

Hydrography, North Carolina Department of Transportation, Prioritization 7.0, July, 2023

Geodatabase Feature Class



Tags NC, North Carolina, Hydro, Hydrography, NC Hydro, NC Hydrography, Strategic Prioritization Office of Transportation (SPOT), P7, Department of Transportation, North Carolina Department of Transportation (NCDOT), Rivers, Streams, Lakes, Reservoirs, National Hydrography Dataset (NHD), Water bodies

Summary

Feature class to be utilized with the Strategic Planning Office of Transportation's (SPOT) P.7 cost-estimation tool. This feature class helps to determine the amount of square footage for bridge crossings over hydrography features, which leads to an estimated cost of new bridges.

Description

This feature class is a compilation of selected Federal Emergency Management Agency floodways, National Hydrography Data Set polygons and selected streams from an existing layer. Streams were selected based on if they are named with the assumption that if the stream is large enough to have a name, it is large enough for a bridge structure. A thirty foot buffer (fifteen feet on each side) was placed on the streams allowing it to become a polygon. The data from the Federal Emergency Management Agency, National Hydrography Data Set, and buffered streams was then merged together to create a new polygon feature class to be utilized in the cost estimation tool.

For the purposes of the Strategic Planning Office of Transportation Prioritization 7.0 project, data is not updated after May 2023.

For further information about domains and fields used in SPOT see the SPOT P7 Domains document here:

<https://xfer.services.ncdot.gov/gisdot/metadata/spot/NCDOT%20SPOT%20Prioritization%207%20Online%20Domain%20Reference.pdf>

Credits

North Carolina Department of Transportation GIS Unit, Strategic Prioritization Office of Transportation (SPOT)

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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Online, the user hereby acknowledges this statement.

Extent

West -84.414758
East -75.416082
North 36.616180
South 33.733370

Scale Range

Maximum (zoomed in) 1:5,000
Minimum (zoomed out) 1:150,000,000

Topics and Keywords

Themes or categories of the resource Inland Waters, Transportation

Content type Downloadable Data

Theme keywords NC, North Carolina, Hydro, Hydrography, NC Hydro, NC Hydrography, Strategic Prioritization Office of Transportation (SPOT), P7, Department of Transportation, North Carolina Department of Transportation (NCDOT), Rivers, Streams, Lakes, Reservoirs, National Hydrography Dataset (NHD), Water bodies

Place keywords North Carolina

Citation

Title Hydrography, North Carolina Department of Transportation, Prioritization 7.0, July, 2023
Publication date 2023-07-17 00:00:00

Presentation formats digital map

Citation Contacts

Responsible party - originator

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

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Delivery point 4101

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Postal code 27610

e-mail address spot@ncdot.gov

Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Responsible party - resource provider

Organization's name North Carolina Department of Transportation Geographic Information Systems Unit

Contact's position GIS Help Desk

Contact information

Phone

Voice 919.707.2165

Fax 919.707.2210

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

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Hours of service

8am-9pm, M-F

Contact instructions

Phone or email

Resource Details

Dataset languages English (UNITED STATES)

Dataset character set utf8 - 8 bit UCS Transfer Format

Spatial representation type vector

Processing environment Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

Credits

North Carolina Department of Transportation GIS Unit, Strategic Prioritization Office of Transportation (SPOT)

ArcGIS item properties

Name CombinedHydro

Location file://\DOT\DFSROOT01\GROUPS-GISCC\GIS-SpatialDataMgmt\Metadata\Spot\BackupSchemaProd20231218\P7_Data.gdb

Access protocol Local Area Network

Extents

Extent

Geographic extent

Bounding rectangle

West longitude -84.414758

East longitude -75.416082

South latitude 33.73337
North latitude 36.61618
Extent contains the resource Yes

Temporal extent

Date and time 2019-09-01 00:00:00

Extent

Geographic extent

Bounding rectangle

Extent type

Extent used for searching

West longitude -84.414758

East longitude -75.416082

North latitude 36.616180

South latitude 33.733370

Extent contains the resource Yes

Extent in the item's coordinate system

westBL 408975.412458

eastBL 3052479.573930

southBL 35901.487775

northBL 1043233.364183

exTypeCode Yes

Resource Points of Contact

Point of contact - point of contact

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

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Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Resource Maintenance

Resource maintenance

Update frequency annually

Scope of the updates dataset

Maintenance contact - resource provider

Organization's name North Carolina Department of Transportation Geographic Information Systems Unit

Contact's position GIS Help Desk

Contact information

Phone

Voice 919.707.2165

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Delivery point Century Center Building B, 1020 Birch Ridge Drive

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e-mail address gishelp@ncdot.gov

Hours of service

8am-9pm, M-F

Contact instructions

Phone or email

Resource Constraints

Legal constraints

Limitations of use

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Security constraints

Classification unclassified

Classification system none

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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

ProjectedCoordinateSystem

WKID 102719

XOrigin -121841900

YOrigin -93659000

XYScale 3048.0060960121928

ZOrigin 0

ZScale 1

MOrigin 0

MScale 1

XYTolerance 0.0032808333333333331

ZTolerance 0.001

MTolerance 0.001

HighPrecision true

LatestWKID 2264

WKT

PROJCS["NAD_1983_StatePlane_North_Carolina_FIPS_3200_Feet",GEOGCS["GCS_North_American_1983",D

ATUM["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",2000000.002616666],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],AUTHORITY["EPSG",2264]]

Reference system identifier

Value 2264
Codespace EPSG
Version 6.12(9.0.0)

Spatial Data Properties

Vector

Level of topology for this dataset geometry only

Geometric objects

Feature class name CombinedHydro
Object type composite
Object count 104183

ArcGIS Feature Class Properties

Feature class name CombinedHydro
Feature type Simple
Geometry type Polygon
Has topology FALSE
Feature count 104183
Spatial index TRUE
Linear referencing FALSE

Data Quality

Scope of quality information

Resource level dataset

Data quality report - Conceptual consistency

Conformance test results

Test passed Yes

Result explanation

The dataset is converted to file geodatabase (FGDB) format using tools in ArcGIS. Quality checks were performed by the Strategic Prioritization Office of Transportation (SPOT) and the North Carolina Department of Transportation Geographic Information Systems Unit and errors were accepted as within business range or identified as exceptions.

Product specification

Title NCDOT Geospatial Data Specifications
Publication date 2023-07-17 00:00:00

Lineage

Lineage statement

Source data was acquired from multiple sources - FEMA floodzones, National Hydrography Dataset polygons, and Hydro Arcs. Various processes were performed in order to create a new feature class for the cost estimation tool to be utilized for new projects in the P7 project of the SPOT office at the NC Department of Transportation.

Process step

Description

All of the polygons were merged to create one state-wide layer for use in the cost estimation tool

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

e-mail address spot@ncdot.gov

Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Process step

Description

Streams were selected based on if they are named.

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC
Postal code 27610
Country US
e-mail address spot@ncdot.gov
Hours of service
8am-5pm, M-F

Contact instructions

Phone or email

Process step

Description

A 15 foot buffer (30 feet total) was applied to the streams to create polygons.

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

e-mail address spot@ncdot.gov

Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Process step

Description

Data obtained from different sources - FEMA flood zones, NHD Polygons, and Hydro 24k Arcs.

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal
Delivery point Century Center Building B, 1020 Birch Ridge Drive
City Raleigh
Administrative area NC
Postal code 27610
Country US
e-mail address spot@ncdot.gov
Hours of service
8am-5pm, M-F

Contact instructions
Phone or email

Process step

Description

Applicable floodways and NHD polygons were selected for use.

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

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Postal code 27610
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Hours of service

8am-5pm, M-F

Contact instructions
Phone or email

Process step

Description

Metadata uploaded for publication

Process contact - processor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

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Postal code 27610

Country US

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Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Source data

Description

National Hydrography Dataset polygons

Source data

Description

Federal Emergency Management Agency Floodzones

Source data

Description

Hydro 24k Arcs

Distribution

Distributor

Contact information - distributor

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

Address

Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

e-mail address spot@ncdot.gov

Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Distribution format

Version ArcGIS 10.3

Name File Geodatabase Feature Class

Fields

Details for object CombinedHydro

Type Feature Class

Row count 104183

Definition

This feature class helps to determine the amount of square footage for bridge crossings over hydrography features, which leads to an estimated cost of new bridges.

Definition source

NCDOT

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.

Field ORIG_FID

Alias ORIG_FID

Data type Integer

Width 4

Precision 0

Scale 0

Field description

Feature ID for each individual feature

Description source

NCDOT GIS

Description of values

No domain

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.

Field HydroFeature

Alias HydroFeature

Data type String

Width 1

Precision 0

Scale 0

Field description

Feature marker to determine if Hydro Feature

Description source

NCDOT GIS

Description of values

No domain

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.

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.

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 2024-02-26

ArcGIS metadata properties

Metadata format ArcGIS 1.0

Standard or profile used to edit metadata ISO19139

Created in ArcGIS for the item 2023-12-06 09:04:31

Last modified in ArcGIS for the item 2024-02-26 16:26:17

Automatic updates

Have been performed Yes

Last update 2024-02-26 16:26:17

Metadata Contacts

Metadata contact - point of contact

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of

Transportation (SPOT)

Contact information

Phone

Voice 919.707.4742

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Type postal

Delivery point Century Center Building B, 1020 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

e-mail address spot@ncdot.gov

Hours of service

8am-5pm, M-F

Contact instructions

Phone or email

Metadata Maintenance

Maintenance

Update frequency annually

Scope of the updates dataset

Maintenance contact - point of contact

Organization's name North Carolina Department of Transportation Strategic Prioritization Office of Transportation (SPOT)

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Hours of service

8am-5pm, M-F

Contact instructions

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Metadata Constraints

Legal constraints

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Security constraints

Classification unclassified

Classification system none

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Thumbnail and Enclosures

Thumbnail

Thumbnail type

Image file