

The City of Norfolk Tidal Marsh Inventory 2014

Shapefile



Tags

Tidal Marsh Inventory, Virginia, Little Creek, Willoughby Bay, Mason Creek, Lafayette River, Elizabeth River, Eastern branch of the Elizabeth River, Broad Creek

Summary

To maintain and update an inventory of the distribution of tidal marshes for the Commonwealth of Virginia.

Description

The Virginia Institute of Marine Science published the first Tidal marsh Inventories for the City of Norfolk in 1987 using data collected in the early 1970's. Using high resolution color infra-red imagery from 2009 and 2011 a new Tidal Marsh Inventory has been developed for 2014. Marsh boundaries were generated using heads-up digitizing techniques at a scale of 1:1,000. Each marsh polygon was classified by morphologic type: fringe, extensive, embayed, or marsh island. Marshes were ground-truthed in the field where a community type index was assigned to each marsh based on plant community make-up.

Credits

There are no credits for this item.

Use limitations

There are no access and use limitations for this item.

Extent

West -76.330035 **East** -76.182418

North 36.966555 **South** 36.821508

Scale Range

Maximum (zoomed in) 1:5,000

Minimum (zoomed out) 1:150,000,000

ArcGIS Metadata

Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE biota, boundaries, environment

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

PLACE KEYWORDS Virginia, Little Creek, Willoughby Bay, Mason Creek, Lafayette River, Elizabeth River, Eastern branch of the Elizabeth River, Broad Creek

THEME KEYWORDS Tidal marsh, wetland plant identification, wetland community type

Citation

TITLE The City of Norfolk Tidal Marsh Inventory 2014

PUBLICATION DATE 2014-12-31 00:00:00

EDITION DATE 2014-12-31

PRESENTATION FORMATS * digital map

Resource Details

DATASET LANGUAGES * English (UNITED STATES)

SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.1.0.3035

ARCGIS ITEM PROPERTIES

* NAME Norfolk_tmi_2014

* SIZE 0.768

* LOCATION <http://ccrm.vims.edu/ccrmp/index.html>

* ACCESS PROTOCOL Comprehensive Coastal Resource Management Portal

Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -76.330035

* EAST LONGITUDE -76.182418

* NORTH LATITUDE 36.966555

* SOUTH LATITUDE 36.821508

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 381601.568855
* EAST LONGITUDE 394547.619668
* SOUTH LATITUDE 4075894.118108
* NORTH LATITUDE 4091817.830153
* EXTENT CONTAINS THE RESOURCE Yes

Spatial Reference

ARCGIS COORDINATE SYSTEM

* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
* PROJECTION NAD_1983_UTM_Zone_18N
* COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 26918

X ORIGIN -5120900
Y ORIGIN -9998100
XY SCALE 450445547.3910538
Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 0.001
Z TOLERANCE 0.001
M TOLERANCE 0.001

HIGH PRECISION true

LATESTWKID 26918

WELL-KNOWN TEXT

PROJCS["NAD_1983_UTM_Zone_18N",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["Transverse_Mercator"],PARAMETER["False_Easting",500000.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-75.0],PARAMETER["Scale_Factor",0.9996],PARAMETER["Latitude_Of_Origin",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",26918]]

REFERENCE SYSTEM IDENTIFIER

* VALUE 26918
* CODESPACE EPSG
* VERSION 7.9.4

Spatial Data Properties

VECTOR

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME Norfolk_tmi_2014

* OBJECT TYPE composite
* OBJECT COUNT 775

ARCGIS FEATURE CLASS PROPERTIES



FEATURE CLASS NAME Norfolk_tmi_2014

* FEATURE TYPE Simple

* GEOMETRY TYPE Polygon

* HAS TOPOLOGY FALSE

* FEATURE COUNT 775

* SPATIAL INDEX TRUE

* LINEAR REFERENCING FALSE

Data Quality

SCOPE OF QUALITY INFORMATION

RESOURCE LEVEL dataset

Lineage

PROCESS STEP



WHEN THE PROCESS OCCURRED 2014-04-01 00:00:00

DESCRIPTION Tidal marshes were delineated from 2011 VBMP imagery using onscreen digitizing techniques at a scale of 1:1,000. Bing and Google Earth online imagery was used to provide additional interpretive information to improve the accuracy of marsh boundaries. Marsh polygons were coded by shape and physiographic setting based on a classification system applied in the first City of Norfolk Tidal Marsh Inventory in 1987. Quality assurance and control measures were performed prior to generation of maps for fieldwork.

PROCESS STEP



WHEN THE PROCESS OCCURRED 2014-05-01 00:00:00

DESCRIPTION VBMP imagery, with the marsh polygon layer overlay, was printed for use in field surveys of the marshes.

PROCESS STEP



WHEN THE PROCESS OCCURRED 2014-06-01 00:00:00

DESCRIPTION Field collection of marsh data was performed primarily from a small shallow-draft vessel, navigating at slow speeds parallel to the shoreline. Surveys extended as far upstream as depth and field conditions allowed. Some additional data collection was performed by land where marshes were easily accessible from public lands. During surveys, marsh boundaries were verified, and wetland plant species observed within each marsh polygon were recorded along with relative cover estimates to determine marsh community types.

PROCESS STEP



WHEN THE PROCESS OCCURRED 2014-09-01 00:00:00

DESCRIPTION Corrections were made to the digital data back at the lab using ArcGis Version 10.0

Distribution

DISTRIBUTION FORMAT

* NAME Shapefile

VERSION Shapefile

TRANSFER OPTIONS

* TRANSFER SIZE 0.768

Fields

DETAILS FOR OBJECT [NORFOLK_TMI_2014](#) ►

* TYPE Feature Class

* ROW COUNT 775

DEFINITION

A collection of geographical features with the same geometry type (such as point, line or poly), same attributes, and the same spatial reference.

DEFINITION SOURCE

ESRI

FIELD FID



* ALIAS FID

* 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.

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.

FIELD ID



- * ALIAS Id
- * DATA TYPE Integer
- * WIDTH 6
- * PRECISION 6
- * SCALE 0
- FIELD DESCRIPTION
ID Number

DESCRIPTION SOURCE
ESRI

DESCRIPTION OF VALUES Id Number

FIELD MARSH_TYPE



- * ALIAS Marsh_Type
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0
- FIELD DESCRIPTION

Tidal marshes take on several different morphologies. They can be embayed features that are set into the landscape with upland areas along the marsh edges. They can also be large extensive features that extend into the open water and have water on two or three sides. Fringe marshes grow nearly parallel to the shoreline and can be wide or narrow. An isolated marsh surrounded on all sides by open water; interior portions of the marsh may contain trees scattered at highest elevations. In all cases, wetland vegetation must be relatively well established, although not necessarily healthy.

DESCRIPTION SOURCE
Glossary of Shoreline Features Defined, Center for Coastal Resources Management, VIMS

DESCRIPTION OF VALUES Embayed, Extensive, Fringe 0-5, Fringe 5-30, Fringe > 30, Marsh Island

BEGINNING DATE OF VALUES 2014-04-01

FIELD NUMBER



* ALIAS Number
* DATA TYPE Integer
* WIDTH 9
* PRECISION 9
* SCALE 0

FIELD DESCRIPTION

Final marsh number

DESCRIPTION SOURCE

Field Personel

DESCRIPTION OF VALUES Marsh code number

FIELD FIELD2014



* ALIAS Field2014
* DATA TYPE String
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Field work done during June 2014. Y = field checked in 2014 and N = not field checked

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Y = Field Checked N = Not Checked in Field

FIELD MARSHNo



* ALIAS MarshNo
* DATA TYPE Double
* WIDTH 19
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Final ID number for marsh polygon

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Final ID number for marsh polygon

FIELD CMTYTYPE



* ALIAS CmtyType
* DATA TYPE String
* WIDTH 254
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Marsh Community Type: I = Saltmarsh Cordgrass/low marsh, II = Saltmeadow/high marsh, III = Black Needlerush, IV = Saltbush, V = Big Cordgrass, VI = Cattail, VII = Arrow Arum, VIII = Reedgrass, IX = Yellow Pond Lily, X = Saltwort, XI = Freshwater mix, XII = Brackish mix

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Marsh Community Type: I = Saltmarsh Cordgrass/low marsh, II = Saltmeadow/high marsh, III = Black Needlerush, IV = Saltbush, V = Big Cordgrass, VI = Cattail, VII = Arrow Arum, VIII = Reedgrass, IX = Yellow Pond Lily, X = Saltwort, XI = Freshwater mix, XII = Brackish mix

BEGINNING DATE OF VALUES 2014-09-01

FIELD REEDGRASS



* ALIAS Reedgrass
* DATA TYPE String
* WIDTH 254
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

D = Marsh 51-100% Phragmites

X = Marsh 1-50% Phragmites

T = Marsh < 1% Phragmites

DESCRIPTION SOURCE

Field personel

DESCRIPTION OF VALUES Amount of Reedgrass present: D = Marsh 51-100% Phragmites X = Marsh 1-50% Phragmites T = Marsh < 1% Phragmites

BEGINNING DATE OF VALUES 2014-09-01

FIELD PRCNTPHRAG



* ALIAS PrcntPhrag

* DATA TYPE String

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

% cover of Phragmites in marsh

DESCRIPTION SOURCE

Field personel

DESCRIPTION OF VALUES % cover of Phragmites in marsh

BEGINNING DATE OF VALUES 2014-09-01

FIELD FIELDDATE



* ALIAS FieldDate

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Date of marsh survey

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Date of field survey

BEGINNING DATE OF VALUES 2014-09-01

FIELD OBSERVER



* ALIAS Observer

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Field Personel

DESCRIPTION SOURCE

Field Personel

DESCRIPTION OF VALUES Name of field personel

BEGINNING DATE OF VALUES 2014-06-01

FIELD COMMENTS



- * ALIAS Comments
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Any observances by field personel

DESCRIPTION SOURCE

Field Personel

DESCRIPTION OF VALUES Any observances by field personel

BEGINNING DATE OF VALUES 2014-06-01

FIELD COMMUNTYPE



- * ALIAS CommunType
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Marsh Community Type: I = Saltmarsh Cordgrass/low marsh,II = Saltmeadow/high marsh, III = Black Needlerush, IV = Saltbush, V = Big Cordgrass, VI = Cattail, VII = Arrow Arum, VIII = Reedgrass, IX = Yellow Pond Lily, X = Saltwort, XI = Freshwater mix, XII = Brackish mix

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Marsh Community Type: I = Saltmarsh Cordgrass/low marsh,II = Saltmeadow/high marsh, III = Black Needlerush, IV = Saltbush, V = Big Cordgrass, VI = Cattail, VII = Arrow Arum, VIII = Reedgrass, IX = Yellow Pond Lily, X = Saltwort, XI = Freshwater mix, XII = Brackish mix

BEGINNING DATE OF VALUES 2014-09-01

FIELD DOMINANT_P



- * ALIAS Dominant_P
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Dominant plant species

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Dominant plant species

BEGINNING DATE OF VALUES 2014-09-01

FIELD ACRES



* ALIAS Acres

* DATA TYPE Double

* WIDTH 13

* PRECISION 12

* SCALE 2

FIELD DESCRIPTION

size of marsh in acres

DESCRIPTION SOURCE

Processor

DESCRIPTION OF VALUES Size of marsh in acres

BEGINNING DATE OF VALUES 2014-11-01

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 2015-01-06

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2014-06-25 11:45:15

LAST MODIFIED IN ARCGIS FOR THE ITEM 2015-01-06 13:51:49

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2015-01-06 13:51:49

Metadata Contacts

METADATA CONTACT
INDIVIDUAL'S NAME Sharon Killeen
ORGANIZATION'S NAME Comprehensive Coastal Inventory Program, Virginia Institute of Marine Science (VIMS)
CONTACT'S POSITION GIS Programmer/Analyst
CONTACT'S ROLE point of contact

Thumbnail and Enclosures

THUMBNAIL
THUMBNAIL TYPE JPG