

topoBuilder and OnDemand Topo

USGS National Geospatial Program

topoBuilder is...



on demand



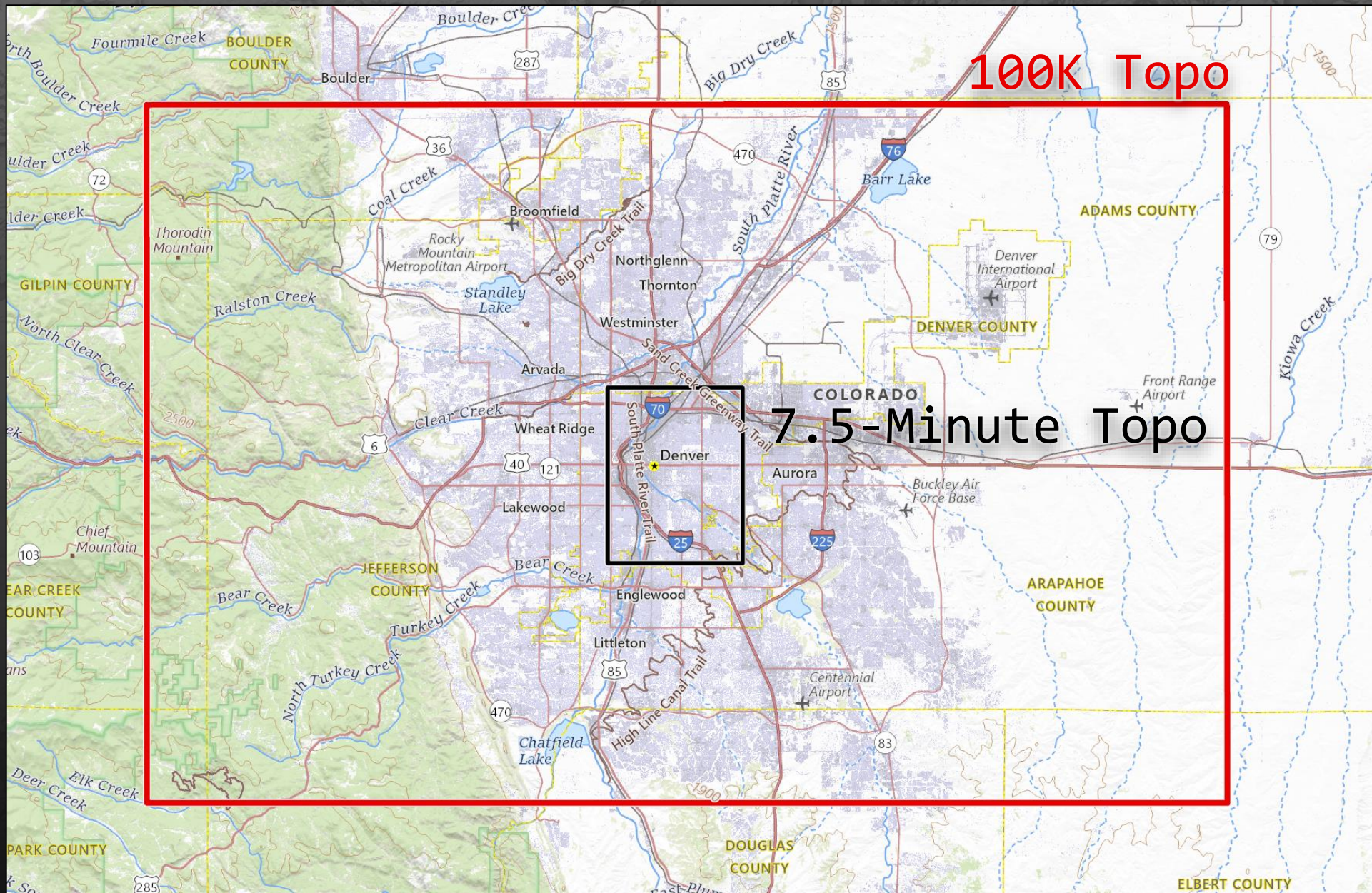
**where you
want**



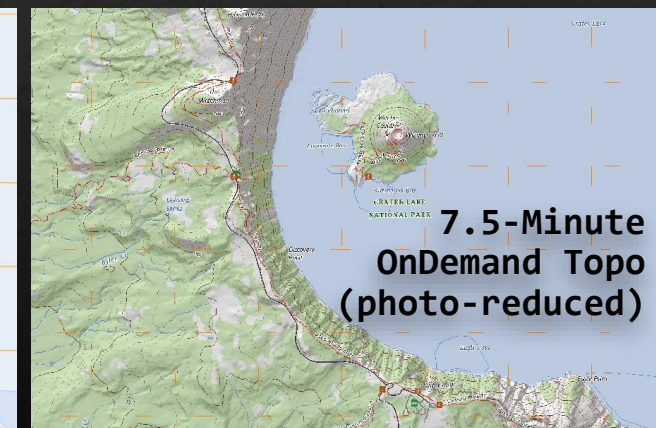
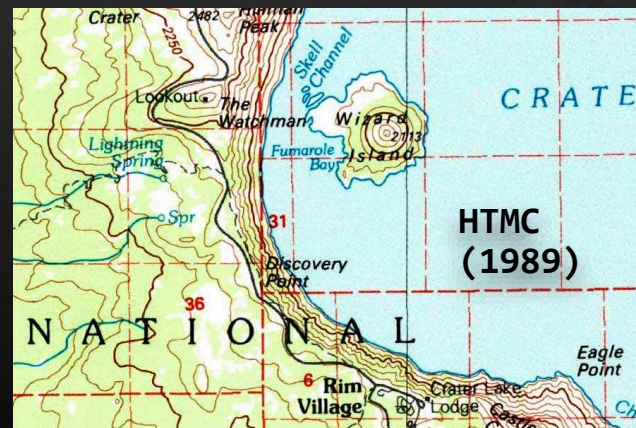
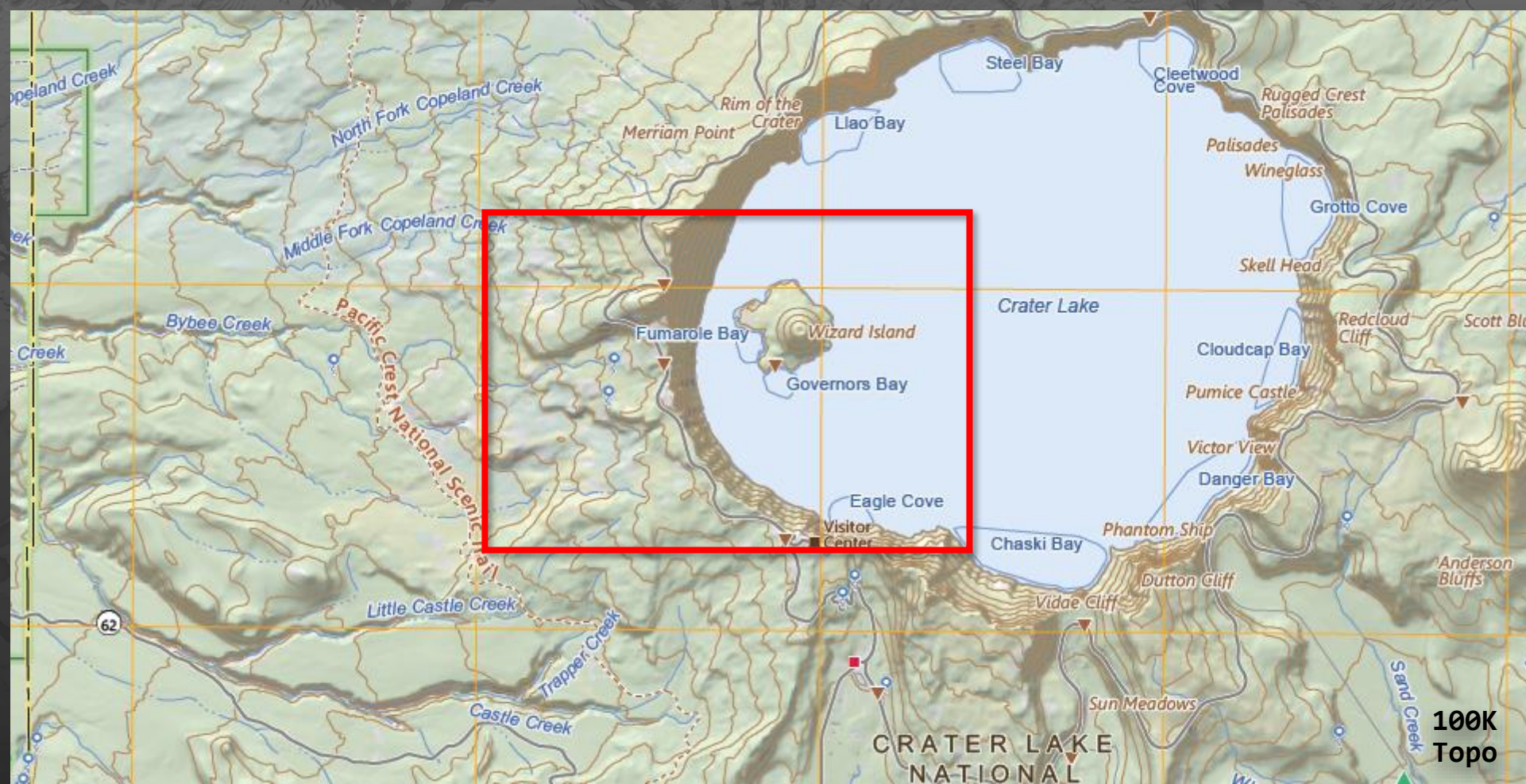
**multi-
scale**



**the best
available
data**



Crater Lake, Oregon



Demo



topobuilder.nationalmap.gov

Choose map type



topoBuilder Application

[User Guide](#)

① Map Types

Map Types

Select an OnDemand Topo type, click Next

② Maps

③ Cart 0

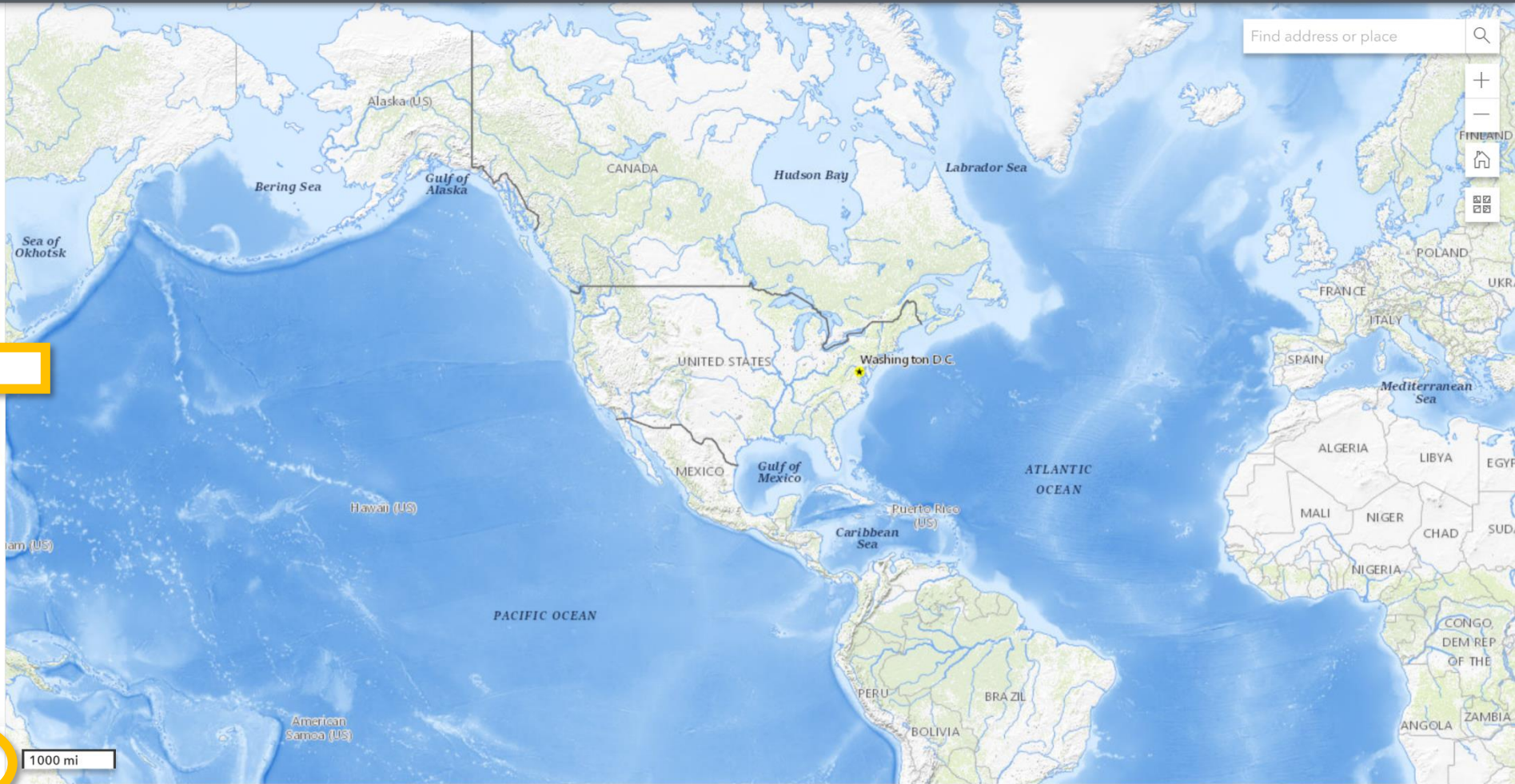
7.5-Minute Topo



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 your area of interest



topoBuilder Application

[User Guide](#)

① Map Types

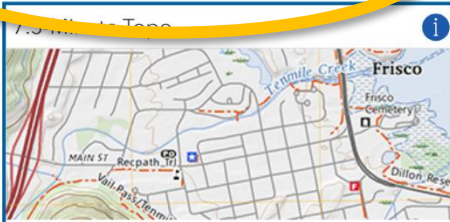
Maps

Select area of interest on the map

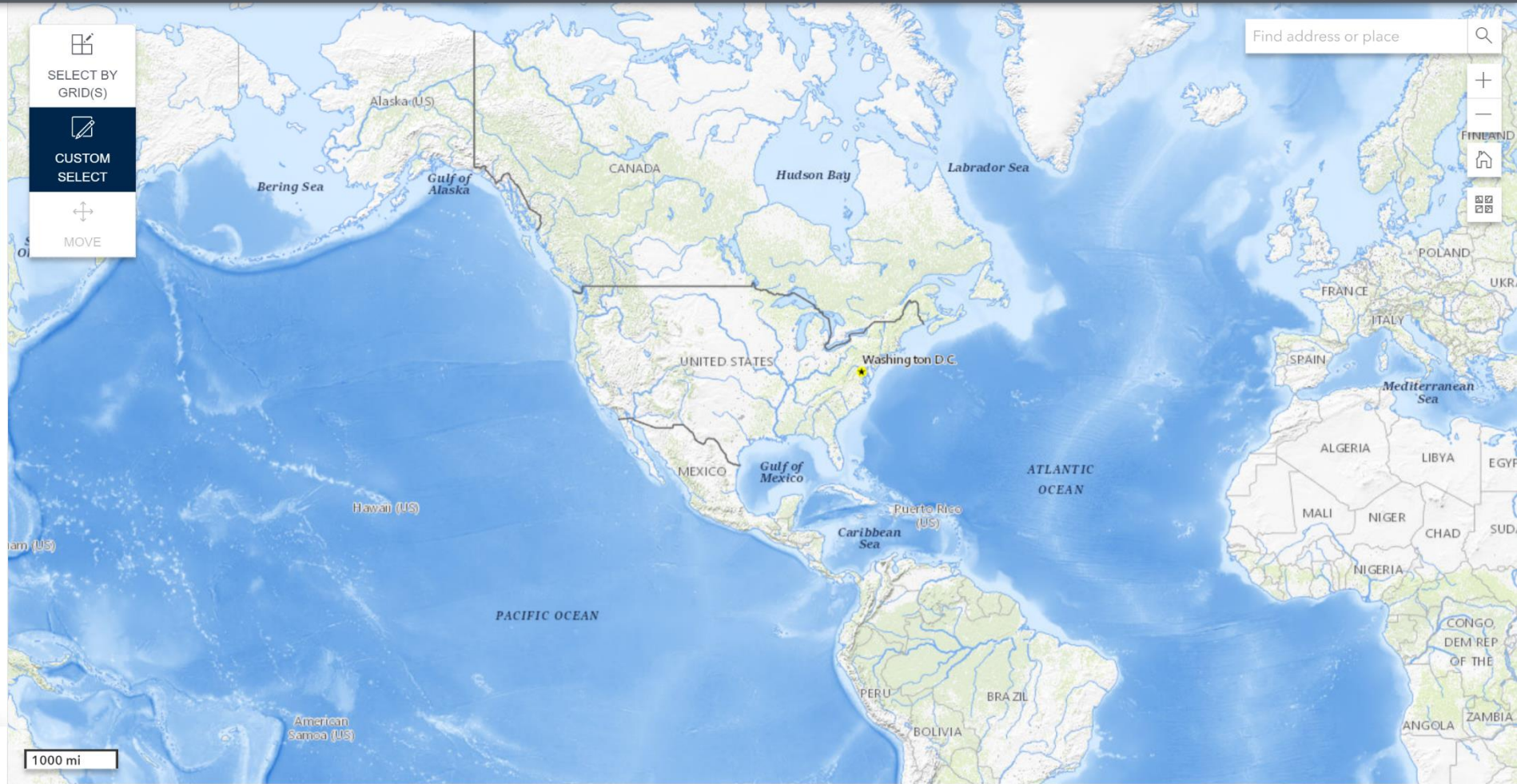
☒ Zoom in to display Grid

② Maps

③ Cart 0



Select a map to begin



Track

Help



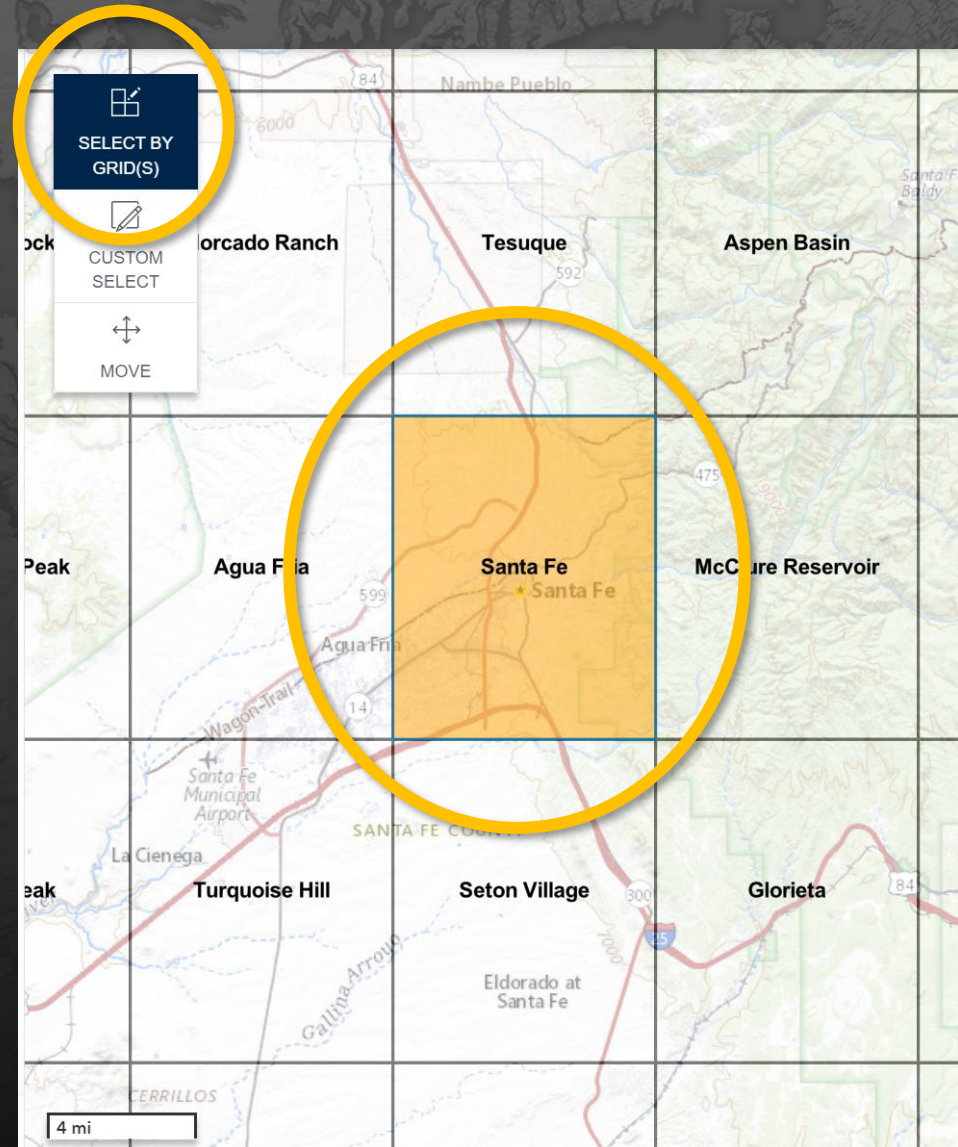
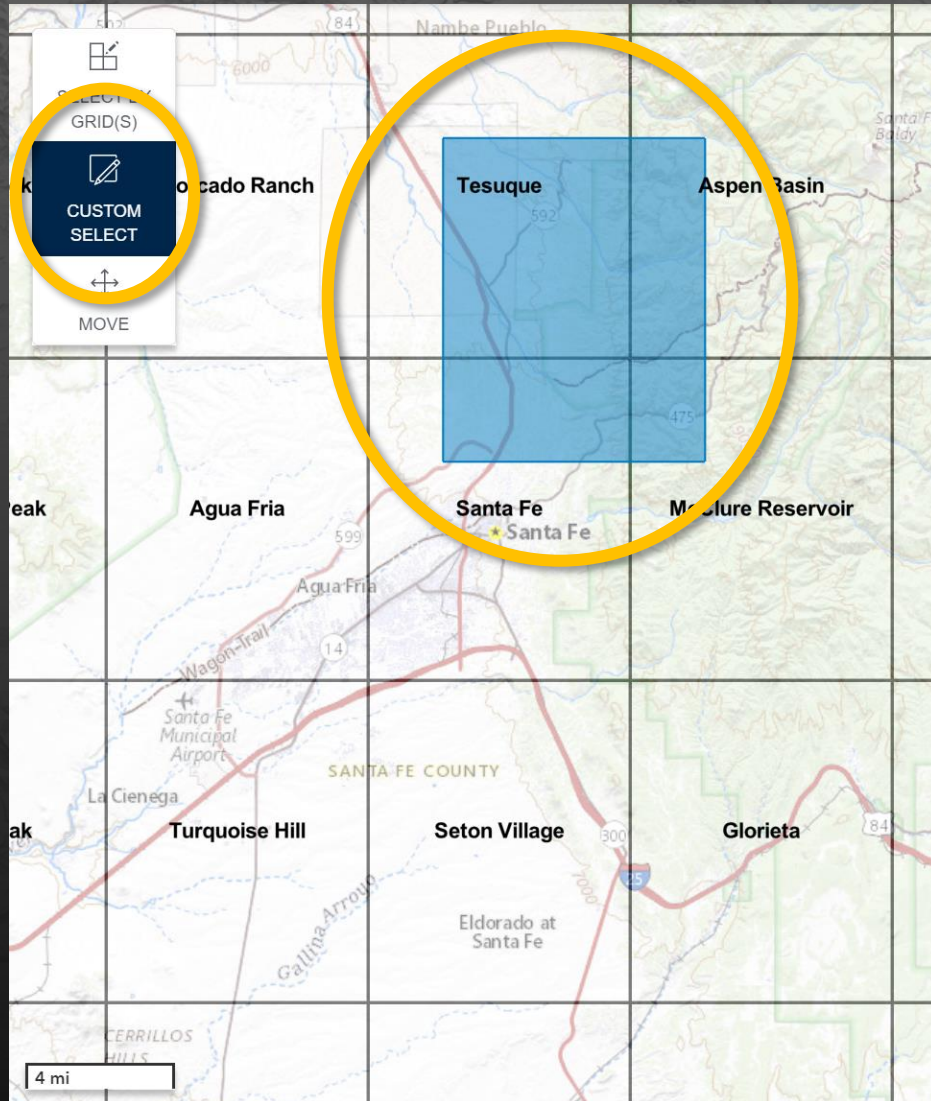
DELETE

ADD


GO TO CART

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

Choose your map extent



Choose Map Layers



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topoBuilder Application

① Map Types

② Maps

③ Cart 0

Track

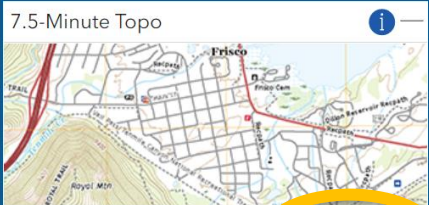
Help

Maps

Select area of interest on the map

☒ Display Grid

7.5-Minute Topo




SELECT ALL

HIDE OPTIONS

EDIT LAYERS

☐ 7.5-Minute Topo 1



Format

PDF

Contour Smoothing

Low

Medium


High

BACK TO TOP

SELECT BY GRID(S)

CUSTOM SELECT

MOVE



USGS The National Map: National Boundaries Dataset, 3DEP Ele


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
- ☒ Boundaries
 - ☒ Public Land Survey
 - ☒ Jurisdictional
 - ☒ Federal Lands
 - ☒ Designated Areas
- ☐ Orthoimage

SAVE

User Guide



tem, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS... Powered by Esri

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Choose your export options

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Track
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Maps
Select area of interest on the map
☒ Display Grid

7.5-Minute Topo

SELECT ALL **HIDE OPTIONS** **EDIT LAYERS**

☐ 7.5-Minute Topo 1

User Defined Content

Format

PDF

PDF

TIFF

Low Medium High

BACK TO TOP

DELETED ADD GO TO CART

4 mi

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 Transportation Dataset; USG... Powered by Esri

Choose your contour smoothness

only for 7.5-Minute Topo

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Maps
Select area of interest on the map
Display Grid

7.5-Minute Topo

SELECT ALL HIDE OPTIONS EDIT LAYERS

7.5-Minute Topo 1

User Defined Content

Format

PDF

Contour Smoothing

Low Medium High

DELETED ADD GO TO CART

USGS The National Map: National Boundaries Dataset, 3DEP Elevati

Contour Smoothness Guide

Low Smoothing

Contours will portray the landscape and topographic features at a high detail allowing the user to better identify geographic surface characteristics. These contours are best for scientific research such as Geology, Geomorphology, and Hazards.



Medium Smoothing



CLOSE

Add to cart



topoBuilder Application

[User Guide](#)

① Map Types

② Maps

③ Cart 0

Maps

Select area of interest on the map

☒ Display Grid

7.5-Minute Topo



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

☒ 7.5-Minute Topo 1

User Defined Content

Format

PDF

Contour Smoothing

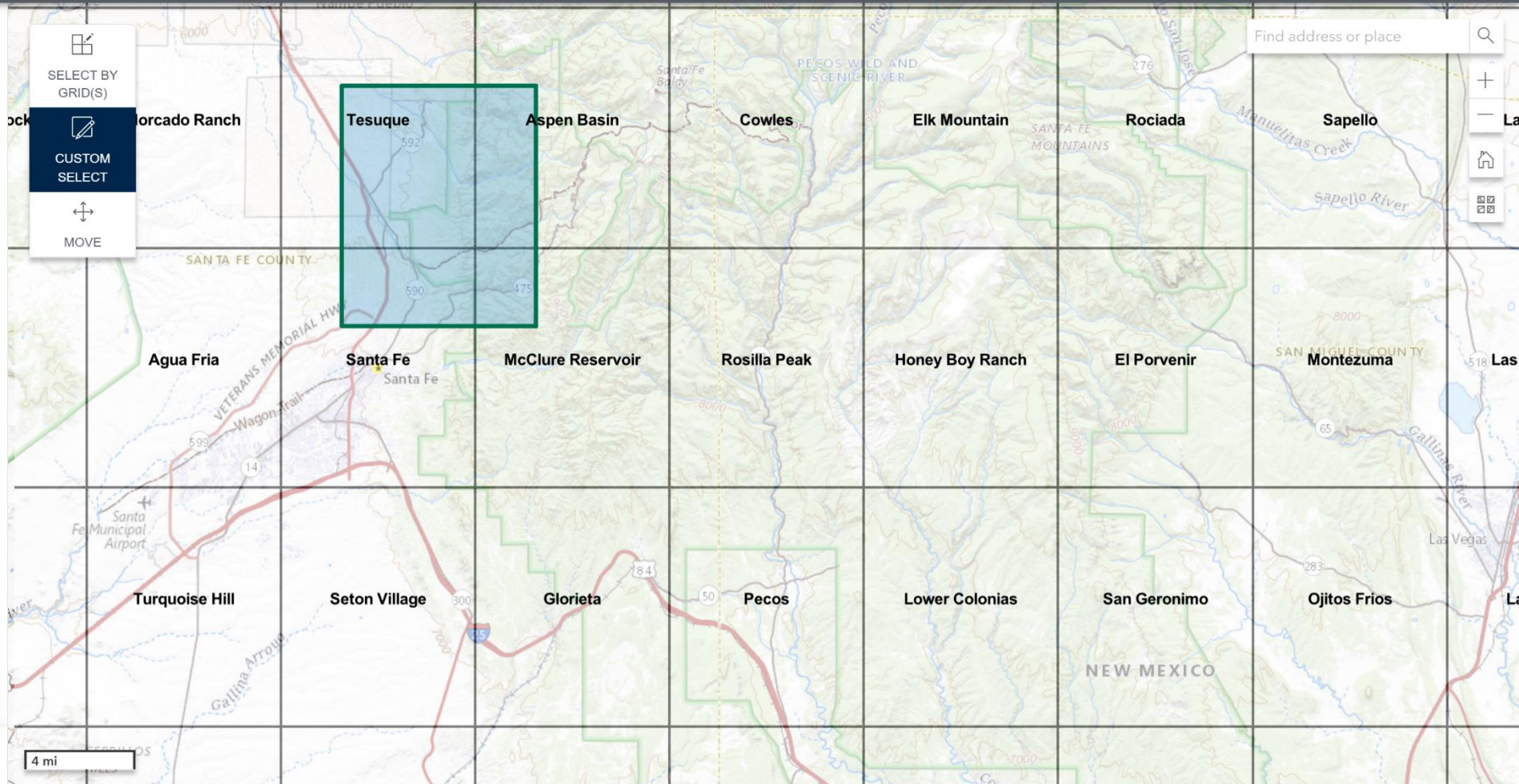
Low Medium High

[BACK TO TOP](#)

[DELETE](#)

[ADD](#)

[GO TO CART](#)



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Review selections in cart



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User Guide

① Map Types

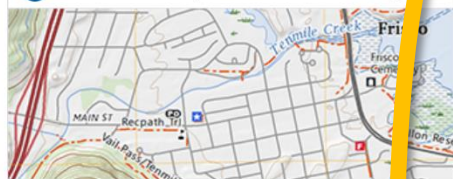
② Maps

③ Cart 2

Cart

Review and finalize map selections

1 7.5-Minute Topo



7.5-Minute Topo 1

Custom Extent
Low Contour
Smoothing
Production PDF
Format
User Defined
Content

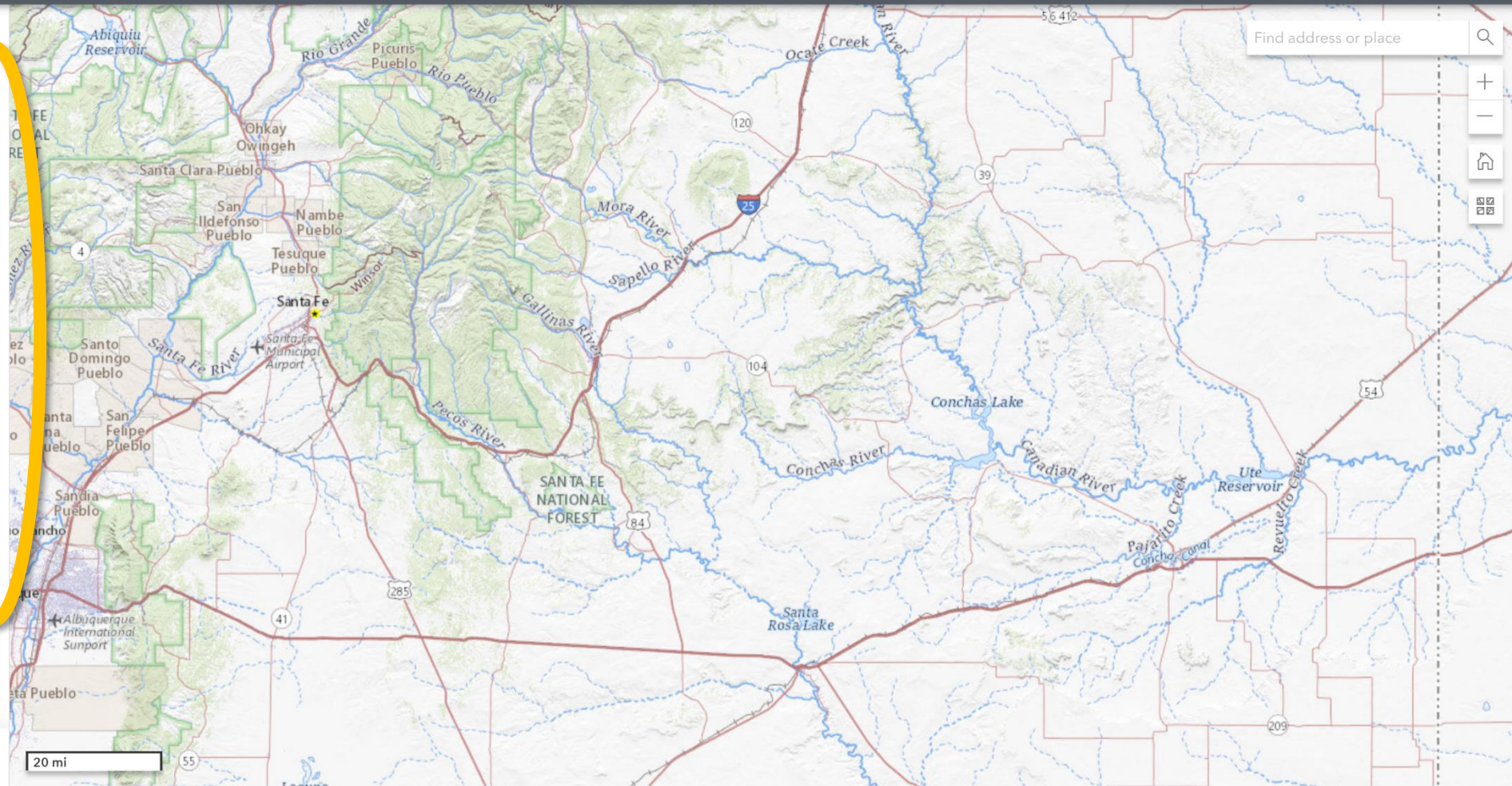
1 100K Topo



BACK TO TOP

SELECT MORE MAPS

CHECKOUT



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Edit maps (1)



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① Map Types

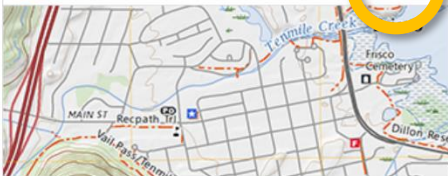
② Maps

③ Cart 2

Cart

Review and finalize map selections

1 7.5-Minute Topo



7.5-Minute Topo 1

Custom Extent
Low Contour
Smoothing
Production PDF
Format
User Defined
Content

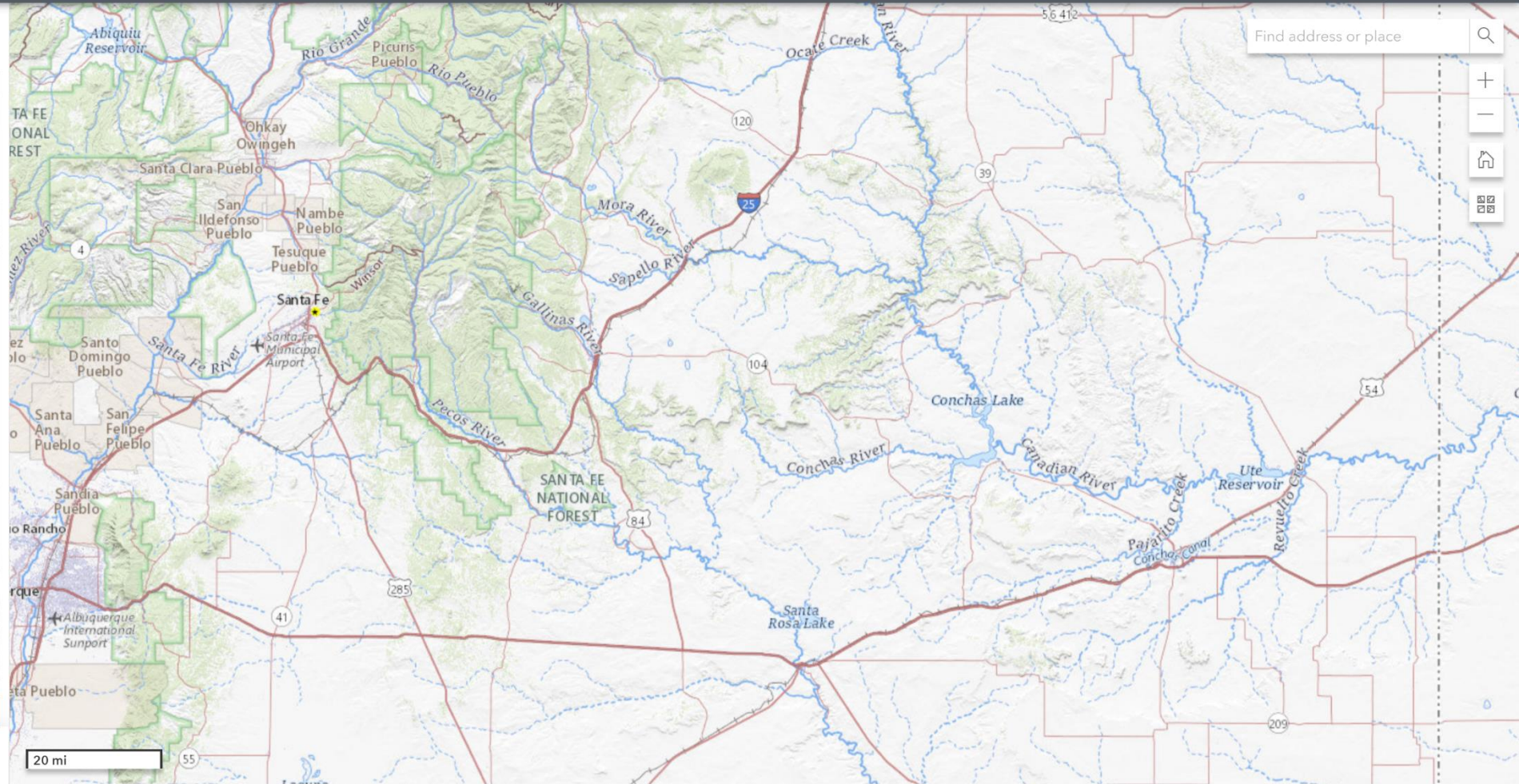
1 100K Topo



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SELECT MORE MAPS

CHECKOUT



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Edit maps (2)



topoBuilder Application

User Guide

① Map Types

② Maps

③ Cart 2

Edits

Make edits to maps

☐ Display Grid

7.5-Minute Topo



EDIT LAYERS

7.5-Minute Topo 1

User Defined Content

Format

PDF

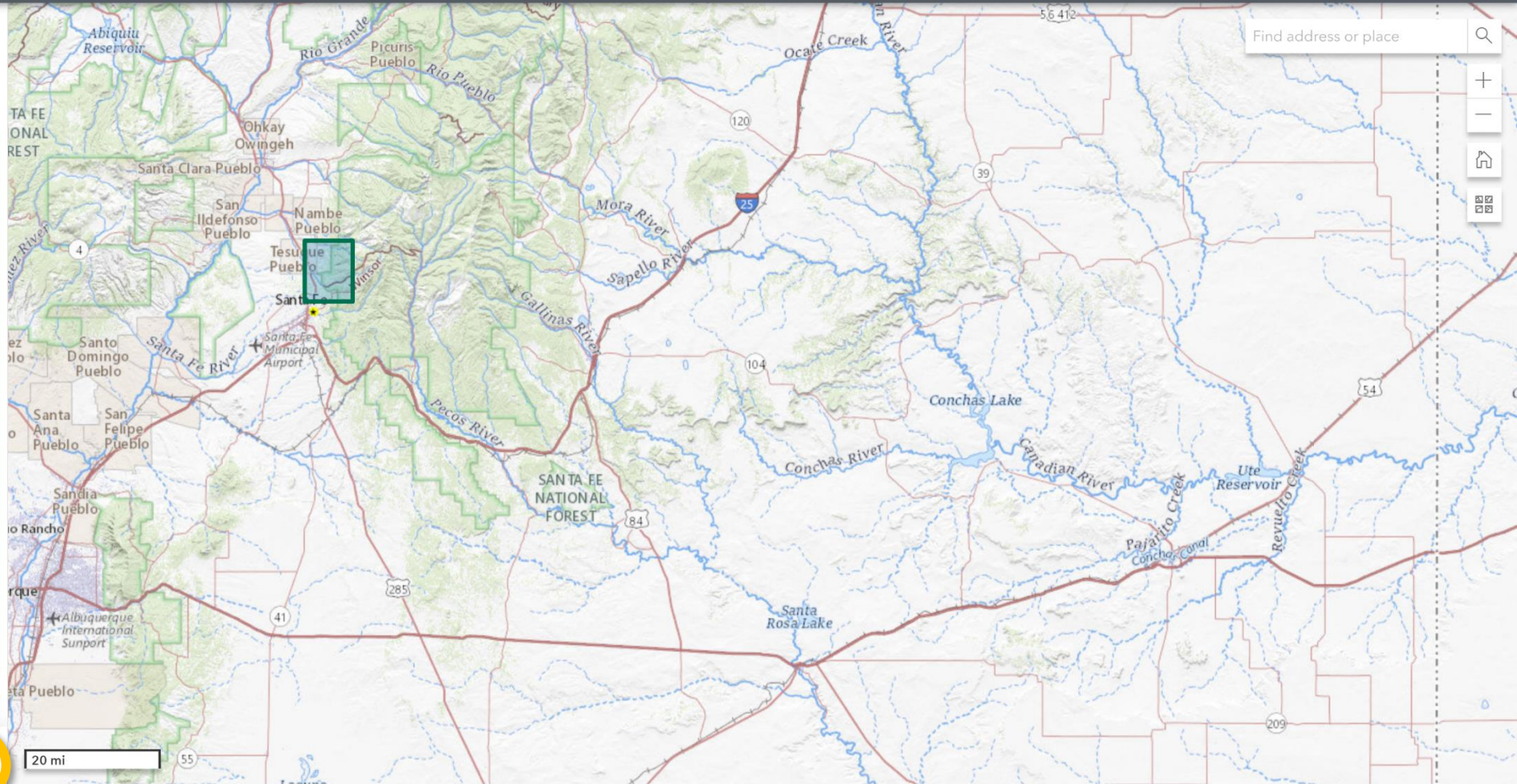
Contour Smoothing



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CANCEL

SAVE



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

Checkout (1)



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① Map Types

② Maps

③ Cart 2

Cart

Review and finalize map selections

1 7.5-Minute Topo



7.5-Minute Topo 1

Custom Extent
Low Contour
Smoothing
Production PDF
Format
User Defined
Content

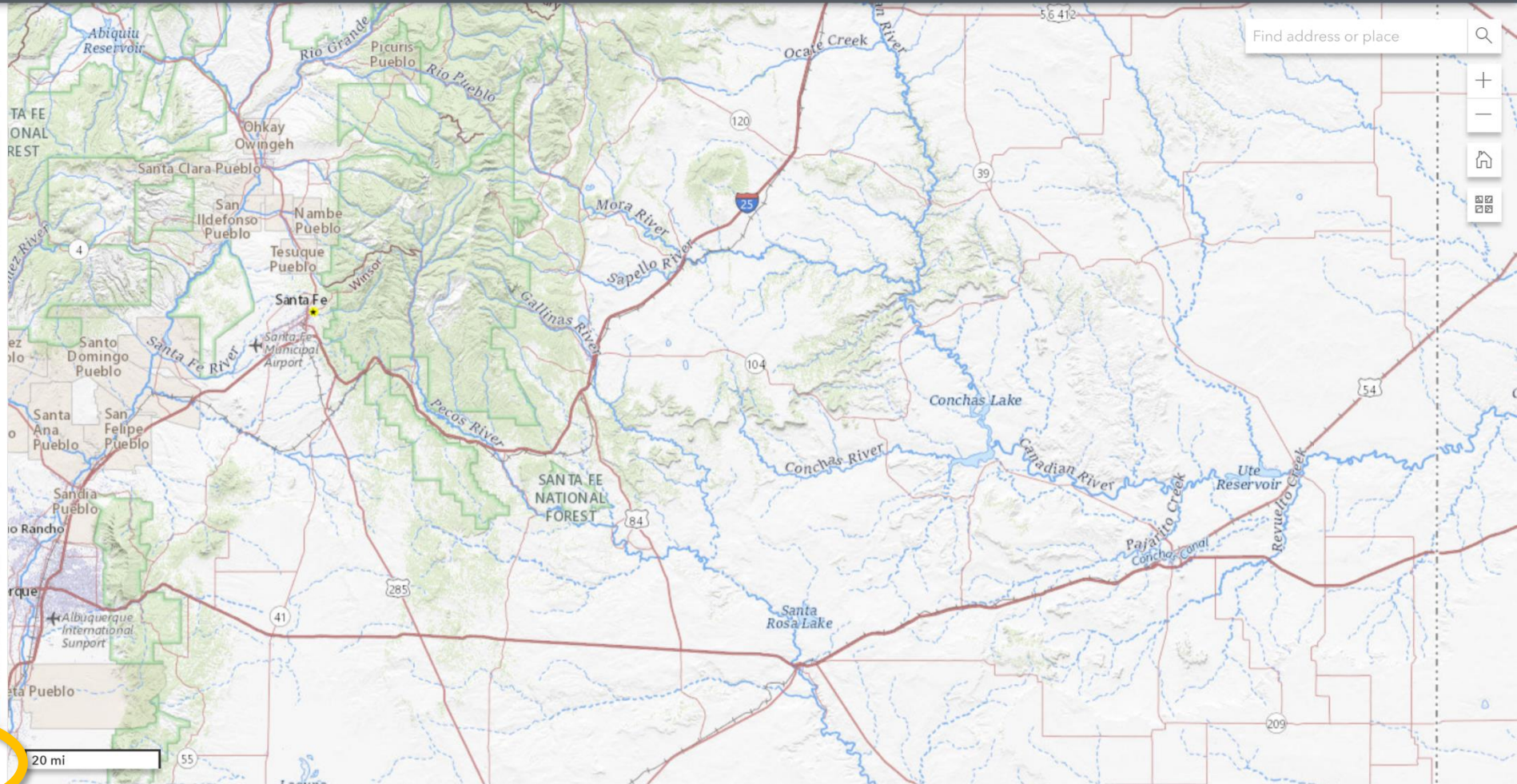
1 100K Topo



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SELECT MORE MAPS

CHECKOUT



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

Checkout (2)



topoBuilder Application

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① Map Types

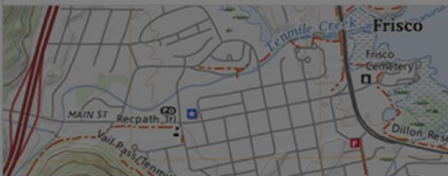
② Maps

③ Cart 2

Cart

Review and finalize map selections

1 7.5-Minute Topo



7.5-Minute Topo 1

Custom Extent
Low Contour
Smoothing
Production PDF
Format
User Defined
Content

1 100K Topo



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SELECT MORE MAPS

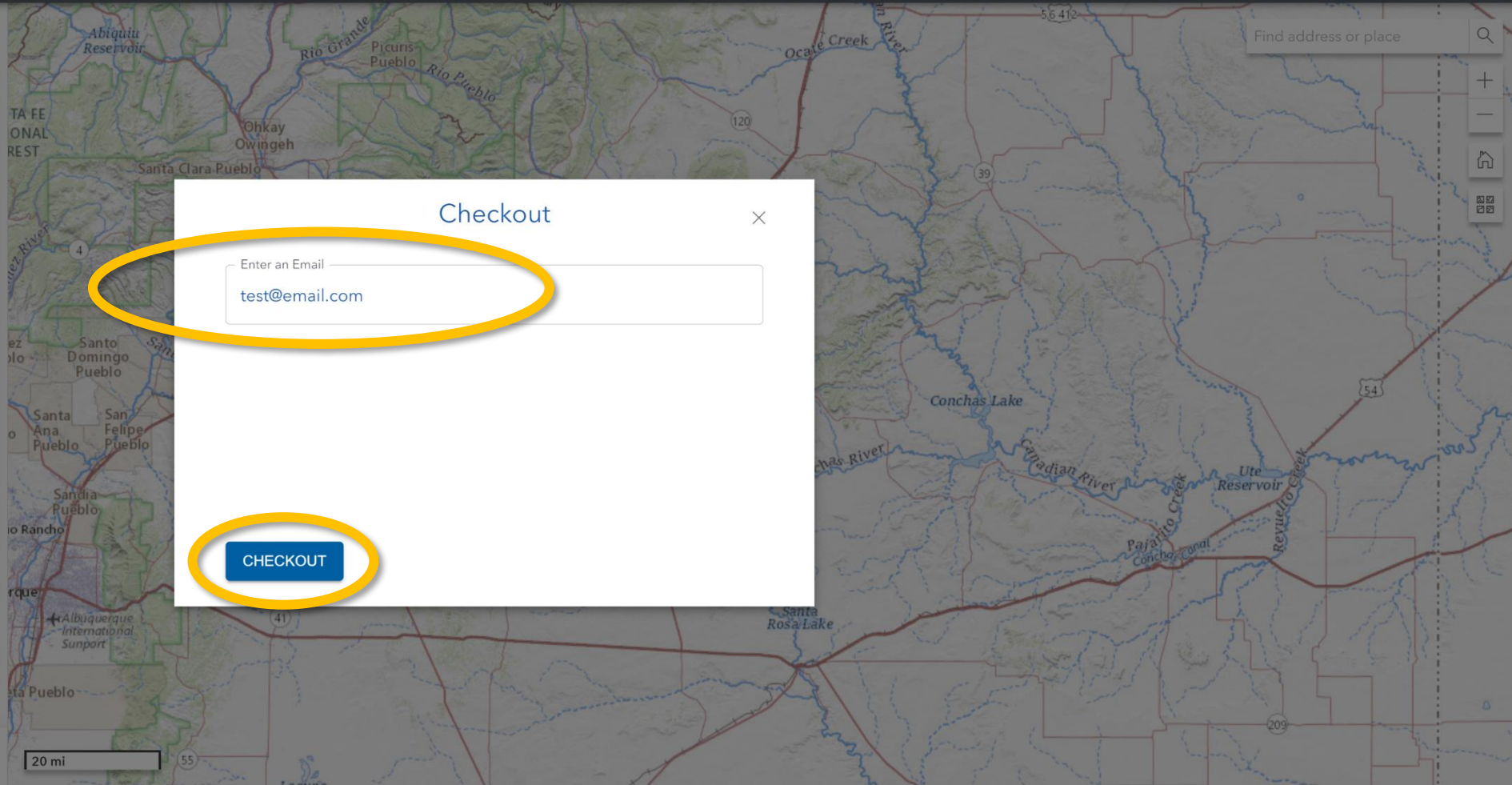
CHECKOUT

Checkout

Enter an Email

test@email.com

CHECKOUT



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



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: 170491546480793

Order Summary:



7.5-Minute Topo 1,

Selection Type: Custom Extent

Product Type: 24K Topographic Map

Product Format: Production PDF

Contour Smoothness: Low

Layers Removed: Public Land Survey, Orthoimage



Santa Fe, New Mexico

Selection Type: On-Grid Extent

Product Type: 100K Topographic Map

Product Format: TIFF

Contour Smoothness: Medium

Layers Removed: Public Land Survey, Orthoimage

Need anything? We're here to help!

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[Help Desk](#)



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: 170491546480793

Delivery Summary:

Santa Fe, New Mexico

Selection Type: On-Grid Extent

Product Type: 100K Topo

Product Format: TIFF

Contour Smoothness: Medium

Layers Removed: Public Land Survey, Orthoimage

[Download Map](#)

[Click here to download your map.](#) This link will expire on March 10, 2024

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Track your map



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The National Map
OnDemand Topo

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: 170491546480793

Order Summary:






7.5-Minute Topo 1,
Selection Type: Custom Extent
Product Type: 24K Topographic Map
Product Format: Production PDF
Contour Smoothness: Low
Layers Removed: Public Land Survey, Orthoimage




Santa Fe, New Mexico
Selection Type: On-Grid Extent
Product Type: 100K Topographic Map
Product Format: TIFF
Contour Smoothness: Medium
Layers Removed: Public Land Survey, Orthoimage

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topoBuilder Learn More Help Desk





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① Map Types

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③ Cart 0

ⓧ Help

⏪

Track Your Order


Enter a confirmation number to track an order

Order Confirmation Number
170491546480793

Track

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① Map Types

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③ Cart 0

ⓧ Help

⏪

Track Your Order

Enter a confirmation number to track an order

Order Confirmation Number

170491546480793

Order date: Wed Jan 10 2024

Delivered (100%)

Track

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Tracking and filtering



topoBuilder Application

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① Map Types

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③ Cart 0

Track

Help



Track Your Order

Enter a confirmation number to track an order

Order Confirmation Number

170491546480793

Order date: Wed Jan 10 2024

Delivered (100%)

170491546480793

Order Date: Wed Jan 10 2024

✓
Confirmed

✓
Processing

✓
Delivered

4
Expired

Search

All

Delivered

In Queue

Failed

100K Topo

7.5-Minute Topo

On-Grid

Custom

Production PDF

TIFF

2 products

7.5-Minute Topo 1

Delivered

Custom

Expires: Sun Mar 10 2024

Product Type
7.5-Minute Topo

Layers Removed
Public Land Survey, Orthoimage

Product Format
Production PDF

Contour Smoothness
Low



Santa Fe

Delivered

On-Grid

Expires: Sun Mar 10 2024

Product Type
100K Topo

Layers Removed
Public Land Survey, Orthoimage

Product Format
TIFF



REFRESH

TRACK

Tracking and filtering



topoBuilder Application

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① Map Types

② Maps

③ Cart 0

Track Your Order

Enter a confirmation number to track an order

Order Confirmation Number

170491546480793

Order date: Wed Jan 10 2024

Delivered (100%)

170491546480793

Order Date: Wed Jan 10 2024

✓
Confirmed

✓
Processing

✓
Delivered

4
Expired

Search...

All

Delivered

In Queue

Failed

100K Topo

7.5-Minute Topo

On-Grid

Custom

Production PDF

TIFF

1 products

Santa Fe

Delivered

On-Grid

Expires: Sun Mar 10 2024



Product Type

100K Topo

Product Format

TIFF

Layers Removed

Public Land Survey, Orthoimage

REFRESH

TRACK

Track

Help



Need help?

- [about topoBuilder](#)
- [topoBuilder User Guide](#)
- tnm_help@usgs.gov

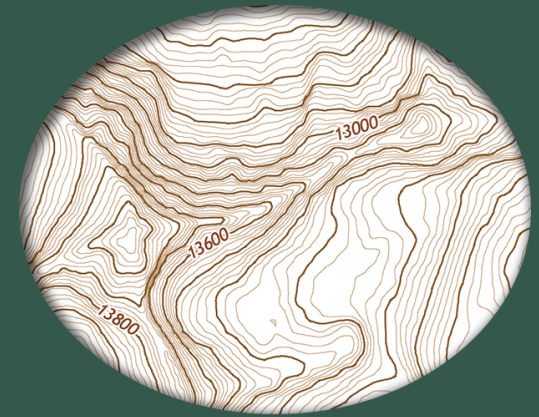


More about contours

- Generated on the fly
- Use best available 3DEP data
- $\frac{1}{3}$ arc-second, $\frac{1}{9}$ arc-second, and 1 meter resolution in CONUS
- 2 meter in Alaska
- $\frac{1}{3}$ arc-second in U.S. territories

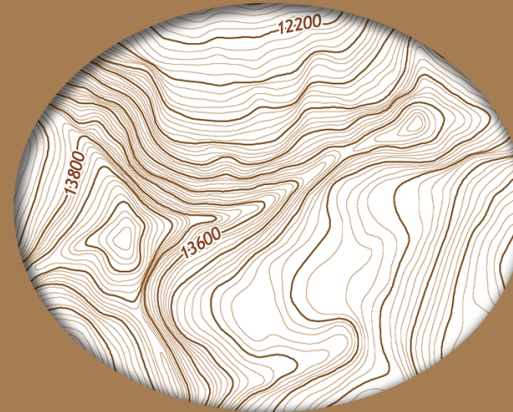
low smoothing high detail

These highly detailed contours allow the user to identify surface features and landforms. Best suited for geology, geomorphology, and natural hazards.



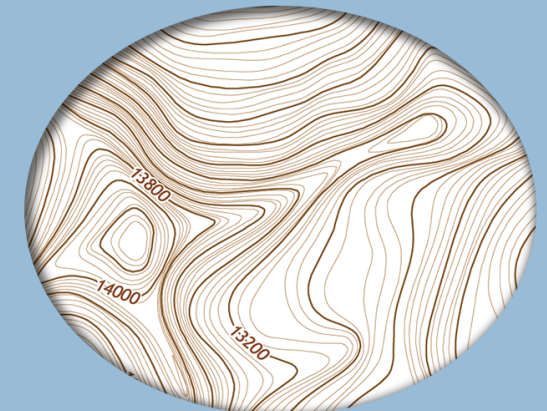
medium smoothing medium detail

Closest to the US Topo style, the reduced detail permits better map readability. Best for recreation, geocaching and orienteering, land management, and emergency management.

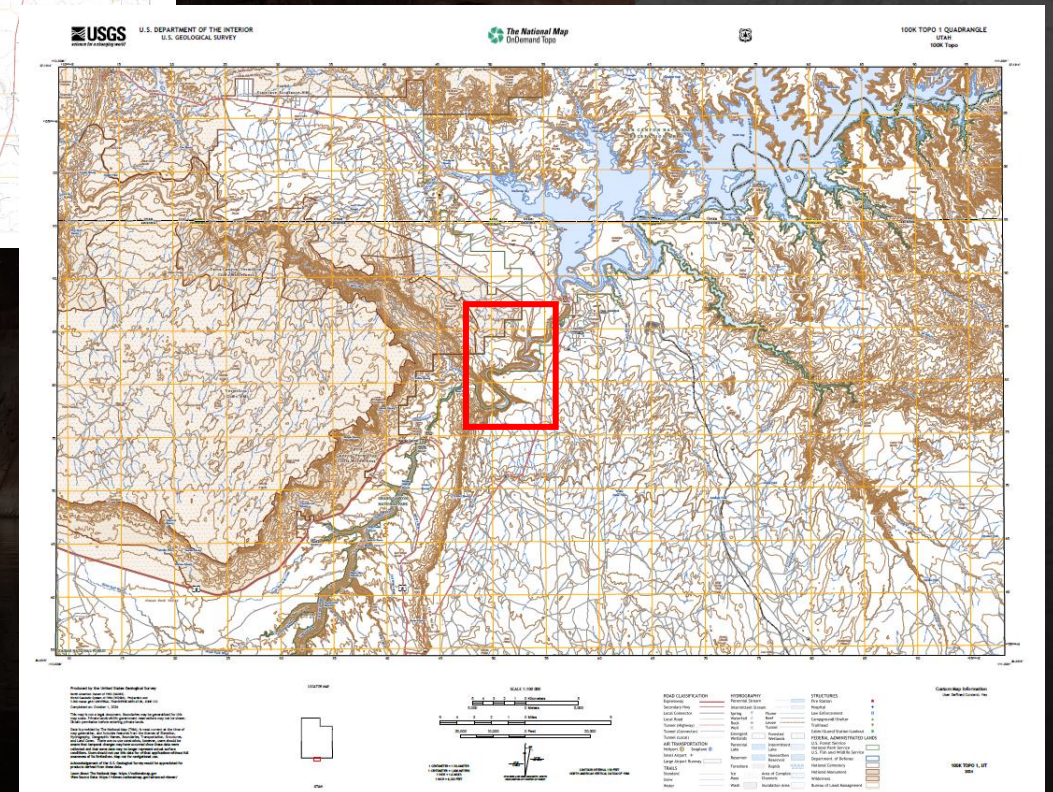
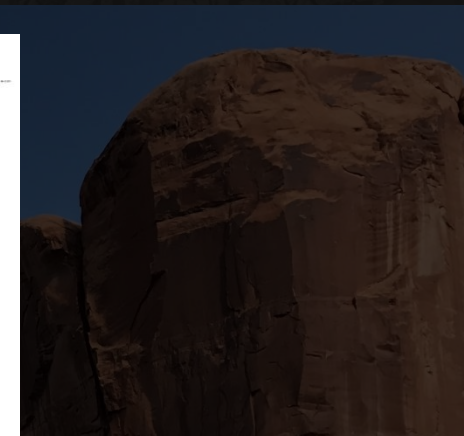
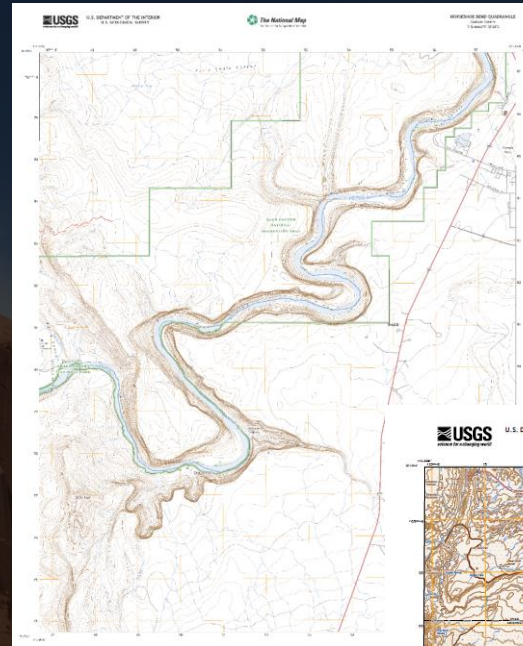
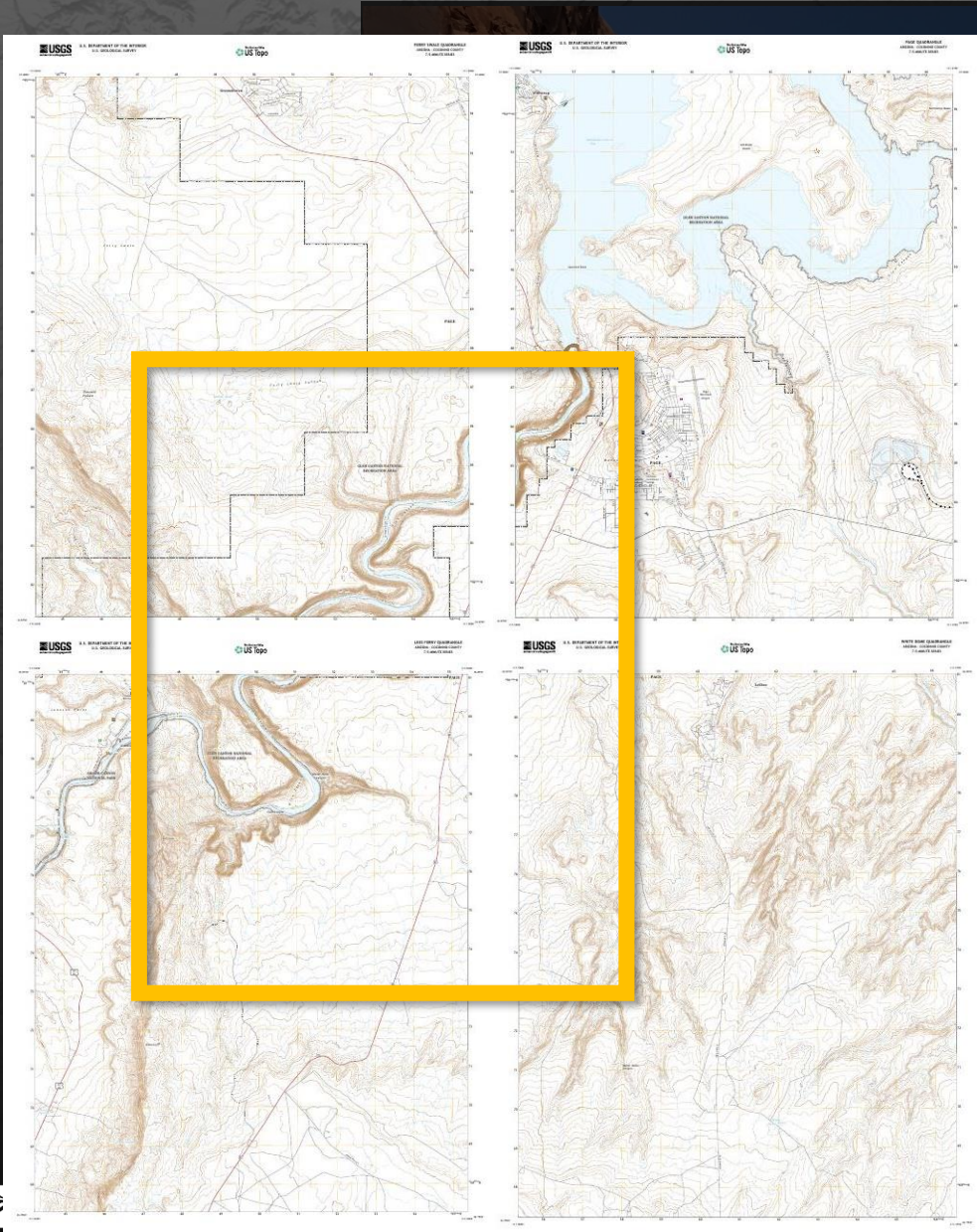


high smoothing low detail

This option shows only general topography. Smaller features may not appear. Best for thematic maps, urban planning, transportation management, and demography.



US Topo & OnDemand Topo



US Topo

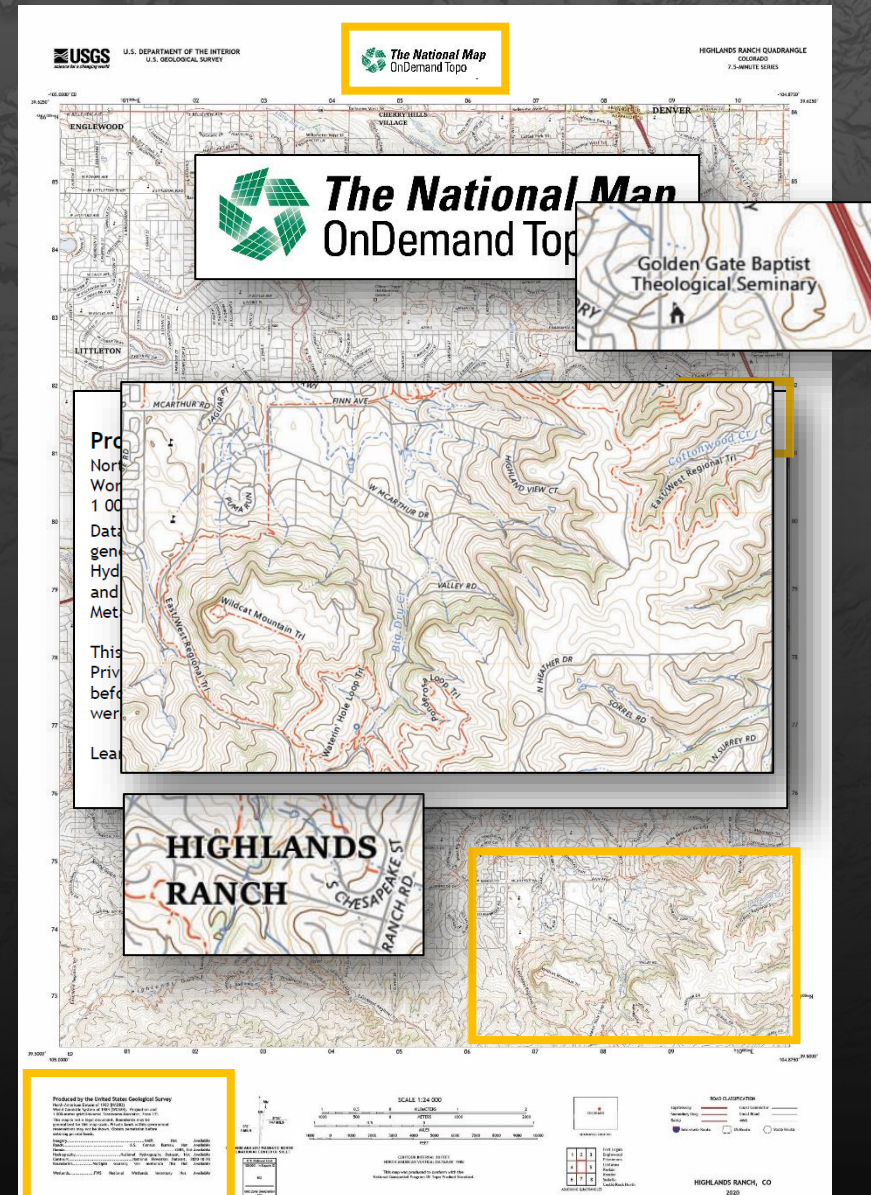
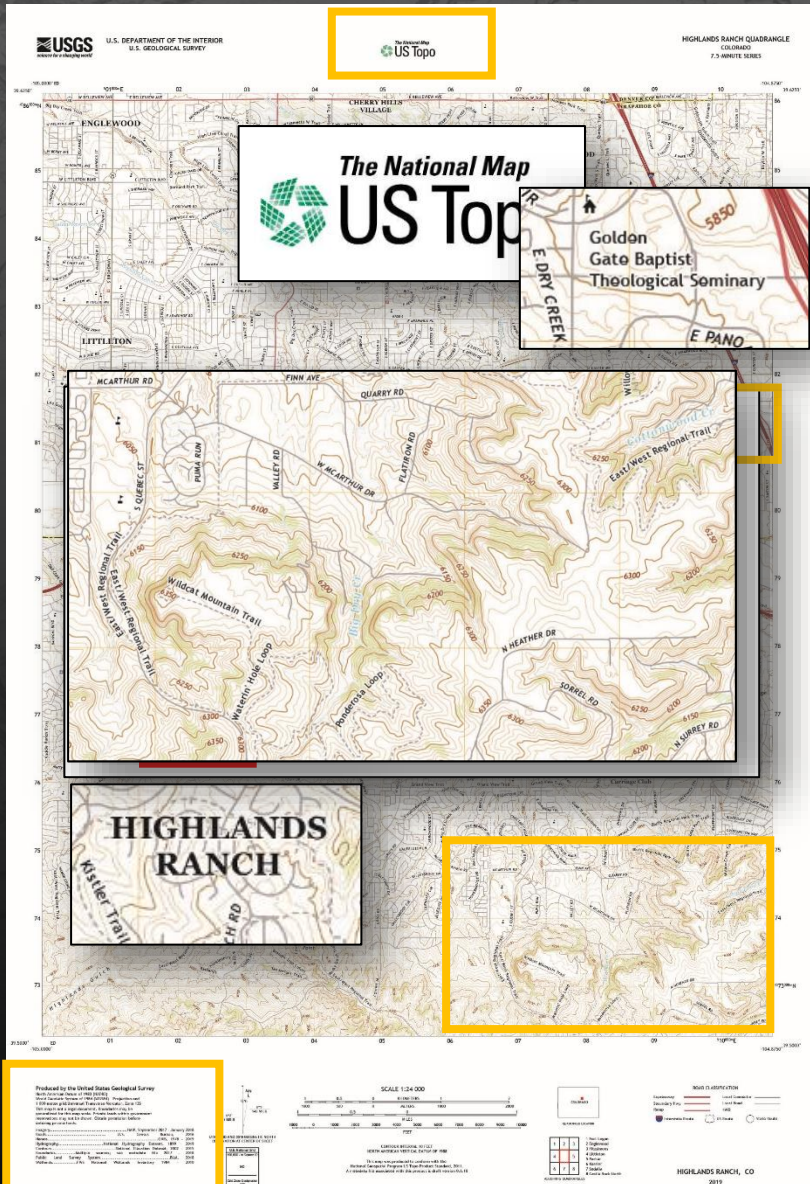
- Staged
- Standard USGS quads
- 7.5' (approx. 1:24,000)
- Predesigned contours
- Updated on a 3-year schedule
- Free & unlimited download
- Immediately available
- CONUS, Hawaii, Alaska, Puerto Rico, U.S. Virgin Islands

OnDemand Topo

- On demand
- Custom extent
- 7.5' and 1:100,000
- Contours generated on the fly
- Uses best available data
- Free & unlimited downloads
- Most maps delivered within 24hrs
- CONUS, Hawaii, Alaska, Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands

US Topo

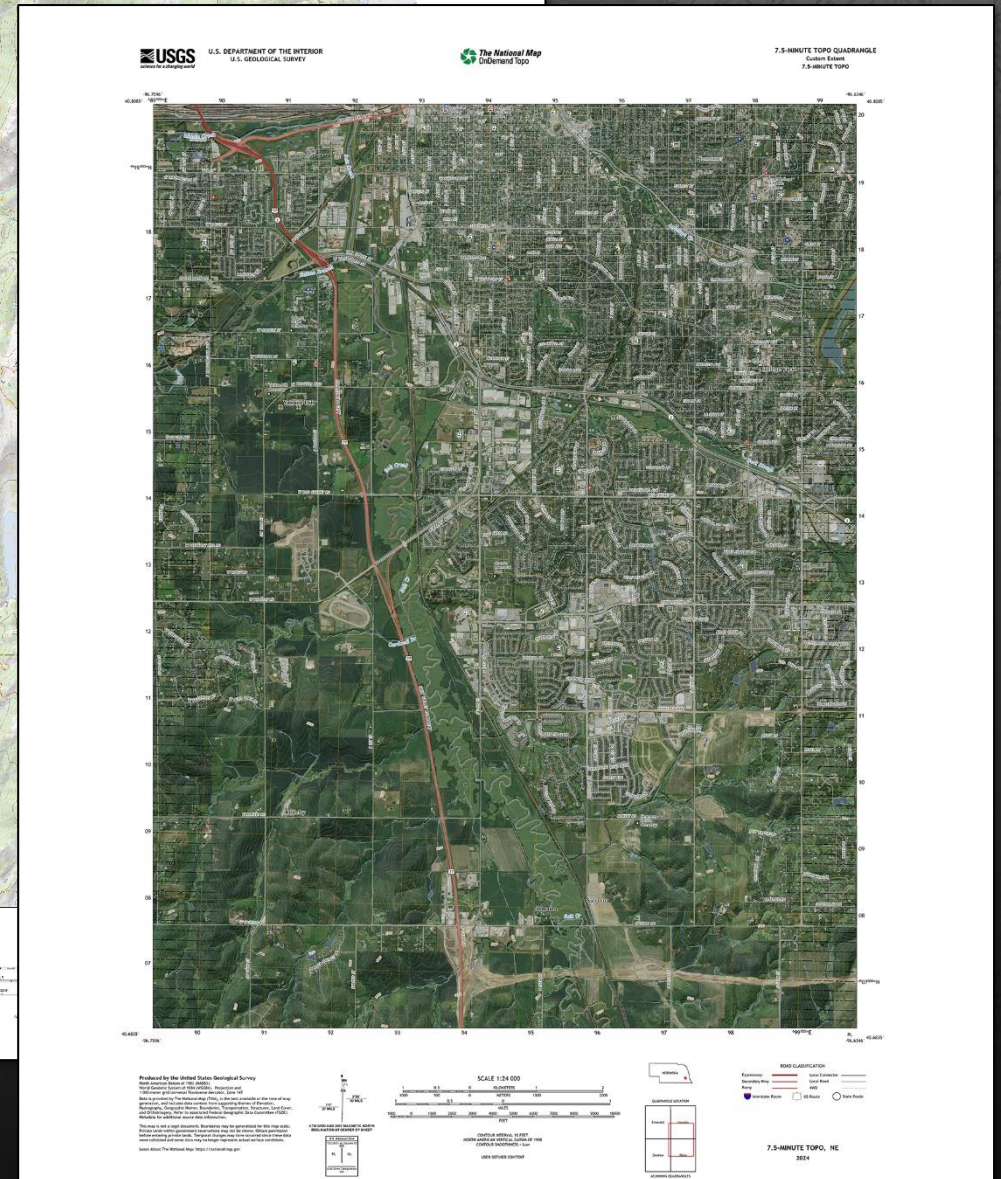
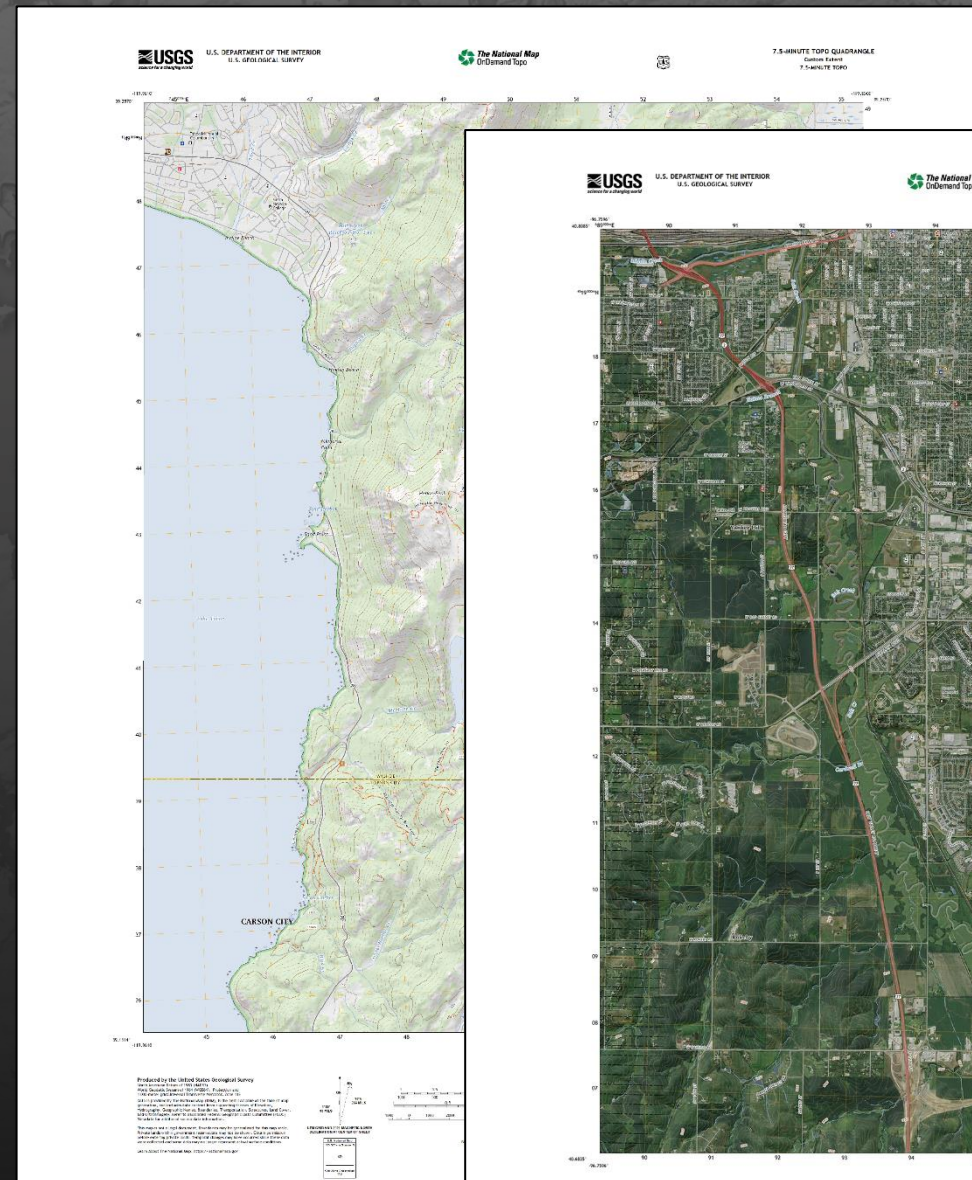
7.5-Minute OnDemand Topo



OnDemand Topo Map Scales

7.5-Minute Topo

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



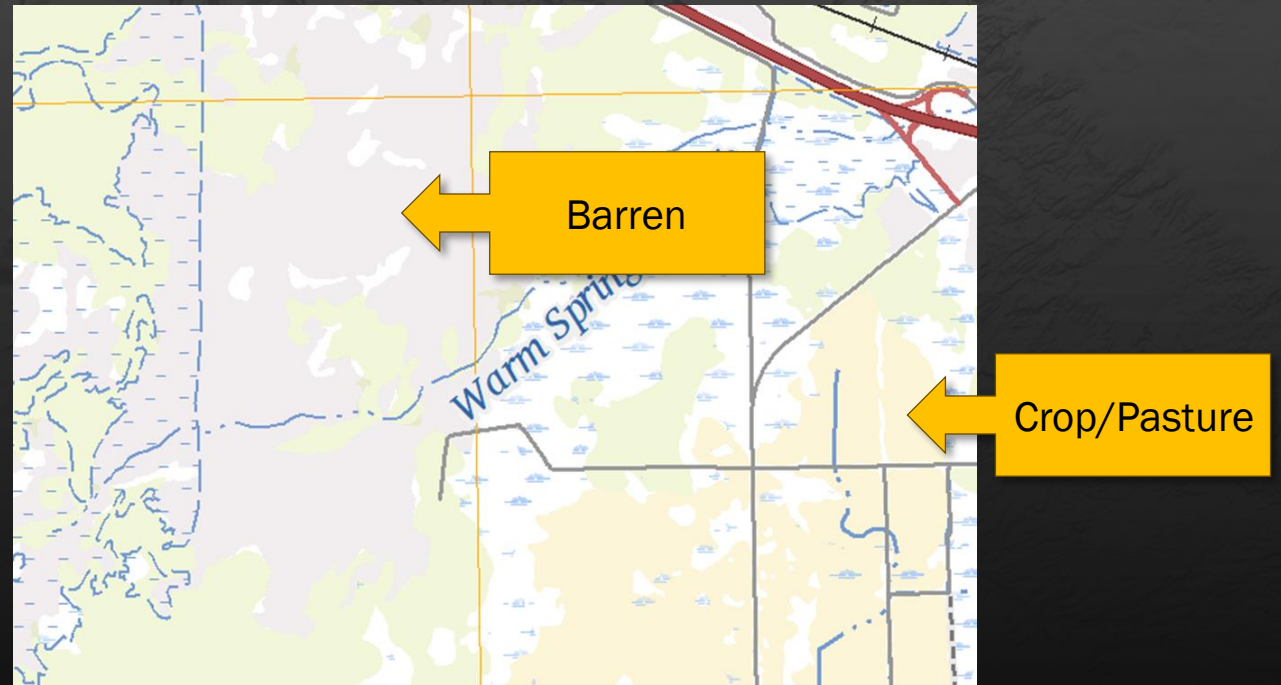
100K Topo

- New in January 2024
- 1:100,000-scale
- CONUS, Hawaii, Alaska, Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands
- Suitable for planning, land management, recreation



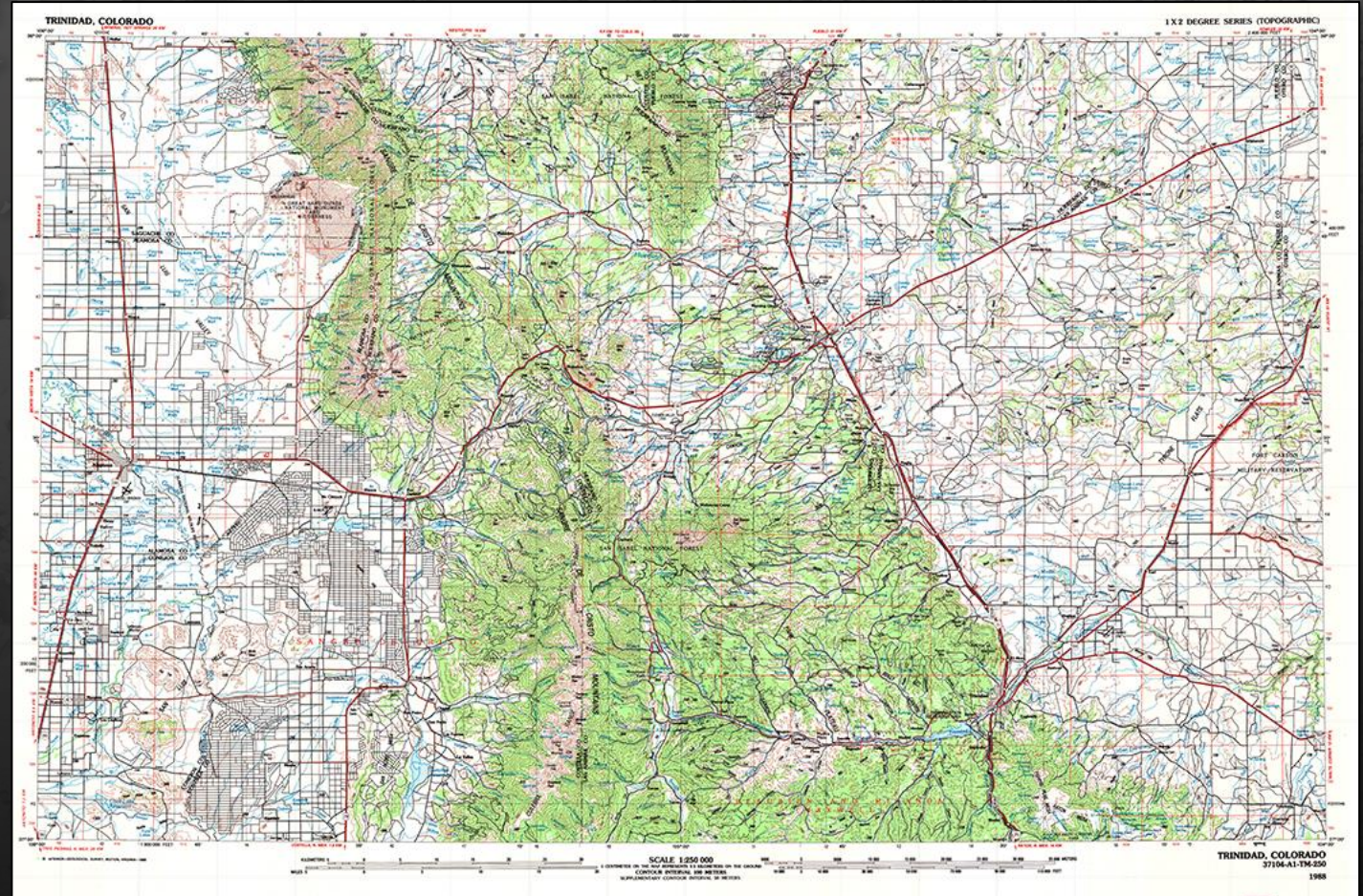
100K Topo

- Five land cover classes
 - Woodland 
 - Shrub/Scrub 
 - Grassland 
 - Crop/Pasture 
 - Barren 
- No imagery
- No shaded relief (currently)
- No contour smoothing



What's next

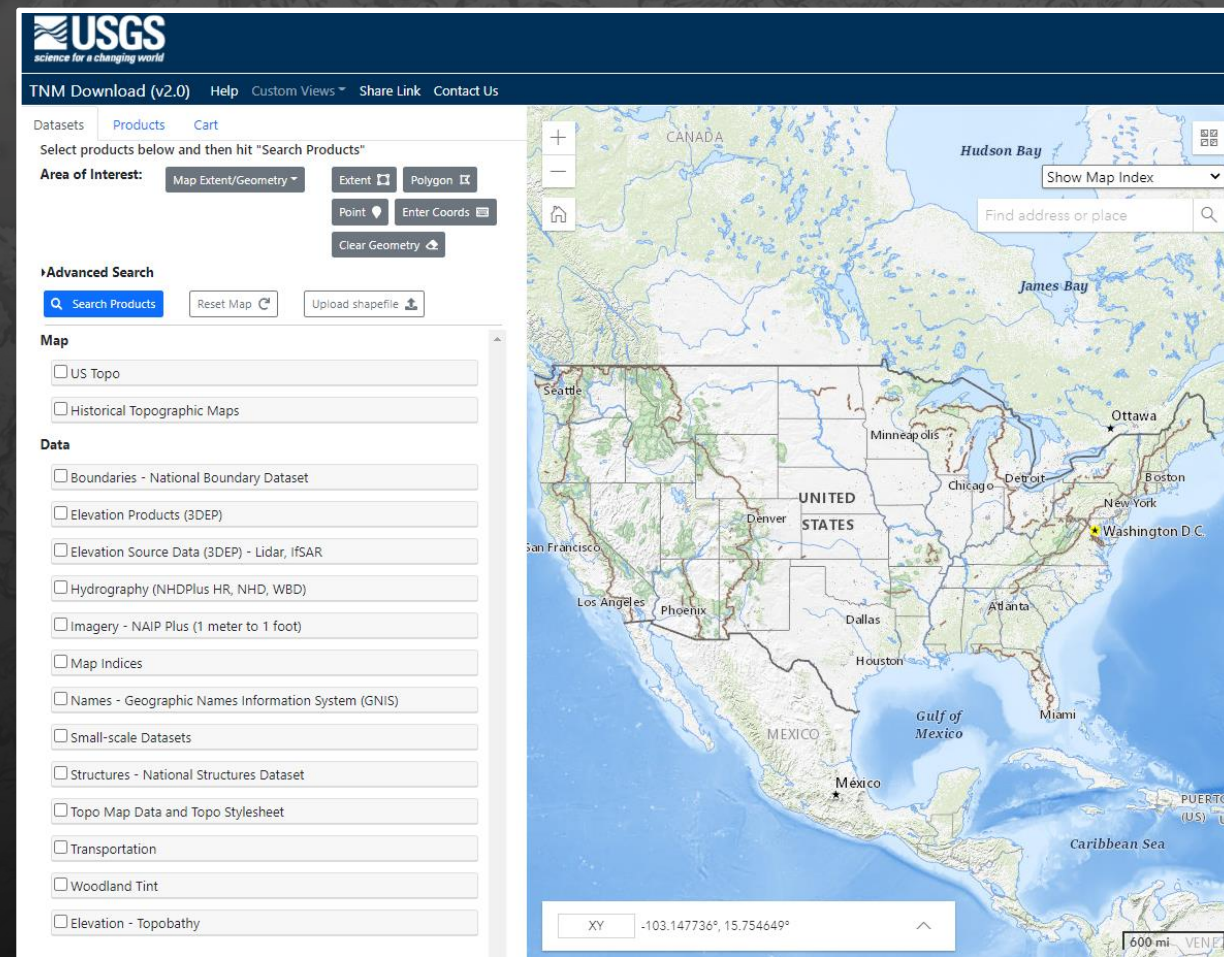
- User-added content
- Print
- GIS data download
- Additional scales



Essential facts

- topoBuilder uses the best available data from The National Map to create OnDemand Topo maps
- US Topo maps continue to be produced and are available as free and immediate downloads
- National Map Data available as free and immediate downloads

US Topo & National Map Data Downloads:
apps.nationalmap.gov/downloader



Questions and discussion

Drew Decker

National Map Liaison for CA

email@usgs.gov

For feedback, help, or support:

tnm_help@usgs.gov

