

MINUTES
CHURCHILL COUNTY FEMA FLOODPLAIN
PUBLIC INFORMATION MEETING
Tuesday, November 23, 2021

1. Call to Order

Director Chris Spross called the special meeting of Churchill County Public Works, Planning and Zoning Department and the Federal Emergency Management Agency to order at 6:31 p.m. in the Commission Chambers, County Administrative Complex, 155 N Taylor Street, Fallon, Nevada. Director Spross noted that this meeting is not associated with any of the commissions; however, it is subject to open meeting law.

PUBLIC PRESENT: Rachael Dahl, Joe Dahl, Preston Denney, Zoom Participant - Michael

STAFF PRESENT: Christian Spross, Director, Public Works, Planning & Zoning; Ben Shawcroft, Deputy District Attorney-Civil; Dean Patterson, Senior Planner; and Alexa Robinson, Office Specialist.

2. Public Comment

Planning Director Chris Spross asked for public comments and there were none.

3. Verification of the Posting of the Agenda

Director Chris Spross verified with Alexa Robinson that the agenda had been posted in accordance with NRS 241 and the Churchill County Code.

4. Presentation Item:

A. Presentation re: Federal Emergency Management Agency (FEMA) Floodplain Study

Director Spross noted that this study has been ongoing for about eighteen months. We are here with Ed James, Carson Water Subconservancy District (CWSD), and Mitch Blum from HDR, who has prepared this presentation.

Ed James stated that several years ago CWSD became a cooperative, technical partner with FEMA, which allowed them to get federal funds to do studies of the watershed. This is their tenth round that Mitch Blum has been working on, and they have just received their twelfth round. This allows them to receive FEMA funding to do flood hazard mitigation studies. It can only be used for studies. They have completed these from Alpine County down to Churchill County. Typically, they meet with the counties, they discuss any concerns that these counties have, and then CWSD tries to get funding for a study to address these concerns. This one is looking at remapping the floodplains in Churchill County. They hired HDR to do the study. This has not been finalized, but they are far enough along to give some preliminary maps. They will finalize the maps and send these to FEMA. Once they have been approved, we will come back to the Commissioners and give another formal presentation. Then there is a ninety (90) day comment period. This is probably one of the most successful and more positive remapping that they have ever been involved with.

A presentation was given by Mitch Blum, HDR Engineering, who conducting the flood study. They were not involved in the hydrology. These are preliminary maps, so the next step in the process is that this information goes to FEMA. They will review the modeling, maps, data products, and then they will provide comment and feedback. Their response may require some

changes to these maps. This study only covered portions related to the Carson River from Lahontan Dam through Tarzyn Road, and it did not include any portion of the city or any tributaries. They are also using much newer topography. Mr. Blum talked about diversions, mitigation measures, changes in hydrology and topography, and how these affect the floodplain. He then went over the proposed changes to these maps where they have applied the new studies and information and come up with a more concise map for FEMA. There will probably be some minor changes based upon comments received from FEMA. See attached PowerPoint.

Director Spross said that the homes in the larger blue areas on the current maps are required to have flood insurance, if the homes are financed through a bank loan. He then questioned if this gets reviewed and approved by FEMA, and if some of those houses are no longer in the floodplain, whether they would not be subject to the flood insurance requirement. Mitch Blum confirmed that if they were no longer within the regulatory floodplain, they would not be subject to that requirement. Director Spross verified that some of the pockets of floodplain are a result of the way the topography is working with the water level, and it can be assumed in some of those cases we might be able to eliminate those because we essentially have an earthen berm or something like that blocking that. Mr. Blum agreed. Director Spross continued that would be a decision by the county whether we want to include or exclude those in the studies. Mr. Blum further clarified that sometimes FEMA will push back on that element of the study. Sometimes there are areas that are roadways, rail or agricultural berms that hold water behind them, and this would be a very good example, and if that feature didn't exist the water could perpetuate into that area. FEMA, post Katrina with all of the levies that broke and the flooding that happened, revised their requirements, and now they require you to do what they call a natural valley analysis. You are required to map these things as if these berms were not in existence. It has to be FEMA certified in order for FEMA to accept it holding water. There was more discussion related to construction of berms and so forth.

Ben Shawcroft, Deputy District Attorney-Civil, asked for a brief explanation of what we could expect next for the public to understand how long it is actually going to take to finalize this. Mitch Blum informed that they have to go through our reporting process. They have some more technical work to complete to summarize and format the data to go to FEMA, and this will take a few months. Once this is received by FEMA there is a set period of time, although with the CPT physical map revisions, he doesn't think that it is as strict with the FEMA review. That's where it could take more time - some have taken over a year. Then FEMA submits their comments, and there is some dialogue processes that take place between HDR and FEMA. Once the changes are finalized, there is a ninety (90) day comment period. We will have another meeting like this for the public, and people can bring up features in specific areas that they didn't capture. After all of the comments are made, it is resubmitted to FEMA for a final review. A moderate guess is that it could take one to two years. FEMA has been getting better with these reviews and HDR has been working more closely with FEMA's team and scheduling throughout this whole process. Ed James added that they have been working with the FEMA office because they have to schedule funds for their reviewers to do this. Hopefully, they have the money set aside that they can actually do the study. As long as there are no mishaps, they are hoping to expedite that, but it could still take a year.

Rachel Dahl inquired if there would be a notification process for all of the property owners that this change would affect. Mitch Blum noted that they would cross reference all of the parcels that go in or come out, so they use a mapping software where the parcels are overlaid. They develop a list of addresses that are impacted by the study, and then letters go out to

everyone of those people that let them know that their property has been affected by a change in the floodplains. They would be able to come to the county and look at the maps to see what is going on. Rachel Dahl would like there to be sufficient time to talk to people and let them know that this would most likely be in their favor to participate in the public process. Mitch Blum believes it would be at least a year before this would come before the public again. They will provide the data and form letter to the county, and the county would most likely be the one to send the letters out to those affected by the change. There will also be a notice that goes in the newspaper, which is required for the public workshop. Rachel Dahl noted that they could also do a story to help get the word out. There was discussion on how the current process is working much better than previous studies and mapping completed by FEMA due to using engineers that were not even from this area nor had been here, using old data previously collected, the problems that occurred, and how the process has gotten better with more input from those affected by these maps.

Preston Denney inquired if the City of Fallon was included in this study. Mitch Blum noted that the city was not included, so there will be no changes to the floodplain in Fallon because HDR was not contracted by the City of Fallon for any studies. There was some discussion regarding the New River Drain from the original study conducted. Mr. Blum did note that through the process of the new study and determining flow rates and such, there is no way that the 100 year flood would even reach the drain. He thinks that an argument could be made that the drain would no longer be considered in the floodplain; however, they will not be addressing this as the City of Fallon did not choose to participate in this study. FEMA may tie them together or there may just be a gap between what was there previously and what the new study shows. It was pointed out that the city residents can only complain to the city officials that they were not included in this study.

Director Spross also noted that this study did not include any other diversions or canals where water could be diverted to avoid flooding, and Mitch Blum confirmed this to be accurate. Director Spross stated that there is an additional benefit in the county with other ways of diverting water to avoid flooding. He said that Truckee Carson Irrigation District (TCID) controls and maintains the points of diversion and they have been involved in this process. There are other procedures that must be followed to allow for these to be used for flood mitigation. The county has been actively working with TCID to ensure those procedures are put into place.

5. Public Comment

Director Chris Spross asked for any other public comments, and there were none.

6. Adjournment

Director Chris Spross thanked everyone for coming to participate. There were no further comments or questions, so he adjourned the meeting at 7:31 p.m.

Respectfully Submitted,



Alexa Robinson
Office Specialist



CHURCHILL COUNTY PMR



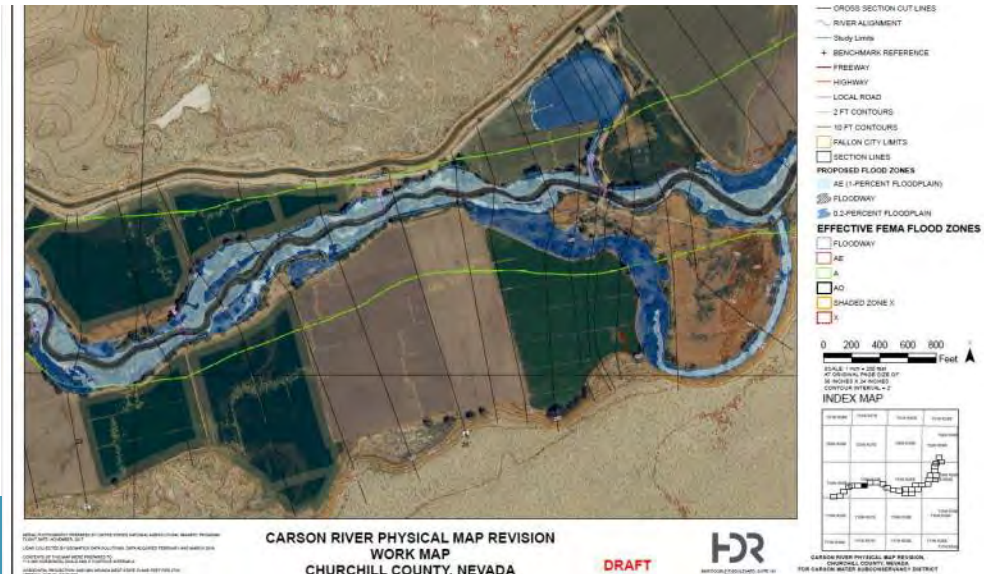
OUTLINE

- Project Overview
- Current FEMA Maps
- Hydrology
- Hydraulic Model
- Proposed Mapping

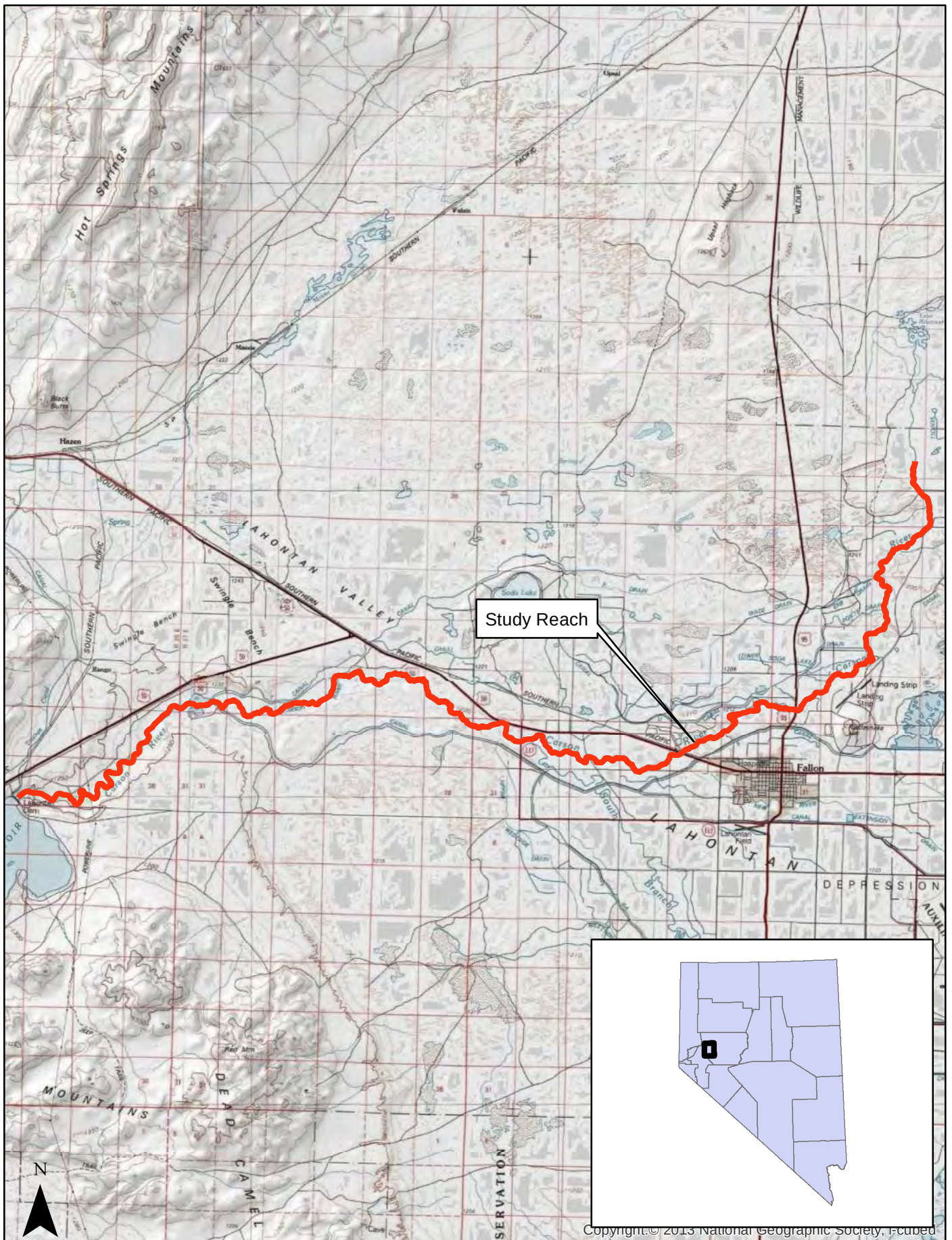


PROJECT OVERVIEW

- Carson River
 - Lahontan Dam to Tarzyn Rd
- Current Mapping
 - Based on 1984 study
 - Based on 3,600 cfs and 3,100 cfs
- Carson Water Subconservancy
 - Cooperating Technical Partner (CTP)
 - FEMA grant funding MAS 10
 - 30-mile remapping effort
 - New hydrology
 - New topo 2019 US BoR



STUDY AREA MAP



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Location Map
FIGURE 1



CURRENT MAPPING



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



LEGEND

 Current Floodway

SFHA

Zone

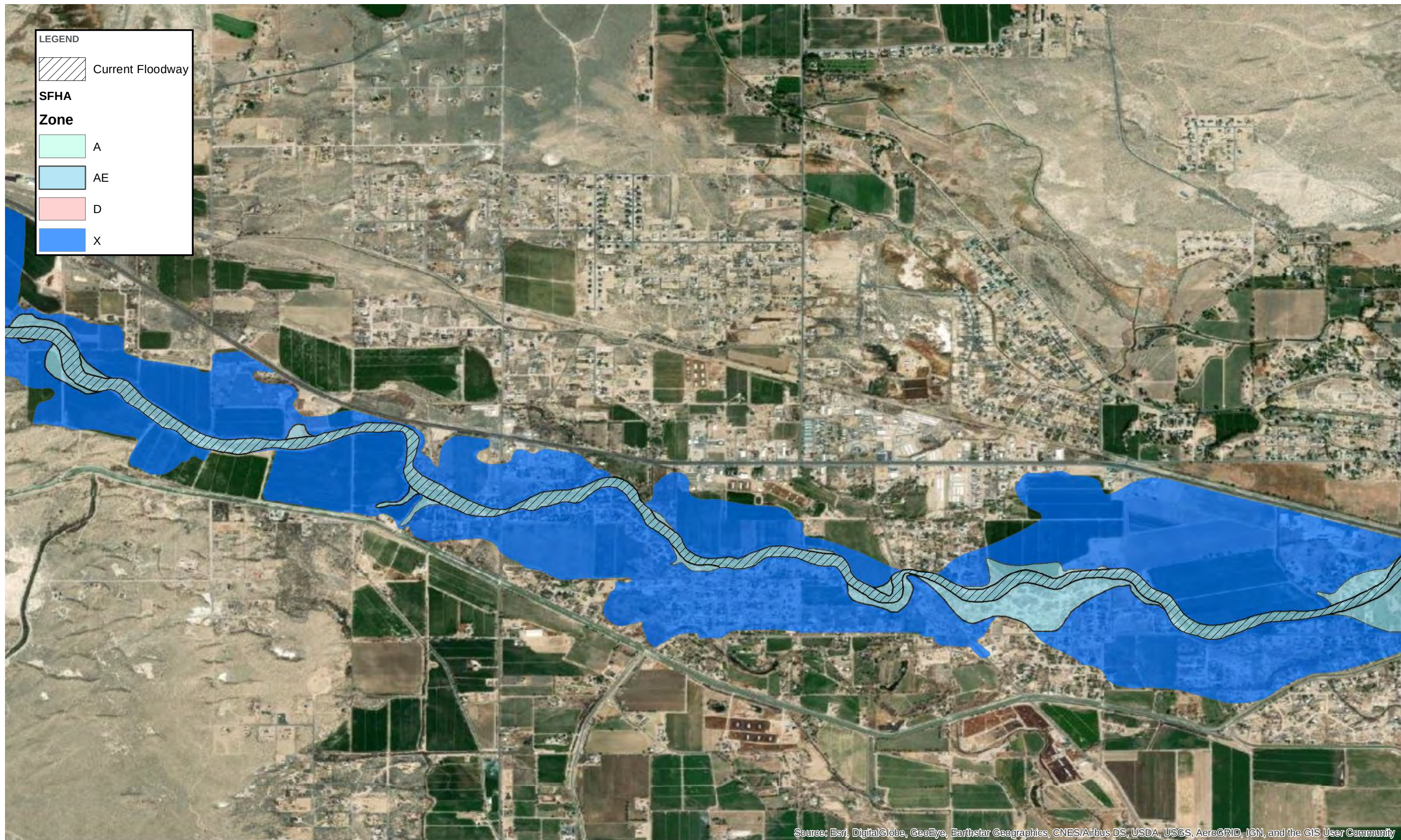
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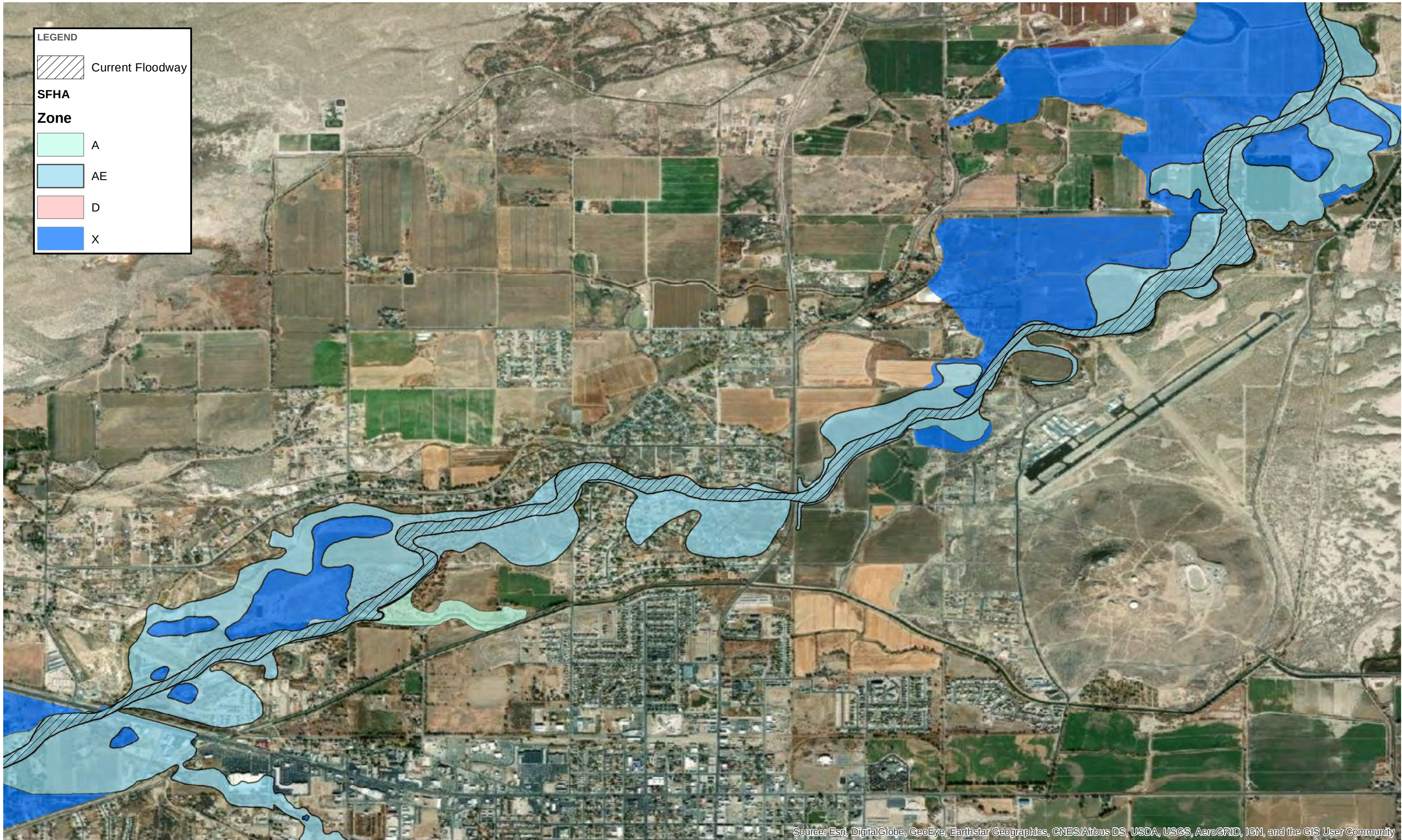
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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Tarzyn Rd.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

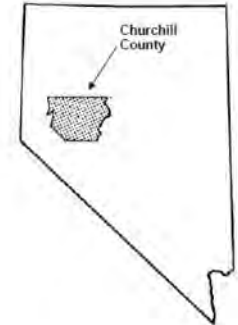
HYDROLOGY

- Original 1984 Study
 - 3,600 cfs 7.5 Miles from Lahontan
 - 66 yrs of data
 - Statistical analysis US of the dam at Ft Churchill
 - Peak Flow US routed through Lahontan
 - Normal operating criteria (1977)
- 1993 Revision
 - Assumed 4,300 cfs at Lahontan
 - Subtracted 1,200 cfs at T and V
 - 3,100 cfs at US 50



CHURCHILL COUNTY, NEVADA AND INCORPORATED AREAS

Community Name	Community Number
CHURCHILL COUNTY	320036
UNINCORPORATED AREAS	320002
FALLON, CITY OF	



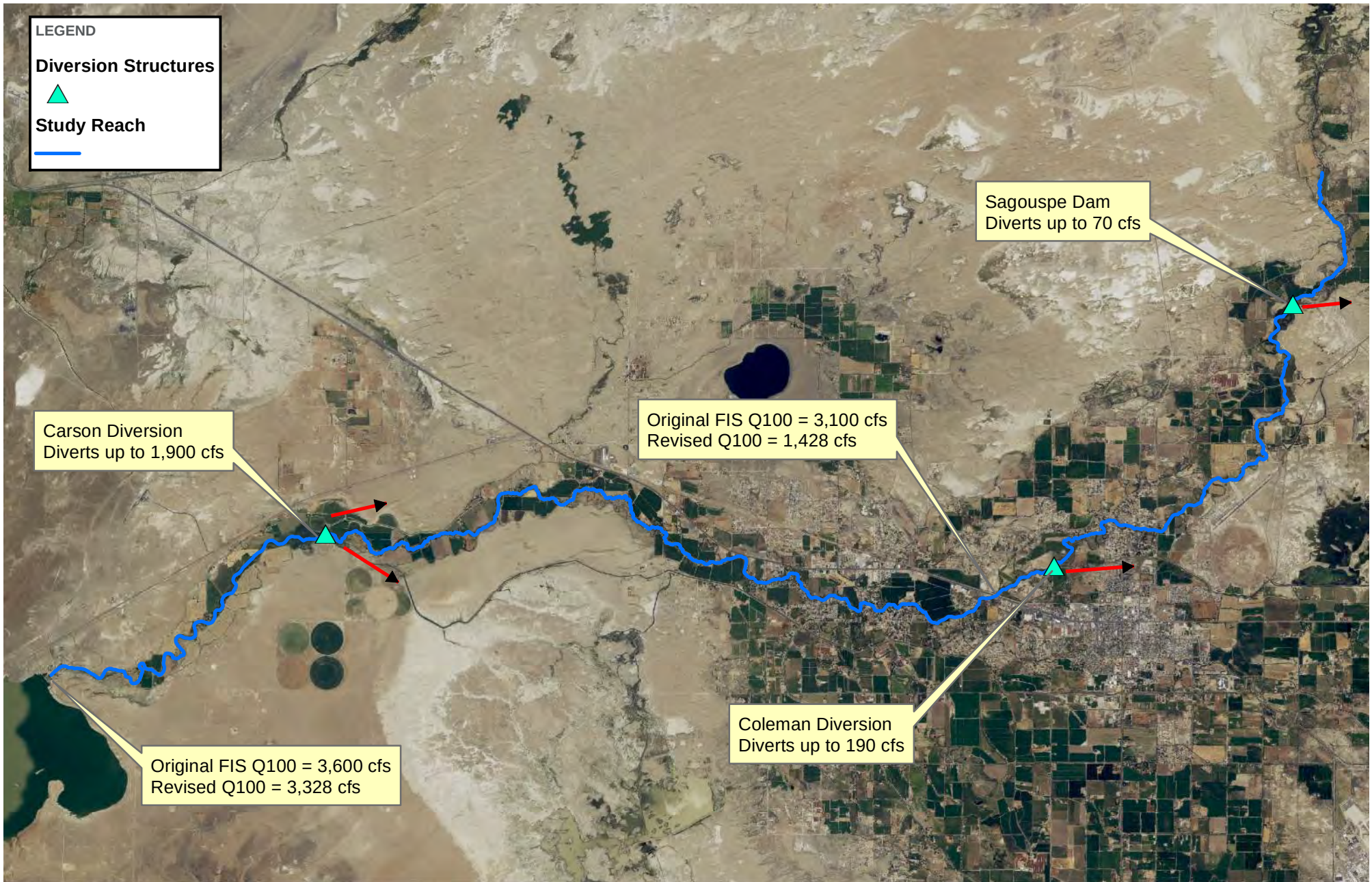
September 26, 2008



Federal Emergency Management Agency
FLOOD INSURANCE STUDY NUMBER
32001CV000A

HYDROLOGY

- Revised Hydrology
 - 109 yr record
 - Flows routed through Lahontan with current operations
 - Peak flows for each year extracted
 - Statistical LP III analysis on peaks
 - 100-yr = 3,328 cfs at Lahontan
- Diversions as in 2017
 - Carson Diversion = 1,900 cfs
 - Coleman Diversion = 190 cfs
 - Sagouspe Dam = 70 cfs

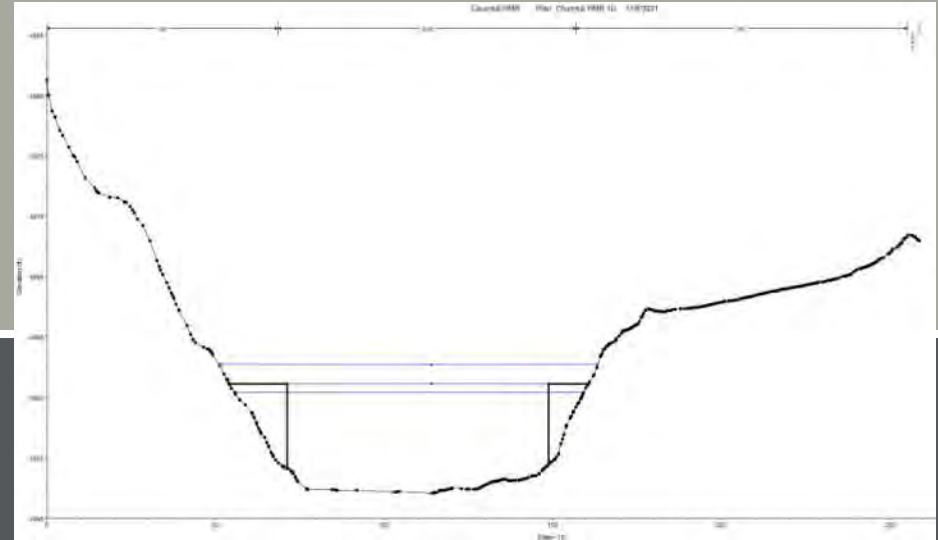


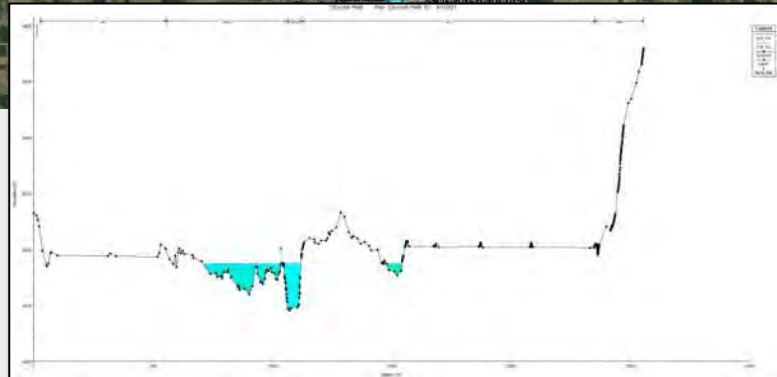
Probability (%)	Carson River Below Lahontan Dam (CFS)	Carson River Below Carson Diversion (CFS)	Carson River Below Coleman Diversion (CFS)	Carson River Below Sagouspe Dam (CFS)
0.2	5,276	3,376	3,186	3,116
1	3,328	1,428	1,238	1,168

REVISED HYDROLOGY

HYDRAULIC MODEL

- HEC-RAS Model
 - Steady State
 - 1D model
 - Cross sections
 - Geometry based on the terrain
 - New hydrology
 - FEMA floodway analysis





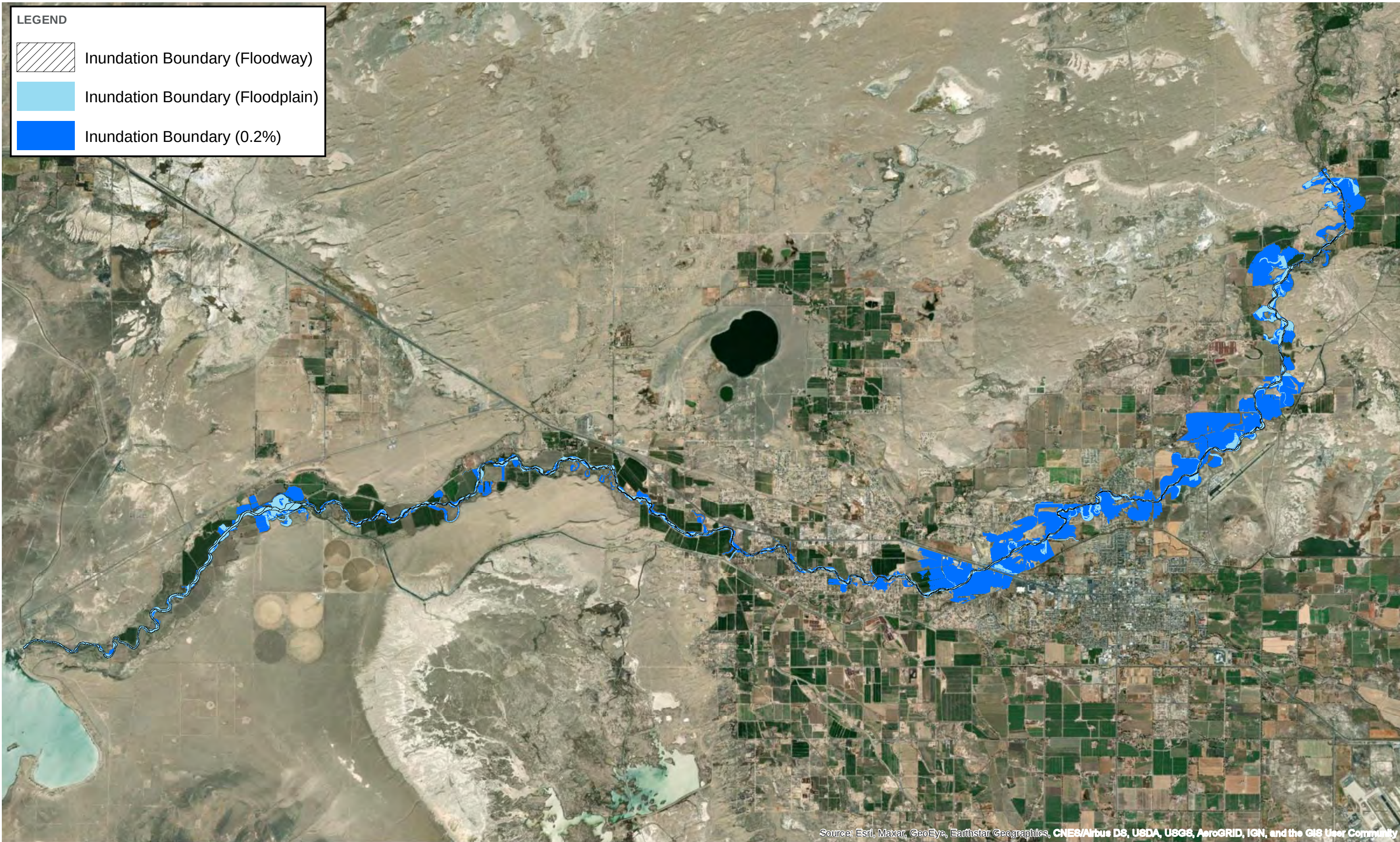
HEC-RAS MODEL

PROPOSED MAPPING

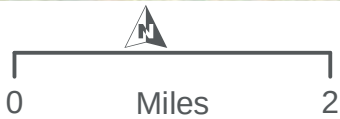
- 1%-annual-chance (100yr)
- 0.2%-annual-chance
- Floodway
- Reduced flow rates due to diversion



PROPOSED MAPPING



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



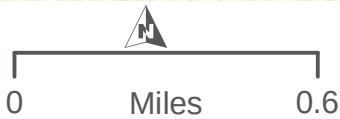
CHURCHILL COUNTY PMR
RAW PROPOSED SPECIAL FLOOD HAZARD MAP

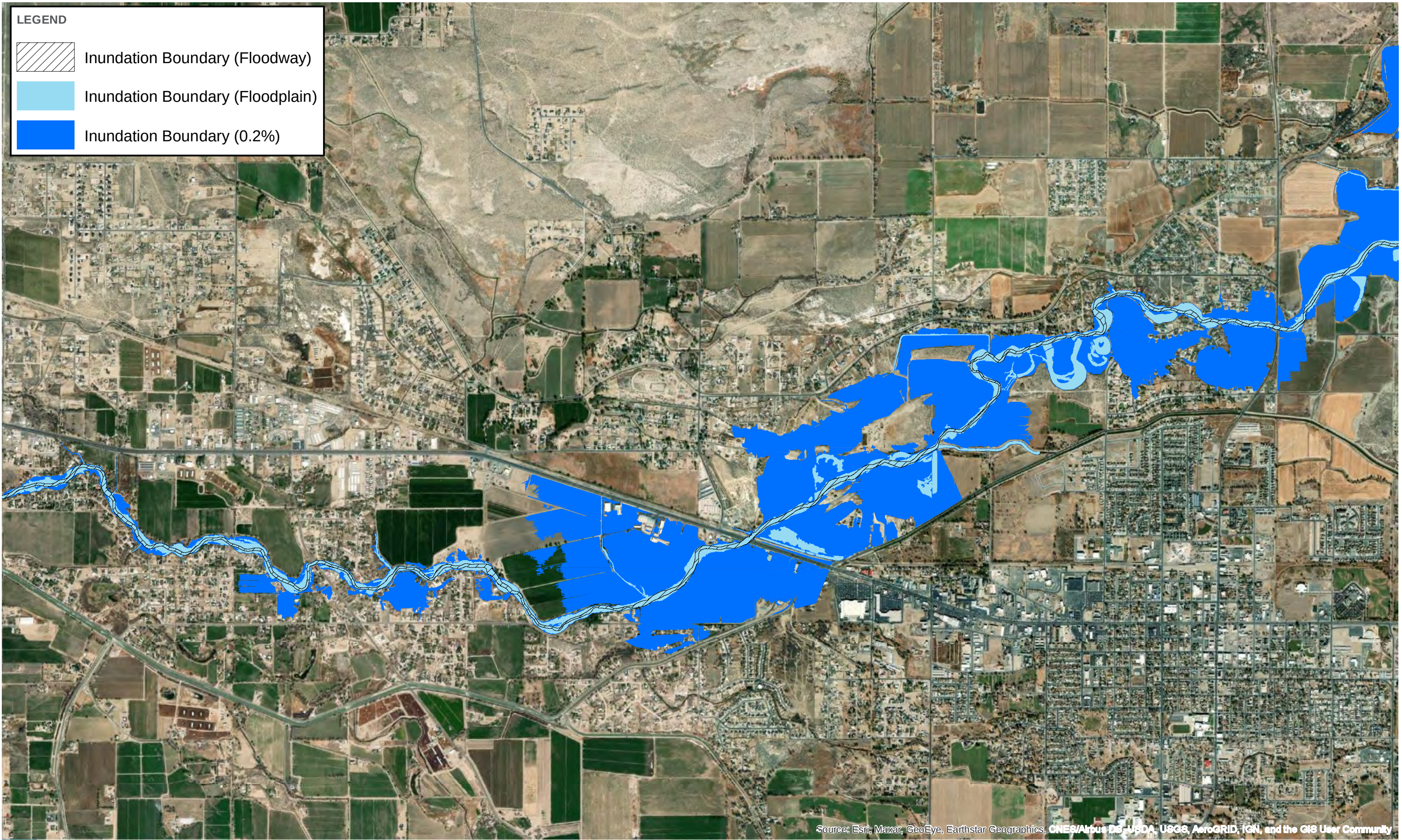
FIGURE 4-3





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





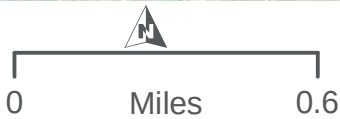
LEGEND

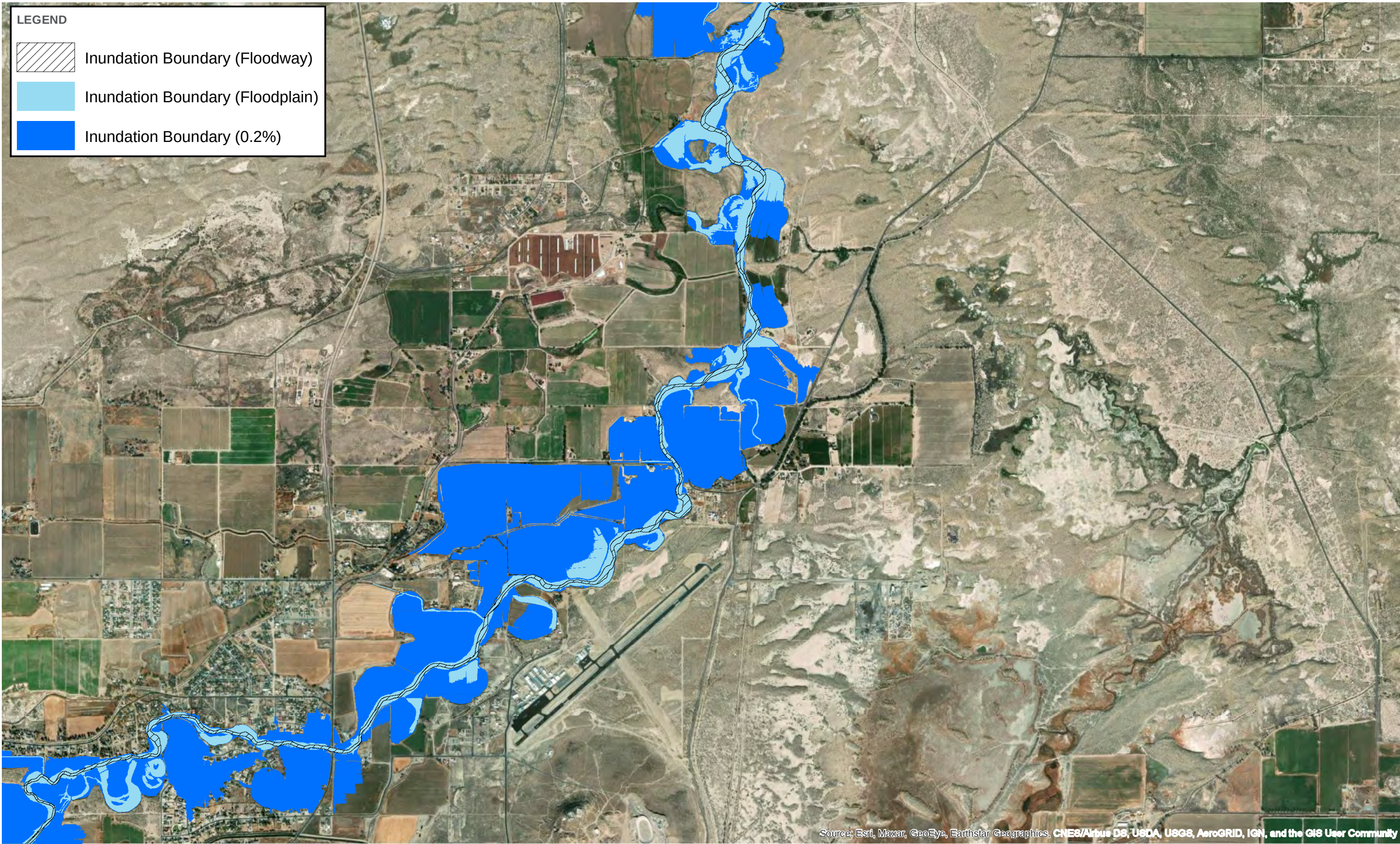
 Inundation Boundary (Floodway)

 Inundation Boundary (Floodplain)

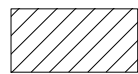
 Inundation Boundary (0.2%)

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





LEGEND



Inundation Boundary (Floodway)

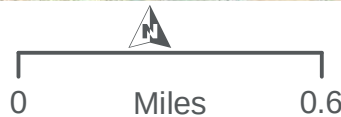


Inundation Boundary (Floodplain)



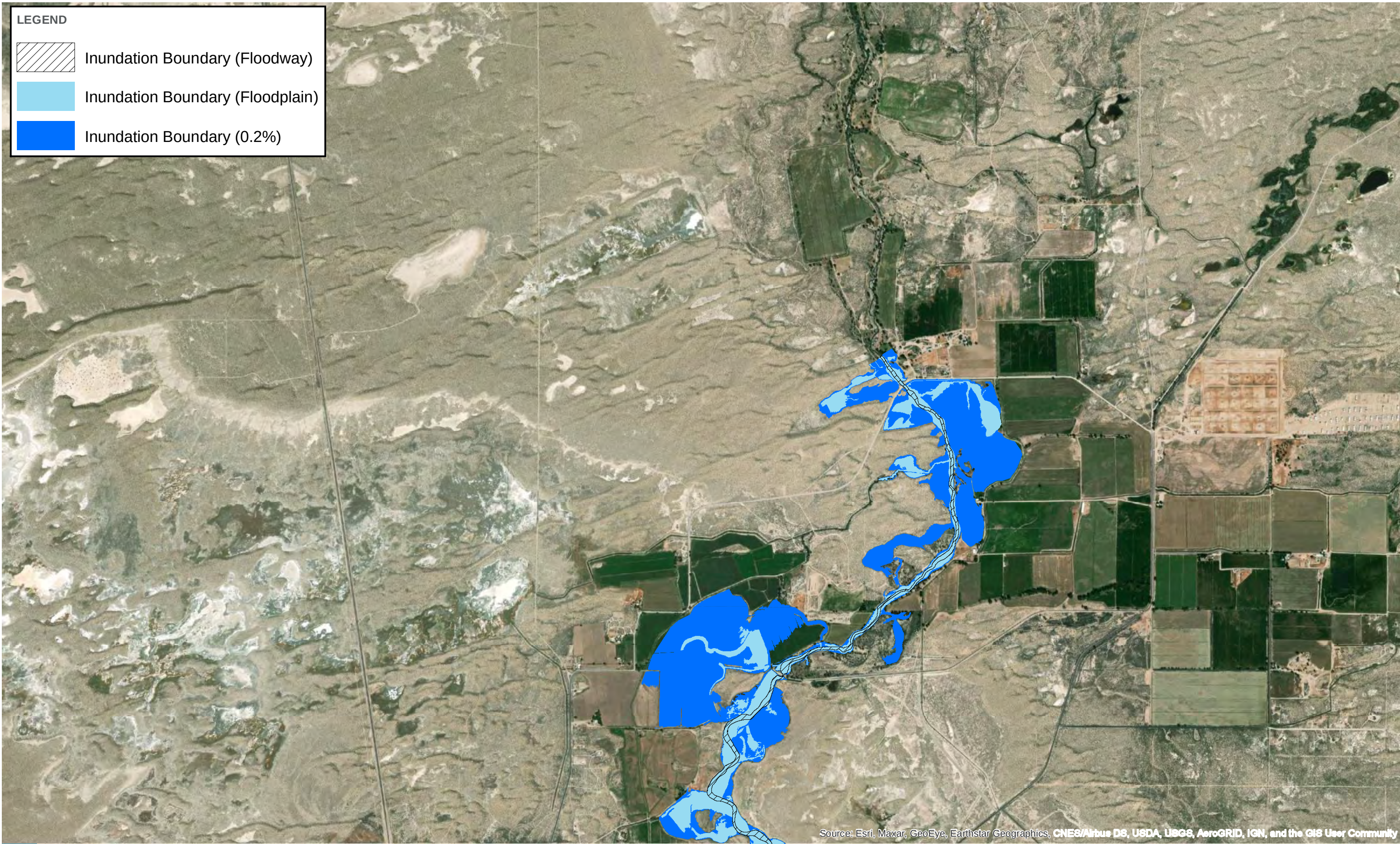
Inundation Boundary (0.2%)

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



CHURCHILL COUNTY PMR
RAW PROPOSED SPECIAL FLOOD HAZARD MAP

FIGURE 4-3



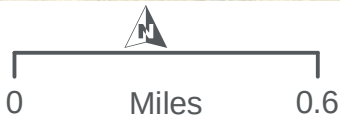
LEGEND

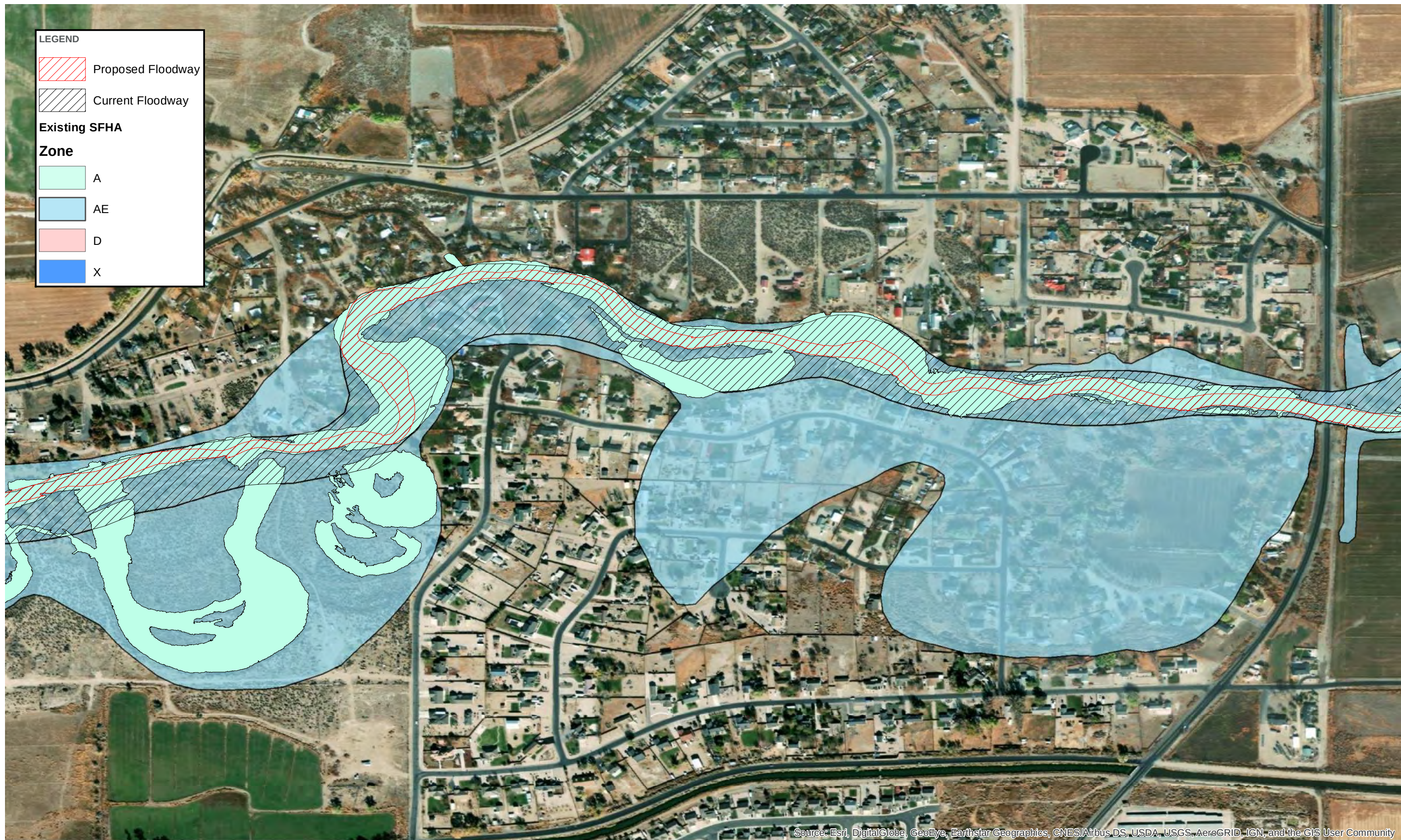
 Inundation Boundary (Floodway)

 Inundation Boundary (Floodplain)

 Inundation Boundary (0.2%)

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community





Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community