



2015–2019 OPERATIONS AND MAINTENANCE PLAN

For

TRACT 2014002

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

Completion Date:

XX/XX/15



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I. PROPERTY DESCRIPTION AND BACKGROUND

A. Purpose

The purpose of this Operations and Maintenance Plan (Plan) is to outline the restoration, operations and maintenance activities that will occur on Tract 2014002 (Evaluation Tract Number 0901) during the period of 2015-2019. Species habitat and Adaptive Management research and monitoring actions associated with this tract are addressed in the Restoration and Management Plan for the Pawnee Complex because planning and implementation of those activities will primarily occur at a complex scale. Operations and maintenance will primarily occur on a tract scale and as such, this plan addresses those activities within the broader context of complex goals and objectives.

B. Tract Location and Size

Tract 2014002 is approximately 233 acres in size and is located in Section 15 and 16, T-8N, R-16W. Figure A-1 (located in Appendix A) delineates the property boundary. The tract is located in the Odessa to Kearney 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.

C. Land Interest

A fee simple absolute title is held in trust by the Platte River Recovery Implementation Foundation (PRRIF) on behalf of the Program.

D. Communication and Coordination

The Executive Director's Office (ED Office) is responsible for communication and coordination with neighboring landowners. Neighbors will not be asked to provide formal comment on annual Work Plans but will be notified and consulted regarding specific restoration or management activities that could impact their properties.



II. RESPONSIBILITIES

A. Management Responsibilities

1. Planning

Annual Work Plans for this property (as part of a complex-level annual work plan) will be written by representatives of the ED office with oversight and input from the Program's Land Advisory Committee (LAC). Program staff will be responsible for conducting, or retaining contractors to conduct, planning, design, and permitting for specific activities carried out under this plan.

2. Implementation of Management Activities

Implementation of management activities will be carried out by Program staff or by contractors under the oversight of Program staff.

3. Enforcement

Program staff is responsible for establishing controlled access to the property and will notify law enforcement agencies and others of issues as appropriate.

B. Budget and Invoicing

Program staff will be responsible for budgeting and invoicing of activities on this property. No later than March 1 of each year during the term, a report showing income and expenditures for the property during the preceding fiscal (same as calendar) year will be completed and presented to the LAC and Governance Committee (GC) for review.

C. Plan Authorization and Modifications

The LAC and TAC will provide comments on this Plan and the LAC will forward a recommendation to the GC. The GC must authorize this Plan before it can be executed. In addition, the LAC and TAC will provide comments on annual Work Plans and the LAC will forward a recommendation on the annual Work Plans to the GC. The GC must approve the annual Work Plans before they can be executed.

It is anticipated that once every five years, complex-level restoration and management plans will go through a major revision process where the goals, objectives, and activities will be reevaluated. This Plan will also be reevaluated at that time and updated. Plan updates will be subject to the same comment and approval process as the original Plan.



III. EXISTING HABITATS

A. Complex and Non-Complex Habitat

The entirety of the Property will be managed as complex habitat. Table 1 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 2 are based on existing tract land cover/use. All classifications reflect land cover/use at the time of acquisition and may change based on management and restoration decisions.

Table 1 – Tract 2014002 Habitat Complex Acres

Land Classification*	Acres
Riverine	
Channel	96
Buffer	
Woodland	137

* 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.

B. Land Cover

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 (USFWS). 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 2. 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 – 2012 CIR Aerial Photography

**Table 2 – Tract 2014002 2005 Land Cover/Use Summary**

Land Cover Classification	Acres	Percent of Total
Bareground/ Sparse Veg	3.57	1.53%
Phragmites	4.55	1.95%
Riparian Shrubland	23.75	10.19
Riparian Woodland	148.82	63.84%
River Channel	6.31	2.71%
River Early Successional	20.35	8.73%
River Shrubland	12.32	5.29%
Unvegetated Sandbar	1.38	0.59%
Xeric Wet Meadow	12.06	5.18%
	233.12	100.00%

C. Existing Land Features of Interest***1. Non-Riverine Surface Water***

There is no non-riverine surface water on the property.

2. River Frontage and Active Channel Widths

The tract contains approximately 4,550 feet of river frontage on the main channel of the Platte River.

Table 3 – Tract 2014002 Main Channel Widths

Measurement	Width (ft)
Minimum Channel Width	405
Maximum Channel Width	590
Median Channel Width	480
Mean Channel Width	497

3. Contiguous Sand Substrates

Tract contains 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 the tract.

D. Incompatible Uses and Environmental Concerns

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

E. Certified Irrigated Acres

This tract includes no NRD certified irrigated acres.



IV. OPERATIONS AND MAINTENANCE

A. Goals and Objectives

Goals and objectives will function as the benchmark for evaluation of ongoing land-related actions. Implementation of Program actions to address goals and objectives will be accomplished at both complex and tract-level scales. This section addresses tract-level actions. Complex-level actions are presented in the Restoration and Management Plan for the Pawnee Complex. Tract-level goals and objectives are a function of property management and operations needs.

1. *Property Maintenance*

➤ *Goal 1 – Fulfill basic property ownership obligations and needs.*

- **Objective 1a** – Rehabilitate and maintain property boundary fencing and signage.
 - **Strategy** – The existing fence is primarily in poor condition. The overall strategy will be to clear woody vegetation as necessary for access and fence reconstruction, and rebuilding or replacing the boundary fence (with signage) as necessary. Fence maintenance strategy will be a combination of minimizing maintenance needs and scheduled maintenance.
 - **Methods** – Where necessary, trees will be cleared using heavy equipment. They will be either burned and buried or chipped and hauled off-site. Boundary fencing will be four wire livestock fencing and will be constructed per Natural Resources Conservation Service (NRCS) design criteria. The fence will include Program ownership and contact signage at regular intervals. Maintenance methods may include mowing or spraying of woody species in the cleared area as well as routine fence upkeep.
 - **Area** – Figure A-8 shows the location of immediate fence replacement.
 - **Timeline** – The majority of fence reconstruction and associated vegetation removal will be completed in 2016.
 - **Costs** – Tree clearing and fence reconstruction are expected to cost on the order of \$33,325 for approx. 5,775 linear feet of fence replacement, and 8 acres of associated vegetation removal. Annual maintenance costs are expected to be on the order of \$500.
 - **Responsibilities** – Program staff are responsible for design and permitting. Construction and maintenance activities will be bid.



- **Objective 1b** – Control noxious weeds on property.
 - **Strategy** – Infestations of noxious weeds will be eliminated (to the extent possible) annually. An integrated management approach to control noxious weeds will be used to the extent possible and specific control methods will be updated as new information becomes available. Ongoing management/control needs will be assessed annually and incorporated into Work Plans.
 - **Methods** – Herbicide application will be the primary method for control of noxious weeds. Biological controls will be considered but only used if deemed effective enough to result in effective control within three growing seasons.
 - **Area** – Noxious weeds will be controlled on the entire property.
 - **Timeline** – Control efforts will be undertaken annually.
 - **Costs** – Annual costs are expected to be less than \$5,000.
 - **Responsibilities** – Program Staff are responsible for identifying infestations and planning/coordinating control efforts. Control activities will be carried out by contractors. The contractor will typically be the county weed authority.

➤ **Goal 2 – Minimize impacts due to invasive vegetation.**

- **Objective 2a** – Eliminate existing and control future infestations of invasive vegetation not listed as noxious weeds. Some of the species with the potential to be invasive in certain situations include eastern red cedar, salt cedar, Russian olive, willow, false indigo, intermediate wheatgrass, and tall wheatgrass.
 - **Strategy** – An integrated management approach to control vegetation will be used to the extent possible and specific control methods will be updated as new information becomes available. Ongoing management/control needs will be assessed annually and incorporated into Work Plans.
 - **Methods** – Elimination of existing infestations will be accomplished through a combination of herbicide application and mechanical removal. Control of certain species like eastern red cedar will not require herbicide application while other species may not need to be mechanically removed after herbicide



application. Management of future infestations will be accomplished through a variety of integrated management methods including: herbicide application, prescribed fire, mechanical disturbance/removal and grazing.

- **Area** – Invasive vegetation will be controlled on the entire property.
- **Timeline** – Control efforts will be undertaken as necessary.
- **Costs** – To be determined annually.
- **Responsibilities** – Program staff will be responsible for identifying infestations. Control activities will be carried out by contractors.

2. Species Habitat

Species habitat goals and objectives will be discussed in the Pawnee Complex Plan. Activities are likely to include increased channel view widths through tree clearing, potential river channel widening activities, and vegetation management through grazing and prescribed fire. No additional tract-level species habitat activities are anticipated.



TRACT-LEVEL SURVEYS, MONITORING AND RESEARCH

B. Baseline Surveys and Monitoring

1. Bald Eagle

No bald eagle nests have been identified on this property. Management in areas of known nests will take place according to the guidelines in the Pawnee Complex Plan.

2. Platte River Caddisfly

Surveys for Platte River caddisfly will be conducted on this tract to identify potential habitat areas and populations. If populations are present where management actions may cause negative impacts, the Program will coordinate with USFWS and NGPC to determine appropriate methods of avoidance or mitigation.

3. Northern River Otter

No otters have been observed on this tract but they have been known to use the general area. Surveys will be conducted prior to commencement of activities that may negatively impact natal dens when undertaken during the period when otters are utilizing dens (February 15 – June 15).

4. Cultural Resources

The legal description of Tract 2014002 will be provided to the State Historic Preservation Office (SHPO) to facilitate the early identification of potential cultural resources related issues. If Program actions uncover potential artifacts or human remains, work will cease until such time that the Program can consult with SHPO to determine the appropriate course of action.

C. Research

No tract-level research activities have been identified at this time.



V. PUBLIC ACCESS

A. Education

Access for education, including non-Program research, will be allowed on a case-by-case basis as long as it is compatible with target species usage and does not negatively impact species habitat. Program staff will be responsible for evaluating requests and granting access permission.

B. Recreation

This tract has been entered into the Program's public access policy. Public access may be revisited as needed if there are any issues that need to be addressed.



APPENDIX A – MAPS



Legend

Tract 0901	Audubon	PRRIP
CNPPID	PRWCT	
NGPC	TNC	
NPPD	Wyoming	

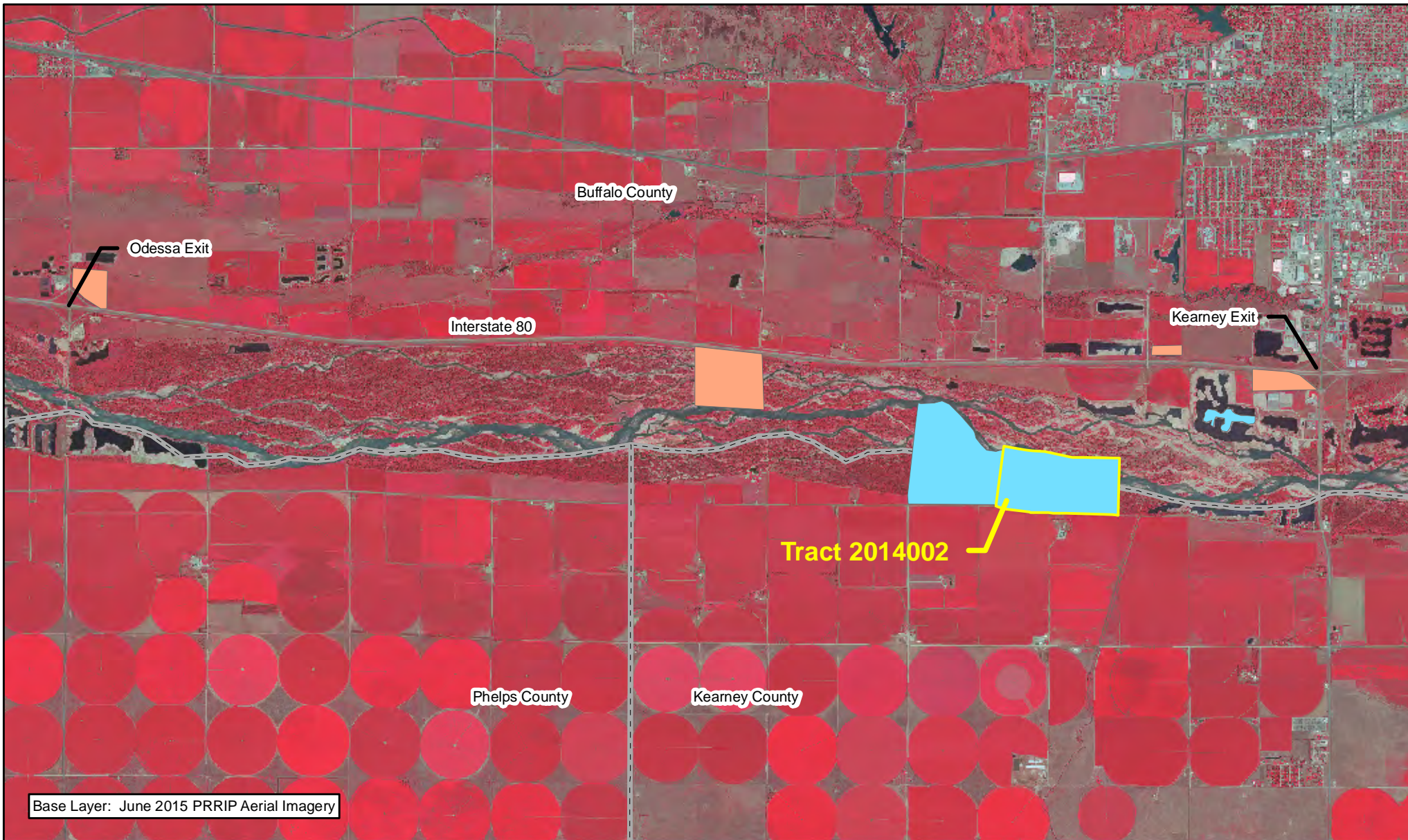


Miles
0.1

TRACT 2014002 BOUNDARY MAP

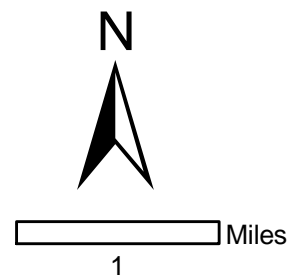
Date: 11/04/15
By: TRT

Figure A-1



Legend

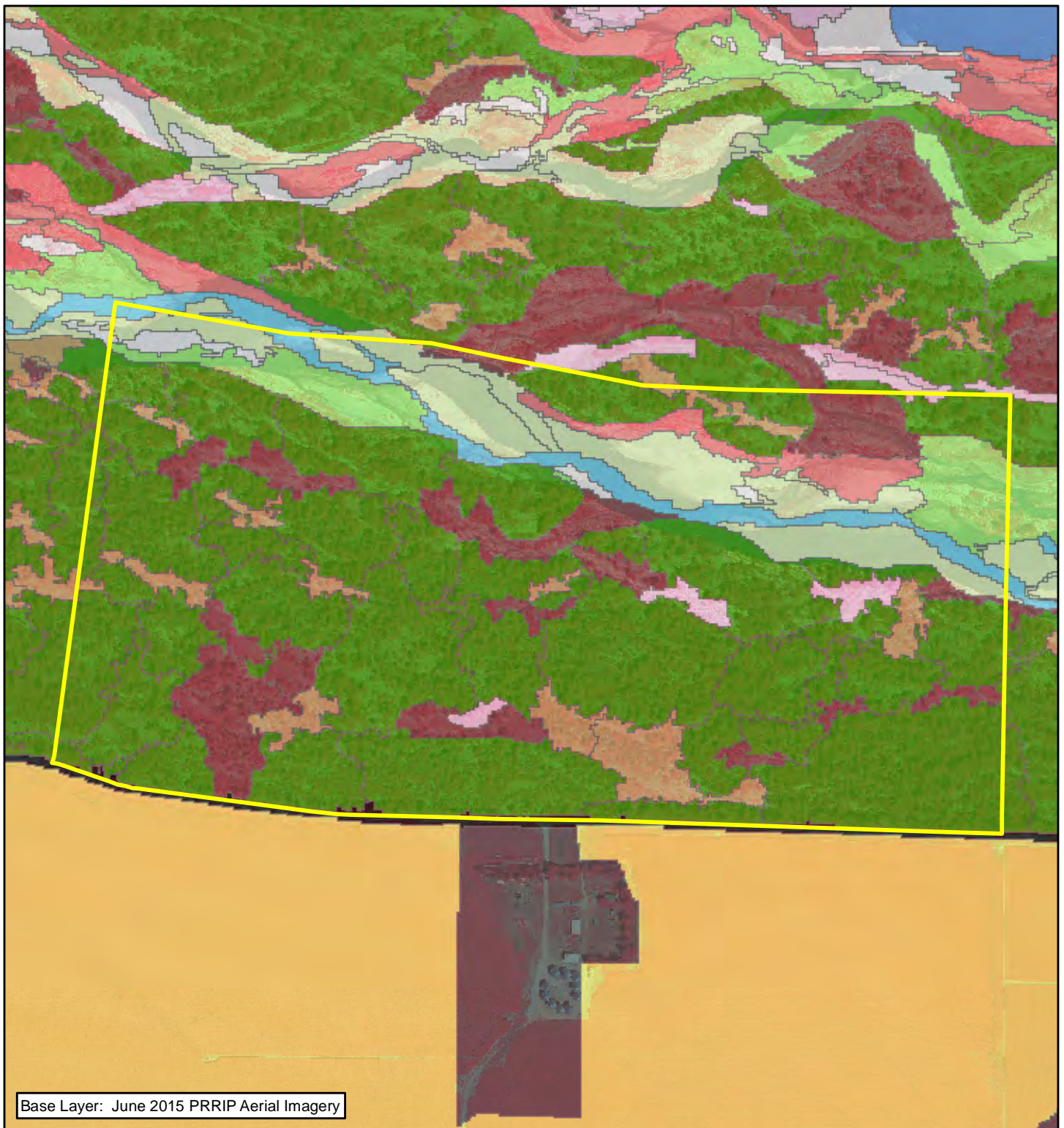
Tract 0901	Audubon	PRRIP
County	CNPPID	PRWCT
NGPC	TNC	
NPPD	Wyoming	



TRACT 2014002 LOCATION MAP

Date: 11/04/15
By: TRT

Figure A-2



Base Layer: June 2015 PRRIP Aerial Imagery



Legend

- | | |
|-----------------------|--------------------------|
| Tract 0901 | River Early Successional |
| Ag | River Shrubland |
| Bareground/Sparse Veg | Roads |
| Canal/Drainage | Rural Developed |
| Mesic Wet Meadow | Sand Pit |
| Phragmites | Unvegetated Sandbar |
| Riparian Shrubland | Upland Woodland |
| Riparian Woodland | Warmwater Slough |
| River Channel | Xeric Wet Meadow |

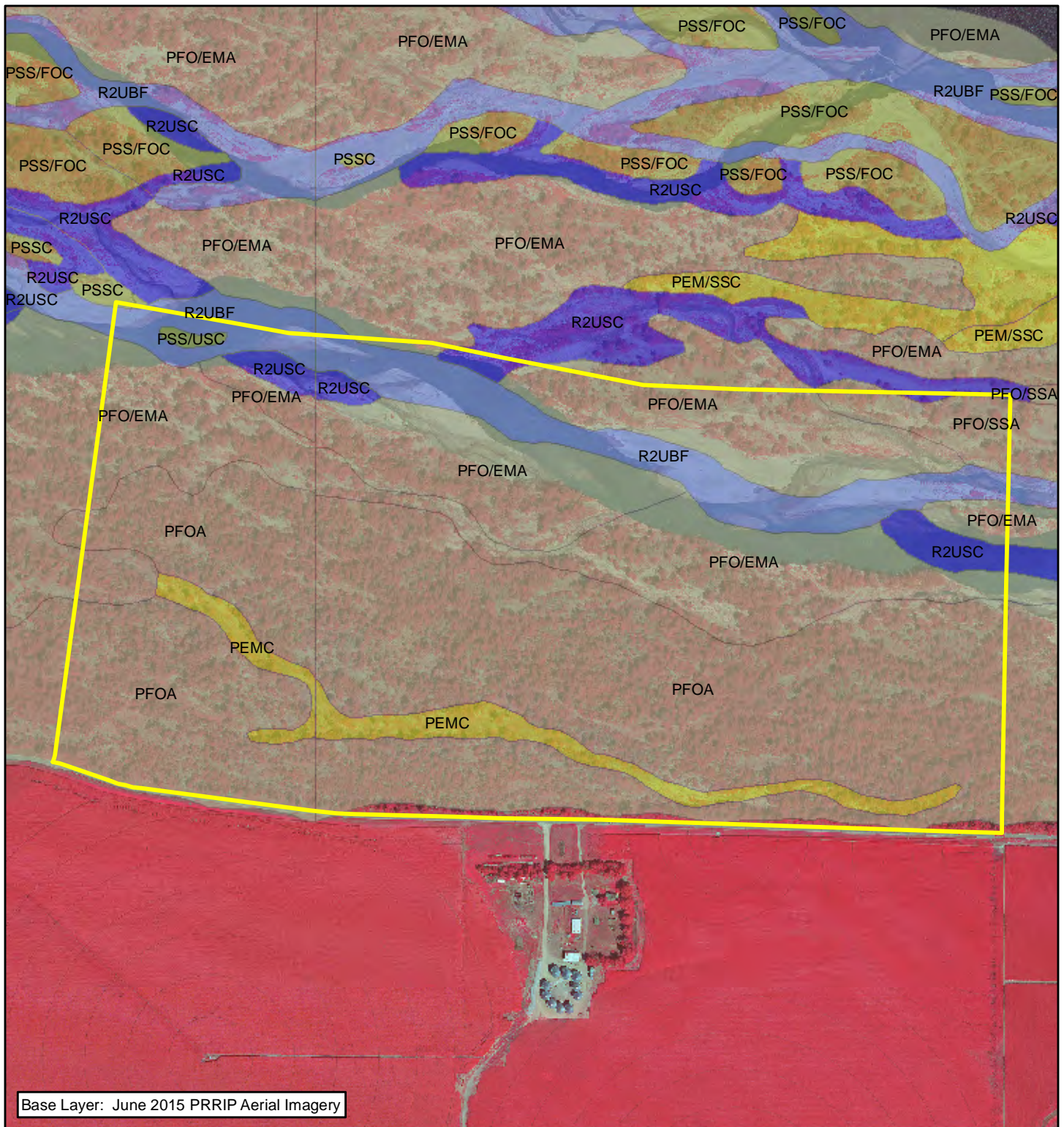


0.1 Miles

TRACT 2014002
2005 LAND COVER/USE

Date: 11/04/15
By: TRT

Figure A-3



- Legend**
- Tract 0901
 - 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)

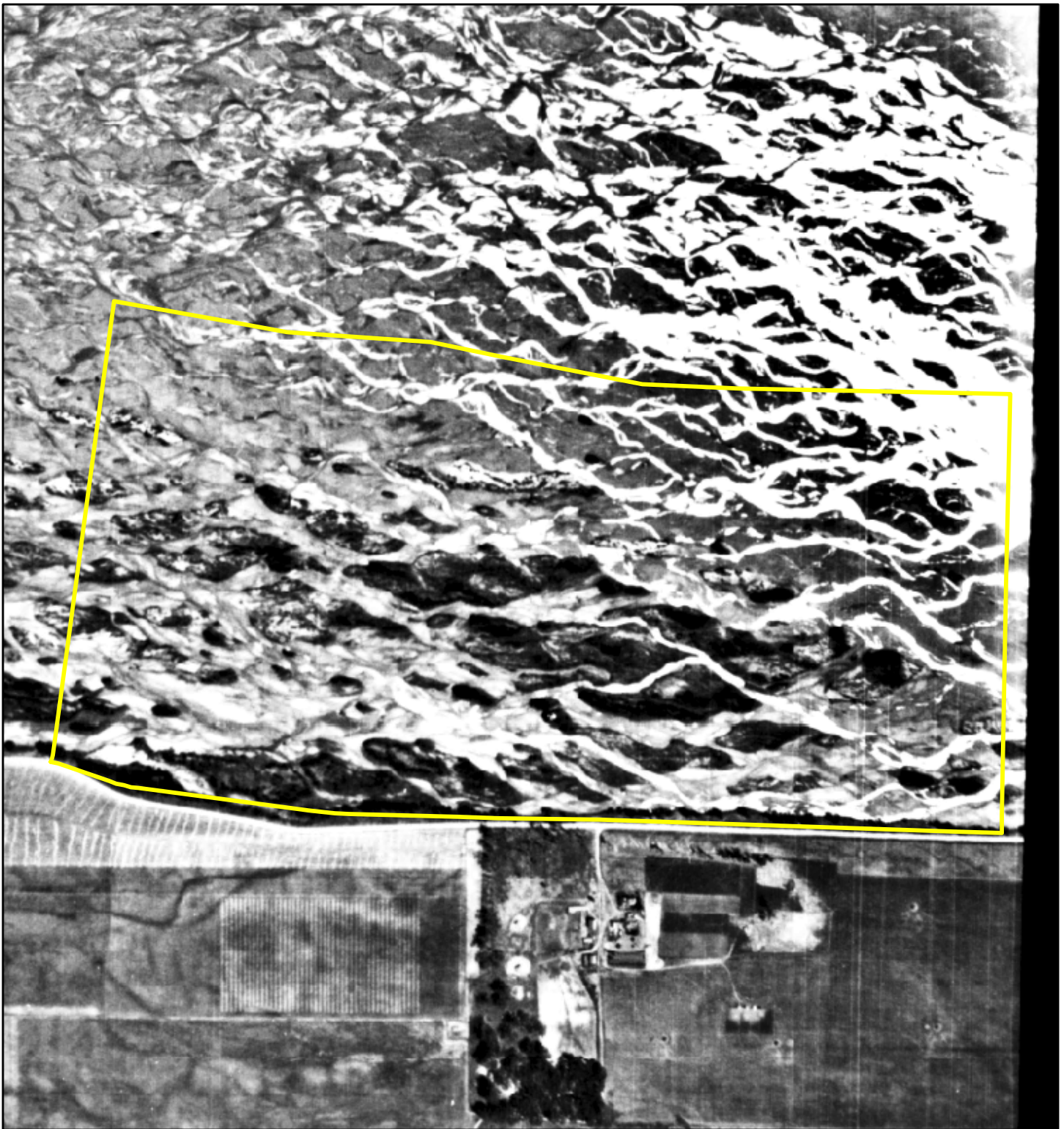



Miles
0.1

TRACT 2014002
NWI MAP


Date: 11/04/15
By: TRT

Figure A-4



Legend
 Tract 0901

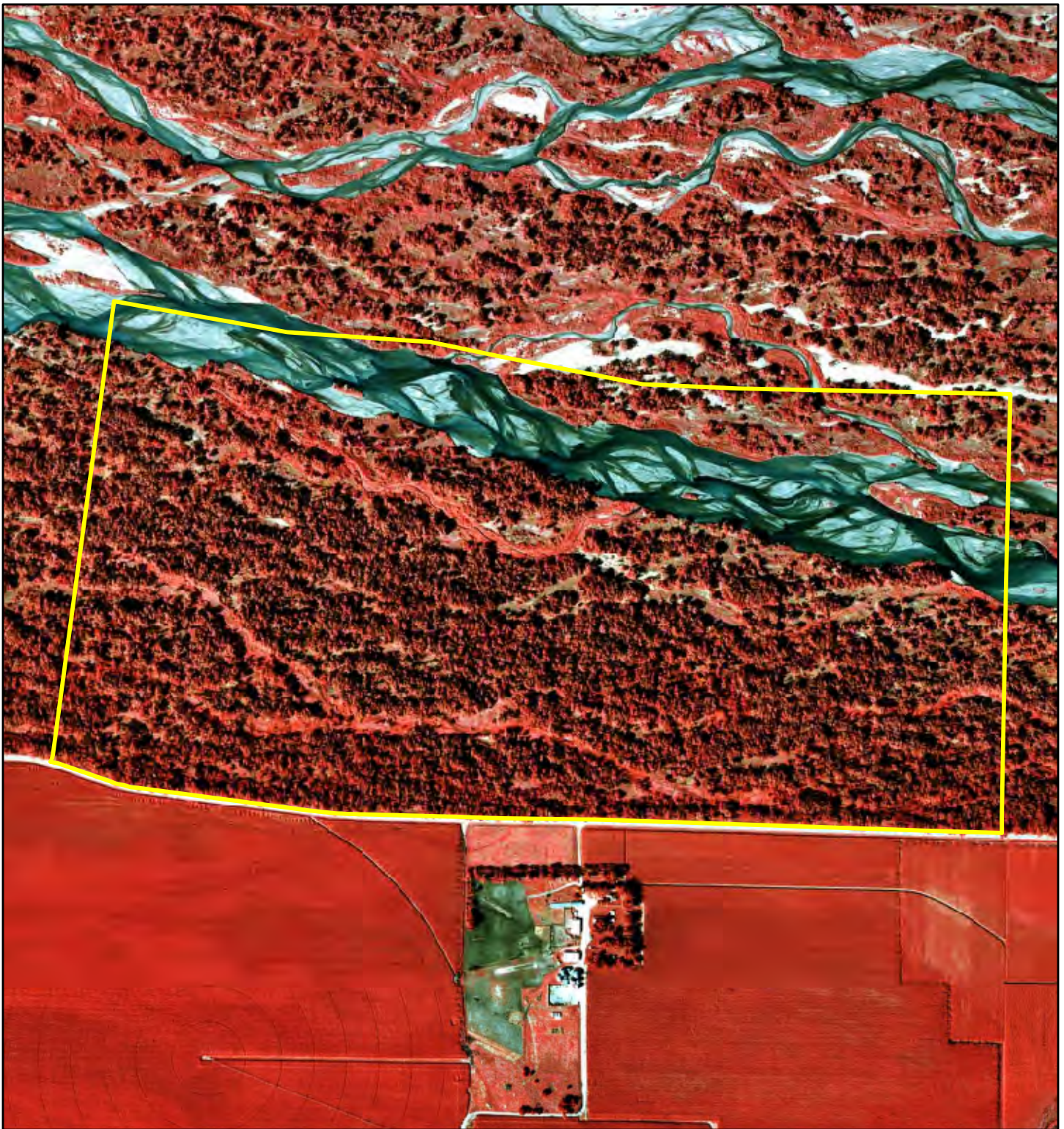



 Miles
0.1

TRACT 2014002
1938 IMAGERY


Date: 11/04/15
By: TRT

Figure A-5



Legend
 Tract 0901

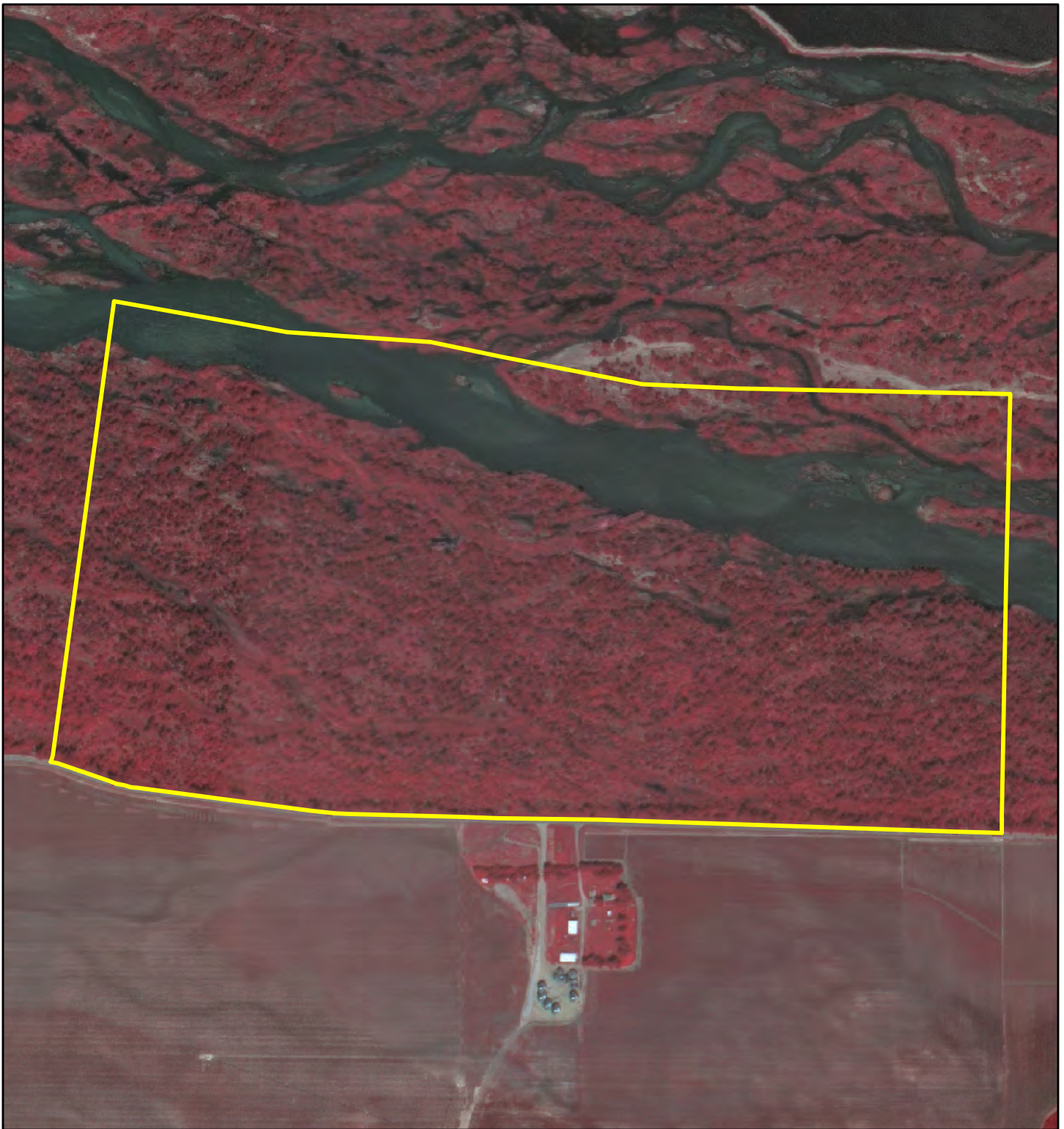



 Miles
0.1

TRACT 2014002
1998 CIR IMAGERY

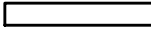
Date: 11/04/15
By: TRT

Figure A-6



Legend
 Tract 0901

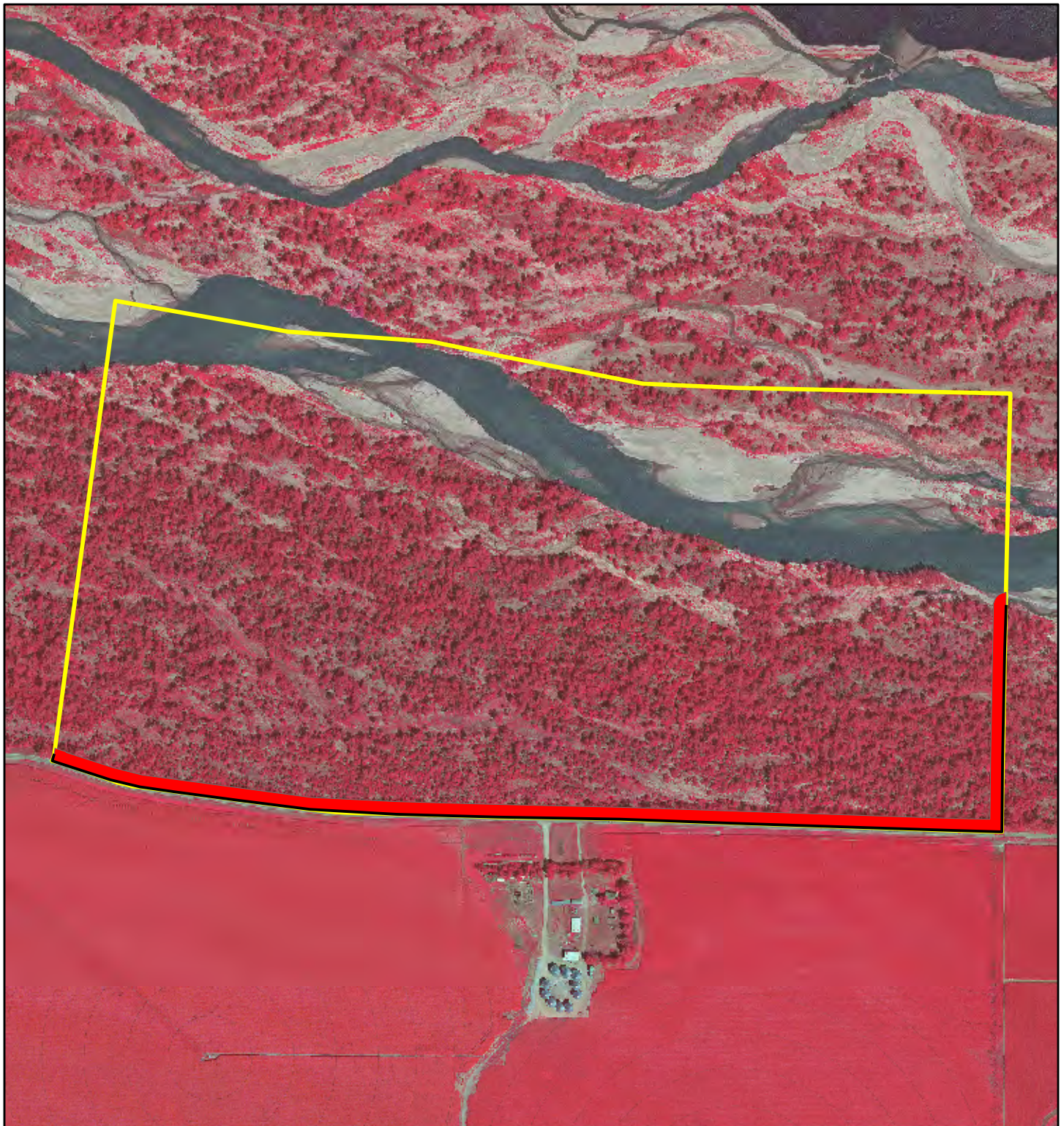


 Miles
0.1

TRACT 2014002
JUNE 2011
CIR IMAGERY

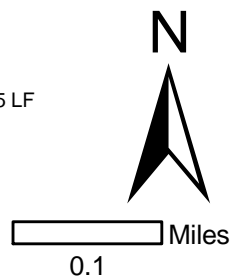
Date: 11/04/15
By: TRT

Figure A-7



Legend

- 2014002
- FENCE CONSTRUCTION- 5,775 LF
- FENCE TREE CLEARING- 8 AC



TRACT 2014002
Fence Work & Tree
Removal

Date: 11/04/15
By: TRT

Figure A-8