



## 2010-2014 CONCEPTUAL RESTORATION AND MANAGEMENT PLAN

For

# FORT KEARNY COMPLEX



Prepared for:

**Platte River Recovery Implementation Program  
Land Advisory Committee**

Completion Date:

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**I. HABITAT COMPLEX DESCRIPTION**

**A. Complex Location**

The Fort Kearny Complex (Complex) is located in the Kearney to Minden bridge segment in Township 8 North, Range 15 West. The complex straddles the Buffalo/ Kearney county line, with the majority of land located in Buffalo County. Figure A-1 (located in Appendix A) provides an overview of the conceptual complex layout including Platte River Recovery Implementation Program (Program) property interests and proximity to other lands owned by Program participants.

**B. Land Interests**

The Program owns or leases three tracts totaling approximately 900 acres within the Complex extent shown on Figure A-1. The leased land covered by a sponsorship agreement is owned by the State of Wyoming. The Nature Conservancy owns a fourth tract within the complex extent, encompassing an additional 800 acres, approximately. Nebraska Game and Parks Commission (NGPC) owns three additional properties adjacent to the complex, but at this time these properties are not being considered for management under this Complex plan.

“Complex” as referenced in this document refers to the group of land tracts in close proximity that are managed together. Credit of lands towards the Program’s First Increment “complex” or “non-complex” goal is a determination made by the Governance Committee independent of these management plans.

**C. Existing Habitat**

***1. Complex Habitat***

Table 1 provides the characteristics of land currently in conservation ownership with classifications based on *Table 1. Target Habitat Complex Guidelines*, of the Program’s Land Plan. The characteristics in Table 1 below are based on existing land cover/use and may change as land classification definitions are refined and as restoration work is completed.



**Table 1 – Fort Kearny Complex Habitat Characteristics for Land in Conservation Ownership**

| <b>Classification</b>               | <b>Characteristics</b>   |
|-------------------------------------|--|
| <b>Program Ownership/Lease</b>      | Approximately 900 acres  |
| <b>Other Conservation Ownership</b> | Approximately 800 acres  |
| <b>Riverine Habitat</b>             |  |
| Channel Length                      | 4 Miles (not entirely contiguous, see Figure A-1)              |
| Main (south) Channel Width          | 200 – 900 Feet (flow divided in 2-3 primary channels)          |
| Channel Ownership                   | Both sides 15%, one side 85% (approx. 300 acres total)         |
| <b>Wet Meadow Habitat</b>           |  |
| Proximity                           | Contiguous to active channel (TNC Speidell Tract, WY property) |
| Size                                | Approximately 500 acres (may not meet hydrology criteria)      |
| <b>Buffer</b>                       |  |
| Size                                | Approximately 900 acres  |
| Land Use/Cover                      | Cropland, woodland, grassland                                  |

**2. *Adjacent or Associated Non-Complex Habitat***

Program Tract 2009008 contains non-complex off channel sand and water (OCSW) habitat and is located approximately 2 miles to the east of the Fort Kearny Complex.



## **D. Communication, Coordination, and Responsibilities**

### ***1. Program Lands***

The Executive Director’s Office (ED Office) is responsible for coordination and implementation of restoration and management actions on Program lands. Tract-specific habitat and adaptive management objectives and activities are incorporated into this Complex Restoration and Management Plan. Land steward activities are presented in the tract Operations and Maintenance Plans located in Appendix B.

### ***2. Other Conservation Lands***

The ED Office is responsible for communication and coordination with other conservation land owners. All interactions with property owners will be governed by the Program’s Good Neighbor Policy. Prior to construction of Program activities in the Fort Kearny Complex, the ED Office will have agreements and baseline monitoring in place. The agreement will present the actions to be taken, timeframe, responsibilities and other pertinent information.

### ***3. Private Lands***

The ED Office is responsible for communication and coordination with private land owners. All interactions with property owners will be governed by the Program’s Good Neighbor Policy. If the Program wishes to implement specific management actions on private lands and does not desire (or is not able) to negotiate an easement, lease, or purchase, the ED Office will work to develop a management agreement with the land owner. The agreement will include the actions to be taken, timeframe, responsibilities and other pertinent information.



**II. GOALS, OBJECTIVES AND IMPLEMENTATION STRATEGY**

Program land goals and management objectives have been reproduced below. Complex-level goals are a function of these as well as Adaptive Management Plan research needs, target species habitat criteria, and adherence to the Program’s good neighbor policy. Goals and objectives will function as the benchmark for evaluation of ongoing land-related actions. Planning of Program actions to address goals and objectives is done primarily at the complex level; however, because of differences in ownership and the types of management agreements, implementation will take place at the tract level. This section addresses complex-level actions and which tracts they will be implemented on. While each objective is not repeated in the individual tract Operations and Maintenance Plans, it is intended that all objectives, actions, and evaluation will take place on identified individual tracts as soon as the Program assumes control – even if the Complex plan as a whole cannot be implemented.

1. Program Goals
  - a. Improve and maintain migration habitat for whooping cranes and reproductive habitat for least terns and piping plovers.
  - b. Reduce the likelihood of future listings of other species found in the area.
2. Program Objectives
  - a. Protecting, restoring where appropriate, and maintaining 10,000 acres of habitat in the central Platte River area between Lexington and Chapman, Nebraska
3. Management Objectives
  - a. Improve production of least terns and piping plovers from the central Platte River.
    - i. Increase number of fledged tern and plover chicks
      1. Increase nesting pairs
      2. Increase fledge ratios and reduce chick mortality from causes such as flooding, predation, weather, inadequate forage.
    - ii. Reduce adult mortality
  - b. Improve survival of whooping cranes during migration.<sup>1</sup>
    - i. Increase availability of whooping crane migration habitat along the central Platte River.
  - c. Within the overall objectives 3.a & 3.b, provide benefits to non-target listed species and non-listed species of concern and reduce the likelihood of future listing.
    - i. Increase availability of habitats for these species (Land Plan “other species of concern”) along the central Platte River

This section also provides the strategies and methods for achieving the complex-level goals and objectives along with work areas and preliminary timelines and estimates of cost. Complex and tract-level implementation activities will be integrated in annual Complex Work Plans that will

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<sup>1</sup> The Governance Committee has asked the TAC to consider modifying this objective, and the ISAC has been supportive of modification. The GC has not yet acted on a modification, but if such action is taken this objective will be updated without need for review or re-approval of the management plan.



be reviewed by the LAC, TAC and approved by the GC. Work Plans will be appended to the Complex Restoration and Management Plan annually in Appendix C.





**A. Complex-Level Goals and Objectives**

*1. General Goals and Objectives*

Ø **Goal 1 – Obtain sufficient First-Increment Program land interest in Complex to be able to carry out activities to meet the remaining complex-level goals and objectives.**

- **Objective 1a** – Acquire an interest in additional lands or execute management agreements with conservation and private landowners that will allow the Program to implement necessary restoration, construction, maintenance and research/monitoring activities.

- § **Strategy** – Identify needed scope and extent of acquisitions or management agreements based on conceptual design of restoration and research actions. Approach landowners with conceptual designs and gauge receptiveness. Proceed to final design and agreement negotiation/execution if landowner is receptive. Section C.2. on page 8 of the Program Land Plan provides baseline requirements for the content of these agreements.

- § **Area** – Management agreements will be executed on the riverine portion of the Complex not under Program control. Other wet meadow/grassland areas may also be subject to management agreements if conservation owners request assistance in managing in accordance with Program goals and objectives.

- § **Timeline** – Riverine management agreements and OCSW acquisitions executed by August 2010. Wet meadow/grassland agreements as necessary.

- § **Costs** – Program staff time. Management agreement compensation is intended to be in the form of management/maintenance activities as opposed to direct compensation. Acquisition of additional lease, easement, or fee title interests will be subject to offerings, appraisals, and negotiations.

- § **Responsibilities** – The Program’s Land Specialist will be responsible for initiating coordination with landowners, drafting and execution of management agreements, and completing appraisals and negotiations for land offerings. Conceptual management actions and areas to be included in the agreements are included within this Complex plan.



## ***2. Adaptive Management Goals and Objectives***

This section contains objectives related to the experimental design of implementation of the Program’s Adaptive Management Plan and experiments to be conducted through that plan. The following summarizes major AM experimental design components that may be conducted completely or in part within this complex:

1. *Bird Response (LETE, PIPL, WC).*
  - a. The objective of this experiment is to reduce uncertainty around key factors that influence habitat selection, nest success, and survival for the target species, including (but not limited to): island size, island elevation above water, and unobstructed view distances.
  
2. *“Paired Design” – River nesting vs. OCSW nesting (LETE, PIPL).*
  - a. The objective of this experiment is to determine differences in nest success and productivity, as well as species preference and use, between river nesting and OCSW nesting of the target species by offering both types of available habitats in close proximity.
  
3. *Flow-Sediment-Mechanical (FSM) “Proof of Concept.”*
  - a. The objective of this experiment is to assess the ability of Program flow and sediment management to create or maintain least tern and piping plover nesting habitat and whooping crane roosting habitat, as well as maintain wide, mobile, braided river channel area.
  
4. *Conservation Monitoring and Directed Research*
  - a. System-wide Program conservation monitoring protocols (tern and plover, whooping crane, geomorphology/in-channel vegetation, water quality) and directed research projects (tern and plover foraging habits study, vegetation scour research) may occur at this complex based on monitoring and research priorities and schedules.

Ø ***Goal 2 – Utilize Complex to refine Program’s understanding of interior least tern (LETE), piping plover (PIPL), and whooping crane (WC) riverine habitat requirements***

- ***Objective 2a*** – Test Program System, LETE and PIPL hypotheses related to amount and physical characteristics of riverine nesting habitat and its relationship to LETE and PIPL occurrence, use and productivity by providing bare sand substrate at a range of sizes and heights. (Priority hypotheses S1b,T1, P1, TP4d, TP5)



- § **Strategy** – Design and implement LETE and PIPL riverine habitat selection experiment. The experiment will include design, construction and maintenance of opportunistic in-channel nesting islands of various heights, sizes and locations within the channel as well as target tree clearing to increase distance to visual obstructions and predator roost habitat. Experimental and engineering design is being developed by Program staff and contractors under the guidance of the TAC, AMWG, and GC. Final experimental design documents will be attached to this management plan when completed. LETE and PIPL presence, use, and productivity will be monitored per the Program’s annual system-wide LETE and PIPL monitoring protocol. Annual monitoring data will be used to address priority hypotheses.

  - **Methods** – Construction and maintenance of nesting islands will be accomplished using methods from *Habitat Management Methods for Least Terns, Piping Plovers, and Whooping Cranes* including use of heavy equipment for construction and annual application of pre-emergent herbicide and mechanical removal for vegetation control. Monitoring methods are presented in the Program’s LETE and PIPL monitoring protocol.
  
- § **Area** – Construction of riverine LETE and PIPL habitat will occur in the channel at Program property 2009004 and TNC’s Speidell tract, near the downstream end of the complex. These activities will be subject to the success of Objective 1a, as they are planned for areas only partially controlled by the Program. The extents of various activities are presented on Figure A-2.
  
- § **Timeline** – Design and permitting will be accomplished in the spring and summer of 2010. Construction will occur during the winter of 2010. Monitoring and maintenance will occur annually until at least 2014, at which time this Complex plan will be revisited.
  
- § **Costs** – A detailed cost estimate for all riverine activities will be developed in the spring of 2010 as part of the experimental design. Construction costs are expected to be on the order of \$100,000. Annual maintenance costs are expected to be on the order of \$20,000.
  
- § **Responsibilities** –Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities will be bid.



- **Objective 2b** – Provide a range of unobstructed views from 500 feet to 1,200 feet and wetted channel widths at 2,400 cfs of 500 to 1,200 feet to insure a test of Program System and WC hypotheses related to amount and physical characteristics of riverine roosting habitat and its relationship to WC use. (Priority hypotheses S1b, WC1, WC3)
  - § **Strategy** – Design and implement WC riverine habitat selection experiment. The experiment will include vegetation clearing to provide a range of unobstructed view widths above the Program’s minimums. WC use will be monitored per the Program’s annual system-wide WC monitoring protocol. Annual monitoring data will be used to address priority hypotheses.
    - **Methods** – Construction and maintenance of unobstructed view widths will be accomplished using methods from *Habitat Management Methods for Least Terns, Piping Plovers, and Whooping Cranes* including use of heavy equipment for construction and annual application of pre-emergent herbicide and mechanical removal for vegetation control. Monitoring methods are presented in the Program’s WC monitoring protocol.
  - § **Area** – In-channel vegetation removal will occur on all tracts identified on Figure A-2, and additional private lands within the Complex extent if agreements are reached. Implementation of this action requires management agreements over the entire area of implementation on at least one side of the channel. The extents of various activities are presented on Figure A-2. Activities will take place on Program Tracts 2008001 and 2009004, TNC Speidell Tract, as well as private lands.
  - § **Timeline** – Design and permitting for activities will be accomplished in the spring and summer of 2010. Construction will occur during the winter of 2010. Monitoring and maintenance will occur annually.
  - § **Cost** – See costs for Objective 2a.
  - § **Responsibilities** – Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities will be bid.



Ø **Goal 3 – Refine Program’ understanding of interaction between LETE and PIPL riverine and off-channel sand and water (OCSW) nesting habitat.**

- **Objective 3a** – Test Program System, LETE and PIPL hypotheses related to bird response to habitat development, habitat preference for and productivity on riverine versus OCSW nesting habitat. (Priority hypotheses S1b, T1 , P1, TP1)

§ **Strategy** – Monitor LETE and PIPL use and productivity on Program riverine habitat and nearby OCSW nesting habitat. Occurrence, use and productivity will be monitored per the Program’s LETE and PIPL monitoring protocol.

- **Methods** – Program will maintain OCSW habitat using mechanical methods and/or annual application of pre-emergent herbicide to control vegetation. Riverine habitat creation and maintenance methods are presented under Objective 2a. Monitoring methods are presented in the Program’s LETE and PIPL monitoring protocol.

§ **Area** – See Objective 2a for location of mechanically created islands. Program Tract 2009008 contains OCSW habitat and is located adjacently to the east of the Fort Kearny Complex, as seen on Figure A-1.

§ **Timeline** – Maintenance and monitoring will occur annually.

§ **Cost** – See Objective 2a for riverine island construction costs. OCSW costs for vegetation control and predator fencing are expected to be on the order of \$10,000 annually.

§ **Responsibilities** – Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities will be bid.

**3. Species Habitat Goals and Objectives**

Ø **Goal 4 – Improve sand and water (riverine and OCSW) habitat for LETE, PIPL and WC.**

- **Objective 4a** – Create and maintain a complex with riverine and OSCW target bird species habitat that approximates *Table 1. Target Habitat Complex Guidelines* of the Program Land Plan, to the degree appropriate, and approximates at least the Program’s minimum habitat guidelines.



- § **Strategy** – Development and maintenance of sand and water LETE, PIPL and WC habitat will be accomplished as part of design and implementation of the experiments presented under Goals 2 and 3. Methods, area, timeline, costs and responsibilities can be found in the same location.

Ø **Goal 5 – Improve wet meadow/grassland habitat for WC and other species of concern.**

- **Objective 5a** – Create or maintain wet meadow/grassland that conforms (to the extent appropriate) to *Table 1. Target Habitat Complex Guidelines*, of the Land Plan and/or other criteria that will be developed by the Technical Advisory Committee (TAC) and Adaptive Management Working Group (AMWG).

- § **Strategy** – An information review on wet meadows will be completed in 2010. No action will be taken on wet meadow/grassland creation or maintenance at this complex until TAC provides additional guidance on priorities and habitat criteria. A full implementation strategy and methods will be developed based on that guidance. Methods, area, timeline, costs and responsibilities will all be developed as part of the implementation strategy. However, it is anticipated that the future land cover target for Tracts 2009001 and 2009004 will be a restored wet meadow or grassland. This plan will be revisited within 1 year after approval in order to update this objective based on TAC and other guidance at that time (contingent on wet meadow review as scheduled).

- **Objective 5b** – Investigate options for conversion of cropland to grassland or wetland on complex buffer parcels.

- § **Strategy** – Work with USFWS and NGPC to identify target “other” species for grassland/wetland restorations. Identify necessary components of habitat for “other” species and potential Program tracts that could be restored. Present options and conceptual costs to Governance Committee for approval. It is anticipated that the future land cover target for Tracts 2009001 and 2009004 will be a restored wet meadow or grassland. This plan will be revisited within 1 year after approval in order to update this objective based on TAC and other guidance at that time (contingent on wet meadow review as scheduled).

- § **Area** – All Program cropland buffer properties within complex. Specifically, Program tracts 2009001 and 2009004 will be examined for grassland and wetland potential and conversion.



- § **Timeline** – Identification of target “other” species and habitat requirements to take place in Summer/Fall 2010. Identification of Program tracts, conceptual design and costs to be developed in 2011. Construction timelines subject to Governance Committee approval, but not likely to commence prior to Fall/Winter 2011-2012.
- § **Cost** – Costs are subject to specific habitat guidelines and species goals and will be developed as part of the conceptual design in 2011.
- § **Responsibilities** - Program staff will coordinate with USFWS and NGPC. Conceptual design and costs to be developed by Program staff. Construction activities will be bid.

Ø **Goal 6 – Investigate options and implement marking of power lines crossing the river on/near TNC’s Speidell Tract.**

- **Objective 6a** – Investigate options for marking power lines in accordance with accepted practices for prevention of bird strikes.
  - § **Strategy** – As management of the channel occurs, the power lines crossing TNC’s Speidell Tract may be a threat to target species using the property. Program staff will facilitate the investigations into the feasibility of marking the power lines.
    - **Methods** – Program staff will investigate methods and hardware, initiate discussions with the power company, and bring a recommendation to the LAC and GC.
  - § **Area** – Power lines cross the river channel generally north to south through the middle of TNC’s Speidell Tract around river mile 210.5, shown on Figure A-2.
  - § **Timeline** – Investigation and recommendation will occur in 2010. Marking, if necessary, will occur in 2011.
  - § **Costs** – Anticipated cost for feasibility investigation is Program staff time. Marking costs will be developed as part of the feasibility investigation in 2010.
  - § **Responsibilities** – Program staff will perform feasibility investigations. Findings and recommendations will presented to the LAC and GC for approval. Marking will be done by contractors under the supervision of Program staff.



Ø **Goal 7 – Provide benefits to other species of concern without compromising ability to accomplish target species goals and objectives**

- **Objective 7a** – Evaluate habitat protection for other species of concern.

- § **Strategy** – The Program will utilize the tract management planning and consultation process as the mechanism for identification of opportunities to benefit other species of concern. Following acquisition of a parcel, the Program request that the USFWS and NGPC provide guidance on species of concern that may be present and benefit from management measures. The Program will survey all tracts to determine presence of those species. The Program will then consult with the USFWS and NGPC to determine appropriate measures for protecting, preserving, and enhancing populations of those species while accomplishing Program goals.

- **Methods** – Will be determined in consultation with USFWS and NGPC.

- § **Area** – Program tracts.

- § **Timeline** – Surveys and consultation will be conducted as tracts are acquired by the Program.

- § **Cost** – Will be determined on tract-by-tract basis.

- § **Responsibilities** – Program staff are responsible for initiating coordination and consultation. USFWS and NGPC are responsible for bringing forward species of concern that need to be addressed in planning process. Program staff will be responsible for habitat protection planning, with technical assistance from these agencies.

**4. Operations and Maintenance Goals and Objectives**

- **Goal 8 – Conduct all activities in adherence with the Program’s good neighbor policy.**

- **Objective 8a** – Emphasize the prevention, as opposed to the correction of actions that cause adverse effects on adjacent landowners or others.

- § **Strategy** – Prevention efforts will rely on early coordination with Complex landowners to identify and address potential negative effects.





Conceptual design documents will be used as a baseline for discussion of actions and identification of potential effects.

- **Objective 8b** – Quickly identify any problems and ensure needed corrective actions can be taken in a timely manner.
  - § **Strategy** – Timely identification of existing or potential problems will be accomplished through robust monitoring of Program actions. Complex-specific monitoring protocols will be developed as part of the AM experimental designs. Monitoring protocols will include “trigger” values or conditions that will serve as indicators of potential problems.
- **Objective 8c** – Provide means to cover documented damage claims resulting from the actions of the Program or contractors acting on the Program’s behalf.
  - § **Strategy** – The Program and all consultants and contractors planning and/or implementing actions will be required to carry appropriate levels of liability insurance. The Program may request that contractors name the Program as an additional insured on contractor insurance policies.
- **Objective 8d** – Demonstrate good land stewardship by managing Program lands in accordance with sound wildlife and agricultural management practices.
  - § **Strategy** – The Program will identify and include wildlife and agricultural management practices in tract-level management plans. Management practices will be selected based on their ability to provide benefits to species habitat, while being as compatible as possible with agricultural/farm management, and with other compatible uses in mind.



### III. MONITORING AND RESEARCH

#### A. Baseline Monitoring

A variety of monitoring activities will be conducted in the Complex area (and nearby non-complex area) as part of the system-wide investigations conducted under the Integrated Monitoring and Research Plan (IMRP). Baseline monitoring efforts include:

##### 1. Land Cover Analysis

- **Objectives** – Document pre-Program land cover conditions. Land cover analysis will be performed again near the end of the First Increment to document changes in land cover.
- **Hypotheses Links** – S1, S1a
- **Timeline** – Pre-Program completed in 2007. Next analysis in 2018.
- **Responsibilities** – ED Office

##### 2. Channel LiDAR Project

- **Objectives** – Document channel topography at beginning of First Increment. LiDAR will be collected again near the end of the First Increment to document changes in channel topography.
- **Hypotheses Links** – S1, S1a, Flow 1, Sediment 1-4
- **Timeline** – LiDAR collection completed in March of 2009. Next collection in 2018.
- **Responsibilities** – Collection and analysis by contractor under supervision of ED Office.

##### 3. Aerial Photography

- **Purpose** – Document annual channel features and vegetation.
- **Hypotheses Links** - TP 5, Sediment 3, WC3
- **Timeline** – Annual during First Increment per protocol.
- **Responsibilities** – Data collection performed by contractors under supervision ED Office. Analysis by ED Office.

##### 4. In-Channel Geomorphology and Vegetation Monitoring

- **Purpose** – System-wide analysis of changes/trends in geomorphology and in-channel vegetation over time. Correlate Program actions with changes/trends. Pure panel point 23 is located near the center of the complex and will be sampled annually. Rotating panel point 22 is located near the downstream end of the complex.
- **Hypotheses Links** – Flow 1-5, Sediment 1-4
- **Timeline** – Annual during First Increment.
- **Responsibilities** – Monitoring performed by contractors under supervision of ED Office.

##### 5. Least Tern, Piping Plover and Whooping Crane Monitoring

- **Purpose** - Document WC use, document LETE and PIPL use, nesting pairs, and fledging success.
- **Hypotheses Links** – T1, P1, TP1-5, WC1&3



- **Timeline** – Annual during First Increment.
- **Responsibilities** – Monitoring performed by contractors or cooperators under supervision of ED Office.

#### **6. Species of Interest Surveys**

- **Purpose** - Document habitat for and use of Program properties by “species of concern” or other species of interest.
- **Hypotheses Links** – S2
- **Timeline** – Following acquisition and later, as appropriate, after restoration.
- **Responsibilities** – Coordination by ED Office. Surveys by contractors or cooperators.

### **B. Research**

Research efforts to be conducted in full or part on this complex under the IMRP include:

#### **1. LETE, PIPL and WC riverine habitat selection experiment (Goal 2, Objectives 2a & 2b)**

- **Purpose** - Refine Program’s understanding of interior LETE, PIPL and WC riverine habitat needs and test associated AMP priority hypotheses for each species.
- **Hypotheses Links** - S1b, T1, P1, TP4d, TP5, WC1, WC3,
- **Timeline** – Design and construction in 2010. Monitoring annually.
- **Responsibilities** – Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities will be bid.

#### **2. LETE and PIPL riverine versus OCSW experiment (Goal 3, Objective 3a)**

- **Purpose** - Determine LETE and PIPL preference for and productivity on riverine versus OCSW nesting habitat.
- **Hypotheses Links** - S1b, TP1
- **Timeline** – Design and construction in 2010. Monitoring annually.
- **Responsibilities** – Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities will be bid.

#### **3. Wet Meadow Information Review and Related Experiments (Goal 5, Objective 5a)**

- **Purpose** – Refine Program’s understanding of interaction between target species and wet meadow/grassland habitat. Information review on wet meadows scheduled for 2010. Specific experiments and locations will be identified pending advisory committee and Program staff review of wet meadow information.
- **Hypotheses Links** - S1b, S1c, S2, WC-1, WC-4, WM-2, WM-3, WM-4, WM-8a
- **Timeline** – Information review completed in 2010. Planning in 2010.
- **Responsibilities** – Information review to be completed by contractors under the supervision of Program staff. Program staff or contractors under the supervision of Program staff (in conjunction with the appropriate advisory committees) are responsible for design, permitting and monitoring. Construction and maintenance activities to be bid.



## IV. ENVIRONMENTAL LAWS, PERMITTING AND COMPLIANCE

### A. Section 7 Consultation

#### *1. Measures to Minimize or Eliminate Take of Least Tern and Piping Plover*

Habitat improvement activities occurring on river channel or sandpits between April 15 and August 15 will only be conducted in the absence of nesting least terns and piping plovers. Program Staff will insure that a survey for these species is conducted by qualified individuals (e.g. by Program staff, contractor, conservation owner) in the area that will be disturbed within three days prior to the initiation of activities.

If least terns or piping plovers nest on the off-channel nesting complex, appropriate measures will be taken to control predation. At a minimum, any land connection to the nesting area for maintenance will be protected by electrified predator fencing. Other measures may be warranted and Service concurrence will be obtained before implementing additional measures.

#### *2. Measures to Minimize or Eliminate Take of Whooping Crane*

For habitat restoration and land management activities in or within 0.25 miles of the Platte River channel occurring between March 23 and May 10, or October 1 and November 15, construction shall only take place from one hour following sunrise to two hours prior to sunset unless otherwise approved by the Service's Coordinator of the Whooping Crane Migration Tracking Program. Program staff will notify the Service when Program habitat restoration work will be conducted during the above dates from the Highway #283 and Interstate 80 intersection near Lexington, Nebraska downstream to Chapman, Nebraska.

Construction or other work crews working in or within 0.25 miles of the channel during the above dates will check channel areas for the presence of whooping cranes prior to starting work each day, and report the presence of whooping cranes to Program staff. When whooping cranes are discovered in the Platte River valley, either by the Program monitoring crew or the above required check by construction or work crews, or are known to be in the valley through other sources, including via notification from the Service's Coordinator, Program staff will confer with the Service and will notify construction crews if it is necessary to temporarily halt construction activities.

Construction work should be completed as quickly as possible. Earth moving equipment will be moved from the river channel to an upland site located behind a tree line at the end of each work day if such features are available on the property. In the instance that such features are unavailable, equipment should be moved to a position at least 0.25 miles away from the channel.

#### *3. Measures to Minimize or Eliminate Take of Pallid Sturgeon*

Land management activities will not result in incidental take of pallid sturgeon.



## **B. Fish and Wildlife Coordination Act and Nebraska Non-game and Endangered Species Conservation Act**

The Program will work with the USFWS and NGPC to identify potential impacts to state and federal species of concern and address them as part of this document. Program actions to avoid or mitigate potential species impacts not addressed in other portions of Section IV are presented below.

### ***1. Raptors***

The Program will conduct raptor surveys for management activities that may affect active raptor nests during the period of February 1 through July 15<sup>th</sup>. If a nest is discovered, that tree will not be removed.

### ***2. Northern River Otter***

The Program will conduct natal den surveys when performing restoration or management actions during the period of February 15 to June 15 that may impact river channel or slough banks where natal dens may be present. If natal dens are discovered, the Program will coordinate with the NGPC to design appropriate buffers.

### ***3. Western Prairie Fringed Orchid***

Projects that will result in the disturbance of native prairies or wet meadows will be surveyed for the presence of Western Prairie Fringed Orchid during the flowering period of June 15 through July 7<sup>th</sup>. If this species is present, activities will be modified to prevent destruction of existing plants.

### ***4. Platte River Caddis Fly***

Surveys for Platte River Caddis Fly potential habitat and populations will be conducted on all Program properties at the time of acquisition, or during the soonest recommended survey period after acquisition. If a population is present on the property and restoration or management actions may negatively impact the population, the Program will coordinate with USFWS and NGPC to determine appropriate methods to avoid or mitigate impacts.

### ***5. Vegetation Communities of Conservation Importance***

Surveys for Northern Cordgrass Wet Prairie, Northern Sedge Wet Meadow, and Wet Mesic Tallgrass Prairie will be conducted on all Program properties during the soonest recommended period after acquisition. If occurrences are found, the Program will coordinate with the USFWS and NGPC to determine appropriate methods to avoid or mitigate negative impacts from Program management actions. Additionally, the Program will investigate opportunities to re-establish these communities if suitable locations are present.



### **6. Regal Fritillary**

The Program will coordinate with the USFWS and NGPC to investigate opportunities to establish native violet species (*Viola spp.*) in native grasslands or grassland restorations to provide a host species for the regal fritillary and promote its conservation.

### **C. Migratory Bird Treaty Act**

Land management that involves burning, cutting or mechanical removal of vegetation (with the exception of restoration activities on ground that was previously in agricultural crops) will not occur between April 30 and July 15 without first doing surveys to insure that no occupied migratory bird nest will be destroyed.

### **D. Bald Eagle Act**

Eagle nests will not be disturbed and a quarter mile buffer will be maintained while occupied by adults or young. Known eagle roost trees will be left in place.

### **E. United States Army Corps of Engineers Section 404 Permitting and Nebraska Department of Environmental Quality Section 401 Water Quality Certification**

Prior to commencement of construction work to be accomplished in wetlands or waters of the United States, including dredging or placement of fill material, the Program will obtain a 404 permit and 401 water quality certification. Work in wetlands or waters of the State that are not jurisdictional under the Federal Clean Water Act will still need to comply with the Nebraska Department of Environmental Quality's Title 117.

### **F. National Pollutant Discharge Elimination System Construction Stormwater Discharge Permit**

All construction work that will disturb an area exceeding 1 acre in size will be required to meet the requirements of the Environmental Protection Agency NPDES Construction General Permit. This permit includes the development of a Stormwater Pollution Prevention Plan. The Program will submit a Notice of Intent a minimum of seven days before commencement of construction activities.

### **G. County Floodplain Development Permit**

All fill placed within the 100-year floodplain will require a floodplain development permit from the county where the work is undertaken. In order to obtain a permit, a project must have No-Rise certification meaning that it will raise the 100-Year Base Flood Elevation (BFE) by less than one foot.



**H. State Historic Preservation Office Clearance**

Projects will require screening for impacts to cultural resources including historic properties. Program properties will be submitted to the State Historic Preservation Office for a cultural resources screening at the time of acquisition.

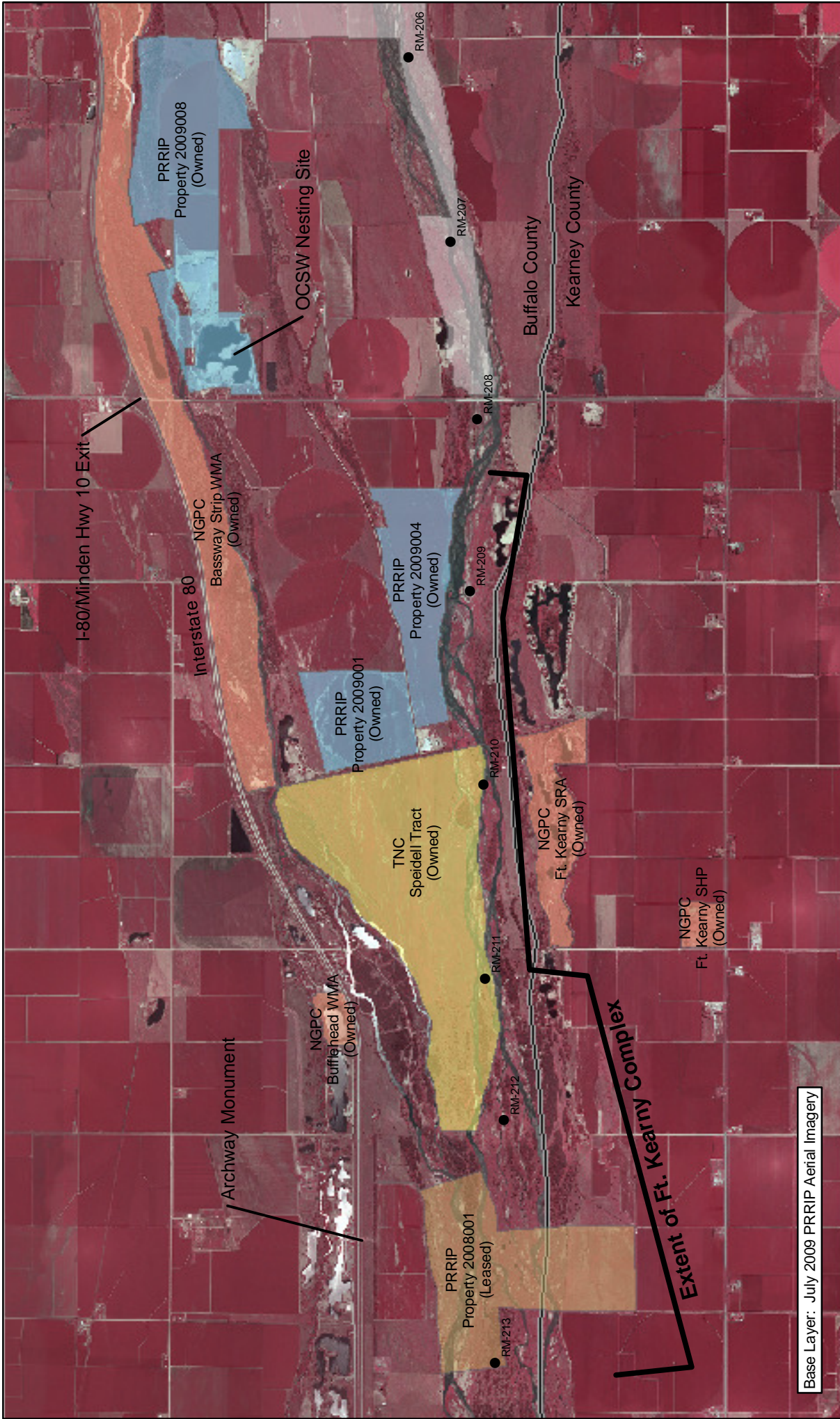
**I. Good Neighbor Policy**

The Program will comply with local, state, and federal laws, and to the extent permitted by such laws will be responsible for its actions to the same extent as a private individual under like circumstances.



**APPENDIX A - FIGURES**



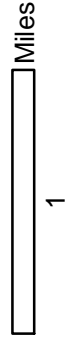


Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**

- River Mile
- County
- Conservation Lands
  - Audubon
  - CNPPID
  - NGPC
  - NPPD
  - PRRIP
  - PRWCT
  - TNC
  - USFWS
  - Wyoming



**FORT KEARNY COMPLEX  
OVERVIEW MAP**

Date: 1/20/10  
By: JDB

Figure A-1



**Management & Experiment Actions:**

1. Bird response design to take place in spring 2010. Construction to take place in winter 2010-2011.
2. Vegetation control (in-channel and overbank) design to take place in spring and summer 2010. Construction to take place in winter 2010-2011.
3. Activities shown on non-Program lands are subject to management agreements.



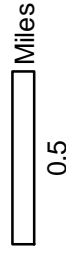
Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**

- River Mile
- County
- Conservation Lands
- Power Distribution Line
- Power Transmission Line

- ▨ Bird Response Experiment Area
- Vegetation Control Area



**FORT KEARNY COMPLEX  
EXPERIMENT ACTIONS**

Date: 1/22/10  
By: JDB

Figure A-2



**APPENDIX B – TRACT OPERATIONS AND MAINTENANCE PLANS**



## 2010–2014 OPERATIONS AND MAINTENANCE PLAN

For

# TRACT 2009001



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

Completion Date:  
**1/29/2010**





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## **I. PROPERTY DESCRIPTION AND BACKGROUND**

### **A. Purpose**

The purpose of this plan is to outline the restoration, operations and maintenance activities that will occur on Tract 2009001 (Evaluation Tract Number 0842) during the period of 2010-2014. Species habitat and Adaptive Management research and monitoring actions associated with this tract are addressed in the Restoration and Management Plan for the Fort Kearny 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 2009001 is approximately 185 acres in size and is located in portions of Sections 11 and 14, T-8N, R-15W. Figure A-1 (located in Appendix A) delineates the property boundary. The tract is located in the Kearney to Minden bridge segment. The tract bounds the east property line of the TNC Speidell Tract and the north property line of Program Tract 2009004. Figure A-2 shows the parcel location within the 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 tenant and 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 Executive Director's 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 2009001 Habitat Complex Acres**

| <b>Land Classification*</b> | <b>Acres</b> |
|-----------------------------|--------------|
| <b>Buffer</b>               |              |
| Cropland                    | 185          |

\* 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 (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 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 – 2008 CIR Aerial Photography

**Table 2 – Tract 2009001 2005 Land Cover/Use Summary**

| <b>Land Cover Classification</b> | <b>Acres</b>  | <b>Percent of Tract</b> |
|----------------------------------|---------------|-------------------------|
| Agricultural                     | 174.79        | 94.2%                   |
| Mesic Wet Meadow                 | 2.24          | 1.2%                    |
| Roads                            | 1.86          | 1.0%                    |
| Upland Woodland                  | 1.51          | 0.8%                    |
| Xeric Wet Meadow                 | 5.08          | 2.7%                    |
| <b>Total</b>                     | <b>185.47</b> | <b>100.00%</b>          |





**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***

This tract does not have river frontage.

***3. Contiguous Sand Substrates***

This tract does not contain unvegetated sand habitat.

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

This tract does not have river frontage.

***5. Groundwater***

Depth to groundwater on this tract was estimated from NDNR well logs for the existing irrigation well on the property. The well logs indicate a static groundwater elevation approximately 4 feet below ground surface.

***6. Flooding in Non-Wetland Areas***

There was no evidence of regular inundation of non-wetland areas at the time of the site evaluation. However, variations in vegetation density on both the cropland and grassland portions of the tract indicate that seasonal flooding and ponding of water in swales and depressions does occur.

***7. Power/Transmission Lines***

There is a three phase power line present on the property that services the existing irrigation well.

**D. Incompatible Uses and Environmental Concerns**

Tract 2009001 does not currently have land uses that are incompatible with target species habitat. No environmental concerns have been identified.

**E. Certified Irrigated Acres**

Tract 2009001 includes 132.9 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 Fort Kearny Complex. Tract-level goals and objectives are a function of property management and operations needs.

**1. Property Maintenance**

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

○ **Objective 1a – Establish and maintain property boundary fencing and signage.**

§ **Strategy** – Existing boundary fence is present on the entirety of the property boundary, in poor to average condition. In addition, the east fence is not on the actual property boundary. The tract is primarily cropped, and is not currently intended for grazing. As such, the strategy will be to clean out and remove the fence line on the south boundary, currently in poor condition. Other boundaries are in average condition, and no significant re-fencing effort will be undertaken unless a management change indicates the need. Signage will be conducted independently.

- **Methods** – All south boundary fence material and woody vegetation in the fence line will be removed mechanically and burned and buried. Program ownership and contact signage will be placed at regular intervals on the property boundary. Maintenance methods may include mowing or spraying of woody species in the cleared area.

§ **Area** – Property boundary. Clearing and fence removal on south boundary only.

§ **Timeline** – Boundary signage will be installed on existing boundary in 2010. South fence removal will occur in the winter of 2009-2010.

§ **Costs** – Boundary signage is expected to cost on the order of \$500. Fence removal/clearing is expected to cost around \$3,000. Annual maintenance costs are expected to be on the order of \$1,000.



- § **Responsibilities** – Program staff are responsible for design and permitting. Per the procurement policy, Program staff will solicit quotes and select a contractor to perform the construction and maintenance work.
- **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 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 \$3,000.
  - § **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.

Ø **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 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** – Annual maintenance costs will vary depending on extent and control method.
- § **Responsibilities** – Program staff will be responsible for identifying infestations. Control activities will be carried out by contractors.

**2. Agricultural Operations**

Ø **Goal 3 – Manage cropland responsibly.**

- **Objective 3a** – Coordinate with renter to ensure that crop rotation, tillage practices and nutrient/pest management are being conducted in accordance with current agricultural best management practices (BMPs).

- § **Strategy** – The Program will make entry into a rental agreement subject to agreement to coordination and approval of the above-mentioned items. The Program will employ standard crop management BMPs like annual soil nutrient testing to ensure that objectives are being met.

- **Methods** – Methods will be determined annually by Program staff and/or farm management contractors in association with the renter.

- § **Area** – All cropland areas.
- § **Timeline** – Annual.
- § **Costs** – Cropland management activities are expected to cost on the order of \$500 annually.
- § **Responsibilities** – Program staff or a farm management contractor acting on behalf of the Program will be responsible for annual planning and coordination.



### *3. Species Habitat Goals and Objectives*

Ø *Goal 4 – Improve wet meadow/grassland habitat for WC and other species of concern.*

- Refer to Objectives 5a and 5b in the Fort Kearny Complex Plan for more information on this goal. It is anticipated that the future land cover target for Tract 2009001 will be a restored wet meadow or grassland.



## **V. TRACT-LEVEL SURVEYS, MONITORING AND RESEARCH**

### **A. Baseline Surveys and Monitoring**

#### ***1. Bald Eagle***

No bald eagle nests have been identified on this property.

#### ***2. Platte River Caddis Fly***

No surface water was present on this property at the time of acquisition. As such, it could not sustain a Platte River caddis fly (PRCF) population and will not need to be surveyed. Any restoration of wetland features that might result in potential habitat will be followed with surveys if recommended by USFWS or NGPC.

#### ***3. Northern River Otter***

No otters have been observed on this tract but they have been known to use the general area. Due to tract land use (cropland) and location away from active river channels, no river otter impact is expected.

#### ***4. Cultural Resources***

The legal description of Tract 2009001 was provided to the State Historic Preservation Office (SHPO) to facilitate the early identification of potential cultural resources related issues. SHPO did not identify any potential cultural resources concerns on the property. 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.

### **B. Research**

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



## **VI. PUBLIC ACCESS**

### **A. Education**

Public 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**

Public access for recreation is currently being managed by Program staff using a combination of good neighbor policy considerations, wildlife management needs, compatibility with tenant farming practices, as well as available options to control access and minimize conflicts. Development of a more comprehensive recreation and hunting policy will be addressed in 2010.



**APPENDIX A – MAPS**





**Tract 2009001  
Approx. 185 Ac.**

Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**  
2009001



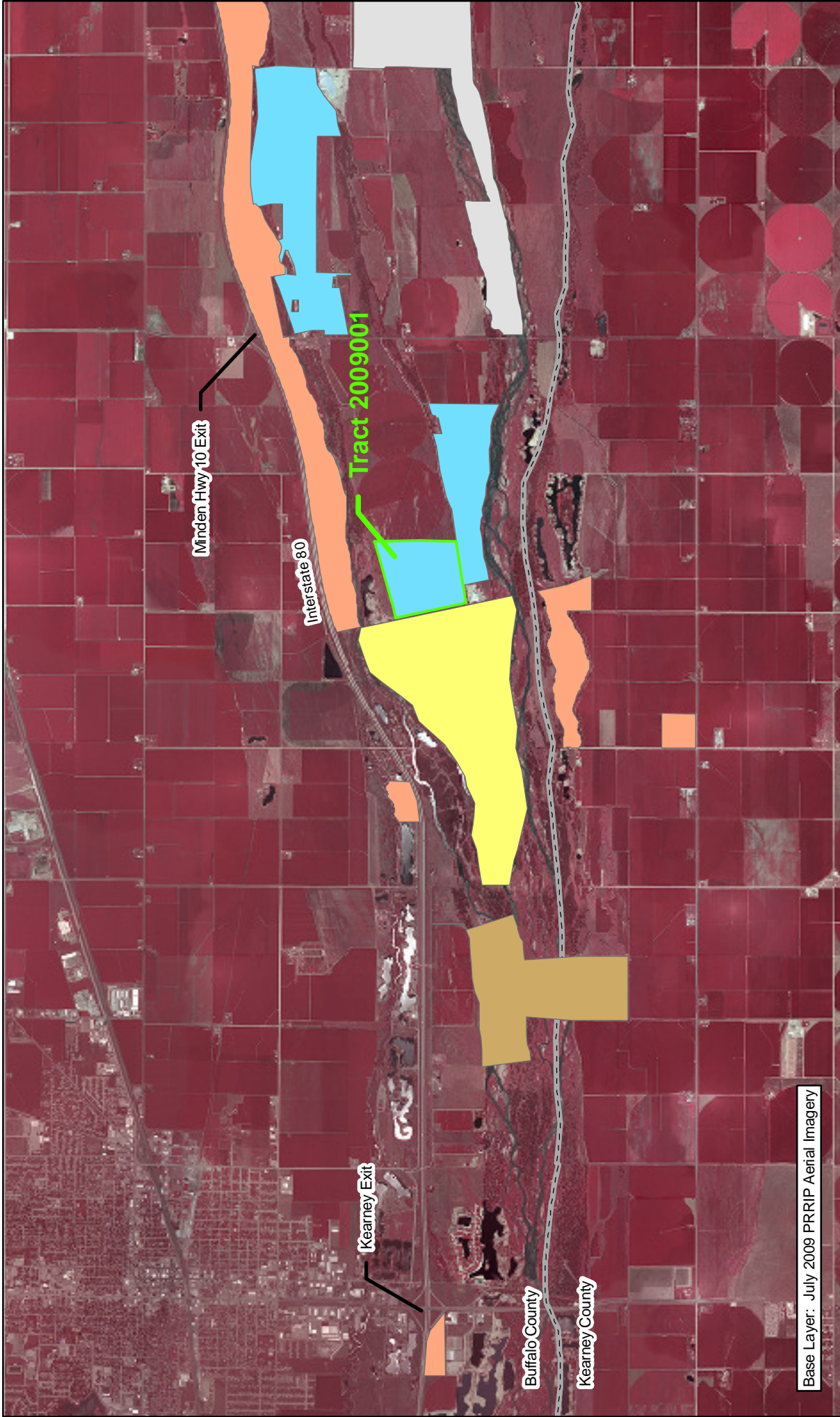
0.2 Miles

**TRACT 2009001  
BOUNDARY MAP**

Date: 01/29/10  
By: JDB

**Figure A-1**



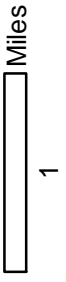


Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**

- 2009001
- County
- Audubon
- PRRIP
- CNPPID
- PRWCT
- NGPC
- TNC
- NPPD
- Wyoming

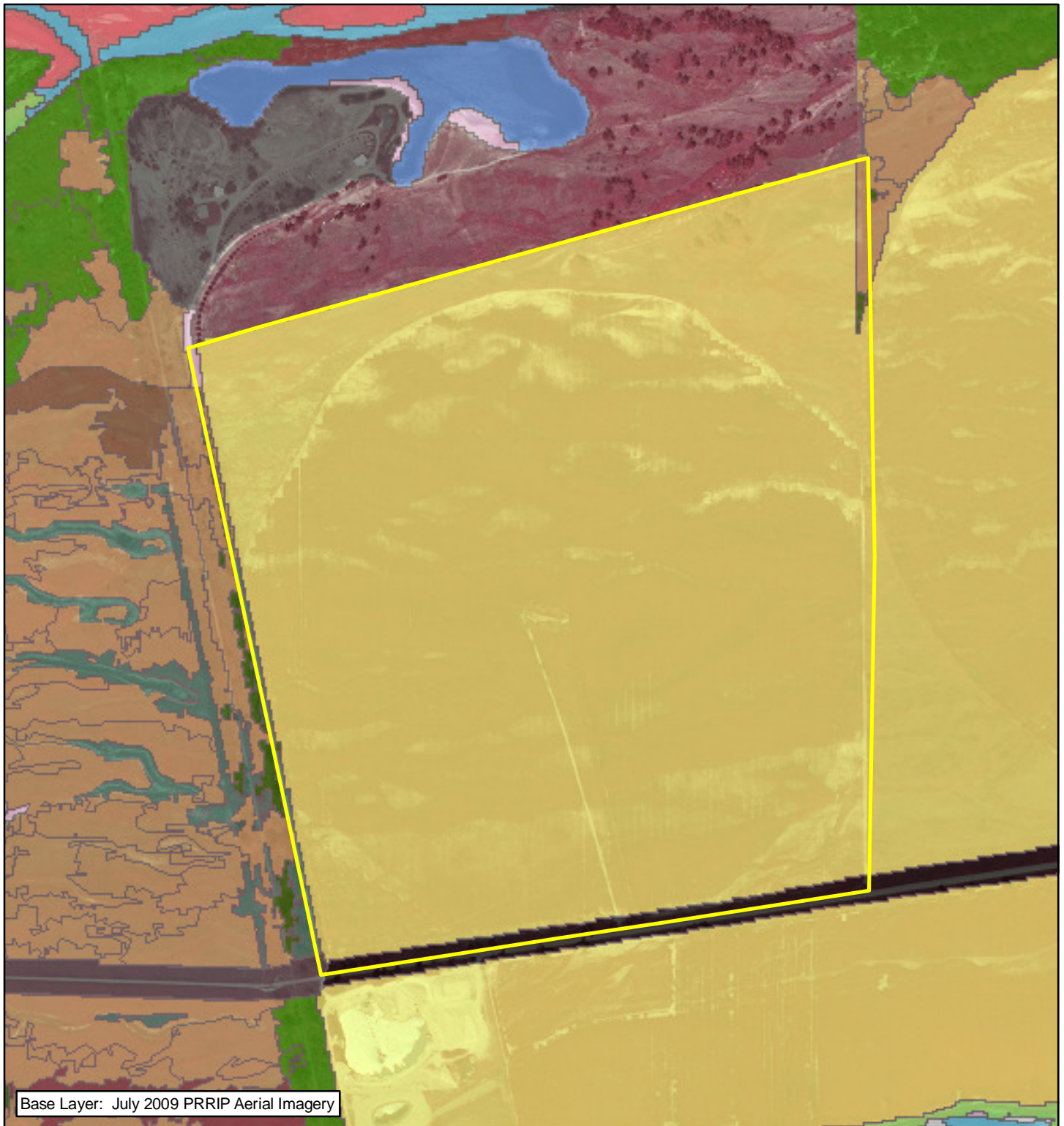


**TRACT 2009001  
LOCATION MAP**

Date: 01/29/10  
By: JDB

Figure A-2





Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**

- |                                |                                 |
|--------------------------------|---------------------------------|
| 842                            | River Early Successional        |
| Ag                             | River Shrubland                 |
| Bareground/Sparse Veg          | Roads                           |
| Canal/Drainage                 | Rural Developed; Urban/Suburban |
| Meadow Sand Ridge              | Sand Pit                        |
| Mesic Wet Meadow               | Unvegetated Sandbar             |
| Phragmites; Purple Loosestrife | Upland Woodland                 |
| Riparian Shrubland             | Warmwater Slough                |
| Riparian Woodland              | Xeric Wet Meadow                |
| River Channel                  |                                 |



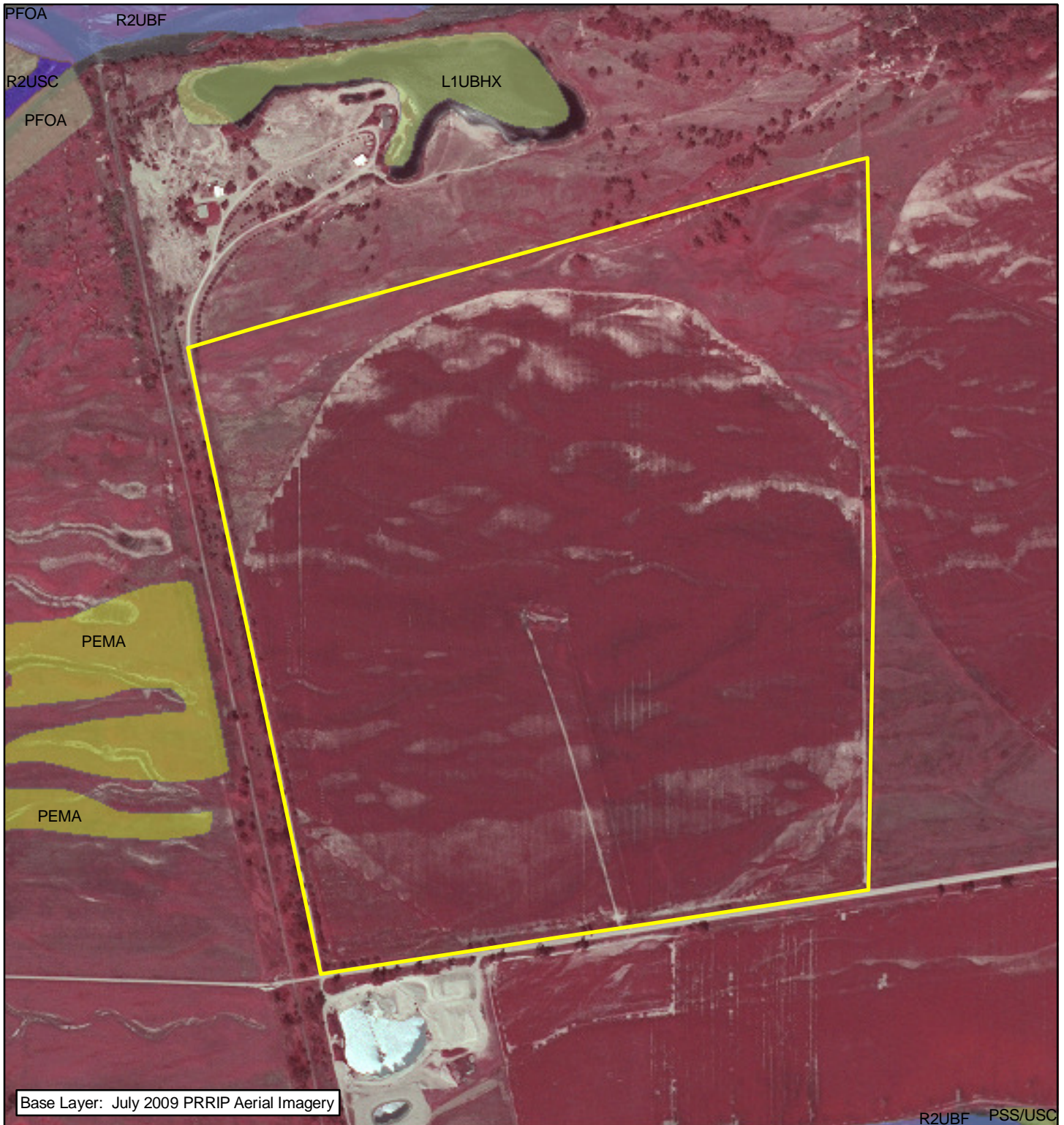
0.1 Miles

**TRACT 0842  
2005 LAND COVER/USE**

Parcel Evaluation  
Date: 01/29/10  
By: JDB

**Figure A-3**





**Legend**

- 842
- Lacustrine Unconsolidated Bottom (LUB)
- Palustrine Aquatic Bed (PAB)
- Palustrine Emergent (PE)
- Palustrine Forested (PF)
- Palustrine Scrub-Shrub (PSS)
- Palustrine Unconsolidated Bottom Excavated (PUBx)
- Riverine Unconsolidated Bottom (RUB)
- Riverine Unconsolidated Shore (RUS)
- Riverine Streambed (RS)



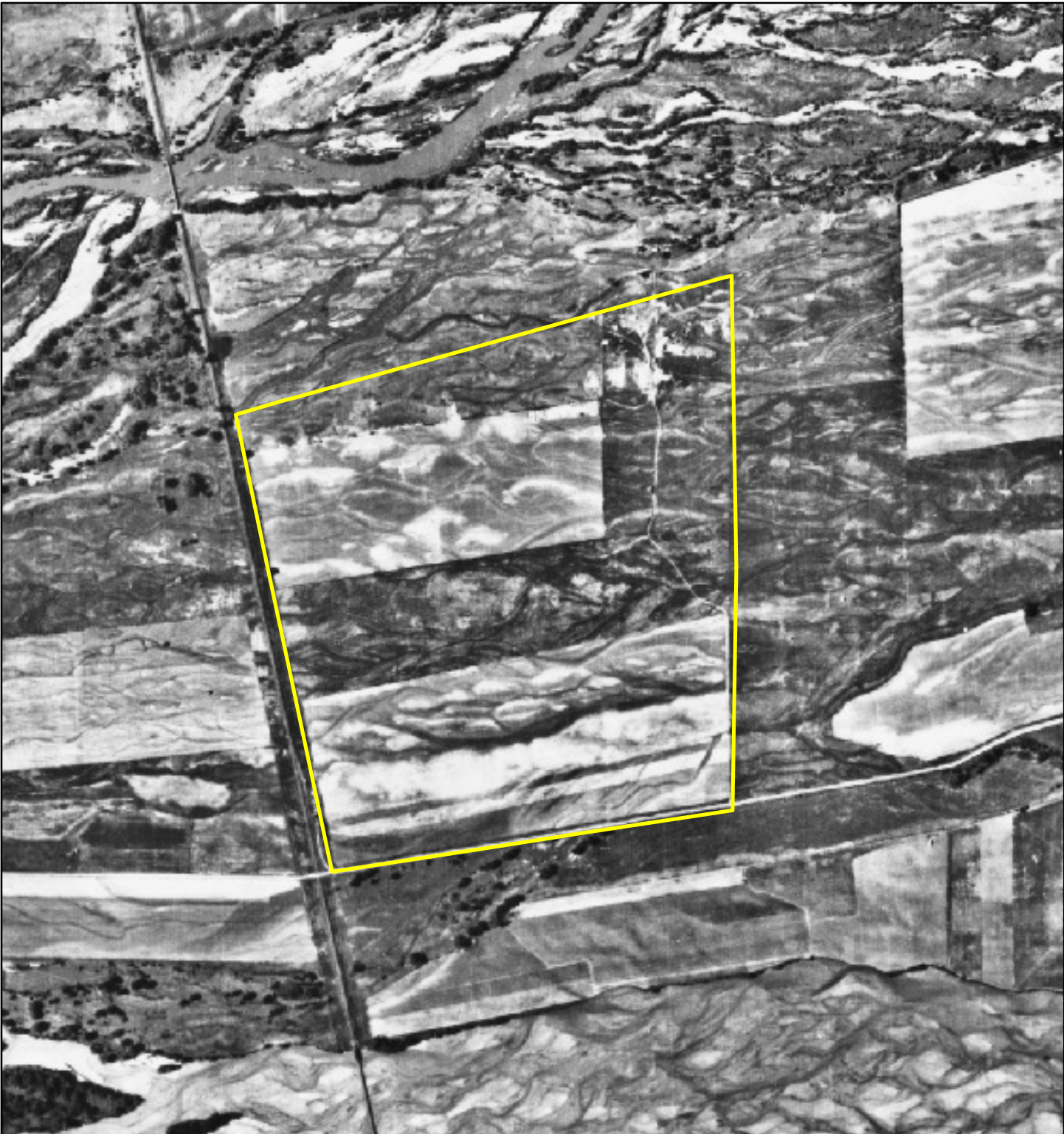
0.1 Miles

TRACT 0842  
NWI MAP

Parcel Evaluation  
Date: 01/29/10  
By: JDB

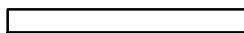
Figure A-4





**Legend**  
 842



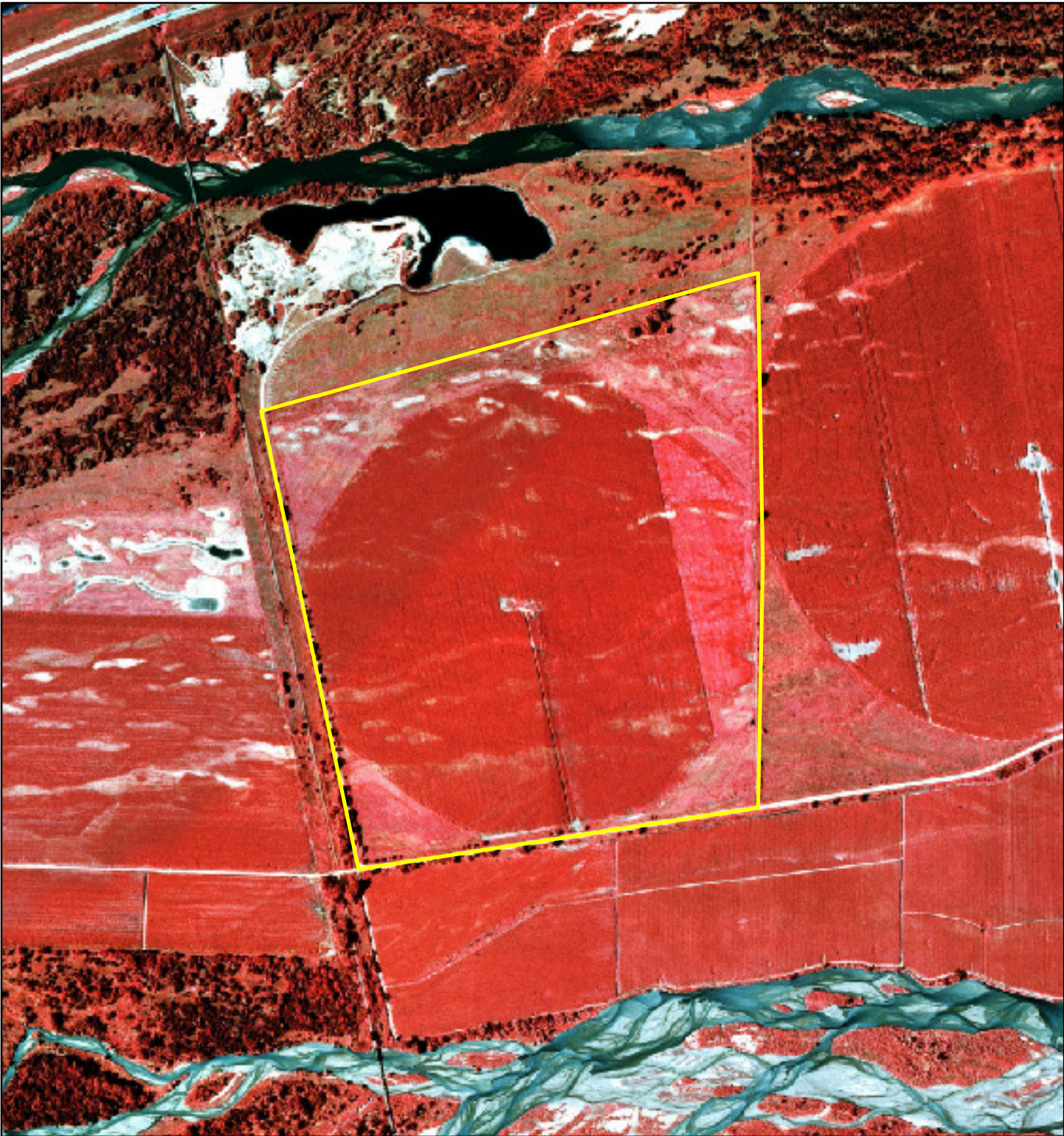
 Miles  
0.2

TRACT 0842  
1938 IMAGERY

Parcel Evaluation  
Date: 01/29/10  
By: JMF

Figure A-5





**Legend**  
842



TRACT 0842  
1998 CIR IMAGERY

Parcel Evaluation  
Date: 01/29/10  
By: JMF

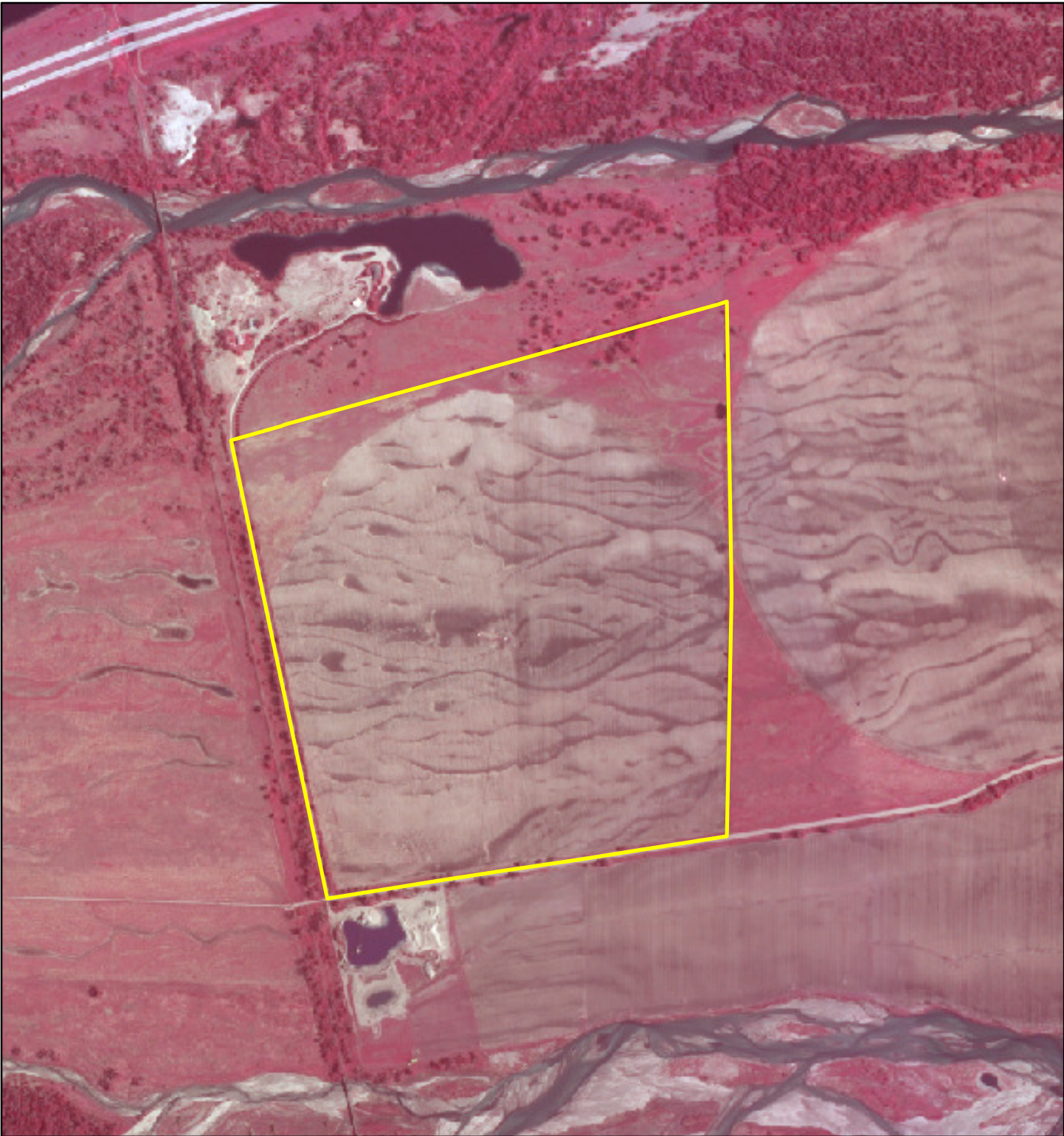


PLATTE RIVER  
RECOVERY IMPLEMENTATION PROGRAM

0.25 Miles

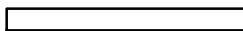
Figure A-6





**Legend**  
 842



 Miles  
0.2

TRACT 0842  
2008 CIR IMAGERY

Parcel Evaluation  
Date: 01/29/10  
By: JMF

Figure A-7



## 2010–2014 OPERATIONS AND MAINTENANCE PLAN

For

# TRACT 2009004



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

Completion Date:  
**1/29/2010**





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APPENDIX A – MAPS



## **I. PROPERTY DESCRIPTION AND BACKGROUND**

### **A. Purpose**

The purpose of this plan is to outline the restoration, operations and maintenance activities that will occur on Tract 2009004 (Evaluation Tract Number 0847) during the period of 2010-2014. Species habitat and Adaptive Management research and monitoring actions associated with this tract are addressed in the Restoration and Management Plan for the Fort Kearny 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 2009004 is approximately 301 acres in size and is located in Sections 13 and 14, T-8N, R-15W. Figure A-1 (located in Appendix A) delineates the property boundary. This boundary and final acreage is subject to permanent establishment of the in-channel boundary with the landowner(s) to the south. The tract is located in the Kearney to Minden bridge segment. The tract bounds the south property line of Program Tract 2009001. Figure A-2 shows the parcel location within the 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 tenant and 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 Executive Director's 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 2009004 Habitat Complex Acres**

| <b>Land Classification*</b> | <b>Acres</b> |
|-----------------------------|--------------|
| <b>Riverine</b>             |              |
| Channel                     | 66           |
| <b>Buffer</b>               |              |
| Cropland                    | 223          |
| Grassland                   | 12           |

\* 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 (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 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 – 2008 CIR Aerial Photography

**Table 2 – Tract 2009004 2005 Land Cover/Use Summary**

| <b>Land Cover Classification</b> | <b>Acres</b>  | <b>Percent of Tract</b> |
|----------------------------------|---------------|-------------------------|
| Ag                               | 220.48        | 73.09%                  |
| Bareground/Sparse Veg            | 0.39          | 0.13%                   |
| Mesic Wet Meadow                 | 0.08          | 0.03%                   |
| Phragmites                       | 2.81          | 0.93%                   |
| Riparian Shrubland               | 0.20          | 0.07%                   |
| Riparian Woodland                | 11.40         | 3.78%                   |
| River Channel                    | 15.17         | 5.03%                   |
| River Early Successional         | 12.14         | 4.02%                   |
| River Shrubland                  | 11.27         | 3.73%                   |
| Roads                            | 0.01          | 0.00%                   |
| Rural Developed                  | 0.09          | 0.03%                   |
| Unvegetated Sandbar              | 27.48         | 9.11%                   |
| Xeric Wet Meadow                 | 0.13          | 0.04%                   |
| <b>Total</b>                     | <b>301.65</b> | <b>100%</b>             |

### **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 7,100 feet of river frontage on north bank of the main (south) channel of the Platte River. The south bank of the channel is under multiple private ownerships.

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 2008 after the natural high flow event. The measured channel widths are presented below in Table 3.

**Table 3 – Tract 2009004 Channel Widths**

| <b>Measurement</b>    | <b>Width (ft)</b> |
|-----------------------|-------------------|
| Minimum Channel Width | 380               |
| Maximum Channel Width | 920               |
| Median Channel Width  | 719               |
| Mean Channel Width    | 678               |



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

In June of 2008, when the CIR imagery was flown following the natural high flow event, there were approximately 13 acres of contiguous sand substrate.

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

Channel bank height is on the order of three to five feet above water surface under typical summer flow conditions. Islands on this property have been disced in the past and range from zero to three feet above water.

### ***5. Groundwater***

Depth to groundwater on this tract was estimated from NDNR well logs for the existing irrigation wells on the property. The well logs indicate that the static groundwater elevation is 4 to 8 feet below ground surface.

### ***6. Flooding in Non-Wetland Areas***

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

### ***7. Power/Transmission Lines***

There is an above-ground power distribution line present on the property that appears to service the existing irrigation wells and continues westward to the neighboring sand pit and farmhouse. The line runs from east to west near the north bank of the river channel for the entire length of the property. With the current proximity to the river, the power lines on this site may present a risk to target species use of the property. Marking or relocation feasibility will be investigated.

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

Tract 2009004 does not currently have land uses that are incompatible with target species habitat. No environmental concerns have been identified.

## **E. Certified Irrigated Acres**

Prior to acquisition by the Program, Central Platte NRD purchased an easement on the property that restricts many uses of the water (including irrigation) and restricts the types of crops/vegetation that may be planted on the property. As such, Tract 2009004 includes no 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 Fort Kearny Complex. Tract-level goals and objectives are a function of property management and operations needs.

***1. Property Maintenance***

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

○ ***Objective 1a*** – Establish and maintain property boundary fencing and signage.

§ **Strategy** – The north boundary is overgrown with woody vegetation and contains piles of what appear to be previously cleared woody vegetation. The majority of the property is not fenced. There is a fence on the west boundary, installed by the west property owner, in very good condition. There are a few remnants of an old fence on the north boundary. Tract 2009004 is primarily cropped, and is not currently intended for grazing. As such, the strategy will be to clean and maintain the boundary adjacent to the county road (remove woody vegetation and any fence remnants), install signage on the entire property boundary, and evaluate the need for fence installation should a change in management strategies occur.

- **Methods** – Program ownership and contact signage will be placed at regular intervals on the property boundary. Removal of woody vegetation and fence remnants from north boundary will be by heavy equipment. Any material removed will be burned and buried on site. Maintenance methods may include mowing or spraying of woody species in the cleared area.

§ **Area** – Property boundary. Clearing and fence removal on north boundary only.

§ **Timeline** – Boundary signage will be installed on existing boundary in 2010. North boundary cleanup will occur in the winter of 2009-2010.

§ **Costs** – Boundary signage is expected to cost on the order of \$500. Fence removal/clearing is expected to cost around \$7,000. Annual maintenance costs are expected to be on the order of \$1,000.



- § **Responsibilities** – Program staff are responsible for design and permitting. Per the procurement policy, Program staff will solicit quotes and select a contractor to perform the construction and maintenance work.
  - **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 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.

Ø **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 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** – Annual maintenance costs will vary depending on extent and control method.
- § **Responsibilities** – Program staff will be responsible for identifying infestations. Control activities will be carried out by contractors.

**2. Agricultural Operations**

Ø **Goal 3 – Manage cropland responsibly.**

- **Objective 3a** – Coordinate with renter to ensure that crop rotation, tillage practices and nutrient/pest management are being conducted in accordance with current agricultural best management practices (BMPs).

- § **Strategy** – The Program will make entry into a rental agreement subject to agreement to coordination and approval of the above-mentioned items. The Program will employ standard crop management BMPs like annual soil nutrient testing to ensure that objectives are being met.

- **Methods** – Methods will be determined annually by Program staff and/or farm management contractors in association with the renter.

- § **Area** – All cropland areas.
- § **Timeline** – Annual.
- § **Costs** – Cropland management activities are expected to cost on the order of \$500 annually.
- § **Responsibilities** – Program staff or a farm management contractor acting on behalf of the Program will be responsible for annual planning and coordination.



- **Objective 3b** – Decommission existing irrigation wells.
  - § **Strategy** – A perpetual easement on the property restricts the ability to irrigate. As a result, the six previously active wells need to be decommissioned. Well decommissioning will be contracted. Cost share opportunities with Central Platte NRD exist and will be pursued.
    - **Methods** – Wells are filled and capped. Work will be done by a licensed well contractor.
  - § **Area** – Six irrigation wells.
  - § **Timeline** – Fall 2010. Decommissioning will take place after the current winter wheat crop is harvested in summer 2010. Applications for cost share must be entered in advance of hiring a contractor to decommission the wells.
  - § **Costs** – Based on contractor estimates, well decommissioning will cost on the order of \$2,000. This amount will likely be offset by NRD cost share on the order of \$1,200.
  - § **Responsibilities** – Well decommissioning will be contracted. Program staff will file cost share applications with Central Platte NRD in advance of the decommissioning.

**3. Improve Target Species Habitat**

Ø **Goal 4 – Investigate options for marking/removal of power lines.**

- **Objective 4a** – Investigate cost of relocation of existing power lines to road. If cost or other factors preclude this action, mark power lines in accordance with accepted practices for prevention of bird strikes.
  - § **Strategy** – At the current location, the power lines crossing Tract 2009004 may be a threat to target species using the property. Program staff will facilitate the investigations into the feasibility of relocating or marking the power lines.
    - **Methods** – Program staff will initiate discussions with the power company and bring a recommendation to the LAC and GC.



- § **Area** – Power lines cross east to west near the river channel on the southern portion of the cropland.
- § **Timeline** – Investigation and recommendation will occur in 2010.
- § **Costs** – Anticipated cost for feasibility investigation is Program staff time.
- § **Responsibilities** – Program staff will perform feasibility investigations. Findings and recommendations will be presented to the LAC and GC for approval.

Ø **Goal 5 – Improve wet meadow/grassland habitat for WC and other species of concern.**

- Refer to Objectives 5a and 5b in the Fort Kearny Complex Plan for more information on this goal. It is anticipated that the future land cover target for Tract 2009004 will be a restored wet meadow or grassland.



## **V. TRACT-LEVEL SURVEYS, MONITORING AND RESEARCH**

### **A. Baseline Surveys and Monitoring**

#### ***1. Bald Eagle***

No bald eagle nests have been identified on this property.

#### ***2. Platte River Caddis Fly***

No populations of PRCF were noted on a November 2009 survey performed by USFWS personnel. However, they noted potential PRCF habitat, and will perform another survey between December 2009 and March 2010, at a time better suited to assess the presence or absence of PRCF populations.

#### ***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.

#### ***4. Cultural Resources***

The legal description of Tract 2009004 was provided to the State Historic Preservation Office (SHPO) to facilitate the early identification of potential cultural resources related issues. SHPO did not identify any potential cultural resources concerns on the property. 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.

### **B. Research**

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



## **VI. PUBLIC ACCESS**

### **A. Education**

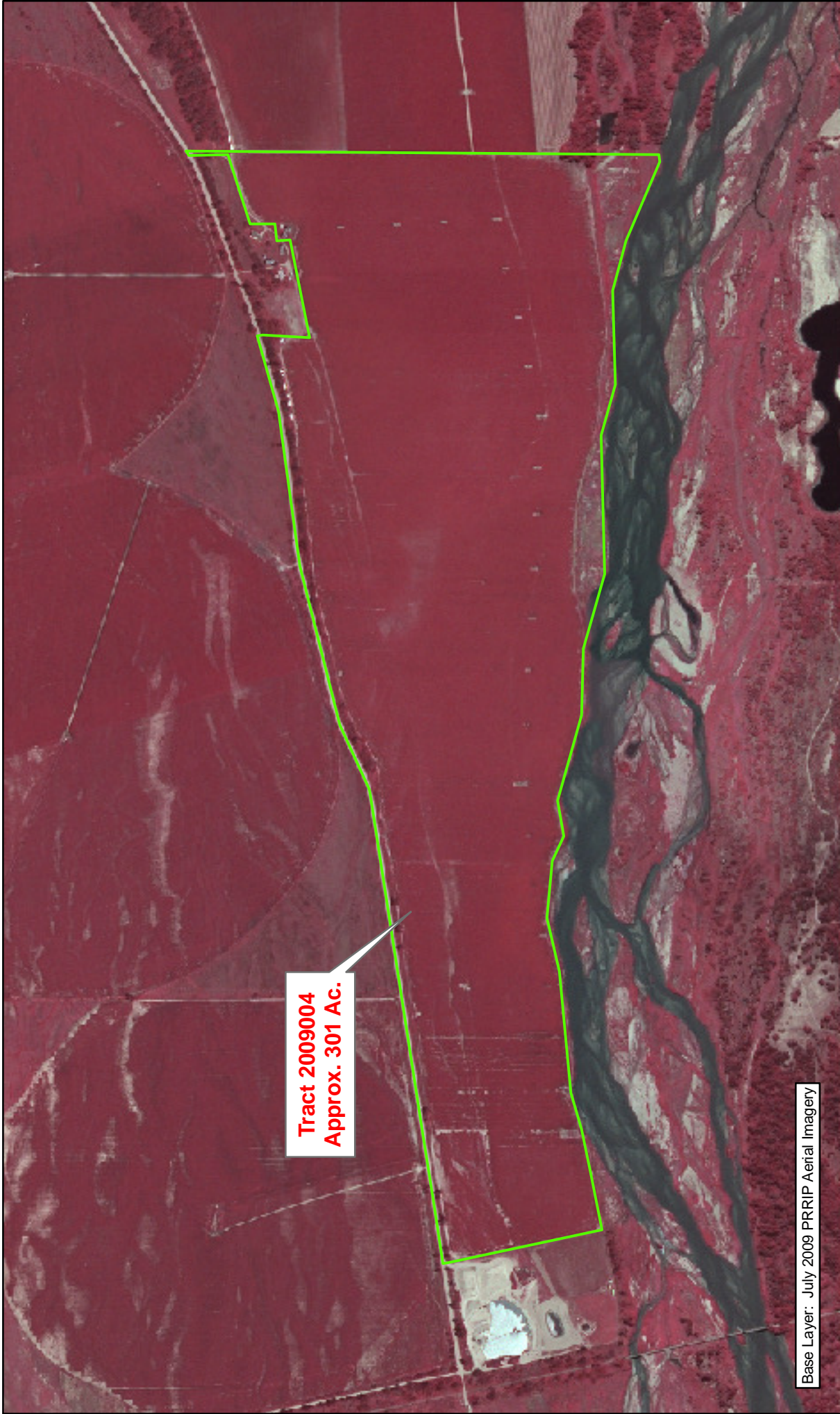
Public access for education, including non-Program research, will be allowed on a case-by-case basis as long as it is compatible with target species usage and does not negatively impact species habitat. Program staff will be responsible for evaluating requests and granting access permission.

### **B. Recreation**

Public access for recreation is currently being managed by Program staff using a combination of good neighbor policy considerations, wildlife management needs, compatibility with tenant farming practices, as well as available options to control access and minimize conflicts. Development of a more comprehensive recreation and hunting policy will be addressed in 2010.



**APPENDIX A – MAPS**



Base Layer: July 2009 PRRIP Aerial Imagery

**Tract 2009004**  
**Approx. 301 Ac.**



**Legend**  
2009004



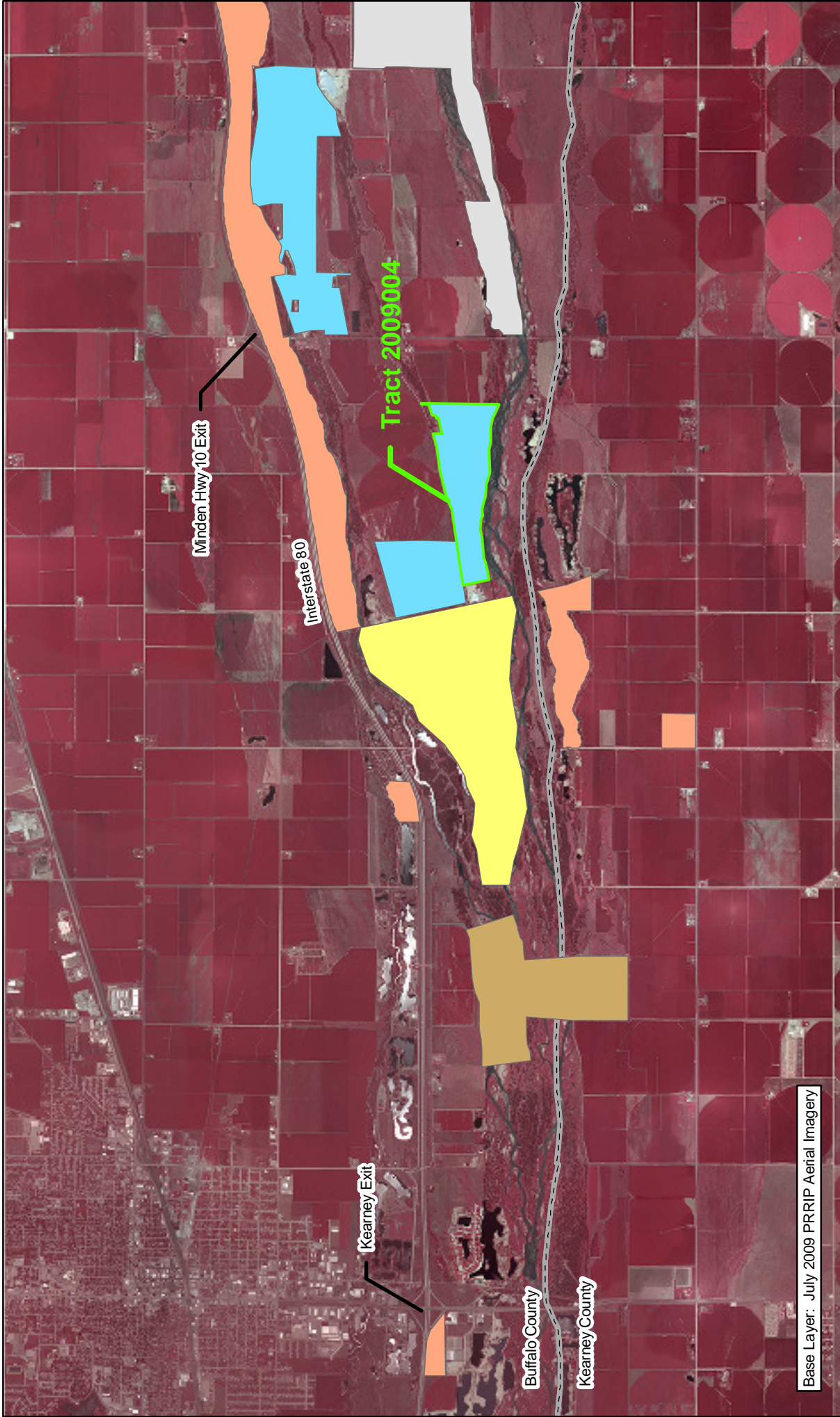
0.2 Miles

**TRACT 2009004**  
**BOUNDARY MAP**

Date: 01/29/10  
By: JDB

**Figure A-1**



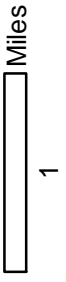


Base Layer: July 2009 PRRIP Aerial Imagery



**Legend**

- 2009004
- County
- Audubon
- CNPPID
- NGPC
- NPPD
- PRRIP
- PRWCT
- TNC
- Wyoming

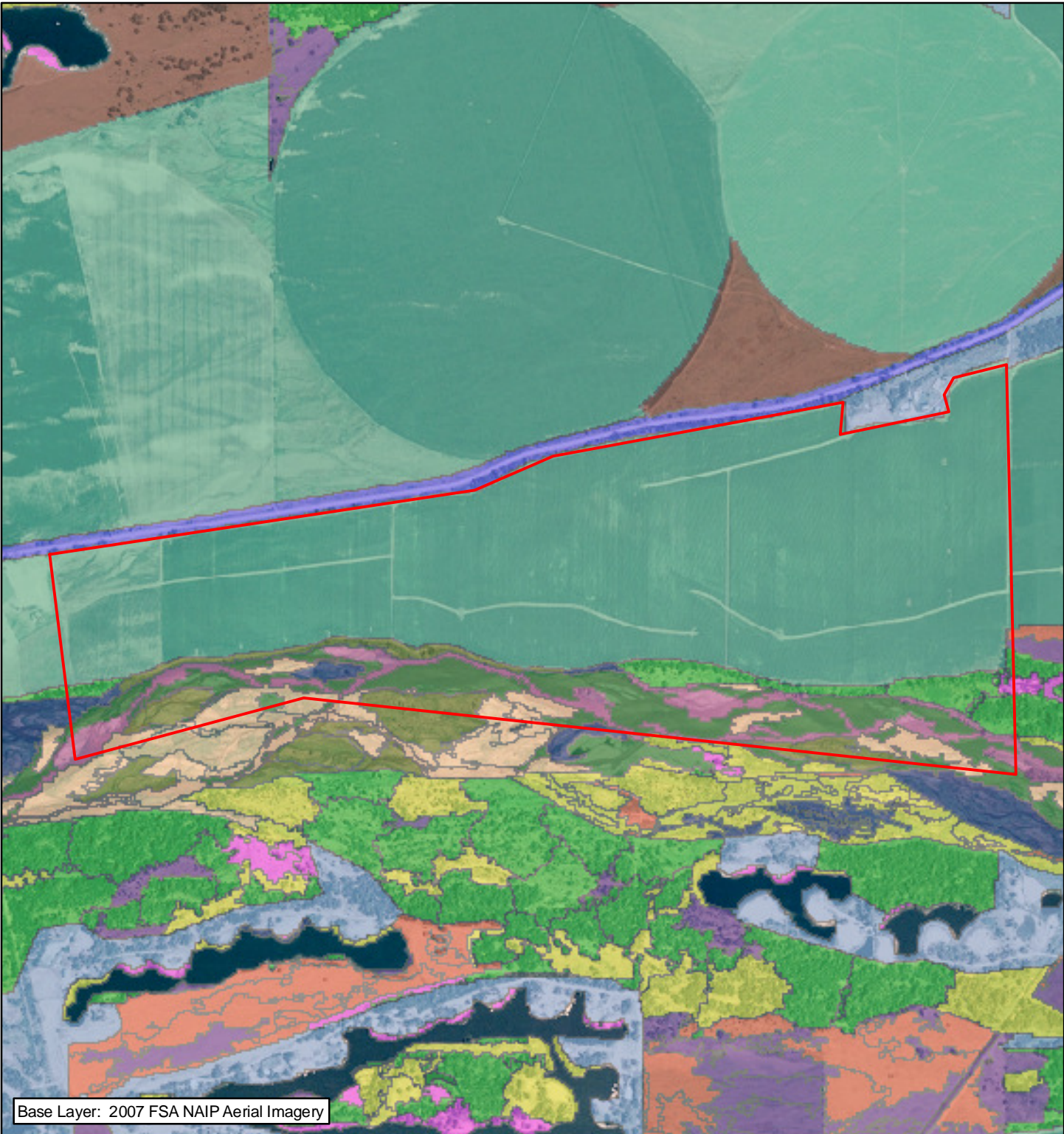


**TRACT 2009004  
LOCATION MAP**

Date: 01/29/10  
By: JDB

Figure A-2





**Legend**

- |                       |                          |
|-----------------------|--------------------------|
| Evaluation Tract      | River Early Successional |
| Ag                    | River Shrubland          |
| Bareground/Sparse Veg | Roads                    |
| Mesic Wet Meadow      | Rural Developed          |
| Phragmites            | Undisturbed Grassland    |
| Riparian Shrubland    | Unvegetated Sandbar      |
| Riparian Woodland     | Xeric Wet Meadow         |
| River Channel         |                          |



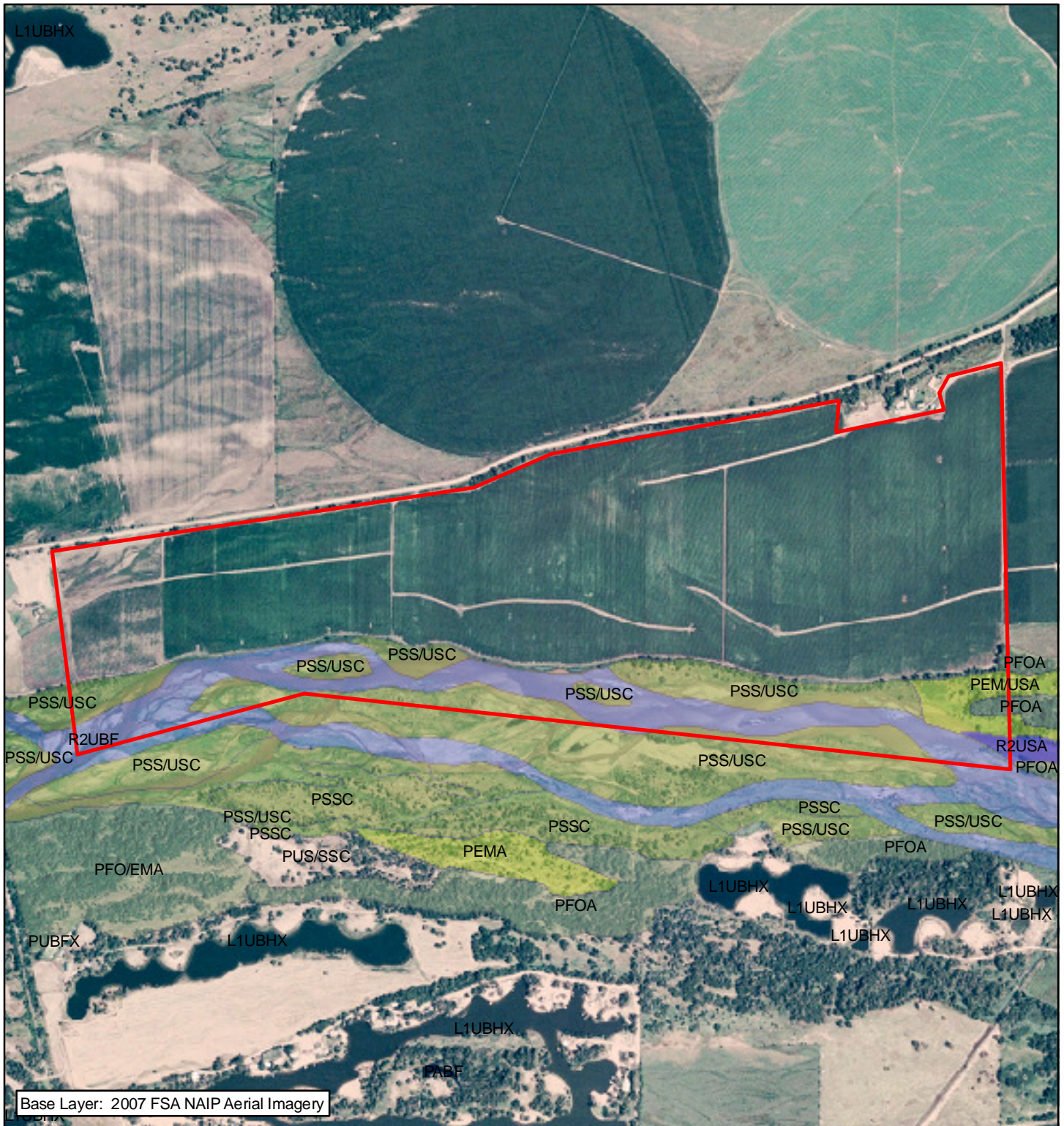
Miles

**TRACT 0847**  
**2005 LAND COVER/USE**

Parcel Evaluation  
Date: 10/28/08  
By: JDB

Figure A-3





Base Layer: 2007 FSA NAIP Aerial Imagery



**Legend**

- Evaluation Tract
- Palustrine Emergent (PE)
- Palustrine Forested (PF)
- Palustrine Scrub-Shrub (PSS)
- Riverine Unconsolidated Bottom (PUB)
- Riverine Unconsolidated Shore (RUS)
- Riverine Streambed (RS)



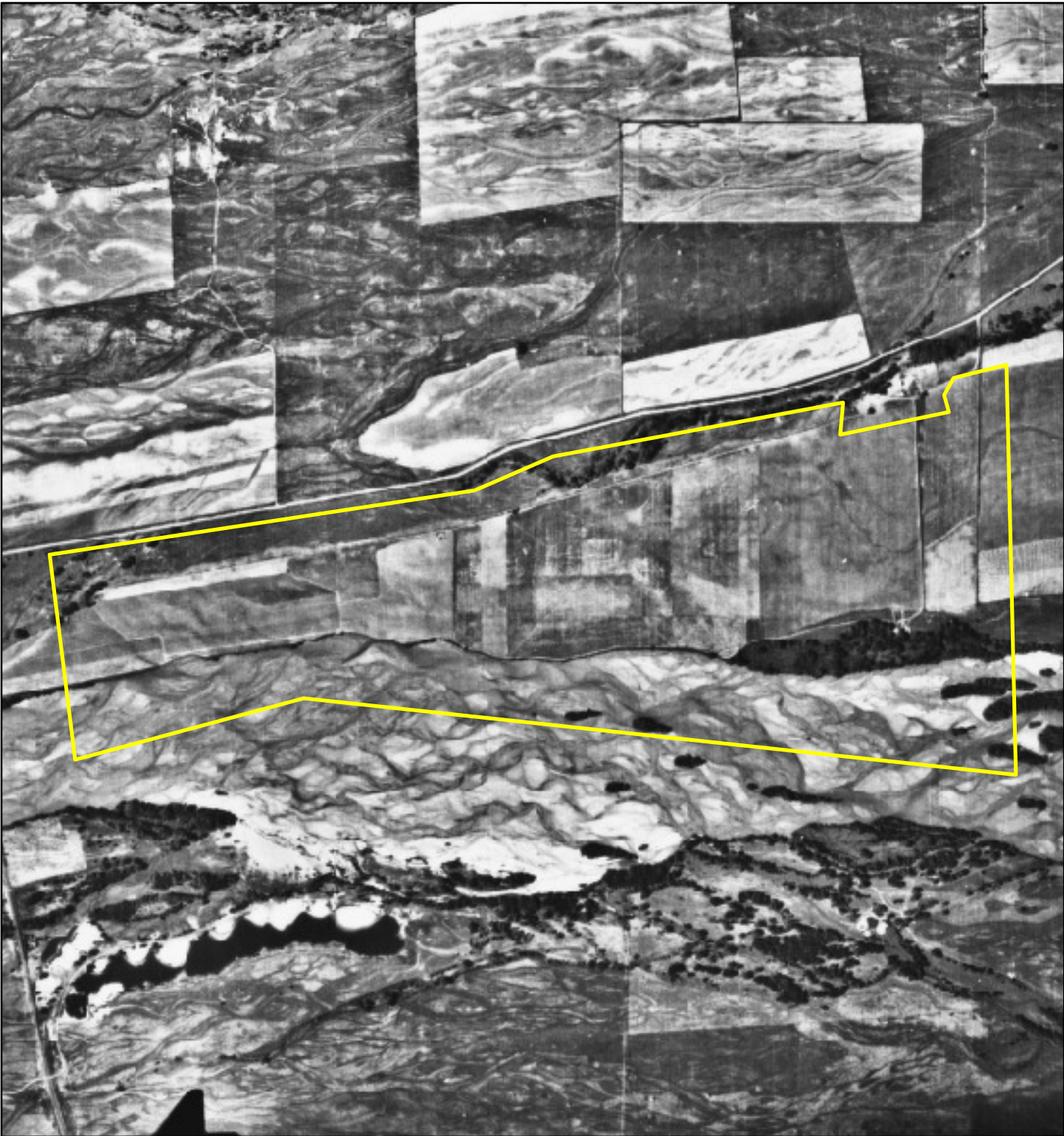
0.2 Miles

**TRACT 0847  
NWI Map**

Parcel Evaluation  
Date: 10/28/08  
By: JDB

Figure A-4





**Legend**  
Evaluation Tract

**TRACT 0847**  
**1938 IMAGERY**

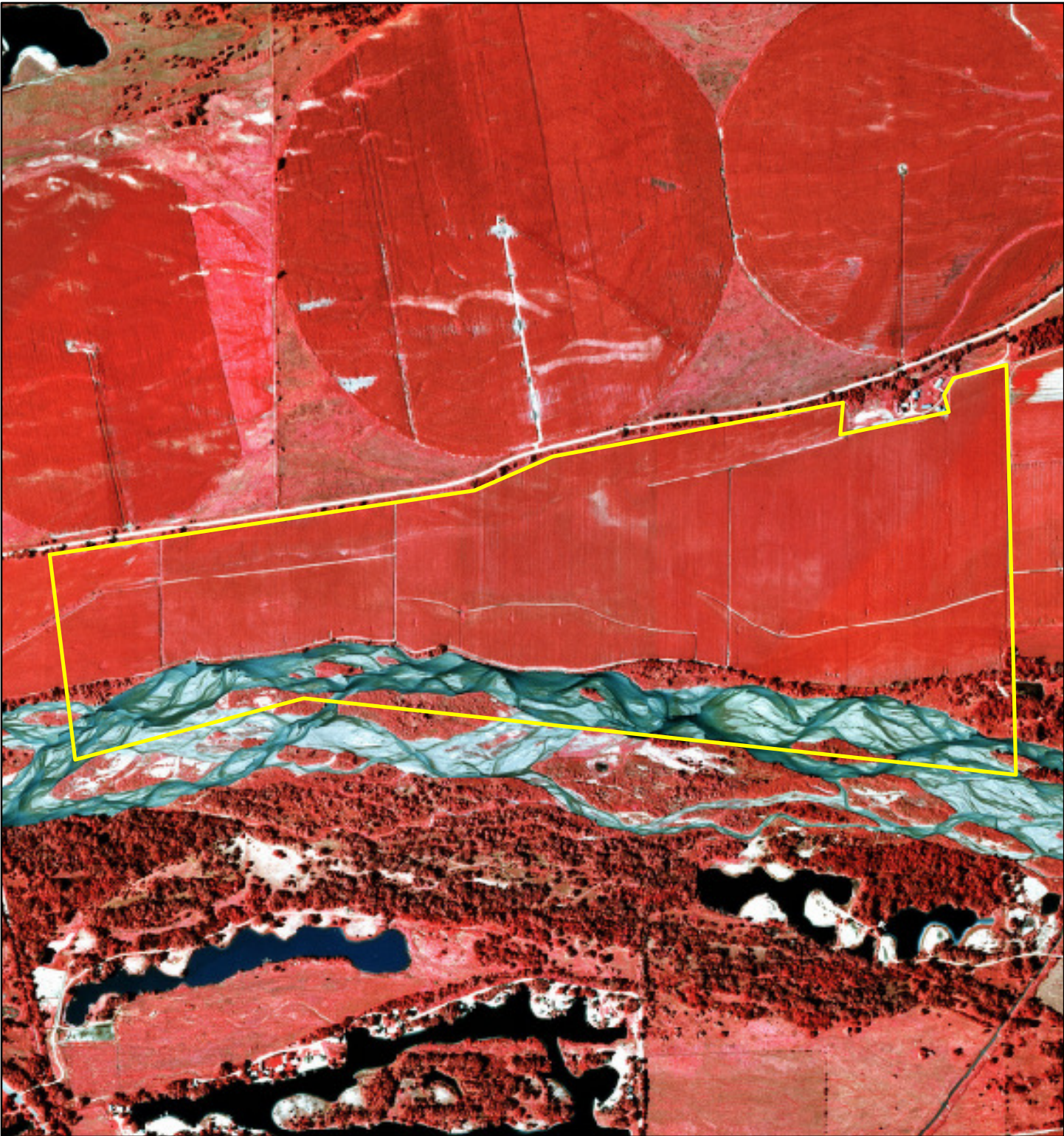
Parcel Evaluation  
Date: 10/28/08  
By: JDB

0.2 Miles



Figure A-5





**Legend**  
Evaluation Tract

**TRACT 0847**  
**1998 CIR IMAGERY**

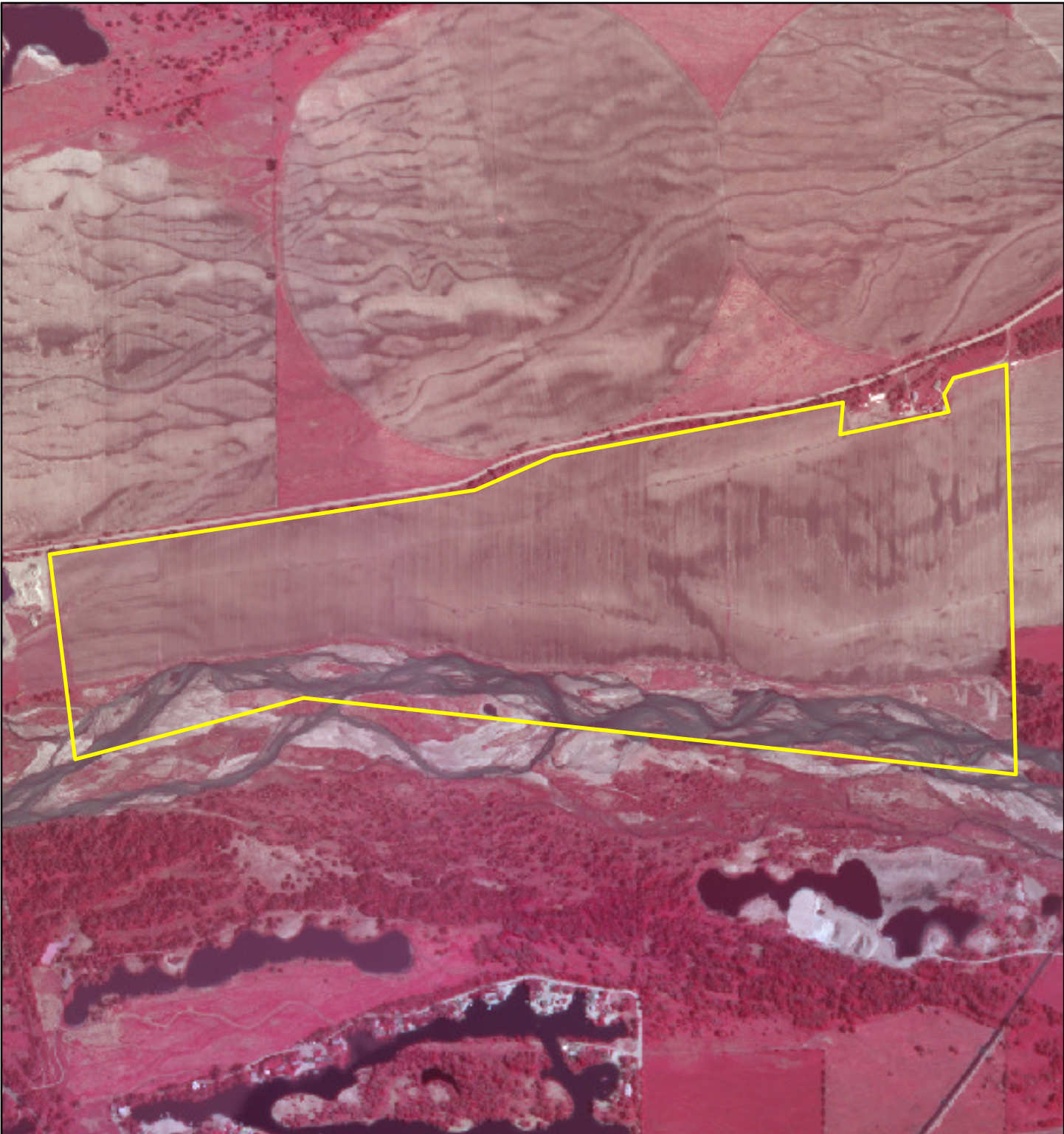
Parcel Evaluation  
Date: 10/28/08  
By: JDB

0.2 Miles

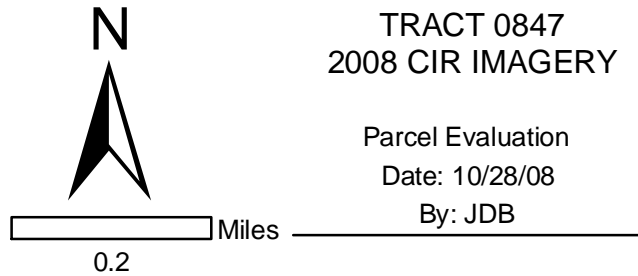


Figure A-6





**Legend**  
Evaluation Tract



TRACT 0847  
2008 CIR IMAGERY

Parcel Evaluation  
Date: 10/28/08  
By: JDB

Figure A-7





**APPENDIX C – COMPLEX ANNUAL WORK PLANS**



## 2010 Fort Kearny Complex Annual Work Plan

### Platte River Recovery Implementation Program

For More Information Contact: Jerry F. Kenny, [kennyj@headwaterscorp.com](mailto:kennyj@headwaterscorp.com), (308) 237-5728

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#### General Priorities

- § **Complex Land Interest** - Execute management agreements with conservation and private landowners that will allow the Program to implement necessary construction, maintenance and research/monitoring activities.
  - § **Good Neighbor Policy** – Conduct all actions in accordance with Program's good neighbor policy.
- 

#### Adaptive Management Priorities

- § **Tern and Plover Riverine Habitat Experiment** – Design and construction of in-channel nesting islands and targeted tree clearing to increase distance to visual obstructions and predator roost habitat.
  - § **Whooping Crane Riverine Habitat Experiment** – Design and implement vegetation clearing to provide a range of unobstructed view widths above the Programs minimums.
  - § **Riverine versus Off-Channel Tern and Plover Nesting** – Monitor tern and plover use and productivity on Program riverine habitat and nearby OCSW habitat. Create and maintain OCSW habitat on property 2009008.
- 

#### Species Habitat Priorities

- § **Improve Target Species Sand and Water Habitat** – Increase available sand and water habitat for species through design and construction of tern and plover and whooping crane experiments, which will create habitat that meets Program criteria.
  - § **Protecting Other Species of Concern** – Identify presence of and determine methods to protect and/or benefit other species of concern while implementing land-related activities.
  - § **Reduce Known Threats to Target Species** – Investigate feasibility of power line relocation/marking on Tract 2009004.
-

---

## Operations and Maintenance Priorities

- § **Basic Property Maintenance Obligations and Needs** – Fulfill basic property ownership obligations and needs on Tracts 2008001, 2009001 and 2009004. Decommission abandoned irrigation wells on Tract 2009004. Replace/repair boundary fencing on 2008001.
  - § **Agricultural Operations** – Perform cropland management in accordance with BMPs on Tracts 2009001 and 2009004. Create and manage a plan to graze Tract 2008001 to control vegetation.
-



---

**Priority Area: *General***

**Item(s): *Complex Land Interest and Good Neighbor Policy***

| <b>Activities for 2010</b>  | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|---|---------------------|---------------------------|-------------------------|-------------------------|
| Execution of management agreements w/ other conservation and private landowners for in-channel research and habitat construction activities | 1/1/10 – 6/30/10    | BS                        | N/A                     | N/A                     |
| Coordination of Program land actions with neighboring landowners  | 1/1/10 – 12/31/10   | BS                        | N/A                     | N/A                     |

**Priority Area: *Adaptive Management***

**Item(s): *Tern, Plover and Whooping Crane Riverine Habitat Experiments***

| <b>Activities for 2010</b>  | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|---|---------------------|---------------------------|-------------------------|-------------------------|
| Experimental and Engineering design, permitting and bidding (budget for permitting)                                   | 1/1/10 – 9/30/10    | JF                        | \$10,000                | PD-15                   |
| Construction for habitat selection experiments including tree and vegetation clearing and nesting island construction | 10/1/10 – 4/01/11   | TT                        | \$100,000               | LP-2                    |

**Priority Area: *Species Habitat***

**Item(s): *Other Species of Concern***

| <b>Activities for 2010</b>   | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|--|---------------------|---------------------------|-------------------------|-------------------------|
| Habitat and species surveys on properties where work will occur  | As Needed           | DB                        | N/A                     | N/A                     |
| Coordination with USFWS and NGPC to identify and mitigate potential impacts associated with 2010 land activities | 1/1/10 – 4/1/10     | JF                        | N/A                     | N/A                     |

**Priority Area: *Species Habitat***

**Item(s): *Reduce Known Threats to Target Species***

| <b>Activities for 2010</b>  | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|---|---------------------|---------------------------|-------------------------|-------------------------|
| Investigate feasibility of power line relocation/markings on Tract 2009004                    | 1/1/10 – 6/1/10     | JF                        | N/A                     | N/A                     |
| Investigate feasibility of marking transmission lines crossing river near TNC Speidell tract. | 6/1/10 – 10/1/10    | JF                        | N/A                     | N/A                     |

**Priority Area: *Operations and Maintenance***

**Item(s): *Basic Property Maintenance Obligations and Needs***

| <b>Activities for 2010</b>  | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|---|---------------------|---------------------------|-------------------------|-------------------------|
| Tract 2008001 boundary fence replace/repair, boundary signage                             | 1/1/10 – 4/1/10     | TT                        | \$15,000                | LP-4                    |
| Tract 2008001 noxious weed control  | 6/1/10 – 8/31/10    | TT                        | \$3,000                 | LP-4                    |
| Tract 2008001 south access road maintenance   | 4/1/10 – 9/1/10     | TT                        | \$3,000                 | LP-4                    |
| Tract 2008001 seeding previously cleared north accretion ground                           | 1/1/10 – 4/1/10     | TT                        | \$5,000                 | LP-4                    |
| Tract 2008001 repair livestock watering well in south meadow, currently safety hazard     | 1/1/10 – 4/1/10     | TT                        | \$2,000                 | LP-4                    |
| Tract 2008001 burn all islands in previously sprayed area to remove dead woody vegetation | 1/1/10 – 5/1/10     | TT                        | \$1,000                 | LP-4                    |
| Tract 2009001 boundary signage  | 4/1/10 – 5/1/10     | TT                        | \$500                   | LP-4                    |
| Tract 2009001 south boundary fence removal and clearing                                   | 1/1/10 – 4/1/10     | TT                        | \$3,000                 | LP-4                    |
| Tract 2009001 noxious weed control  | 6/1/10 – 8/31/10    | TT                        | \$3,000                 | LP-4                    |
| Tract 2009004 boundary signage  | 4/1/10 – 5/1/10     | TT                        | \$500                   | LP-4                    |

**Priority Area: *Operations and Maintenance***

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**Item(s):** *Basic Property Maintenance Obligations and Needs, cont'd*

|   |                  |    |         |      |
|---|------------------|----|---------|------|
| Tract 2009004 north boundary fence removal and clearing | 1/1/10 – 4/1/10  | TT | \$7,000 | LP-4 |
| Tract 2009004 noxious weed control                      | 6/1/10 – 8/31/10 | TT | \$5,000 | LP-4 |
| Tract 2009004 well decommissioning                      | 8/1/10 – 12/1/10 | TT | \$2,000 | LP-4 |

**Priority Area:** *Operations and Maintenance*

**Item(s):** *Agricultural Operations*

| <b>Activities for 2010</b>        | <b>Target Dates</b> | <b>Person Responsible</b> | <b>Cost (Estimated)</b> | <b>Budget Line Item</b> |
|-----------------------------------|---------------------|---------------------------|-------------------------|-------------------------|
| Tract 2009001 cropland management | 5/1/10 – 10/31/10   | BS                        | \$500                   | LP-4                    |
| Tract 2009004 cropland management | 5/1/10 – 10/31/10   | BS                        | \$500                   | LP-4                    |

**Personnel Responsibility Key:**

- BS – Bruce Sackett (Land Specialist)
- DB – David Baasch (Wildlife Biologist)
- TT – Tim Tunnell (Land Manager)
- JF – Jason Farnsworth (Technical Support Services)

## 2010 Fort Kearny Complex Budget Summary

### *Estimated 2010 Expenditures by Program Budget Line Item*

| Priority Area              | Item  | Budget Line Item | Estimated Expenditure   |
|----------------------------|---|------------------|-------------------------|
| Adaptive Management        | Tern, Plover and Whooping Crane Experiment Permitting | PD-15            | \$10,000                |
| <b><i>Subtotal</i></b>     |   |                  | <b><i>\$10,000</i></b>  |
| Adaptive Management        | Tern, Plover and Whooping Crane Experiments           | LP-2             | \$100,000               |
| <b><i>Subtotal</i></b>     |   |                  | <b><i>\$100,000</i></b> |
| Species Habitat            | Reduce Known Threats to Target Species                | LP-4             | \$8,000                 |
| <b><i>Subtotal</i></b>     |   |                  | <b><i>\$8,000</i></b>   |
| Operations and Maintenance | Property Maintenance Obligations and Needs            | LP-4             | \$50,000                |
| Operations and Maintenance | Agricultural Operations                               | LP-4             | \$1,000                 |
| <b><i>Subtotal</i></b>     |   |                  | <b><i>\$51,000</i></b>  |
| <b>Total</b>               |   |                  | <b>\$169,000</b>        |

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*Estimated 2010 Revenues*

| <b>Priority Area</b>       | <b>Item</b>                                | <b>Estimated Income</b> |
|----------------------------|--|-------------------------|
| Operations and Maintenance | Tract 2008001 Grazing Income               | \$9,000                 |
| Operations and Maintenance | Tract 2009001 Cropland Rent                | \$TBD                   |
| Operations and Maintenance | Tract 2009004 Cropland Rent                | \$TBD                   |
| Operations and Maintenance | Tract 2009004 Well Decommission Cost Share | \$1,200                 |