

2024-2032 RESTORATION AND MAINTENANCE PLAN

For

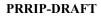
TRACT 2024001



Prepared for: Platte River Recovery Implementation Program Land Advisory Committee

Completion Date: **8/28/2024**

GC Approved Date: 12/??/2024





9/3/2024

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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, as well as species habitat and adaptive management research and monitoring activities that will occur on Tract 2024001 during the period of 2024-2032.

B. Tract Location and Size

Tract 2024001 is approximately 339 acres in size and is in Section 14, T-8N, R-16W. Figure A-1 (located in Appendix A) delineates the property boundary. The tract is located adjacent to the Odessa to Kearney bridge segment. 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 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 are to be written by representatives of the ED Office with oversight and input from the Program's Land Advisory Committee (LAC). Program staff will be responsible for conducting, or retaining contractors to conduct, planning, design, and permitting for specific activities carried out under this plan.

2. Implementation of Management Activities

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

3. Enforcement

Program staff are 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.

The restoration and management plan will go through a major revision process where the goals, objectives, and activities will be reevaluated. 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 tract will be managed as non-complex habitat. The sand pit area of this tract is considered as non-complex habitat in accordance with section II.B.2 and *Table 2. Non-Complex Habitat Guidelines* of the Program Land Plan.

1. Associated Complex Habitat

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

2. Non-Complex Habitat Acres

The entirety of this tract is considered as non-complex habitat.

3. Excess Acres

This tract does not contain any excess acres.

B. Land Cover

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

- Figure A-3 2005 Land Cover/Use
- Figure A-4 National Wetland Inventory
- Figure A-5 1938 Aerial Photography
- Figure A-6 1998 CIR Aerial Photography
- Figure A-7 2020 CIR Aerial Photography
- Figure A-8 OCSW Restoration Activities
- Figure A-9 OCSW Maintenance Activities

Table 1 – Tract 2024001 2005 Land Cover/Use Summary			
Land Cover Classification	Acres	Percent of Total	
Ag	44.6	13.2%	
Bare ground/Sparse Veg	77.5	22.9%	
Phragmites	16.9	5.0%	
Riparian Shrubland	16.7	4.9%	
Riparian Woodland	34.1	10.1%	
River Channel	5.1	1.5%	
River Early Successional	6.4	1.9%	
River Shrubland	28.5	8.4%	
Rural Developed	0.6	0.1%	
Sand Pit	76.4	22.5%	
Unvegetated Sandbar	15.6	4.6%	
Upland Woodland	0.1	0.1%	
Urban/ Suburban	12.1	3.6%	
Xeric Wet Meadow	3.7	1.1%	
	338.9	100.0%	

Table 1 – Tract 2024001 2005 Land Cover/Use Summary

C. Existing Land Features of Interest

1. Non-Riverine Surface Water

This tract contains a sandpit lake covering approximately 76 acres.

2. River Frontage and Active Channel Widths

This tract was purchased as non-complex least tern and piping plover nesting habitat. The tract contains minimal river frontage adjacent to the highway 44 bridge.

3. Contiguous Sand Substrates

This tract contains approximately 76 acres of contiguous sand substrate, much of which could be converted to suitable least tern and piping plover nesting habitat with minimal restoration.

4. Island and Channel Bank Height

This tract includes river channel.

5. Groundwater

There is no intent for wet meadow or wetland restoration for this tract. Observations of the lake level on site indicate groundwater approximately 5-8 feet below most of the sand area.

6. Flooding in Non-Wetland Areas

There is no evidence of temporary inundation of non-wetland areas.



PRRIP-DRAFT 7. Power/Transmission Lines

Power lines on the tract are located along the east and northeast boundaries. They are not expected to be an issue for tern and plover habitat on this site.

D. Incompatible Uses and Environmental Concerns

Currently, the tract is an active sand and gravel mine. Mining will conclude in 2026. No environmental concerns were identified during the site visit, though some mining and construction rubble was present (old concrete, rebar, metal). The mining contractor is responsible for removing these materials at the conclusion of mining operations.

E. Certified Irrigated Acres

The tract includes no NRD certified irrigated acres.



IV. RESTORATION AND MAINTENANCE

F. 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. Associated complex habitat for this non-complex tract is in the Pawnee Complex.

1. Species Habitat

Goal 1 – Improve sand and water (off-channel sand and water; OCSW) habitat for interior least terns (LETE) and piping plovers (PIPL)

- Objective 1a Create and maintain off-channel sand and water (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 Restore OCSW nesting habitat on the sandpit on the property. Phase 1 of the habitat restoration will occur in 2025 and later phases will occur through approximately 2026, as the mining activities at the site are concluded.
 - Methods OCSW nesting habitat restoration will be accomplished by grading and shallowing the slopes to the water on the mine peninsula. Additionally, sand will be placed to connect smaller individual peninsulas. Excavation to create open-water moats around newly formed peninsulas will be required as well. All vegetation will be removed from the peninsula, include any large trees. Application of pre-emergent herbicide will help with annual vegetation control and prevention. Predator fencing will be installed.
 - Area Grading/nesting areas, monitoring berm locations, and open-water excavation areas for Phase 1 are presented in Figure A-8.
 - **Timeline** Phase 1 (2025 habitat area) will be created in the spring of 2025. Future phases of restoration of OCSW areas will occur as the miner concludes mining in other areas. The miner will be off-site in 2027.
 - **Cost** Phase1 1 will cost up to approximately \$###,###. Total costs of the future phases are expected to be on the order of \$###,###, as well.



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- 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 2a** –Maintain off-channel sand and water (OSCW) target bird species habitat that approximates *Table 2. Non-Complex Habitat Guidelines* of the Program Land Plan, to the degree appropriate, and approximates at least the Program's minimum habitat guidelines.
 - *Strategy* Maintain and protect OCSW nesting habitat on the peninsula located within the sandpit leased area.
 - Methods Typical OCSW maintenance will be accomplished by annual application of pre-emergent herbicide and installation of predator fencing (see also Obj. 3b). Mechanically clearing and grubbing of vegetation from proposed nesting areas will occur when necessary.
 - Area Habitat maintenance activities will occur on the existing nesting area shown in Figure A-9.
 - **Timeline** OCSW habitat maintenance will occur annually.
 - **Cost** Annual maintenance costs are estimated at \$4,000.
 - Responsibilities Program staff are responsible for coordination of maintenance activities. Contractors will perform herbicide applications.

2. Property Maintenance

- **Goal 3** Fulfill basic property ownership obligations and needs.
 - *Objective 3a* Maintain property boundary fencing and signage.
 - Strategy Maintain and/ or replace boundary fence, as necessary.
 - Methods Boundary fencing will be four wire livestock fencing and will be constructed per Natural Resources Conservation Service (NRCS) and Nebraska Game and Parks Commission (NGPC) design criteria. Boundary fence will include Program ownership and contact signage at regular intervals. Maintenance methods may include mowing or spraying of woody species in the cleared area as well as routine fence upkeep.



- Area Property boundary (Figure A-9).
- Timeline –Boundary fence maintenance will occur as needed.
- **Costs** Boundary signage is expected to cost on the order of \$500. Annual maintenance costs are expected to be on the order of \$1,000.
- Responsibilities Program staff are responsible for design and permitting. Construction and maintenance activities will be bid.
- *Objective 3b* Establish and maintain predator controls and signage.
 - Strategy A permanent predator fence will be constructed at each entrance to the nesting area to exclude people and predators from accessing the nesting area over land. Options for additional turtle fencing and/or strobe lights for further predator deterrent can be installed as need arises or research indicates success.
 - **Methods** The fence will be installed in 2025 on the existing nesting area. Maintenance methods may include mowing or spraying of woody species in the cleared area as well as routine fence upkeep.
 - Area Fence will be located at the entrance to the peninsula (identified on Figure A-9).
 - **Timeline** Fence will be installed in 2025 or as needed.
 - **Costs** Predator fence is expected to cost on the order of \$50,000 and approximately \$1000 annually for maintenance.
 - **Responsibilities** Program staff are responsible for design and permitting. Construction and maintenance activities will be bid.
- **Objective** 3c Control noxious weeds on property.
 - Strategy Infestations of noxious weeds will be eliminated (to the extent possible) annually. Ongoing management/control needs will be assessed annually and incorporated into Work Plans. This tract will be maintained with little to no vegetation (see Obj. 2a) and noxious weed control needs should be minimal.



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- **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 weed control will be conducted on the entirety of the property.
- **Timeline** Noxious weed assessment and control activities will be conducted annually.
- **Costs** Annual costs will be identified in the annual Work Plans and are expected to be less than \$2,000.
- **Responsibilities** Program Staff are responsible for identifying infestations and planning/coordinating control efforts. Control activities will be carried out by contractors. The contractor will typically be the county weed authority.

➢ Goal 4 − Minimize habitat impacts due to invasive vegetation.

- *Objective 4a* Eliminate existing and control future infestations of invasive vegetation not listed as noxious weeds.
 - Strategy Existing stands of invasive vegetation will be eliminated (to the extent possible). Ongoing management/control needs will be assessed annually and incorporated into Work Plans. This tract will be maintained with little to no vegetation (see Obj. 2a) and invasive vegetation control needs should be minimal
 - **Methods** When necessary, invasive vegetation control will be accomplished through a combination of herbicide application and mechanical removal.
 - Area Invasive vegetation will be controlled on the entire property.
 - **Timeline** Maintenance and control efforts will continue annually.
 - **Costs** Annual costs will be identified in the annual Work Plans as needed and are expected to be less than \$1,000.
 - **Responsibilities** Program staff will be responsible for identifying infestations. Control activities will be carried out by contractors.



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A. Baseline Surveys and Monitoring

1. Bald Eagle

No bald eagle nests have been identified on this property.

2. Platte River Caddisfly

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

3. Northern Long-eared Bat

No long-eared bats have been observed on this tract, but they have been known to use the general area. The Program will not remove trees between April 1 and October 31 to avoid impacts to northern long-eared bats during the active season and will coordinate with USFWS and NGPC if the species is found on Program properties.

4. Cultural Resources

The legal description of Tract 2024001 will be provided to the State Historic Preservation Office (SHPO) to facilitate the early identification of potential cultural resources related issues. If Program actions uncover potential artifacts or human remains, work will cease until such time that the Program can consult with SHPO to determine the appropriate course of action.

B. Research

No tract-level research activities have been identified at this time. A variety of monitoring and research activities may be conducted according to the PRRIP's Integrated Monitoring and Research Plan (IMRP).

V. 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 ensure 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 6 and April 29, or October 9 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 workday 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 VI will be addressed if they arise.

C. Migratory Bird Treaty Act

Land management that involves burning, cutting or mechanical removal of vegetation on this tract (with the exception of restoration activities on ground that was previously in agricultural crops) will not occur between April 15 and July 15 without first doing surveys to ensure 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. 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

The legal description of Tract 2020002 will be provided to the State Historic Preservation Office (SHPO) to facilitate the early identification of potential cultural resources related issues. Potential cultural resource concerns on the property are not expected, as it is a location that has been actively mined for sand and gravel. 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.

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.



VI. PUBLIC ACCESS

A. Education

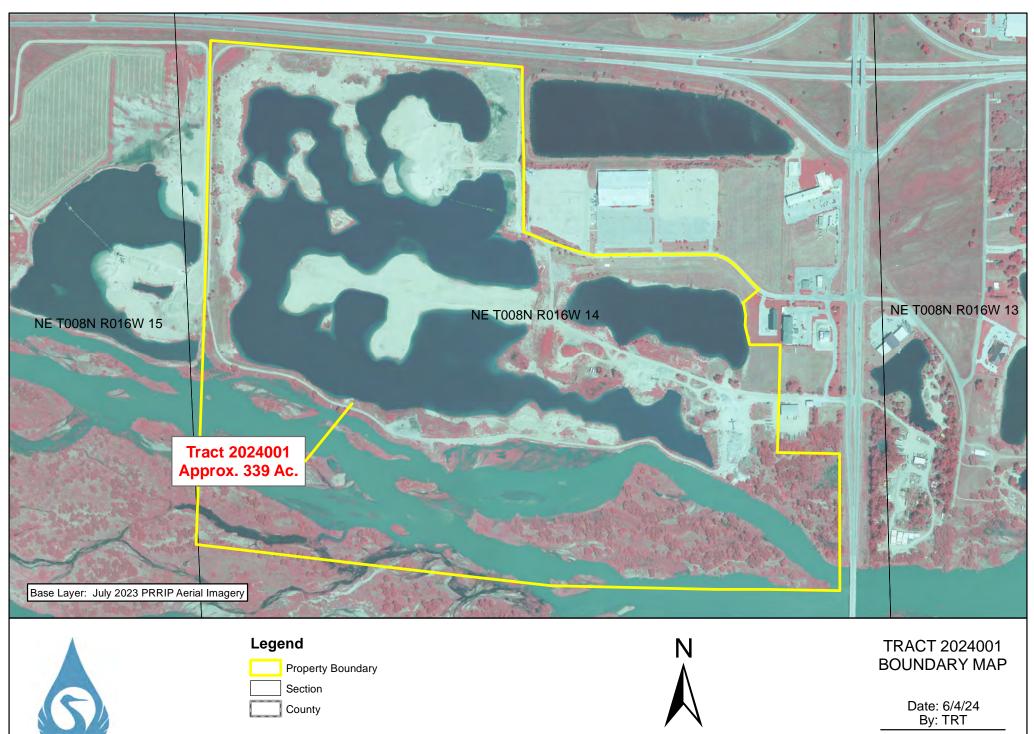
Access for education, including non-Program research, will be allowed on a case-by-case basis if it is compatible with target species usage and does not negatively impact species habitat. Program staff will be responsible for evaluating requests and granting access permission.

B. Recreation

Public recreation on this property is not currently allowed due to active mining which is not conducive to public access.

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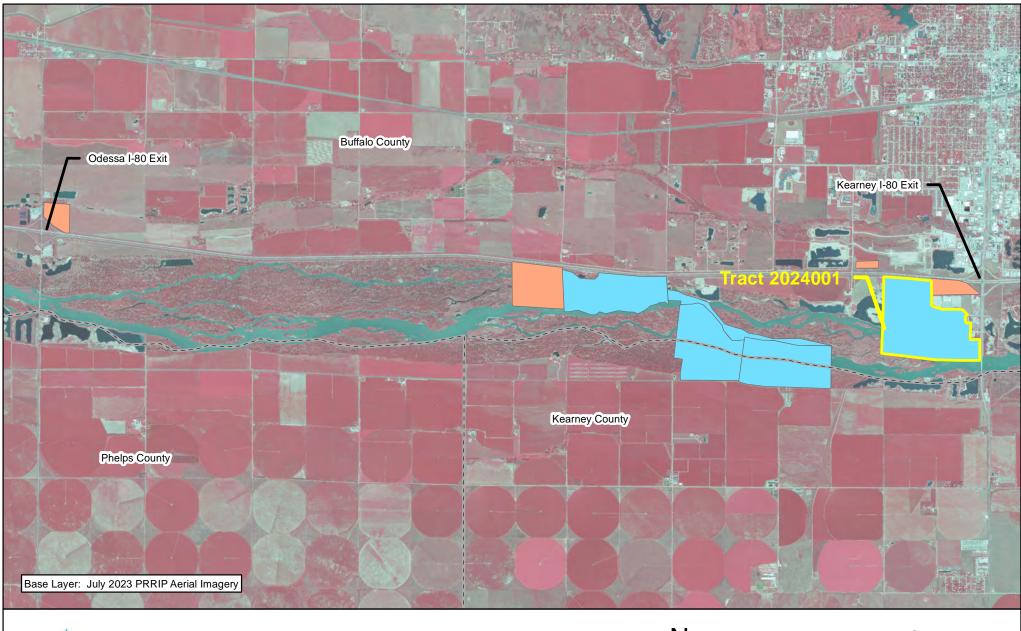
APPENDIX A – FIGURES



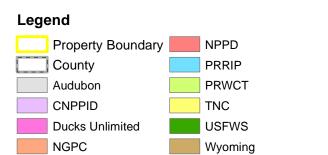
PLATTE RIVER

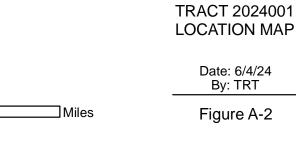


Miles

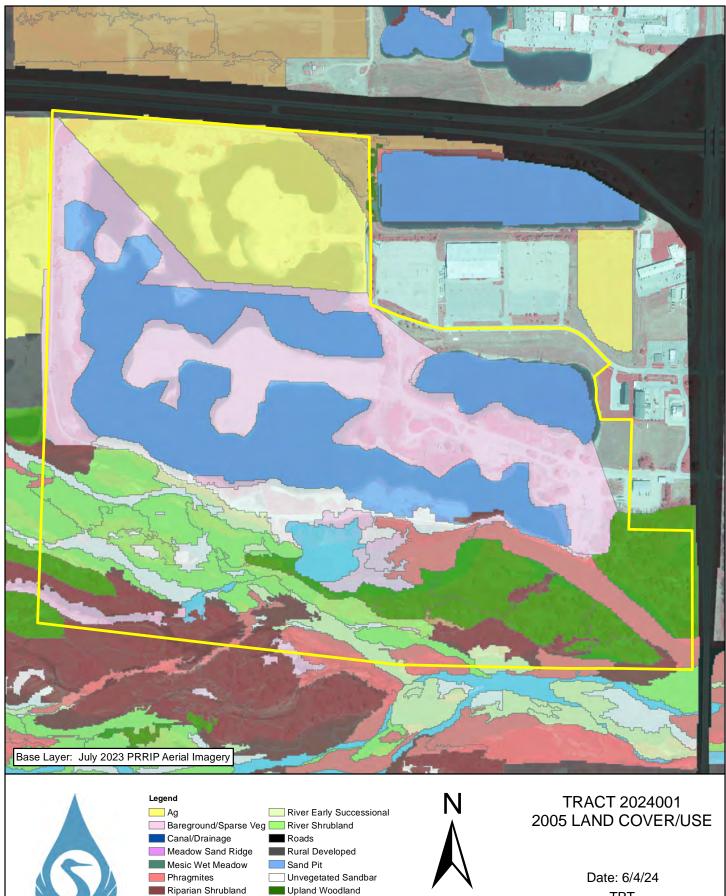








1.5



Riparian Woodland

River Channel

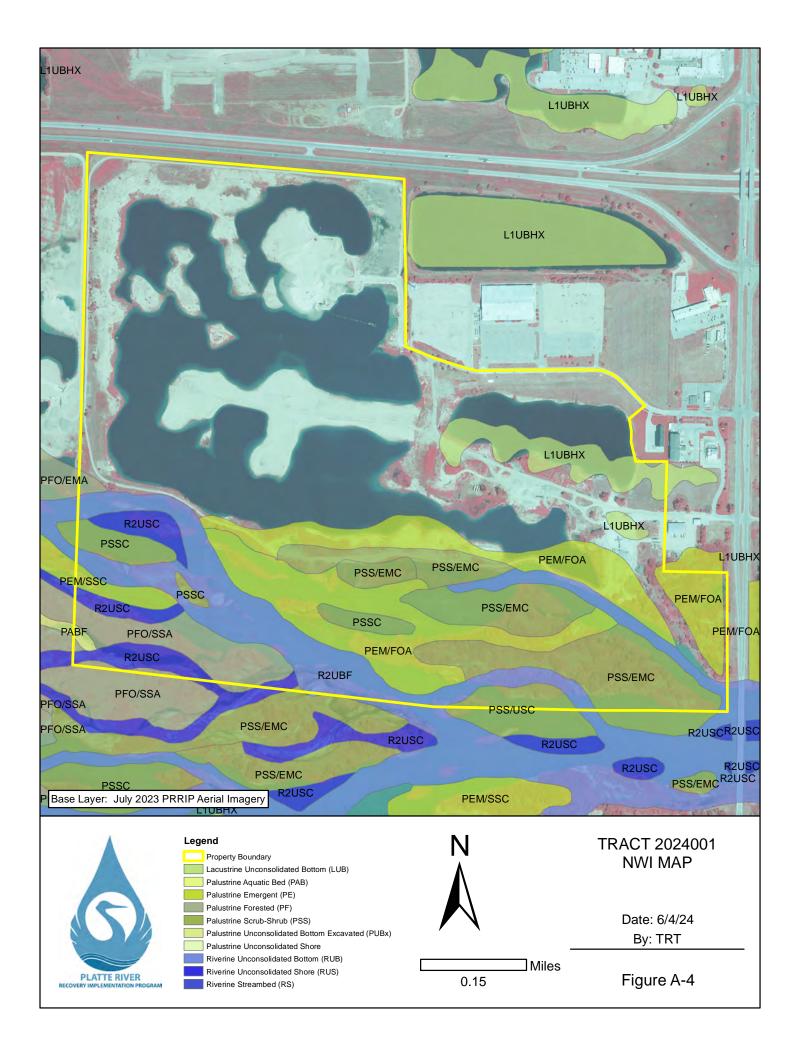
PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

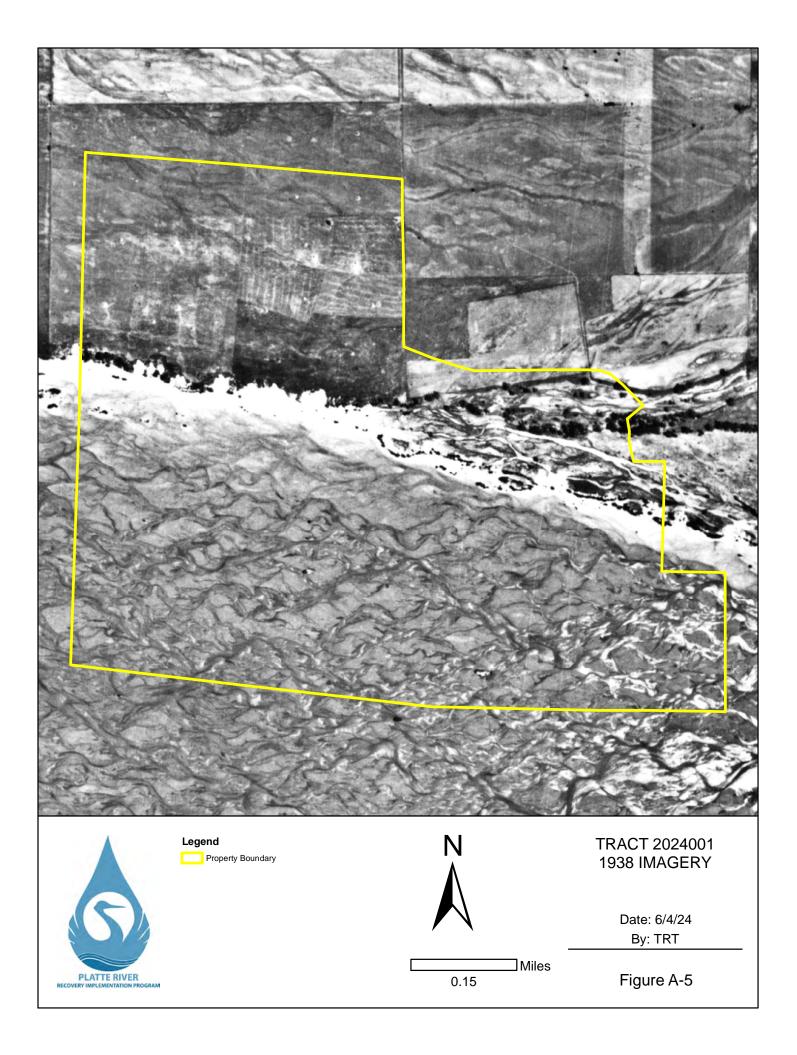
Warmwater Slough

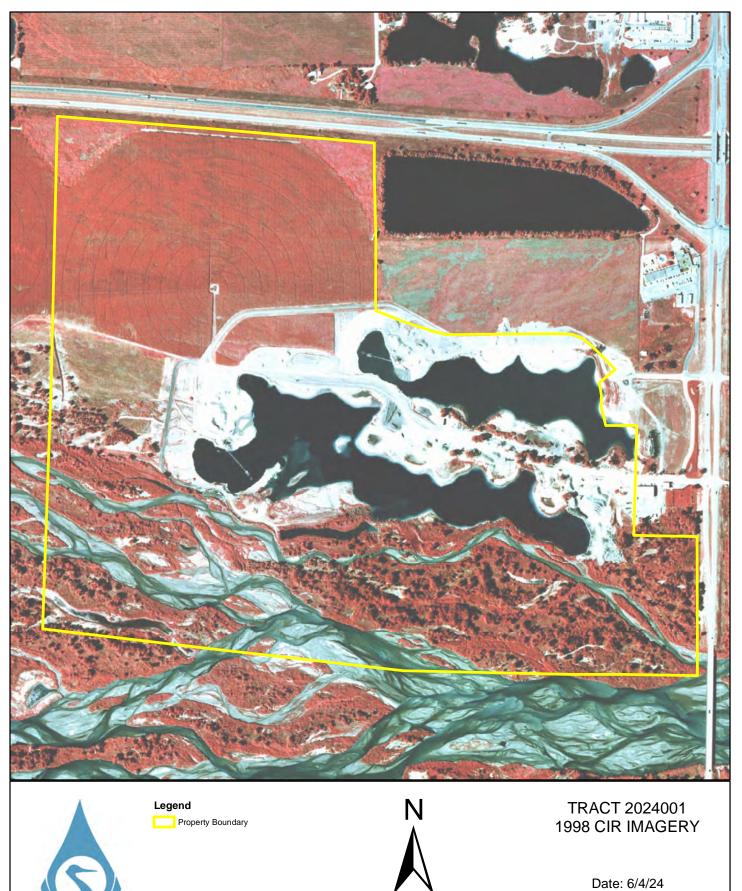
Xeric Wet Meadow

TRT

Miles 0.15



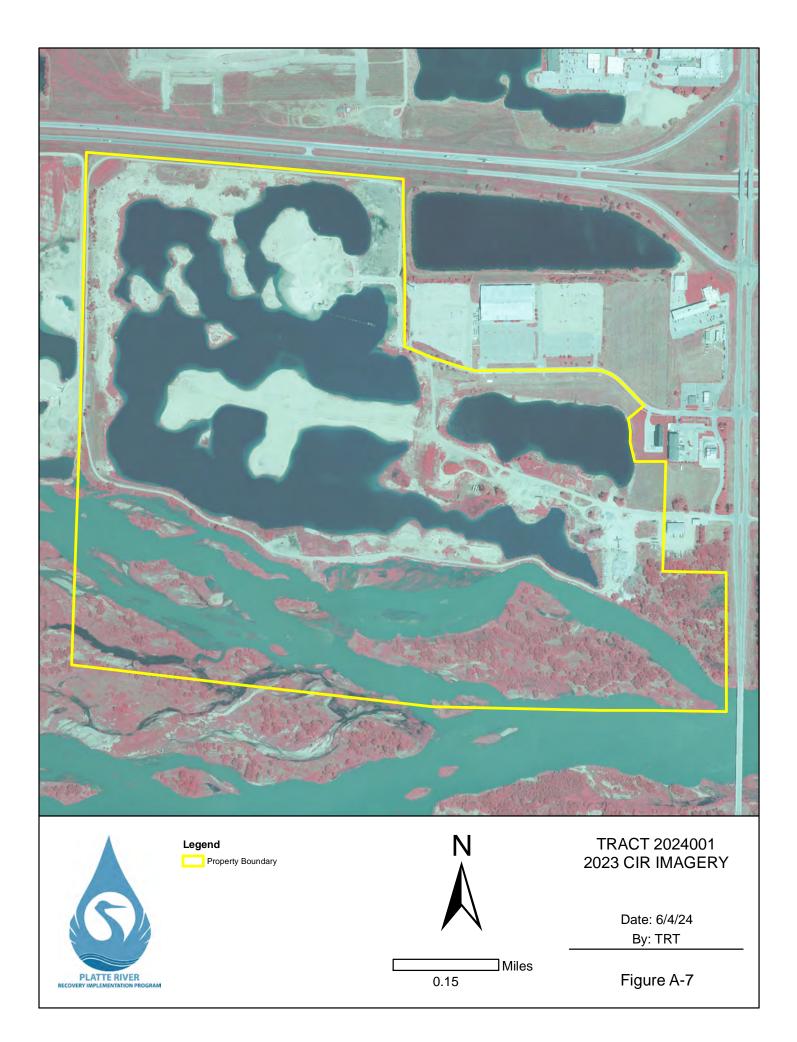


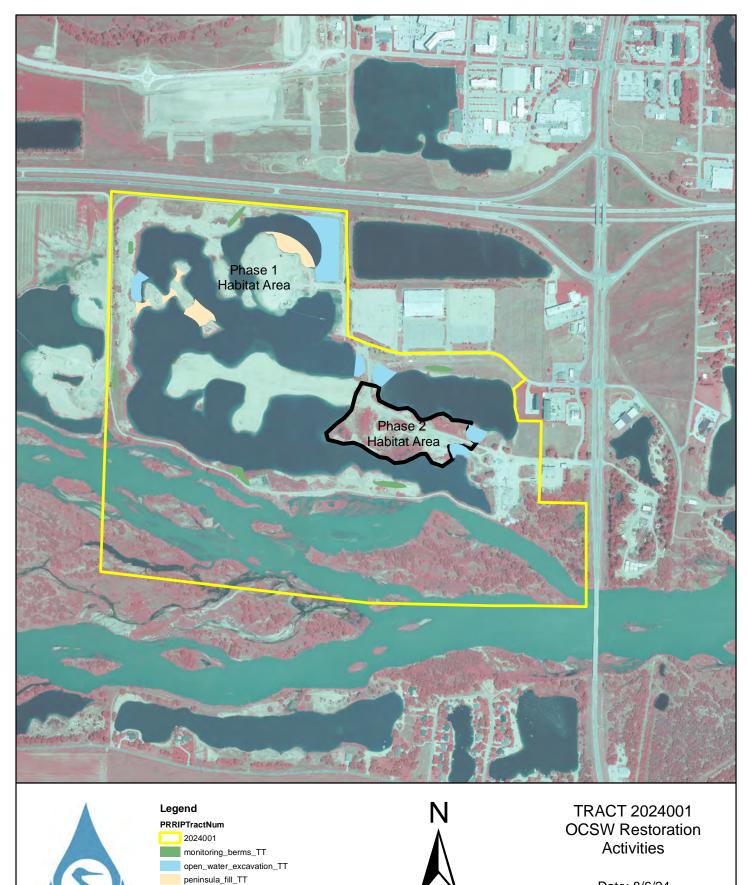


Date: 6/4/24 By: TRT

0.15 Miles

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM





Phase II Clear & Smooth

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM Date: 8/6/24 By: TRT

0.25 Miles







Property Boundary Phase II Clear & Smooth Proposed Predator Fence Z Pre-emergent Herbicide - Existing Fenceline



TRACT 2024001 **OCSW Maintenance** Activities

> Date: 8/6/24 By: TRT

Miles 0.2