

Stafford County, Virginia 2015 Tidal Marsh Inventory

Shapefile



Tags

Tidal marsh, Inventory, Watershed, Marsh Community Type

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 Virginia in the 1970s. Using high resolution color infra-red imagery from 2009 a new Tidal Marsh Inventory has been developed for the York River Watershed in 2010. The remaining tidal shoreline of Gloucester County was developed using color infra-red imagery from 2011. 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. Each marsh was also coded with a marsh number which corresponds to the original 1970s delineation. This will provide an opportunity to review changes that have occurred in the marshes over time.

Credits

There are no credits for this item.

Use limitations

There are no access and use limitations for this item.

Extent

West -77.391178 **East** -77.286939

North 38.516842 **South** 38.335320

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, Potomac River, Rappahannock River, Potomac Creek, Aquia Creek, Chopawamsic Creek, Stafford County

THEME KEYWORDS Tidal Marsh, Wetland Plant Identification, Wetland Community Type

Citation

TITLE Stafford County, Virginia 2015 Tidal Marsh Inventory
PUBLICATION DATE 2015-09-30 00:00:00

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 Stafford_TMI_2015
* SIZE 0.274
* LOCATION *****
* ACCESS PROTOCOL Local Area Network

Extents

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -77.391178
* EAST LONGITUDE -77.286939
* NORTH LATITUDE 38.516842
* SOUTH LATITUDE 38.335320
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 291523.532328

* EAST LONGITUDE 300123.619903
* SOUTH LATITUDE 4245713.018882
* NORTH LATITUDE 4265653.242925
* 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

DIMENSION horizontal

* 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 Stafford_TMI_2015

* OBJECT TYPE composite
* OBJECT COUNT 214

ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME Stafford_TMI_2015

- * FEATURE TYPE Simple
- * GEOMETRY TYPE Polygon
- * HAS TOPOLOGY FALSE
- * FEATURE COUNT 214
- * SPATIAL INDEX FALSE
- * LINEAR REFERENCING FALSE

Data Quality

SCOPE OF QUALITY INFORMATION

RESOURCE LEVEL dataset

Lineage

PROCESS STEP

WHEN THE PROCESS OCCURRED 2015-02-01 00:00:00

DESCRIPTION Tidal marshes were delineated from 2013 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 Stafford County Inventory in Stafford County (in 1975). Quality assurance and control measures were performed prior to generation of maps for fieldwork.

PROCESS STEP

WHEN THE PROCESS OCCURRED 2015-05-01 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 2015-07-20 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 2015-09-01 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 0.274

Fields

DETAILS FOR OBJECT [Stafford_TMI_2015](#)

* TYPE Feature Class

* ROW COUNT 214

DEFINITION

 polygon

DEFINITION SOURCE

 Processor

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 Poly_Type

* ALIAS Poly_Type
* DATA TYPE String
* WIDTH 25
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Marsh = polygon is marsh

Marsh island = polygon is marsh island

NoMarsh_forest = polygon is forest

NoMarsh_ScrubShrub = polygon is scrub shrub

Embayed

Extensive

Fringe < 15 feet

Fringe > 15 feet

DESCRIPTION SOURCE
Processor

FIELD MarshFinal

* ALIAS MarshFinal
* DATA TYPE String
* WIDTH 50
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Marsh = polygon is marsh

Marsh island = polygon is marsh island

NoMarsh_forest = polygon is forest

NoMarsh_ScrubShrub = polygon is scrub shrub

DESCRIPTION SOURCE

Processor

FIELD Number

* ALIAS Number
* DATA TYPE String
* WIDTH 20
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Final marsh number for current inventory

DESCRIPTION SOURCE

Processor

FIELD Field



* ALIAS Field
* DATA TYPE String
* WIDTH 5
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Observed in the field or not

DESCRIPTION SOURCE

Field personnel

FIELD MarshNo

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

FIELD DESCRIPTION

Fips code and marsh number

DESCRIPTION SOURCE

Processor

FIELD MarshNo_1

* ALIAS MarshNo_1
* DATA TYPE Integer

* WIDTH 9
* PRECISION 9
* SCALE 0

FIELD DESCRIPTION

Fips number and marsh number

DESCRIPTION SOURCE

Processor

FIELD CmtyType

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

FIELD DESCRIPTION

FW = Freshwater

Cyno = Spartina cynosuroides

Cat = Cattail

YPL = Yellow pond Lily

Phrag = Phragmites australis

AAP = Arrow Arum and Pickerel Weed

DESCRIPTION SOURCE

Tidal Marsh Inventories – Community Types & Field Codes

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

FIELD PrcntPhrag

* ALIAS PrcntPhrag

* DATA TYPE String

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

% cover of Phragmites in marsh

DESCRIPTION SOURCE

Field personnel

FIELD FieldDate

* ALIAS FieldDate

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Field dates: 7/21/2015 and 7/20/2015

DESCRIPTION SOURCE

Processor

FIELD Observer

* ALIAS Observer

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Field personnel making the observations.

DESCRIPTION SOURCE

Processor

FIELD Code



* ALIAS Code

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

FW = Freshwater

Cyno = Spartina cynosuroides

Cat = Cattail

YPL = Yellow pond Lily

Phrag = Phragmites australis

AAP = AAP = Arrow Arum and Pickerel Weed

Nupha = Nuphar luteum

DESCRIPTION SOURCE

Processor

FIELD CommunType

* ALIAS CommunType

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Type I: Predominately Saltmarsh Cordgrass / low marsh

Type II: Predominately Saltmeadow / high marsh

Type III: Predominately Black Needlerush

Type IV: Predominately Saltbush

Type V: Predominately Big Cordgrass

Type VI: Predominately Cattail

Type VII: Predominately Arrow Arum - Pickerelweed

Type VIII: Predominately Reed Grass

Type IX: Predominately Yellow Pond Lily

Type X: Predominately Saltwort

Type XI: Freshwater mix - no dominant species

Type XII: Brackish mix - no dominant specie

DESCRIPTION SOURCE

Tidal Marsh Inventories – Community Types & Field Codes

FIELD Dominant_P

* ALIAS Dominant_P

* DATA TYPE String

* WIDTH 254

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Dominant plant species

DESCRIPTION SOURCE

Processor

FIELD Acres



* ALIAS Acres

* DATA TYPE Double

* WIDTH 13

* PRECISION 12

* SCALE 2

FIELD DESCRIPTION

Polygon area in acres

DESCRIPTION SOURCE

Processor

FIELD PhragPres

* ALIAS PhragPres

* DATA TYPE String

* WIDTH 50

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Presence or absence of Phragmites australis

DESCRIPTION SOURCE

Processor

Metadata Details

* METADATA LANGUAGE English (UNITED STATES)

* METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 2C2BEC3D-3190-44D9-A94F-B9A6D8E66D1F

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset

SCOPE NAME * dataset

* LAST UPDATE 2015-09-09

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2015-05-14 11:01:32

LAST MODIFIED IN ARCGIS FOR THE ITEM 2015-09-09 09:25:33

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2015-09-09 09:25:33

Metadata Contacts

METADATA CONTACT

INDIVIDUAL'S NAME Sharon Killeen

ORGANIZATION'S NAME Comprehensive Coastal Inventory Program, Virginia Institute of Marine Science

CONTACT'S POSITION GIS Programmer/Analyst

CONTACT'S ROLE point of contact

Metadata Maintenance

MAINTENANCE

UPDATE FREQUENCY unknown