PRRIP – ED OFFICE MEMORANDUM

TO: TECHANICAL ADVISORY COMMITTEE (TAC) & LAND ADVISORY COMMITTEE (LAC)

FROM: EXECUTIVE DIRECTOR'S OFFICE (EDO)

SUBJECT: CHAPMAN COMPLEX LAND MANAGEMENT PLANS & RESTORATION DESIGN

DATE: OCTOBER 19, 2020

CC:

Draft land management plans for Tracts 2019001 (Bergren) and 2020001 (Robinson) were developed using the guidance of the Restoration & Management Framework for PRRIP Habitat Complexes (Framework Document) approved by the Governance Committee (GC) on September 11, 2018. These land management plans were presented to the TAC on August 17, 2020 for input prior to sending to the LAC for final review and approval. Several TAC members requested the EDO look at more intensive restoration alternatives and provide costs and tradeoffs at both tracts.

Tract 2019001 (Bergren)

Discussions for Tract 2019001 (Bergren) centered around the concept of clearing all trees within the wet meadow grassland and additionally clearing of all trees within the accretion area as opposed to a more narrow band of trees along the river bank to meet the minimum habitat criteria for unobstructed width for whooping cranes per guidance of the Framework Document. Three alternatives (A-C) were developed. Option A includes aboveground clearing of all trees on the southern wet meadow portion and clear & grub only ~200 LF of trees along the northern portion of the tract along the river. This is the original design proposed in the draft management plan. Option B includes aboveground tree clearing on the southern wet meadow, clear & grub all trees within the accretion area, and overseeding with high diversity, local-ecotype seed mix. Prescribed fire was included in Options A and B as an additional maintenance tool for 10 years following the tree clearing. Option C focuses on using prescribed fire as a method to enhance (and save) existing understory vegetation by minimizing mechanical disturbance. The option includes mechanically clearing firebreaks on east, west and northern boundaries, implementing prescribed fires annually to eliminate understory brushy vegetation and small trees while top-killing larger trees for a period of 10 years or so. At the end of 10 years, use aboveground mechanical clearing of tree skeletons killed through years of prescribed fire. Appendix A includes cost estimates and maps for the three options.

From a tradeoff perspective, all alternatives fit within the larger restoration budget for the Extension, so clearing of all trees will not foreclose other restoration and management actions on other properties. Technical uncertainties need to be discussed by the TAC. It was pointed out that clearing (i.e. removing) cottonwood gallery forest is not restoration but rather trying to speed up succession. What is the appropriate method and timeframe for succession to make the transition to achieve maximum benefit for the desired targeted habitat type, in this case, wet meadow for whooping cranes? Is the restored vegetative cover more important than wetland features?

Tract 2020001 (Robinson)

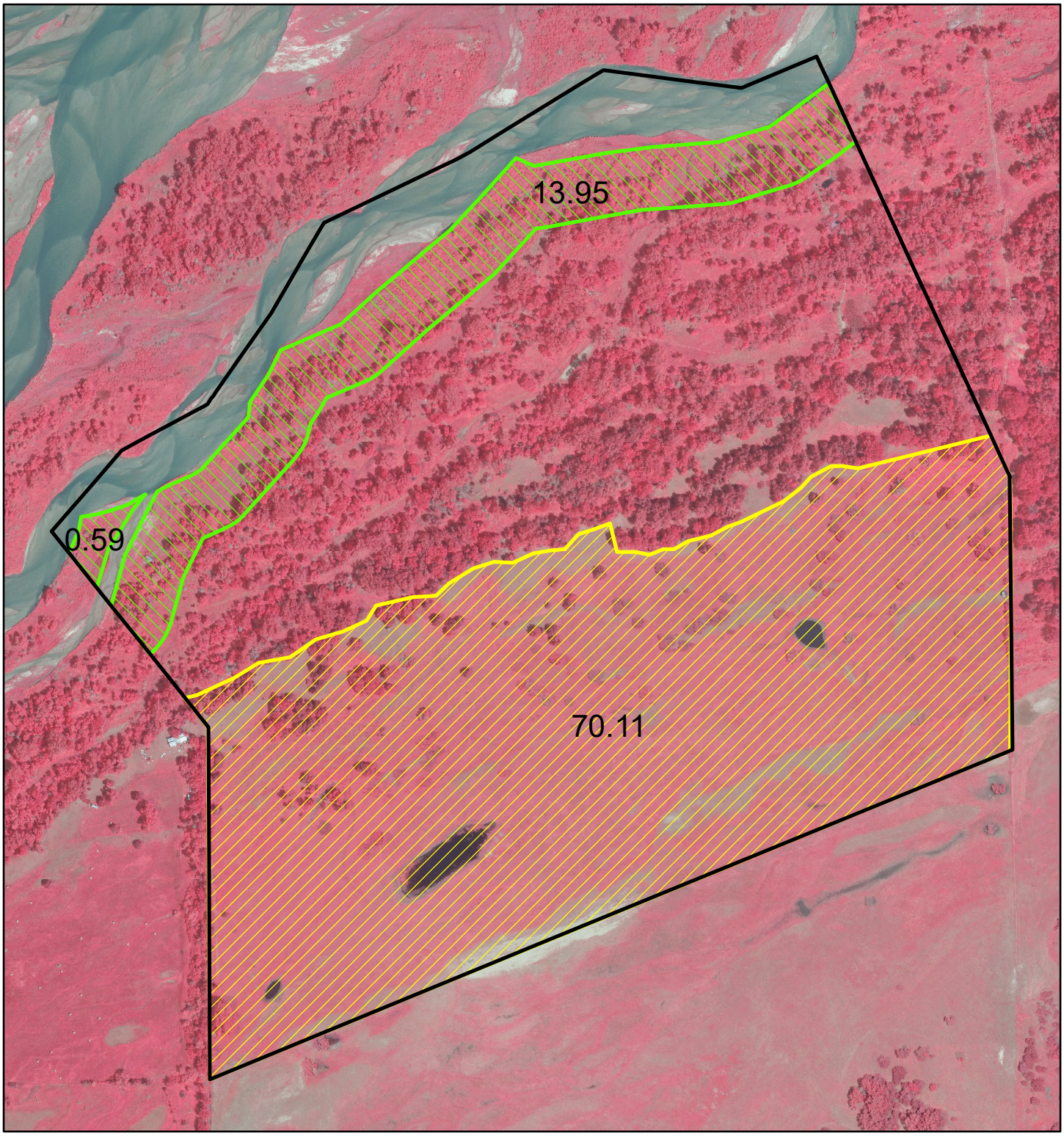
Discussions surrounding the restoration and management plan for Tract 2020001 (Robinson) were centered around the potential degree of mechanical work that could be employed to create moving complex approach (MCA) habitat on one or both of the large (60 ac) wooded islands. The original design included clearing and grubbing of all trees on the wooded islands and use disking as a management tool to remove vegetation per the Framework Document. Ability to do additional mechanical reshaping and employ other methods to improve habitat suitability for tern and plover nesting is partially a function of whether or not the islands would classify as wetlands, necessitating a USACE Section 404 permit for grading work. HDR performed a preliminary wetland assessment and found that the high islands were above ordinary high-water mark, and as such, did not generally classify as wetlands (small wetland areas likely exist on both islands). As such, island reshaping is possible as long as no fill is placed in wetlands. Practically, that means no pushing/fill of channel areas adjacent to islands or placing of fill in wetland areas on the islands. A permit is not necessary for the additional mechanical work of reshaping the island after tree removal.

Appendix B includes cost estimates and maps for the original design (Option A) as well as an option (B) where one of the large islands is turned into modified MCA nesting habitat including moving stumps to another location, mechanically reshaping of the island and 5 years of pre-emergent application to keep the island free of vegetation.

From a tradeoff perspective, the Program has budgeted approximately $10,000 a year for creation and maintenance of MCA habitat. Expenditures associated with creating and maintain 60 acres of modified MCA habitat would likely substantially exceed the Extension MCA budget. Technical uncertainties need to be discussed by the TAC. Specifically, treating islands, either natural or constructed, with pre-emergent herbicide in the spring prior to LT/PP nesting season has proven to have limited success, especially during wet years. Most applications during wet years must be done with airboat with a handgun which limits coverage, especially on larger sites. Herbicide coverage is more uniform and effective if river conditions allow access by ground application but again that is determined by river conditions. We are uncertain how often and effectively this site could be treated to prevent vegetation establishment.

Appendix A

Item	Tract 2019001 Work	Est. Quant	Unit	Est Unit Price	Est Bid Price
	Option A				
1	Mobilization & Demobilization	1	LS	$5,000.00	$5,000.00
2	2019001 Aboveground Tree Removal	70	AC	$200.00	$14,000.00
3	2019001 Aboveground Pile Burn & Bury	1	LS	$4,000.00	$4,000.00
4	2019001 Accreation Clear & Grub	15	AC	$1,600.00	$24,000.00
5	2019001 Accreation Pile Burn & Bury	1	LS	$4,000.00	$4,000.00
6	2019001 Rx Fire	70	AC	$43/ac (10 years)	$30,100.00
	Estimate (Total)				**$81,100.00**
	Option B				
1	Mobilization & Demobilization	1	LS	$10,000.00	$10,000.00
2	2019001 Aboveground Tree Removal	68.56	AC	$200.00	$13,712.00
3	2019001 Aboveground Pile Burn & Bury	1	LS	$5,000.00	$5,000.00
4	2019001 Accreation Clear & Grub	67.04	AC	$1,600.00	$107,264.00
5	2019001 Accreation Pile Burn & Bury	1	LS	$10,000.00	$10,000.00
6	2019001 Accreation HD-LE Seeding	67.04	AC	$450.00	$30,168.00
7	2019001 Rx Fire	134.85	AC	$43/ac (10 years)	$57,985.50
	Estimate (Total)				**$234,129.50**
	Option C				
1	Mobilization & Demobilization	1	LS	$5,000.00	$5,000.00
2	2019001 Accreation & Fireline Clear & Grub	19.61	AC	$1,600.00	$31,376.00
3	2019001 Accreation & Fireline Pile Burn & Bury	1	LS	$2,000.00	$2,000.00
4	2019001 Rx Fire	134.85	AC	$43/ac (10 years)	$57,985.50
5	2019001 Aboveground Tree Removal	134.85	AC	$200/ac (after 10 years)	$26,970.00
	Estimate (Total)				**$123,331.50**



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Legend

- Property Boundary
- Clear & Grub
- Aboveground Tree Removal

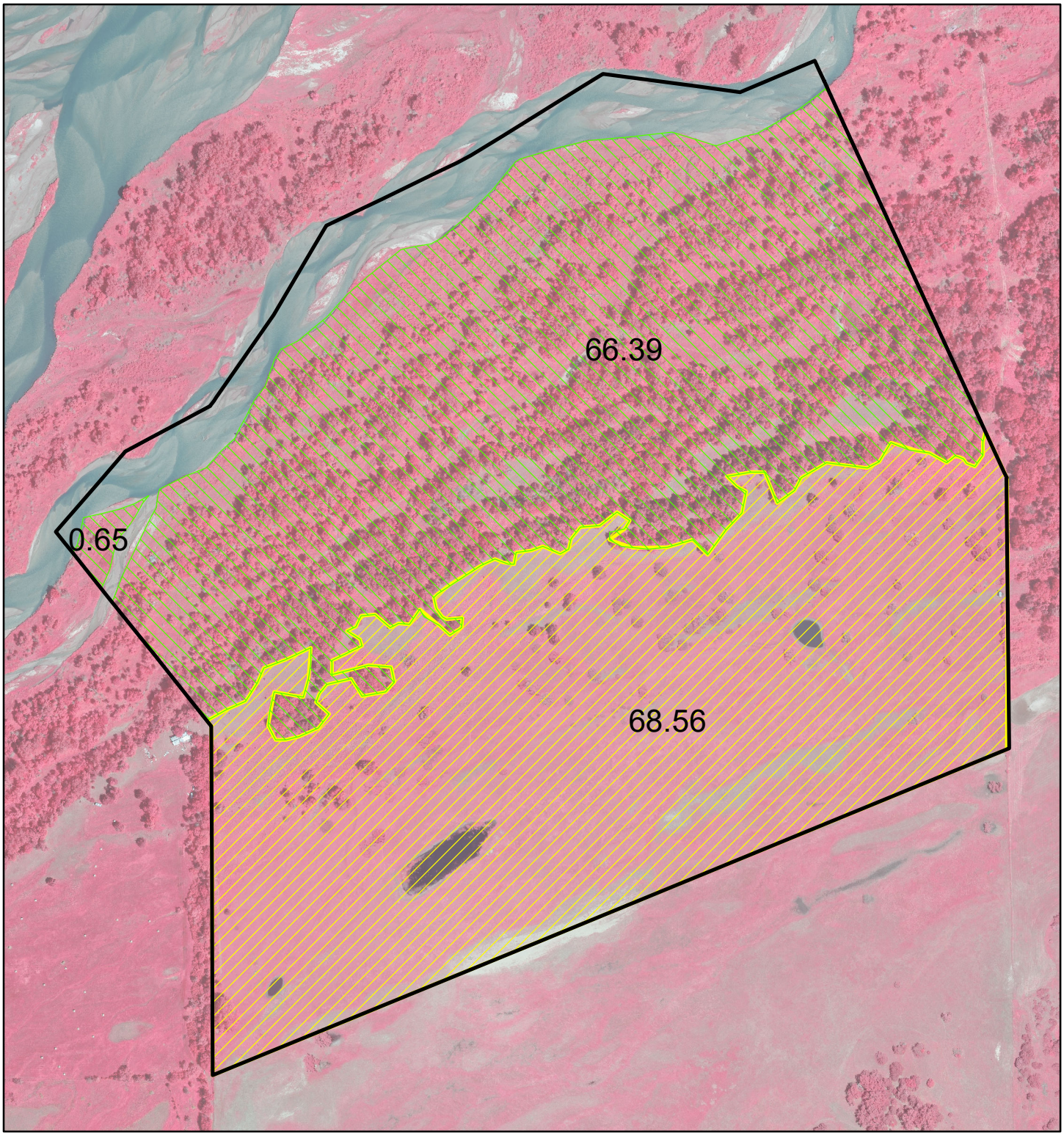
N

0 250 500 1,000 Feet

TRACT 2019001
Grassland/ Accreation
Activities
Option A

Date: 10/5/20
By: TRT

Figure 1



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Legend

- Property Boundary
- Clear & Grub
- Aboveground Tree Removal

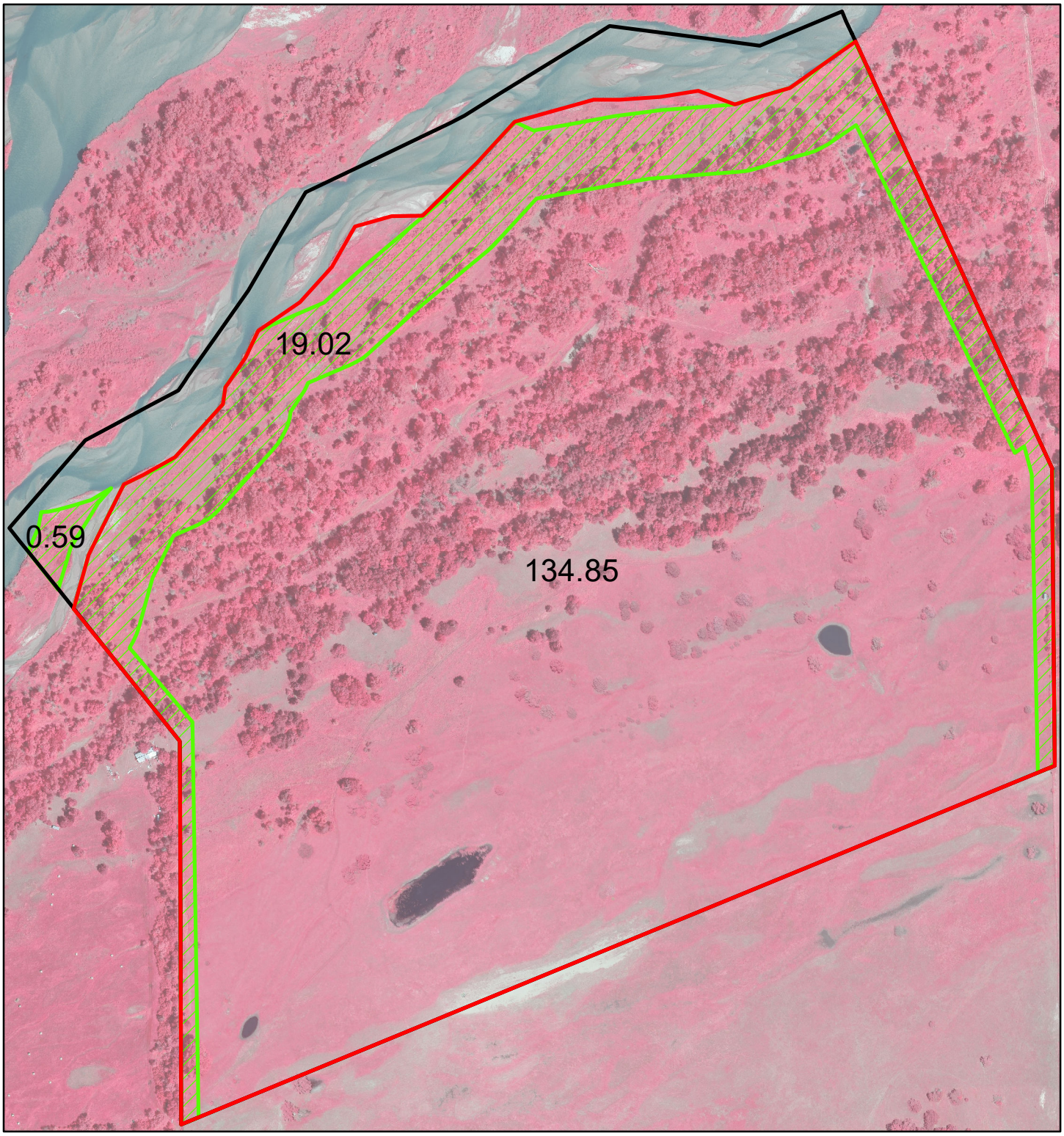
N

0 250 500 1,000 Feet

TRACT 2019001
Grassland/ Accreation
Activities
Option B

Date: 10/5/20
By: TRT

Figure 2



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Legend

- Property Boundary
- Prescribed Fire Unit
- Clear & Grub

N

0 250 500 Feet

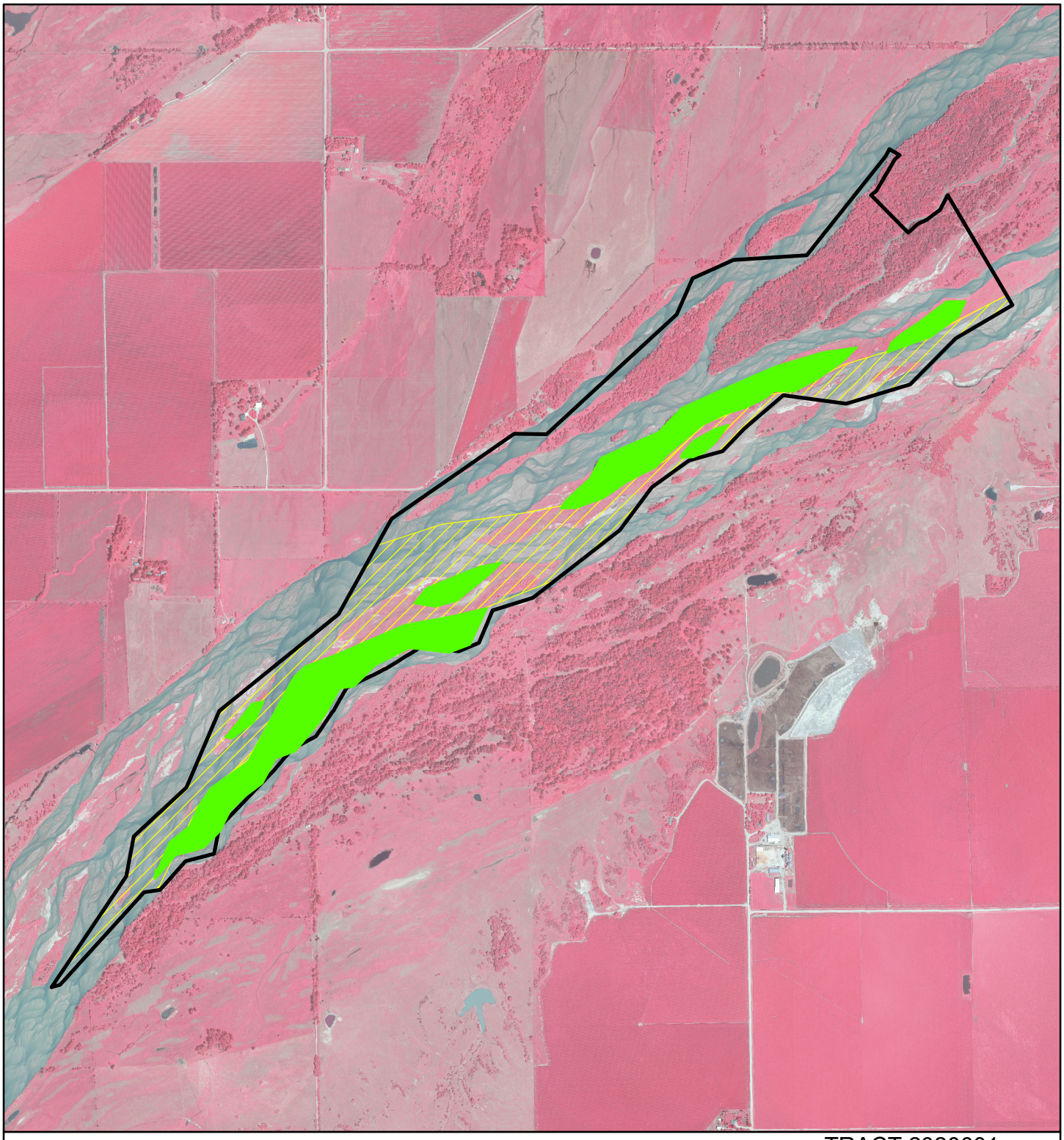
TRACT 2019001
Grassland/ Accreation
Activities
Option C

Date: 10/5/20
By: TRT

Figure 3

Appendix B

Item	Tract 2020001	Est. Quant	Unit	Est Unit Price	Est Bid Price
	Option A				
1	Mobilization & Demobilization	1	LS	$10,000.00	$10,000.00
2	2020001 Clear & Grub	80	AC	$1,600.00	$128,000.00
3	2020001 Burn & Bury Tree Piles	80	EA	$300.00	$24,000.00
4	2020001 In channel Disking	149	AC	$300.00	$44,700.00
	Estimate (Total)				**$206,700.00**
	Option B				
1	Mobilization & Demobilization	1	LS	$10,000.00	$10,000.00
2	2020001 Clear & Grub	80	AC	$1,600.00	$128,000.00
3	2020001 In channel Disking	149	AC	$300.00	$44,700.00
4	2020001 Burn & Bury Tree Piles	80	EA	$300.00	$24,000.00
5	2020001 Remove Stumps & Relocate off MCA island	48	AC	$500.00	$24,000.00
6	2020001 Island Reshape	30,000	CU Y.	$2.00	$60,000.00
7	2020001 Pre emergent & Roundup Application	66	AC	$189 * 5 years	$62,370.00
	Estimate (Total)				**$353,070.00**



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Legend

- Property Boundary
- Powerline
- Island Tree Clearing
- Inchannel Disking & Vegetation Control

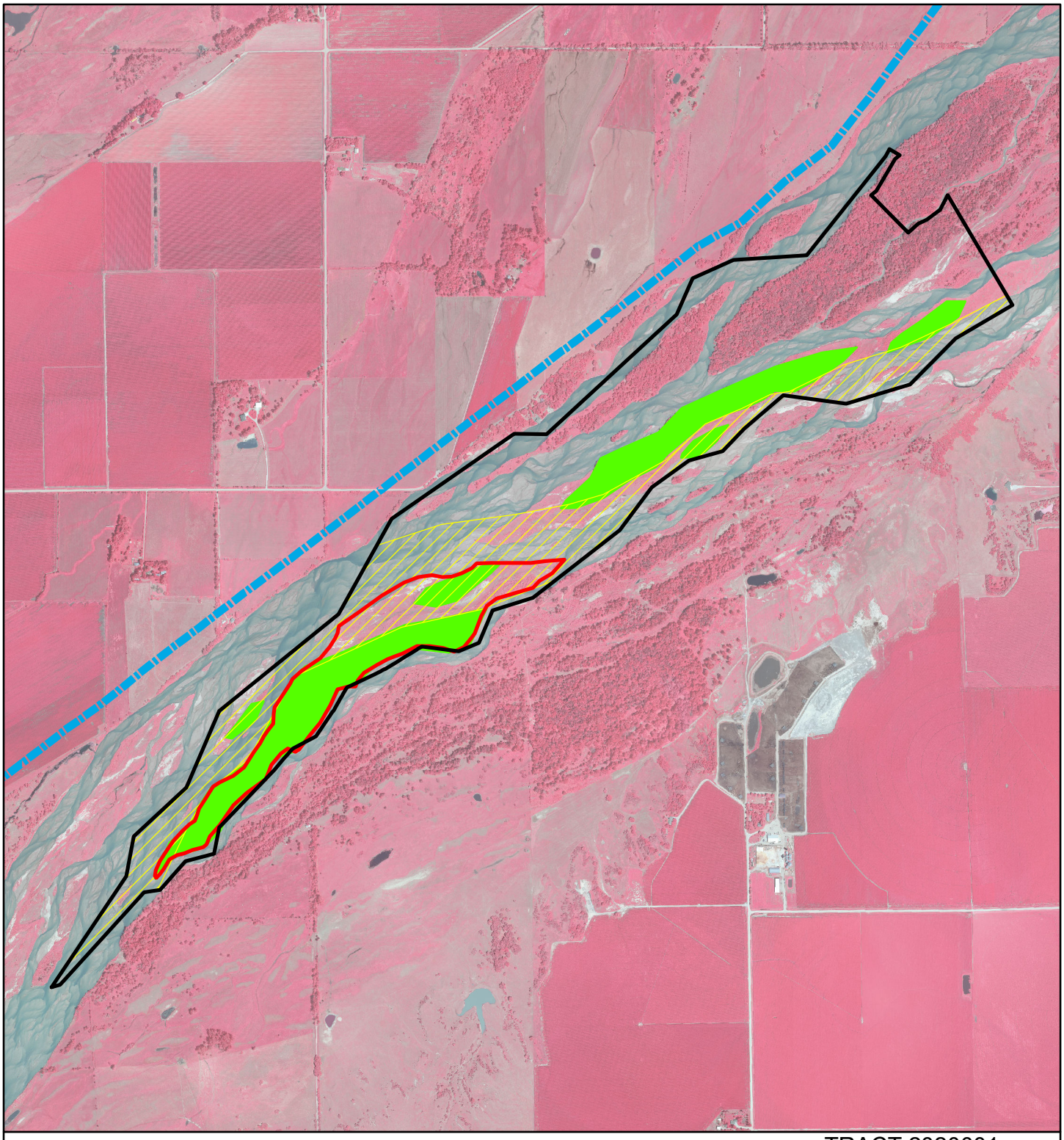
N

1 Miles

TRACT 2020001
Riverine Activities
Option A

Date: 10/6/20
By: TRT

Figure 1



PLATTE RIVER
RECOVERY IMPLEMENTATION PROGRAM

Legend

- Property Boundary
- Powerline
- MCA Habitat Manipulation Area
- Inchannel Disking & Vegetation Control
- Island Tree Clearing

N

1 Miles

TRACT 2020001
Riverine Activities
Option B

Date: 10/6/2020
By: TRT

Figure 2