PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

TO: Governance Committee (GC)
FROM: Executive Director's Office (EDO)
RE: Tree Clearing at Shoemaker Island Habitat Complex
DATE: November 26, 2013

Recommendation

No action is requested of the GC at this time. This memo and the associated exhibits are being provided to the GC as background information to assist with a short discussion on the issues at hand during the December 2013 GC meeting in Denver, CO.

Background

The Land Plan for the Shoemaker Island Habitat Complex approved in 2012 includes clearing trees from a slough on the Binfield property at the complex. During the summer of 2013, concerns about this action were expressed by the Downstream Water Users (**Exhibit A**). An alternative view in support of the action was offered by the U.S. Fish and Wildlife Service (**Exhibit B**). Discussions about the management action within the Technical Advisory Committee (TAC) were inconclusive.

A central issue related to this management action is whether it will positively or negatively affect whooping crane use of the Binfield property. The EDO will continue to analyze whooping crane data to provide more information to assist the GC with making a decision about whether the tree clearing should proceed. The EDO expects this will be brought back to the GC for a decision sometime in 2014.

EXHIBIT A

DOWNSTREAM WATER USERS' COMMENTS ON SHOEMAKER ISLAND COMPLEX TREE CLEARING

Binfield Tree Clearing Opposition
10 July 2013

Removing riparian forest is a common management action on the Platte River and one the Technical Advisory Committee has not addressed in the past, as the clearing done by the Program to date has been policy related, such as clearing property boundaries for fences and clearing channel areas to more closely approximate the guidelines in the Land Plan (Table 1), as directed in the Program Document. The Technical Advisory Committee discussed tree clearing on the Shoemaker Island Complex on June 26, 2013, with a focus on whether to remove trees along the slough on the south side of the Binfield tract, a measure proposed by the U.S. Fish and Wildlife Service to improve foraging conditions for whooping cranes. A number of committee members expressed concern about clearing trees in this region, notably because the Shoemaker Island Complex already meets or exceeds recommended guidelines (Land Plan, Table 1).

Furthermore, in a memo dated May 31, 2012, the ISAC addressed tree clearing in relation to caddisfly ecology and clearly stated that data collected by the Program do not support past assertions that wet meadows provide important foraging areas for whooping cranes. As the ISAC previously pointed out, whooping cranes are primarily found in the channel or cornfields with very limited use of wet meadows. Their final conclusion was, "Woody vegetation removal in wet meadows would be warranted to increase foraging habitat for whooping cranes in wet meadow habitats – but only if wet meadow habitat are shown to be significant for whooping crane nutrition during migration." A whooping crane habitat selection analysis is currently being conducted and may lead to new insights. However, at this time, data continue to indicate that whooping cranes on the Platte do not spend significant time, and many do not spend any time, in wet meadows, but instead forage primarily in cornfields or roost and loaf in channel areas.

At this time Technical Advisory Committee members from the State of Colorado, State of Nebraska, Environmental Entities, Colorado Water Users, and Downstream Water Users oppose removal of any more riparian forest for wet meadow purposes from the Shoemaker Island Complex for the following reasons:

- The benefit to whooping cranes as described by the ISAC has not been demonstrated by the Program.
- The site currently receives whooping crane use, and the Service's proposed actions may actually have a negative impact.
- The site meets or exceeds all guidelines of Table 1 in the Land Plan.
- Although this site had an existing conservation easement, the Program purchased it because it was already considered ideal habitat as it existed.
- Tree removal will have an obvious negative impact on forest obligate species through habitat loss and fragmentation, and it also may have a negative effect on other species, such as the Platte River caddisfly and potentially to cranes by exposing the river channel to strong north winds.
- The cause and effect of removing trees to improve wet meadow habitat conditions for whooping cranes has never been demonstrated.
- The proposed actions (tree clearing 15 acres near the channel plus 23 acres clearing the slough area) would result in reduction of woodland by approximately 18% while only increasing the wet meadow area by 2%. A trade off that is not biologically justified.

- A better understanding of how whooping cranes already use the 1,150 acres of grassland and 205 acres of channel at the site is needed prior to any modification (tree clearing).

Based on the technical points above the proposed action cannot be determined to have a demonstrable benefit to the target species and we do not believe the monetary cost to the Program of removing trees is justified at this time.

EXHIBIT B

U.S. FISH AND WILDLIFE SERVICE COMMENTS ON SHOEMAKER ISLAND COMPLEX TREE CLEARING

TO: PRRIP GOVERNANCE COMMITTEE

FROM: USFWS TAC REPRESENTATIVE

SUBJECT: POSITION PAPER – SUPPORT FOR TREE REMOVAL AT SHOEMAKER ISLAND COMPLEX

DATE: JULY 3, 2013

Background - In December 2012, the PRRIP GC approved the FY 2013 PRRIP budget and work plan that included proposed land management actions. These work plans were reviewed and approved by the TAC and LAC. Included within these plans was a description of work to be done at tract 2011004 (Binfield), including tree clearing in the forested slough in question (see LP-2, 2013 budget and work plan). The Service supports a balanced approach of targeted tree removal within the Shoemaker Island Complex at the Binfield tract.

Wet Meadows and Whooping Crane Use - The Binfield Tract contains one of the largest untilled native grasslands in the central Platte valley. The site contains very high groundwater levels and is widely considered the highest quality wet meadow next to Mormon Island (owned by the Crane Trust). The wet meadows at Mormon Island/Crane Trust Headquarters have historically had high use by whooping cranes (seven or more documented sightings); they are devoid of trees and consistently have sufficient hydrology at or above the surface during migration. Land plan table 1 describes wet meadows as "*grasses…lacking or mostly lacking sizeable trees and shrubs*." This definition is characteristic of Mormon Island. The forested slough (at Binfield) in Attachment 1 contains habitat for a variety of species and this type of habitat (riparian forested slough) occurs throughout the central Platte in other locations. High quality native wet meadows with groundwater tables as high as are seen at this site are unique and rare. Wet meadow use by whooping cranes (their selection of it as a habitat type) will be explored through the Adaptive Management Plan during the PRRIP first increment. While disagreement exists amongst TAC committee members, wet meadows were included as a major component of the land plan and it was agreed upon to test hypotheses related to whooping crane use of wet meadows (as described in table 1 land plan) within the first increment.

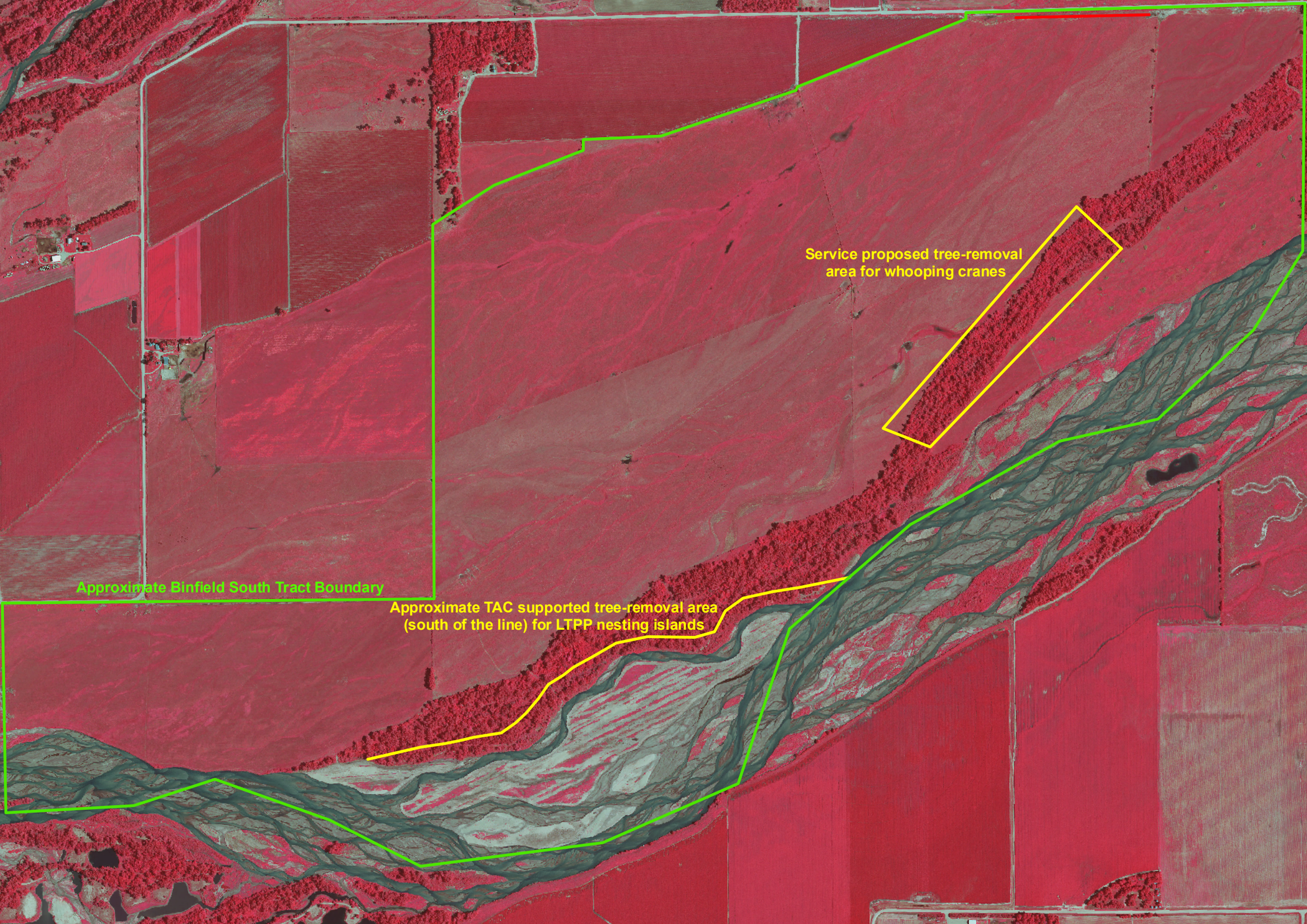
There have been at least two previous confirmed sightings of whooping cranes within this wet meadow. The most recent sighting occurred in the fall of 2012. Initial indications from telemetry data point toward a high degree of selection for wetland/aquatic habitats by whooping cranes. As a general rule, whooping cranes avoid forested areas as habitat during their migration through Nebraska. This is likely a predator avoidance response mechanism. Potential and known predators expected to be within the forested slough include fox, coyotes, mountain lions, raccoons, skunks, avian predators (raptors), opossums, etc. The threat of lethal predation to terns, plovers, and whooping cranes is both real and possible with the site in its current condition due to the location of target species habitat occurring in close proximity to multiple predators' habitat. Therefore, in its current condition, the forested slough does not contain suitable habitat for whooping cranes; however, the slough does contain the most consistent aquatic wetland habitat onsite with groundwater levels expected to be at or near the surface except during extreme drought. Removal of the trees on the Shoemaker Island Complex would make the slough accessible as habitat for whooping cranes to use. In absence of trees, the slough would be expected to provide the most optimal habitat onsite.

Beneficial Impacts of Tree Removal - While it is anticipated that some species would be locally displaced, the effects of tree removal within this property will benefit a variety of species, including the whooping crane (target species) and the Sandhill crane (PRRIP species of concern). The Platte River caddisfly (another species of concern), which was recently determined to be not warranted for listing under then ESA, is found in both forested and unforested sloughs, making it unlikely to be impacted by the proposed tree clearing.

The slough traverses the property starting near the southwest corner of the property adjacent to the river and continues east/northeast before exiting the east end of the property south of the county road (see attachment 1). It effectively splits the wet meadow into two disjoint segments. Removing the proposed section of this forest would be expected to provide the following benefits:

1. Drastically increase the total size of wet meadow and PRRIP "gold standard" wet meadow acres on site.
2. Connect two existing wet meadows together to form one contiguous wet meadow.
3. Improve the hydrology on site by exposing the most hydrologically consistent wetland feature for cranes, waterfowl, and waterbirds to use.
4. Provide an open unobstructed view and flight path for cranes to/from the Platte River to the adjacent wet meadow.
5. Create a close replicate of the Mormon Island wet meadow characteristics, which have led to consistently high wet meadow use.

While the Service supports restoration that considers ecosystem components, it is believed that the balanced approach proposed in Attachment 1 fulfills the PRRIP's primary goal (improve conditions for the target species) by improving wet meadow habitat that would otherwise be unsuitable for whooping cranes, while maintaining a majority of the forested slough within the property. This remaining forested slough habitat would be left to continue providing benefits to other species or indirectly support species or ecosystem components that are important to target species.


Service proposed tree-removal area for whooping cranes
Approximate Binfield South Tract Boundary
Approximate TAC supported tree-removal area (south of the line) for LTPP nesting islands