit HU as the Maximum Water Elevation (MWE). 15-digit Hucs that are not subject to wind-driven tides have a MWE that is equal to the MHHW level.

Datasets developed under Project ATLAS do not replace any Sweeping Environmental field work for future projects and may not be used as a replacement for site visits / field surveys by licensed professionals and hence should be used only as a supporting platform for decision making. Use of this dataset for project scoping or screening is merely pre-decisional.

## Credits

The ATLAS Sweeping Environmental Group within NCDOT was tasked to create this dataset. Annual maintenance of this dataset is handled by the Sweeping Environmental Group. Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

## Use limitations

The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

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## Extent

**West** -78.575565    **East** -75.417405  
**North** 36.589365    **South** 33.795245

## Scale Range

**Maximum (zoomed in)** 1:5,000  
**Minimum (zoomed out)** 1:625,000

## ArcGIS Metadata ▶

## Topics and Keywords ▶

THEMES OR CATEGORIES OF THE RESOURCE    oceans, boundaries, inlandWaters, location, transportation, environment

\* CONTENT TYPE    Downloadable Data  
EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION    No

PLACE KEYWORDS    North Carolina

### THESAURUS ▶

TITLE    User  
CREATION DATE    2019-07-23 00:00:00  
PUBLICATION DATE    2019-08-28 00:00:00

*Hide Thesaurus ▲*

THEME KEYWORDS    Tides, tidal, Wind Driven Water Levels, WDWL, high tide, astronomical tide, tidal effects, lunisolar tide, wind tide, wind-driven water, National Oceanographic and Atmospheric Administration, NOAA, Office of Coastal Management, OCM, QL2, LiDAR, Digital Elevation Model, US Geological Survey, USGS, Hydrologic Unit, HU, fresh water, salt water, flooding, Oceans, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

### THESAURUS ▶

TITLE    User  
CREATION DATE    2019-07-23 00:00:00  
PUBLICATION DATE    2019-08-28 00:00:00

*Hide Thesaurus ▲*

[Hide Topics and Keywords ▲](#)

## Citation ►

TITLE Tidal Extent - Wind Driven Water Levels (WDWL), August 2019 - NC Department of Transportation  
CREATION DATE 2019-01-01 00:00:00  
PUBLICATION DATE 2019-08-28 00:00:00

PRESENTATION FORMATS digital map  
FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

[Hide Citation ▲](#)

## Citation Contacts ►

### RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation - EAU Mitigation and Modeling Unit  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

PHONE  
VOICE 919-707-6136

### ADDRESS

TYPE physical  
DELIVERY POINT Century Center Building B, 1020 Birch Ridge Drive  
CITY Raleigh  
ADMINISTRATIVE AREA NC  
POSTAL CODE 27610  
COUNTRY US  
E-MAIL ADDRESS [ATLAS@ncdot.gov](mailto:ATLAS@ncdot.gov)

### HOURS OF SERVICE

9:00am – 5:00pm Monday - Friday

### CONTACT INSTRUCTIONS

Please send an email with any issues, questions or comments regarding the ATLAS Data Search Tool, ATLAS Screening Tool or ATLAS Workbench. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

### RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation - EAU Mitigation and Modeling Unit  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE resource provider

### CONTACT INFORMATION ►

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RESPONSIBLE PARTY

ORGANIZATION'S NAME North Carolina Department of Transportation - Sweeping Environmental Group  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE originator

CONTACT INFORMATION ►

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[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

## Resource Details ►

DATASET LANGUAGES English (UNITED STATES)  
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed  
SPATIAL REPRESENTATION TYPE vector

\* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

CREDITS

The ATLAS Sweeping Environmental Group within NCDOT was tasked to create this dataset. Annual maintenance of this dataset is handled by the Sweeping Environmental Group. Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

[Hide Resource Details ▲](#)

## Extents ►

### EXTENT

#### DESCRIPTION

Data collection is complete.

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

WEST LONGITUDE -84.422111

EAST LONGITUDE -75.416034

SOUTH LATITUDE 33.730557

NORTH LATITUDE 36.617257

EXTENT CONTAINS THE RESOURCE Yes

#### TEMPORAL EXTENT

BEGINNING DATE 2019-07-23 00:00:00

ENDING DATE 2019-07-23 00:00:00

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -78.575565

\* EAST LONGITUDE -75.417405

\* NORTH LATITUDE 36.589365

\* SOUTH LATITUDE 33.795245

\* EXTENT CONTAINS THE RESOURCE Yes

#### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE 2128900.770501

\* EAST LONGITUDE 3052432.861753

\* SOUTH LATITUDE 34832.019113

\* NORTH LATITUDE 1033754.499939

\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Resource Points of Contact ►

### POINT OF CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation - Sweeping Environmental Group

CONTACT'S POSITION Environmental Program Consultant

CONTACT'S ROLE originator

#### CONTACT INFORMATION ►

##### PHONE

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[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

## Resource Maintenance ►

[RESOURCE MAINTENANCE](#)

[UPDATE FREQUENCY](#) annually

[SCOPE OF THE UPDATES](#) dataset

[OTHER MAINTENANCE REQUIREMENTS](#)

Annual maintenance of this dataset is handled by the Sweeping Environmental Group. Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

This dataset should be updated on a regular cycle as:

1. Better data and models are developed (ongoing),
2. Input from natural resource agencies refines specific water elevations,
3. better input data becomes available in the form of LiDAR or other data to refine model accuracy (anticipated to be part of the regular 5-year collection cycle)

[MAINTENANCE CONTACT](#)

[ORGANIZATION'S NAME](#) North Carolina Department of Transportation - Sweeping Environmental Group

[CONTACT'S POSITION](#) Environmental Program Consultant

[CONTACT'S ROLE](#) originator

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[Hide Contact information ▲](#)

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

### LEGAL CONSTRAINTS

#### LIMITATIONS OF USE

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### SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

#### LIMITATIONS OF USE

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[Hide Resource Constraints ▲](#)

## Spatial Reference ►

### ARCGIS COORDINATE SYSTEM

\* TYPE Projected

\* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983

\* PROJECTION NAD\_1983\_StatePlane\_North\_Carolina\_FIPS\_3200\_Feet

\* COORDINATE REFERENCE DETAILS

#### PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102719

X ORIGIN -121841900

Y ORIGIN -93659000

XY SCALE 3048.0060960121928

Z ORIGIN -100000

Z SCALE 10000

M ORIGIN -100000

M SCALE 10000

XY TOLERANCE 0.0032808333333333331

Z TOLERANCE 0.001

M TOLERANCE 0.001

HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 2264

VCSWKID 105703

LATESTVCSWKID 6360

WELL-KNOWN TEXT

PROJCS["NAD\_1983\_StatePlane\_North\_Carolina\_FIPS\_3200\_Feet",GEOGCS["GCS\_North\_American\_1983",DATUM["D\_North\_American\_1983",SPHEROID["GRS\_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert\_Conformal\_Conic"],PARAMETER["False\_Easting",2000000.0026166666],PARAMETER["False\_Northing",0.0],PARAMETER["Central\_Meridian",-79.0],PARAMETER["Standard\_Parallel\_1",34.33333333333334],PARAMETER["Standard\_Parallel\_2",36.16666666666666],PARAMETER["Latitude\_Of\_Origin",33.75],UNIT["Foot\_US",0.3048006096012192]],VERTCS["NAVD88\_height\_(ftUS)",VDATUM["North\_American\_Vertical\_Datum\_1988"],PARAMETER["Vertical\_Shift",0.0],PARAMETER["Direction",1.0],UNIT["Foot\_US",0.3048006096012192]]

REFERENCE SYSTEM IDENTIFIER

VALUE 2264

\* CODESPACE EPSG

\* VERSION 6.12(9.0.0)

[Hide Spatial Reference ▲](#)

## Spatial Data Properties ►

VECTOR ►

\* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME WindDrivenWaterLevels

\* OBJECT TYPE composite

\* OBJECT COUNT 764

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME WindDrivenWaterLevels

\* FEATURE TYPE Simple

\* GEOMETRY TYPE Polygon

\* HAS TOPOLOGY FALSE

\* FEATURE COUNT 764

\* SPATIAL INDEX TRUE

\* LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

## Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE DESCRIPTION



After processing, the dataset is checked for drawing display and number of records and file sizes compared with source materials.

CONFORMANCE TEST RESULTS

TEST PASSED **Yes**  
RESULT EXPLANATION  
Pass

PRODUCT SPECIFICATION ▶

TITLE **NCDOT Geospatial Data Specifications**  
CREATION DATE 2019-07-23 00:00:00  
PUBLICATION DATE 2019-08-28 00:00:00

*Hide Product specification ▲*

*Hide Data quality report - Completeness omission ▲*

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY ▶

MEASURE DESCRIPTION

The dataset is converted to file geodatabase (FGDB) format using tools in ArcGIS. The geometry is checked, and if needed repaired.

CONFORMANCE TEST RESULTS

TEST PASSED **Yes**  
RESULT EXPLANATION  
Pass

PRODUCT SPECIFICATION ▶

TITLE **NCDOT Geospatial Data Specifications**  
CREATION DATE 2019-07-23 00:00:00  
PUBLICATION DATE 2019-08-28 00:00:00

*Hide Product specification ▲*

*Hide Data quality report - Conceptual consistency ▲*

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY ▶

MEASURE DESCRIPTION

Geometry checks were conducted using ESRI's Data Reviewer tool.

CONFORMANCE TEST RESULTS

TEST PASSED **Yes**  
RESULT EXPLANATION  
Pass

PRODUCT SPECIFICATION ►

TITLE NCDOT Geospatial Data Specifications  
CREATION DATE 2019-07-23 00:00:00  
PUBLICATION DATE 2019-08-28 00:00:00

[Hide Product specification ▲](#)

[Hide Data quality report - Quantitative attribute accuracy ▲](#)

[Hide Data Quality ▲](#)

## Lineage ►

LINEAGE STATEMENT

In order to establish the range of regular effects generated by winds, wind data were obtained from the Natural Resource Conservation Service (NRCS) National Water and Climate Center (NWCC) in Wind Rose format (<https://www.wcc.nrcs.usda.gov/climate/windrose.html>). Relevant wind data are provided by the NRCS NWCC for Wilmington and Cape Hatteras and are based on hourly data generated from NOAA's Solar and Meteorological Surface Observation Network (SAMSON). These raw data are available from NOAA's National Climatic Data Center (NCDC) and are based on records from 1961 to 1990. Wind rose data provide wind direction and speed information for each month of the year. These data were plotted to determine mean wind speeds and directions for each month. For the purposes of this project, regular winds were determined to be those falling within one Standard Deviation of the monthly mean wind direction and speed. These regular winds were then used in conjunction with USGS water elevation change formulas to determine the change in water elevation for various points surrounding the Albemarle and Pamlico Sounds, the smaller open waters of sounds including Core Sound, Bogue Sound, and Back Sound, and large river systems including the Alligator River, White Oak River, New River, and Cape Fear River.

PROCESS STEP ►

DESCRIPTION

Geodatabase was forwarded on to the GIS Unit for publishing as part of data for project ATLAS.

PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation - Sweeping Environmental Group  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE originator

CONTACT INFORMATION ►

PHONE

VOICE 919-707-6136

ADDRESS

TYPE physical

DELIVERY POINT Century Center Building B, 1020 Birch Ridge Drive

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27610

COUNTRY US

E-MAIL ADDRESS [ATLAS@ncdot.gov](mailto:ATLAS@ncdot.gov)

HOURS OF SERVICE

9:00am – 5:00pm Monday - Friday

[CONTACT INSTRUCTIONS](#)

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

[PROCESS STEP ►](#)  
[DESCRIPTION](#)

Data was reviewed in ESRI's Data Reviewer tool to verify geometry.

[PROCESS CONTACT](#)

[ORGANIZATION'S NAME](#) North Carolina Department of Transportation - Sweeping Environmental Group  
[CONTACT'S POSITION](#) Environmental Program Consultant  
[CONTACT'S ROLE](#) originator

[CONTACT INFORMATION ►](#)

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

[PROCESS STEP ►](#)  
[DESCRIPTION](#)

The combination of the MHHW level in conjunction with the additional wind-driven water rise (where applicable) was established for each 15-digit HU as the Maximum Water Elevation (MWE). 15-digit HUs that are not subject to wind-driven tides have a MWE that is equal to the MHHW level. Elevation contours reflecting the MWE values were generated from QL2 data for each 15-digit HU and were used (where possible) to assess the accuracy of the predicted elevation using 2012 aerial photography (latest imagery available at the time of wind-driven effect calculations). Elevation contours were compared specifically with areas containing docks, boat ramps, maintained lawns, and agricultural

areas. Areas of discrepancy were noted, but ranged to 0.5-foot in only five (approximately 1.6%) 15-digit HUs, which were adjusted appropriately. Final MWE values range from 0.0 feet (NAVD88) to 2.5 feet (NAVD88).

#### PROCESS CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation - Sweeping Environmental Group  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE originator

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[Hide Contact information ▲](#)

[Hide Process step ▲](#)

[Hide Lineage ▲](#)

## Distribution ►

#### DISTRIBUTOR ►

##### CONTACT INFORMATION

ORGANIZATION'S NAME North Carolina Department of Transportation - EAU Mitigation and Modeling Unit  
CONTACT'S POSITION Environmental Program Consultant  
CONTACT'S ROLE distributor

#### CONTACT INFORMATION ►

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[Hide Contact information ▲](#)

[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

\* NAME File Geodatabase Feature Class  
VERSION 10.5

[Hide Distribution ▲](#)

## Fields ►

DETAILS FOR OBJECT [WindDrivenWaterLevels ►](#)

\* TYPE Feature Class  
\* ROW COUNT 764

DEFINITION

Extents of wind driven tides in the large open waters of Albemarle and Pamlico Sounds

DEFINITION SOURCE

NCDOT

FIELD [OBJECTID ►](#)

\* ALIAS OBJECTID  
\* DATA TYPE OID  
\* WIDTH 4  
\* PRECISION 0  
\* SCALE 0  
\* FIELD DESCRIPTION

Internal feature number.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

FIELD [Shape ►](#)

\* ALIAS Shape  
\* DATA TYPE Geometry  
\* WIDTH 0

- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Feature geometry.
  
- \* DESCRIPTION SOURCE  
Esri
  
- \* DESCRIPTION OF VALUES  
Coordinates defining the features.

*Hide Field Shape ▲*

FIELD HUcode8 ►

- ALIAS HUcode8
- \* DATA TYPE String
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
8-digit Hydrologic Unit

DESCRIPTION SOURCE  
NCDOT

*Hide Field HUcode8 ▲*

FIELD AreaInAcres ►

- ALIAS AreaInAcres
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
Area of polygon shapes, acres

DESCRIPTION SOURCE  
NCDOT

*Hide Field AreaInAcres ▲*

FIELD AreaInSqmi ►

- ALIAS AreaInSqmi
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
Area of polygon shapes, square miles

DESCRIPTION SOURCE  
NCDOT

*Hide Field AreaInSqmi ▲*

FIELD [StnMHHW](#) ▶

ALIAS [StnMHHW](#)  
\* DATA TYPE [Single](#)  
\* WIDTH [4](#)  
\* PRECISION [0](#)  
\* SCALE [0](#)

FIELD DESCRIPTION

MHHW Station datum for HU15 where available

DESCRIPTION SOURCE

NCDOT

[Hide Field StnMHHW](#) ▲

FIELD [MHHWElev](#) ▶

ALIAS [MHHWElev](#)  
\* DATA TYPE [Single](#)  
\* WIDTH [4](#)  
\* PRECISION [0](#)  
\* SCALE [0](#)

FIELD DESCRIPTION

MHHW water elevations, NAVD88, feet, 0.5-foot increments

DESCRIPTION SOURCE

NCDOT

[Hide Field MHHWElev](#) ▲

FIELD [MaxWElev](#) ▶

ALIAS [MaxWElev](#)  
\* DATA TYPE [Single](#)  
\* WIDTH [4](#)  
\* PRECISION [0](#)  
\* SCALE [0](#)

FIELD DESCRIPTION

Maximum wind-driven water elevations, NAVD88, feet, 0.5-foot increments

DESCRIPTION SOURCE

NCDOT

[Hide Field MaxWElev](#) ▲

FIELD [TIZSect](#) ▶

ALIAS [TIZSect](#)  
\* DATA TYPE [String](#)  
\* WIDTH [12](#)  
\* PRECISION [0](#)  
\* SCALE [0](#)

FIELD DESCRIPTION

General area of tidal mapping (northern, central, southern)

DESCRIPTION SOURCE

NCDOT

[Hide Field TIZSect ▲](#)

FIELD [ElevDiff ▶](#)

ALIAS ElevDiff

\* DATA TYPE Single

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Difference in elevation between Max\_W\_Elev and MHHW Elev, feet

DESCRIPTION SOURCE

NCDOT

[Hide Field ElevDiff ▲](#)

FIELD [SaltFresh ▶](#)

\* ALIAS SaltFresh

\* DATA TYPE String

\* WIDTH 12

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Approximation of dominance by salt/fresh water

DESCRIPTION SOURCE

NCDOT

LIST OF VALUES

VALUE Salt

DESCRIPTION Salt

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

VALUE Fresh

DESCRIPTION Fresh

ENUMERATED DOMAIN VALUE DEFINITION SOURCE NCDOT

[Hide Field SaltFresh ▲](#)

FIELD [Shape\\_Length ▶](#)

\* ALIAS Shape\_Length

\* DATA TYPE Double

\* WIDTH 8

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Length of feature in internal units.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.



[Hide Field Shape\\_Length ▲](#)

FIELD [Shape\\_Area ▶](#)

- \* ALIAS Shape\_Area
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Area of feature in internal units squared.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Positive real numbers that are automatically generated.

[Hide Field Shape\\_Area ▲](#)

FIELD [HUcode15 ▶](#)

- \* ALIAS HUcode15
- \* DATA TYPE String
- \* WIDTH 15
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
15-digit HU (created for tidal extent)
- \* DESCRIPTION SOURCE  
NCDOT

[Hide Field HUcode15 ▲](#)

[Hide Details for object WindDrivenWaterLevels ▲](#)

[Hide Fields ▲](#)

## **Metadata Details ▶**

METADATA LANGUAGE English (UNITED STATES)  
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset  
SCOPE NAME \* dataset

\* LAST UPDATE 2024-01-26

### ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0  
STANDARD OR PROFILE USED TO EDIT METADATA ISO19139  
METADATA STYLE ISO 19139 Metadata Implementation Specification

CREATED IN ARCGIS FOR THE ITEM 2024-02-01 15:59:02  
LAST MODIFIED IN ARCGIS FOR THE ITEM 2024-01-26 14:22:18

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2024-01-26 14:22:18

[Hide Metadata Details ▲](#)

## Metadata Contacts ▶

METADATA CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

CONTACT'S POSITION Environmental Program Consultant

CONTACT'S ROLE point of contact

CONTACT INFORMATION ▶

PHONE

VOICE 919-707-6136

ADDRESS

TYPE physical

DELIVERY POINT Century Center Building B, 1020 Birch Ridge Drive

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27610

COUNTRY US

E-MAIL ADDRESS [ATLAS@ncdot.gov](mailto:ATLAS@ncdot.gov)

HOURS OF SERVICE

9:00am – 5:00pm Monday - Friday

CONTACT INSTRUCTIONS

Please send an email with any issues, questions or comments regarding the ATLAS Data Search Tool, ATLAS Screening Tool or ATLAS Workbench. If it is an immediate need, please call the contact number or indicate as such in the subject line in an email.

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

## Metadata Maintenance ▶

MAINTENANCE

UPDATE FREQUENCY as needed

OTHER MAINTENANCE REQUIREMENTS

Annual maintenance of this dataset is handled by the Sweeping Environmental Group. Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

MAINTENANCE CONTACT

ORGANIZATION'S NAME North Carolina Department of Transportation - Sweeping Environmental Group

CONTACT'S POSITION Environmental Program Consultant

CONTACT'S ROLE originator

CONTACT INFORMATION ▶

PHONE

VOICE 919-707-6136

#### ADDRESS

TYPE physical

DELIVERY POINT Century Center Building B, 1020 Birch Ridge Drive

CITY Raleigh

ADMINISTRATIVE AREA NC

POSTAL CODE 27610

COUNTRY US

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[Hide Contact information ▲](#)

[Hide Metadata Maintenance ▲](#)

## Metadata Constraints ►

#### SECURITY CONSTRAINTS

CLASSIFICATION unclassified

CLASSIFICATION SYSTEM None

#### LIMITATIONS OF USE

The North Carolina Department of Transportation shall not be held liable for any errors in this metadata. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data. Datasets developed under Project ATLAS do not replace any Sweeping Environmental field work for future projects and may not be used as a replacement for site visits / field surveys by licensed professionals and hence should be used only as a supporting platform for decision making. Use of this dataset for project scoping or screening is merely pre-decisional.

#### CONSTRAINTS

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[Hide Metadata Constraints ▲](#)