



LAND EVALUATION REPORT

For

TRACT 2003



Prepared for:
Platte River Recovery Implementation Program
Land Advisory Committee

Evaluation Team:
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Site Visit Date:
12/21/2020

Evaluation Report Completion Date:
01/21/2021



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I. EVALUATION TEAM AND SCHEDULE

A. Evaluation Team Members

The Tract 2003 Evaluation Team members are:

- Bruce Sackett – Platte River Recovery Implementation Program
- Kaley Keldsen – Platte River Recovery Implementation Program – Drone Pilot
- Bryan O'Connor – Nebraska Game and Parks Commission

B. Date of Evaluation

The Evaluation Team performed a site visit on December 21, 2020. A summary of this Evaluation Report was presented to the Land Advisory Committee (LAC) and discussed at the February 1, 2021 virtual LAC meeting. The Report was finalized following that meeting.

II. GEOGRAPHIC CONSIDERATIONS

This tract lies within the Grand Island to Chapman, NE reach of the Platte River and within 3.5 miles of the main channel or 2 miles of a side channel. As such, it is eligible for inclusion in the Program.

A. Tract Location and Size

Tract 2003 is approximately 86 acres in size and is in parts of Sections 1, 2, 11, 12 T-11N, R-08W. Figure A-1 (located in Appendix A) delineates the property boundary. The tract is in the Grand Island to Chapman bridge segment also known as the Chapman Complex. Figure A-2 shows the parcel location within the Program land acquisition area, bridge segment and its proximity to existing leased and owned conservation lands and other tracts being evaluated by the Program.

III. LAND USE CONSIDERATIONS

Land cover/use information for this phase of the land evaluation process is compiled by Program Staff utilizing best available Geographic Information System (GIS) datasets developed by the Program and its partners. A more detailed field analysis of target species habitat considerations is conducted during the next phase of the tract evaluation process and is discussed further in the next section of this report.

A. Land Cover/Use

Existing land cover/use on and adjacent to this tract was evaluated utilizing the updated 2005 land cover overlay developed in cooperation with the Whooping Crane Maintenance Trust Inc. (Crane Trust) and the United States Fish and Wildlife Service (USFW). The land cover classifications from the overlay were compared to the most recent United States Department of Agriculture (USDA) Farm Service Agency (FSA) and Program aerial photography to identify any land use changes that have occurred since the development of that dataset. The 2005 land cover/use for this tract is summarized in Table 1. Several additional land cover/use related maps are in Appendix A including:

- Figure A-3 – 2005 Land Cover/Use



- Figure A-4 – National Wetland Inventory
- Figure A-5 – 1938 Aerial Photography
- Figure A-6 – 1998 CIR Aerial Photography
- Figure A-7 – 2020 CIR Aerial Photography

Table 1 – Tract 2003 2005 Land Cover/Use Summary

Land Cover Classification	Acres	Percent of Total
Bare ground/Sparse Veg	0.20	0.24%
Mesic Wet Meadow	0.75	0.87%
Phragmites	6.30	7.33%
Riparian Shrubland	18.85	21.92%
Riparian Woodland	29.54	34.36%
River Early Successional	5.10	5.94%
River Shrubland	10.81	12.57%
Roads	0.13	0.15%
Unvegetated Sandbar	10.61	12.34%
Xeric Wet Meadow	3.68	4.28%
	85.96	100.00%

B. Incompatible Uses and Environmental Concerns

Tract 2003 does not currently have land uses that are incompatible with target species habitat.

C. Restoration and Maintenance Impacts on Neighboring Properties

Restoration and maintenance on this tract are not expected to have negative impacts on neighboring properties. Program Staff would coordinate with neighboring landowners to inform them about restoration and maintenance activities and use this contact as a tool to develop positive relationships.

D. Target Species Use

Least Terns & Piping Plovers:

Since 2001, 27 observations of least tern adults, 1 least tern fledgling, 8 piping plover adults, and 1 piping plover fledgling have been recorded foraging in this river segment from the Chapman bridge to the Burlington RR bridge. The last least tern sighting was in 2019, and the last piping plover was observed in 2020. Of these observations, 10 of the least tern adults were observed foraging in the river on or immediately adjacent to this property. The last least tern sighted on the property was in 2016. None of the piping plover sightings occurred on the McDonald tract, however, 1 plover was observed foraging a half mile upstream. Both species have been recorded foraging on this bridge segment, but no nests have been observed.



Whooping Cranes:

According to the United States Fish and Wildlife Service whooping crane sightings database and Program monitoring protocol, whooping cranes were observed on-channel within 1 mile of the tract boundaries in 2002 and 2017. In 2015, a crane group was observed in-channel directly adjacent (<2.0 miles) to tract 2003.

E. Certified Irrigated Acres

Tract 2003 includes no NRD certified irrigated acres.

IV. TARGET SPECIES HABITAT CONSIDERATIONS

A. Existing Species Habitat

On December 21, 2020, the Evaluation Team completed the field investigation requirements of the land evaluation process. The information in this section of the report has been compiled from the site visit and follow-up analysis of Program GIS datasets.

1. *Non-Riverine Surface Water*

Tract 2003 contains no non-riverine surface water.

2. *River Frontage and Active Channel Widths*

The tract contains approximately 5,398 feet of Platte River frontage on the main channel.

Channel width measurement protocols define active channel width as the width of the channel that is unvegetated. Channel widths were measured at ¼ mile intervals utilizing color infrared aerial photography flown in June of 2020. Measured main channel widths are presented in Table 2.

Table 2 – Tract 2003 Main Channel Widths

Measurement	Width (ft)
Minimum Channel Width	64
Maximum Channel Width	586
Median Channel Width	366
Mean Channel Width	323

3. *Contiguous Sand Substrates*

At the time of the review, tract 2003 contained no substantial areas of contiguous bare sand substrate.

4. *Island and Channel Bank Height*

From LiDAR, bank heights are estimated to be 1-4 ft above water.



5. Groundwater

Based on the river level and the wooded wetlands areas, groundwater is estimated to be zero to four feet below ground surface. The riparian wooded area has many areas of exposed groundwater/sloughs under current high-water conditions.

6. Flooding in Non-Wetland Areas

There was no evidence of temporary inundation of non-wetland areas at the time of the site evaluation.

7. Power/Transmission Lines

There are no overhead power lines crossing tract 2003. There is a buried fiber optics line running north to south under the river and through this land.

B. Complex and Non-Complex Habitat

The Evaluation Team recommends that the entirety of this tract be considered as complex habitat.

1. Habitat Complex Acres

Table 3 provides the total acres of land contributing to a habitat complex. The classifications are based on *Table 1. Target Habitat Complex Guidelines*, of the Program's Land Plan. The classification acres in Table 3 are based on existing tract land cover/use and are delineated in Figure A-8.

Table 3 – Tract 2003 Habitat Complex Acres

Land Classification*	Acres
Riverine	
Channel	37
Buffer	
Woodland	49

* Habitat complex land classification categories are more general than the 2005 land cover/use classification and areas may vary due to changes in land use and vegetation since 2005.

2. Non-Complex Habitat Acres

No portion of this tract is being considered as non-complex habitat.

3. Excess Acres

This tract does not contain any land to be considered excess.

4. Habitat Restoration and Maintenance Needs and Conceptual Costs

Potential habitat restoration activities for this tract are presented below:



- Clear and grub riverbank – In order to increase open view widths in-channel, trees could be cleared back from the riverbank to achieve Program minimum criteria for unobstructed view widths of 750 feet, an area encompassing about 30 acres. This action is estimated to cost on the order of \$1,500/acre, or about \$45,000. Additionally, phragmites and other woody shrubs will be eliminated, an area encompassing about 30 acres will be treated with herbicide for initial control and follow-up, as necessary. This action is estimated to cost on the order of \$200/ acre, or about \$6,000 for initial control efforts.
- Grassland reseeding – This would be done only on the highly disturbed areas from the tree removal, approximately 30 acres. Depending on the level of species diversity, this action is estimated to cost on the order of \$100/acre (Low diversity) to \$400/ acre (High Diversity) or \$3,000 to \$12,000.

5. Buffer

This tract is bounded on the south by private land. There is enough thick riparian forest to the south to leave an adequate buffer to any river restoration activities. On the east is private land, this tract is bounded by privately owned riparian forest. The west side and north side of this tract attaches to PRRIF owned land.

V. PROPERTY MANAGEMENT CONSIDERATIONS

A. Encumbrances

1. Legal Encumbrances

At the time of review there were no known legal restrictions that would prevent intended management. The property is owned by the McDonald family. This evaluation is subject to a complete title search. The legal review will be attached when completed.

2. Management Encumbrances

For the Program to perform any management activities prior to doing anything, all work must be discussed and approved by the current owner.

B. Environmental Audit

An environmental audit has not been completed for Tract 2003. It will be provided when completed.

C. Property Interest Acquisition Options and Costs

The property is owned by the McDonald family. The Program would pursue lease since the family says purchase is not available.



D. Extraneous Costs

Extraneous costs include current land use modification or cessation, third party impacts, and adjacent incompatible use mitigation costs. No extraneous costs have been identified at this time.

E. Operations and Maintenance

Operations and maintenance costs have been estimated based on O&M activities on existing conservation properties in the critical habitat area. Actual costs are highly variable and expected to change over the course of the first increment as the result of adaptive management activities.

Table 5 – Tract 2003 First Increment Extension Operations & Maintenance Cost Estimate

Item/Activity	Annual Cost	First Increment Cost
Vegetation Control in Cleared Bank Area and Channel	\$2,000	\$24,000
Miscellaneous Expenditures	\$1,000	\$12,000
Oversight	\$2,000	\$24,000
Total Estimated Cost	\$5,000	\$60,000

F. Other Considerations

No significant considerations have been identified that were not discussed in this report.

VI. EVALUATION TEAM RECOMMENDATION

The evaluation team recommends that the LAC forward tract 2003 to the GC with a recommendation to pursue tract 2003. Tract 2003 is in a priority bridge segment for the Program.

VII. LAC RECOMMENDATION

On February 1, 2021, the LAC voted to recommend (or did not recommend) that the GC continue to pursue a management agreement or lease of Tract 2003 as complex habitat.



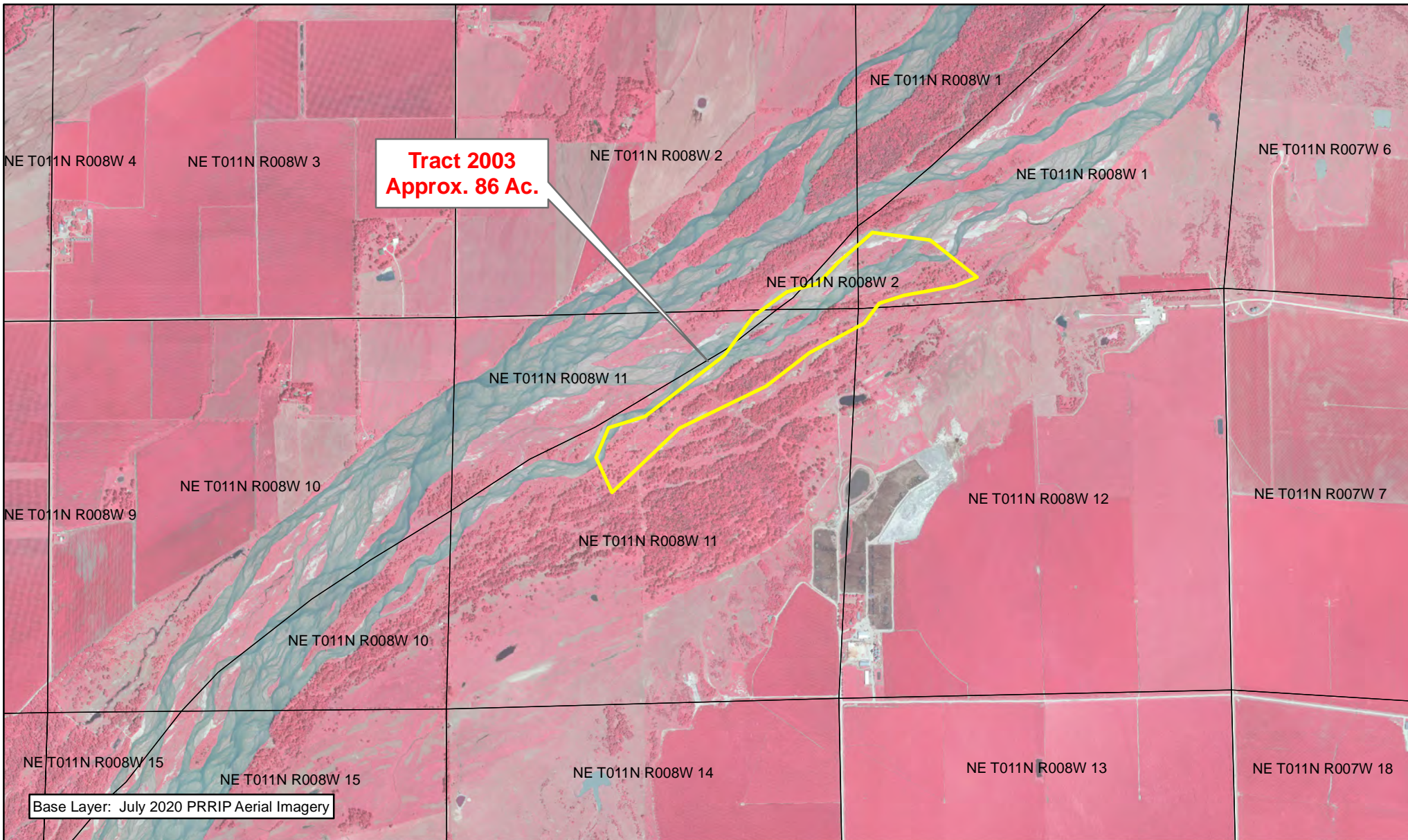
APPENDIX A – MAPS

CONFIDENTIAL





APPENDIX B – LEGAL REVIEW


CONFIDENTIAL



Legend

-  Tract 2003
-  Sections



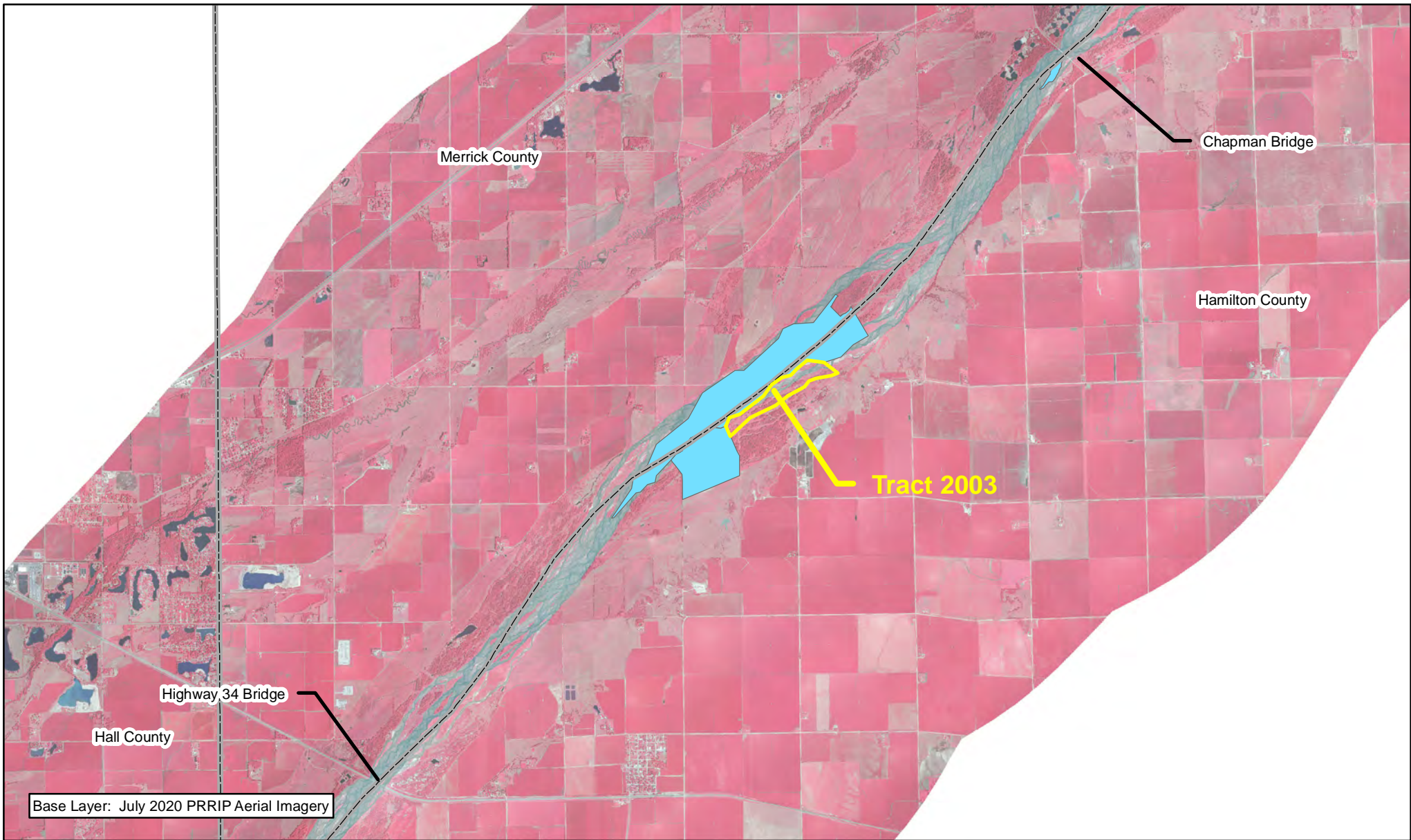
 Miles

1

**TRACT 2003
BOUNDARY MAP**

Date: 12/17/20
By: TRT

Figure A-1



Legend

Tract 2003	Audubon	PRRIP
County	CNPPID	PRWCT
	NGPC	TNC
	NPPD	Wyoming



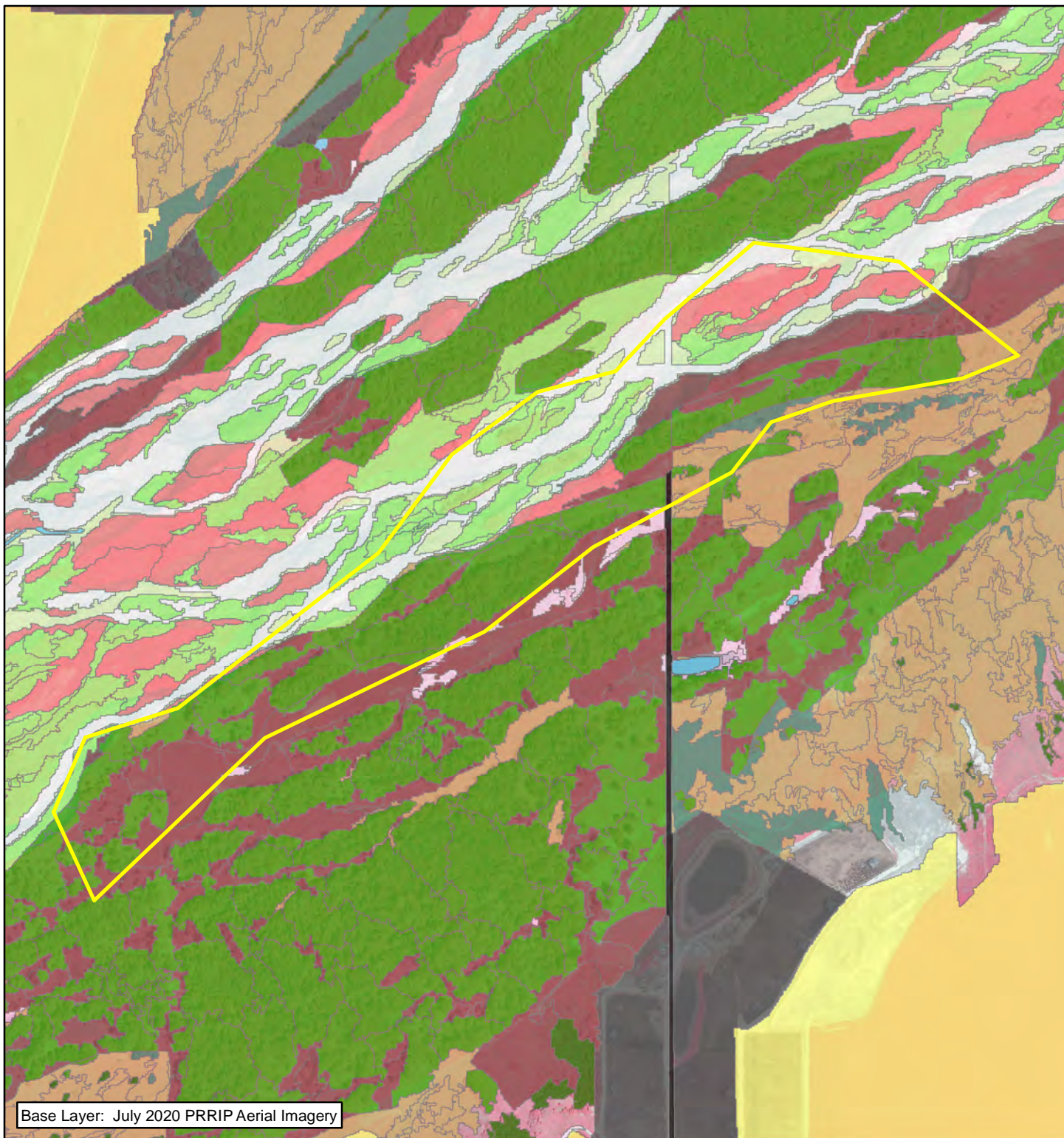
Miles

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TRACT 2003 LOCATION MAP

Date: 12/17/20
By: TRT

Figure A-2



Legend

- | | |
|--------------------------|---------------------|
| Tract 2003 | River Shrubland |
| Ag | Roads |
| Bareground/Sparse Veg | Rural Developed |
| Canal/Drainage | Sand Pit |
| Mesic Wet Meadow | Unvegetated Sandbar |
| Phragmites | Upland Woodland |
| Riparian Shrubland | Urban/Suburban |
| Riparian Woodland | Warmwater Slough |
| River Channel | Xeric Wet Meadow |
| River Early Successional | |



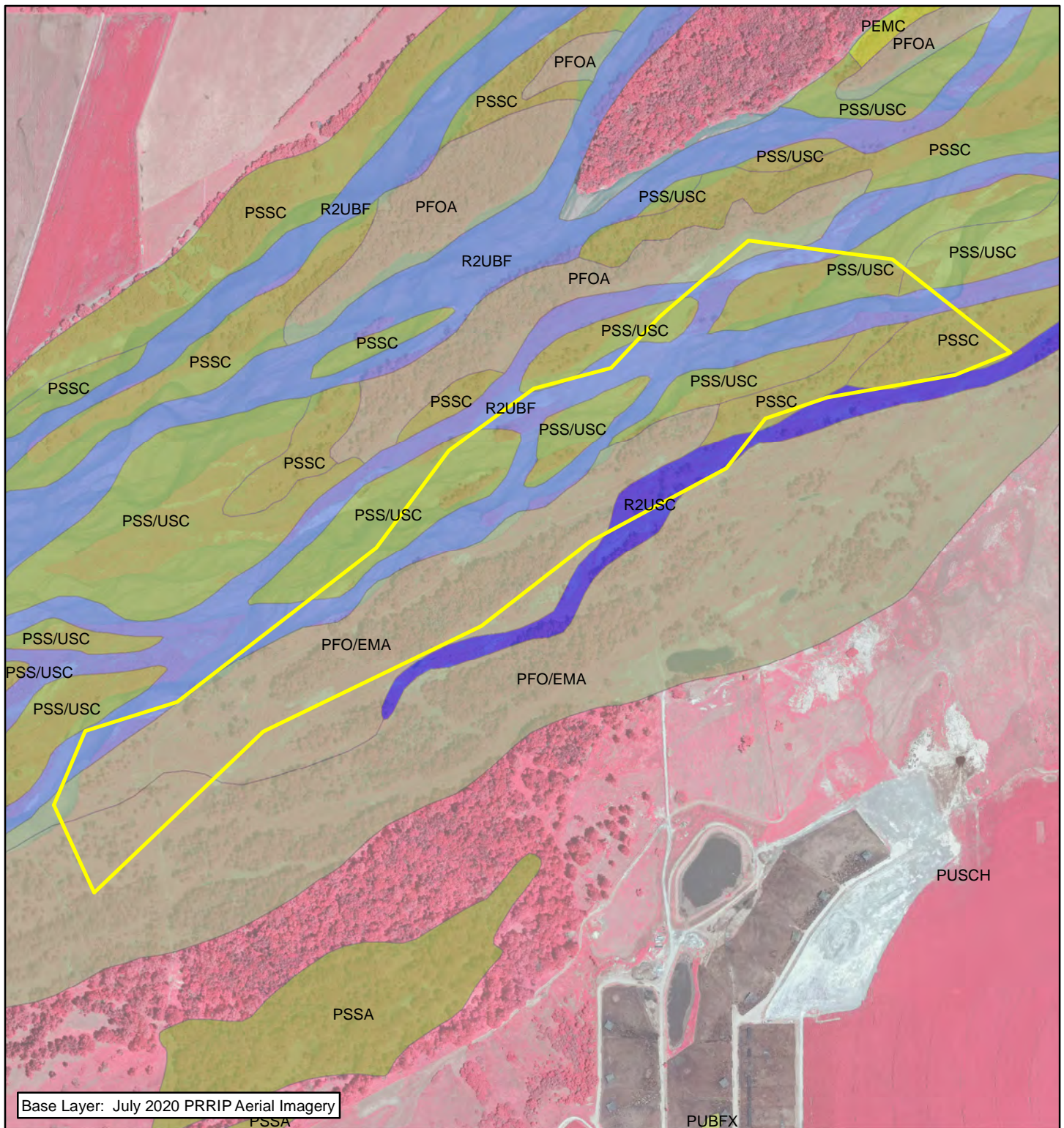
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**TRACT 2003
2005 LAND COVER/USE**

Date: 12/17/20

By: TRT

Figure A-3



Legend

- Tract 2003
- Lacustrine Unconsolidated Bottom (LUB)
- Palustrine Aquatic Bed (PAB)
- Palustrine Emergent (PE)
- Palustrine Forested (PF)
- Palustrine Scrub-Shrub (PSS)
- Palustrine Unconsolidated Bottom Excavated (PUBx)
- Palustrine Unconsolidated Shore
- Riverine Unconsolidated Bottom (RUB)
- Riverine Unconsolidated Shore (RUS)
- Riverine Streambed (RS)



0.2 Miles

TRACT 2003 NWI MAP

Date: 12/17/20
By: TRT

Figure A-4


Not Available



Legend

 Tract 2003

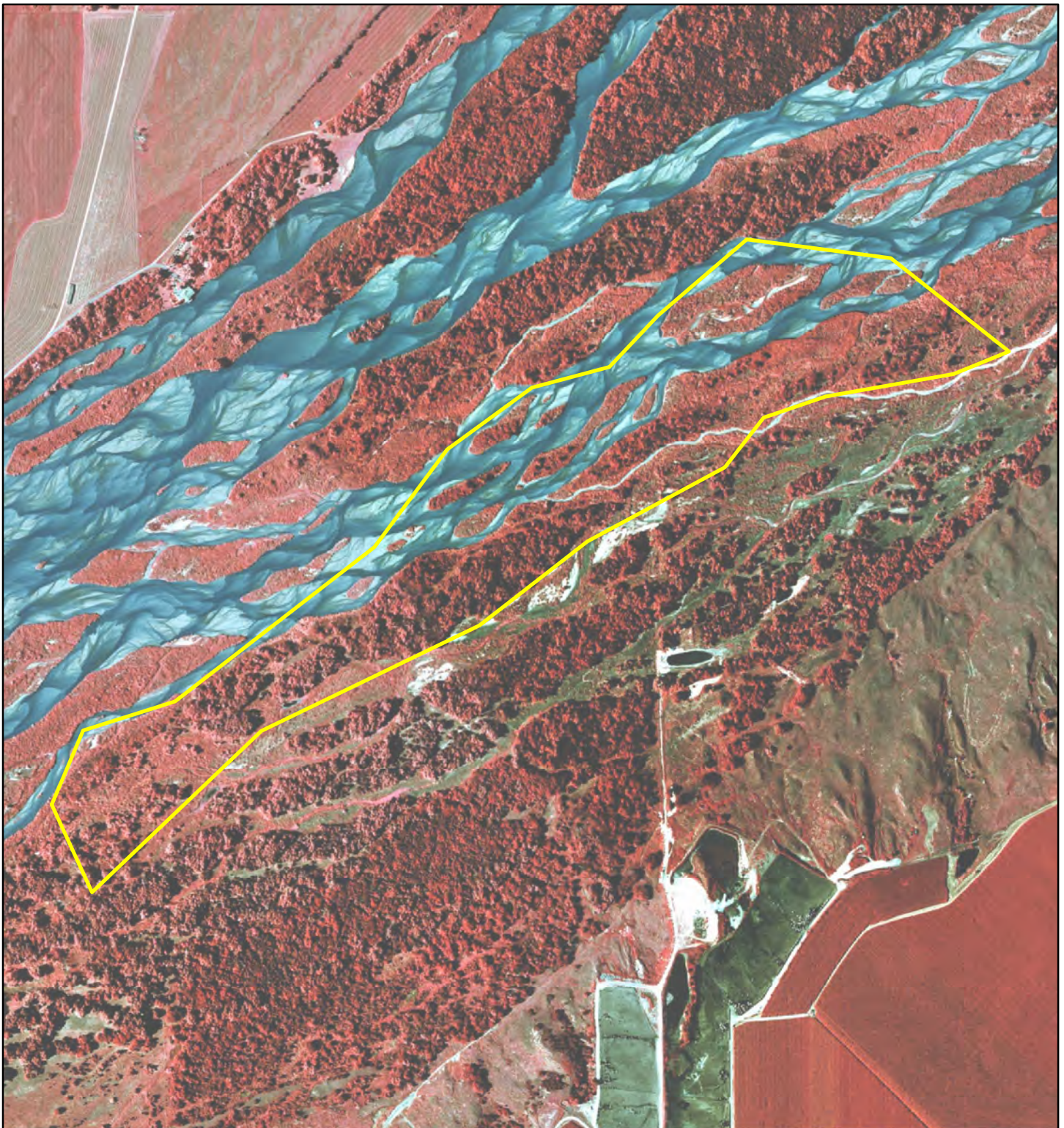



 Miles
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TRACT 2003
1938 CIR IMAGERY


Date: 4/16/20
By: TRT

Figure A-5



Legend
 Tract 2003




 Miles
0.2

TRACT 2003
1998 CIR IMAGERY


Date: 12/17/20
By: TRT

Figure A-6



Legend
 Tract 2003

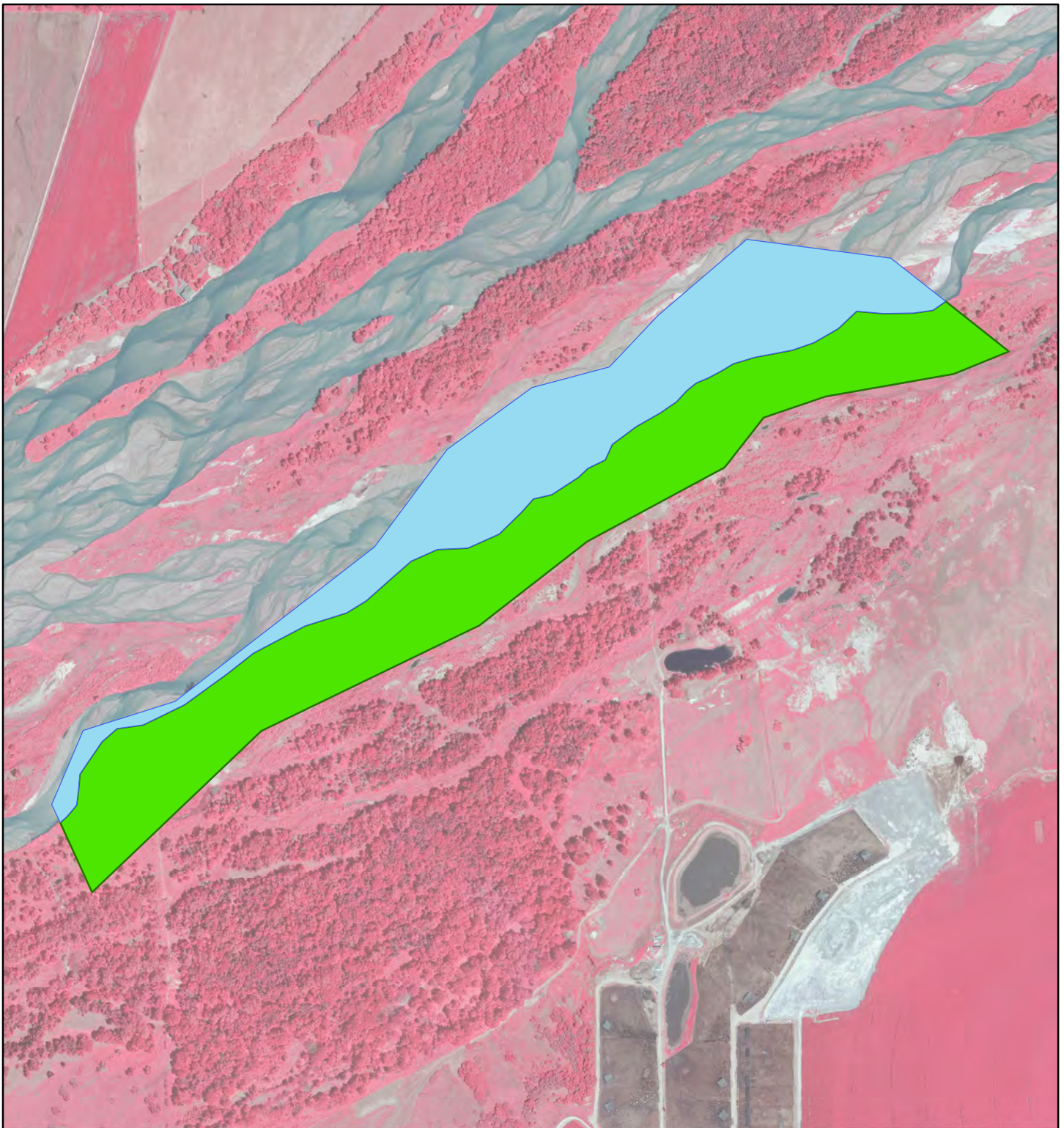


 Miles
0.2




TRACT 2003
2020 CIR IMAGERY

Date: 12/17/20
By: TRT


Figure A-7



Legend

-  Tract 2003
-  Complex - Riverine - Channel
-  Complex - Riverine - Woodland



 Miles
0.1

**TRACT 2003
COMPLEX HABITAT**

Date: 12/17/20
By: TRT

Figure A-8