

topoBuilder

Custom USGS Topographic Maps On Demand

Jo Baker

National Map Liaison to VA, NC, SC, GA, & FL

USGS National Geospatial Program

September 2025

Joint Local Government and Federal Interagency Committee Meeting

topoBuilder is...



on demand



where
you want



multi-
scale



best
available
data

Choose map type

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topoBuilder Application

[User Guide](#)

① Map Types

② Maps

③ Cart 0

 Track

 Help



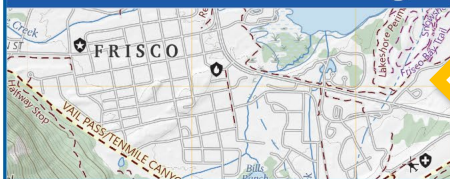
Map Types

Select an OnDemand Topo type, click Next

7.5-Minute Topo



25K Recreational Topo



100K Topo



NEXT



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportati... Powered by Esri

Zoom to area of interest

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① Map Types

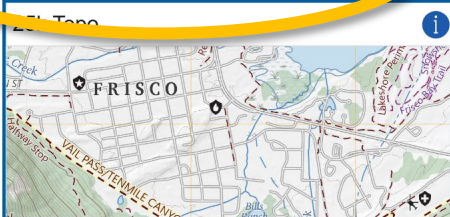
Mans

Select area of interest on the map

② Map

☐ Zoom in to display Grid

③ Cart 0

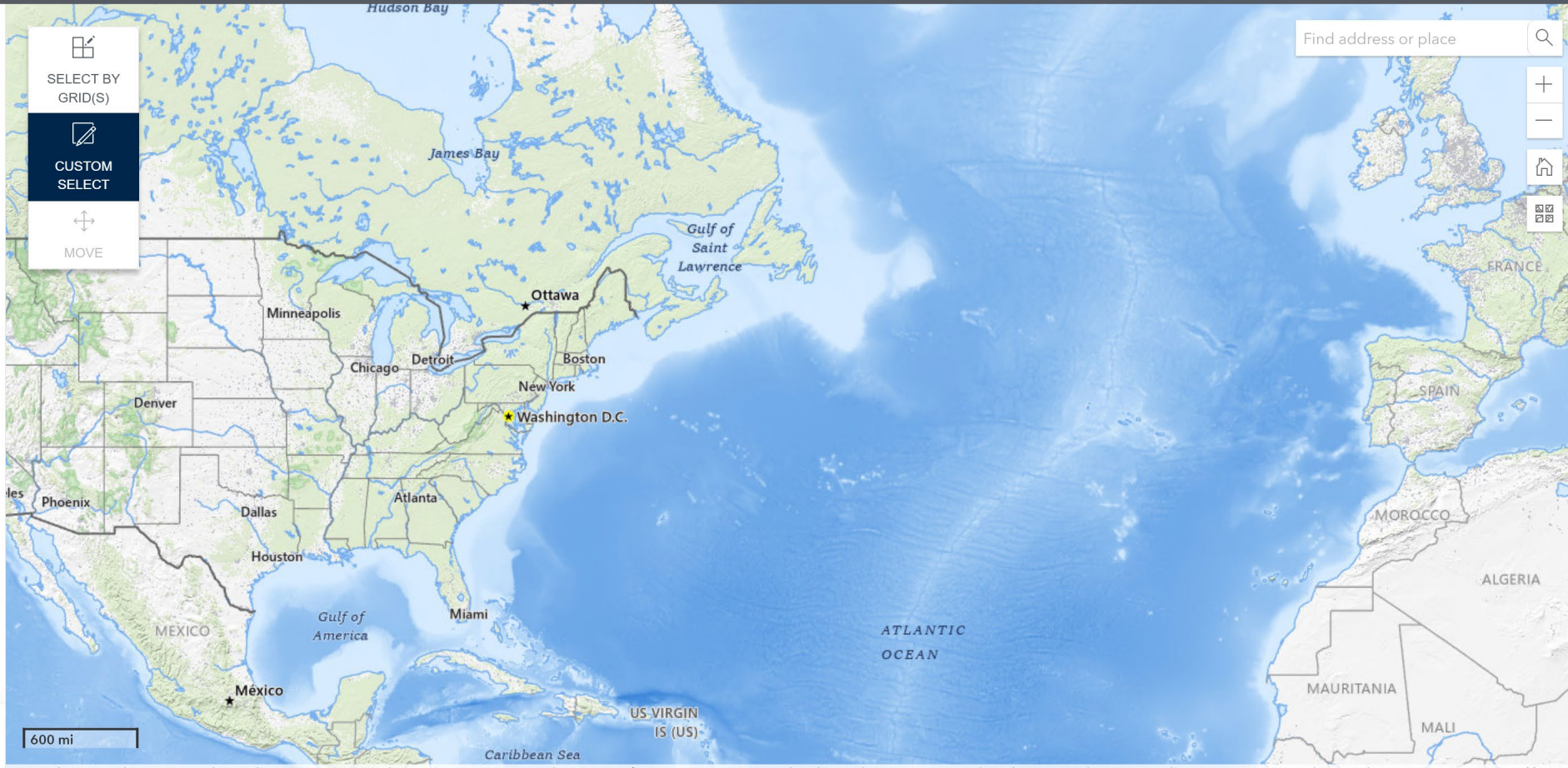


Select a map to begin


SELECT BY
GRID(S)


CUSTOM
SELECT


MOVE



Find address or place 






 Track

 Help



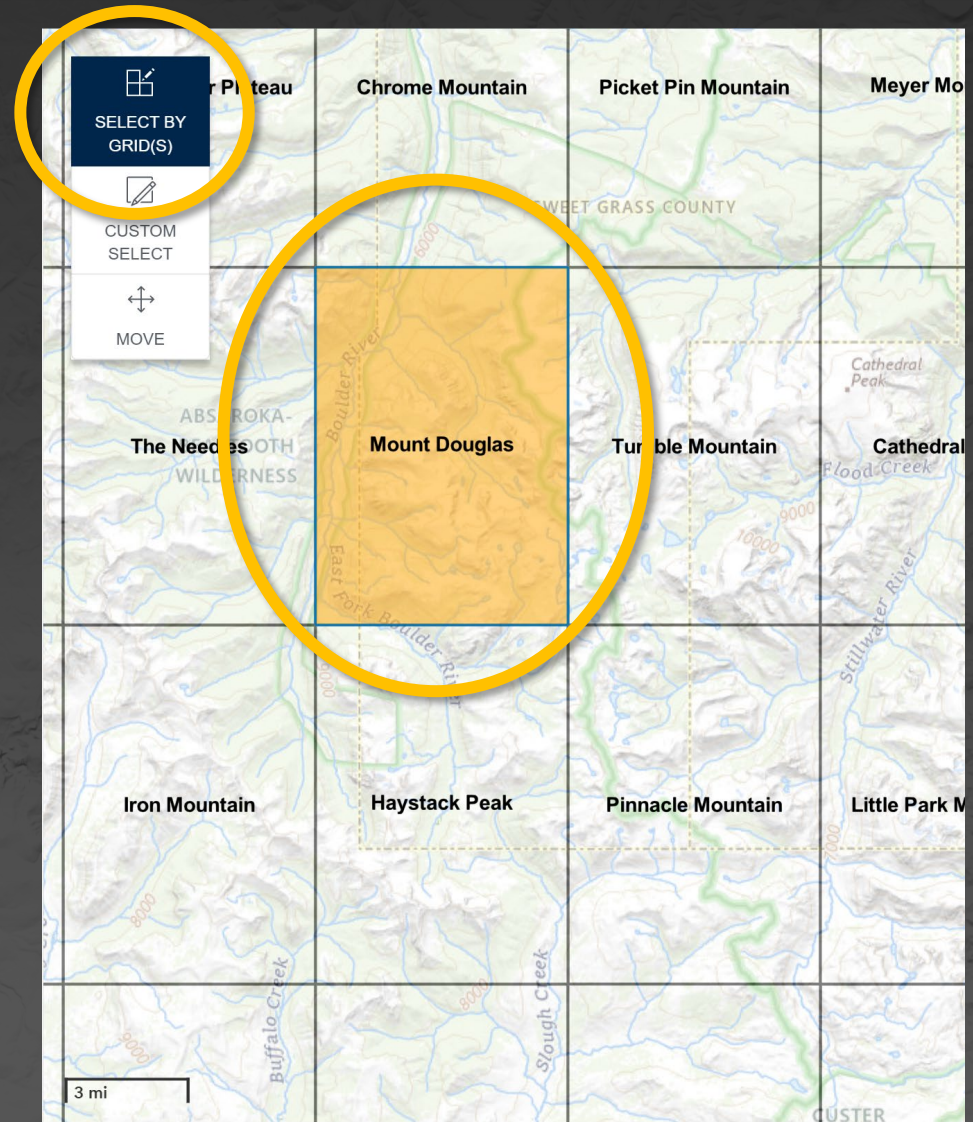
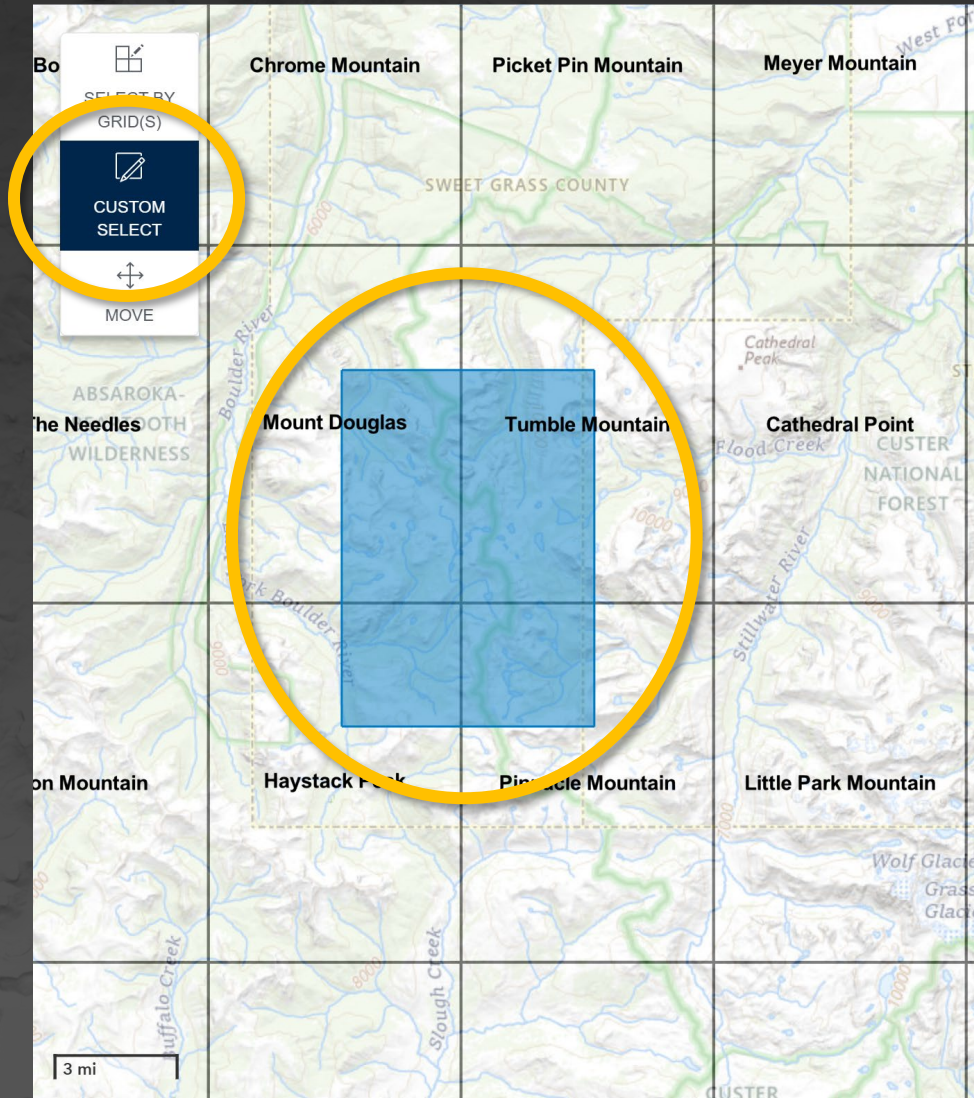
DELETE

ADD

GO TO CART

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Choose map extent



Choose map layers

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① Map Types

② Maps

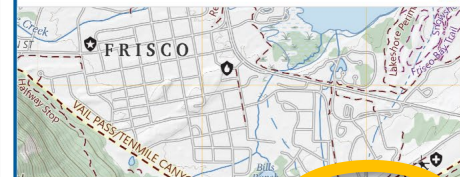
③ Cart ①

Maps

Select area of interest on the map

☒ Display Grid

25k Topo



[SELECT ALL](#) [HIDE OPTIONS](#) [EDIT LAYERS](#)

☐ 25k Topo 1

Format

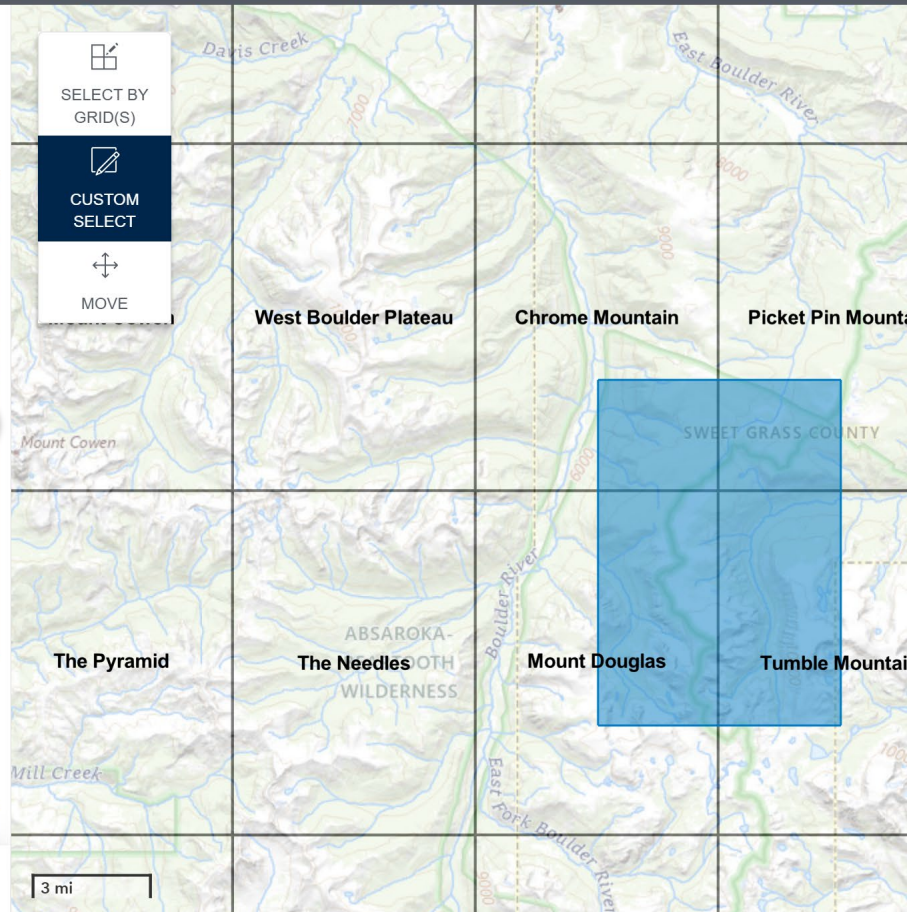
PDF

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[GO TO CART](#)



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Wetlands Inventory, National Hydrography Dataset, National Structures Dataset, and National Transportation Dataset

← Layers

Only checked layers will be included

✓ ☒ All Layers

✓ ☒ Geographic Names

✓ ☒ Structures

✓ ☒ Emergency Services

✓ ☒ Public Services

✓ ☒ Recreation Services

✓ ☒ Gas & Oil Pipeline

✓ ☒ Transportation

✓ ☒ Roads

✓ ☒ Trails

✓ ☒ Airports

✓ ☒ Railroads

✓ ☒ Hydrography

☐ Wetlands

✓ ☒ Terrain

✓ ☒ Contours

✓ ☒ Shaded Relief Imagery

✓ ☒ Land Cover

✓ ☒ Boundaries

☐ Public Land Survey

✓ ☒ Jurisdictional

✓ ☒ Federal Lands

✓ ☒ Designated Areas

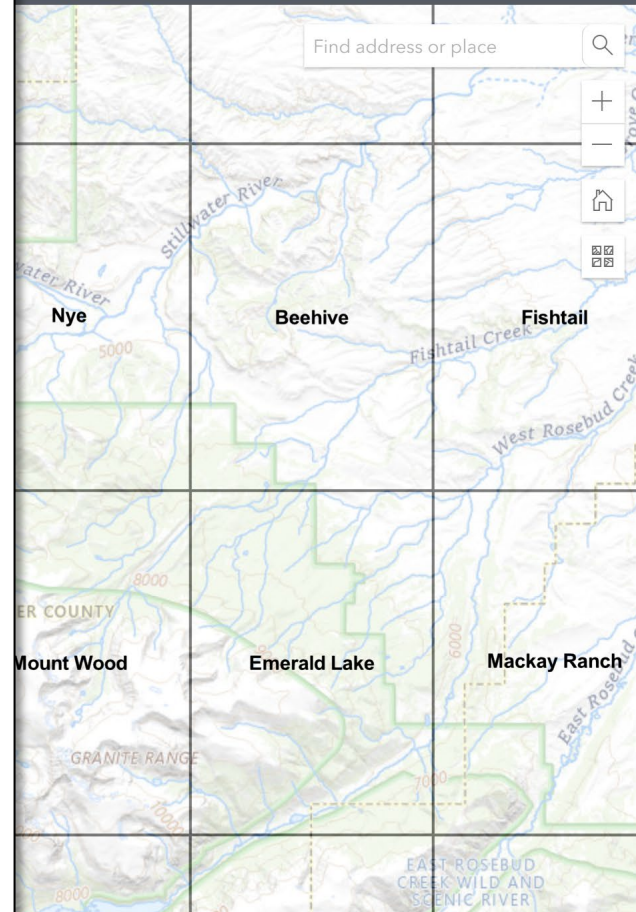
☐ Orthoimage

7.5-Minute Topo only

[CANCEL](#)

[SAVE](#)

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Database, National Structures Dataset, and National Transportation Dataset. Powered by Esri

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Maps

Select area of interest on the map

25k Topo






SELECT ALL

HIDE OPTIONS

EDIT LAYERS

☐ 25k Topo 1



User Defined Content

Format

PDF

PDF


TIFF

BACK TO TOP


DELETE

ADD


GO TO CART




SELECT BY GRID(S)



CUSTOM SELECT



MOVE



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Add map(s) to cart

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① Map Types

② Maps

③ Cart **0**

Maps

Select area of interest on the map

☒ Display Grid

25k Topo



[UNSELECT ALL](#) [HIDE OPTIONS](#) [EDIT LAYERS](#)

☒ 25k Topo 1

User Defined Content

Format

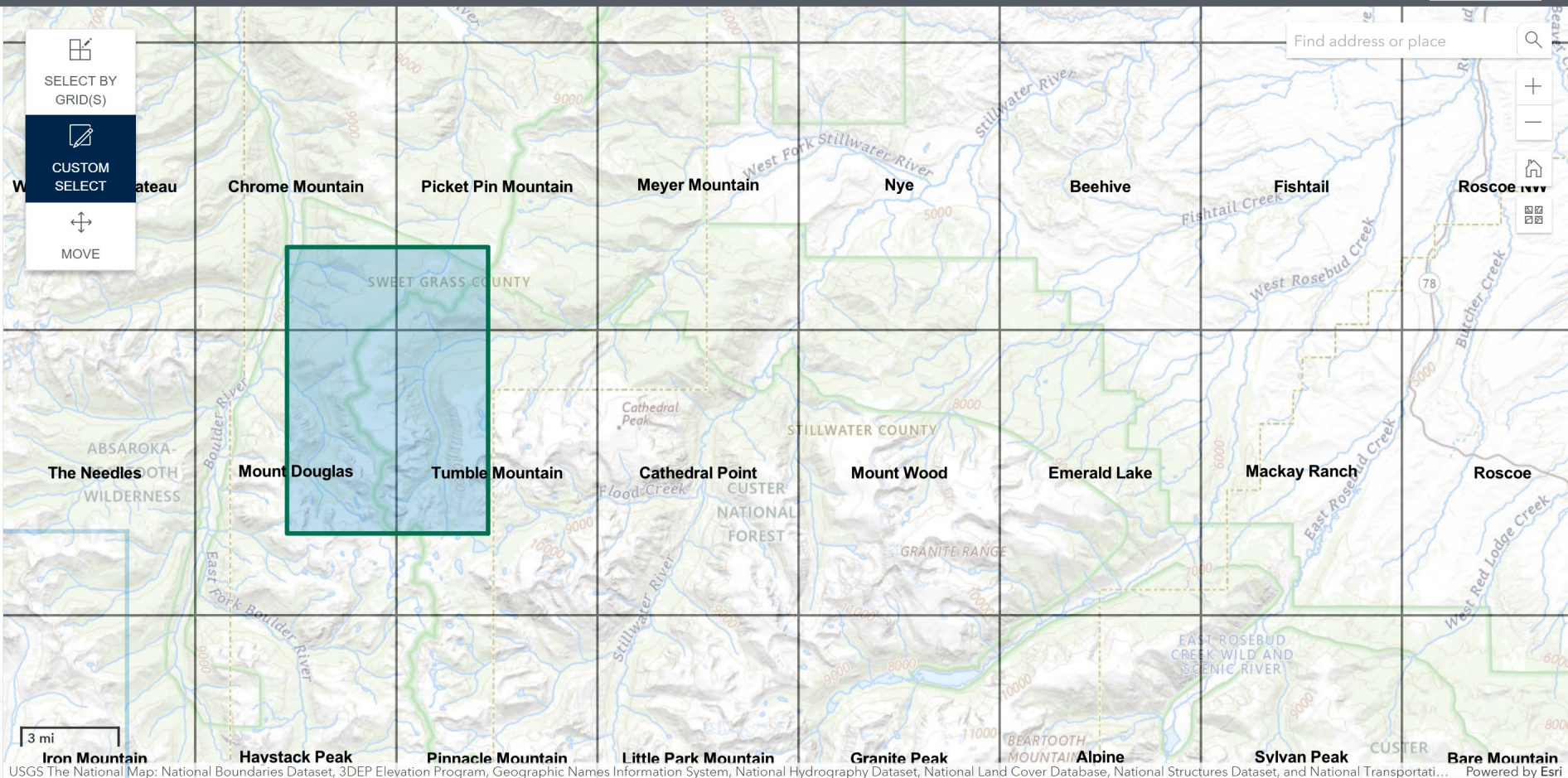
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Review selections in cart

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[User Guide](#)

① Map Types

Cart

Review and finalize map selections

② Maps

② 25k Topo



Mount Douglas

On-Grid

TIFF Format

25k Topo 1

Custom Extent

PDF Format

③ Cart

① 7.5-Minute Topo




Cathedral Point

On-Grid

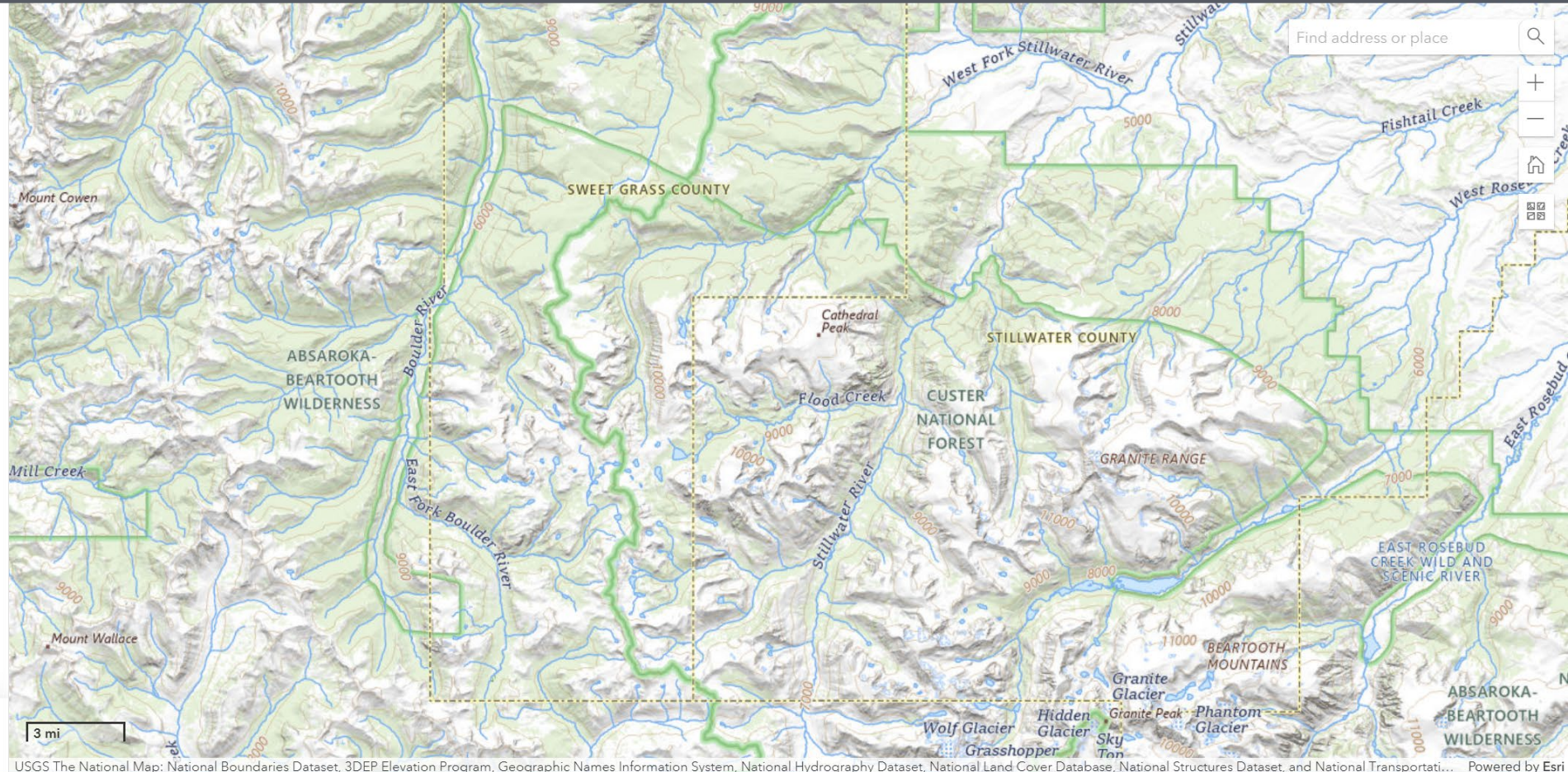
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① Map Types

② Maps

③ Cart 3

Cart

Review and finalize map selections

2 25k Topo



Mount Douglas

On-Grid

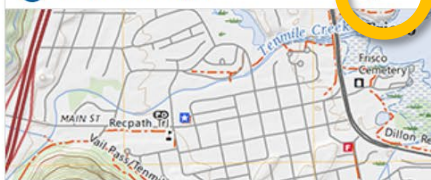
TIFF Format

25k Topo 1

Custom Extent

PDF Format

1 7.5-Minute Topo




Cathedral Point

On-Grid

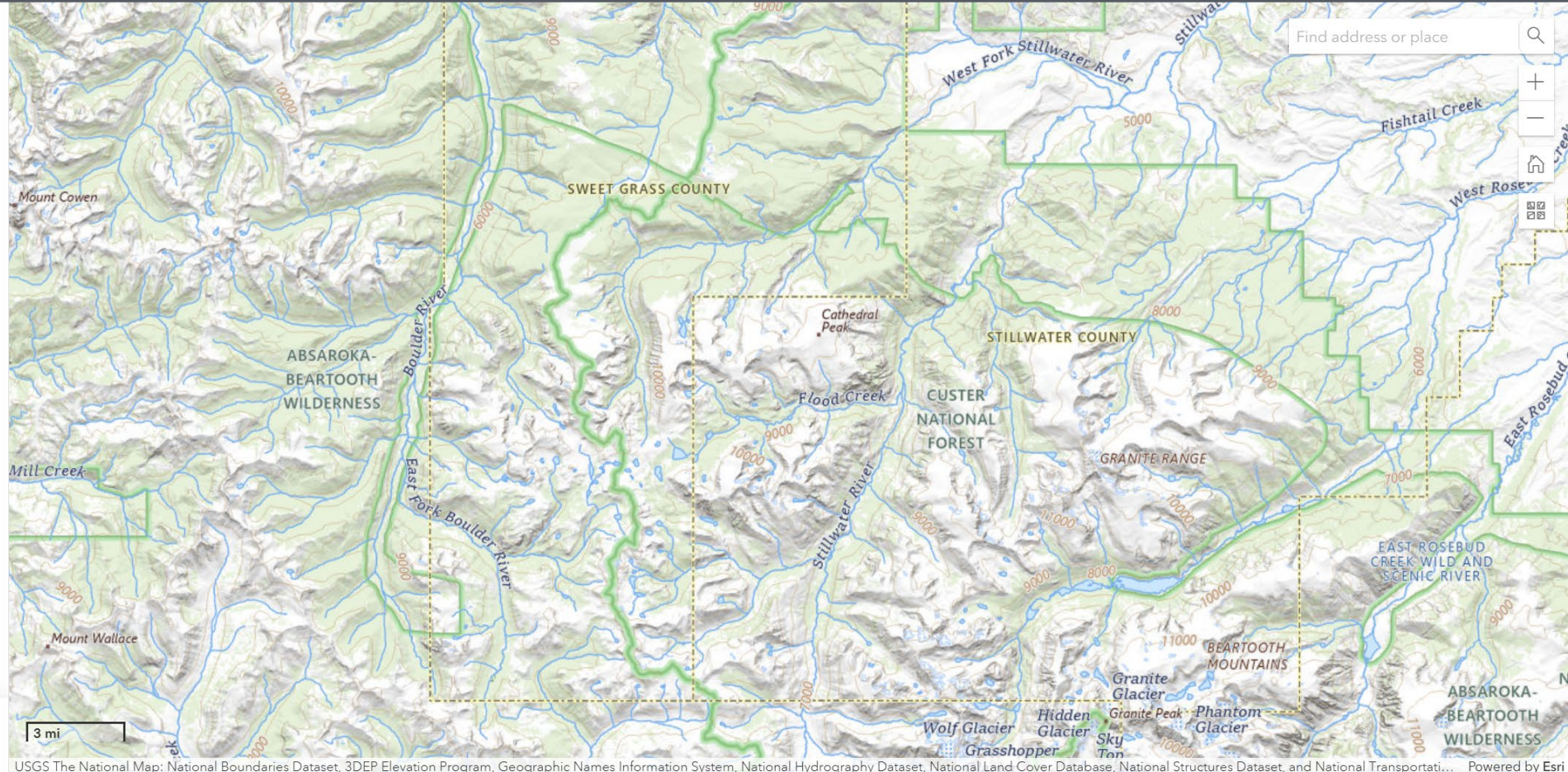
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① Map Types

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Cart

Review and finalize map selections

2 25k Topo



Mount Douglas

On-Grid

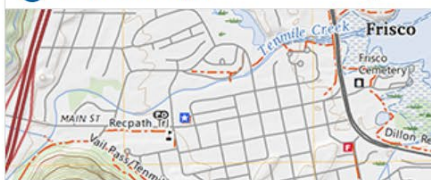
TIFF Format

25k Topo 1

Custom Extent

PDF Format

1 7.5-Minute Topo



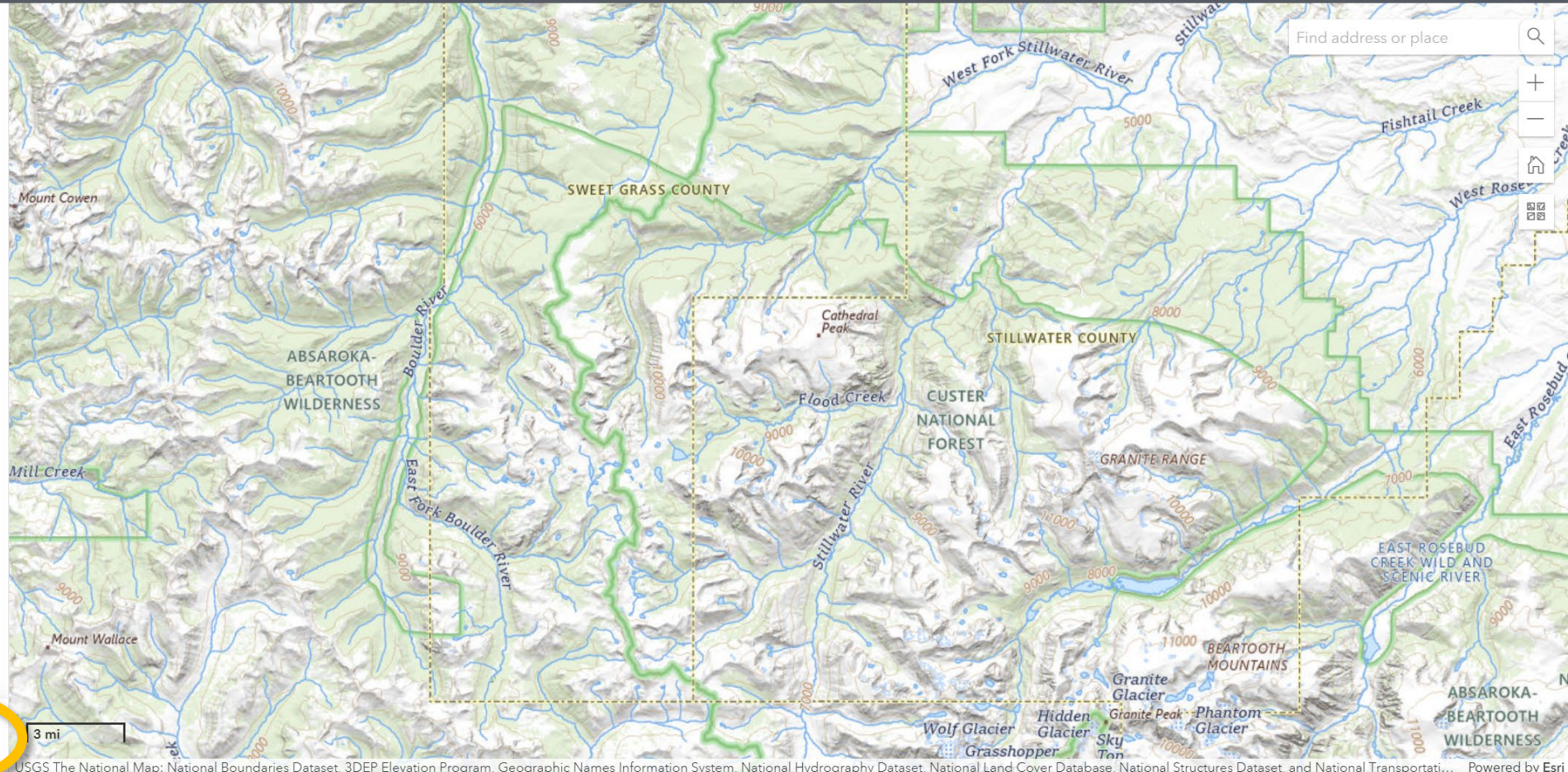
Cathedral Point

On-Grid

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[User Guide](#)

① Map Types

② Maps

③ Cart **3**

Cart

Review and finalize map selections

2 25k Topo



25k Topo 1

Custom Extent

PDF Format

Mount Douglas

On-Grid

TIFF Format

1 7.5-Minute Topo



Cathedral Point

On-Grid

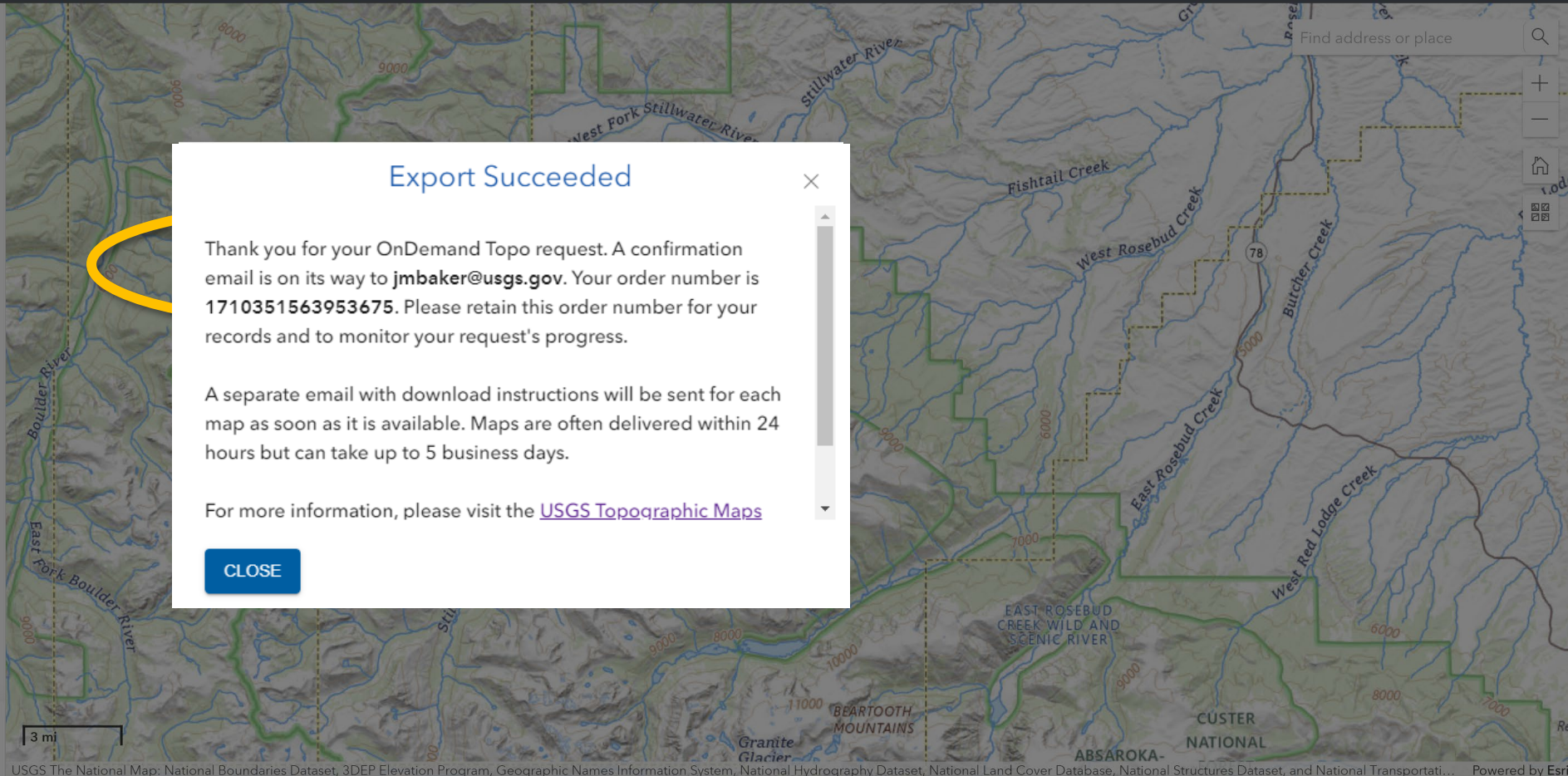
[BACK TO TOP](#)

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[CHECKOUT](#)

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Export Succeeded

Thank you for your OnDemand Topo request. A confirmation email is on its way to jmbaker@usgs.gov. Your order number is **1710351563953675**. Please retain this order number for your records and to monitor your request's progress.


A separate email with download instructions will be sent for each map as soon as it is available. Maps are often delivered within 24 hours but can take up to 5 business days.


For more information, please visit the [USGS Topographic Maps](#)

[CLOSE](#)

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportati... Powered by Esri

Confirmation and delivery emails


science for a changing world




Thank you for your OnDemand Topo request. Your order is being processed.


A separate email with download instructions will be sent for each map as soon as it is available. Maps are often delivered within 24 hours but can take up to 5 business days.

Order confirmation number: 1743000906958868


Order Summary:



Mount Douglas, Montana
Selection Type: On-Grid Extent
Product Type: 25K Topo
Product Format: TIFF
Layers Removed: Contours, Public Land Survey






25k Topo 1, Montana
Selection Type: Custom Extent
Product Type: 25K Topo
Product Format: PDF
Layers Removed: Contours, Public Land Survey





Cathedral Point, Montana
Selection Type: On-Grid Extent
Product Type: 7.5-Minute Topo
Product Format: PDF
Contour Smoothness: High
Layers Removed: None

Need anything? We're here to help!

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Your OnDemand Topo from topoBuilder is ready for download!

This map will remain available until 60 days after date of delivery. For a detailed overview of OnDemand Topo maps, please see the [user guide](#).

Order number: 1743000906958868

Delivery Summary:




Cathedral Point, Montana
Selection Type: On-Grid Extent
Product Type: 7.5-Minute Topo
Product Format: PDF
Contour Smoothness: High
Layers Removed: None

[Download Map](#)

[Click here to download your map.](#) This link will expire on May 25, 2025

Need anything? We're here to help!

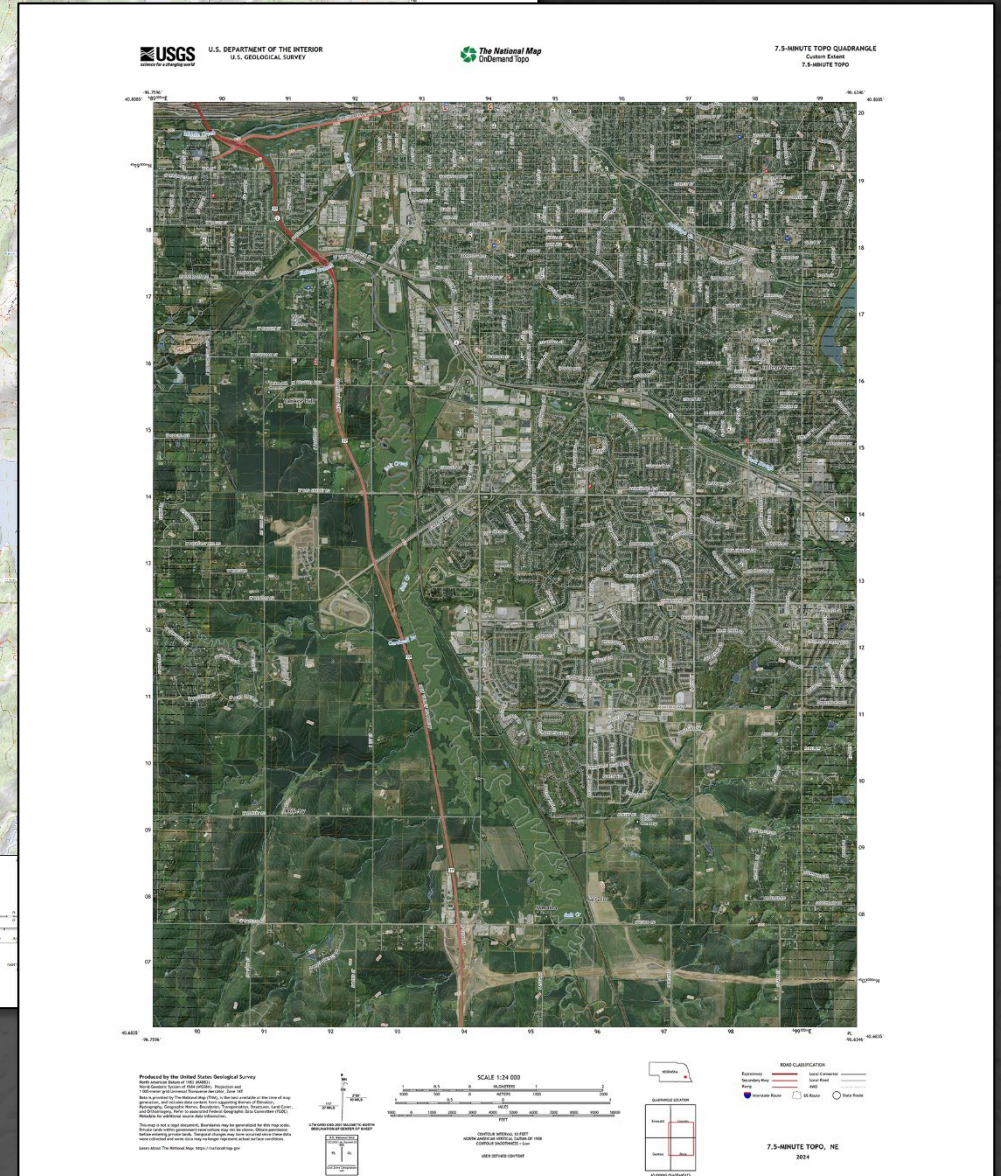
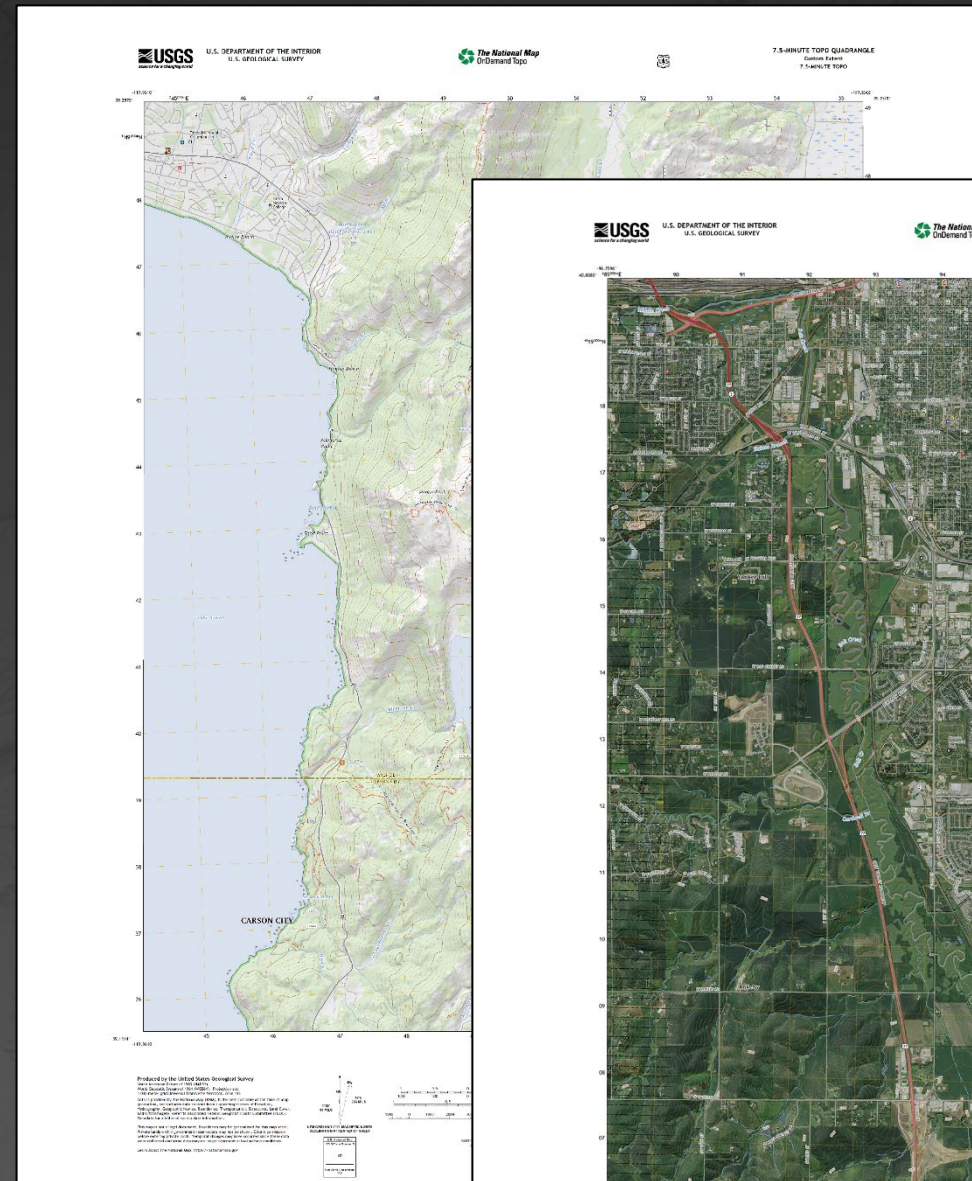
topoBuilder Learn More Help Desk



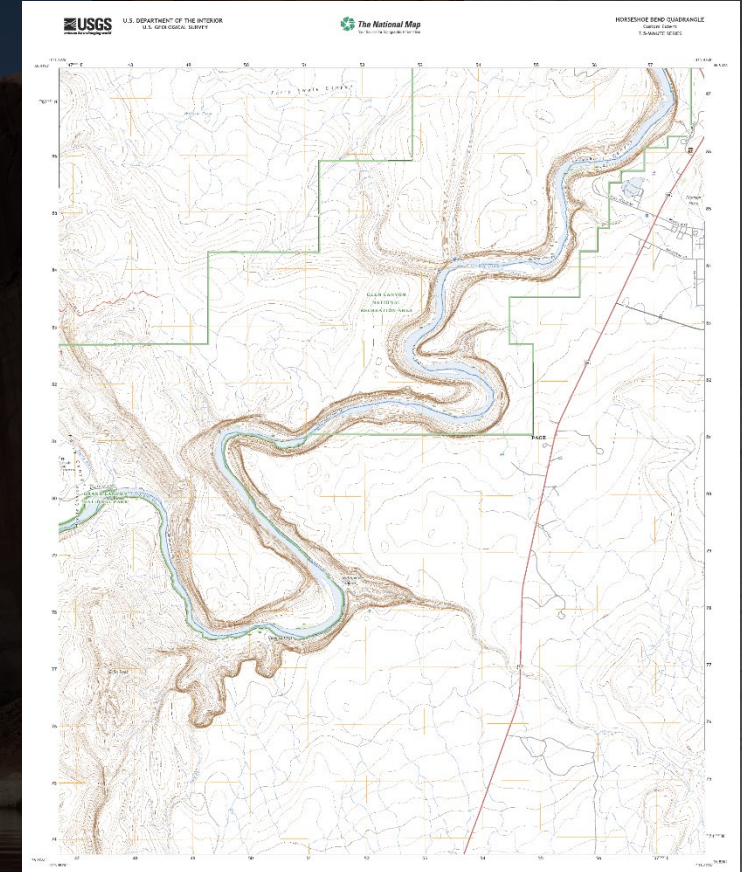
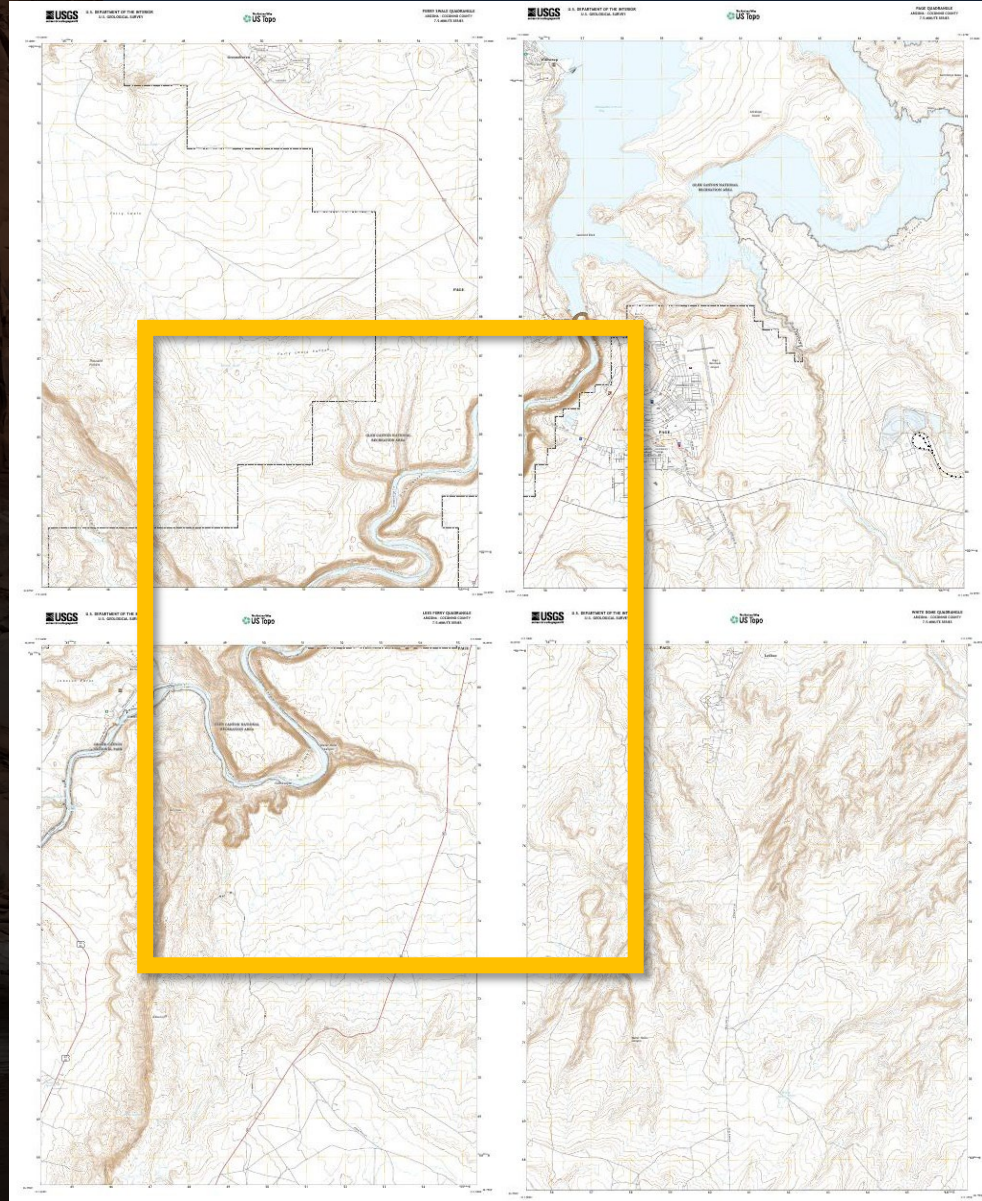
OnDemand Topo Map Types

7.5-Minute Topo

- 1:24,000 in CONUS & Hawai'i
- 1:25,000 in Alaska
- 1:20,000 in Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, Commonwealth of the Northern Mariana Islands
- Includes imagery and contour smoothing customization

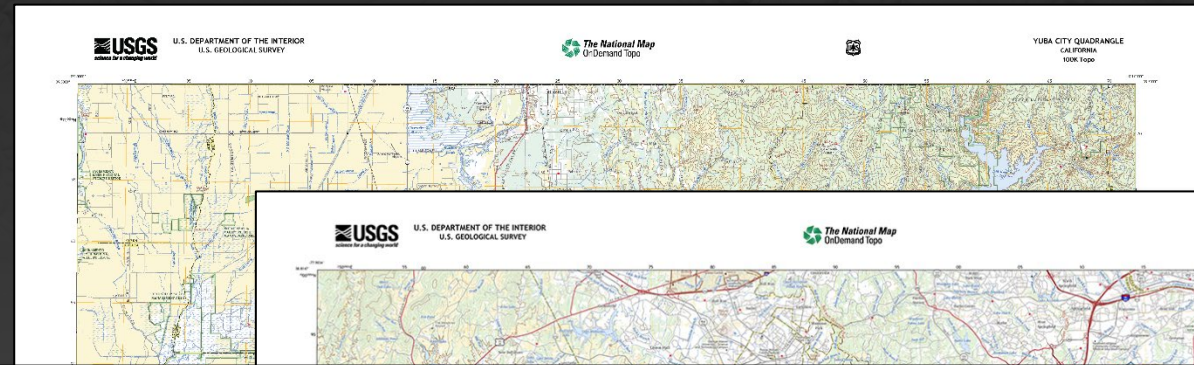


Custom Map Extent



100K Topo

- 1:100,000
- Covers all states and territories
- Planning, land management, recreation



ROAD CLASSIFICATION

Expressway	
Secondary Hwy	
Local Connector	
Local Road	
Tunnel (Highway)	
Tunnel (Connector)	
Tunnel (Local)	

AIR TRANSPORTATION

Heliport	
Seaplane	
Small Airport	
Large Airport Runway	

TRAILS

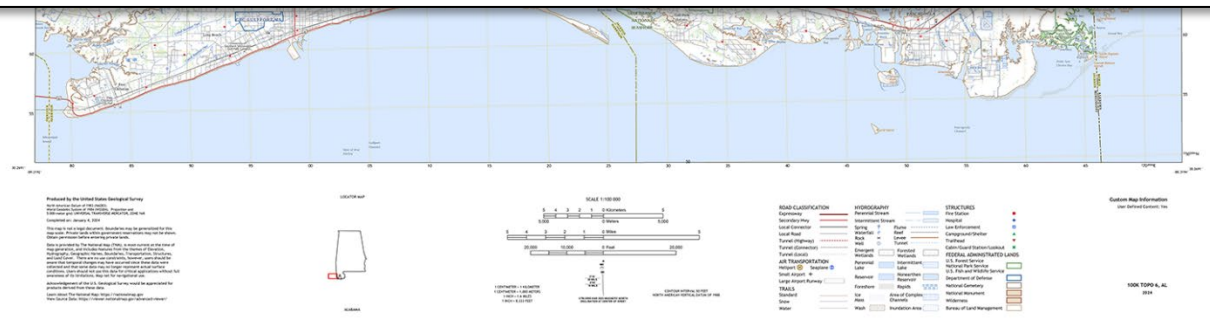
Standard	
Snow	
Water	

HYDROGRAPHY

Perennial Stream	
Intermittent Stream	
Spring	
Waterfall	
Rock	
Well	
Emergent Wetlands	
Perennial Lake	
Reservoir	
Foreshore	
Ice Mass	
Wash	
Flume	
Reef	
Levee	
Tunnel	
Forested Wetlands	
Intermittent Lake	
Nonearthen Reservoir	
Rapids	
Area of Complex Channels	
Inundation Area	

STRUCTURES

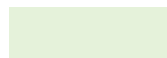
Fire Station	
Hospital	
Law Enforcement	
Campground/Shelter	
Trailhead	
Cabin/Guard Station/Lookout	
FEDERAL ADMINISTRATED LANDS	
U.S. Forest Service	
National Park Service	
U.S. Fish and Wildlife Service	
Department of Defense	
National Cemetery	
National Monument	
Wilderness	
Bureau of Land Management	



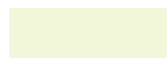
100K Topo (2)

- Five land cover classes

Woodland



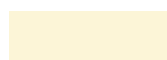
Shrub/Scrub



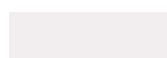
Grassland



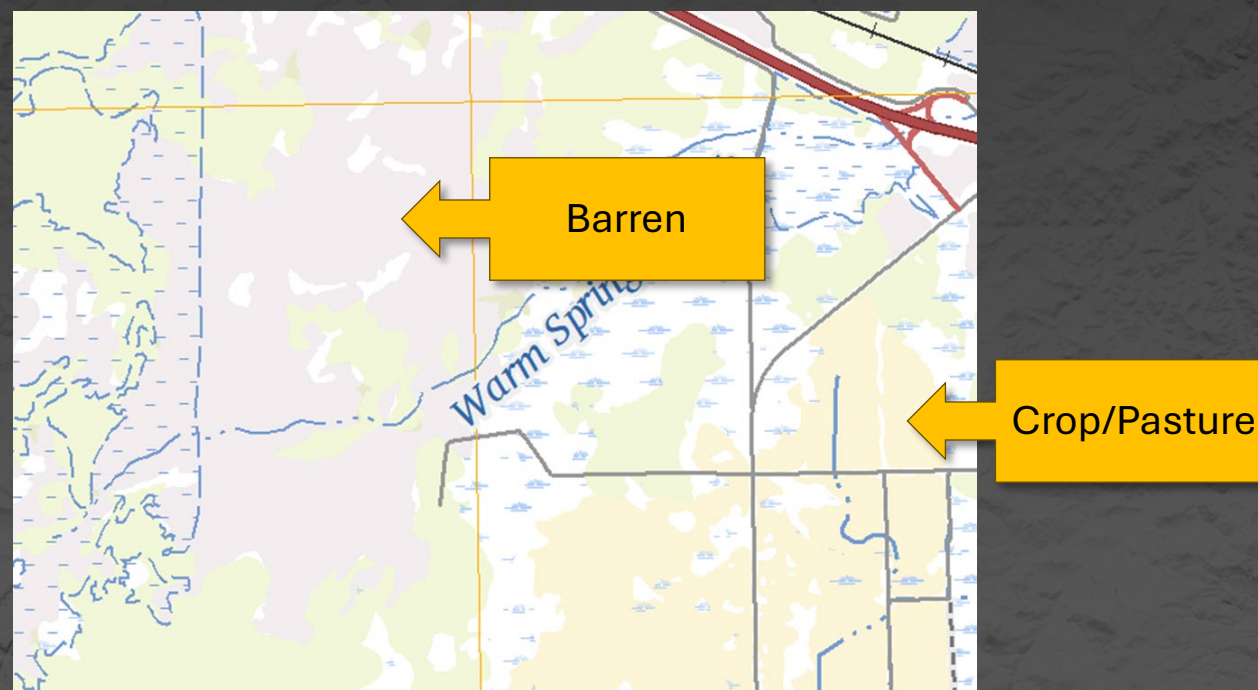
Crop/Pasture



Barren



- No imagery



25K Recreational Topo

- New trail symbols



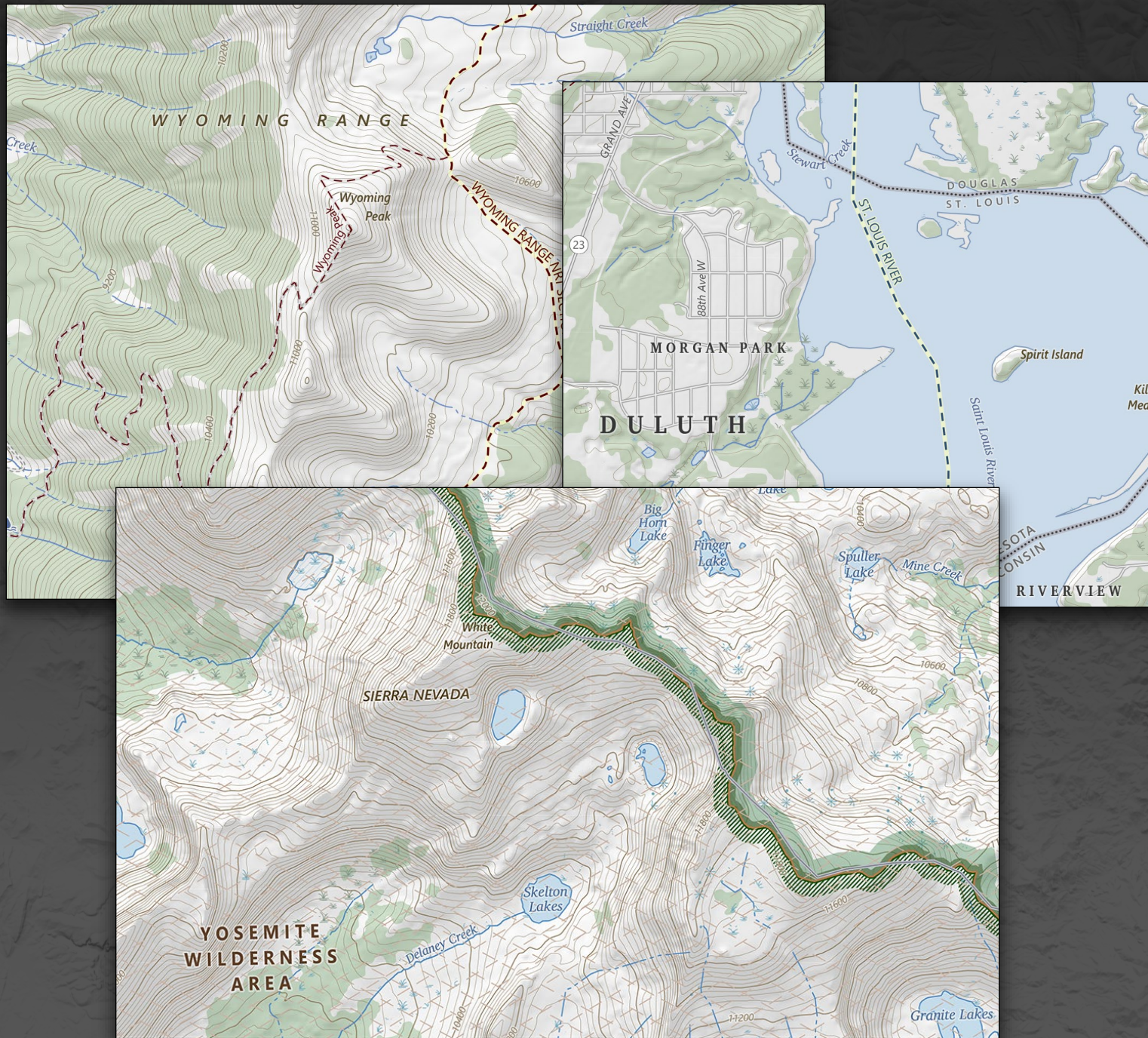
- New boundary symbols



- New point symbols



- Updated contour intervals



25K Recreational Topo (2)

- 7.5-minute
- 1:25,000
- Recreation & outdoors
- Excluded data

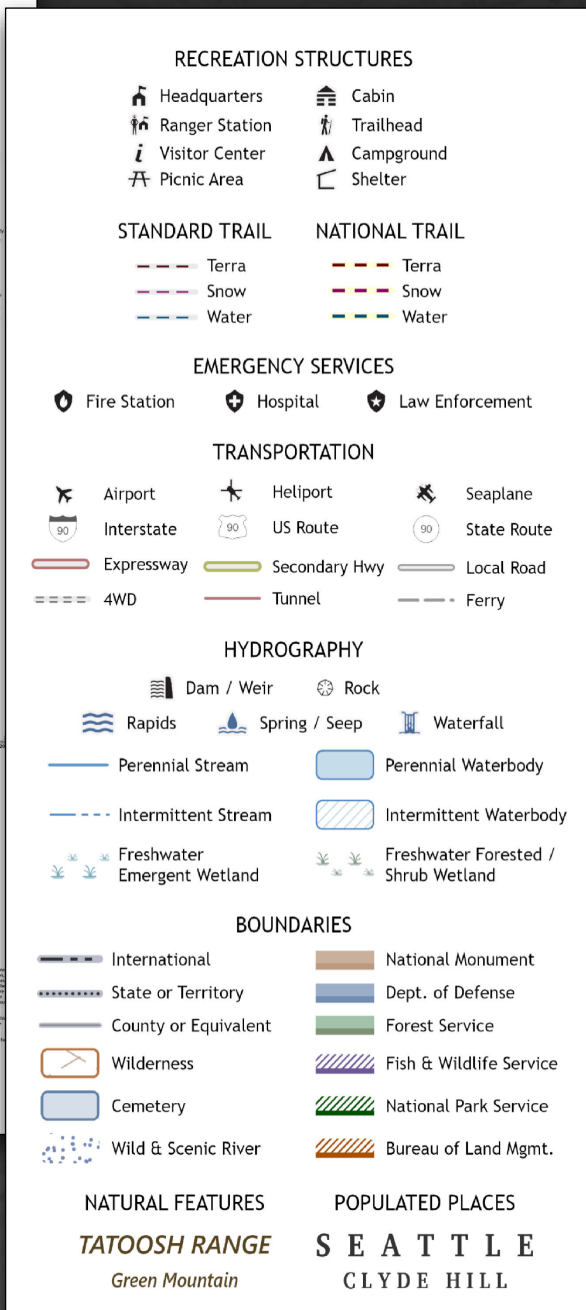
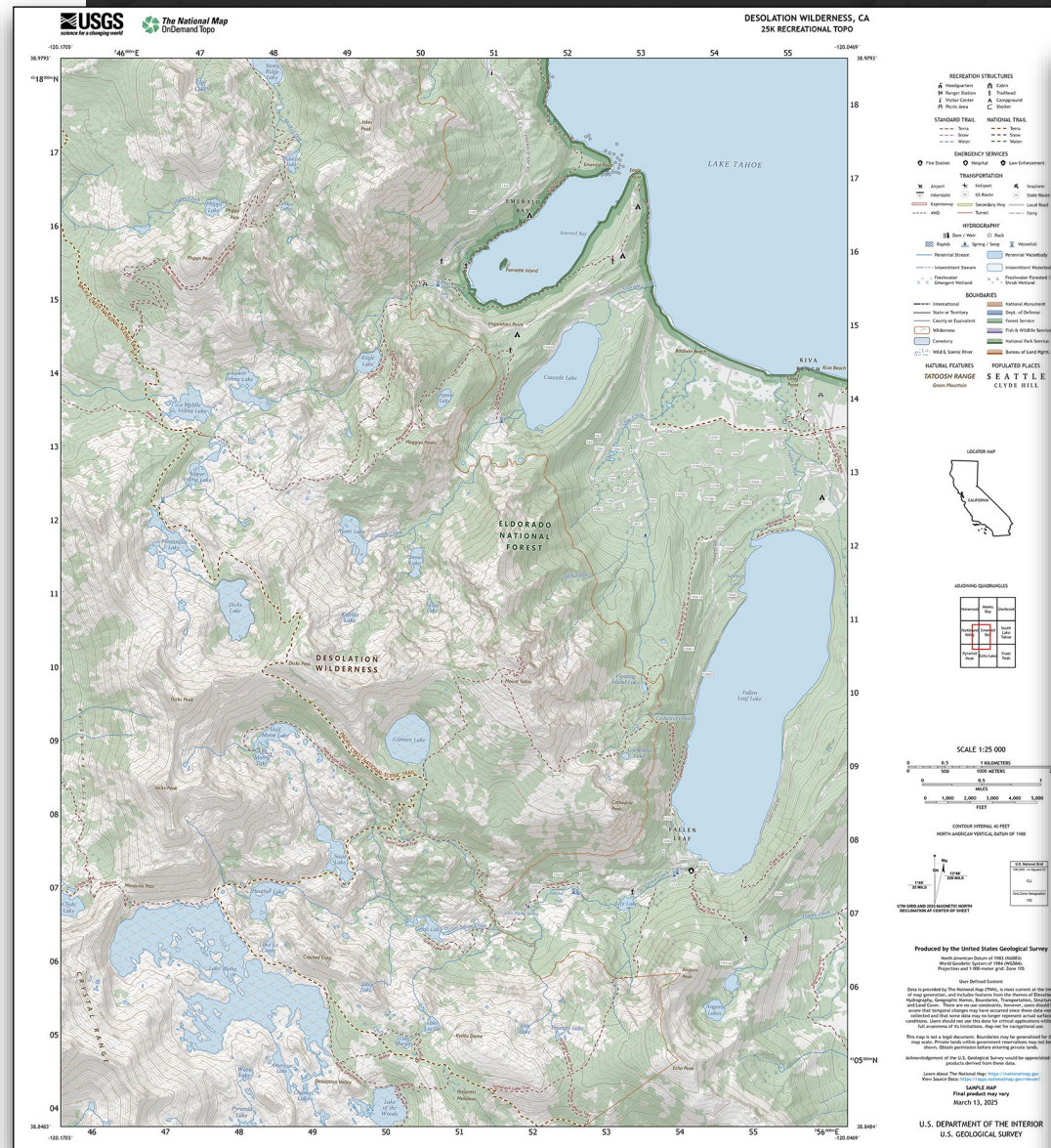
PLSS

Rails

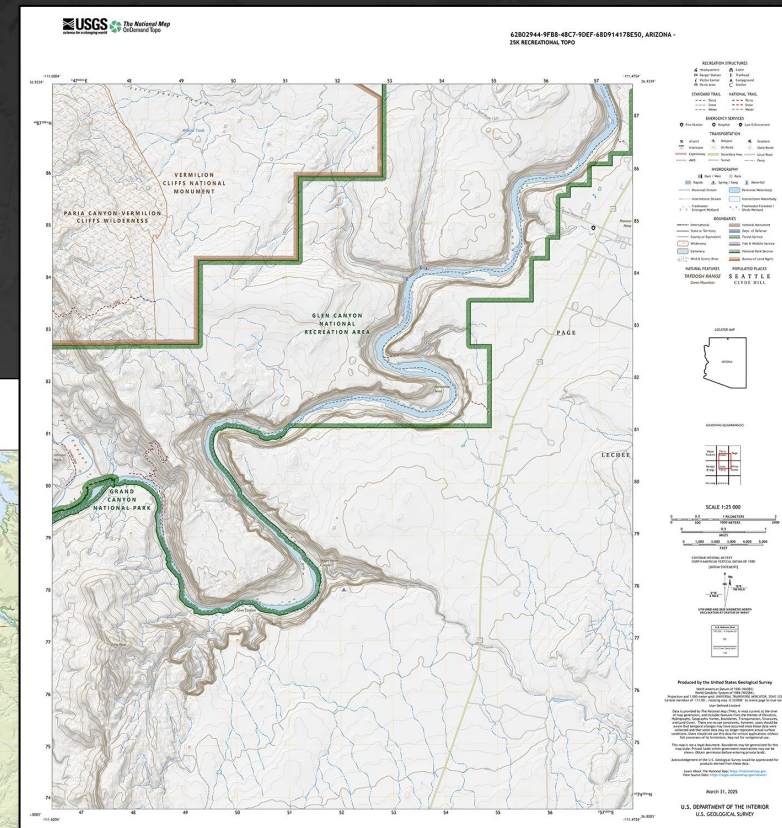
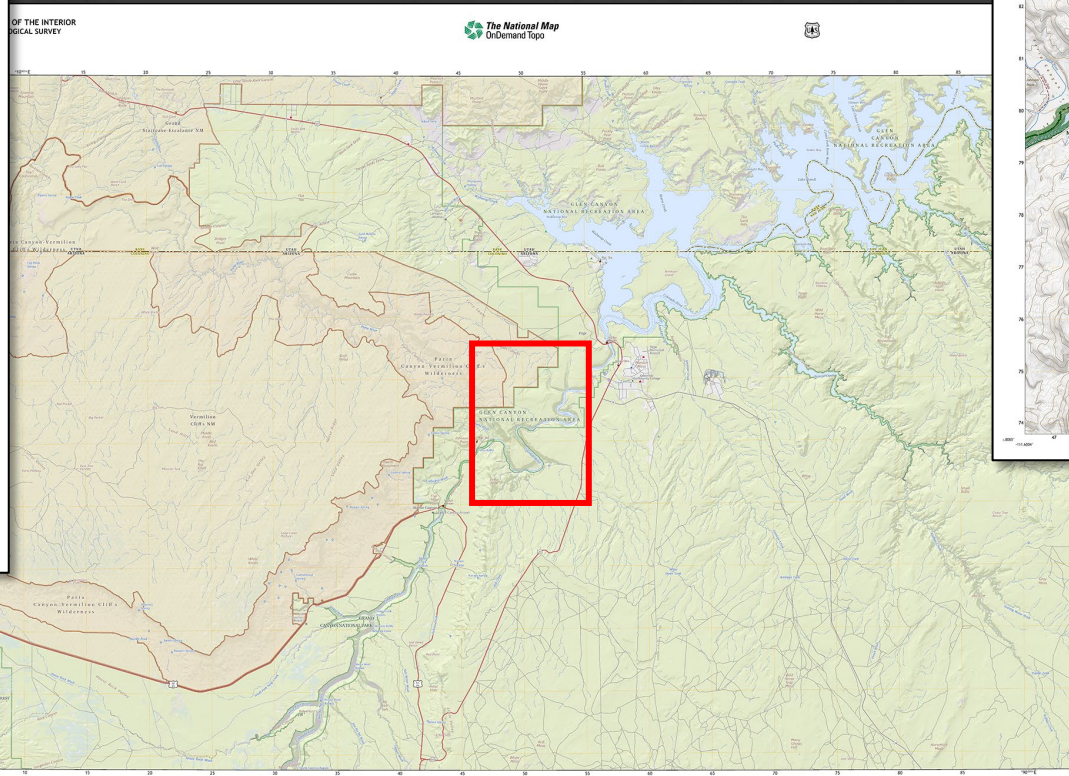
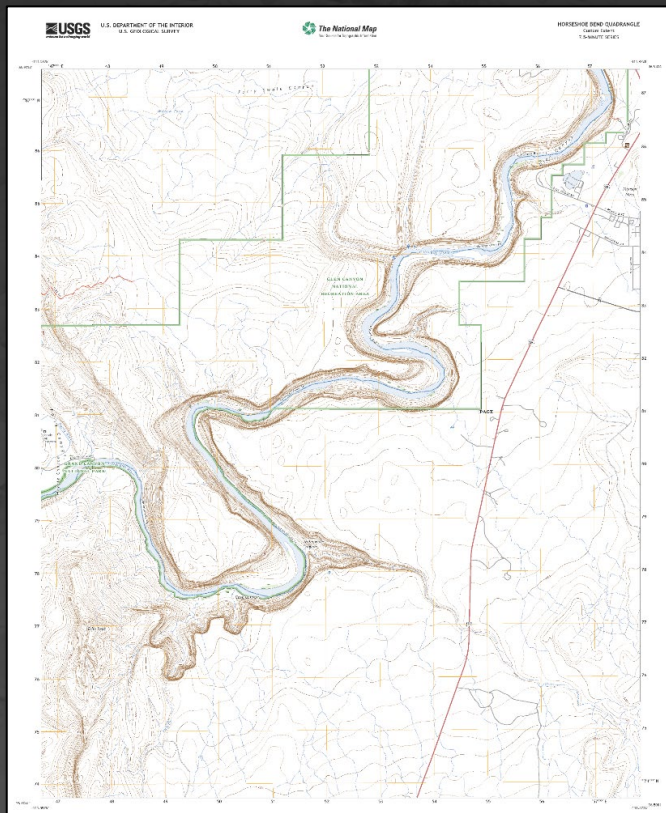
Some structures

Oil & gas pipeline

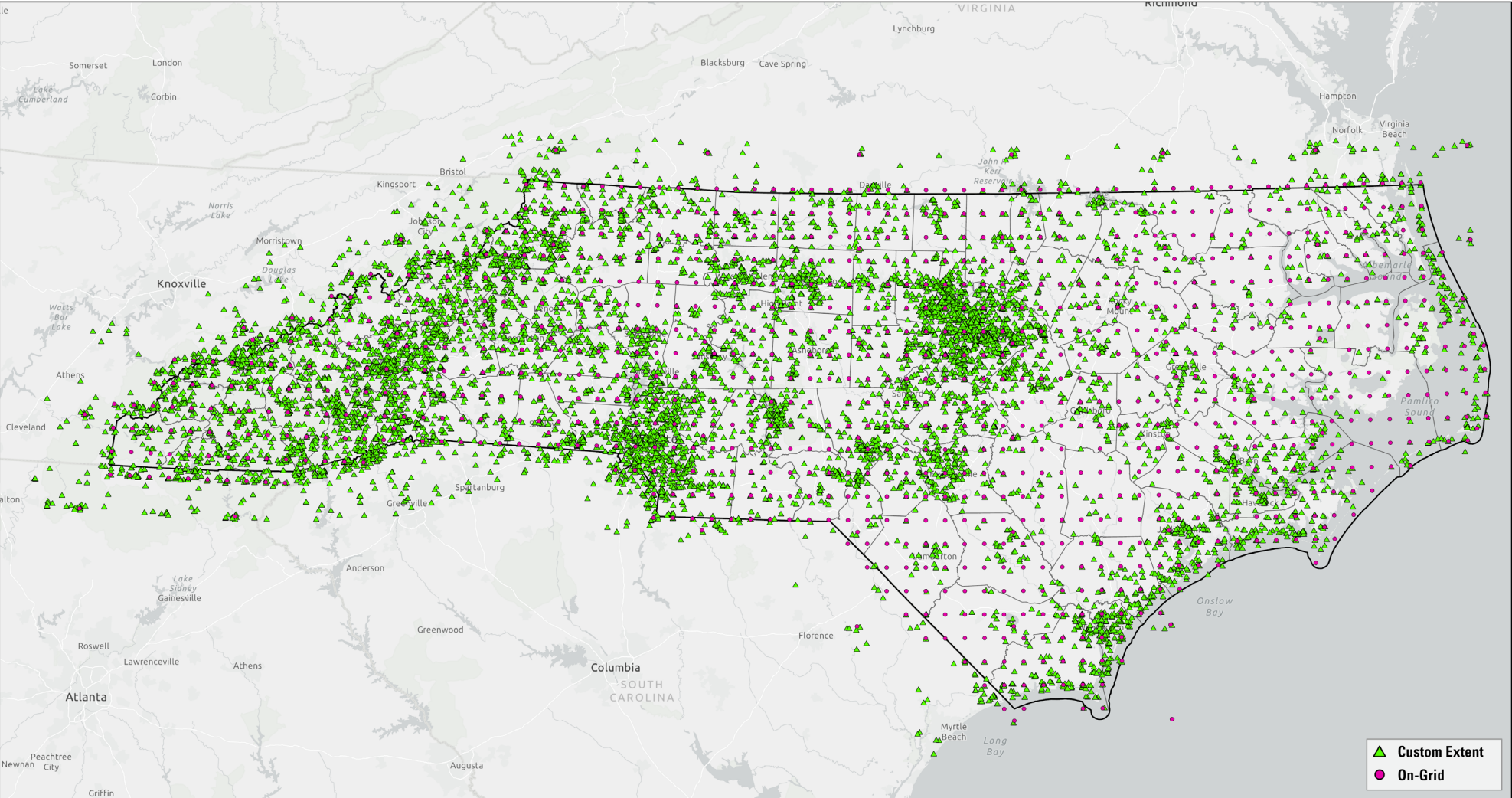
Imagery



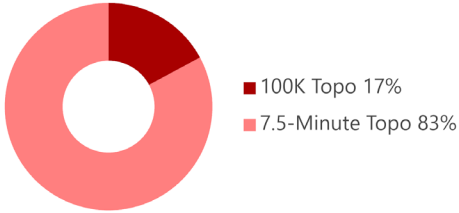
OnDemand Topo Comparison



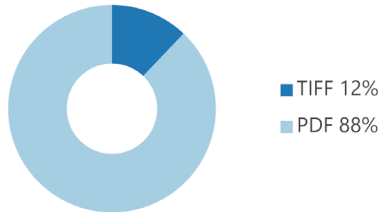
26,194 North Carolina topoBuilder Requests 02/2022 - 01/2025



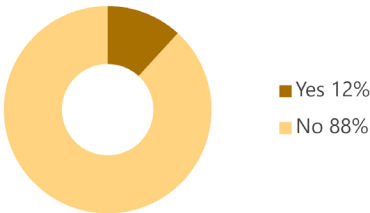
OnDemand Topo Map Type



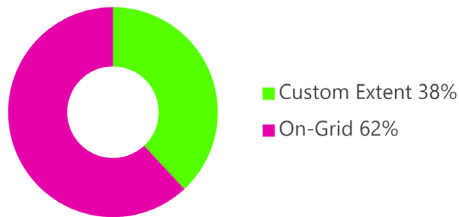
Export File Format



Layer Customization



On-Grid vs. Custom Extent



Resources – USGS.gov/topoBuilder

Create an OnDemand Topo



Build a USGS topographic map with choice of format, area of interest, scale, and National Map content.

[Launch topoBuilder](#)

More USGS Topo Maps



US Topo maps, OnDemand Topo maps, and the Historical Topographic Map Collection (HTMC) are produced by the National Geospatial Program.

[All Topo Map Access Options](#)

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[OnDemand Topo Map User Guide](#)

[topoBuilder Release Notes](#)

[topoBuilder Known Issues](#)

[Mapping, Remote Sensing, & Geospatial Data FAQs](#)

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Introduction to topoBuilder & OnDemand Topos

topoBuilder is a public web application released by the [National Geospatial Program](#) that enables users to request customized USGS-style topographic maps, known as OnDemand Topos, that utilize the best available data from [The National Map](#).

- Exclusive to topoBuilder is the ability to [center maps anywhere*](#) users choose. OnDemand Topo maps do not need to align with the traditional USGS map grids so one map can cover an area that may have previously required up to four maps.
- Users also have their [choice of file format](#) (georeferenced PDF or TIFF).
- The Edit Layers capability lets users [select which layers of The National Map](#) they would like to be included in their custom map product.
- Users then simply enter a valid email address and a direct link to download their unique map will be [delivered free of charge](#). Maps are often delivered within 24 hours but may take up to 5 business days.



Sources/Usage: Public Domain.

One Custom Extent OnDemand Topo (right) may cover an area that previously required up to four topo maps (left).

OnDemand Topo contours and shaded relief are generated on the fly from the latest USGS elevation data, including high-quality lidar and IfSAR data acquired through the [3D Elevation Program](#).

OnDemand Topo Map Types

There are currently three OnDemand Topo Map Types available: The 7.5-Minute Topo, the 25K Recreational Topo, and the 100K Topo.

7.5-Minute Topo



Sources/Usage: Public Domain. [View Media Details](#)
Custom Extent 7.5-Minute Topo map created using the topoBuilder application in January 2023.

7.5-Minute Topos closely resemble historical 7.5-minute USGS map products as well as US Topo maps.

- This large-scale map type provides a high level of detail over approximately 50 to 70 square miles per map and can be used for recreation and navigation (orienteering and geocaching), city planning, search and rescue, science studies such as geologic and geographic field work, and much more.
- In order to balance areal extent shown and printed product page size at varying locations on the Earth's surface, three scales are found within this map type:
 - 1:24,000 for the contiguous United States and Hawaii
 - 1:25,000 for Alaska
 - 1:20,000 for Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands
- An additional customization is available for 7.5-Minute Topos: Contour smoothing. Users may choose the level of contour detail best suited for their unique map needs.

25K Recreational Topo

25K Recreational Topos are 1:25,000-scale USGS topographic maps highlighting recreational content available from [The National Map](#).

- Similar to the 7.5-Minute Topo, this large-scale map provides a high level of detail over approximately 50 to 70 square miles per map.
- New layout with expanded legend and nationally-consistent scale improve ease of use and provide a more uniform experience from map to map.
- Symbology and labeling has been highly tailored so users can more easily distinguish recreational features, such as federal land boundaries, trailheads & trails, ranger stations, picnic areas, emergency locations and more, from non-recreational features.
- Enhanced contour interval algorithm for more precise terrain depiction.
- Unique to the 25K Recreational Topo is the ability to show only National Trails or only Standard Trails using the Edit Layers capability.



Sources/Usage: Public Domain. [View Media Details](#)
Custom Extent 25K Recreational Topo map created using the topoBuilder application in June 2025.

100K Topo



Sources/Usage: Public Domain. [View Media Details](#)
Custom Extent 100K Topo map created using the topoBuilder application in March 2025.

100K Topos are 1:100,000-scale maps inspired by the 30-by-60-minute map series published by the USGS through the end of the 20th century.

- These medium-scale maps are designed to cover an area of approximately 1,500 to 2,200 square miles and are ideal for any application where information across a large area is needed.
- While 100K Topos contains less detail than the larger-scale OnDemand Topos, they provide enough information for many traditional and recreational uses as well as some science and planning applications.
- 100K Topo maps also feature additional land cover categories, such as grassland and crop/pasture, alongside the customary woodland tint.
- In order to support a consistent snapshot of 1:100,000-scale National Map data, content on 100K Topos may be less current than data appearing on a contemporary larger-scale OnDemand Topo map.

Resources – topoBuilder Help Tab



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② Maps

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[topoBuilder Release Notes](#)

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[What is a 'topographic map'? And other Frequently Asked Questions](#)

[Learn more about USGS Topographic Maps](#)

[Learn more about The National Map](#)

[Learn more about USGS Historical Topographic Maps](#)

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USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Data... Powered by Esri

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Thank you!

Jo Baker

National Map Liaison – VA, NC, SC, GA, FL

jmbaker@usgs.gov

For feedback, help, or support:

tnm_help@usgs.gov



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