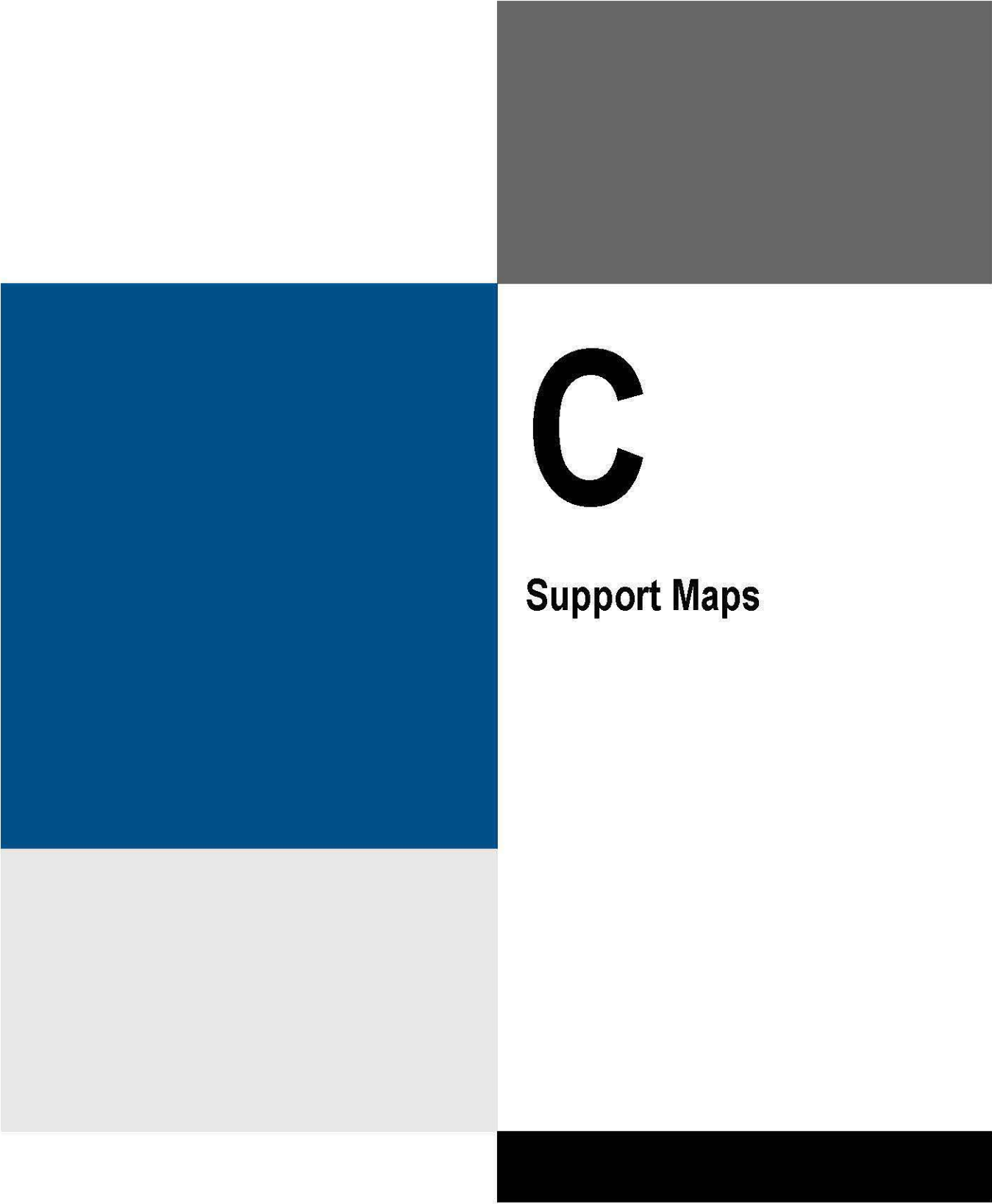




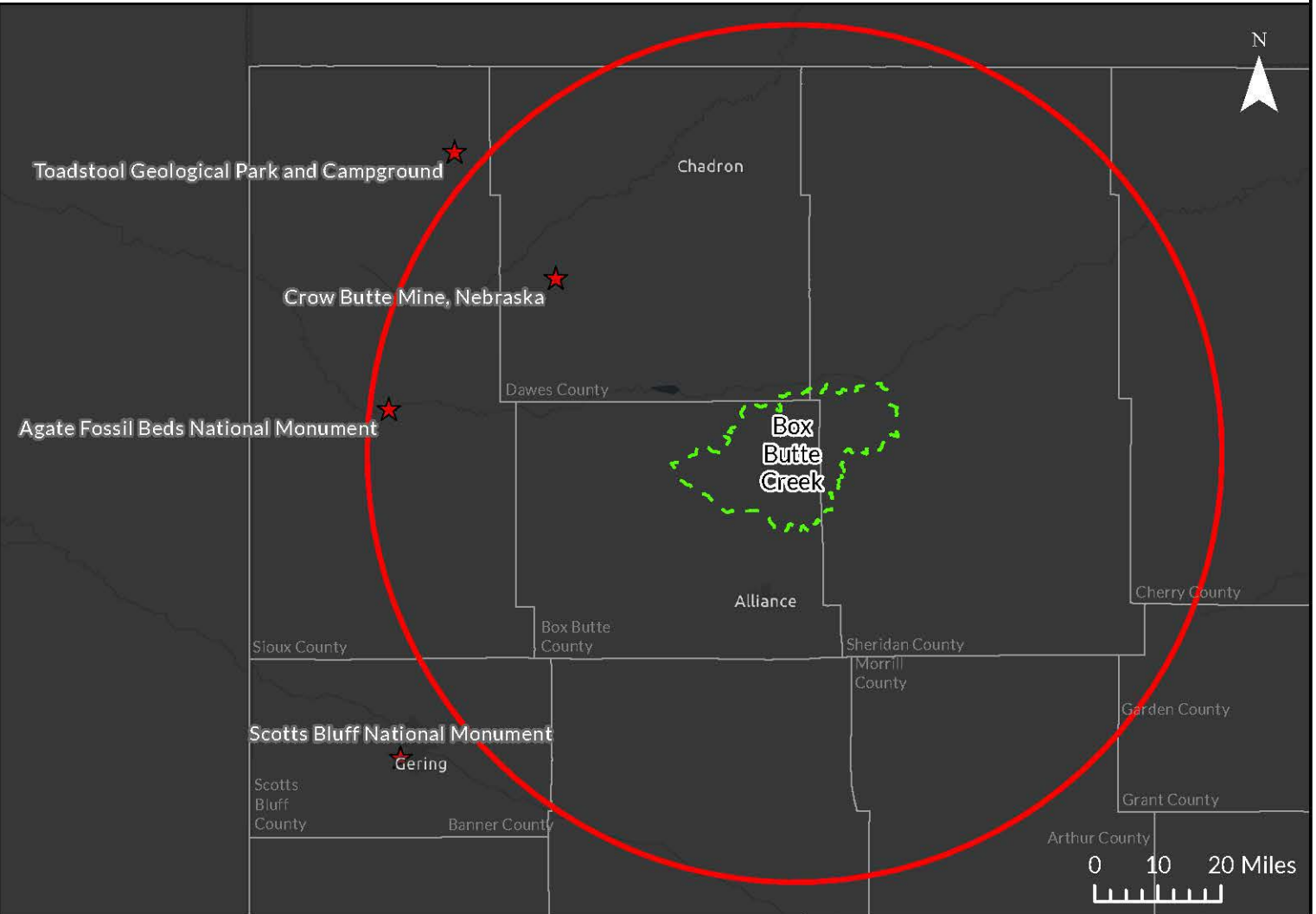
C

Support Maps

Significant Scientific Resources within Nebraska

No Significant Scientific Resources have been identified at present within the Box Butte Creek watershed or the proposed project areas. Within 50 miles of the watershed exists one preexisting protected National Monument with significant fossil sites and geologic outcrops. Additionally, a uranium mine exists to the north of the project area within Dawes County. Outside of the search radius exists another National Monument site as well as a protected state park that contains significant geologic outcrops and features. Due diligence and care will be taken during further project stages to ensure that proper evaluation of resources is maintained.

- ★ Significant Scientific Resource Sites
- Nebraska Counties
- ◻ 50 Mile Search Radius
- ▤ Box Butte Creek Watershed



Significant Scientific Resources are recognized as valuable and are protected by various laws and regulations held within the United States as well as NRCS policy (Antiquities Act 54,U.S.C. § 320301-320303; National Environmental Policy Act (NEPA), 42 U.S.C. § 4321; Paleontological Resources Act, 16 U.S.C. § 470aaa 111-11; NRCS GM-420-40, GM-190-410, NEH-190-601). As defined by these laws and NRCS, scientific resources can be categorized by their geological, paleontological, or other intrinsic scientific values. Significant Scientific Resources within Nebraska include those of protected fossil sites as well as significant geological features and landforms.

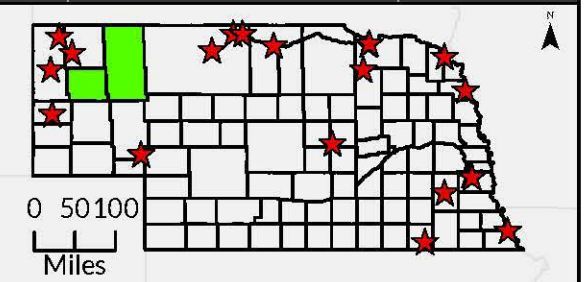
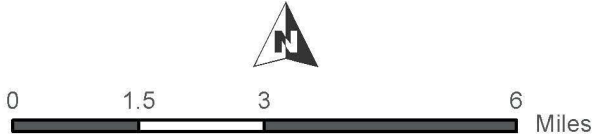


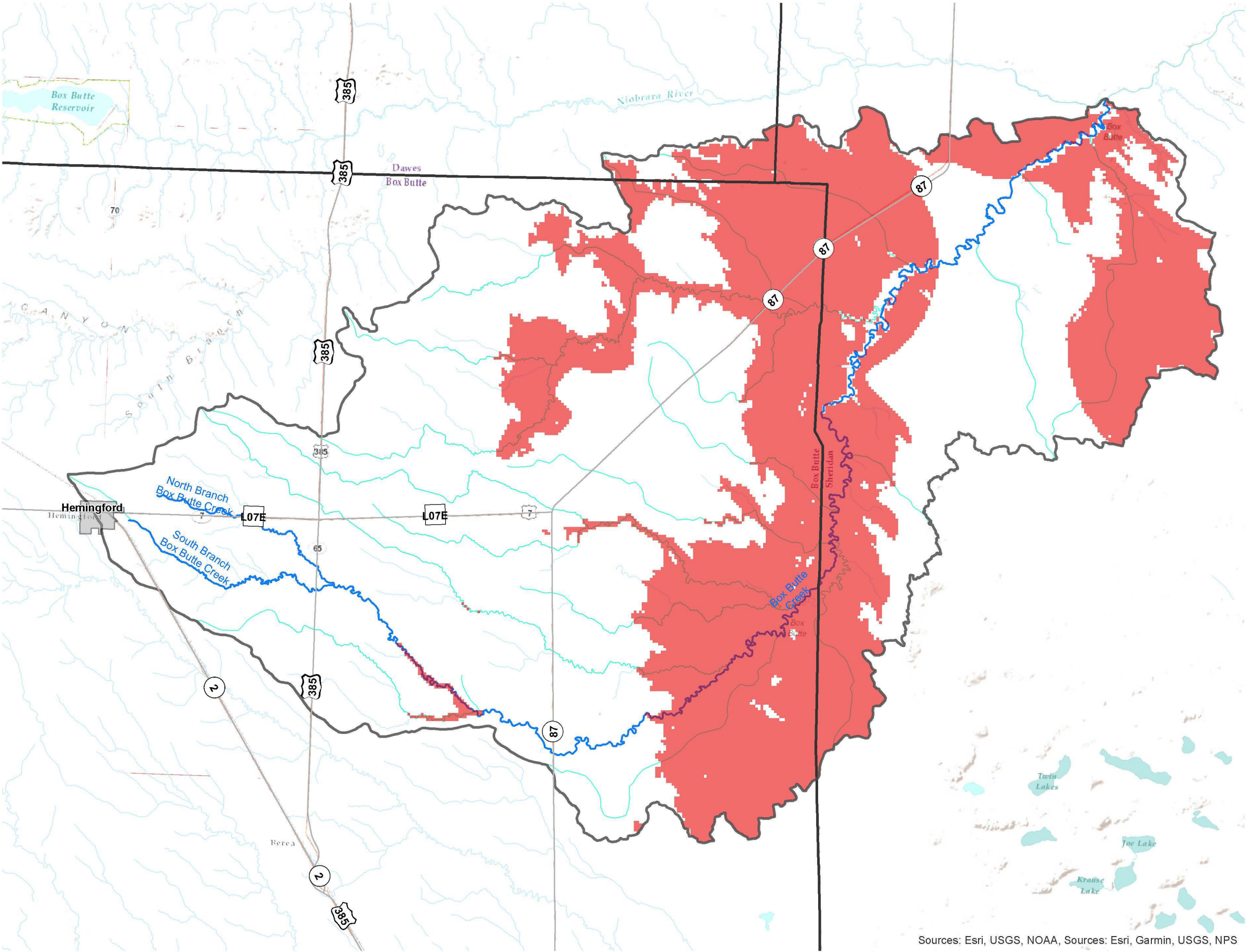
Figure 2-1

LEGEND

- Passive recharge areas
- Box Butte Creek
- Tributary stream
- Small tributary stream
- City
- Box Butte Creek watershed boundary



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

PHASE I SCREENING - POTENTIAL FOR PASSIVE RECHARGE
BOX BUTTE CREEK WATERSHED PLAN & EA

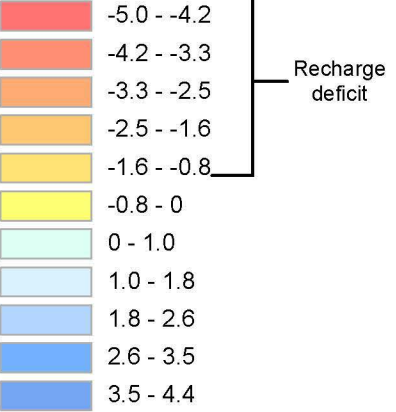
FIGURE 4-2

LEGEND

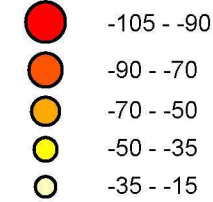
- Areas of recharge need
- Outside of Recharge Need

Net groundwater recharge rate
(2007-2015)

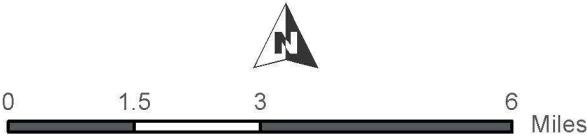
in/yr, negative value equals
pumping greater than recharge



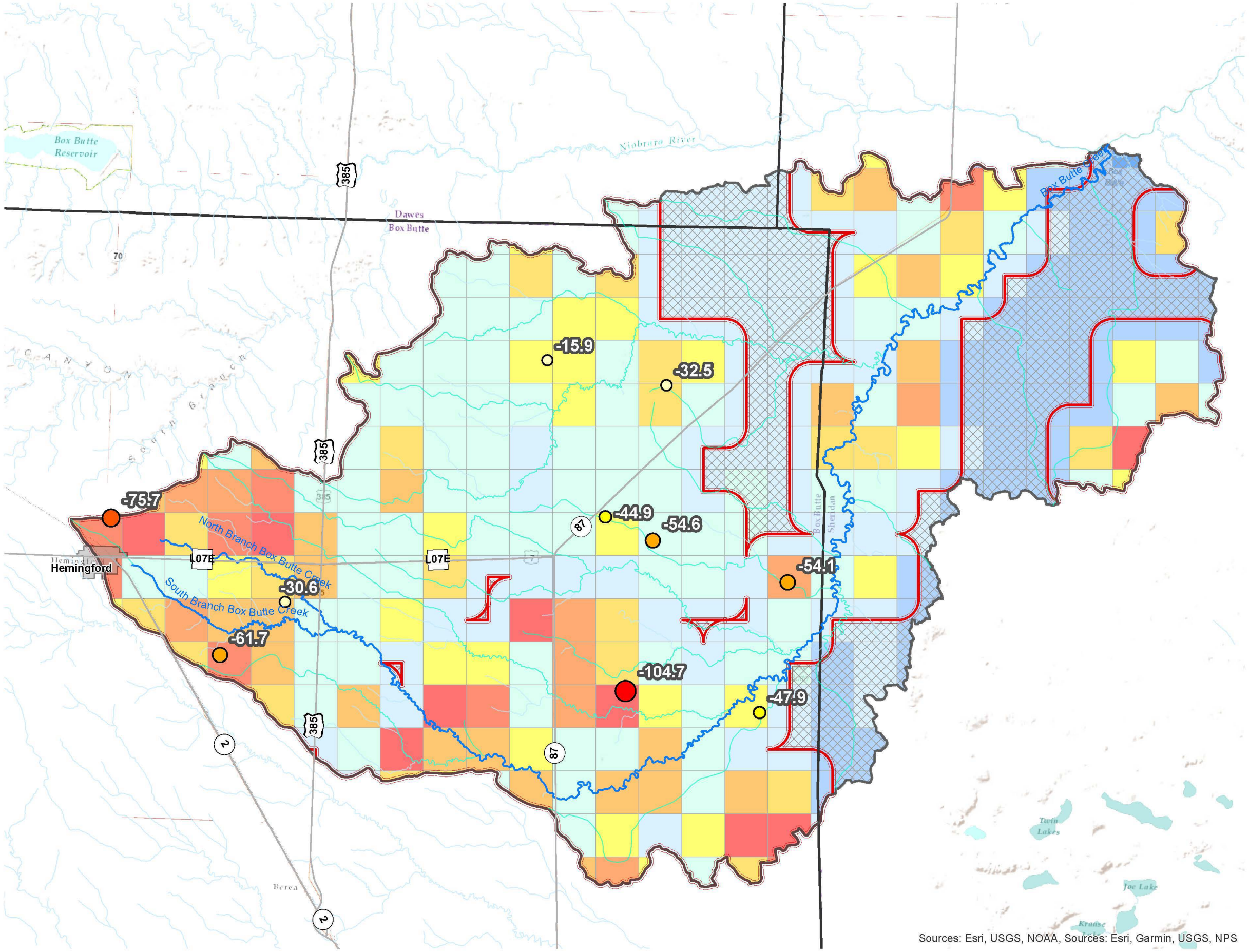
Change in Groundwater Level,
Predevelopment to 2017 (ft)



- Box Butte Creek
- Tributary stream
- Small tributary stream
- City
- Box Butte Creek watershed boundary



DATA SOURCES:
UNL-CSD (Groundwater-level change at wells)
NDNR (Net groundwater recharge-modeled)
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

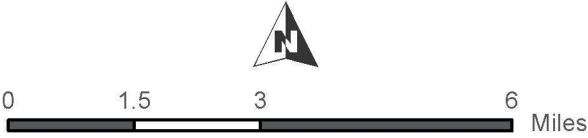
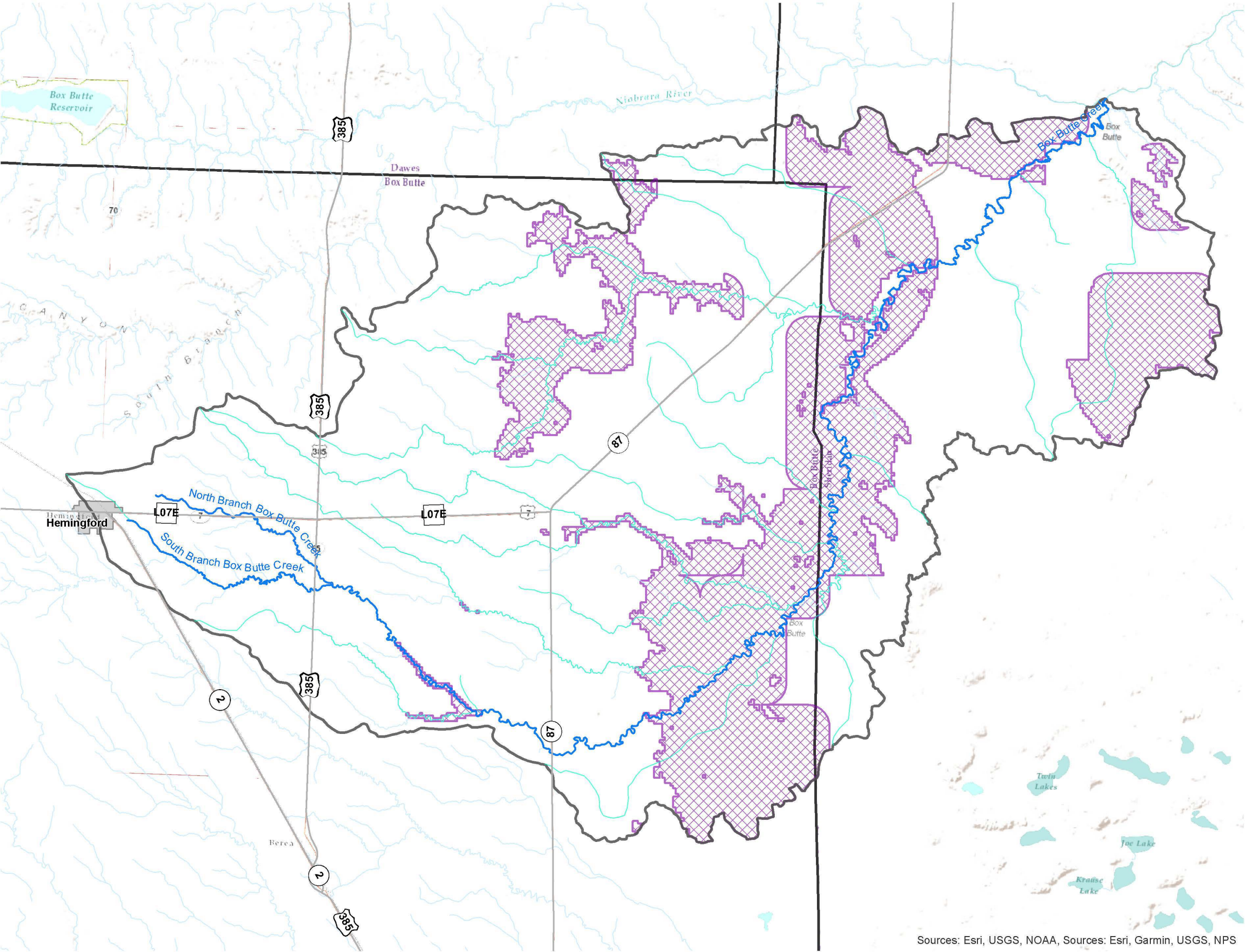


Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

PHASE II SCREENING - LOCATIONS OF RECHARGE NEED
BOX BUTTE CREEK WATERSHED PLAN & EA
FIGURE 4-3

LEGEND

-  Areas of high potential for passive recharge coinciding with areas of recharge need
-  Box Butte Creek
-  Tributary stream
-  Small tributary stream
-  City
-  Box Butte Creek watershed boundary



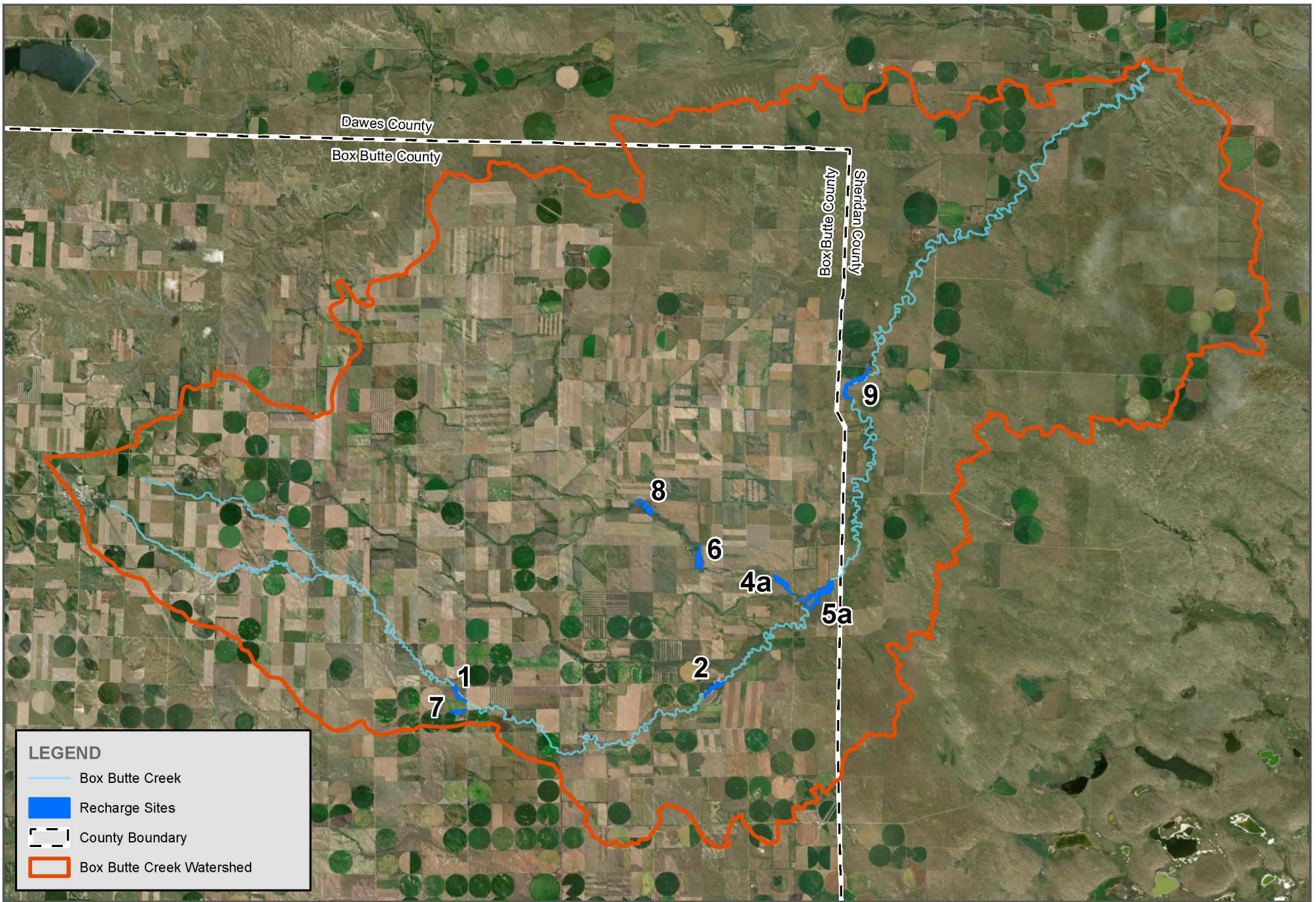
DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

AREAS MEETING PHASE I AND PHASE II CRITERIA FOR PASSIVE RECHARGE
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 4.4

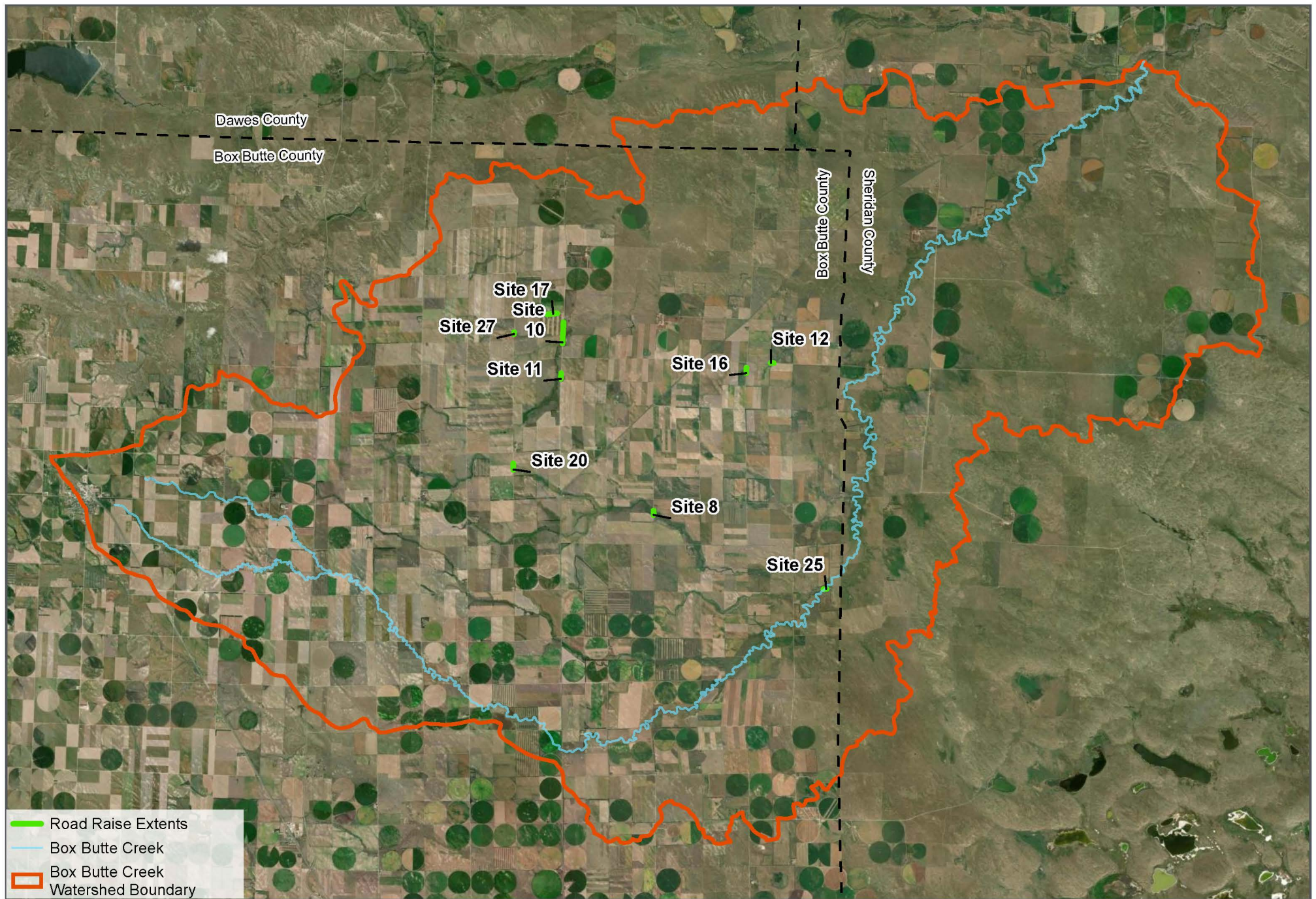


0 2.75 Miles

OFF-CHANNEL STORAGE RECHARGE LOCATIONS BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 4-5

UPPER NIOBRARA WHITE NRD

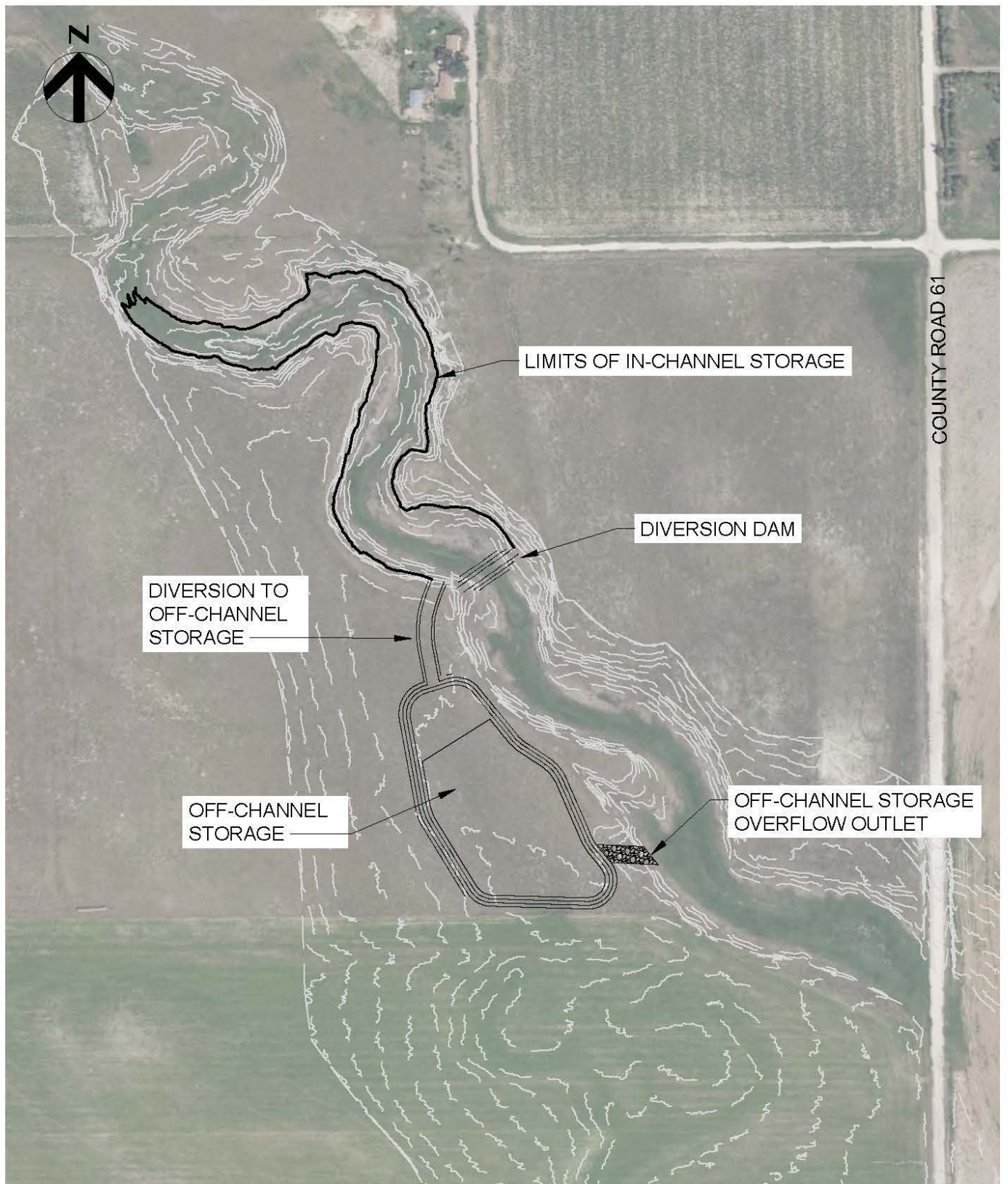


0 1.25 2.5 5 Miles

COUNTY ROAD INFRASTRUCTURE IMPROVEMENT LOCATIONS BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 4-11

UPPER NIOBRARA WHITE NRD



SCALE: 1"=300'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

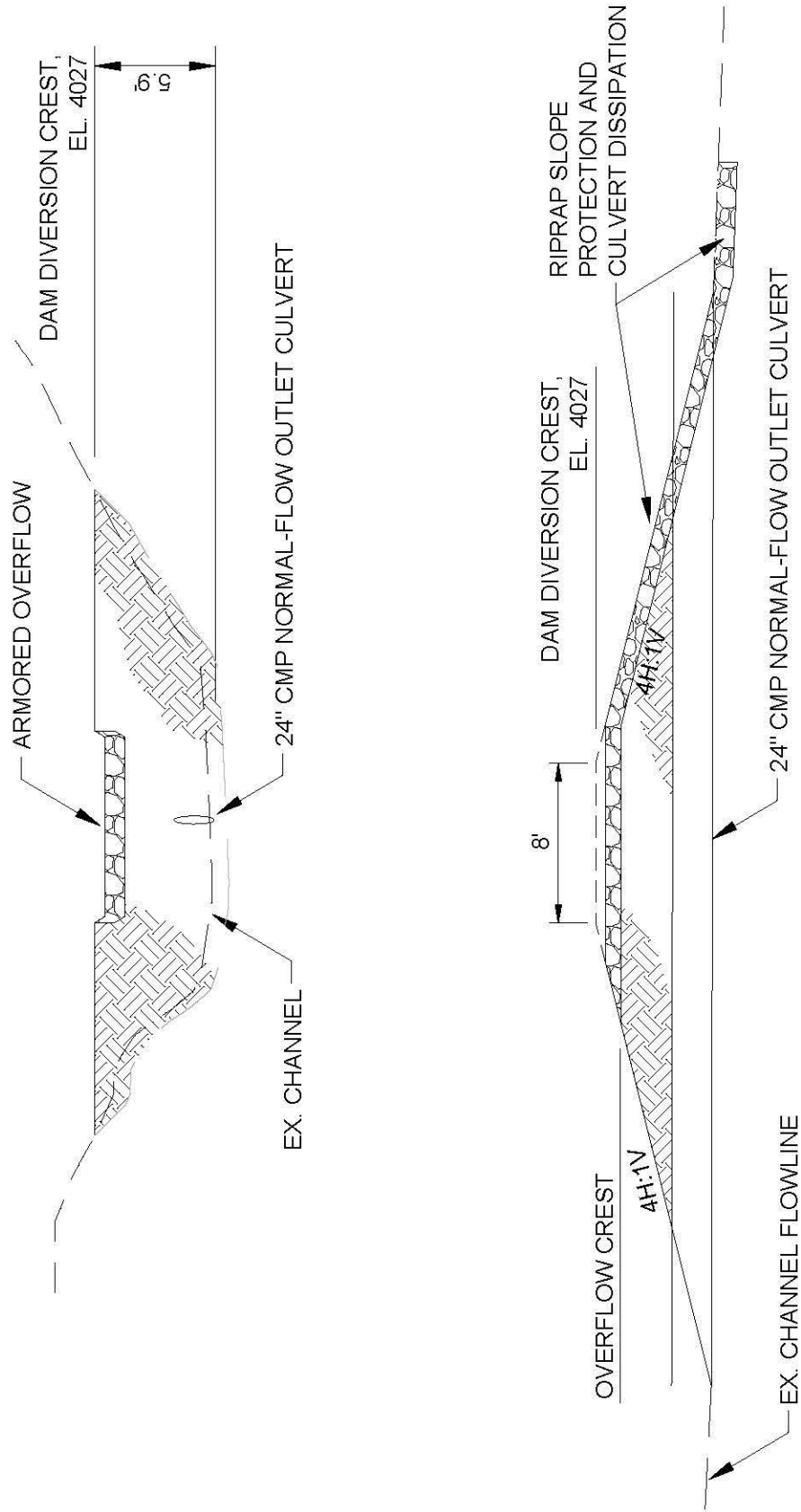
Dam Diversion to Off-Channel Storage Site 1

DATE

10/2024

FIGURE

A-1



SCALE: NTS



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

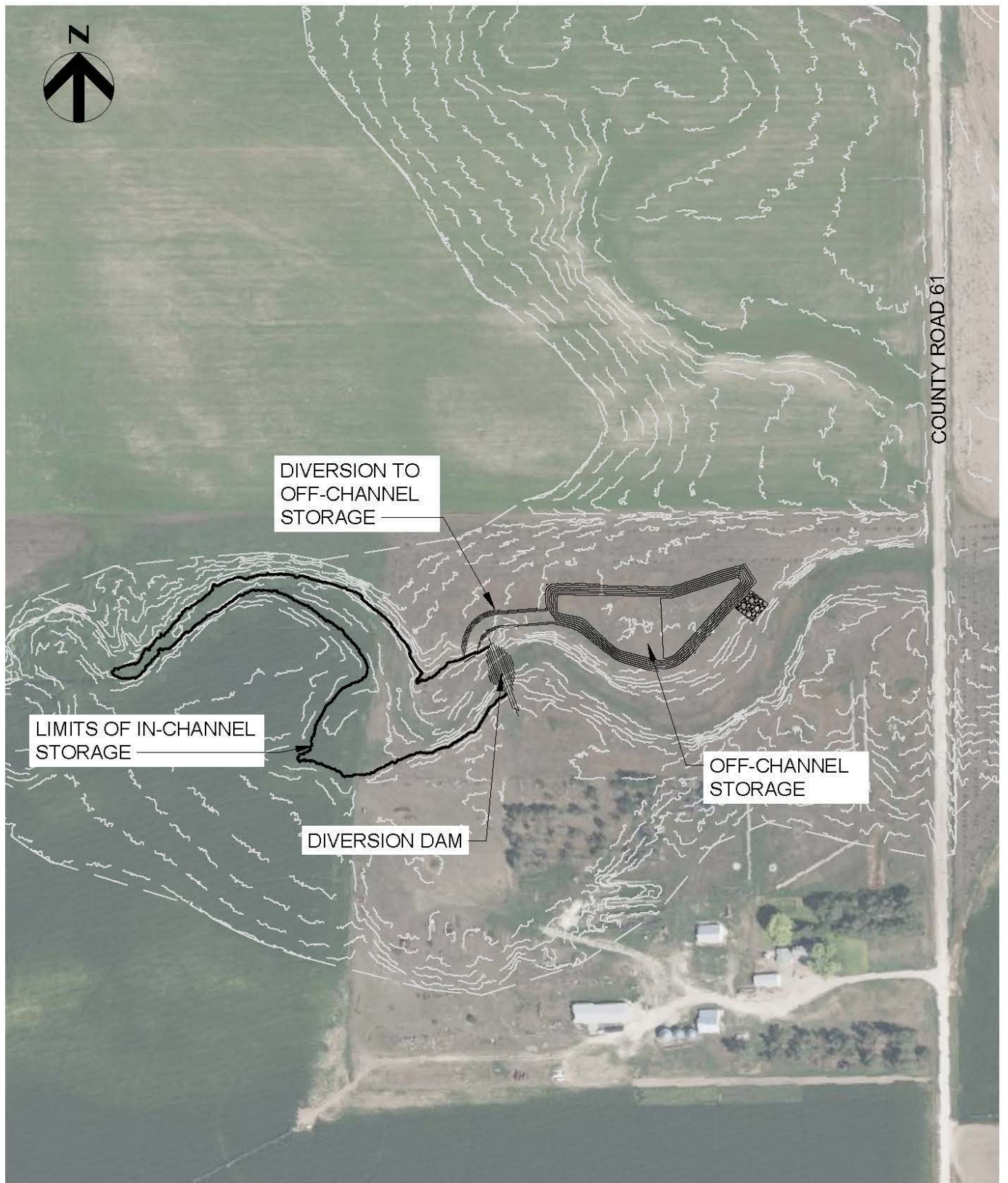
Dam Diversion to Off-Channel Storage Site 1 Details

DATE

10/2024

FIGURE

A-2



SCALE: 1"=300'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

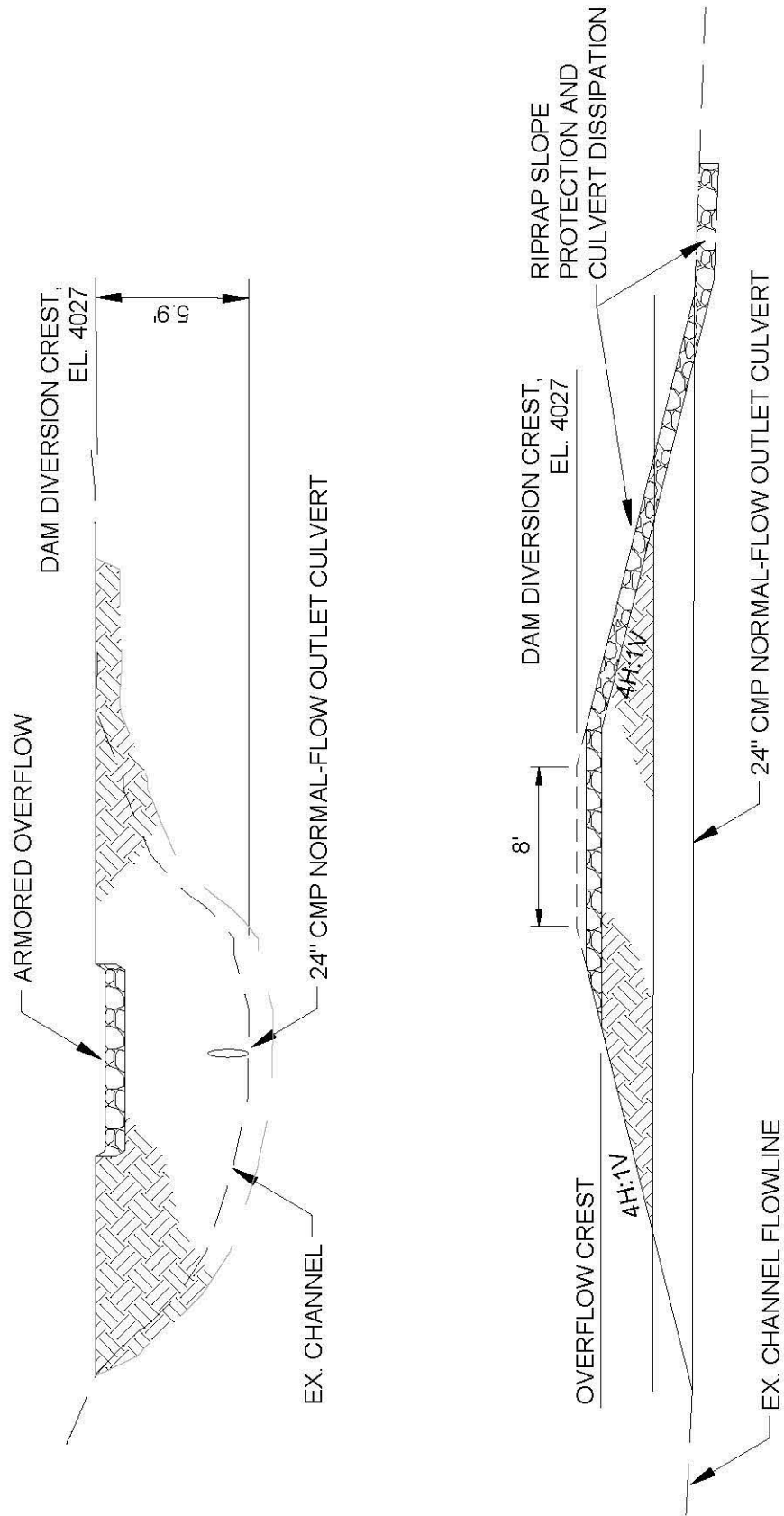
Dam Diversion to Off-Channel Storage Site 7

DATE

10/2024

FIGURE

B



SCALE: NTS



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

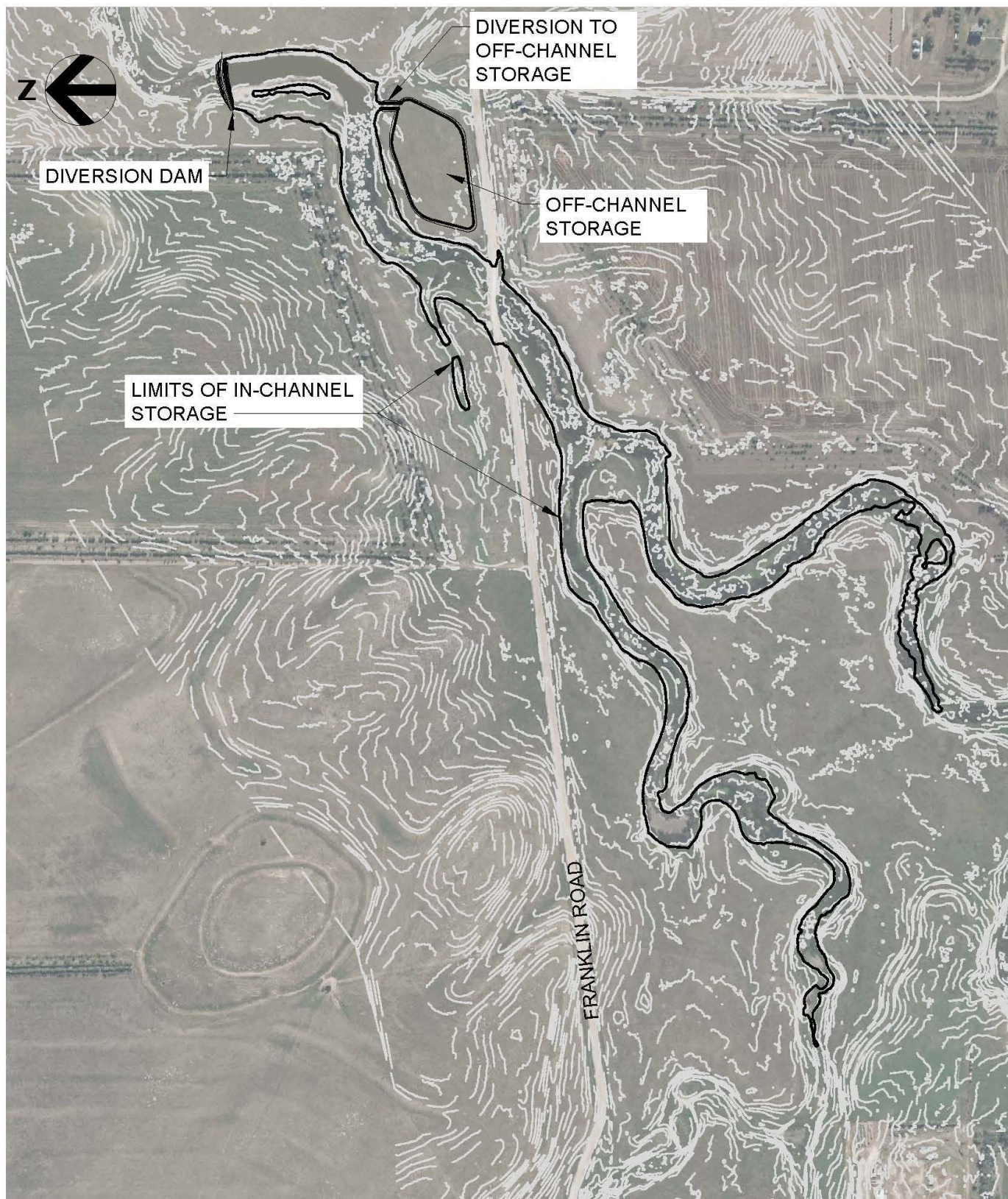
Dam Diversion to Off-Channel Storage Site 7 Details

DATE

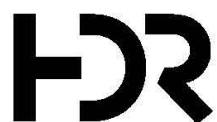
10/2024

FIGURE

B-2



SCALE: 1"=500'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

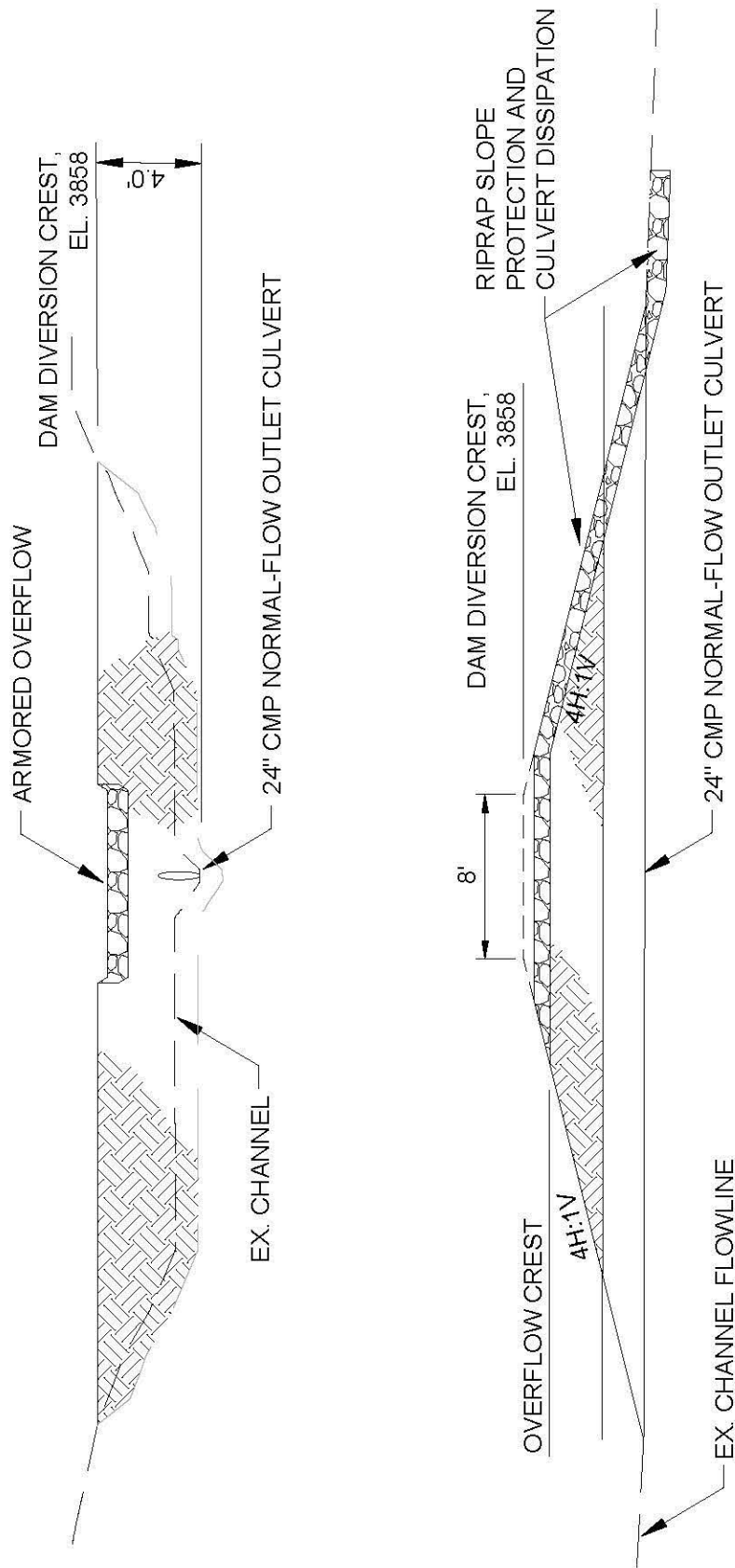
Dam Diversion to Off-Channel Storage Site 9

DATE

10/2024

FIGURE

C



SCALE: NTS



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

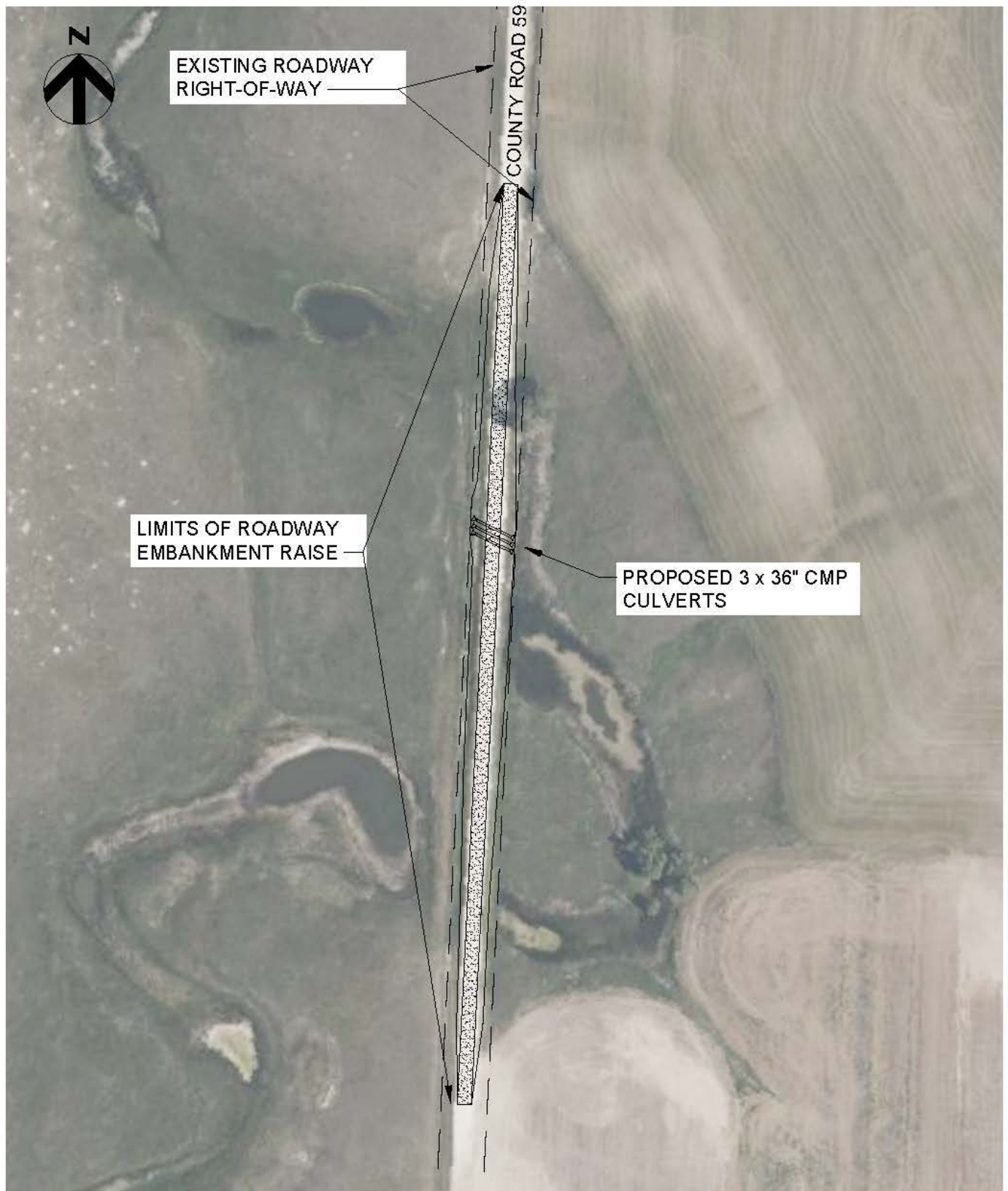
Dam Diversion to Off-Channel Storage Site 9 Details

DATE

10/2024

FIGURE

C-2



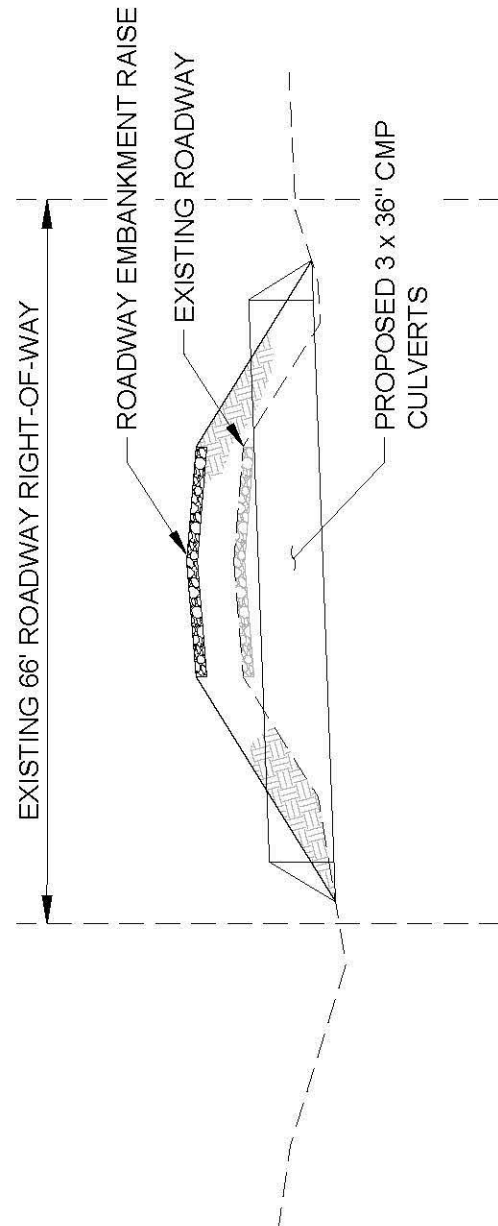
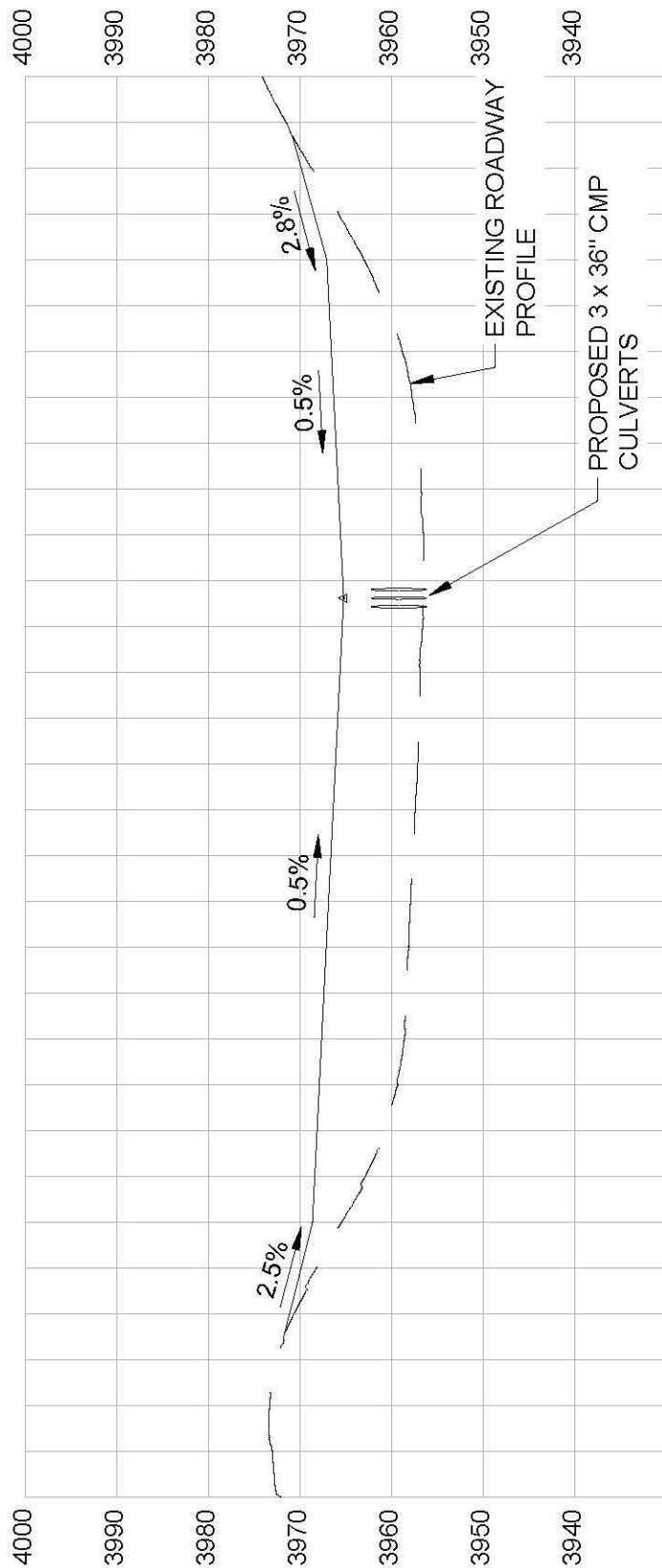
SCALE: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

Channel/Infrastructure Improvements Alternative
Site 11

DATE
10/2024
FIGURE
D



SCALE V: 1"=20'
H: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

Channel/Infrastructure Improvements Alternative
Site 11 - County Road 59 Profile & Section

DATE

10/2024

FIGURE

D-2



SCALE: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

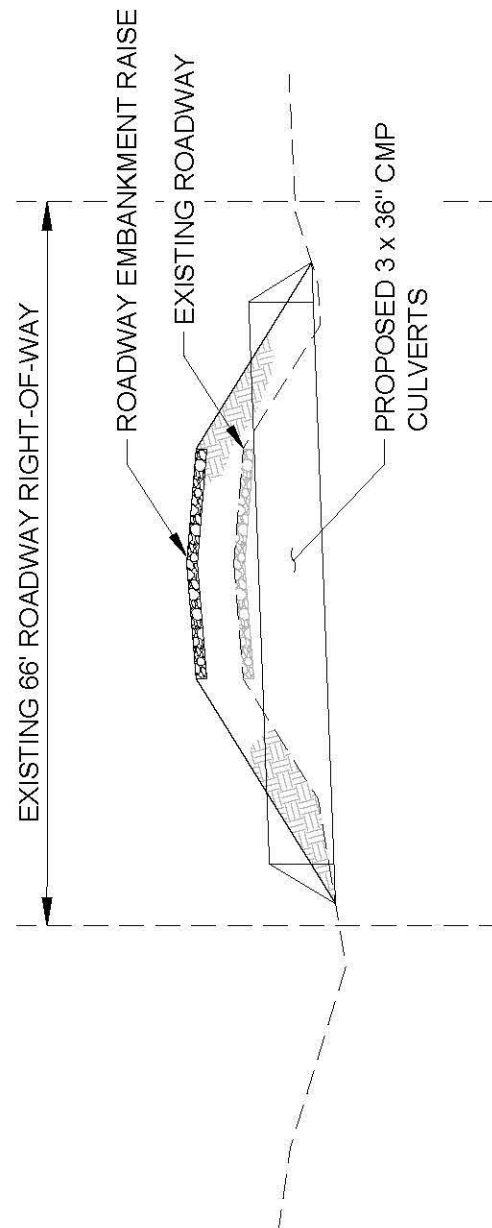
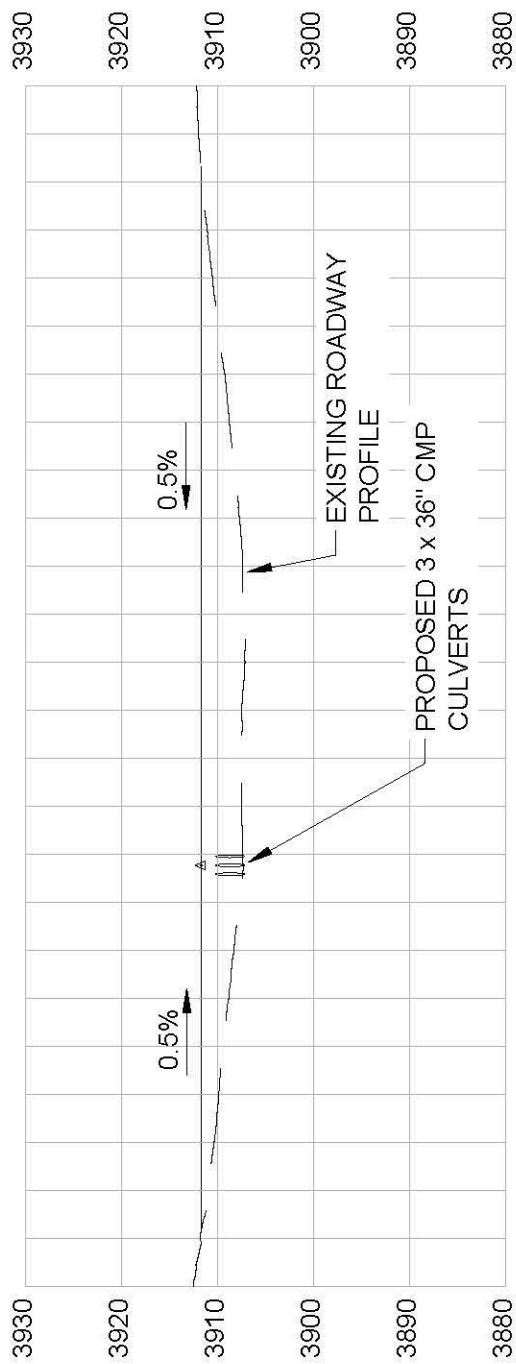
Channel/Infrastructure Improvements Alternative
Site 16

DATE

10/2024

FIGURE

E-1



SCALE V: 1"=20'
H: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

Channel/Infrastructure Improvements Alternative
Site 16 - County Road 55 Profile & Section

DATE

10/2024

FIGURE

E-2



SCALE: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

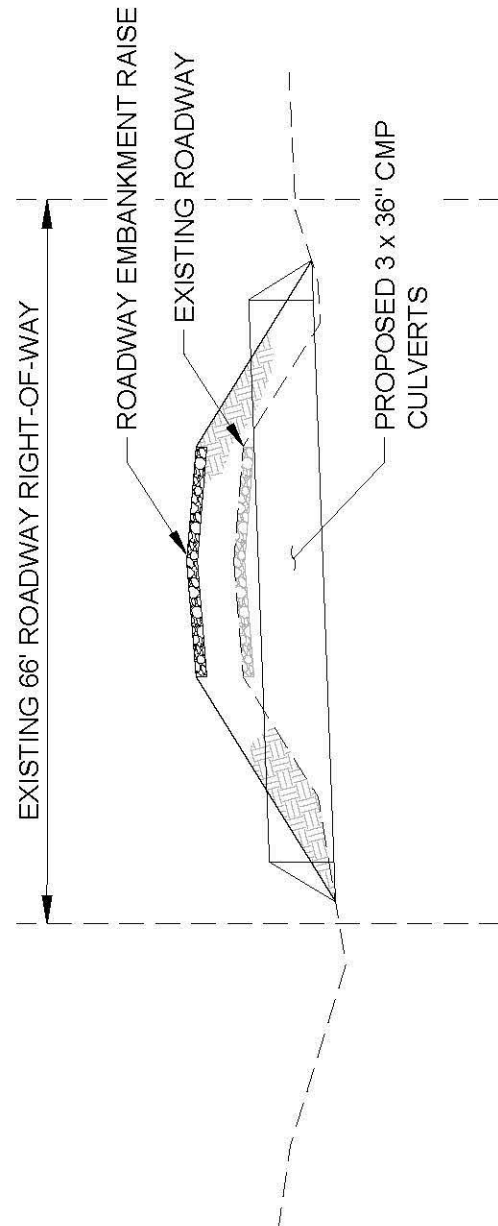
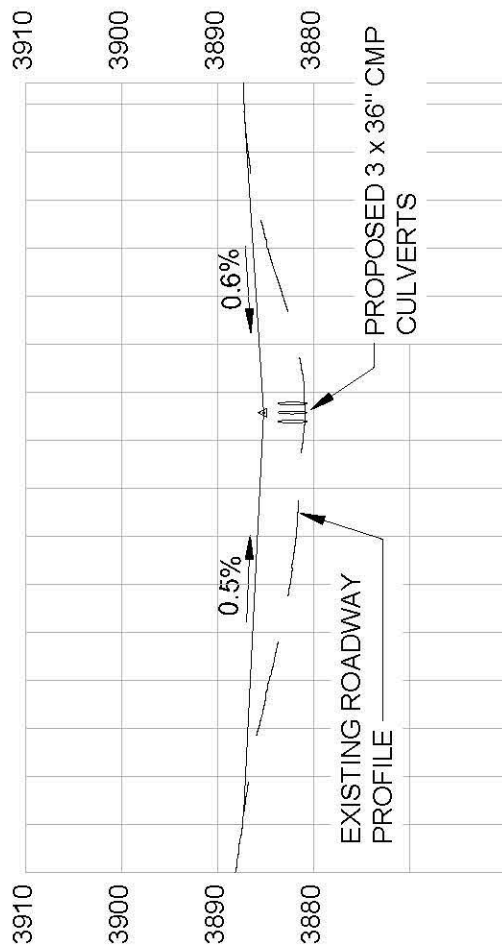
Channel/Infrastructure Improvements Alternative
Site 12

DATE

10/2024

FIGURE

F-1



SCALE V: 1"=20'
H: 1"=200'



Draft Watershed Plan - Environmental Assessment
Box Butte Watershed Project
Preferred Alternatives

Channel/Infrastructure Improvements Alternative
Site 12 - Cass Road Profile & Section

DATE

10/2024

FIGURE

E-2

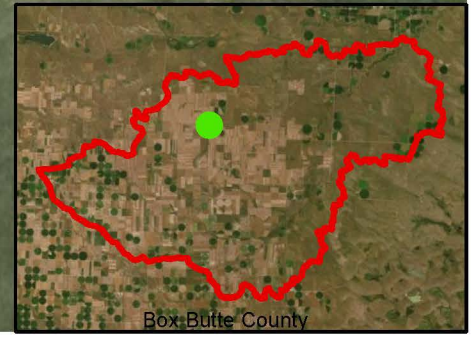




- LEGEND
- ROW
 - Limits of Construction



0 0.02 0.04 0.08 Miles



Box Butte County



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 10 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1B



LEGEND

ROW

Limits of Construction



0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 10 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1C



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 10 ARA/APE **BOX BUTTE CREEK WATERSHED PLAN & EA**

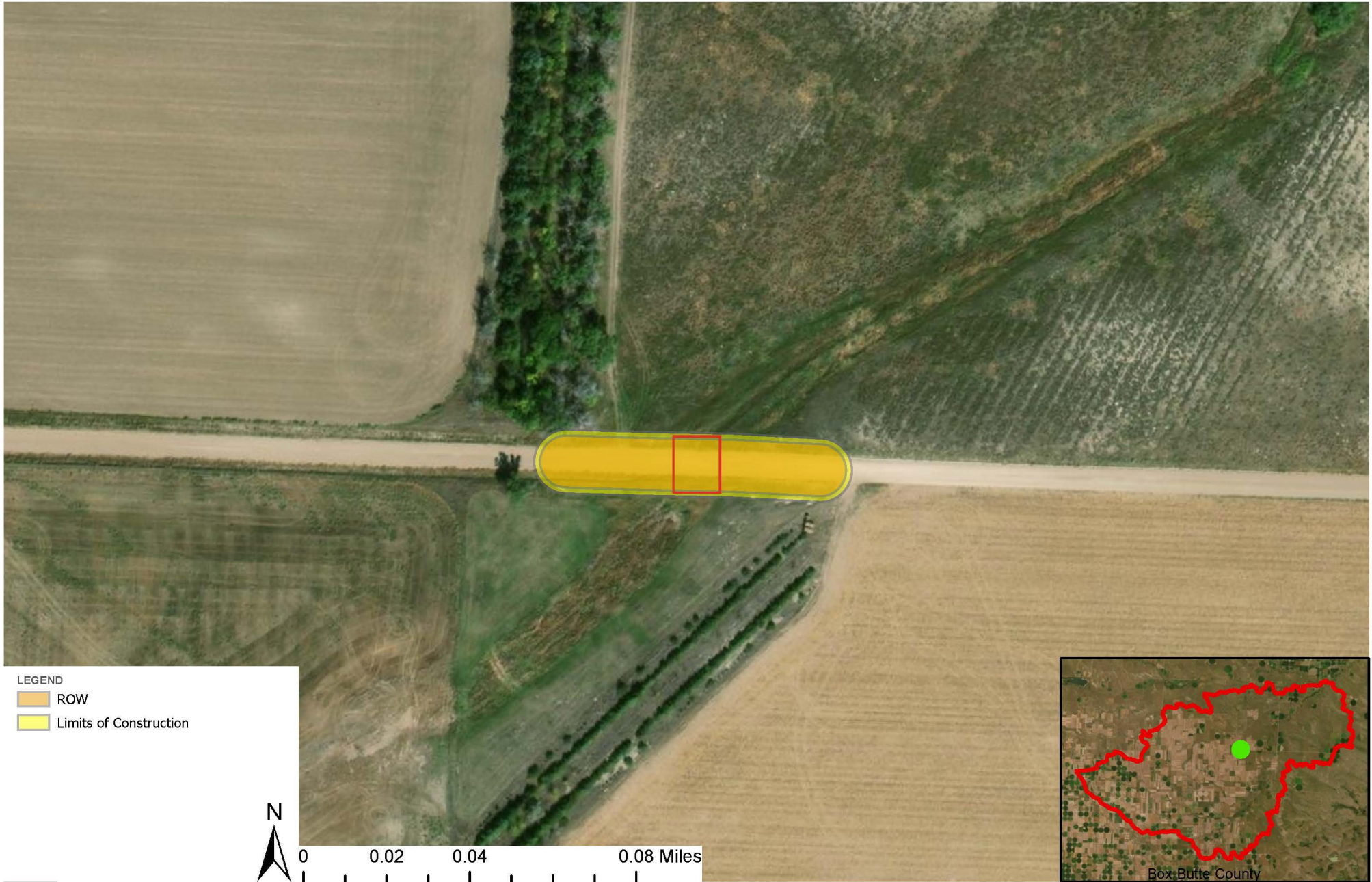
FIGURE 5-1D



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 11 ARA/APE **BOX BUTTE CREEK WATERSHED PLAN & EA**

FIGURE 5-1E



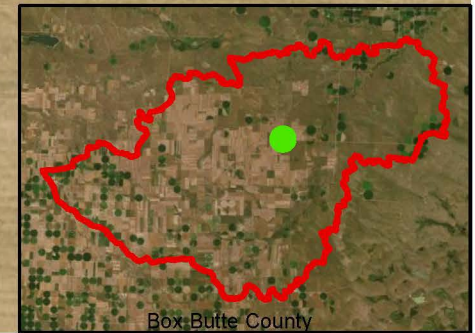
LEGEND

ROW

Limits of Construction



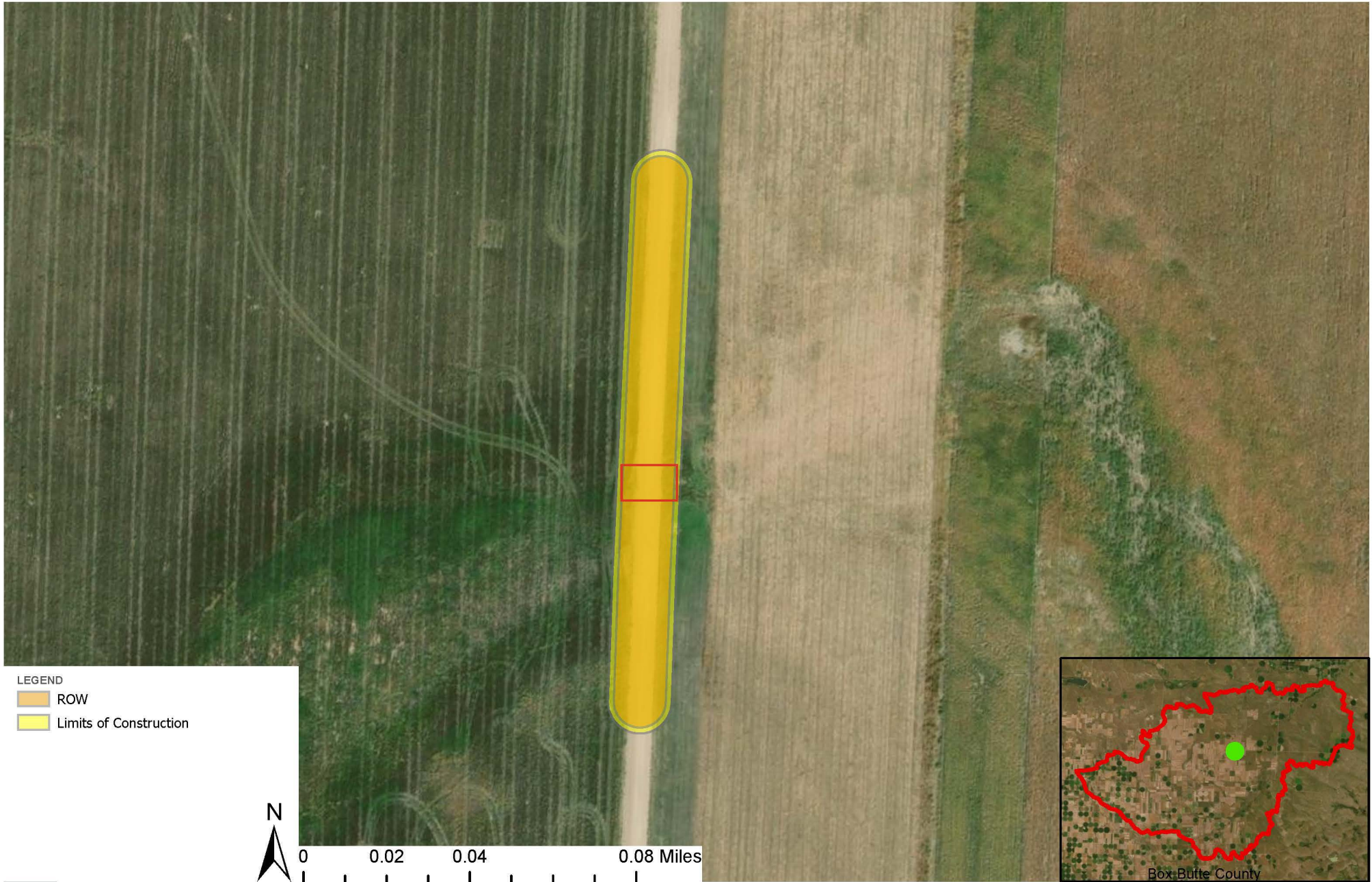
0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 12 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1F



LEGEND

ROW

Limits of Construction



0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 16 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1G

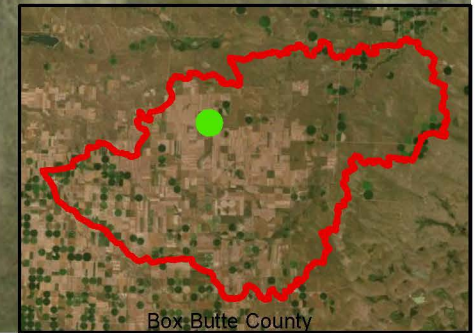


LEGEND

- ROW
- Limits of Construction



0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 17 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1H



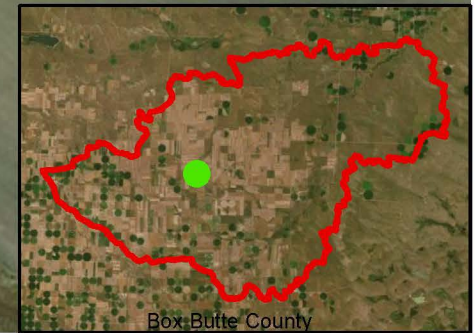
LEGEND

ROW

Limits of Construction



0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 20 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-11



LEGEND

ROW

Limits of Construction



0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 25 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-1J



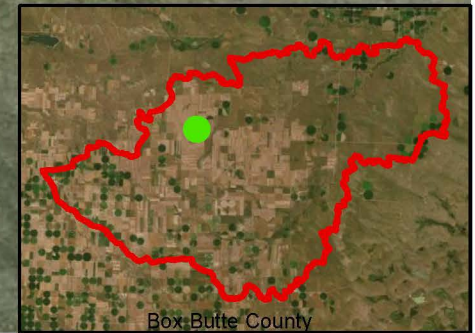
LEGEND

ROW

Limits of Construction



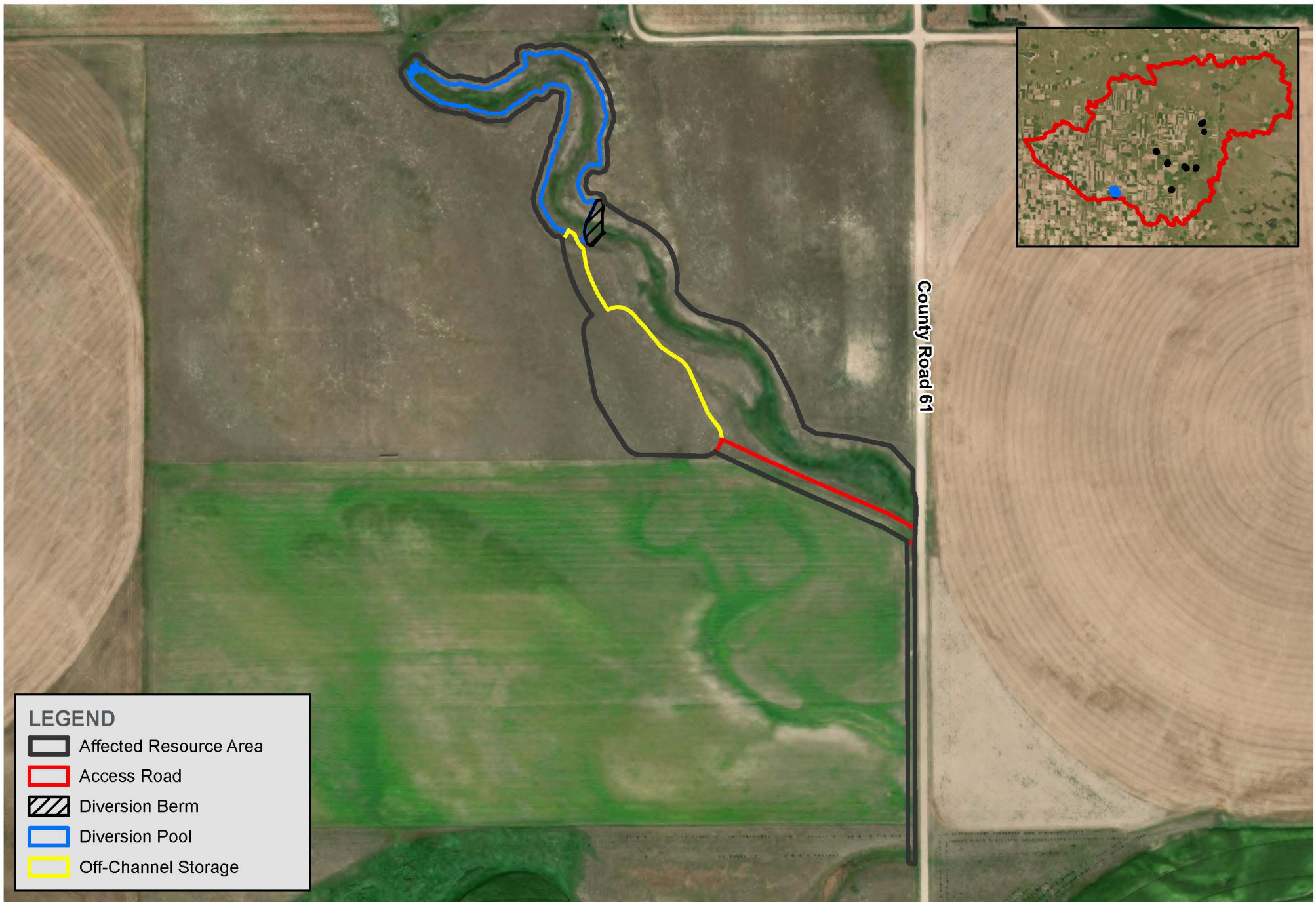
0 0.02 0.04 0.08 Miles



DATA SOURCES:
 USGS (NHD: streams, canals)
 FEMA (Floodplain)
 US Census Bureau (Counties and NRD boundaries)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 27 ARA/APE BOX BUTTE CREEK WATERSHED PLAN & EA

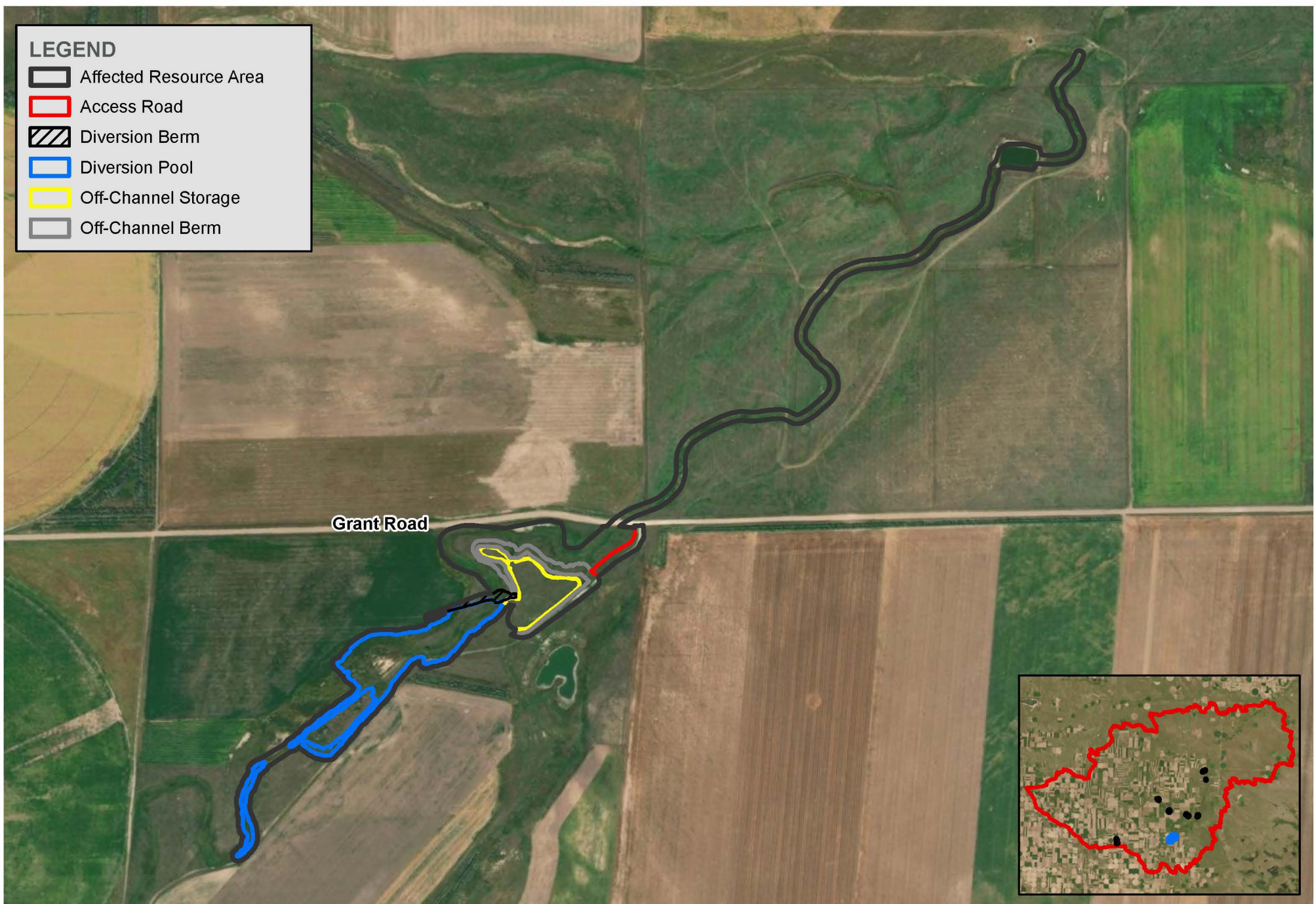
FIGURE 5-1K



0 430 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 1 ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2A



LEGEND

- Affected Resource Area
- Access Road
- Diversion Berm
- Diversion Pool
- Off-Channel Storage
- Off-Channel Berm

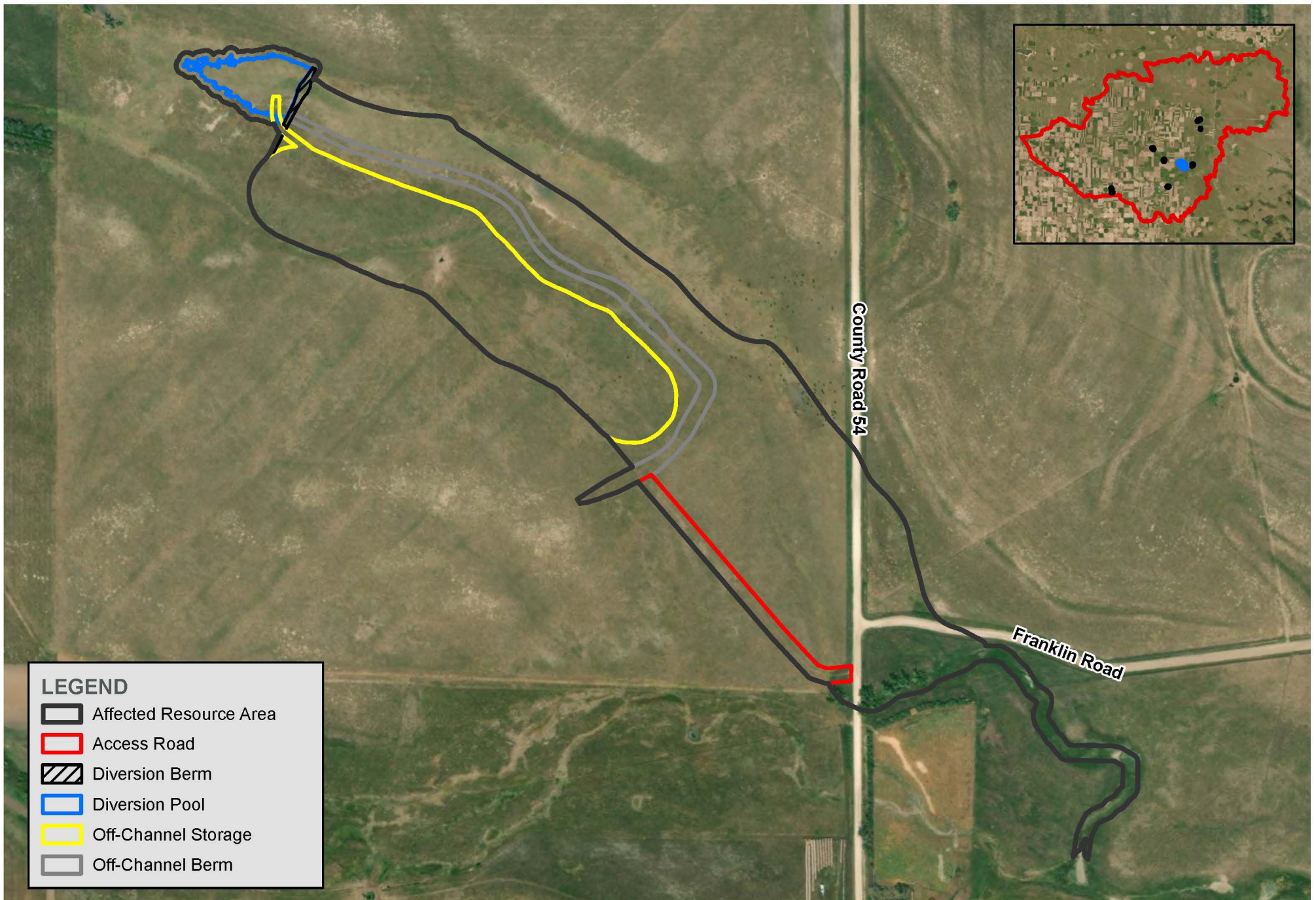
Grant Road



0 700 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 2 ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2B

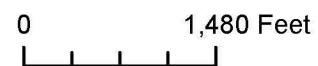
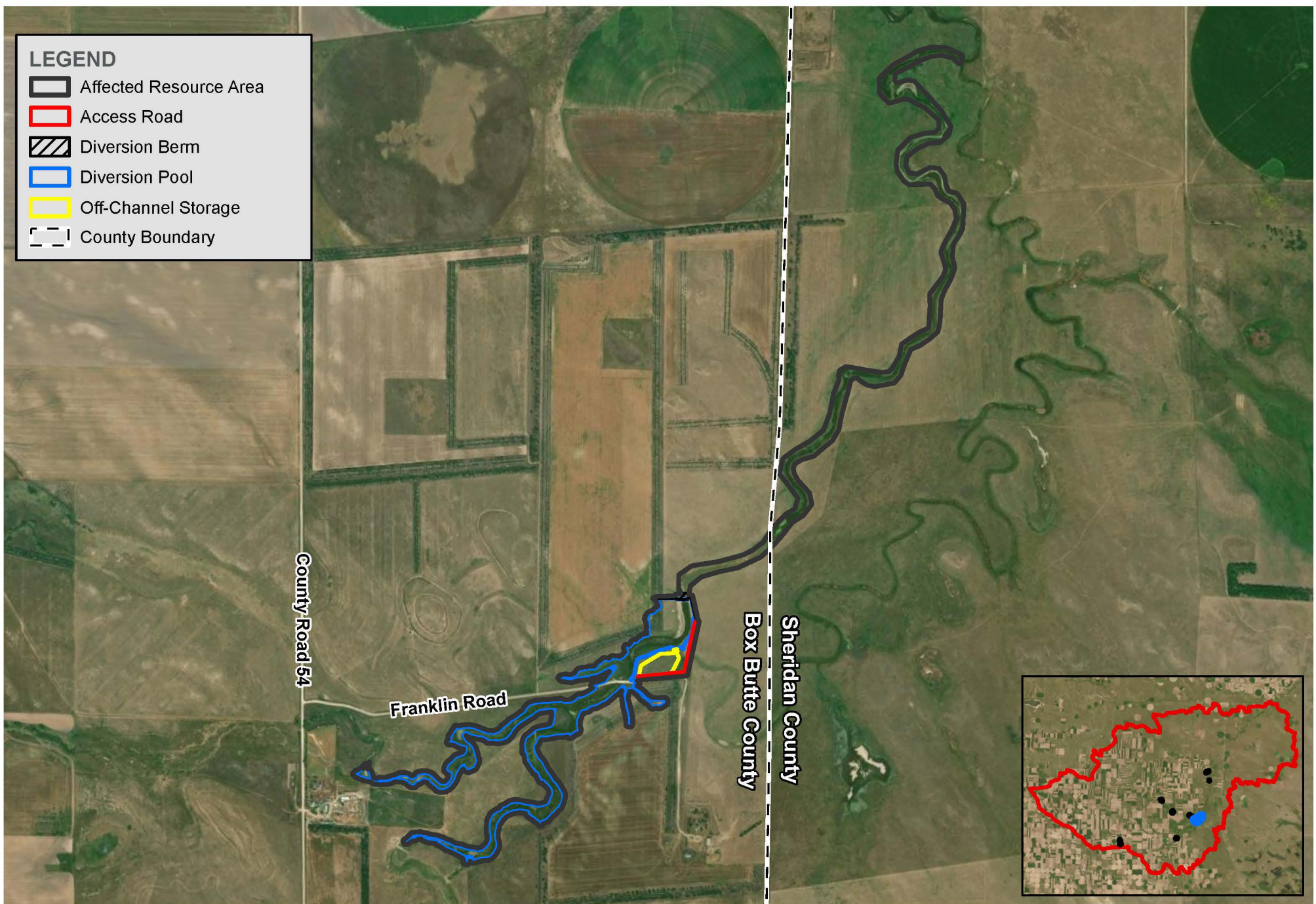


0 420 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 4A ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2C

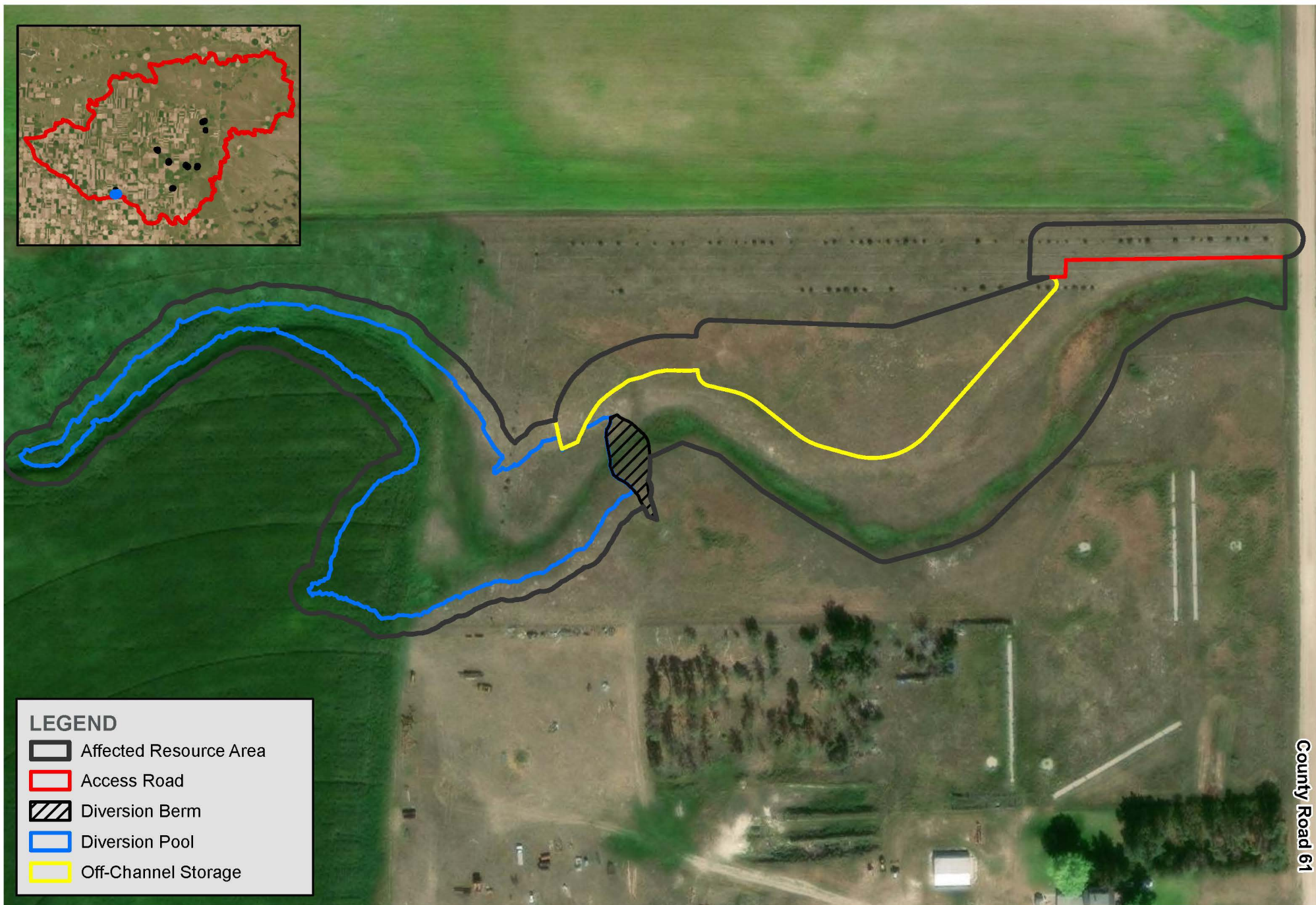
UPPER NIOBRARA WHITE NRD



DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 5A ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2D

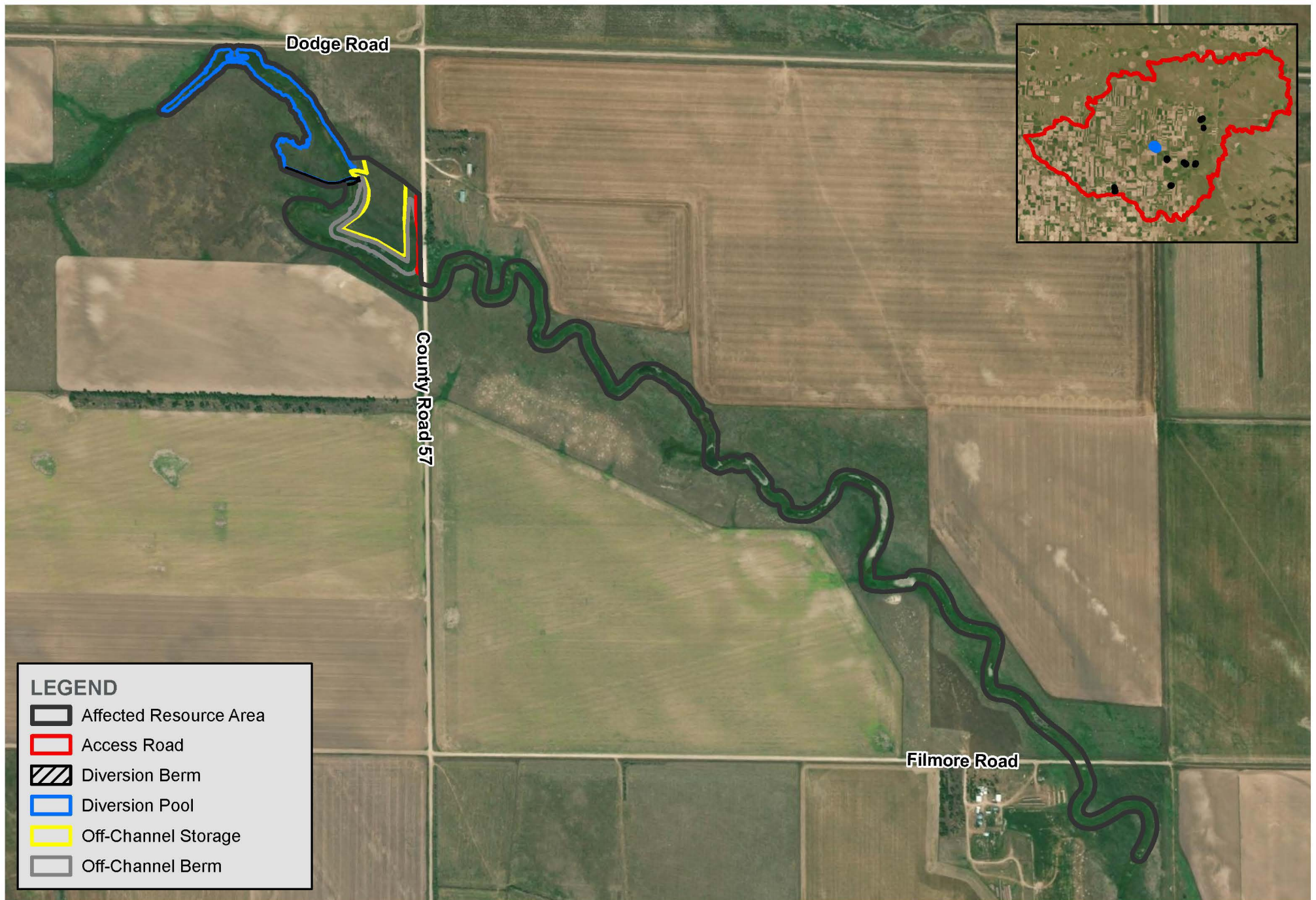




0 175 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 7 ARA BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2F



LEGEND

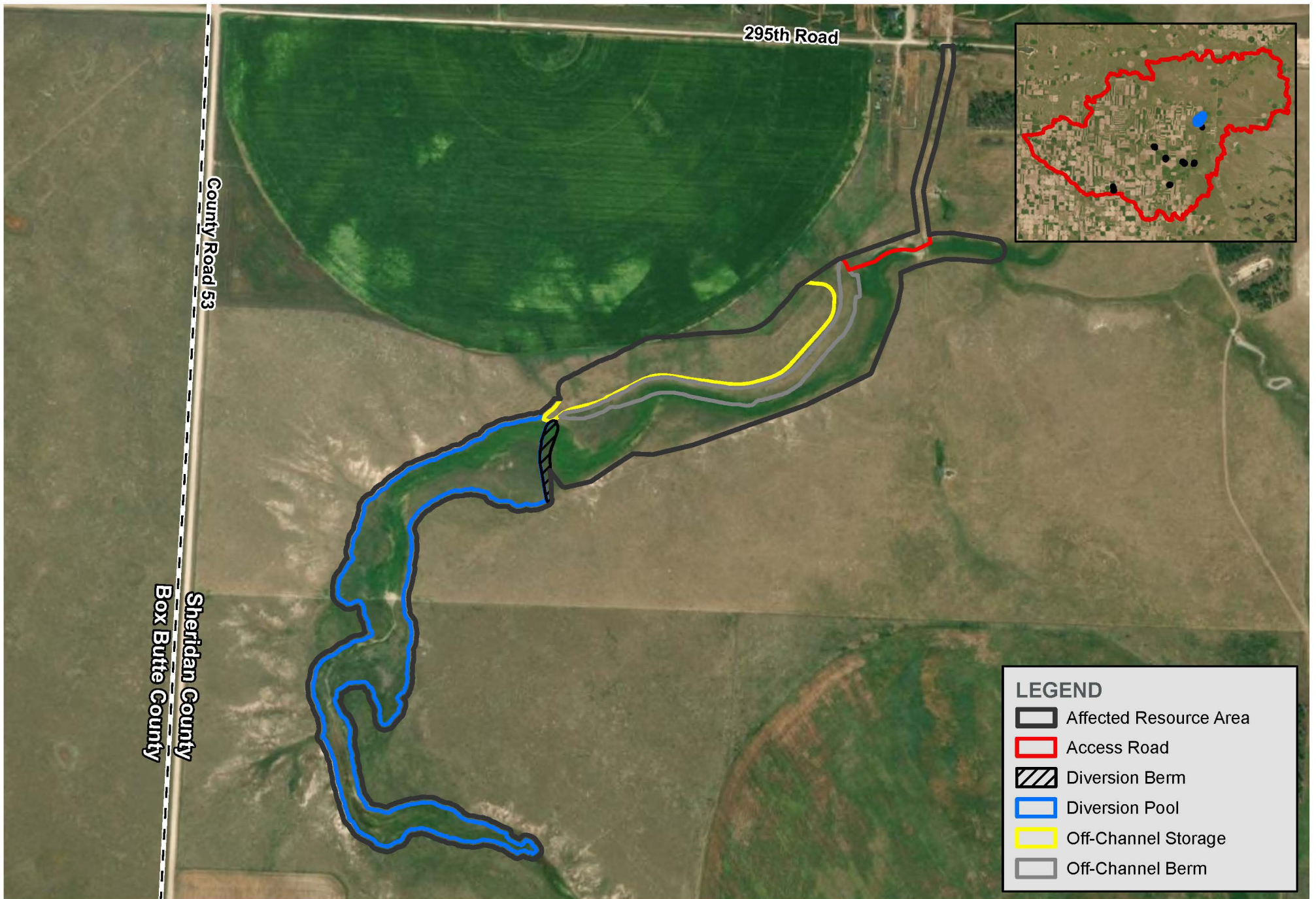
-  Affected Resource Area
-  Access Road
-  Diversion Berm
-  Diversion Pool
-  Off-Channel Storage
-  Off-Channel Berm



0 925 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 8 ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2G

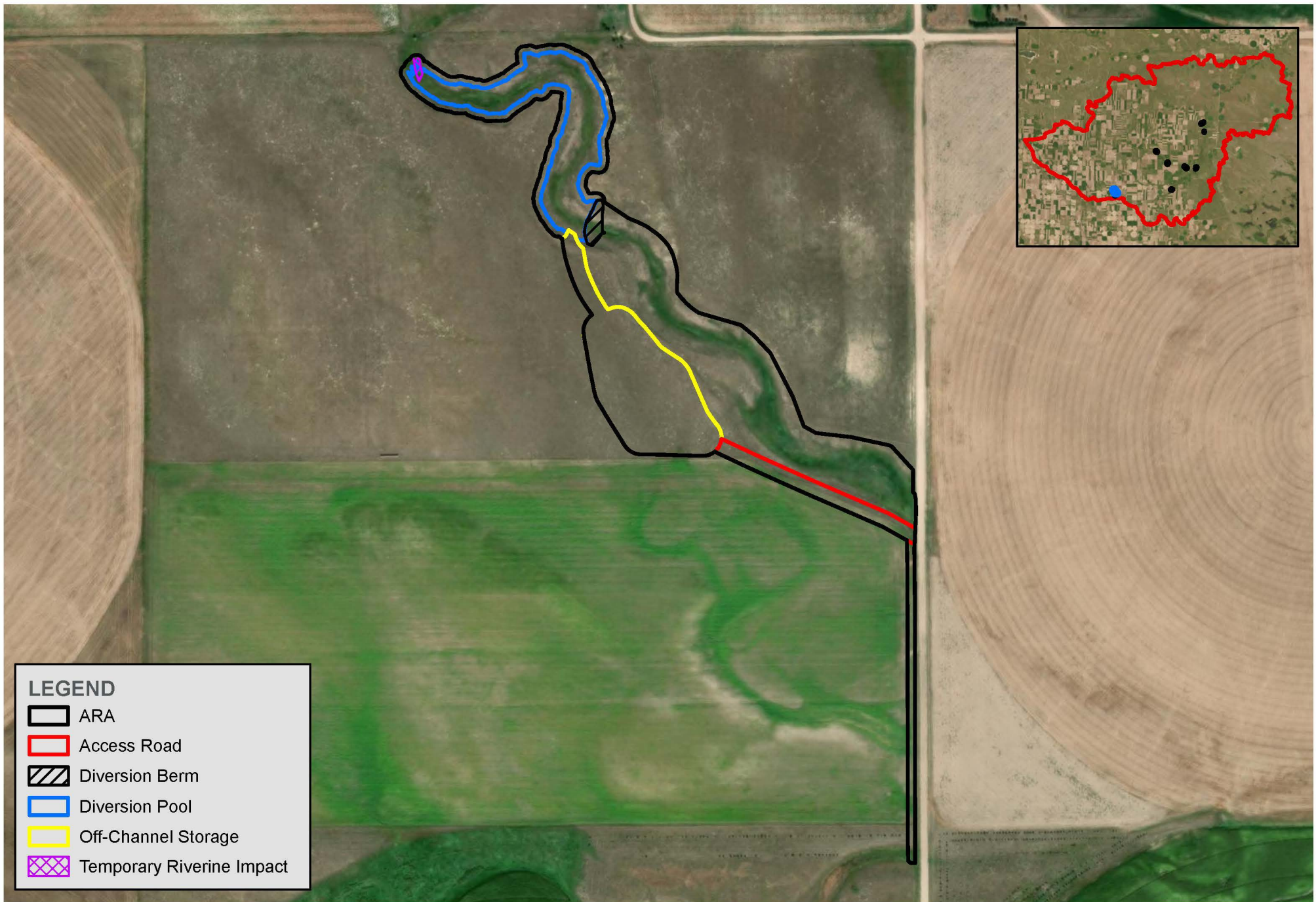


0 580 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 9A ARA
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-2H

UPPER NIOBRARA WHITE NRD



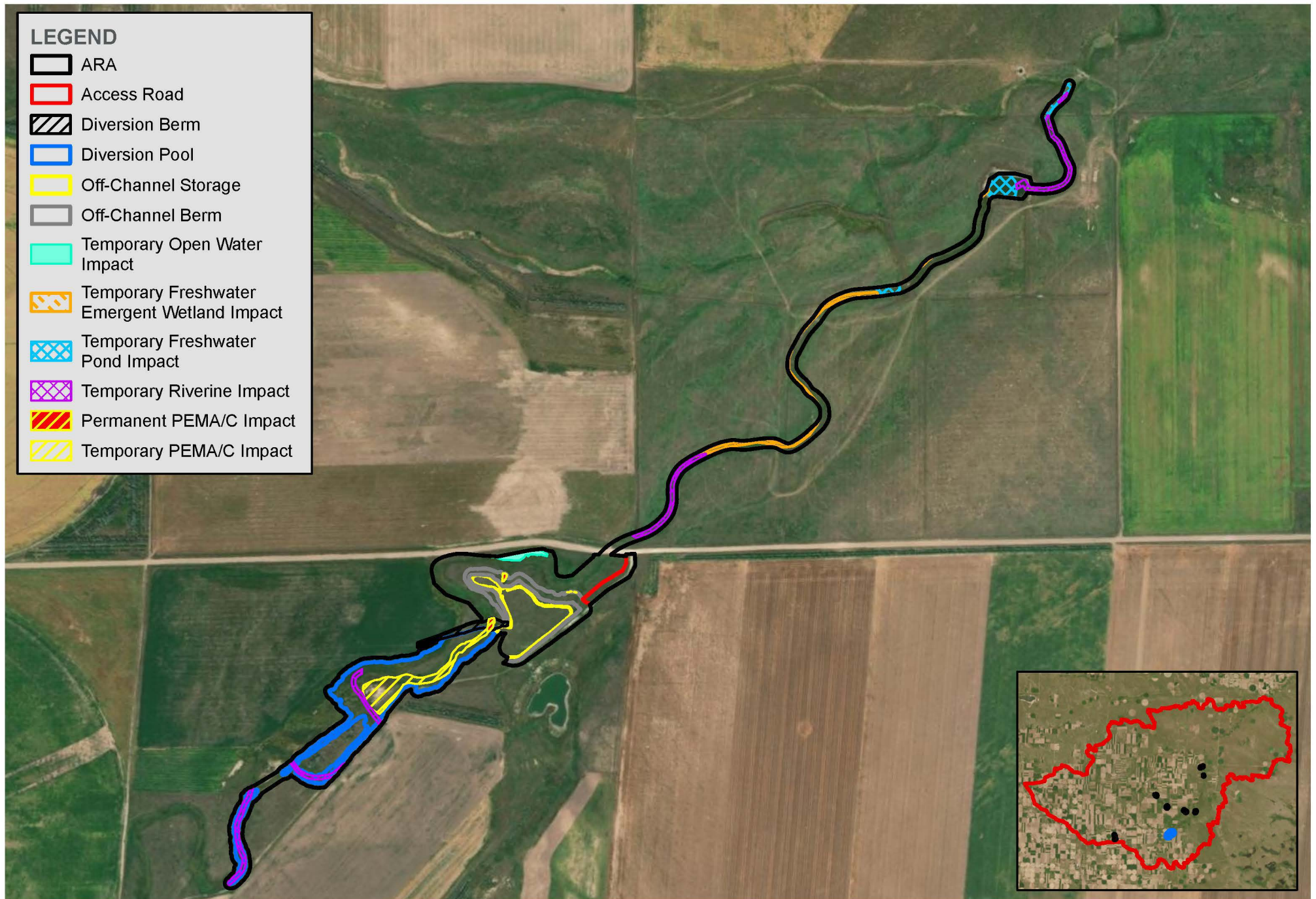
0 430 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 1 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-3A

LEGEND

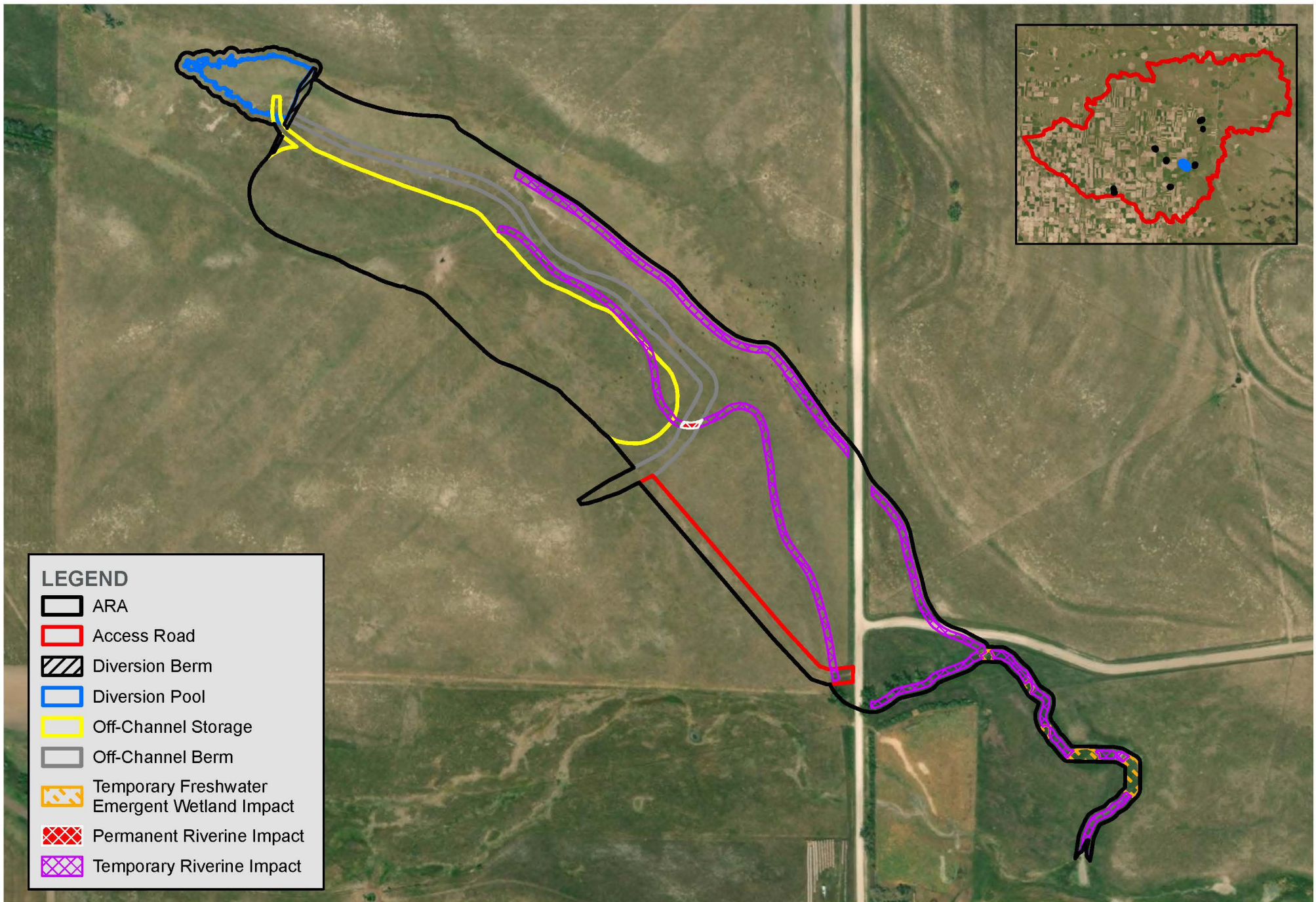
-  ARA
-  Access Road
-  Diversion Berm
-  Diversion Pool
-  Off-Channel Storage
-  Off-Channel Berm
-  Temporary Open Water Impact
-  Temporary Freshwater Emergent Wetland Impact
-  Temporary Freshwater Pond Impact
-  Temporary Riverine Impact
-  Permanent PEMA/C Impact
-  Temporary PEMA/C Impact



0 700 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 2 WOUS IMPACTS BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-3B



LEGEND

- ARA
- Access Road
- Diversion Berm
- Diversion Pool
- Off-Channel Storage
- Off-Channel Berm
- Temporary Freshwater Emergent Wetland Impact
- Permanent Riverine Impact
- Temporary Riverine Impact



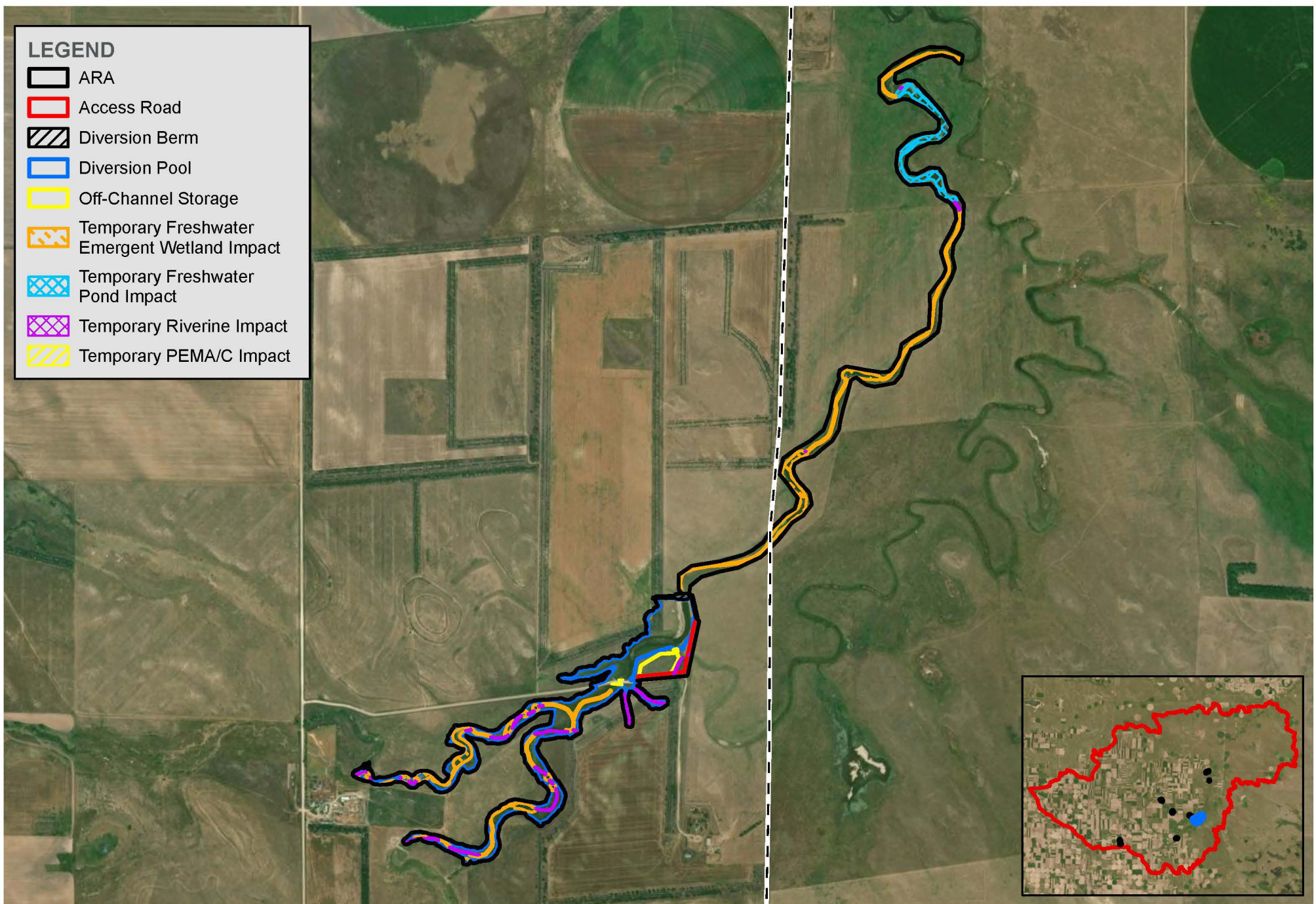
DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 4A WOUS IMPACTS

0 420 Feet

BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-3C

UPPER NIOBRARA WHITE NRD



LEGEND

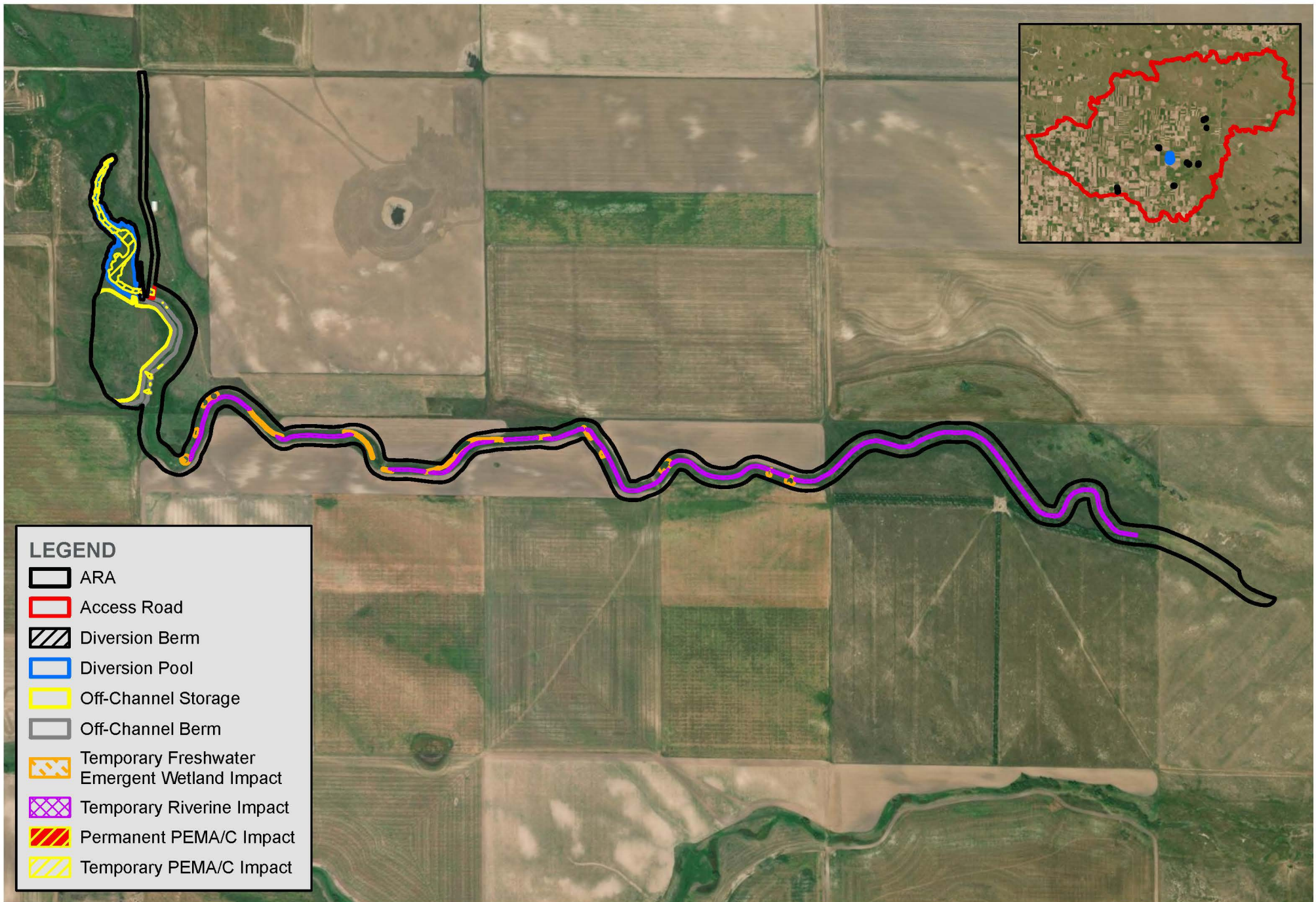
- ARA
- Access Road
- Diversion Berm
- Diversion Pool
- Off-Channel Storage
- Temporary Freshwater Emergent Wetland Impact
- Temporary Freshwater Pond Impact
- Temporary Riverine Impact
- Temporary PEMA/C Impact



0 1,480 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 5A WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

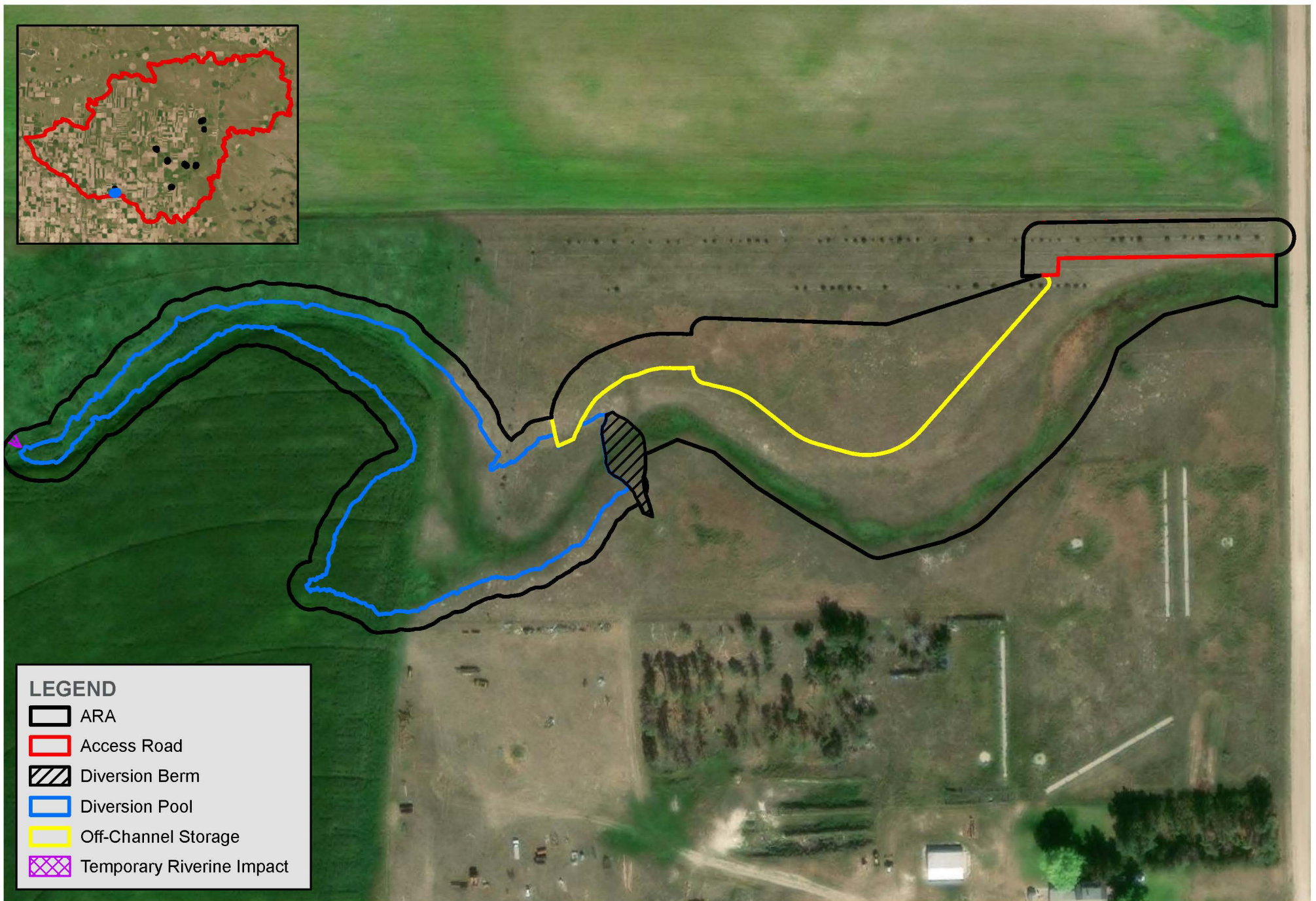
FIGURE 5-3D



DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 6 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 1,000 Feet

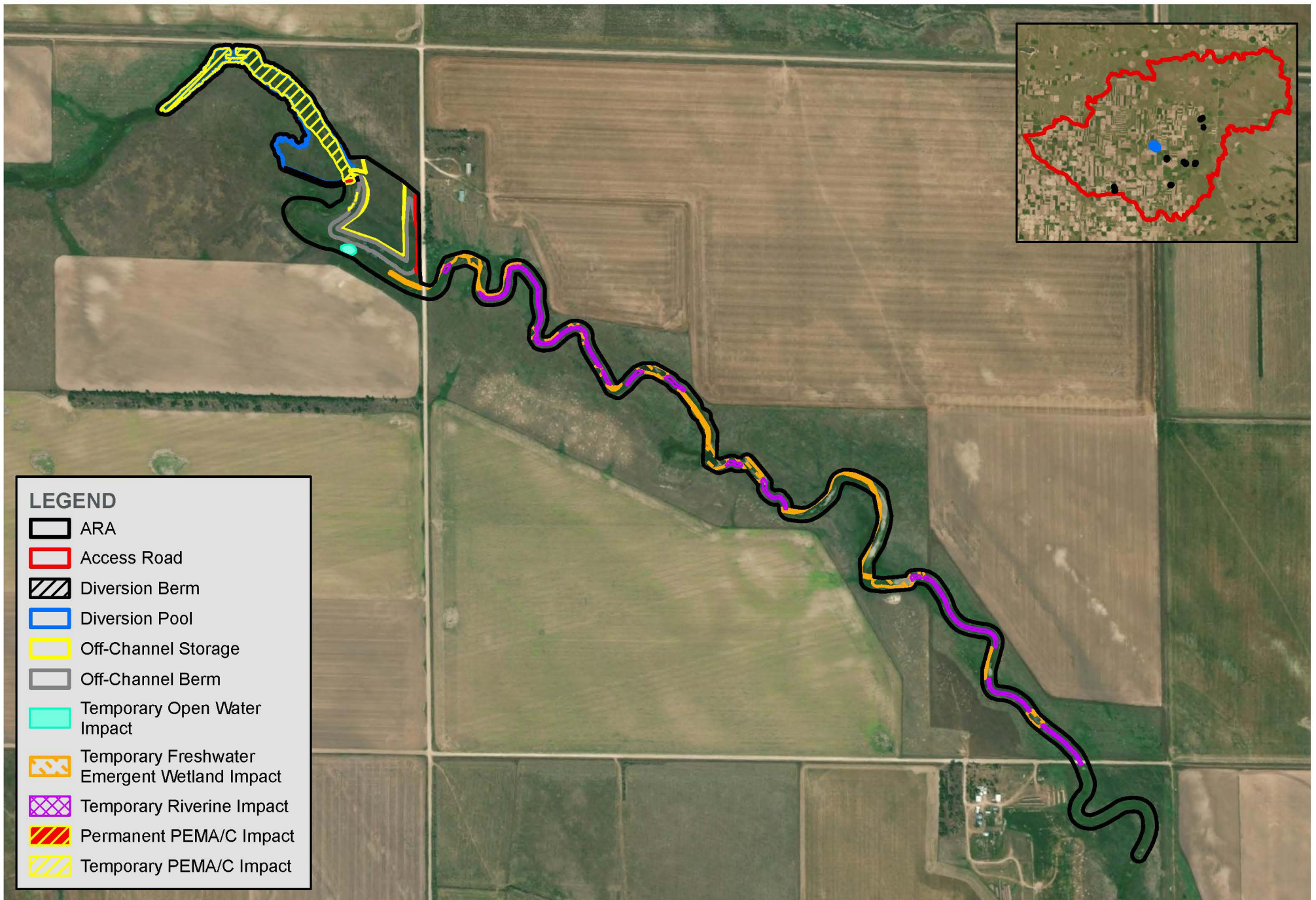
FIGURE 5-3E



DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 7 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 175 Feet

FIGURE 5-3F

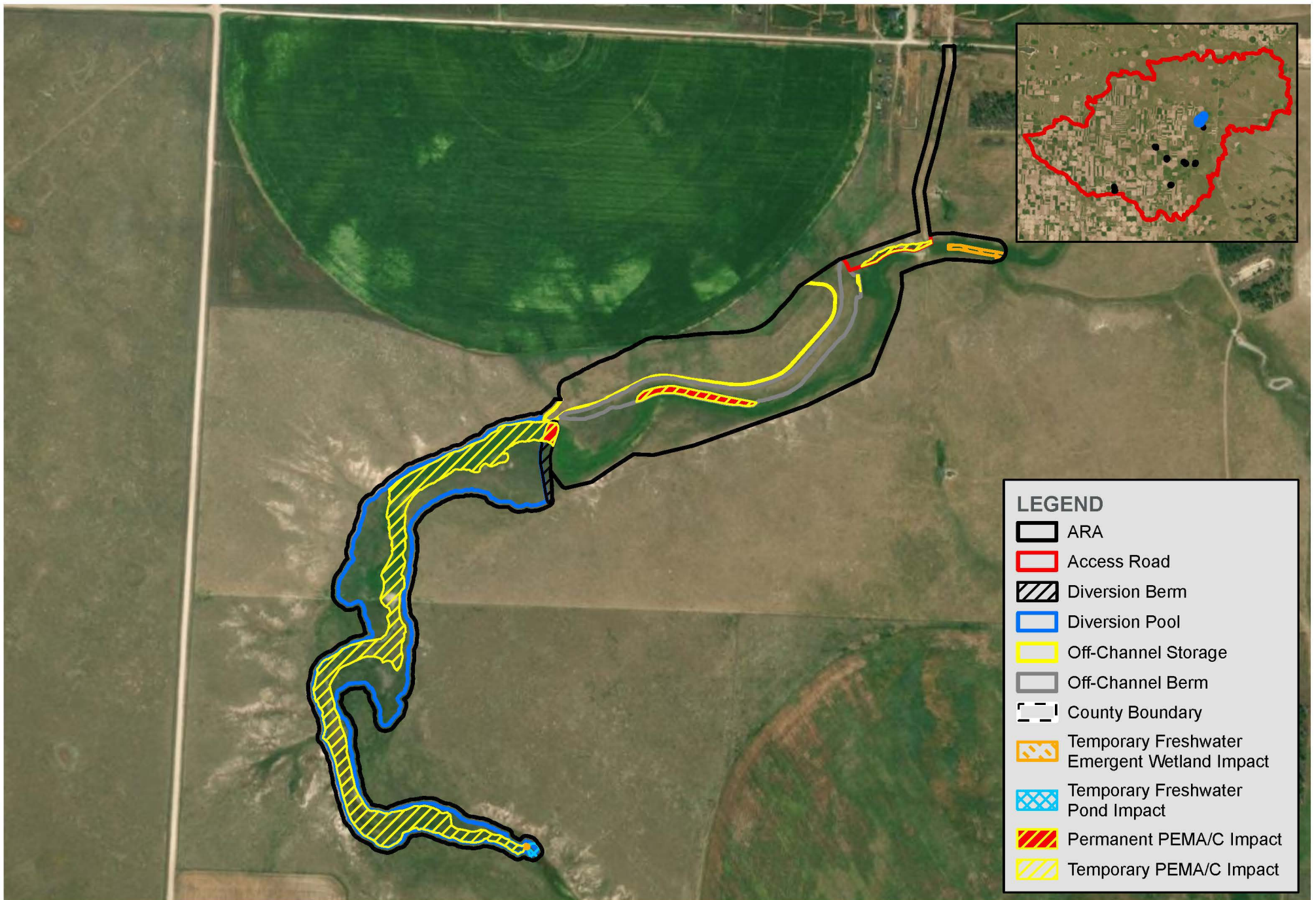


0 925 Feet

DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 8 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

FIGURE 5-3G

UPPER NIOBRARA WHITE NRD



DIVERSION TO OFF-CHANNEL STORAGE ALTERNATIVE - SITE 9A WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 580 Feet

FIGURE 5-3H



- ARA
- Permanent PEMA/C Impact
- Permanent Freshwater Emergent Wetland Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 8 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 90 Feet

FIGURE 5-4A



ARA



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 10 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 390 Feet

FIGURE 5-4B



 ARA

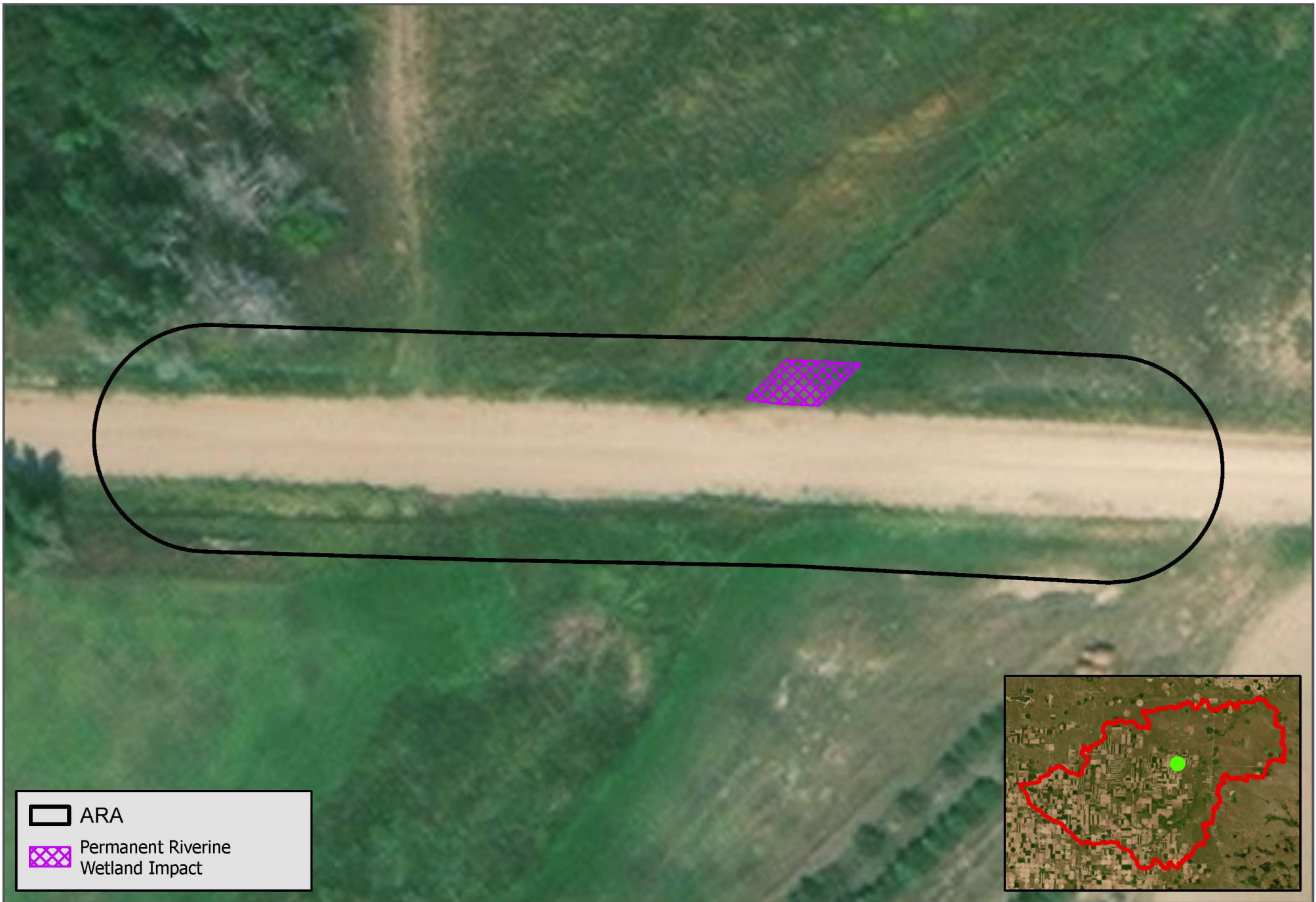
 Permanent PEMA/C Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 11 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

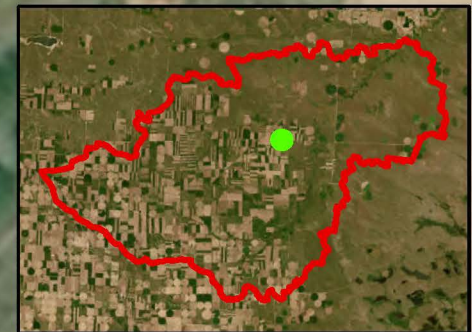


FIGURE 5-4C



 ARA

 Permanent Riverine Wetland Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 12 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA



FIGURE 5-4D



ARA



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 16 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA

0 115 Feet

FIGURE 5-4E



ARA

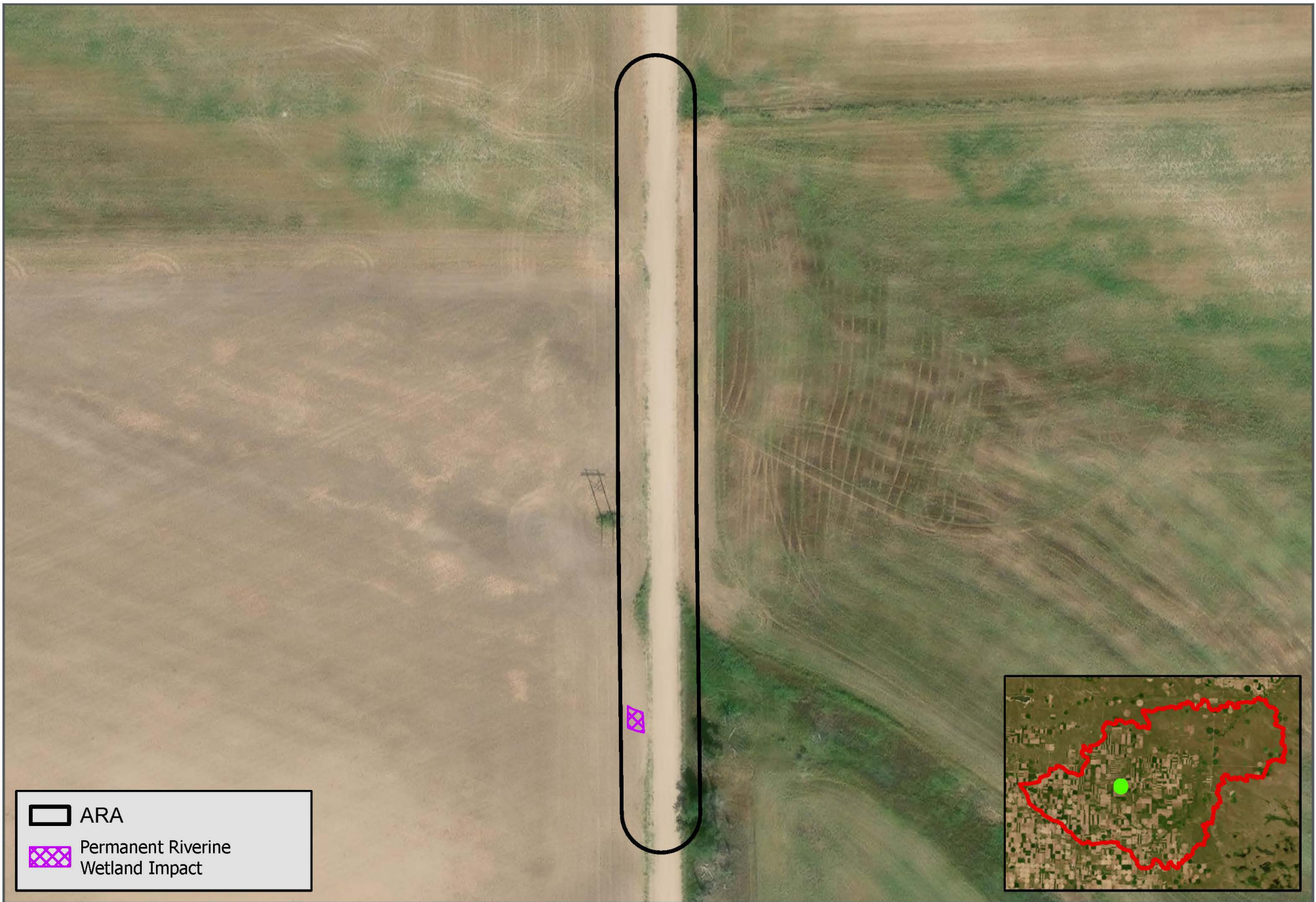
Permanent PEMA/C Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 17 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA



FIGURE 5-4F



ARA

Permanent Riverine
Wetland Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE - SITE 20 WOUS IMPACTS
 BOX BUTTE CREEK WATERSHED PLAN & EA



FIGURE 5-4G



 ARA

 Permanent PEMA/C Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE -SITE 25 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA



FIGURE 5-4H



ARA

Permanent Riverine
Wetland Impact



CHANNEL/INFRASTRUCTURE IMPROVEMENTS ALTERNATIVE -SITE 26 WOUS IMPACTS
BOX BUTTE CREEK WATERSHED PLAN & EA



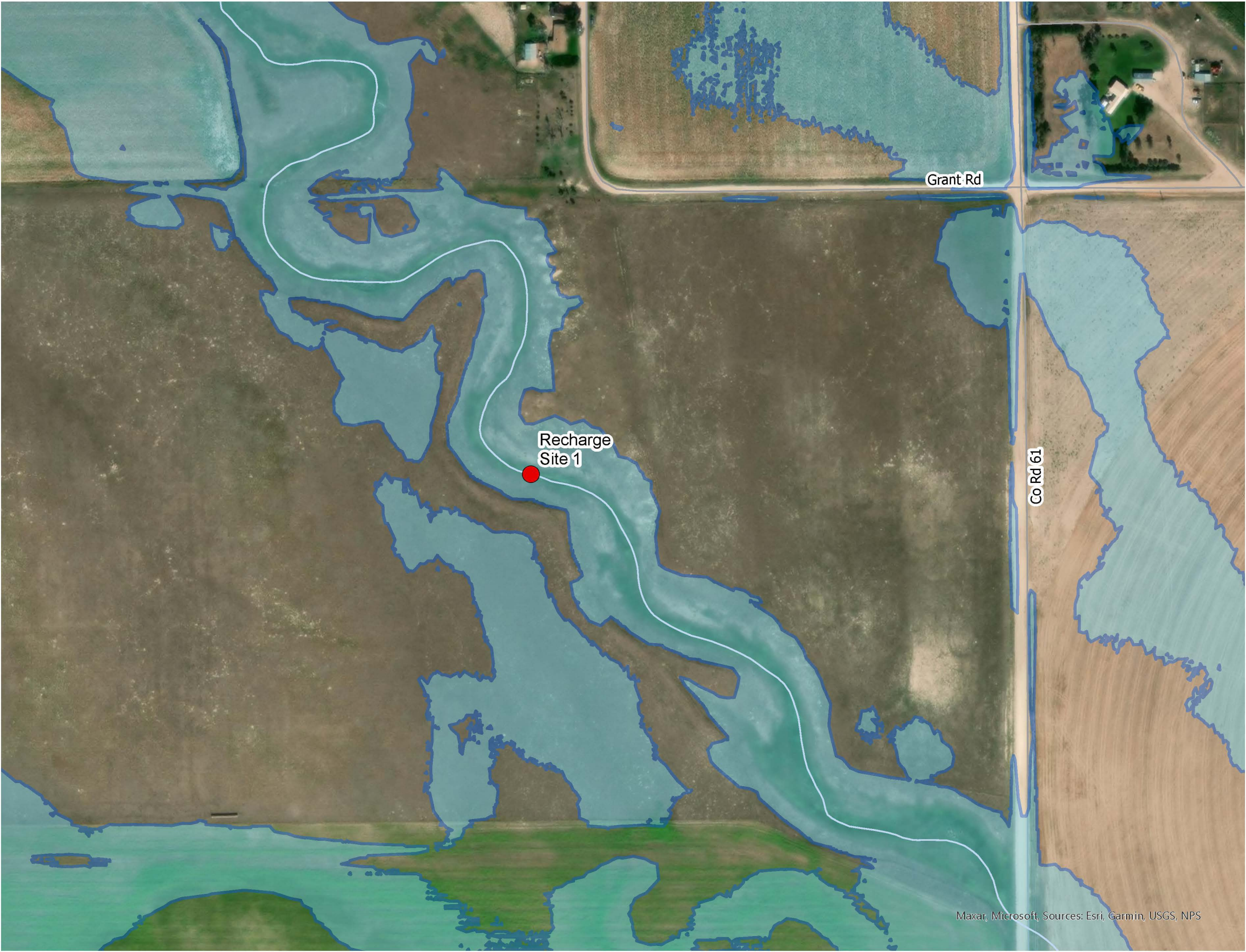
FIGURE 5-4I

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 1

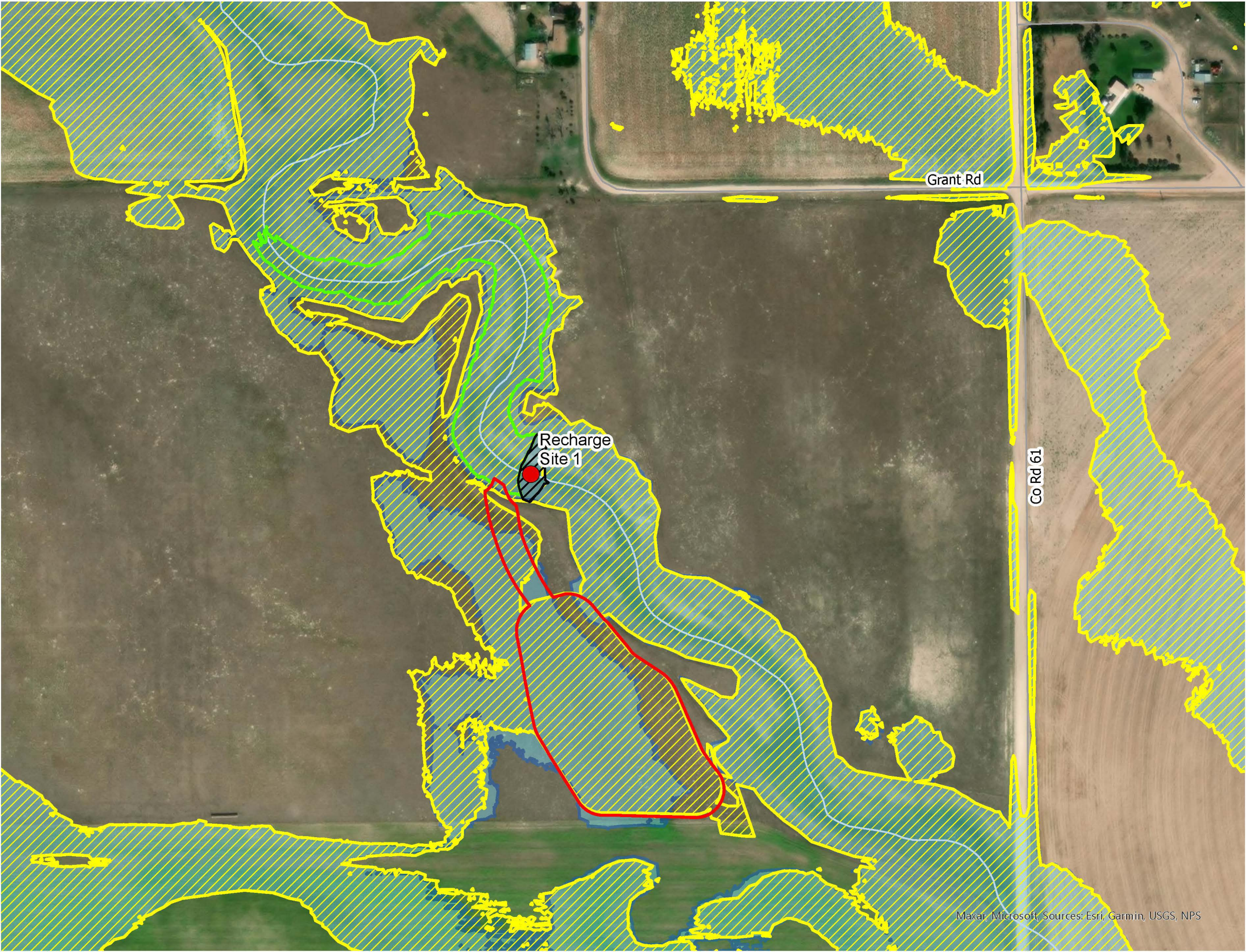
FIGURE 5-5 A-1

- LEGEND**
- Off Channel Storage Sites
 - 1-PCT AEP with Project
 - 1-PCT AEP Existing
 - Box Butte Creek watershed boundary
 - Stream
 - Road

Recharge_Sites

Component

- Diversion Berm
- Diversion Pool
- Off-Channel Storage



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 1

FIGURE 5-5 A-2



LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 1

FIGURE 5-5 A-3

LEGEND

- Off Channel Storage Sites
- 0.2% AEP Existing
- 0.2% AEP with Project
- Box Butte Creek watershed boundary
- Stream
- Road

Recharge Sites

Component

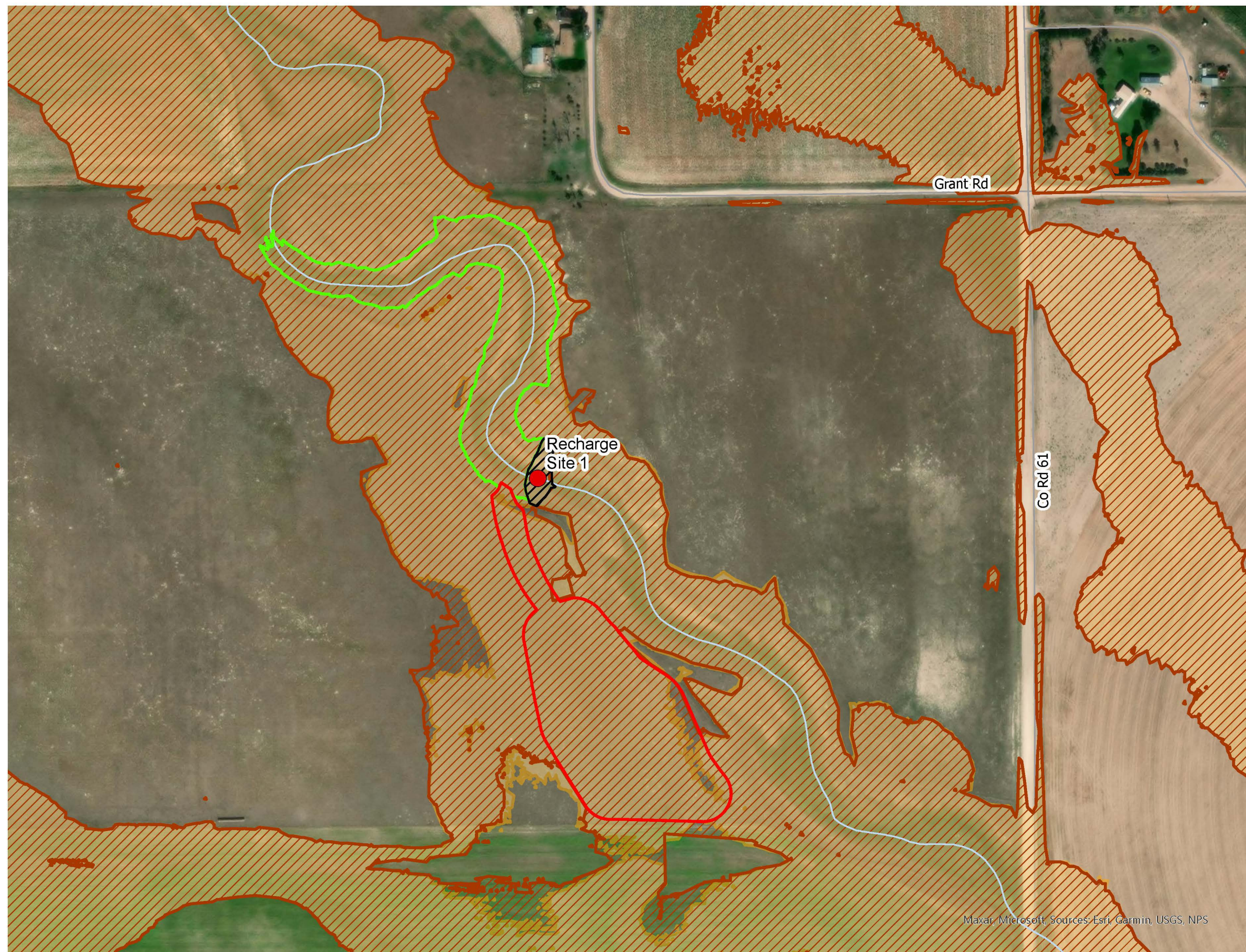
- Diversion Berm
- Diversion Pool
- Off-Channel Storage



DATA SOURCES:
 USGS (NHD: streams, watershed boundaries)
 UNWNRD (Groundwater management subareas)
 US Census Bureau (Counties)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



HDR



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT

BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 1

FIGURE 5-5 A-4

UPPER NIOBRARA WHITE NATURAL RESOURCES DISTRICT

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

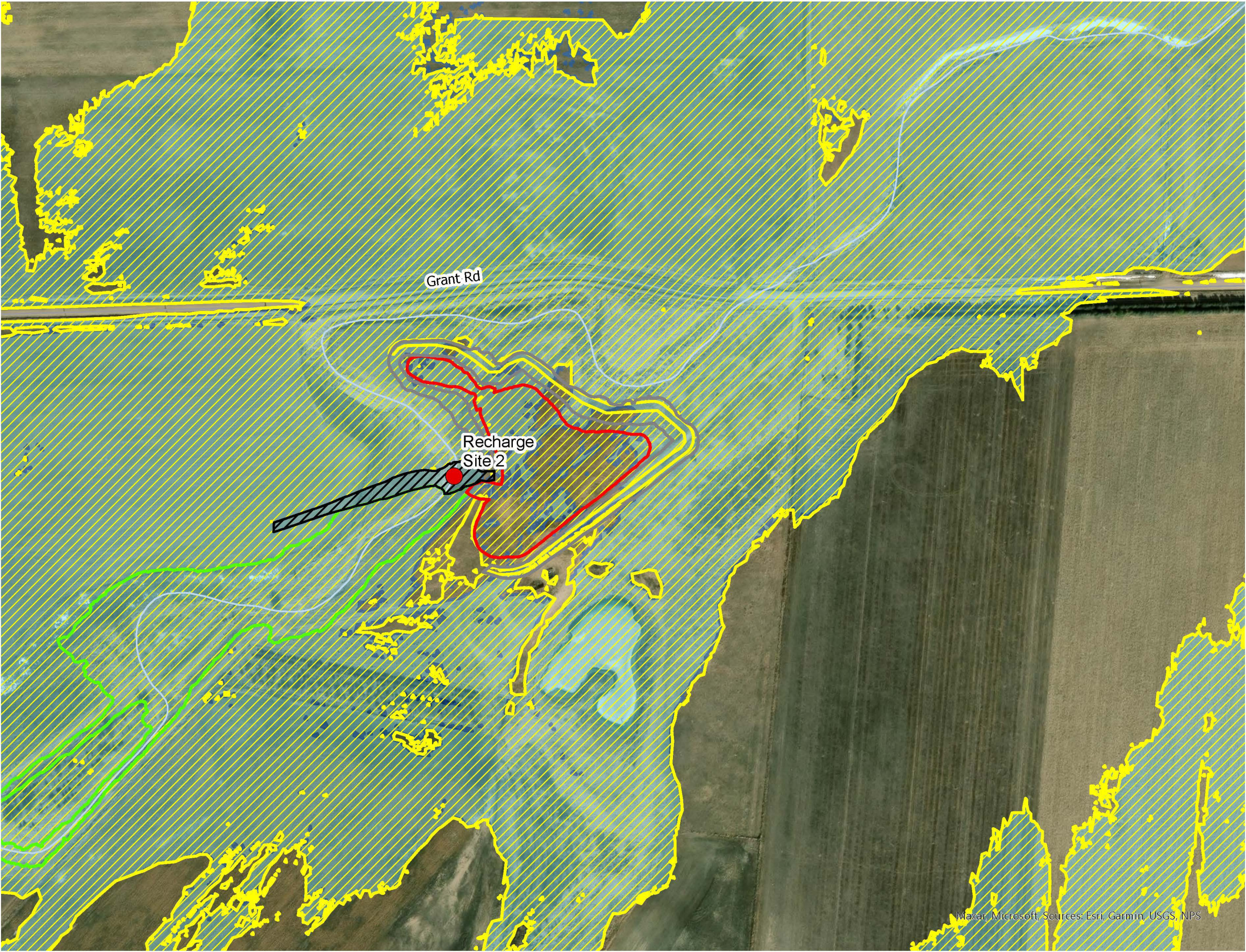
1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 2

FIGURE 5-5 B-1

- LEGEND
- Off Channel Storage Sites
 - 1-PCT AEP with Project
 - 1-PCT AEP Existing
 - Box Butte Creek watershed boundary
 - Stream
 - Road

Recharge_Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 2

FIGURE 5-5 B-2

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

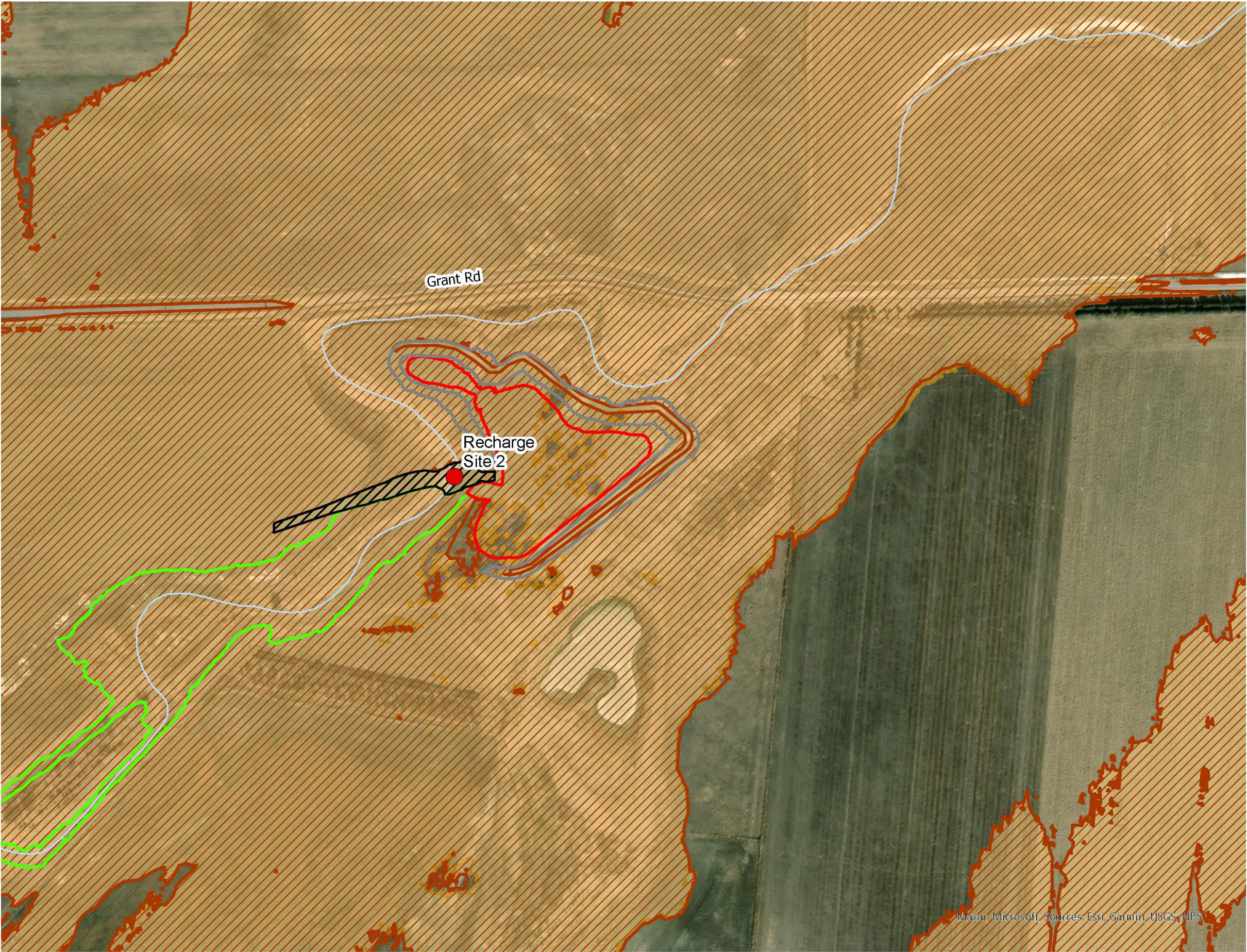
0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 2

FIGURE 5-5 B-3

- LEGEND
- Off Channel Storage Sites
 - 0.2% AEP Existing
 - 0.2% AEP with Project
 - Box Butte Creek watershed boundary
 - Stream
 - Road

Recharge Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

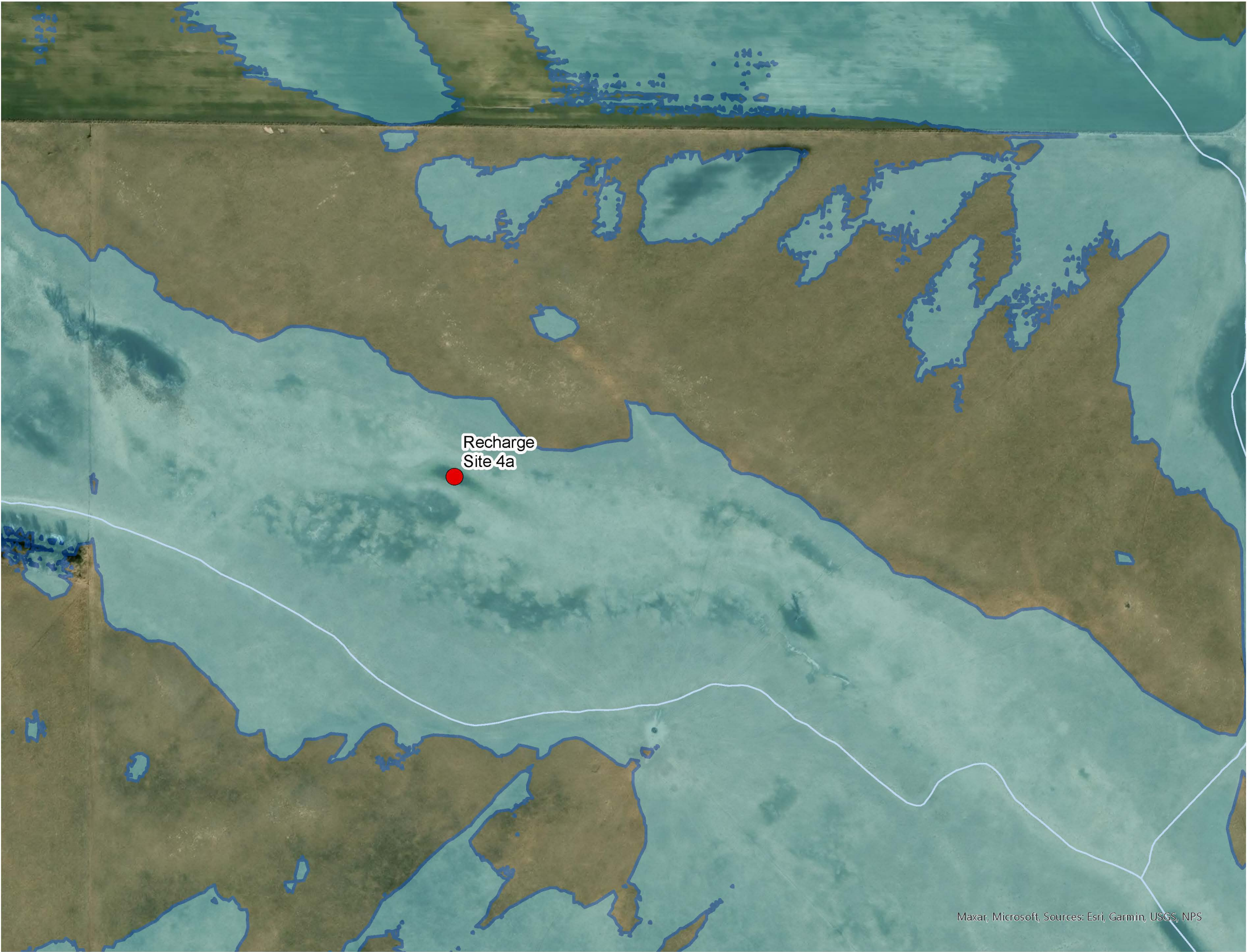


0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 2

FIGURE 5-5 B-4

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- 1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

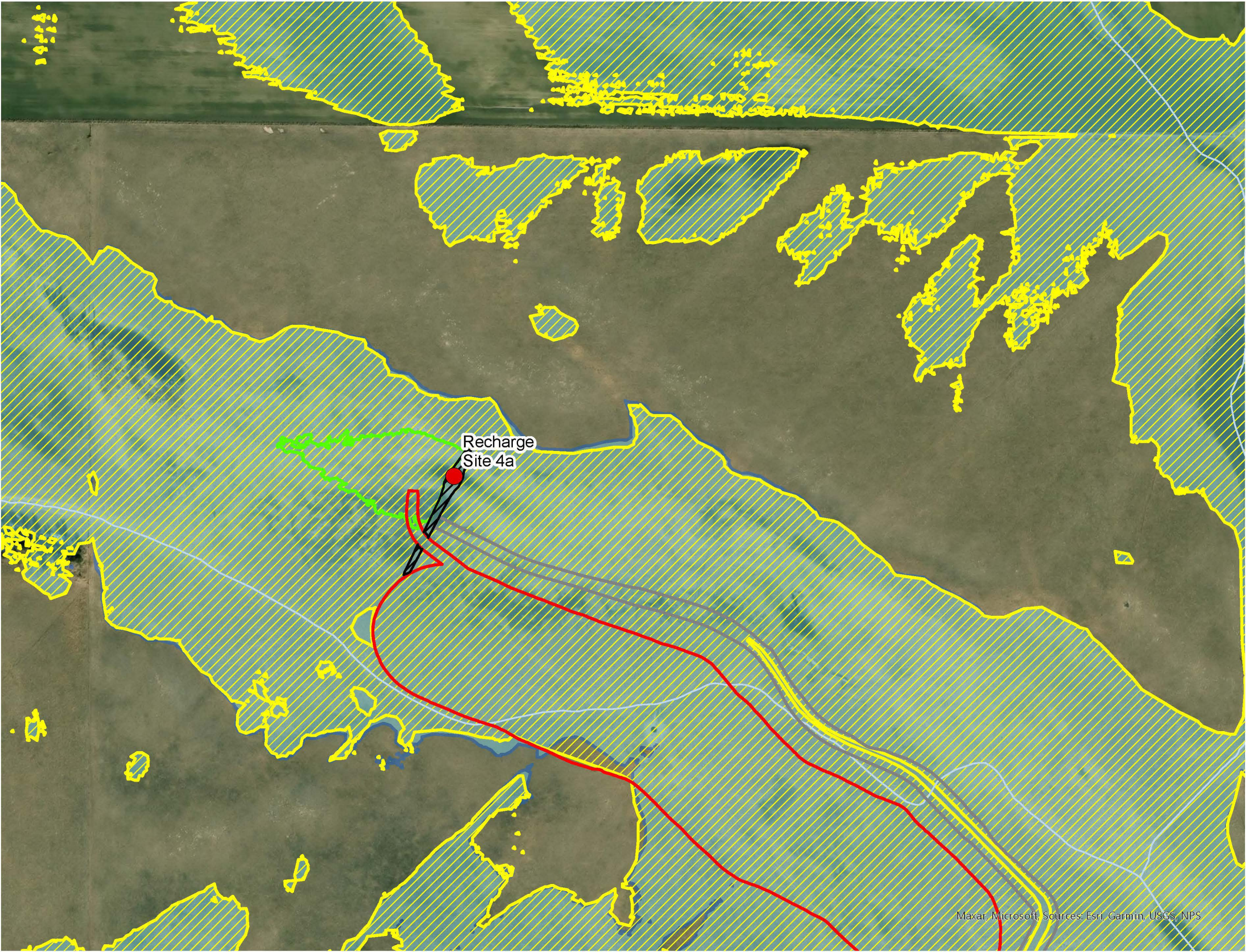
1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 4A

FIGURE 5-5 C-1

- LEGEND
- Off Channel Storage Sites
 - 1-PCT AEP with Project
 - 1-PCT AEP Existing
 - Box Butte Creek watershed boundary
 - Stream

Recharge_Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 4A

FIGURE 5-5 C-2

UPPER NIOBRARA WHITE NATURAL RESOURCES DISTRICT

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- 0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 4A

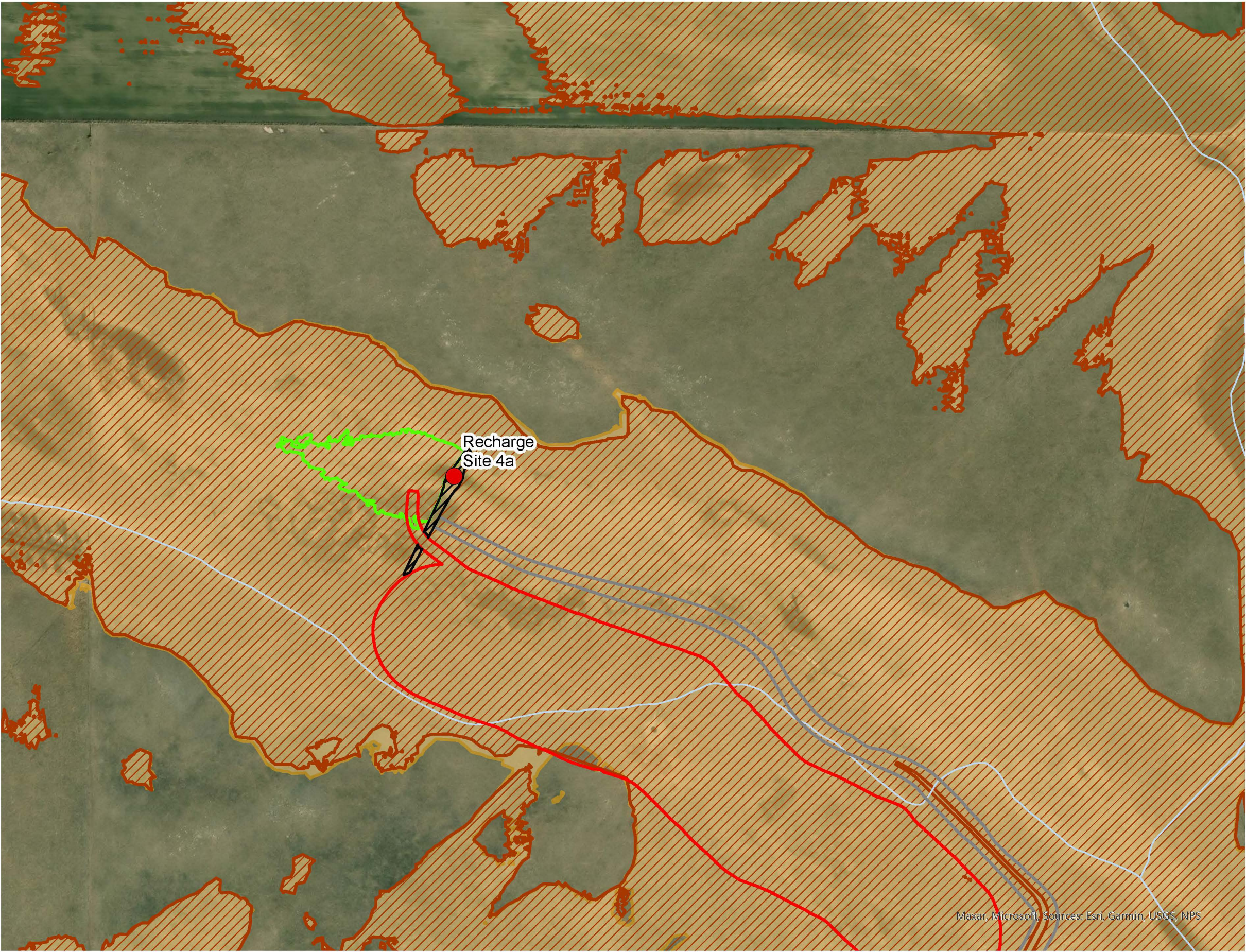
FIGURE 5-5 C-3



- LEGEND
- Off Channel Storage Sites
 - 0.2% AEP with Project
 - 0.2% AEP Existing
 - Box Butte Creek watershed boundary
 - Stream

Recharge Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 4A

FIGURE 5-5 C-4

LEGEND

Road Damage Sites

Off Channel Storage Sites

Box Butte Creek watershed boundary

Stream

Road

1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 5
FIGURE 5-5 D-1

LEGEND

- Road Damage Sites
- Off Channel Storage Sites
- 1-PCT AEP with Project
- 1-PCT AEP Existing
- City
- Box Butte Creek watershed boundary
- Stream
- Road

Recharge_Sites

Component

- Diversion Berm
- Diversion Pool
- Off-Channel Storage
- Off-Channel Berm



DATA SOURCES:
 USGS (NHD: streams, watershed boundaries)
 UNWNRD (Groundwater management subareas)
 US Census Bureau (Counties)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 5

FIGURE 5-5 D-2

LEGEND

- Road Damage Sites
- Off Channel Storage Sites
-  Box Butte Creek watershed boundary
-  Stream
-  Road
-  0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 5
FIGURE 5-5 D-3

- LEGEND**
- Road Damage Sites
 - Off Channel Storage Sites
 - 0.2% AEP with Project
 - 0.2% AEP Existing
 - Box Butte Creek watershed boundary
 - Stream
 - Road

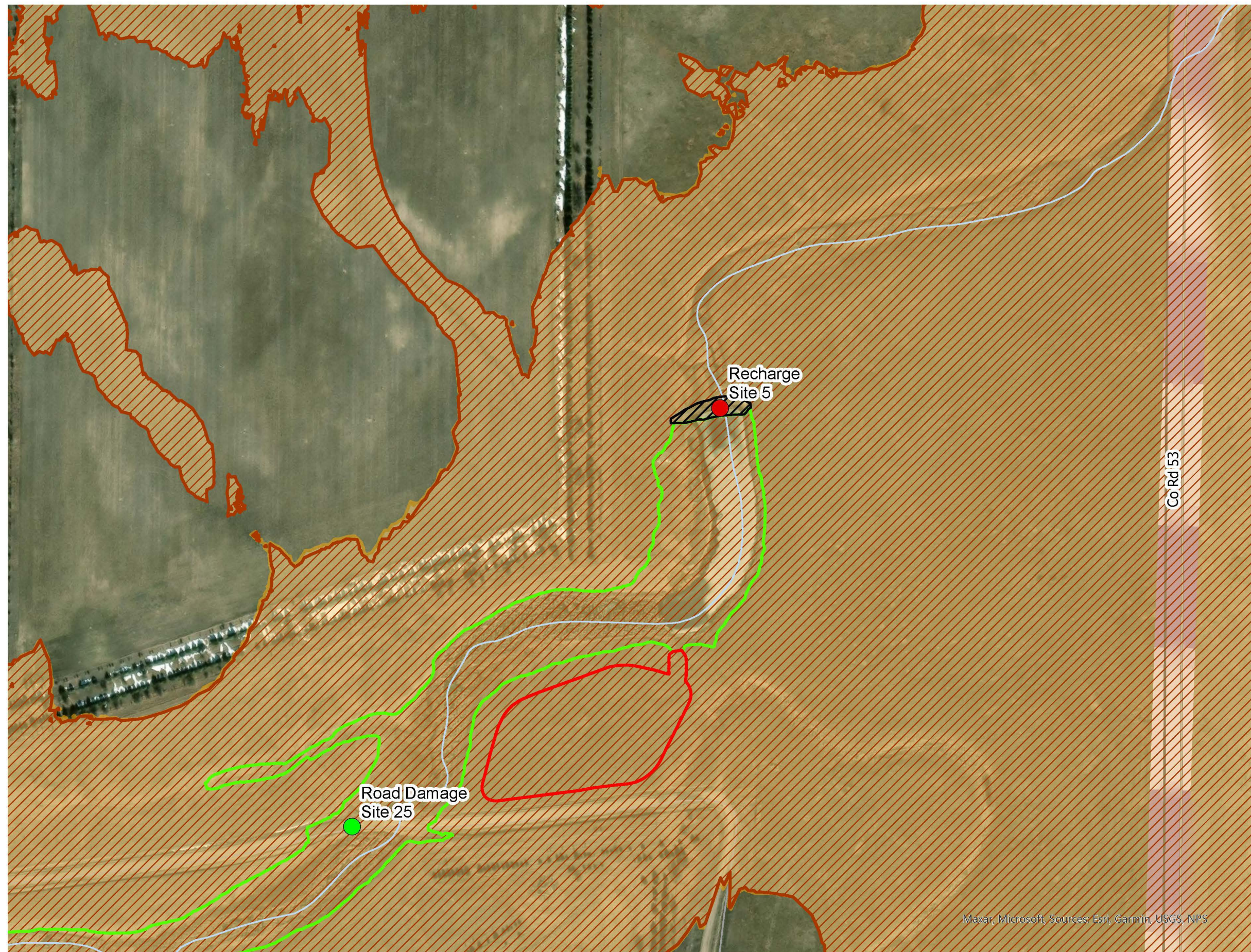
Recharge Sites

Component

- Diversion Berm
- Diversion Pool
- Off-Channel Storage



DATA SOURCES:
 USGS (NHD: streams, watershed boundaries)
 UNWNRD (Groundwater management subareas)
 US Census Bureau (Counties)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT

BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 5

FIGURE 5-5 D-4

UPPER NIOBRARA WHITE NATURAL RESOURCES DISTRICT

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- 1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

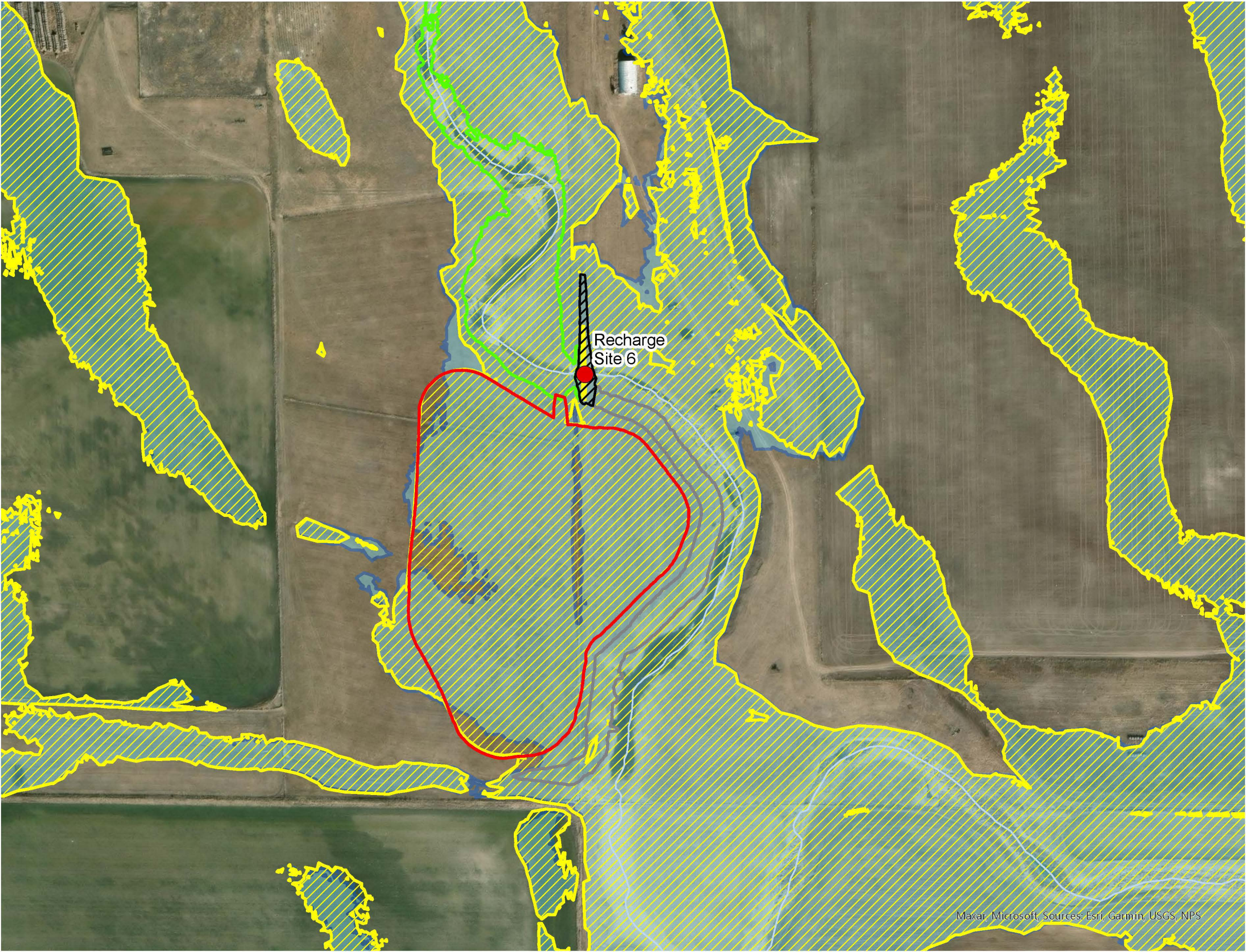
1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 6

FIGURE 5-5 E-1

- LEGEND
- Off Channel Storage Sites
 - 1-PCT AEP with Project
 - 1-PCT AEP Existing
 - Box Butte Creek watershed boundary
 - Stream

Recharge_Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)

Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 6

FIGURE 5-5 E-2

UPPER NIOBRARA WHITE NATURAL RESOURCES DISTRICT



LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- 0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

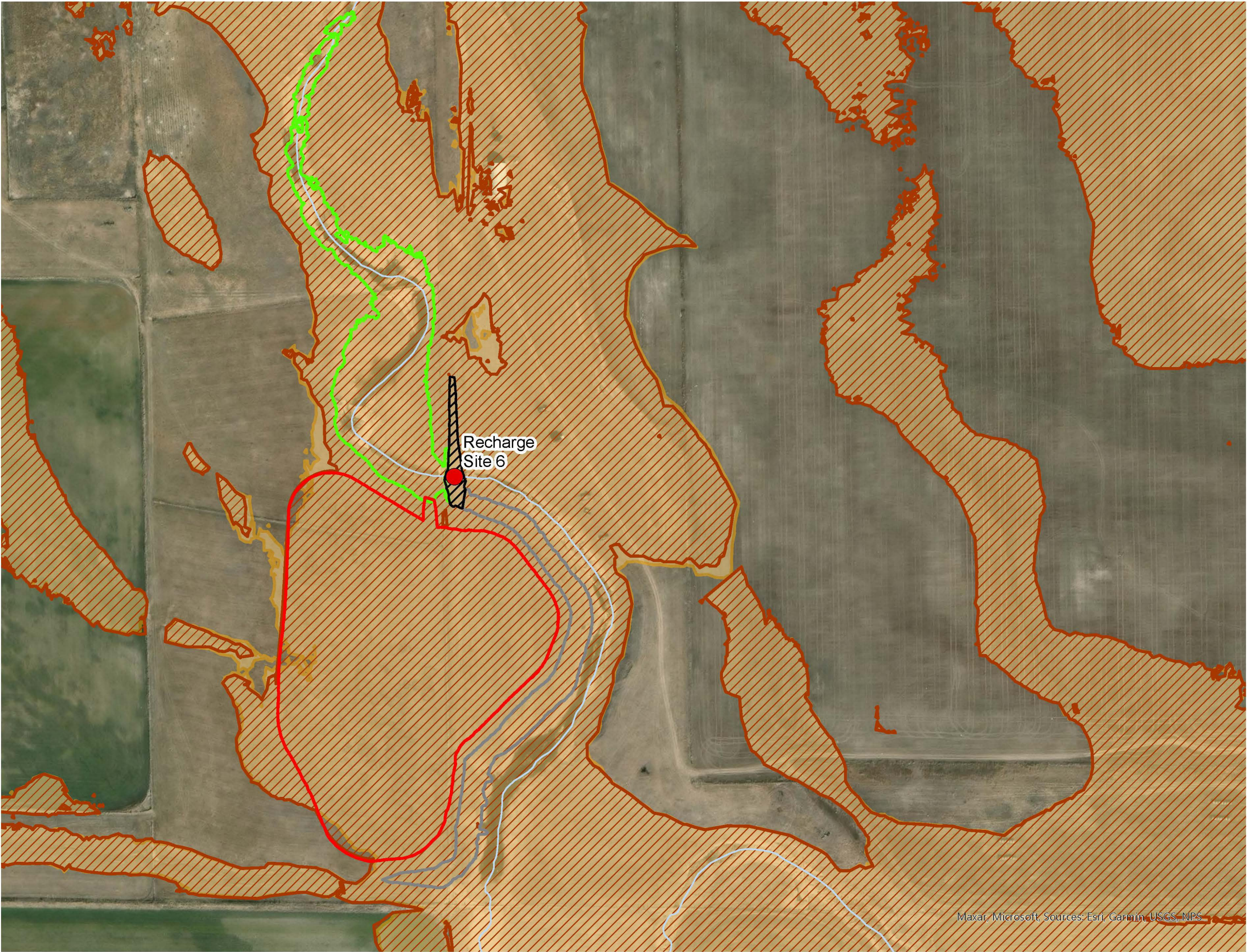
0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 6

FIGURE 5-5 E-3

- LEGEND
- Off Channel Storage Sites
 - 0.2% AEP Existing
 - 0.2% AEP with Project
 - Box Butte Creek watershed boundary
 - Stream

Recharge Sites

- Component
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage
 - Off-Channel Berm



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 6
FIGURE 5-5 E-4

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 1-PCT AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 7

FIGURE 5-5 F-1

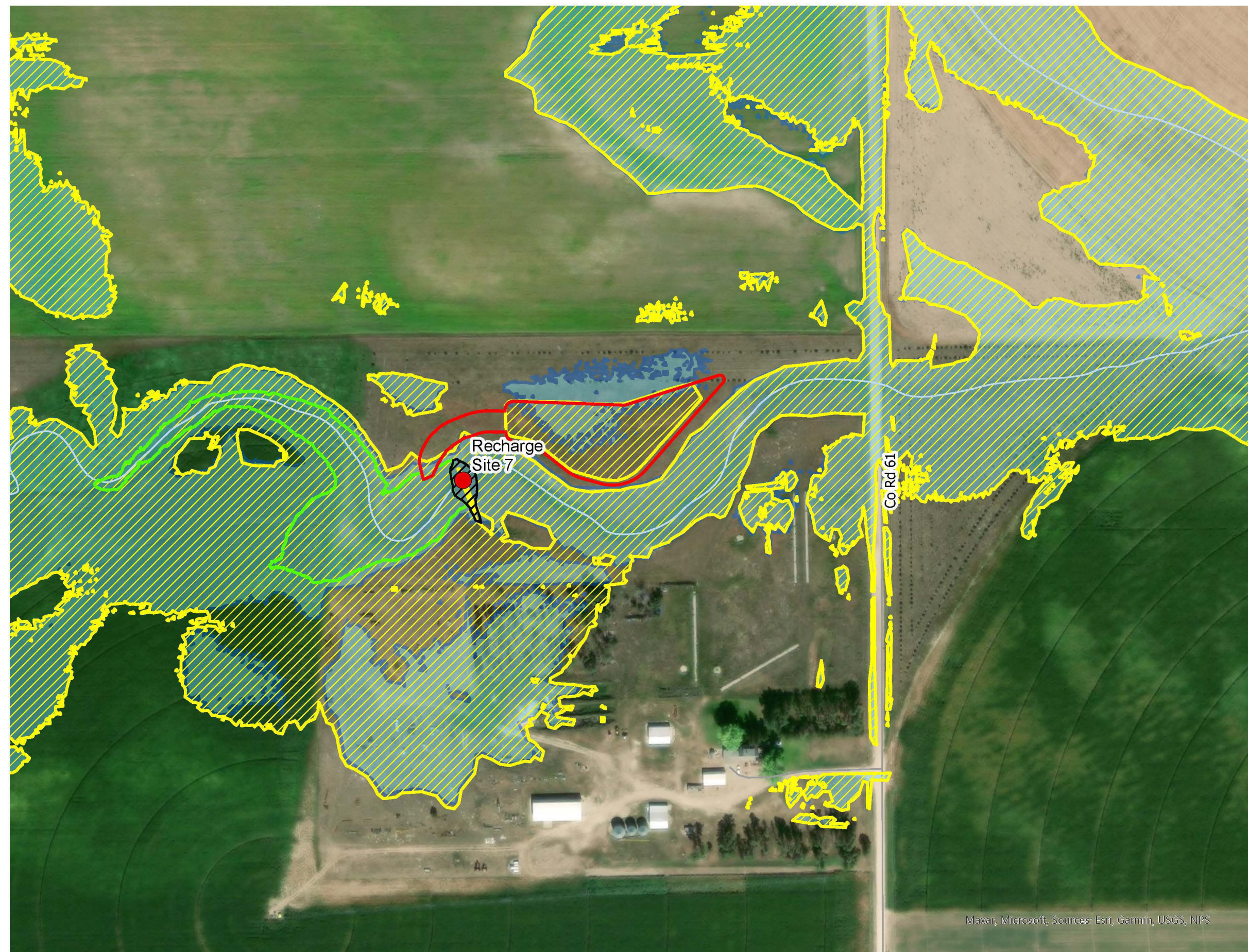
LEGEND

- Off Channel Storage Sites
- 1-PCT AEP with Project
- 1-PCT AEP Existing
- Box Butte Creek watershed boundary
- Stream
- Road

Recharge_Sites

Component

- Diversion Berm
- Diversion Pool
- Off-Channel Storage
- Off-Channel Berm



DATA SOURCES:
 USGS (NHD: streams, watershed boundaries)
 UNWNRD (Groundwater management subareas)
 US Census Bureau (Counties)
 ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



PATH: Z:\PROJECTS\UNWNRD\10257466_UNWNRD_BOXBUTTEWTRSHD\MAP_DOCS\WORKING_MXD\CHAPTER_4_FIGURES\WFPO_1PCT_PROPOSED.APRX - USER: SROCK - DATE: 7/15/2025

Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

1-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT

BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 7

FIGURE 5-5 F-2

UPPER NIOBRARA WHITE NATURAL RESOURCES DISTRICT

LEGEND

- Off Channel Storage Sites
- Box Butte Creek watershed boundary
- Stream
- Road
- 0.2% AEP Existing



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

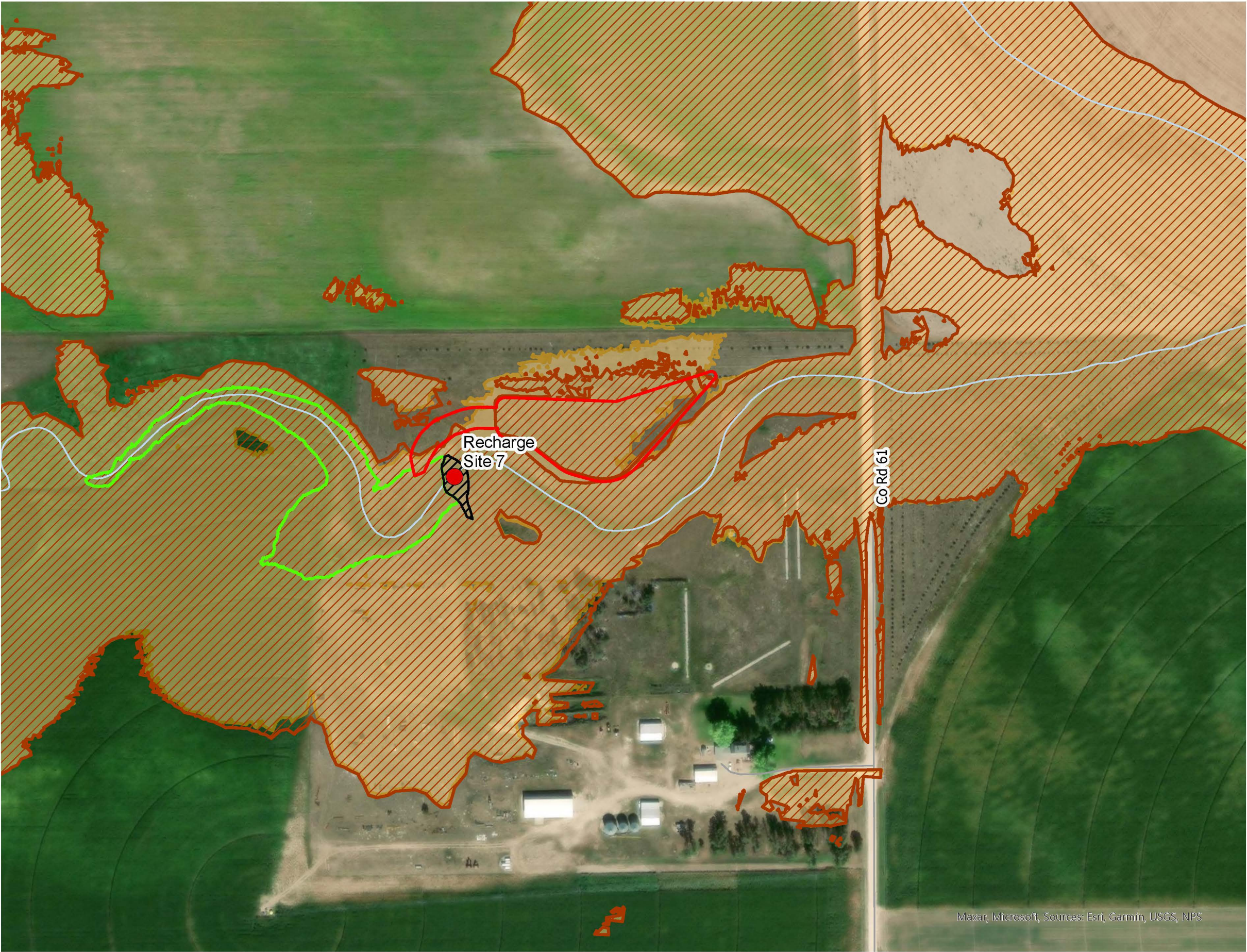
0.2-PERCENT AEP FLOODPLAIN EXISTING CONDITIONS
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 7

FIGURE 5-5 F-3

- LEGEND**
- Off Channel Storage Sites
 - 0.2% AEP Existing
 - 0.2% AEP with Project
 - Box Butte Creek watershed boundary
 - Stream
 - Road

Recharge Sites

- Component**
- Diversion Berm
 - Diversion Pool
 - Off-Channel Storage



DATA SOURCES:
USGS (NHD: streams, watershed boundaries)
UNWNRD (Groundwater management subareas)
US Census Bureau (Counties)
ESRI, USGS, NOAA, Garmin, NPS (Background map and reference layers)



Maxar, Microsoft, Sources: Esri, Garmin, USGS, NPS

0.2-PERCENT AEP FLOODPLAIN WITH RECHARGE PROJECT
BOX BUTTE CREEK WATERSHED PLAN & EA - RECHARGE SITE 7

FIGURE 5-5 F-4