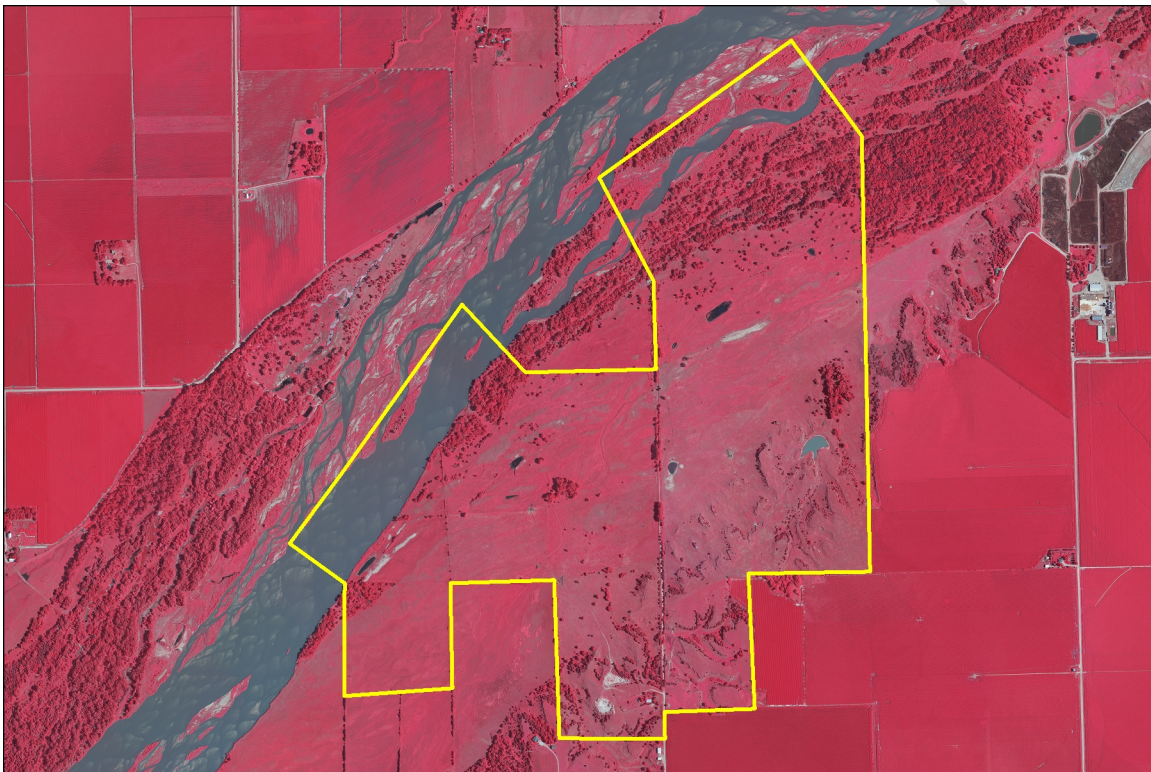




## LAND EVALUATION REPORT

For

### TRACT 1804



Prepared for:  
**Platte River Recovery Implementation Program**  
**Land Advisory Committee**

Evaluation Team:  
**Bruce Sackett, Jim Jenniges,**  
**Mark Czaplewski , Matt Rabbe, Dave Zorn**

Site Visit Date:  
**10/10/2018**

Evaluation Report Completion Date:  
**10/30/2018**



## Table of Contents

I. EVALUATION TEAM AND SCHEDULE .....	1
A. Evaluation Team Members .....	1
B. Date of Evaluation .....	1
II. GEOGRAPHIC CONSIDERATIONS .....	1
A. Tract Location and Size .....	1
III. LAND USE CONSIDERATIONS .....	1
A. Land Cover/Use .....	1
B. Incompatible Uses and Environmental Concerns .....	2
C. Restoration and Maintenance Impacts on Neighboring Properties .....	2
D. Target Species Use .....	3
E. Certified Irrigated Acres .....	3
IV. TARGET SPECIES HABITAT CONSIDERATIONS .....	3
A. Existing Species Habitat .....	3
1. Non-Riverine Surface Water .....	3
2. River Frontage and Active Channel Widths .....	3
3. Contiguous Sand Substrates .....	3
4. Island and Channel Bank Height .....	4
5. Groundwater .....	4
6. Flooding in Non-Wetland Areas .....	4
7. Power/Transmission Lines .....	4
B. Complex and Non-Complex Habitat .....	4
1. Habitat Complex Acres .....	4
2. Non-Complex Habitat Acres .....	4
3. Excess Acres .....	4
4. Habitat Restoration and Maintenance Needs and Conceptual Costs .....	5
5. Buffer .....	5
V. PROPERTY MANAGEMENT CONSIDERATIONS .....	5
A. Encumbrances .....	5
1. Legal Encumbrances .....	5
2. Management Encumbrances .....	5
B. Environmental Audit .....	5
C. Property Interest Acquisition Options and Costs .....	6
D. Extraneous Costs .....	6
E. Operations and Maintenance .....	6
F. Other Considerations .....	6
VI. EVALUATION TEAM RECOMMENDATION .....	6
VII. LAC RECOMMENDATION .....	6

## APPENDIX A – MAPS



## **I. EVALUATION TEAM AND SCHEDULE**

### **A. Evaluation Team Members**

The Tract 1804 Evaluation Team members are:

- Bruce Sackett – Platte River Recovery Implementation Program
- Jim Jenniges – Nebraska Public Power District
- Matt Rabbe – US Fish & Wildlife Service
- Mark Czaplewski – Central Platte Natural Resources District
- Dave Zorn – Central Nebraska Public Power & Irrigation District

### **B. Date of Evaluation**

The Evaluation Team performed a site visit on October 10, 2018. A summary of this Evaluation Report was presented to the Land Advisory Committee (LAC) and discussed at the October 29, 2018 LAC meeting in Kearney Nebraska. The Report was finalized following that meeting.

## **II. GEOGRAPHIC CONSIDERATIONS**

This tract lies within the Highway 34 to Chapman 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. Tract 1804 is being considered as complex habitat.

### **A. Tract Location and Size**

Tract 1804 is approximately 776 acres in size and is located in Sections 11, 14 & 15, T-11N, R-8W. Figure A-1 (located in Appendix A) delineates the property boundary. The tract is located in the Highway 34 to Chapman bridge segment. 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 in order 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 located 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 – 2018 CIR Aerial Photography

**Table 1 – Tract 1804 2005 Land Cover/Use Summary**

Land Cover Classification	Acres	Percent of Total
Ag	2.5	0.33%
Bareground/Sparse Veg	0.1	0.01%
Mesic Wet Meadow	117.8	15.17%
Phragmites	24.0	3.10%
Riparian Shrubland	23.0	2.96%
Riparian Woodland	94.6	12.18%
River Channel	4.2	0.54%
River Early Successional	10.2	1.31%
River Shrubland	36.2	4.66%
Rural Developed	25.8	3.32%
Sand Pit	0.3	0.04%
Stock Pond	1.5	0.19%
Unvegetated Sandbar	22.9	2.95%
Upland Grassland	111.8	14.40%
Upland Shrubland	3.4	0.43%
Upland Woodland	26.5	3.41%
Xeric Wet Meadow	271.6	35.00%
	<b>776.2</b>	<b>100.00%</b>

## **B. Incompatible Uses and Environmental Concerns**

Tract 1804 does not currently have land uses that are incompatible with target species habitat. No environmental concerns have been identified.

## **C. Restoration and Maintenance Impacts on Neighboring Properties**

Restoration and maintenance on this tract is 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**

Confirmed whooping crane sightings occurred in the river on this tract in 2002. Sightings have also been documented approximately one to two miles upstream of this tract in the river.

#### **E. Certified Irrigated Acres**

Certified acre information is not readily available from Upper Big Blue NRD, but there are no cropland areas on Tract 1804 and it is unlikely to include NRD certified irrigated acres.

### **IV. TARGET SPECIES HABITAT CONSIDERATIONS**

#### **A. Existing Species Habitat**

On October 10, 2018 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***

There is no significant area of non-riverine surface water on this property. There are three small ponds/depressions less than 0.8 acres in size on the lowland area of the site, and one 1.3 acre impoundment higher on the bluffs.

##### ***2. River Frontage and Active Channel Widths***

There is approximately 6,600 linear feet of river frontage on this tract, divided roughly in half by an inholding.

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 July of 2018 under average water conditions. The measured channel widths are presented below in Table 2.

**Table 2 – Tract 1804 Channel Widths**

<b>Measurement</b>	<b>Width (ft)</b>
<b>Minimum Channel Width</b>	620
<b>Maximum Channel Width</b>	1,100
<b>Median Channel Width</b>	825
<b>Mean Channel Width</b>	838

##### ***3. Contiguous Sand Substrates***

Tract 1804 contains no significant areas of contiguous sand substrate.



#### **4. Island and Channel Bank Height**

Channel bank height estimated from 2017 LiDAR is on the order of three to six feet above water. Under typical summer flow conditions, this is likely one to four feet above water.

#### **5. Groundwater**

Depth to groundwater on this tract was estimated from a few small ponds on the lowland area of the site. Groundwater depths appeared to be one to three feet at the time of the site visit.

#### **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 power lines on the property. There is a large transmission line across the river from this tract and running parallel to the river, but according to NPPD this line has already been marked with bird flight diverters.

### **B. Complex and Non-Complex Habitat**

The Evaluation Team recommends that the entire tract be considered as habitat complex acres due to tract's compliance with parts of *Table 1. Target Habitat Complex Guidelines* of the Program Land Plan. The tract complex acres are classified by type in the following sections.

#### **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.

**Table 3 – Tract 1804 Habitat Complex Acres**

<b>Land Classification*</b>	<b>Acres</b>
<b>Wet Meadow</b>	
<b>Grassland</b>	413
<b>Riverine</b>	
<b>Channel</b>	162
<b>Buffer</b>	
<b>Upland Grassland</b>	202

\* 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 excess acres.



#### ***4. Habitat Restoration and Maintenance Needs and Conceptual Costs***

This tract has large open wet meadows and wide river channels already not requiring much additional management. However, work could be done to improve the existing habitat if the LAC and TAC decides it is appropriate. The tract contains approximately 70 acres of riparian trees that could be cleared to open up additional wet meadow acres and increase unobstructed channel widths. Clearing these trees would cost on the order of \$140,000.

Currently, the grassland appears to be in good condition in both native species diversity and grazing condition. It is expected that PRRIP could continue to work with the existing grazing tenants and manage grazing in a similar fashion.

There is significant uncertainty around the in-channel property boundaries, but if agreements are reached with surrounding landowners there is significant potential for meeting the 10-acre per year requirements for maintenance of in-channel tern and plover nesting habitat. There are approximately 35 acres of islands on or adjacent to this tract that have established vegetation and appear to be high enough to meet requirements. There is an additional 100 acres of lower vegetated sandbars which could be assessed for potential tern and plover habitat, but would also likely provide whooping crane roosting habitat if disked. Clearing vegetation off of the higher islands could cost on the order of \$70,000. Disking of the remaining 100 acres of vegetated sandbars would cost on the order of \$20,000.

#### ***5. Buffer***

This tract is bounded on the north by Platte River channels and riparian woodland, and agricultural land. On the south, east, and west, the tract is bounded by upland grassland hills and agricultural land. Tract 1804 has very little potential for outside disturbance from neighboring properties.

### **V. PROPERTY MANAGEMENT CONSIDERATIONS**

#### **A. Encumbrances**

##### ***1. Legal Encumbrances***

At the time of review there were no known legal restrictions. The owner did not detail any information about any restrictive easements; public records have not yet been reviewed.

##### ***2. Management Encumbrances***

No management encumbrances were identified for Tract 1804.

#### **B. Environmental Audit**

An environmental audit has not been completed for Tract 1804. No obvious dumps, chemical spills or waste piles were evident on the property the day of inspection.





### C. Property Interest Acquisition Options and Costs

The property is being evaluated as a long-term lease or lease-to-purchase. Table 4 describes expected land acquisition costs.

**Table 4 – Tract 1804 Acquisition Cost Estimate**

Acquisition Item/Activity	Cost
Title Review	\$75
Appraisal	\$5,000
Appraisal Review	\$500
<b>Total Estimated Cost</b>	<b>\$5,575</b>

### 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

This tract is being evaluated as a lease. Terms of the lease would determine what, if any, O&M activities will be the responsibility of the program. Table 5 describes typical O&M activities and costs which may be incurred on Tract 1804.

**Table 5 – Tract 1804 Operations & Maintenance Cost Estimate**

Item/Activity	Annual Cost
Noxious Weed Control	\$2,000
Fence Maintenance	\$2,000
Annual Disking & Herbicide	\$30,000
Miscellaneous Expenditures	\$1,000
Oversight	\$2,000
<b>Total Estimated Cost</b>	<b>\$37,000</b>

### F. Other Considerations

No other considerations were identified that are not discussed in this report.

## VI. EVALUATION TEAM RECOMMENDATION

The Evaluation Team agreed that Tract 1804 would be a great anchor for a new PRRIP complex in the Highway 34 to Chapman bridge segment. The tract has significant river frontage with good channel widths, as well as large wet meadow that has been managed well. Overall the evaluation team supports pursuit of this tract as complex habitat.

## VII. LAC RECOMMENDATION

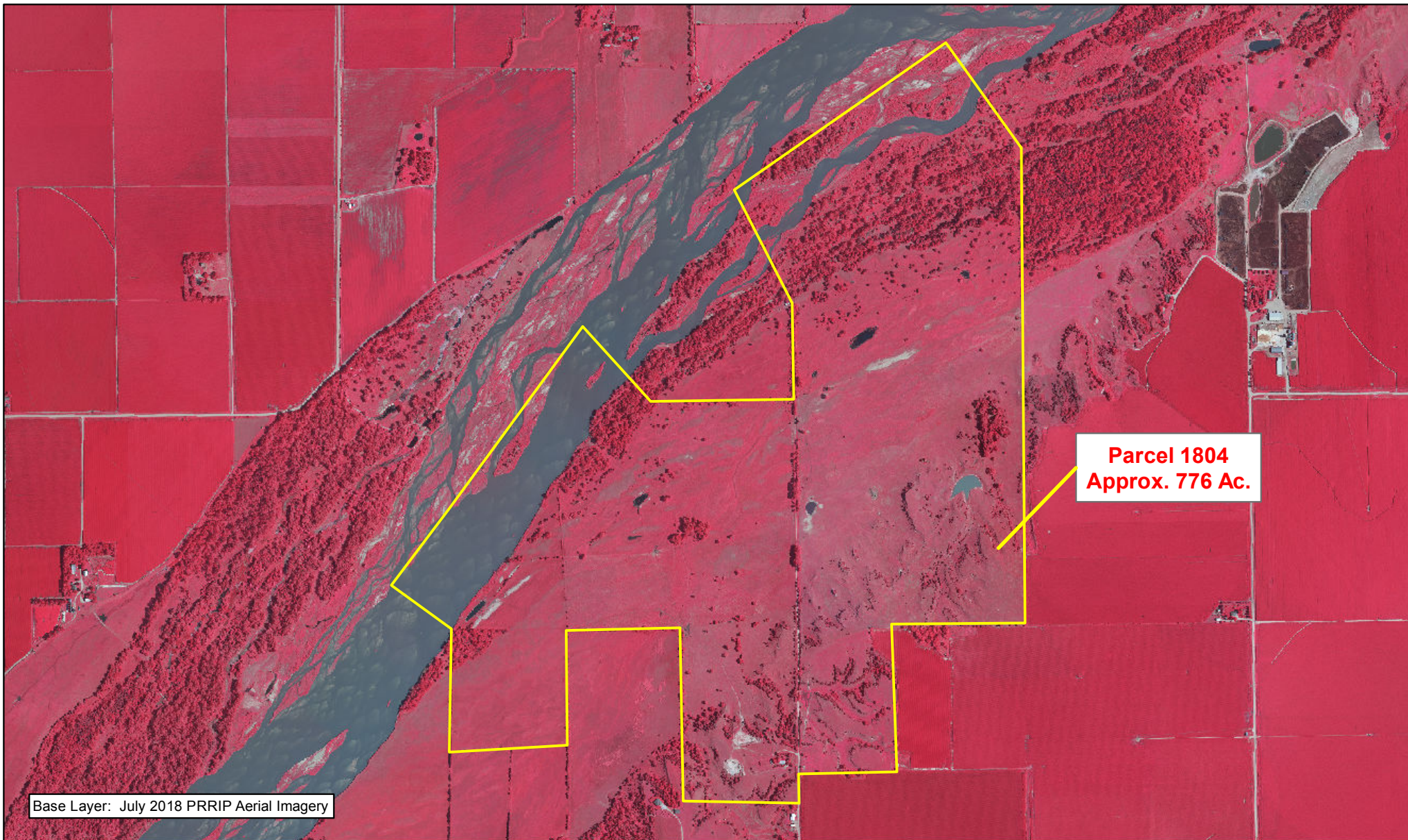
On October 29, 2018, the LAC voted to accept the evaluation team's recommendation and forward Tract 1804 to the GC with a recommendation to pursue acquisition of this tract. LAC discussion cited the overall quality of the tract for target species and its location as a potential new complex in a priority bridge segment for the First Increment Extension.





## APPENDIX A – MAPS

CONFIDENTIAL



PLATTE RIVER  
RECOVERY IMPLEMENTATION PROGRAM

### Legend



1804



0.5 Miles

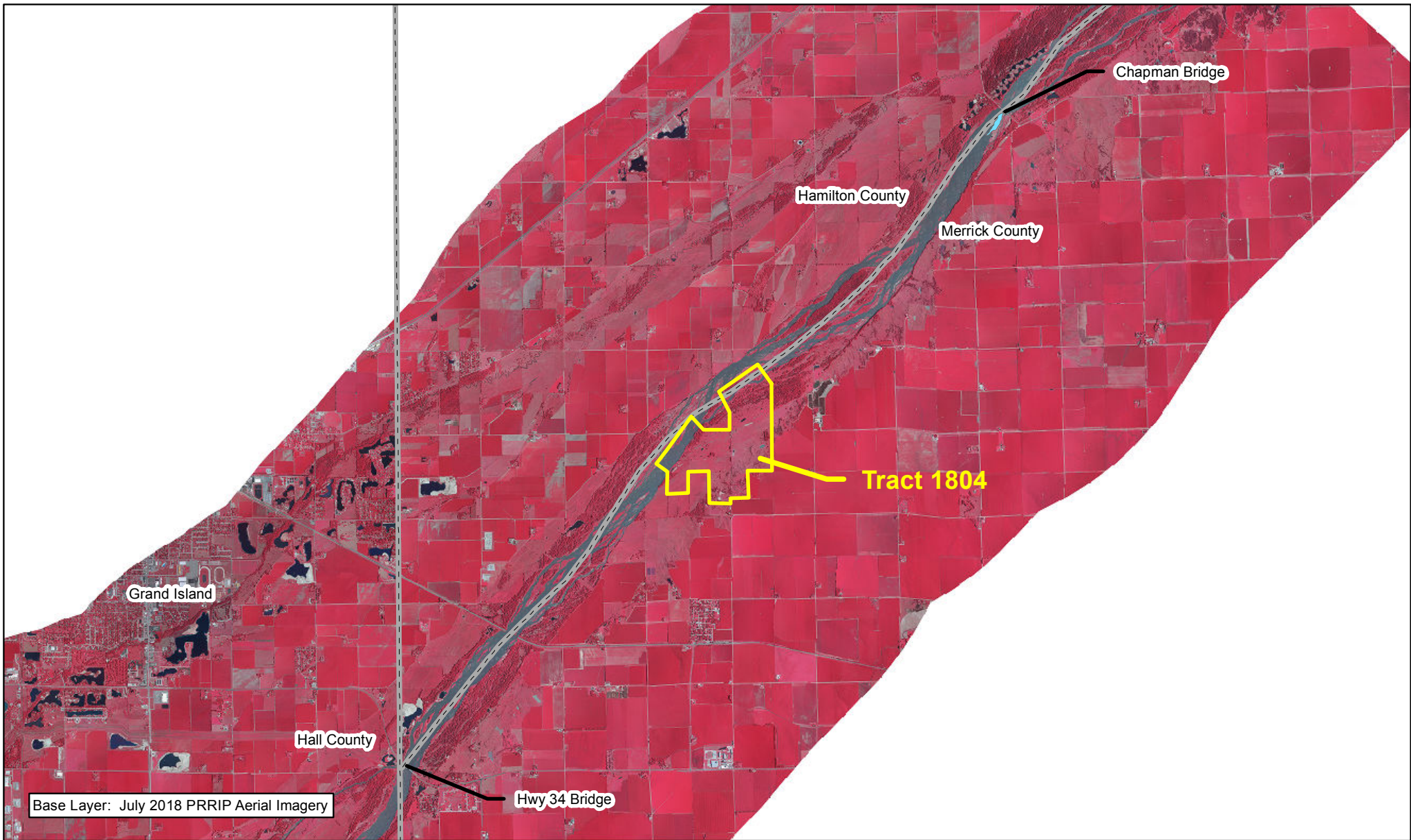
0.5

### TRACT 1804 BOUNDARY MAP

Parcel Evaluation  
Date: 10/18/18  
By: JDB

Figure A-1





### Legend

1804	Audubon	PRRIP
County	CNPPID	PRWCT
Ducks Unlimited	TNC	USFWS
NGPC		
NPPD		



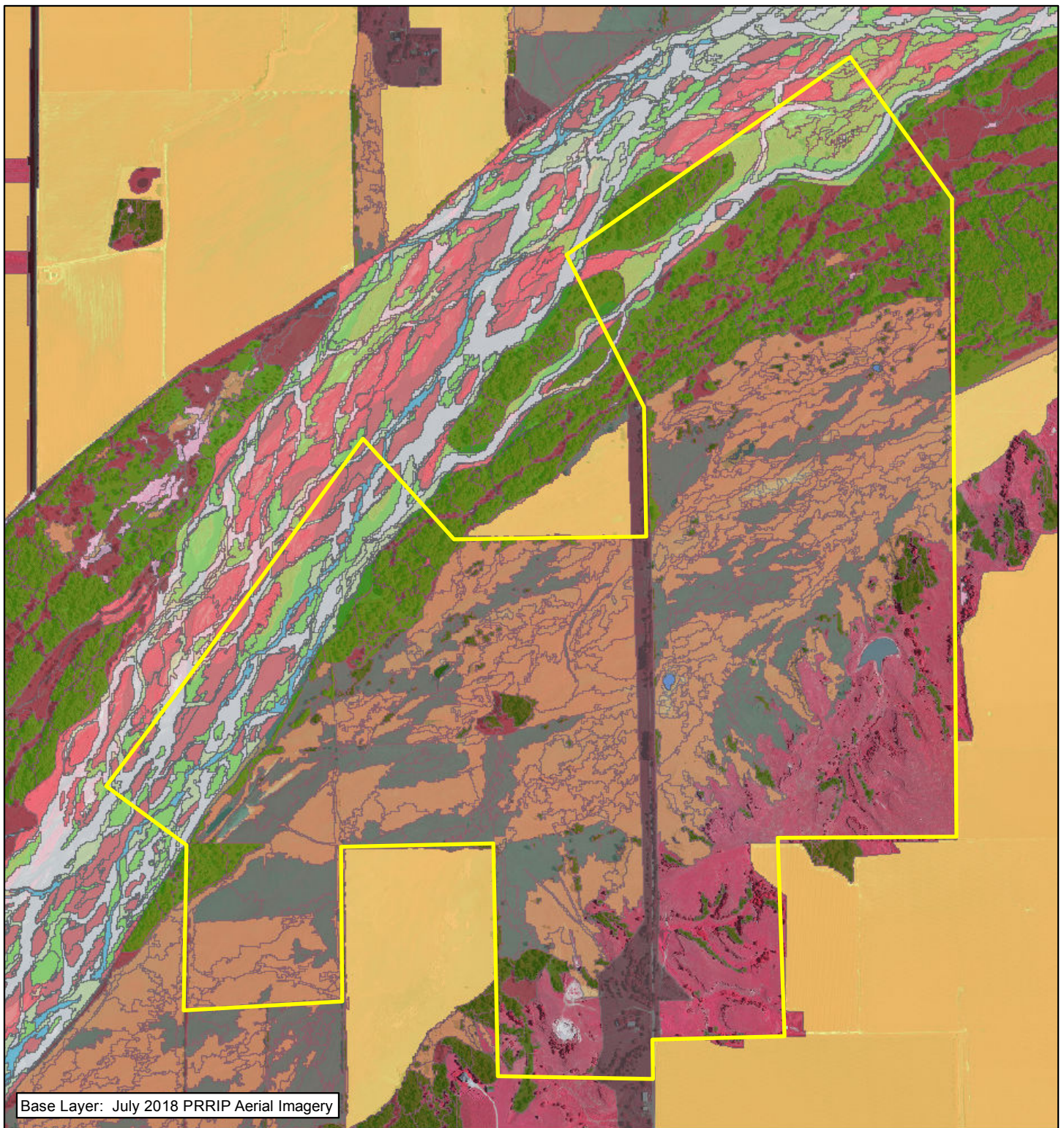
Miles  
2

### TRACT 1804 LOCATION MAP

Parcel Evaluation  
Date: 10/18/18  
By: JDB

Figure A-2





**Legend**

- |                       |                          |
|-----------------------|--------------------------|
| Tract 1804            | River Early Successional |
| Ag                    | River Shrubland          |
| Bareground/Sparse Veg | Roads                    |
| Canal/Drainage        | Rural Developed          |
| Meadow Sand Ridge     | Sand Pit                 |
| Mesic Wet Meadow      | Unvegetated Sandbar      |
| Phragmites            | Upland Woodland          |
| Riparian Shrubland    | Warmwater Slough         |
| Riparian Woodland     | Xeric Wet Meadow         |
| River Channel         |                          |



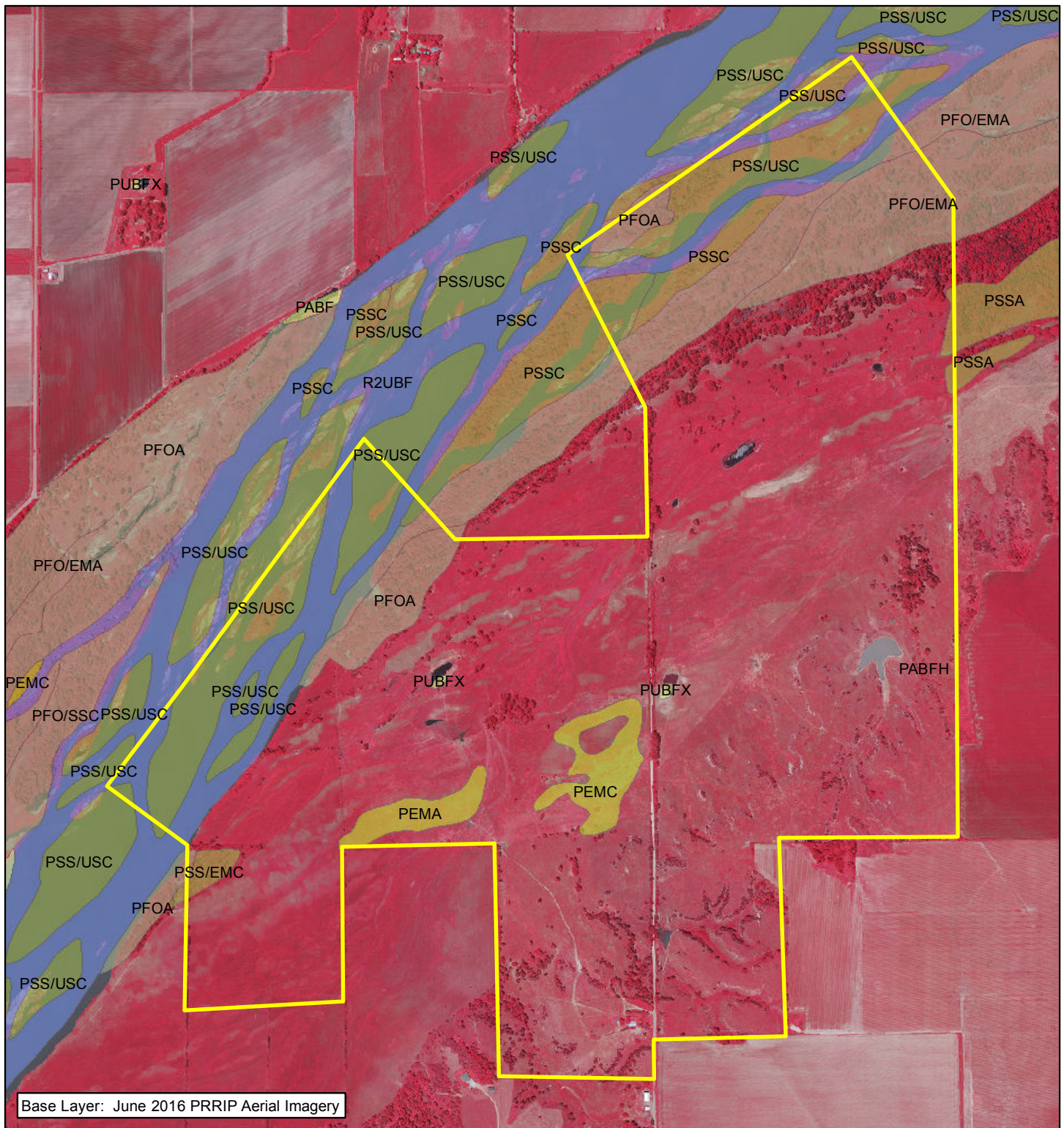
0.25 Miles

**TRACT 1804**  
**2005 LAND COVER/USE**

Parcel Evaluation  
Date: 10/18/18  
By: JDB

**Figure A-3**





#### Legend

- Tract 1804
- 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)

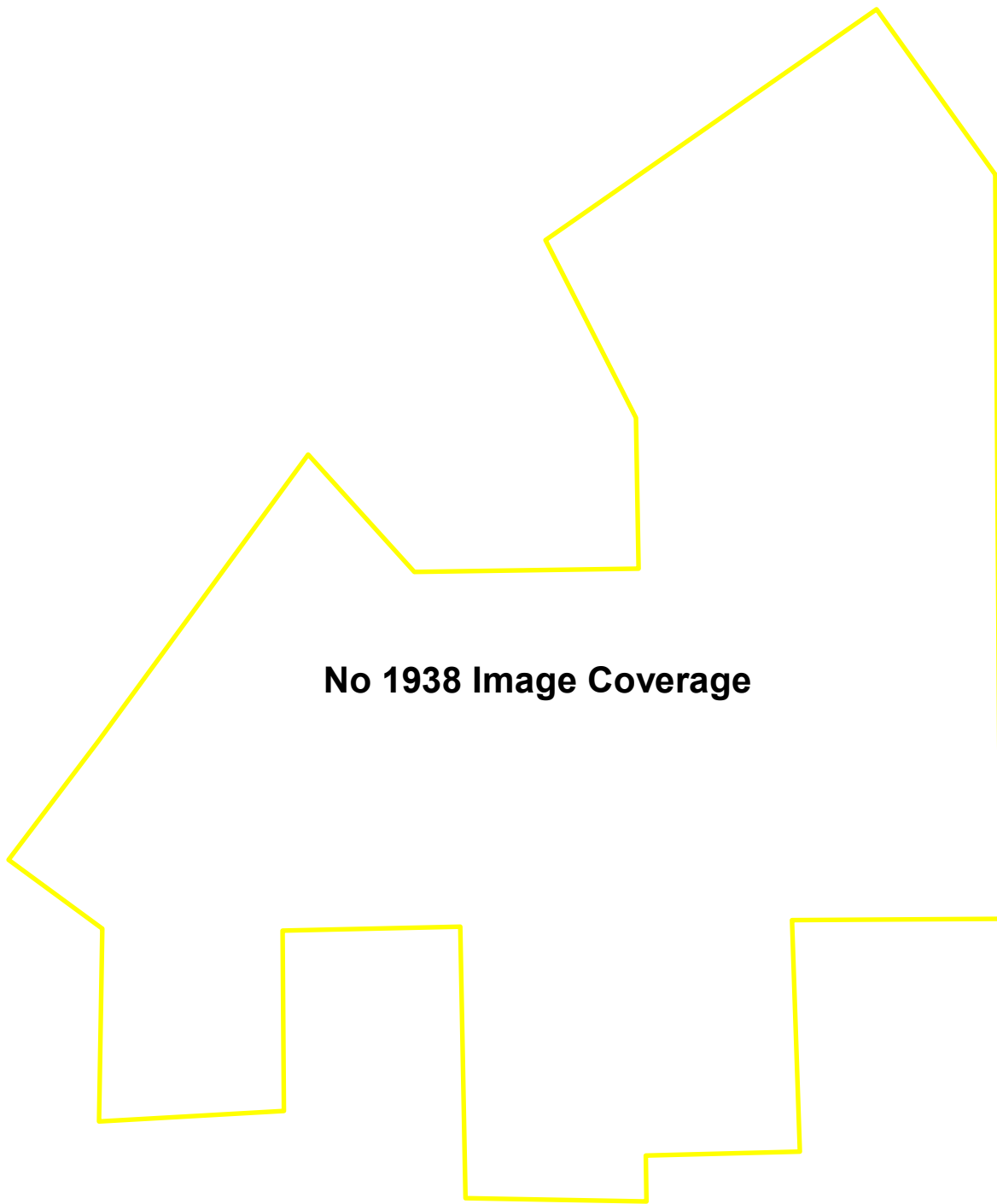


Miles  
0.25

#### TRACT 1804 NWI MAP

Parcel Evaluation  
Date: 10/18/18  
By: JDB

Figure A-4



**No 1938 Image Coverage**




**PLATTE RIVER**  
RECOVERY IMPLEMENTATION PROGRAM

**Legend**

 Tract 1804



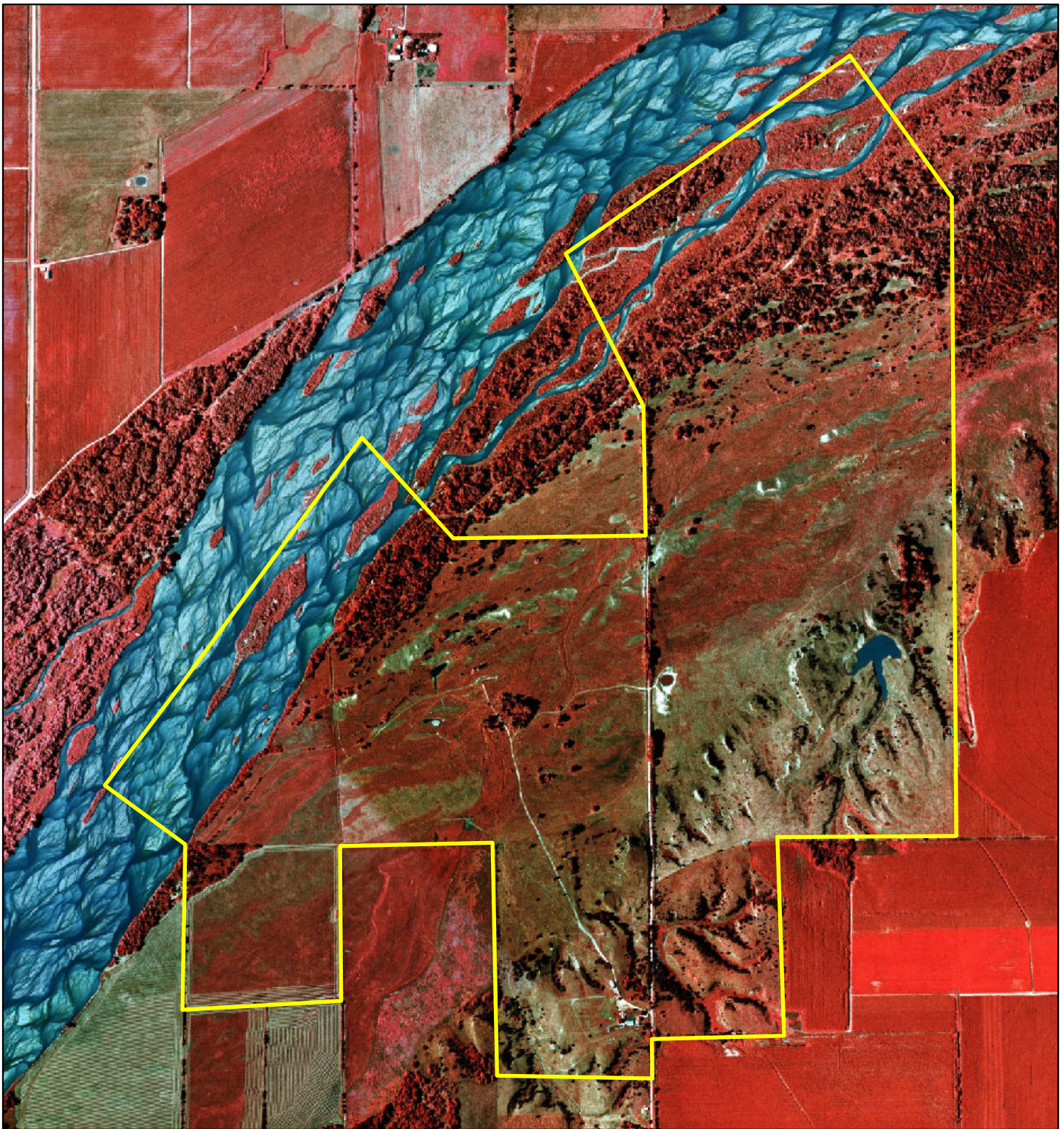
 Miles  
0.25

**TRACT 1804**  
**1938 IMAGERY**

Parcel Evaluation  
Date: 10/18/18  
By: JDB

**Figure A-5**





**Legend**  
Tract 1804



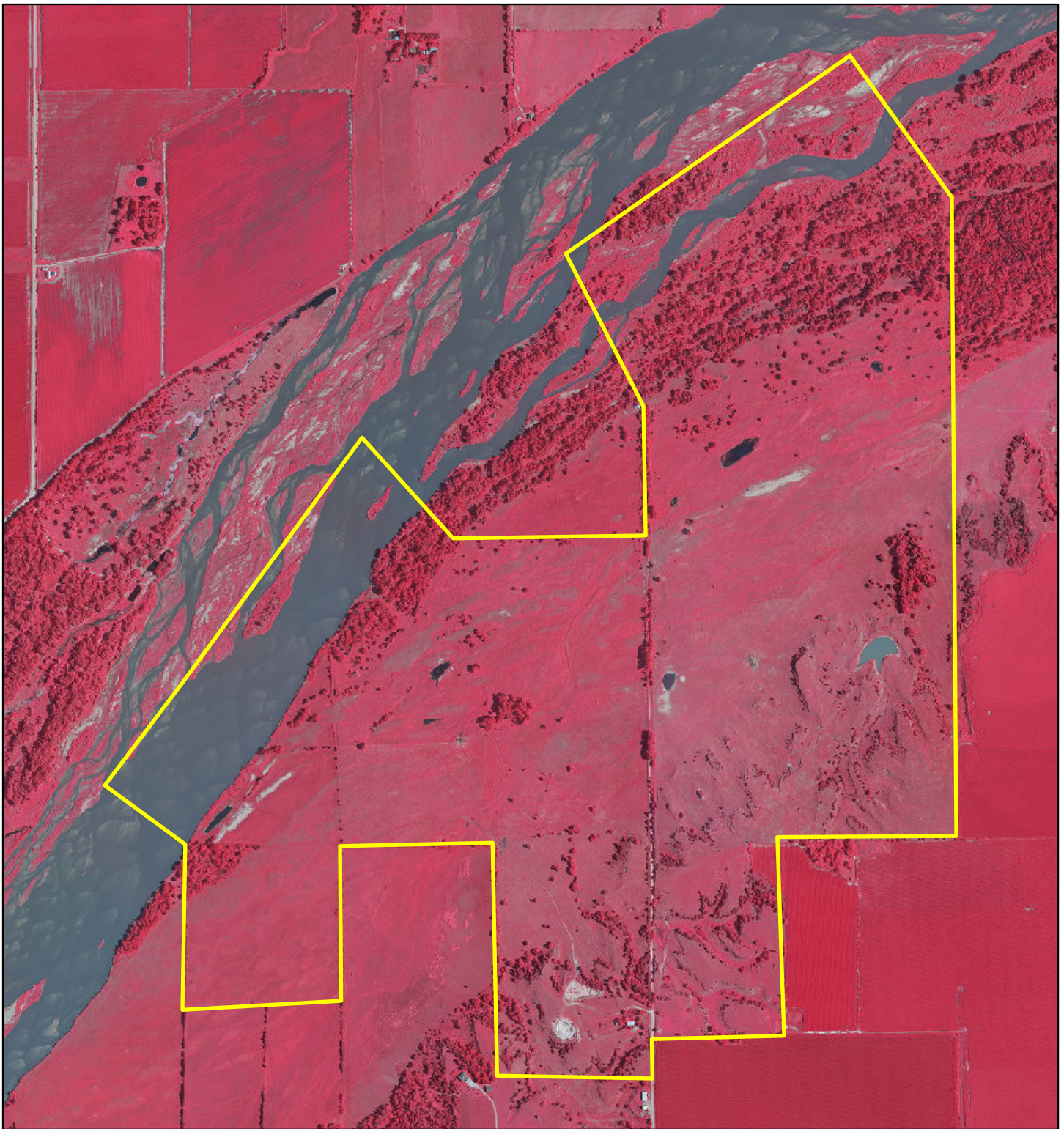
0.25 Miles


TRACT 1804  
1998 CIR IMAGERY

Parcel Evaluation  
Date: 10/18/18  
By: JDB

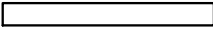
Figure A-6





**Legend**  
 Tract 1804



 Miles  
0.25

**TRACT 1804**  
**2018 CIR IMAGERY**

Parcel Evaluation  
Date: 10/18/18  
By: JDB

**Figure A-7**