NCDOT Drainage Investigations, January 2022 - NC Department of Transportation

Geodatabase Feature Class

Tags Hydro, DI, Drainage Investigation, Water, Pipe, Hydraulics, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

Summary

This dataset was originally created in December 2021 as part of the Project ATLAS initiative at NCDOT to support the Hydraulics Unit with project delivery in the development phase.
This dataset contains the locations of Drainage Investigations studied by the NCDOT Hydraulics Unit in support to the Divisions. At the request of the Divisions, the Hydraulic Unit studies and provides a response to Drainage related issues. Features within this layer represent locations where an inquiry was made to the Hydraulics Unit in relation to a problem with drainage. Each location is recorded with information pertaining to the division responsible for the area as well as location specific information, including county and coordinate fields. The features are also linked to the Hydraulics Reservoir on the NCDOT Connect Sharepoint Site, for access to the associated document for the initial request and any follow up by the Hydraulics Unit or correspondence with other parties involved.
While the layer itself is not restricted, the documents linked to this layer are restricted and require permission from the Hydraulics Unit to access.

Description

The NCDOT Drainage Investigations dataset is a statewide point layer containing locations of Drainage Investigations for tracking and review. Locations contain information related to the location, division involved and related documents.

Data is used to help facilitate understanding of past investigations and correlation between requests receive to help understand if they are potentially related to past incidents or a larger drainage problem. Data is also likely to be used as reference when projects are being designed. Currently the data is restricted to the Hydro Unit group and used in a dashboard for quick review and analysis.

While the layer itself is not restricted, the documents linked to this layer are restricted and require permission from the Hydraulics Unit to access.

Datasets developed under Project ATLAS do not replace any Hydraulics Unit 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 Hydraulics Unit within NCDOT was tasked to create this dataset.
Annual maintenance of this dataset is handled by the Hydraulics Unit. 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 -84.125201
East -75.426058
North 36.556356
South 33.829738

Scale Range

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

Topics and Keywords

Themes or categories of the resource Boundaries, Environment, Location, Transportation

Content type Downloadable Data

Export to FGDC CSDGM XML format as Resource Description No

Theme keywords Hydro, DI, Drainage Investigation, Water, Pipe, Hydraulics, Transportation, NCDOT, Environment, Location, North Carolina, ATLAS

Thesaurus

Title User
Creation date 2021-12-15 00:00:00
Publication date 2022-01-28 00:00:00

Place keywords North Carolina

Thesaurus

Title User
Creation date 2021-12-15 00:00:00
Publication date 2022-01-28 00:00:00

Citation

Title NCDOT Drainage Investigations, January 2022 - NC Department of Transportation

Creation date 2021-12-15 00:00:00

Publication date 2022-01-28 00:00:00

Presentation formats digital map

FGDC geospatial presentation format vector digital data

Citation Contacts

Responsible party - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit
Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Type physical
Delivery point 4101 Capital Boulevard
City Raleigh
Administrative area NC
Postal code 27604
Country US
e-mail address 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.

Responsible party - resource provider

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit
Contact's position Environmental Program Consultant

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indicate as such in the subject line in an email.

Responsible party - originator

Organization's name North Carolina Department of Transportation - Hydraulics Unit
Contact's position State Hydraulics Engineer

Contact information

Phone

Voice 919-707-6700

Address

Type physical
Delivery point 1000 Birch Ridge Drive
City Raleigh
Administrative area NC
Postal code 27610
Country US
e-mail address ATLAS@ncdot.gov

Hours of service

9:00am – 5:00pm Monday - Friday

Contact instructions

The features in this dataset are linked to the Hydraulics Reservoir on the NCDOT Connect Sharepoint Site. Please contact the Hydraulics Unit for access to the associated document or any other questions related to this dataset.

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 10.5.1.7333

Credits

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

Extents

Extent

Description

Data collection is complete.

Geographic extent

Bounding rectangle

Extent type Extent used for searching
West longitude -84.125201
East longitude -75.426058
North latitude 36.556356
South latitude 33.829738
Extent contains the resource Yes

Temporal extent

Beginning date 2021-12-15 00:00:00
Ending date 2021-12-15 00:00:00

Extent in the item's coordinate system

westBL 493086.190103
eastBL 3050331.787543
southBL 66699.404854
northBL 1021449.908078
exTypeCode Yes

Resource Points of Contact

Point of contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit
Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

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Resource Maintenance

Resource maintenance

Update frequency
quarterly

Scope of the updates
dataset

Other maintenance requirements
Annual maintenance of this dataset is handled by the Hydraulics Unit who sends updated information to the EAU.
Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

Maintenance contact - point of contact

Organization's name
North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position
Environmental Program Consultant

Contact information

Phone

Voice
919-707-6136

Address

Type
physical

Delivery point
4101 Capital Boulevard

City
Raleigh

Administrative area
NC

Postal code
27604

Country
US

e-mail address
ATLAS@ncdot.gov

Hours of service
9:00am – 5:00pm Monday - Friday

Contact instructions
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Resource Constraints

Constraints

Limitations of use

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Legal constraints

Limitations of use

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Security constraints

Classification unclassified

Limitations of use

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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 -100000
ZScale 10000
MOrigin -100000
MScale 10000
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",DATUM["
79.0],PARAMETER["Standard_Parallel_1",34.33333333333334],PARAMETER["Standard_Parallel_2",36.16666666666

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 DrainageInvestigations

Object type point

Object count 2471

ArcGIS Feature Class Properties

Feature class name DrainageInvestigations

Feature type Simple

Geometry type Point

Has topology FALSE

Feature count 2471

Spatial index TRUE

Linear referencing FALSE

Data Quality

Scope of quality information

Resource level dataset

Data quality report - Completeness omission

Data quality measure reference

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 2021-12-15 00:00:00

Publication date 2022-01-28 00:00:00

Data quality report - Conceptual consistency

Data quality measure reference

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 2021-12-15 00:00:00

Publication date 2022-01-28 00:00:00

Data quality report - Quantitative attribute accuracy

Data quality measure reference

Measure description

Manual review of the spreadsheets was performed after completion and then hosted up as a layer to AGOL which was then manually reviewed. Feature counts and the completeness of attribution was also reviewed manually for each feature and field. Similar manual review was performed when the hosted layer was downloaded and imported to the GDB. Semi-automated tasks were run to verify a match between record data in the initial set and the newly created GDB.

Conformance test results

Test passed Yes

Result explanation

Pass

Product specification

Title NCDOT Geospatial Data Specifications

Creation date 2021-12-15 00:00:00

Publication date 2022-01-28 00:00:00

Lineage

Lineage statement

The dataset was created by the Hydro Unit. Personnel and interns, studied the investigation documents and geocoded them to coordinate locations and then a hosted layer.

Process step

Description

Personnel and interns studied the investigation documents and found the proper locations.
These locations were then added to the data as coordinate fields inside of a spreadsheet
The spreadsheet points were then turned into a hosted layer using ArcGIS Online.
This hosted layer was downloaded using ArcGIS Pro and imported to a GDB.

Process contact - originator

Organization's name North Carolina Department of Transportation - Hydraulics Unit

Contact's position State Hydraulics Engineer

Contact information

Phone

Voice 919-707-6700

Address

Type physical

Delivery point 1000 Birch Ridge Drive

City Raleigh

Administrative area NC

Postal code 27610

Country US

e-mail address ATLAS@ncdot.gov

Hours of service

9:00am – 5:00pm Monday - Friday

Contact instructions

The features in this dataset are linked to the Hydraulics Reservoir on the NCDOT Connect Sharepoint Site. Please contact the Hydraulics Unit for access to the associated document or any other questions related to this dataset.

Process step

Description

Data was reviewed in ESRI's Data Reviewer tool to verify geometry. No legitimate errors were found.

Process contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Type physical

Delivery point 4101 Capital Boulevard

City Raleigh

Administrative area NC

Postal code 27604

Country US

e-mail address ATLAS@ncdot.gov

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Process step

Description

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

Process contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Type physical

Delivery point 4101 Capital Boulevard

City Raleigh

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Distribution

Distributor

Contact information - distributor

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position Environmental Program Consultant

Contact information

Phone

Voice 919-707-6136

Address

Type physical

Delivery point 4101 Capital Boulevard
City Raleigh
Administrative area NC
Postal code 27604
Country US
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Distribution format

Name File Geodatabase Feature Class
Version 10.5

Fields

Details for object DrainageInvestigations

Type Feature Class
Row count 2471

Definition
Locations where an inquiry was made to the hydraulics unit in relation to a problem with drainage.

Definition source
NCDOT

Field OBJECTID

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 DocName

Alias DocumentName
Data type String
Width 50
Precision 0
Scale 0
Field description
Specific Name of the document related to the specific feature.

Description source
NCDOT

Field County

Alias County
Data type String
Width 20
Precision 0
Scale 0
Field description
County Name where the feature resides.

Description source
NCDOT

Field CountyCode

Alias CountyCode
Data type Integer
Width 4
Precision 0
Scale 0
Field description

County code identifier

Description source
NCDOT

Field Division

Alias Division
Data type Integer
Width 4
Precision 0
Scale 0

Field description
NCDOT division in charge of the specific area the feature resides in.

Description source
NCDOT

Field Route

Alias Route
Data type String
Width 50
Precision 0
Scale 0

Field description
Specific route/road related to the feature as many drainage investigation are directly related to drainage structures such as pipes under a road.

Description source
NCDOT

Field DocDate

Alias DocumentDate
Data type Date
Width 8
Precision 0
Scale 0

Field description
Date of the inspection task

Description source
NCDOT

Field Latitude

Alias Latitude

Data type Double
Width 8
Precision 0
Scale 0
Field description
Coordinate for Latitude in decimal degrees

Description source
NCDOT

Field Longitude

Alias Longitude
Data type Double
Width 8
Precision 0
Scale 0
Field description
Coordinate for Longitude in decimal degrees

Description source
NCDOT

Field ViewDoc

Alias ViewDocumentation
Data type String
Width 256
Precision 0
Scale 0
Field description
URL to the actual document stored on SharePoint for the specific feature.

Description source
NCDOT

Field DocReq

Alias DocumentationRequest
Data type String
Width 150
Precision 0
Scale 0
Field description
This field is for personnel or other users who do not have access to the restricted Hydraulics Reservoir on SharePoint for them to request specific documents. The form at https://forms.office.com/g/ANUC2xbEbK has to be filled out to request access.

Description source
NCDOT

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 2022-07-14

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 2026-08-26 14:37:38
Last modified in ArcGIS for the item 2022-07-14 22:31:22
Automatic updates
Have been performed Yes
Last update 2022-07-14 22:31:22

Metadata Contacts

Metadata contact - point of contact

Organization's name North Carolina Department of Transportation - EAU Mitigation and Modeling Unit
Contact's position Environmental Program Consultant
Contact information
Phone
Voice 919-707-6136
Address
Type physical
Delivery point 4101 Capital Boulevard
City Raleigh
Administrative area NC
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indicate as such in the subject line in an email.

Metadata Maintenance

Maintenance

Update frequency
quarterly

Other maintenance requirements
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Support and maintenance of the enterprise spatial database where this data resides is handled by NCDIT's Transportation GIS Unit.

Maintenance contact - point of contact

Organization's name
North Carolina Department of Transportation - EAU Mitigation and Modeling Unit

Contact's position
Environmental Program Consultant

Contact information

Phone

Voice
919-707-6136

Address

Type
physical

Delivery point
4101 Capital Boulevard

City
Raleigh

Administrative area
NC

Postal code
27604

Country
US

e-mail address
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Metadata Constraints

Security constraints

Classification
unclassified

Classification system
None

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Thumbnail and Enclosures

Thumbnail

Thumbnail type

Image file