ENVIRONMENTAL ACCOUNT
2017 WATER YEAR ANNUAL OPERATING PLAN
November 7, 2016 – Draft Plan

SUMMARY

This upcoming water year (2017), the U.S. Fish and Wildlife Service (Service) lists the spring whooping crane, and the spring and summer pulse releases as high priority. The Service is anticipating ample Environmental Account water and is planning to use it in the most effective manner. Possible releases during the upcoming water year are listed in Table 1 below.

BACKGROUND

An Environmental Account (EA) of water in Lake McConaughy in Nebraska was established on October 1, 1999, as per Central Nebraska Public Power and Irrigation District (CNPPID) and Nebraska Public Power District (NPPD) (collectively, Districts) Federal Energy Regulatory Commission (FERC) licenses, for Project 1417 and Project 1835, respectively. The EA is managed by an EA Manager appointed by the U.S. Fish and Wildlife Service (Service) and was established primarily to benefit four federally listed threatened or endangered "target" species (*i.e.*, whooping crane, interior least tern, piping plover, and pallid sturgeon). The EA Manager is required to develop an Annual Operating Plan (AOP) for releases from the EA in coordination with the EA Committee (a subcommittee of the Platte River Recovery Implementation Program [PRRIP or Program]) by the end of October of each year. Guidelines and operating rules for the EA are described in the FERC licenses and in Attachment 5, *An Environmental Account for Storage Reservoirs on the Platte River System in Nebraska*, of the *Platte River Recovery Implementation Program*.

Water Year 2017 Environmental Account Release Priorities

Release priorities for the EA are based on the 1994 Service document titled: *"Instream flow recommendations for the Central Platte River, Nebraska (Instream Flow document)."* EA release priorities for water year 2017(WY17) are listed in Table 1 below.

Table 1: EA releases for WY17 including priority.

Date	*Target Flow (cubic feet/sec [cfs])*		*Purpose*	*Priority*
	Normal	Wet		
Feb 15-Mar 15	3,350	3,350	Channel maintenance & wet meadow recharge	High
Mar 23-May 10	2,400	2,400	Whooping crane	High
May 11-Sept 15	1,200	1,200	Terns and plovers, aquatic community	Medium
May 20- June 20[1]	>3,000	>3,000	Channel maintenance, pallid sturgeon	High
Oct 1-Nov 15	1,800	2,400	Whooping crane; waterfowl	Medium

[1] Flows in excess of 3,000 cfs should be maintained for the duration of 7 to 30 days.

An estimate of the WY17 EA carry-over (without releases) is included below.

Table 2: EA carryover accounting

Source	*Volume (acre feet)*
WY2016 Carry-Over	114,569#
NCCW (Delivered 10/1/2016)	314
Pathfinder Modification & Municipal	+8,000*
10% Storable Natural Inflows (projected)	+56,700
Evaporation & Seepage Loss (median 2000-2016)	-9,020
WY17 EA Carry-Over(without releases)	**170,563**

#Includes 22,850 acre feet of delivered water Pathfinder Modification and Municipal accounts before October 1, 2016.
*Quantity (estimate) of Pathfinder water not credited to EA before October 1, 2016.

Summary of Water Year 2017 Release Priorities

High priority uses for the upcoming water year are: implementing the spring whooping crane release, and the channel maintenance releases during late winter and late spring. High flows, ice, or other factors may limit the Service's ability to perform the high priority releases, and then the medium priority releases will be attempted. Information about both the high and medium priority releases (in chronological order) is summarized below.

February 15 to March 15 (Channel Maintenance/Wet Meadow Recharge) Release
Priority - High

Purpose - Referencing the Service's 1994 Instream Flow document, the February 15 to March 15 EA release, is based on the Service priorities to: a) redistribute sediment in the active channel and maintain the geomorphology of the channel to target bird species, migratory birds and aquatic community; b) scour vegetation from the channel islands; and c) recharge wet meadows to benefit migratory birds.

Good Neighbor Conflicts and Other Conflicts - The release would not require bypass at the CNPPID diversion. Flow releases would maintain ramp rates at safe levels for the Keystone Canal and the North Platte River. The priority release would not require the retiming of water at Lake Maloney, Jeffrey Reservoir, or Johnson Lake.

The release has the potential to impact canal operators along the upper reaches of the central Platte River. In addition, this release will not be made if there is presence of ice on the river that may result in ice jamming and subsequent flooding.

Recommended Actions Prior to EA Release – An EA Committee should be formed to develop an action plan for this release. The action plan should identify operational logistics such as ramp rates for the North Platte River and ice conditions that would terminate the release. The action plan should also project EA conveyance at selected sites that would allow for verification with measured data. Coordination with landowners, canal operators, county emergency officials, and the National Weather Service should occur in advance of the release.

March 23 to May 10 (Whooping Crane) Release
Priority - High

Purpose – A flow of 2,400 cfs is expected to optimize in-channel habitat for the whooping crane under normal and wet year types.

Good Neighbor Conflicts and Other Conflicts - The priority release would not require bypass at the CNPPID diversion. Flow releases would maintain ramp rates at safe levels for the Keystone Canal and the North Platte River. The release would not require the retiming of water at Lake Maloney, Jeffrey Reservoir, or Johnson Lake.

May 11 to September 15 (Tern and Plover/Aquatic Community) Release
Priority – Medium

Purpose - The target flow of 1,200 cfs under normal and wet year types is required to: a) prevent least terns and piping plovers from nesting on low elevation sandbars; b) maintain high diversity of aquatic habitats for the aquatic community; c) reduce the frequency of lethal water temperature maximums to protect aquatic organisms; d) maintain habitat for the fish community; and e) prevent encroachment of non-native aquatic species.

Good Neighbor Conflicts and Other Conflicts - Release could be affected by the capacity limited at the North Platte chokepoint. The Service will coordinate with CNPPID to ensure releases do not exceed flood stage at North Platte. The release would not require bypass at the CNPPID diversion. Flow releases would maintain ramp rates at safe levels for the Keystone Canal and the North Platte River. The priority release would not require the retiming of water at Lake Maloney, Jeffrey Reservoir, or Johnson Lake.

May 20 to June 20 (Channel Maintenance; Pallid Sturgeon) Release
Priority – High

Purpose – The target pulse flow from May 20 to June 20 is intended to: a) maintain and enhance the physical structure of wide, open, unvegetated, and braided river channel, b) maintain and rehabilitate aquatic characteristics of large river habitats in the lower Platte River for animals such as the endangered pallid sturgeon; c) maintain and enhance the occurrence of soil moisture and pooled water for lower trophic levels of the food chain in lowland grasslands; and d) maintain and rehabilitate backwaters and side channels as spawning and nursery habitats for the aquatic community. The pulse target under normal and wet conditions attempts to maintain a flow greater than 3,000 cfs for 7 to 30 days; however, channel capacity on the North Platte River at North Platte may limit the duration of this release.

Good Neighbor Conflicts and Other Conflicts – Release could be affected by the capacity limited at the North Platte chokepoint. The Service will coordinate with CNPPID to ensure releases do not exceed flood stage at North Platte. The priority release would not require bypass at the CNPPID diversion. Flow releases would maintain ramp rates at safe levels for the Keystone Canal and the North Platte River. The release would not require the retiming of water at Lake Maloney, Jeffrey Reservoir, or Johnson Lake.

October 1 to November 15 (Whooping Crane) Release
Priority - Medium

Purpose - A flow of 2,400 cfs is expected to optimize in-channel habitat for the whooping crane under a wet year. A flow of 1,800 cfs is expected to maintain in-channel habitat for the whooping crane under normal year will limit steep declines in weighted usable area.

Good Neighbor Conflicts and Other Conflicts - Release could be affected by the capacity limited at the North Platte chokepoint. The Service will coordinate with CNPPID to ensure releases do not exceed flood stage at North Platte. The release would not require bypass at the CNPPID diversion. Flow releases would maintain ramp rates at safe levels for the Keystone Canal and the North Platte River. The release would not require the retiming of water at Lake Maloney, Jeffrey Reservoir, or Johnson Lake.