

North Carolina County Boundary Arcs, 2026 - NC Department of Transportation / NC Geodetic Survey

Geodatabase Feature Class



Tags NC, North Carolina, NC OneMap, Department of Public Safety, DPS, North Carolina Emergency Management, NCEM, North Carolina Geodetic Survey, NC Geodetic Survey, NCGS, boundaries, location, County Boundary, State Boundary, State, County, Boundary, Counties

Summary

Vector polygon dataset defining the official boundaries of the counties within North Carolina as well as the boundaries between North Carolina and the states which border North Carolina.

Description

The North Carolina State and County Boundary vector polygon data provides location information for North Carolina State and County Boundary lines derived from the best available survey and/or Geographic Information System (GIS) data. Sources for information are the North Carolina Geodetic Survey (NCGS), NC Department of Transportation (NCDOT), United States Geological Survey (USGS), and field surveys conducted by licensed surveyors in North Carolina and neighboring states that have been approved and recorded in their respective counties. North Carolina Geodetic Survey assists counties on a cooperative basis (NC General Statute 153A-18) in defining and monumenting the location of uncertain or disputed boundaries as established by law. Some counties have completed boundary surveys for at least a portion of their county boundary. However, the majority of county boundaries have not been surveyed and are represented by the best currently available data from GIS sources, including NCDOT county maps (which originally came from the USGS) and updated county parcel maps.

Credits

North Carolina Geodetic Survey (NCGS)

Use limitations

None. Please check sources, scale, accuracy, currentness and other available information. Please confirm that you are using the most recent copy of both data and metadata. Although these data have been processed successfully on a computer system at the NC Geodetic Survey, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data to evaluate data set limitations, restrictions or intended use. The NC Geodetic Survey shall not be held liable for improper or incorrect use of the data described.

Extent

West -84.422109
East -75.416032

North 36.617254

South 33.730554

Scale Range

Maximum (zoomed in) 1:500,000

Minimum (zoomed out) 1:20,000,000

Topics and Keywords

Themes or categories of the resource Boundaries, Location

Content type Downloadable Data

Export to FGDC CSDGM XML format as Resource Description No

Citation

Title North Carolina County Boundary Arcs, 2026 - NC Department of Transportation / NC Geodetic Survey

Publication date 2026-02-23 00:00:00

Presentation formats digital map

Citation Contacts

Responsible party - originator

Organization's name North Carolina Geodetic Survey

Responsible party - point of contact

Organization's name North Carolina Geodetic Survey

Contact's position GIS Manager

Contact information

Phone

Voice 919-733-3836

Address

Type physical

Delivery point 200 Park Offices Dr

City Durham

Administrative area NC

Postal code 27709

Country US

Contact instructions

More information at <https://ncgs.state.nc.us/>

Resource Details

Dataset languages English (UNITED STATES)

Dataset character set utf8 - 8 bit UCS Transfer Format

Status on-going

Spatial representation type vector

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

Credits

North Carolina Geodetic Survey (NCGS)

ArcGIS item properties

Name BoundaryCountyArc

Size 8.369

Location file://\DOT\DFSROOT01\GROUPS-GISCC\GIS-

SpatialDataMgmt\Maintenance\QuarterlyDataRefresh\Boundary\2025Q4\FinalFGDB\BoundaryPublicationData.g
db

Access protocol Local Area Network

Extents

Extent

Description

publication date

Temporal extent

Date and time 2025-06-23 00:00:00

Extent

Description

geographic extent

Geographic extent

Bounding rectangle

West longitude -84.422111

East longitude -75.416034

South latitude 33.730557

North latitude 36.617257

Extent

Geographic extent

Bounding rectangle

Extent type

Extent used for searching

West longitude -84.422109

East longitude -75.416032

North latitude 36.617254

South latitude 33.730554

Extent contains the resource Yes

Extent in the item's coordinate system

westBL 406832.617203
eastBL 3052480.011593
southBL 34987.933500
northBL 1043624.399491
exTypeCode Yes

Resource Points of Contact

Point of contact - point of contact

Organization's name North Carolina Geodetic Survey
Contact's position GIS Manager

Contact information

Phone

Voice 919-733-3836

Address

Type physical

Delivery point 200 Park Offices Dr

City Durham

Administrative area NC

Postal code 27709

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Contact instructions

More information at <https://ncgs.state.nc.us/>

Resource Maintenance

Resource maintenance

Update frequency as needed

Other maintenance requirements

Updated August 2020 to correct minor error in Orange-Chatham boundary, and to update portion of Burke-McDowell boundary.

Other maintenance requirements

Updated Jan 2025 to reduce extraneous vertices in areas that had been surveyed, to correct vertex positions in many of those areas, and to adjust numerous other boundaries that had been resurveyed.

Other maintenance requirements

Updated Jun 2025 to adjust the Catawba-Lincoln, Franklin-Granville, and Forsyth-Guilford boundaries that had been resurveyed or reestablished and to reduce extraneous vertices in those areas.

Resource Constraints

Legal constraints

Limitations of use

Although these data have been processed successfully on a computer system at the NC Geodetic Survey, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data to evaluate data set limitations, restrictions or intended use. The NC Geodetic Survey shall not be held liable for improper or incorrect use of the data described.

Security constraints

Classification unclassified

Classification system FIPS Pub 199

Additional restrictions

Standard Technical Controls

Constraints

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 3048.0060960121918

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["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 3404

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 BoundaryCountyArc

Object type composite

Object count 302

ArcGIS Feature Class Properties

Feature class name BoundaryCountyArc

Feature type Simple

Geometry type Polyline

Has topology FALSE

Feature count 302

Spatial index TRUE

Linear referencing FALSE

Data Quality

Scope of quality information

Resource level dataset

Lineage

Lineage statement

Some counties have completed boundary surveys for at least a portion of their county boundary. However, the majority of county boundaries have not been surveyed and are represented by the best currently available data from GIS sources, including NCDOT county maps (which originally came from the USGS) and updated county parcel maps.

Distribution

Distribution format

Name File Geodatabase Feature Class

Transfer options

Transfer size 8.369

Fields

Details for object BoundaryCountyArc

Type Feature Class

Row count 302

Definition source

NCGS

Definition

Vector polygon data describing the boundaries of all 100 counties in North Carolina

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.

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 CountyLef

Alias CountyLef

Data type String

Width 255

Precision 0

Scale 0

Field CountyRig

Alias CountyRig

Data type String

Width 255

Precision 0

Scale 0

Overview Description

Entity and Attribute Overview

County boundary polygons

Entity and Attribute Detail Citation

North Carolina Geodetic Survey

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 2026-01-21

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 2026-01-21 14:54:46
Last modified in ArcGIS for the item 2026-01-21 16:50:44

Automatic updates

Have been performed Yes
Last update 2026-01-21 16:50:26

Metadata Contacts

Metadata contact - point of contact

Organization's name North Carolina Geodetic Survey
Contact's position GIS Manager

Contact information

Phone

Voice 919-733-3836

Address

Type physical
Delivery point 200 Park Offices Dr
City Durham
Administrative area NC
Postal code 27709
Country US

Contact instructions

More information at <https://ncgs.state.nc.us/>

Metadata Maintenance

Maintenance

Update frequency as needed

Thumbnail and Enclosures

Thumbnail

Thumbnail type

Image file