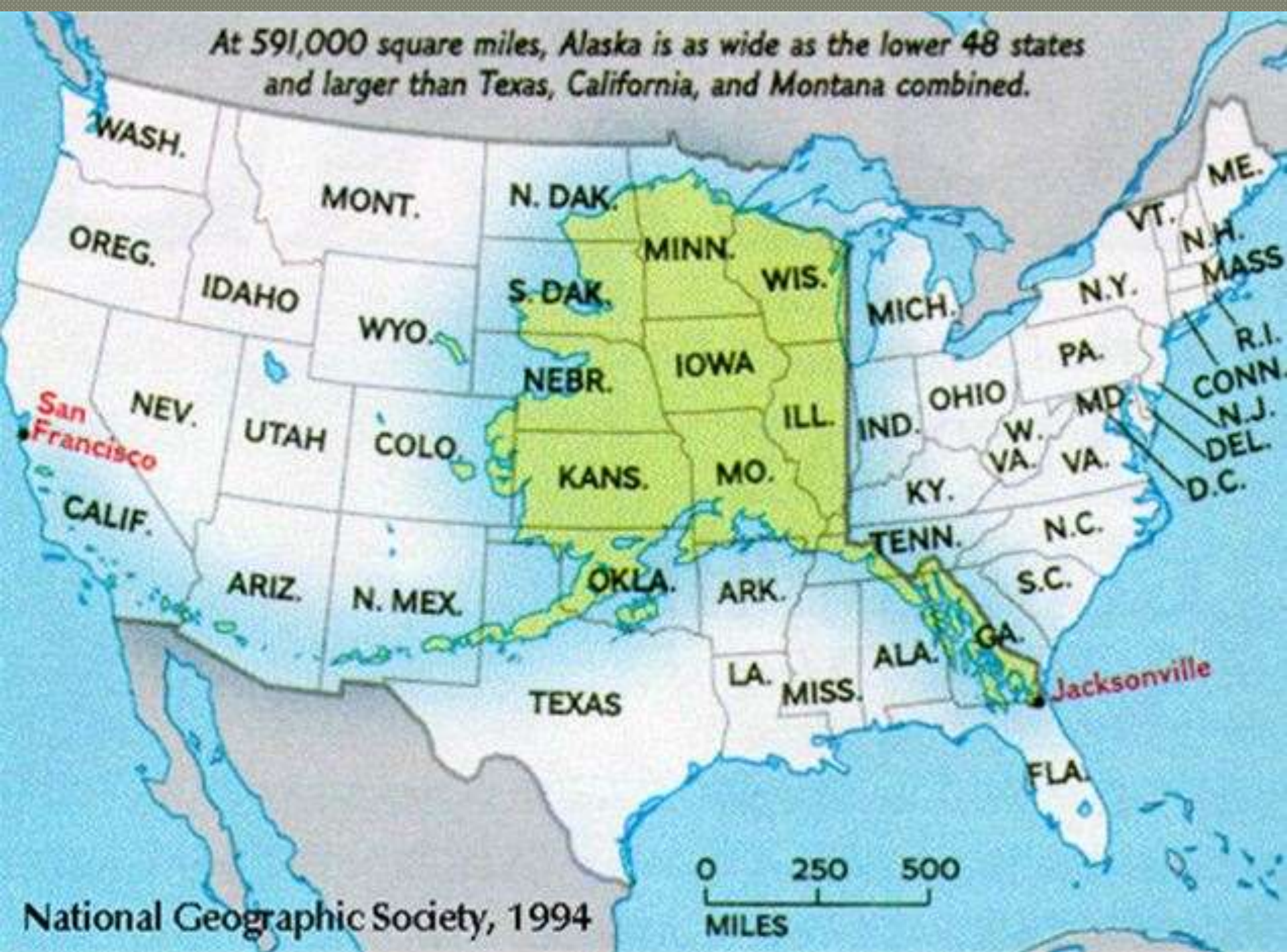


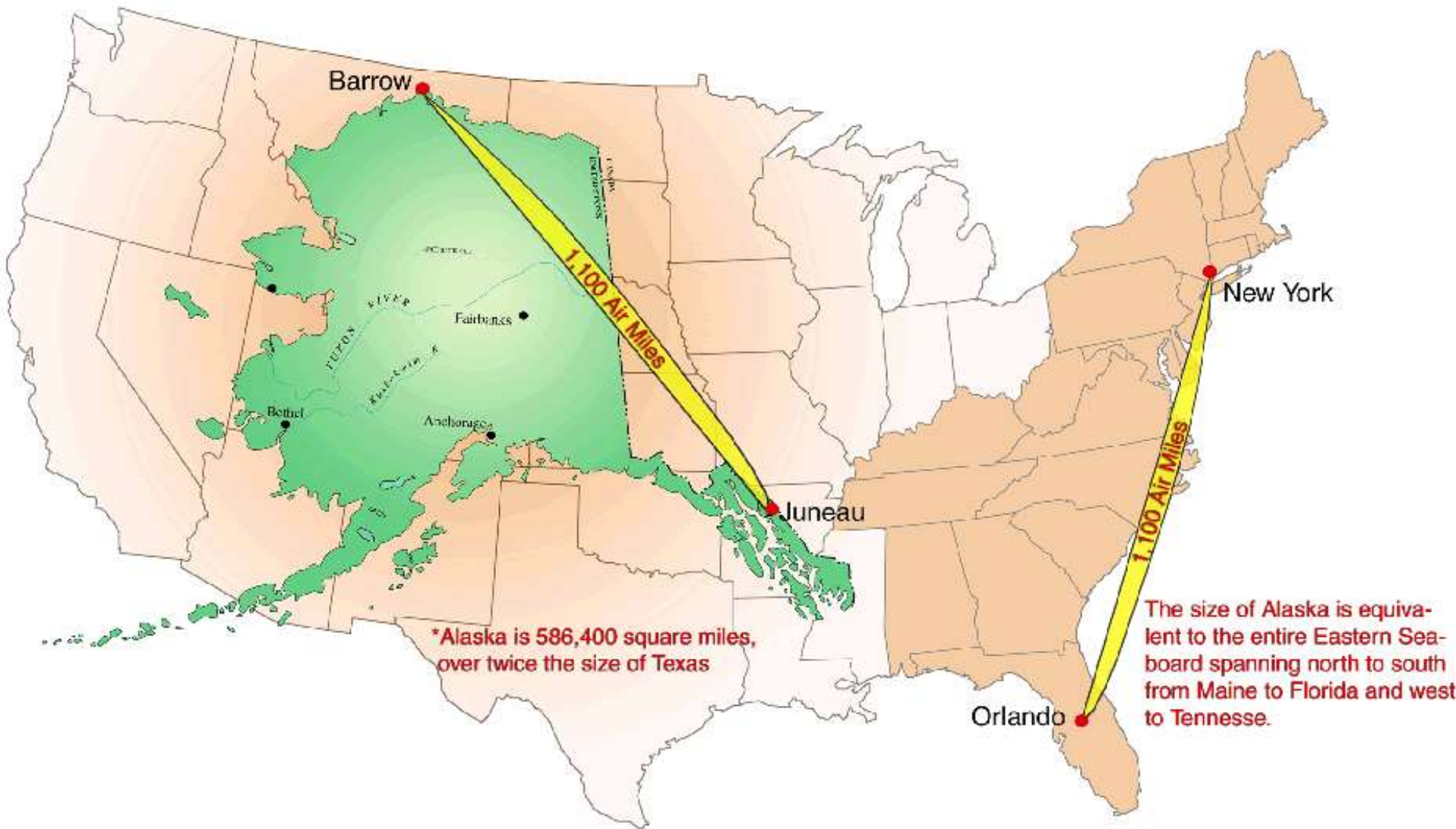
Communicating Flood Risk with a Story Map

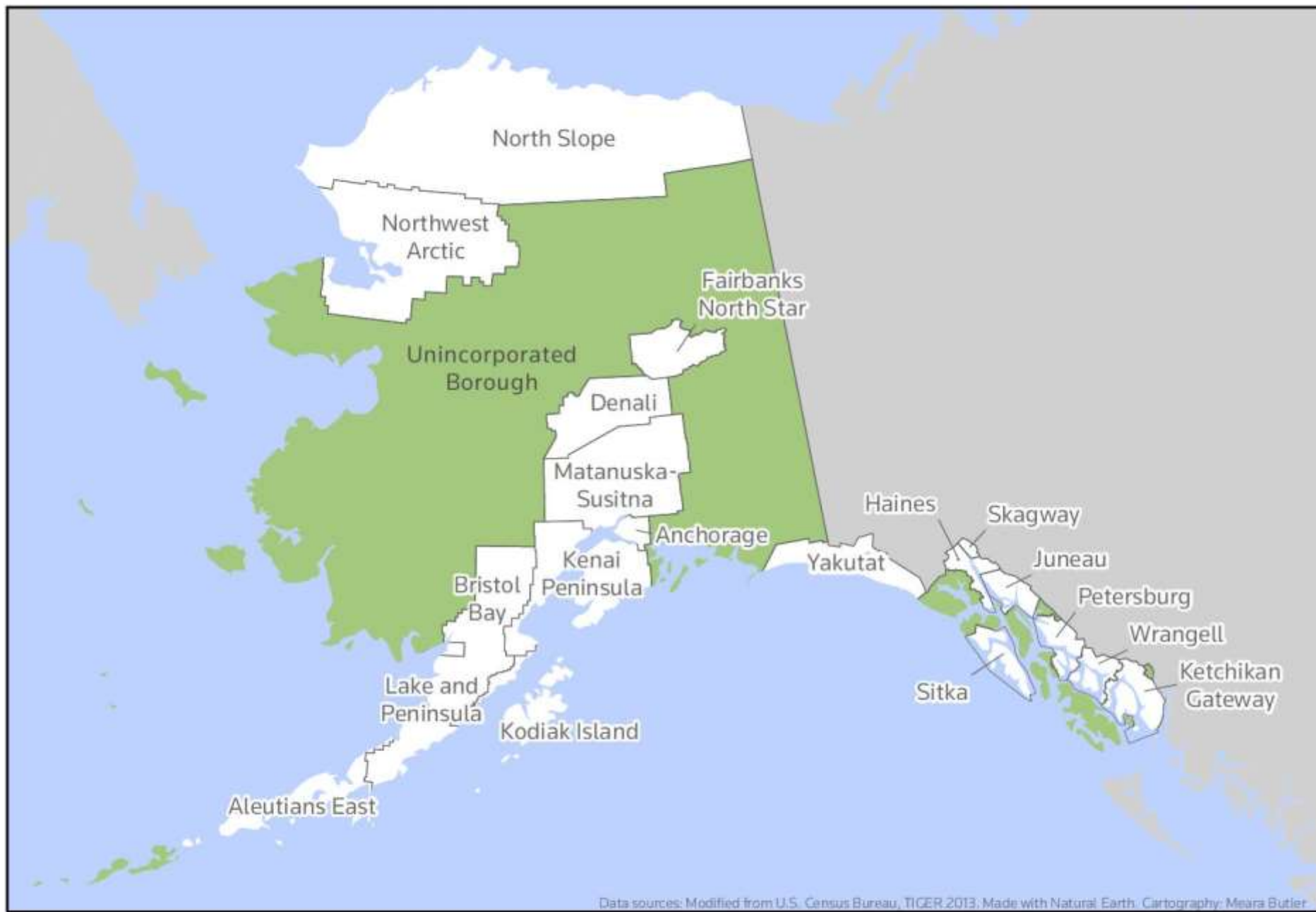


At 591,000 square miles, Alaska is as wide as the lower 48 states and larger than Texas, California, and Montana combined.

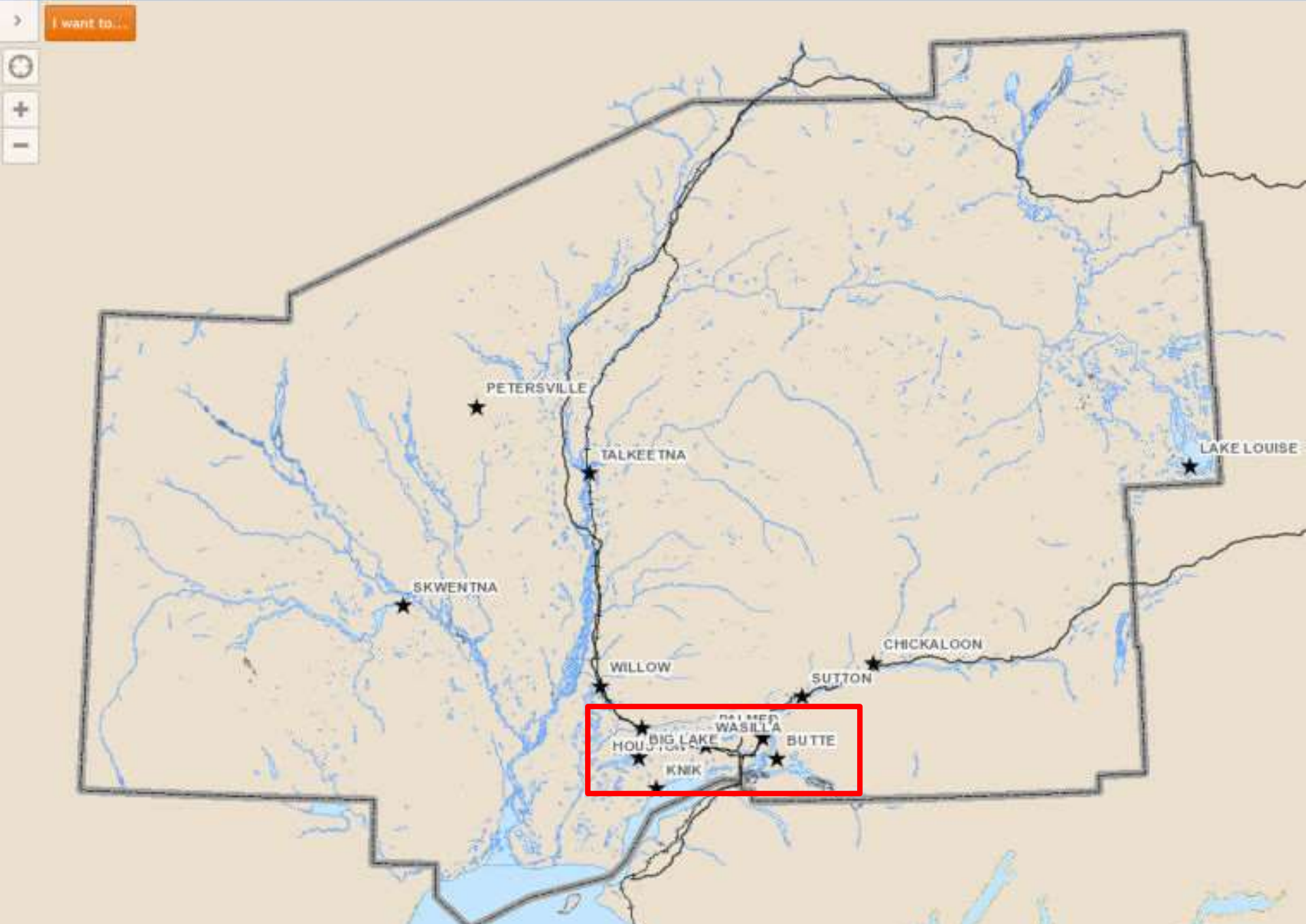


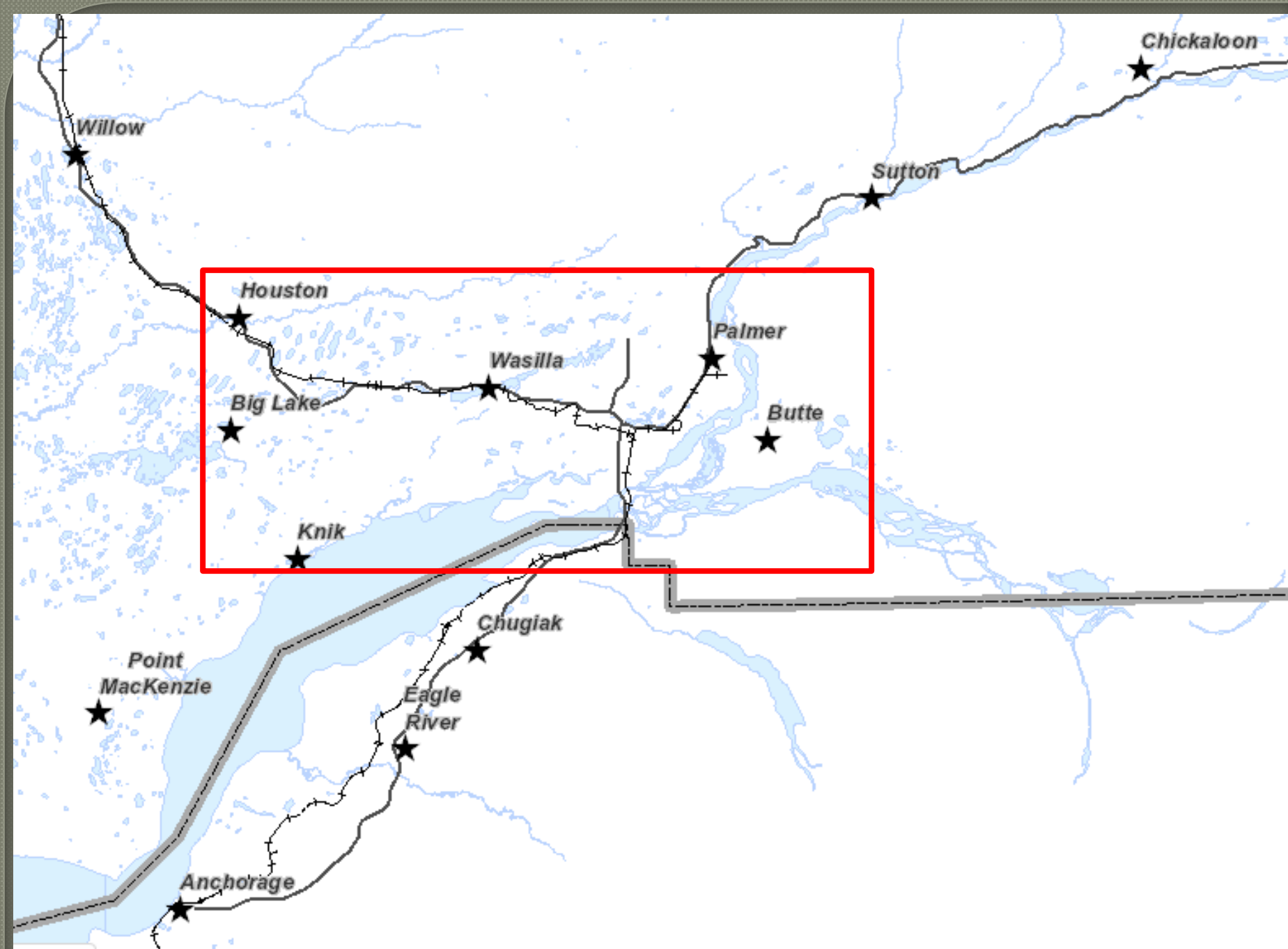
SIZE AND DISTANCE COMPARISON





Data sources: Modified from U.S. Census Bureau, TIGER 2013; Made with Natural Earth; Cartography: Meera Butler





Matanuska-Susitna Borough, Alaska



Location in the U.S. state of Alaska



Alaska's location in the U.S.

Incorporated January 1, 1964^{[1][2]}

Seat Palmer

Largest city Wasilla

Area

- **Total** 25,258 sq mi (65,418 km²)
- **Land** 24,608 sq mi (63,734 km²)
- **Water** 650 sq mi (1,683 km²), 2.6%

Population (est.)

- **(2016)** 102,598
- **Density** 3.6/sq mi (1/km²)

State of West Virginia



Flag



Seal

Nickname(s): Mountain State (Appalachian Mountains)

Motto(s): *Montani semper liberi*
(English: Mountaineers Are Always Free)



Official language *De jure:* English^[1]

Demonym West Virginian

Capital
(and largest city) Charleston

Largest metro Huntington

Area Ranked 41st

- **Total** 24,230 sq mi (62,755 km²)
- **Width** 130 miles (210 km)
- **Length** 240 miles (385 km)
- **% water** 0.6
- **Latitude** 37° 12' N to 40° 39' N
- **Longitude** 77° 43' W to 82° 39' W

Population Ranked 38th

- **Total** 1,844,128 (2015 est)^[2]

Flood Mapping History

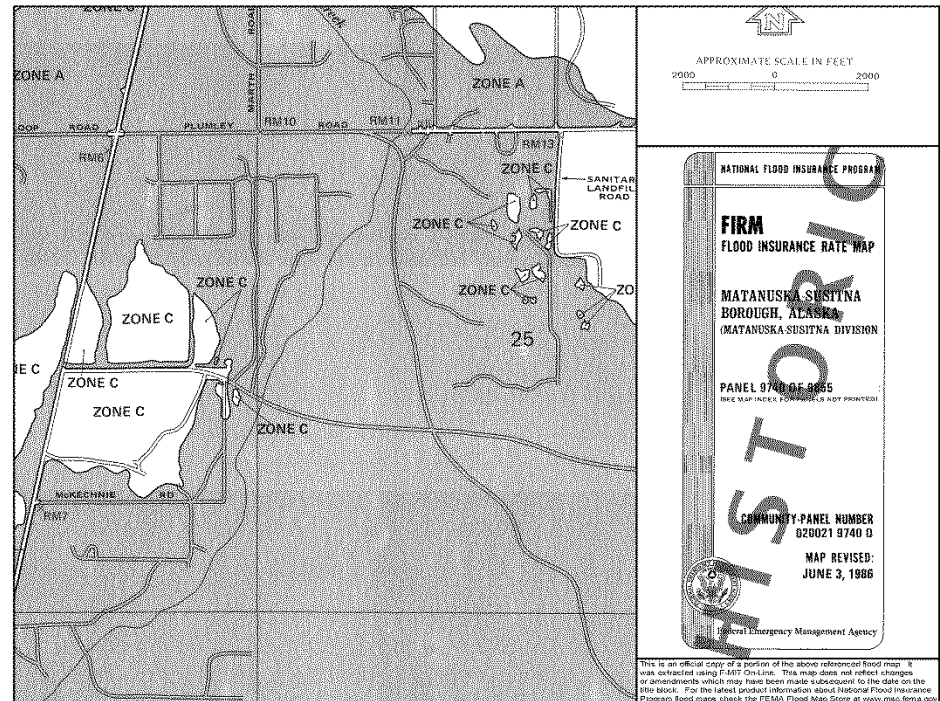
Federal Emergency Management Agency Community Status Book Report ALASKA

Communities Participating in the National Flood Program

| CID | Community Name | County | Init FHBM Identified | Init FIRM Identified | Curr Eff Map Date | Reg-Emer Date | Tribal No |
|---------|--|------------------------------|-------------------------|-------------------------|----------------------|------------------|--------------|
| 020021# | MATANUSKA-SUSITNA, BOROUGH OF INCLUDES THE INCORPORATED AREAS OF THE CITIES OF HOUSTON, PALMER AND WASILA. | MATANUSKA-SUSITNA BOROUGH | 02/28/78 | 05/01/85 | 03/17/11 | 05/01/85 | No |

Topography at this time was
USGS Quads and late some
refinement to 3 meter accuracy.

2011 – Digital conversion with
with detailed study in 2009 of
Talkeetna.



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MAT-SU LiDAR & Imagery Project 2011-2012

General Information

The MSB LiDAR & Imagery Project is a collection of high-resolution elevation data and aerial imagery for 3680 square miles of the Matanuska-Susitna Borough (MSB) as well as the development of a number of ancillary datasets. For data management purposes the project has been divided into 7 blocks/areas: Matanuska, Core Area, Point MacKenzie, Willow, Caswell Lakes, Talkeetna, & North Susitna.

The project is being managed by the MSB in collaboration with the US Geological Survey (USGS) and US Fish and Wildlife Service (USFWS). The following partners have contributed funding and/or resources to the project:

- Coastal Impact Assistance Program (CIAP);
- United States Geological Survey (USGS);
- Alaska Energy Authority (AEA);
- United States Fish and Wildlife Service (USFWS);
- The Nature Conservancy (TNC);
- National Oceanic and Atmospheric Administration (NOAA) Mat-Su Salmon Partnership;
- United States Army Corps of Engineers (USACE);
- Alaska Pacific University (APU) &
- Matanuska Susitna Borough (MSB).



Department of Commerce, Community, and Economic Development
Community and Regional Affairs

 search

☐ DCCED-DCRA ☐ State of Alaska

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[State of Alaska](#) > [Commerce](#) > [Community & Regional Affairs](#) > [Planning & Land Management](#) > [Risk MAP](#) > [Matanuska-Susitna Borough Risk MAP Study](#)

Planning & Land Management Links

- ▶ [Planning & Land Mgmt Home Page](#)
- ▶ [Alaska Climate Change Impact Mitigation Program](#)
- ▶ [Alaska Community Coastal Protection Project](#)
- ▶ [Alaska Risk MAP Program](#)
- ▶ [Community Coastal Impact](#)

ALASKA RISK MAP PROGRAM

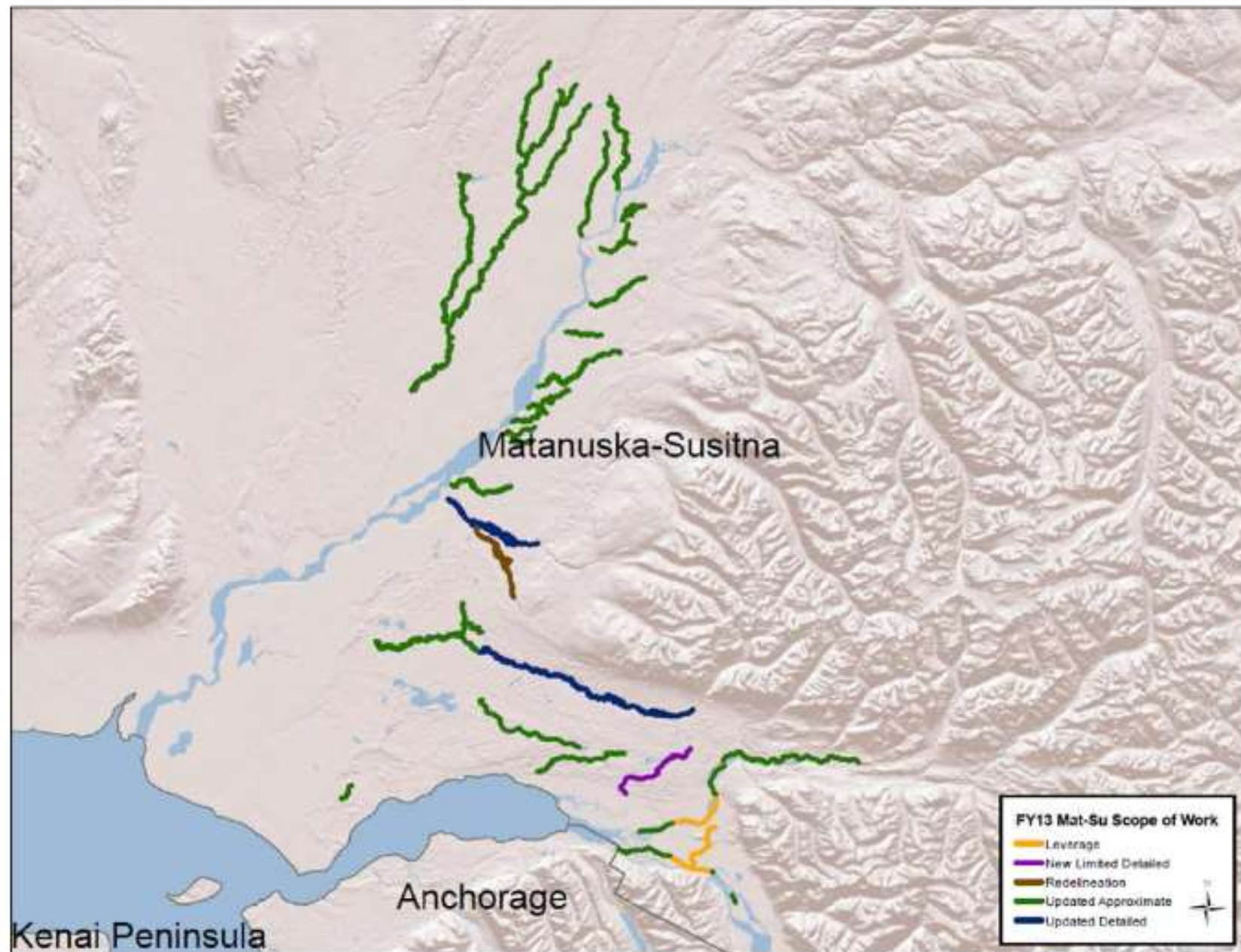
COMMUNITY RISK MAP STUDIES

Matanuska-Susitna Borough

FEMA and the State of Alaska are conducting a Risk MAP Study in the Matanuska-Susitna Borough that began in 2013.

MAP OF MATANUSKA-SUSITNA BOROUGH STUDY SCOPE

Click on image to open larger map



STUDY SCOPE

The scope of work of the Matanuska-Susitna Borough Risk MAP Study includes *(see also the map below)*:

Detailed hydrology and hydraulic modeling to include 71.9 miles of riverine study, perform approximate riverine analysis for 316.6 miles, and delineate 15.4 miles of existing areas. Floodplain boundaries will be updated for the 1-percent and 0.2-percent-annual-chance (100- and 500-year) flood events. The rivers to be updated include:

- Updated detailed modeling (Zone AE) will be completed for:
 - Little Susitna River (including Split Flows 1-3) = 39.2 mile
 - Willow Creek = 13.3 miles
 - Willow Creek Tributary = 7.1 miles
- Limited detail modeling (Zone A with structures) will be completed for:
 - Wasilla Creek = 10.7 miles
- Updated Approximate Studies (Zone A) will be completed for:
 - Upper Matanuska River = 14 miles
 - Point MacKenzie = 2 miles – roughly from Walsop Road to 2 miles downstream of Walsop Road
 - Various Zone A = 289.9 miles
- Redelineation of Effective Detailed Studies (Zone AE) will be completed for:
 - Deception Creek and Tributaries 1-3 = 15.4 miles
- US Army Corps of Engineers (USACE) Studies (Leverage - Zone AE) will also be incorporated to include:
 - Matanuska River = 3.9 miles
 - Knik River = 2.7 miles
 - Bodenbug Creek = 5.7 miles

| Activity | Actual or Projected End Date |
|--|------------------------------|
| Discovery Interview | March 11, 2013 |
| Discovery Meeting | April 23, 2013 |
| Flood Study Kick-Off Meeting | December 13, 2013 |
| Draft Work Maps Issued | August 28, 2015 |
| Flood Risk Review Meeting | January 20, 2016 |
| Preliminary DFIRM/FIS Release | August 19, 2016 |
| Consultation Coordination Officers (CCO) Meeting | January 4, 2017 |
| Draft Multi-Hazard Risk Report | January 10, 2017 |
| Public Meeting/Workshop | March 15-16, 2017 |
| 90-Day Appeal Period Starts | May/June 2017* |
| 90-Day Appeal Period Ends | August/September 2017* |
| Risk MAP Resilience Workshop | Fall 2017* |
| Delivery of Final Risk Report and Risk Assessment Database | TBD* |
| Letter of Final Determination | October/November 2017* |
| Maps and FIS become Effective | April/May 2018* |

**All projected dates are subject to revision as the project progresses*

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MATANUSKA-SUSITNA BOROUGH

EXIT

Budget Public Hearings

April 24, 25, 27

3 Public Hearings 6 pm on Budget



Flood Mapping Update

The Borough's flood maps are being updated for the first time since 1985! Click above to see how your property is affected.



FY 2018 Borough Budget

The budget is back. With State spending shortfalls, the Borough is finding the best way forward.



Know Before you Fly

Prospective operators want to fly, and fly safely, but many don't know the rules.



Flood Mapping Update

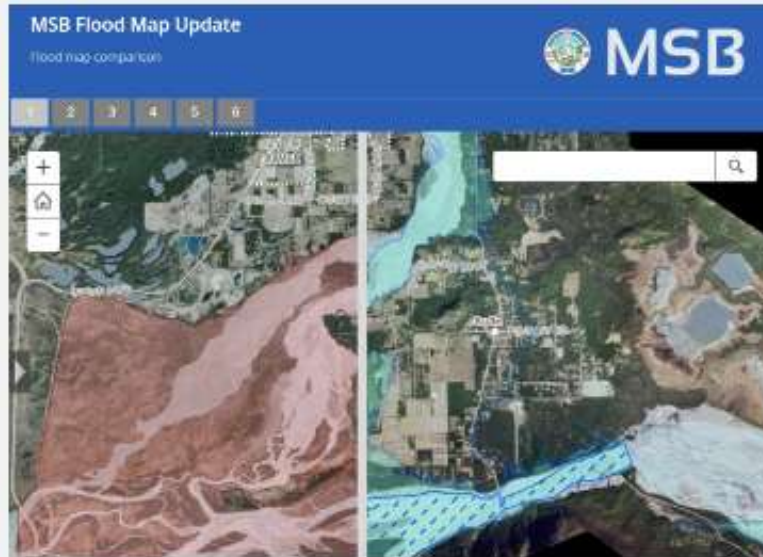
The Borough's flood maps are being updated for the first time since 1985! The preliminary 2016 FEMA flood map update is now ready for public review. You can pan and zoom to see the changes or search for your property by typing your address into the search tool in the upper right corner.

To compare the existing floodplain to the new, simply grab the line near the center of the page and slide it back and forth. Sliding the line to the right shows the existing flood data and sliding the line to the left reveals the new proposed data.

You can also use the numbered tabs towards the upper left of this page to take a tour that highlights some of the changes that come with the new data. Comments and questions can be directed to the Permit Center at 861-7822 or email permitcenter@matsugov.us



*The preliminary update is ready
for public review*

[Government](#)[Services](#)[Economy](#)[Property & Maps](#)[Lifestyle](#)[About](#)[Compare with Aerial Imagery](#)[Compare with Hillshades](#)

You can pan and zoom to see the changes or search for your property by typing your address into the search tool in the upper right corner.

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Lucille Creek with Imagery

MSB Flood Map Update

Existing Flood Layers



MSB

1 2 3 4 5 6

Lucille Creek

By focusing in, you can see that the new data has very squiggly lines compared to the old data which has smoother wavy lines. The reason for this is that the new data follows contours and ground features more accurately, depicting what an actual flooded area would look like.

The boundaries represent a flood event having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood," "base flood, or "special flood hazard area."

Legend

Parcels



Existing

Floodway



Floodplain



Parcels

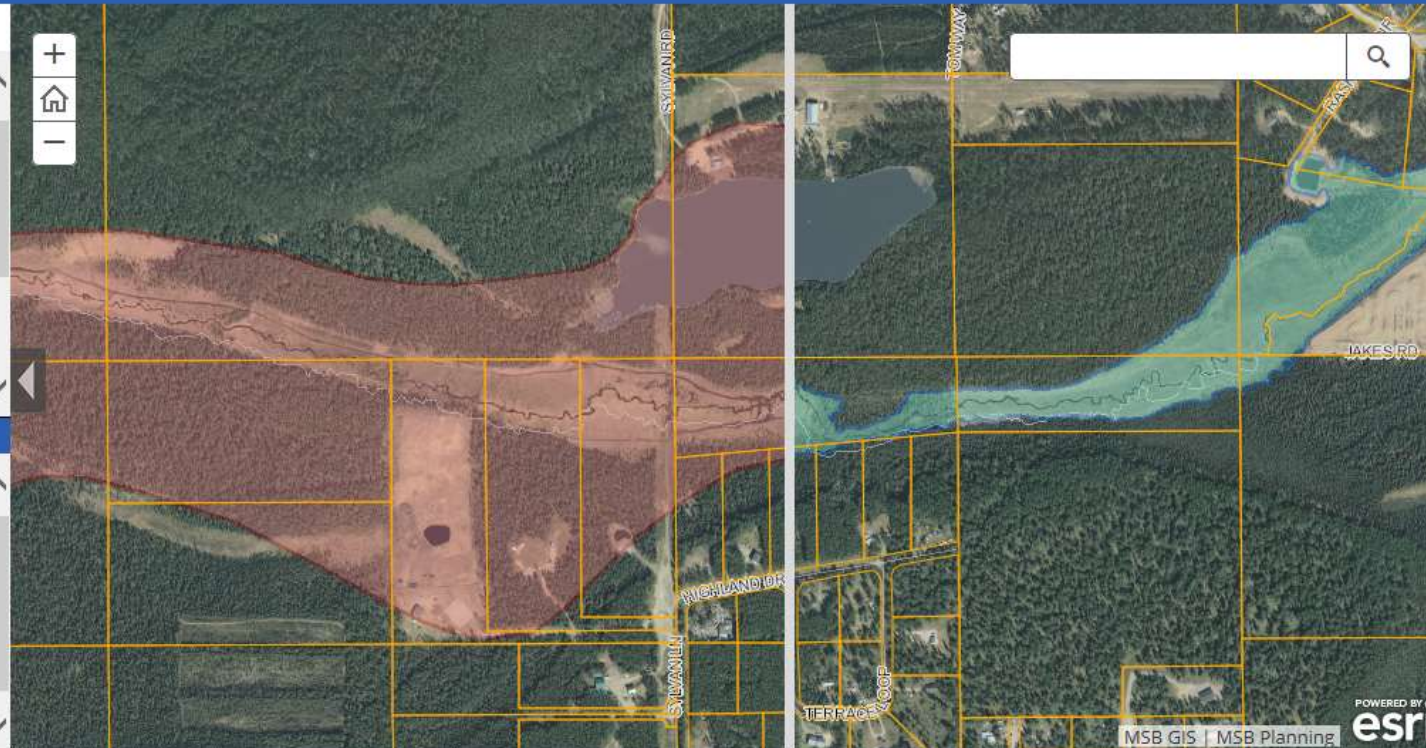


Preliminary

Floodway



Floodplain



MSB GIS | MSB Planning

POWERED BY
esri

Lucille Creek with Hillshade

MSB Flood Map Update Hillshade

Flood map comparison



MSB

1 2 3 4 5 6

Lucille Creek

The boundaries represent a flood event having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood," "base flood," or "special flood hazard area."

The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development.

Legend

Existing

Floodway



Floodplain

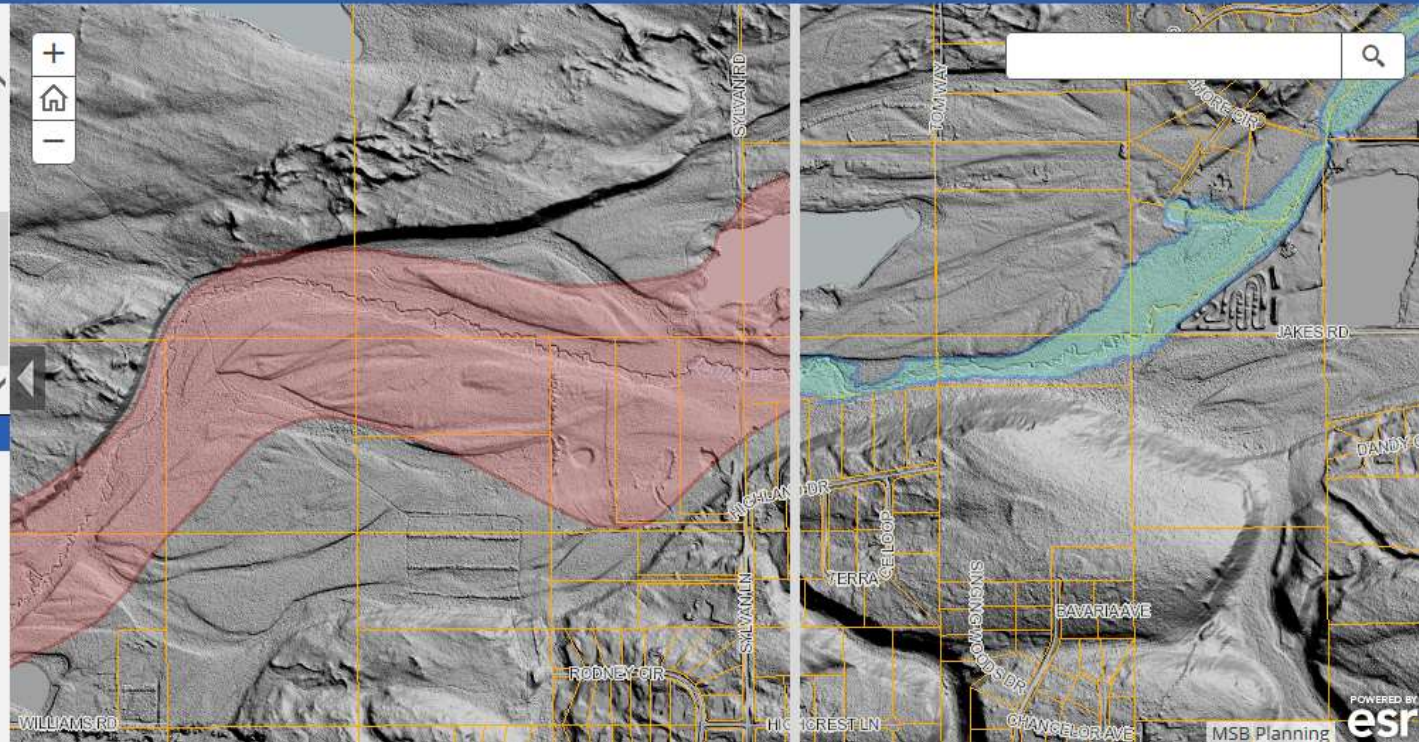


Preliminary

Floodway



Floodplain



MSB Planning

POWERED BY
esri

Little Susitna River

MSB Flood Map Update Hillshade

Flood map comparison



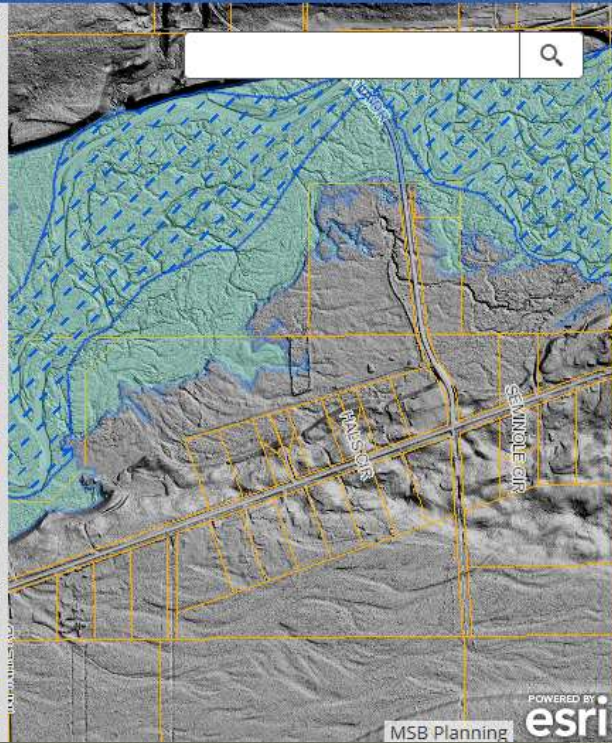
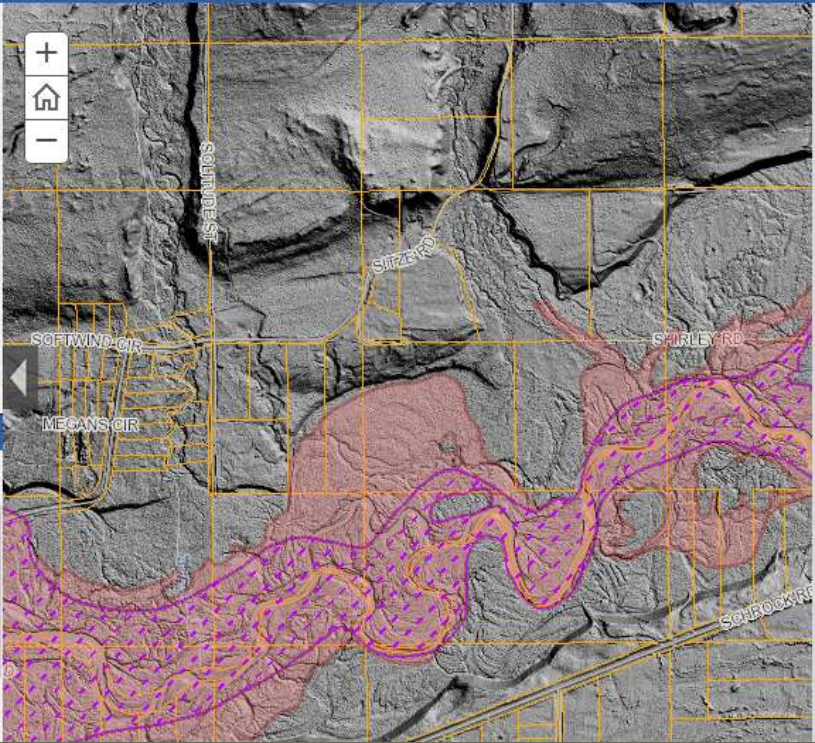
1 2 3 4 5 6

Little Susitna River

Many water bodies, including the Little Susitna, were derived from a detailed hydraulic analysis using input from ground surveys. Water bodies that have a detailed study will have an additional layer that is referred to as a "Regulatory Floodway." The floodway is the channel of a river or stream and the overbank areas that must remain open to carry the deeper, faster moving water during a flood. Regulatory floodways have higher permitting standards than the special flood hazard areas.

Legend

| Existing | Preliminary |
|------------|-------------|
| Floodway | Floodway |
| | |
| Floodplain | Floodplain |
| | |



Talkeetna

MSB Flood Map Update

Existing Flood Layers



MSB

1

2

3

4

5

6

Talkeetna

Talkeetna

A detailed study of Talkeetna was conducted in 2009. Flood boundaries for this area became effective March 17, 2011 and will not be changed as part of this recent study.

Legend

Existing

Floodway



Floodplain

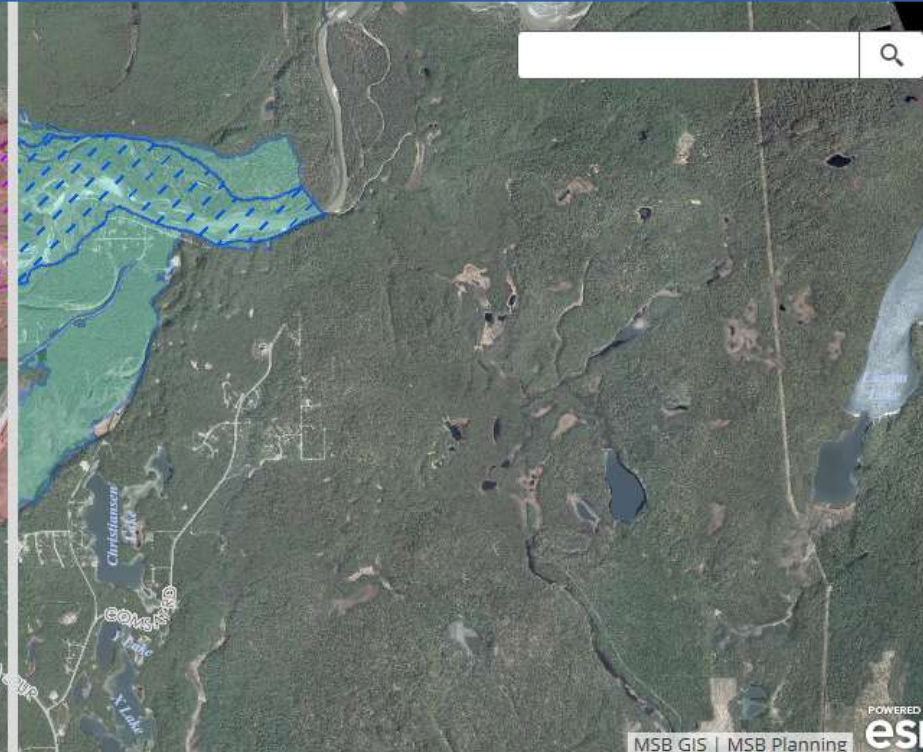
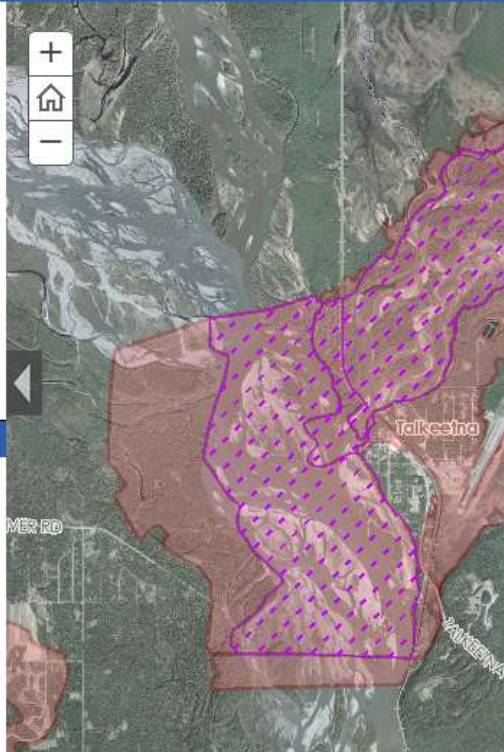


Preliminary

Floodway



Floodplain



MSB GIS | MSB Planning

POWERED
esri

Montana Creek and Kroto Creek

MSB Flood Map Update

Existing Flood Layers



MSB

1 2 3 4 5 6

Montana Creek & Kroto Creek

Parts of Montana and Kroto are mapped for the first time. Roughly 300 miles of new floodplain are being developed for this project, mostly in areas with sparse development. The flood maps and associated data will be a tool to ensure future development within these areas are built in a manner that minimizes loss of life and property.

Legend

Existing

Floodway



Floodplain

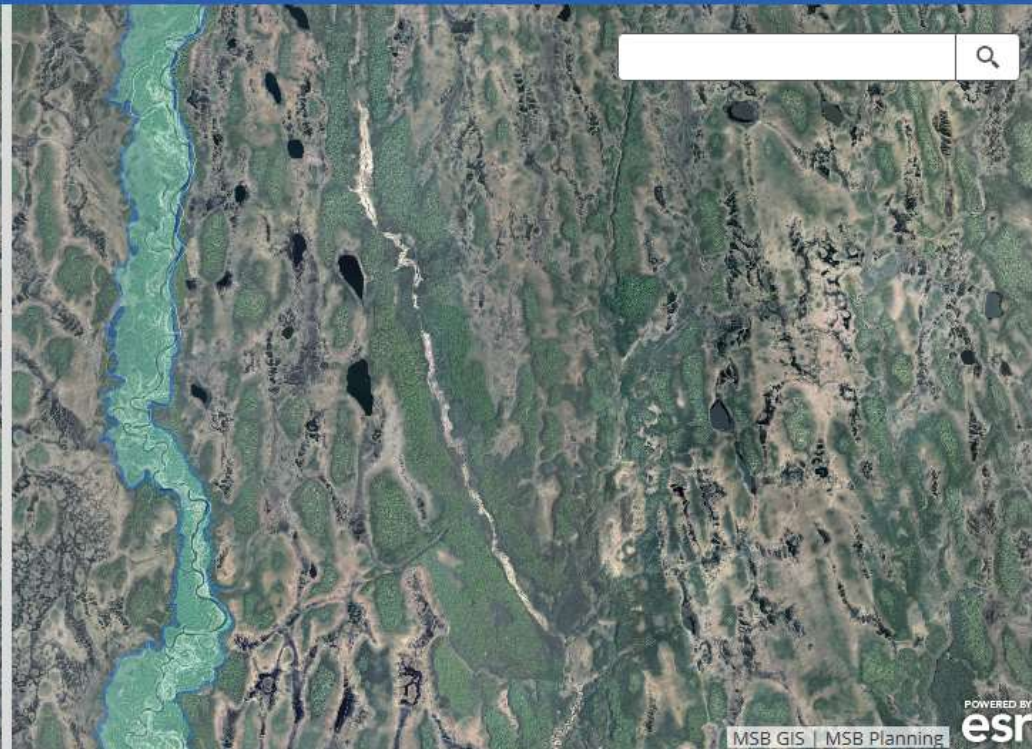


Preliminary

Floodway



Floodplain



MSB GIS | MSB Planning

POWERED BY
esri

Bodenburg Butte

MSB Flood Map Update Hillshade

Flood map comparison



1 2 3 4 5 6

Bodenburg Butte

Existing maps are based on an event in 1971 when a break-out flood from an unnamed lake on Granite Creek (approximately 30 miles northeast of the Butte) breached the embankment of the Old Glenn Highway, causing widespread flood damages to the area.

Conditions at the time which caused the event no longer exist. As a result, proposed flood boundaries along Bodenburg Creek are greatly reduced in comparison to the existing flood boundaries.

Legend

Existing

Floodway



Floodplain

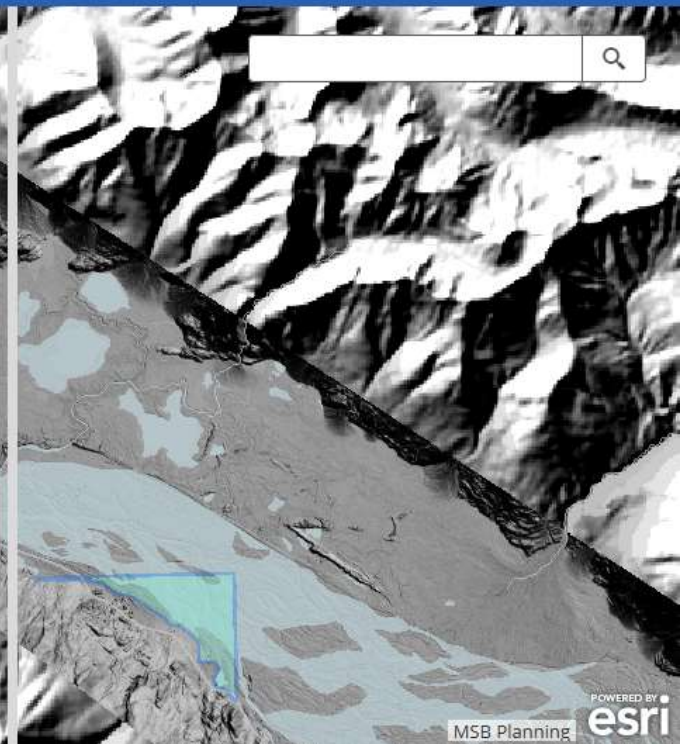
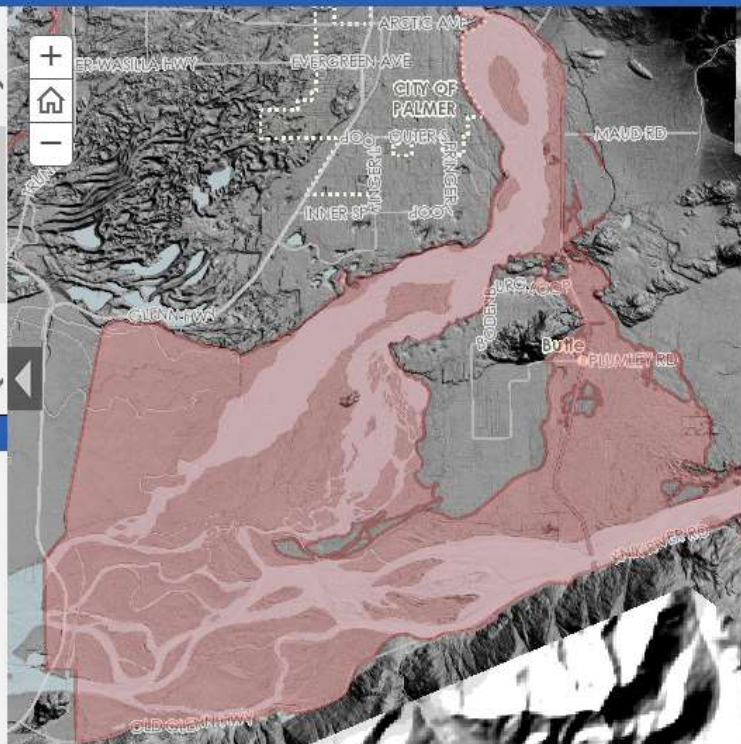


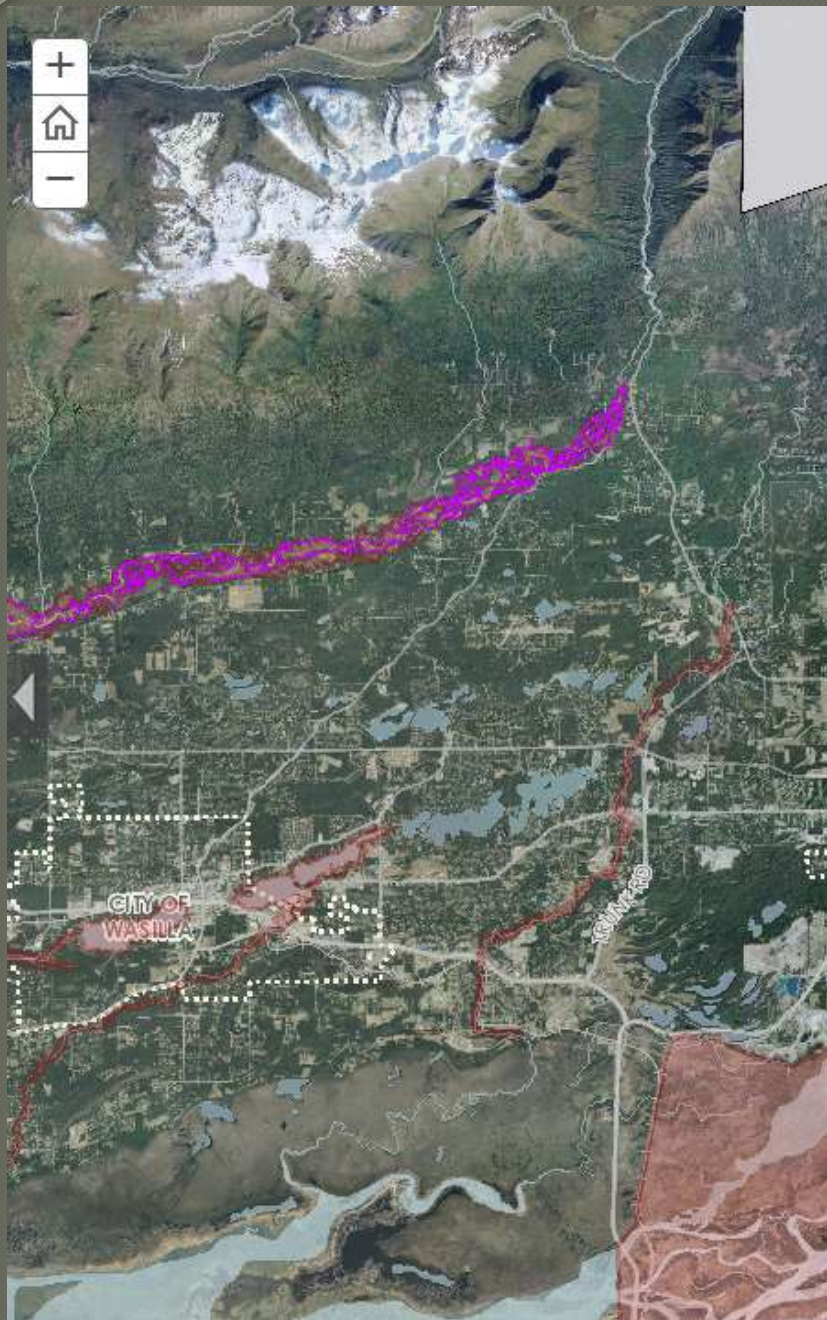
Preliminary

Floodway



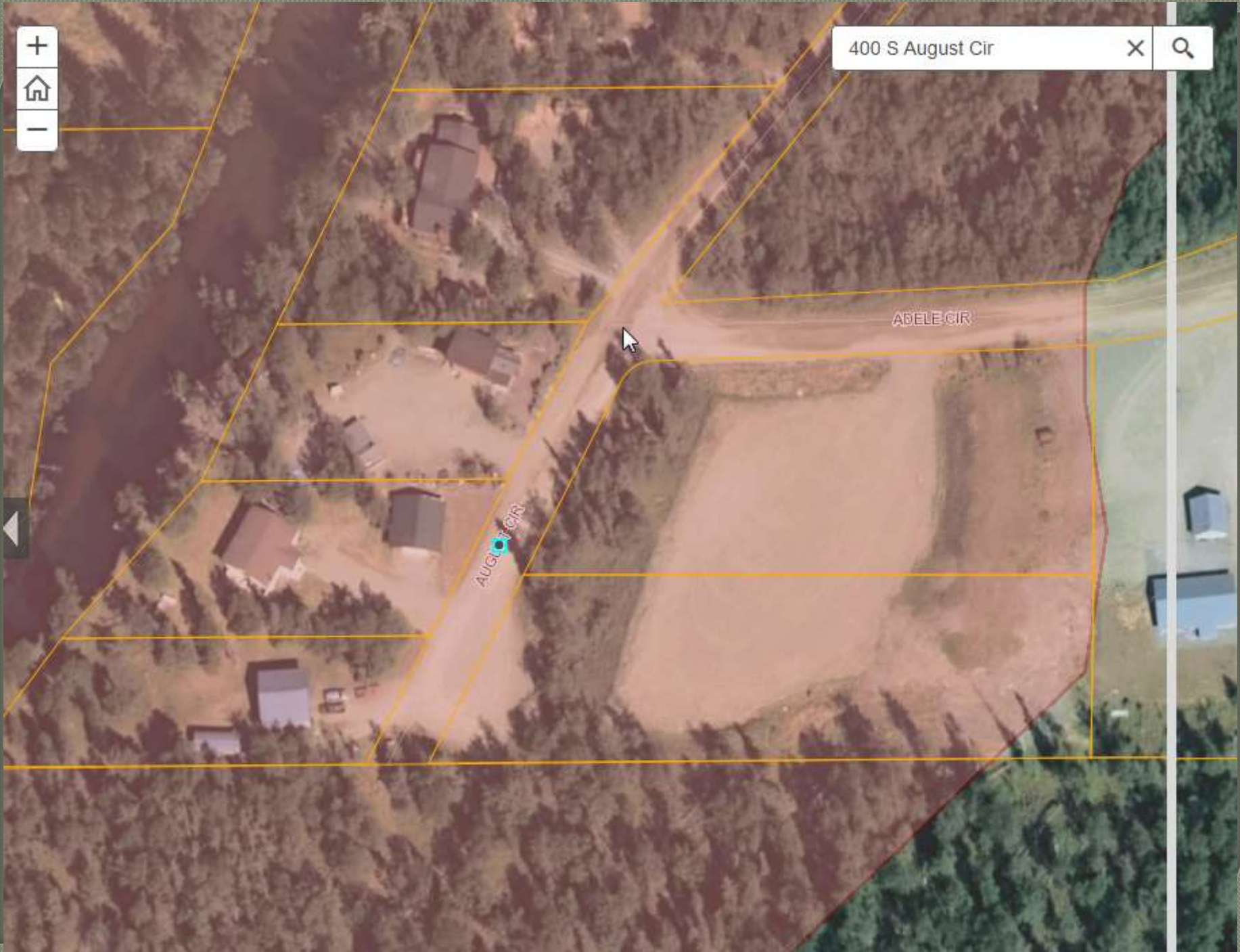
Floodplain







400 S August Cir X



ADELE CIR

AUGUST CIR



400 S August Cir



Who uses the story maps?

EVERYONE

- Permit Center
- Real Estate Agents
- Insurance Agents
- Financial Institutions
- Developers
- Contractors
- Surveyors
- Public / Residents

Questions?

Matanuska – Susitna Borough (Mat-Su)

**Taunnie Boothby, CFM
Planner II**

**350 E. Dahlia Ave
Palmer, Alaska 99645**

taunnie.boothby@matsugov.us

Phone: 907-861-8526

<https://www.matsugov.us/>