

PRRIP Goals and Objectives for Pallid Sturgeon Outcomes

There are different perceptions among GC members about the Program's role and responsibilities with respect to pallid sturgeon and about what is considered a meaningful effect for pallid sturgeon. These alternative framings can be grouped into three general categories:

- **Do no harm:** The Program should be designed and managed to avoid adverse effects to pallid sturgeon and associated habitat.
- **Check for effects / test assumptions:** The Program should be designed and managed to assess if Program actions have any effect on pallid sturgeon and associated habitat, including beneficial and/or adverse effects.
- **Provide benefits:** The Program should be designed and managed to identify and deliver benefits to pallid sturgeon and associated habitat.

The different perceptions originate in part from differences in how goals and objectives have been articulated in different Program documents. Table 1 contains extracts from the founding Program Document and the Adaptive Management Program document, both from October 2006. In summary:

- Pallid sturgeon is one of four **target species**, and the Program is intended to **secure benefits** for target species.
- The Program's long term **goal is to improve and maintain associated habitats**, which for pallids, means the reach between the Elkhorn and the Missouri. The **goal includes testing the assumption** that managing flow also improves Lower Platte pallid habitat.
- The Program's First Increment objectives include an acknowledgement of uncertainties about the role of the Lower Platte in pallid recovery. All parties agreed that a stage change study would be completed and that if Program activities were "deemed to adversely affect pallid sturgeon, measures to either negate or offset such adverse impacts will be developed and implemented".
- The GC is expected to review and if appropriate revise Program goals and objectives before the end of the First Increment.
- The AMP is intended to serve Program objectives.
- Specific AMP management objectives were defined for the First Increment. The stated AMP pallid objective is to "**avoid adverse impacts** from Program actions on pallid sturgeon populations".
- It was anticipated that specific AMP management objectives might be changed based on new information.

Table 1 Relevant Extracts from founding documents

Document and Text		Summary
Platte River Cooperative Agreement (August 2006)		
Background	p. 1 The whooping crane, piping plover, and interior least tern, which are listed as threatened or endangered under the Federal Endangered Species Act, use the Central Platte River Valley in Nebraska. The pallid sturgeon , which can be found in the Lower Platte River between its confluence with the Elkhorn and its confluence with the Missouri River, is also listed as endangered. Together, these four species are the "target species" for the conservation partnership.	Pallid sturgeon is a target species
Program Purpose	p. 1 The goals of the cooperative initiative are to implement a Program which will: (1) Secure sufficient improvements to the Platte River habitat for the target species so that current and future water use in the Platte River Basin is not likely to jeopardize any of the species ; (2) Provide compliance with the Endangered Species Act for these existing and any new water uses; (3) Help prevent additional species in the Platte River Basin from becoming threatened or endangered; and (4) Ensure that any impacts on the Central Platte habitat from future water development in each state are prevented or offset within that state.	Purpose is to secure improvements to habitat so that Platte River water use is not likely to jeopardize any of the target species
Final Platte River Recovery Implementation Program ('Program Document') (October 2006)		
Preamble	p. 1 In the Platte River Recovery Implementation Program Cooperative Agreement ("Program Agreement"), the Department of the Interior ("DOI") and the States of Colorado, Nebraska and Wyoming ("the states") agreed to participate in the basin-wide cooperative program described in this Program Document and its attachments relating to four target species (interior least tern, whooping crane, piping plover and pallid sturgeon) listed as threatened or endangered pursuant to the Endangered Species Act ("ESA"), 16 U.S.C. 1531 et seq., and their associated habitats . ¹ Footnote 1: ... With respect to the pallid sturgeon, the term "associated habitat" means the lower Platte River between its confluence with the Elkhorn River and its confluence with the Missouri River . "Associated habitats" may, to the extent approved by the Governance Committee, include any critical habitat in the Lexington to Chapman reach of the Platte River basin which is subsequently designated by the U.S. Fish and Wildlife Service for the target species. The Governance Committee may agree to undertake, fund or give credit for land activities outside the associated habitats to provide biological benefits to the target species.	Pallid sturgeon is a target species. The <i>associated habitat</i> of pallid sturgeon means the lower Platte River between Elkhorn confluence and Missouri confluence.
Program Purpose	p. 1 The purpose of this Program is to implement certain aspects of the FWS recovery plans for the target species that relate to their associated habitats by providing for the following: 1. securing defined benefits for the target species and their associated habitats to assist in their conservation and recovery through a basin-wide cooperative approach agreed to by the three states and DOI; 2. providing ESA compliance for existing and new water related activities in the Platte River basin; 3. helping prevent the need to list more basin associated species pursuant to the ESA; 4. mitigating the adverse impacts of new water related activities on (1) the occurrence of FWS target flows and (2) the effectiveness of the Program in reducing shortages to those flows, such mitigation to occur in the manner and to the extent described in Section III.E.3 and in the approved depletions plans;	The Program is intended to <ul style="list-style-type: none"> • Secure benefits for target species and, • Avoid/prevent any impacts on achievement of target flows
Long-term Goal	p. 3 The Program's long-term goal is to improve and maintain the associated habitats . This goal includes: (1) improving and maintaining migrational habitat for whooping cranes, and reproductive habitat for least	The goal is to <ul style="list-style-type: none"> • Improve and maintain

Document and Text	Summary
<p>terns and piping plovers; (2) reducing the likelihood of future listings of other species found in this area; and (3) testing the assumption that managing flow in the central Platte River also improves the pallid sturgeon's lower Platte River habitat.</p>	<p>associated habitats</p> <ul style="list-style-type: none"> For pallids, this means the reach between Elkhorn and Missouri <p>The goal includes</p> <ul style="list-style-type: none"> Testing the assumption that managing flow also improves lower Platte pallid habitat
<p>First Increment Water Objectives – Lower Platte River Flows</p>	<p>p. 12. FWS believes that water related activities at times have reduced the quantity or rate of flow in the lower Platte River during the months of February through July. Consistent with the April 28, 2004 finding of the National Academy of Sciences (NAS), it is now agreed that current habitat conditions on the lower Platte River do not adversely affect the likelihood of survival and recovery of the pallid sturgeon because that reach of the river appears to retain several habitat characteristics apparently preferred by the species. However, NAS and FWS believe that further alterations of discharge patterns or channel features that modify those characteristics might irreparably alter this habitat for pallid sturgeon use, loss of Platte River habitat would probably result in a catastrophic reduction in the pallid sturgeon population, and any recovery effort for the pallid sturgeon will most likely include the lower Platte River. As stated by the NAS, the Governance Committee agrees that there are many questions about the biology of the pallid sturgeon and the role of the lower Platte River in the species recovery. While the states have not agreed with the NAS and FWS conclusions, the states and the FWS do agree that, during the first Program increment, impacts to the pallid sturgeon that are caused by Program activities or by new water related activities covered by the states or federal depletions plans will be assessed. The assessment will be conducted through the pallid sturgeon research and monitoring activities described in the Program's Integrated Monitoring and Research Plan (Attachment 3, Section V) and complimentary research conducted by others in the Missouri River and its tributaries. The assessment stage change study (Attachment 3, Section V) will be completed by the end of year 3 of the Program's First Increment. If such impacts are deemed to adversely affect the pallid sturgeon, the Governance Committee will develop and implement appropriate conservation measures that either negate or offset the occurrence of adverse impacts on the pallid sturgeon....</p> <p>There are uncertainties about the role of the Lower Platte in pallid recovery. However, all agree that during the first Increment, impacts to pallid sturgeon caused by Program activities or new state/federal depletion plans will be assessed.</p> <p>The Parties agree that a stage change study will be completed and that if Program activities are deemed to adversely affect pallid sturgeon, measures to either negate or offset such adverse impacts will be developed and implemented.</p>
<p>Evaluating / modifying Program goals</p>	<p>p.19 At least three years before the end of the First Increment, the Governance Committee will develop a process and timeframe for evaluating the First Increment.... The purpose of these evaluations is to weigh whether Program goals, objectives, activities, and criteria should be modified or should continue unchanged.</p> <p>Goals etc. can be modified by the GC for the Second Increment</p>
<p>PRRIP Adaptive Management Plan (October 2006)</p>	
<p>Management objectives</p>	<p>p. 1 The Governance Committee recognizes the importance of implementing the AMP in attempting to achieve the following overall management objectives for whooping cranes, least terns, piping plovers, and pallid sturgeon:</p> <ol style="list-style-type: none"> Improve production of least tern and piping plover from the central Platte River. Improve survival of whooping cranes during migration. <p>The AMP is a means of achieving Program management objectives</p> <p>AMP management objective for pallids is</p>

Document and Text	Summary
<p>3) Avoid adverse impacts from Program actions on pallid sturgeon populations.</p>	<p>to avoid adverse impacts. This is more narrowly defined than for other target species, and more narrowly defined than for the Program.</p>
<p>Process for changing management objectives</p> <p>p. 1 The Governance Committee does not anticipate that these three overall management objectives will be modified, but the underlying management objectives related to the means of achieving these objectives, as described in Section IV.A and B. of this document, may be changed through the process described in 1), 2), and 3) below.</p> <p>1) If information developed through the AMP, or other information, justifies changing a management objective, the Governance Committee may do so and will develop and implement new practices intended to achieve the changed management objective.</p> <p>2) If information developed through the AMP, or other information, justifies abandoning a management objective the Governance Committee may do so.</p> <p>3) If information developed through the AMP or other information, indicates a particular practice to achieve a management objective is not working and the management objective is neither modified nor abandoned, the Governance Committee will develop and implement alternative practices intended to achieve the same adaptive management objective.</p>	<p>GC does not expect to change the three overall AMP management objectives</p> <p>However, the more specific management objectives related to achieving them can be changed or abandoned.</p>
<p>Detailed management objectives</p> <p>From section IV A and B. p 20. The following is a preliminary list of overall management objectives for the First Increment of the Program. These objectives were developed by the AM Work Group.</p> <p>1) Improve production of Least Tern and Piping Plover from the central Platte River</p> <p>a) Increase number of fledged tern and plover chicks</p> <p>i) Increase nesting pairs (indicator is nesting pairs)</p> <p>ii) Increase fledge ratios (indicator is chicks successfully produced per unit adult, nest or pair) and reduce chick mortality from causes such as flooding, predation, weather, inadequate forage.</p> <p>b) Reduce adult mortality</p> <p>i) Reduce predation (indicator is nesting pairs)</p> <p>2) Improve survival of Whooping Cranes during migration</p> <p>a) Increase availability of whooping crane migration habitat along the central Platte River (indicators are the area of suitable roosting habitat, area of suitable foraging habitat, proportion of population, crane use days, etc.).</p> <p>3) Avoid adverse impacts from Program actions on Pallid Sturgeon populations</p> <p>a) Indicators have not been identified as more research is needed to determine what potential indicators the Program may affect.</p>	<p>The AMP objectives are for the First Increment</p> <p>There is a mismatch in level of detail across the AMP management objectives. The reason given is that not enough is known to define specific indicators for pallid sturgeon.</p>