

APPENDIX C.

J-2 HYDROCYCLING AGREEMENT

Between

The Central Nebraska Public
Power & Irrigation District

and

U.S. Fish and Wildlife Service

This agreement dated as of August 13, 2007 sets forth the operational procedures pursuant to which The Central Nebraska Public Power & Irrigation District (Central), and the United States Fish and Wildlife Service (Service) (and collectively referred to as Parties) have agreed that the J-2 hydro unit at the J-2 Return should be operated for the purpose of addressing various concerns of the Service regarding the impact which the current storage and release operations ("hydrocycling" or "cycling") may be having on listed species and their habitat.

The Parties agree as follows:

1. Central will, effective upon the execution of this agreement, use its best efforts to operate the J-2 hydro unit in accordance with the attached Appendix A.
2. Central will identify the potential for hydrocycling operations during the time periods in Appendix A to the EA Manager in writing at least two weeks prior to the starting date of the potentially affected time period, except that if cycling is implemented because flow conditions are different than anticipated, Central will notify the EA Manager of the use of cycling by email no later than the next working day after cycling begins. In addition, Central will respond to any requests by the EA Manager for projections or updates on potential cycling as part

of the day-to-day communications with the EA Manager. When cycling, Central shall maintain records and make data available to the EA Manager as described in Appendix A. The Parties understand that flow and stage data at Overton and Kearney are available online from DNR.

3. The Parties will support, advocate and cooperate with Program efforts to collect baseline data which can also be used to evaluate species and habitat conditions associated with the operating commitments in Appendix A. Specifically, the Parties assume that for so long as there is a Program, the Program will provide monitoring during the identified time periods for Appendix A operations for inundation of riverine tern and plover nests and fledglings, and daily monitoring for and tracking of any whooping cranes that stop along the Platte River, using overflights and/or ground personnel. The Parties further understand that the Program will, through its Adaptive Management Plan, implement investigations intended to evaluate ephemeral sandbars and the adequacy of forage fish and invertebrate populations. If there are issues identified through those evaluations regarding the adequacy of survival of ephemeral sandbars or the adequacy of forage fish or invertebrate populations, the role, if any, of hydrocycling, will be evaluated as part of Program investigations which also evaluate other potential factors. In the event of Program failure, responsibilities under the Districts' FERC-approved monitoring plan may be altered to include additional measures to evaluate species and habitat conditions including those used to evaluate operations under Appendix A. Such changes will be made through the agency/Districts coordination provisions of the FERC license articles on

monitoring and the FERC-approved monitoring plan, and will be subject to the overall cost limitations of that plan.

4. The Service provides an Incidental Take Statement and supporting Biological Opinion incorporating the operating commitments in Appendix A coincident with the signing of this agreement.
5. The term of this agreement shall coincide with the term of Central FERC license unless terminated by either party upon at least 60 days notice.
6. With the mutual consent of the parties and of the Nebraska Public Power District for so long as NPPD purchases Central's power, adjustments to the time of day of daily flow increases in the operating commitments in Appendix A may be made seasonally due to seasonal river flow conditions and/or long term patterns of use by whooping cranes downstream of the J-2 Return. Requests for such changes will be made if feasible as part of the development of the EA Manager's annual plan, and at least ten (10) days prior to scheduled cycling.
7. In the event allowable incidental take is exceeded, Central shall inform the Service immediately and, in coordination with the Service, attempt to expeditiously resolve the issue. The Parties agree that Central should continue to operate consistent with the Agreement pending evaluation, discussion and resolution of take issues. The Parties retain the option to modify the Agreement by mutual consent.

Agreed to by


THE CENTRAL NEBRASKA PUBLIC POWER
& IRRIGATION DISTRICT

8-6-07
(Date)

By 
GENERAL MANAGER (Title)

U.S. FISH AND WILDLIFE SERVICE

8/13/07
(Date)

By 
Program Supervisor (Title)

Appendix A

Except as described below, cycling operations of the J-2 hydro will not be restricted.

Resource: Least tern and piping plover nesting

May 1 to May 30. During the first seven days of May, cycling operations of the J-2 hydro will not be restricted, in order to encourage tern and plover nesting at higher elevations. To reduce the likelihood of nest inundation, when cycling during the remainder of May, Central will use best efforts to operate the J-2 hydro so that peak flows are similar to or less than a benchmark flow at Overton.

Typically, the benchmark flow will be set at the peak at the Platte River gage near Overton over the previous 48 hours. To avoid setting an extremely low benchmark if an outage or other circumstances lead to little or no discharge for 48 hours, the benchmark will not be set lower than the initial benchmark set for the previous June 1 to August 15 under the Flow Attenuation Plan (FAP). The benchmark is expected to adjust with conditions. For example, a higher flow event during the previous 48 hours will create a higher benchmark for subsequent J-2 operations. Benchmarks may be adjusted in response to stage gauge calibration shifts by USGS or the State of Nebraska to reflect the intent to keep river stage, rather than river flow, below a particular mark.

At times when Central is not cycling J-2 during May, there will be no requirements to operate J-2 to achieve or avoid achieving any flow at Overton.

June 1 to August 15. When cycling occurs during this time, Central will use best efforts to operate the J-2 hydro to keep flows at Overton at or below the benchmark flow rate then in effect under the FERC-approved Flow Attenuation Plan (FAP) established pursuant to License Article 412. For example, if the benchmark in the FAP is set at 1,400 cfs, J-2 cycling may occur if best efforts are made to keep Overton flows at or below that benchmark. Benchmarks may be adjusted in response to stage gauge calibration shifts by USGS or the State of Nebraska to reflect the intent to keep river stage, rather than river flow, below a particular mark.

Reporting. Reporting of the District's cycling operations in May and during the period covered by the FAP will be included in the report of FAP activities that is submitted to the EA Manager after August 15 of each year. Data on average daily diversions into the Central Supply Canal and hourly data on J-2 discharge, Johnson Lake level and Phelps canal inflows will be provided electronically in conjunction with Central's monthly report to the EA Manager for periods when cycling operations are used. Central will identify to the EA Manager in that report any instances when cycling operations different from those described in the Agreement were implemented due to a Contingency, will identify the Contingency, and will provide hourly gage data at Overton of flows that exceed the benchmark in any case when Central is hydrocycling during the period covered by this section of the Agreement.

Resource: Whooping cranes

From March 18 to April 30 and from October 17 to November 10 of each year, and on any additional days beginning when whooping cranes are shown to be present until they have departed, to lessen the overnight rise in river stage downstream of the J-2 Return when cycling the J-2 hydro, except under contingencies as identified below Central will use its best efforts to operate the J-2 hydro within the following guidelines:

Timing of Changes. When water is being returned at the J-2 River Return, Central will make most load changes between 5 AM and 10 AM. Smaller load changes (described in step four (4) of the sequencing below) that do not create a significant increase in the stage at Overton will be made at any time. Modifications to the timing of changes may be made with the mutual consent of the parties and of the Nebraska Public Power District (NPPD) for so long as NPPD purchases Central's power.

Limits on Magnitude of Changes. Central can only operate the J-2 hydro at 25% wicket gate position (WGP), approximately 450 cfs, 50% WGP, approximately 1,050 cfs, and higher to avoid causing cavitation damage to the unit.

Sequencing of Flow Increases.

The sequence below will be used to increase flows from shutdown. If J-2 has already been operating at 25% WGP or 50% WGP for more than one day, the sequence will begin at step 2 or step 3 respectively.

1. J-2 will be brought online between 5 AM and 10 AM and operated at 25% WGP at least until the following morning.
2. If Central desires to increase the discharge during the second day of the cycle, the J-2 hydro can be increased from 25% WGP to 50% WGP between 5 AM and 10 AM.
3. Between 5 AM and 10 AM on the third day of operation (if flows were increased to 50% WGP the previous morning), the J-2 hydro can be increased from 50% WGP to any desired flow rate up to 75% WGP (about 1,750 cfs).
4. Once operating above 50% WGP, Central may increase the load at the J-2 hydro at any time provided the total increase in flow at the J-2 River Return over 10 hours is not more than 400 cfs. (Flow at the J-2 river return is currently calculated as the J-2 hydro discharge minus the Phelps Canal diversion.)

Flow Decreases. The J-2 hydro can be shut down and the above sequence can be terminated at any time. There will be no limitations on the rate of decline. Following the operation of the J-2 hydro as described above, the hydro is expected to be shutdown for one or more days as the system refills.

Return of Environmental Account and Program Water. When Central is cycling as described above, EA releases and other Program water will be regulated within Central's system and returned along with other water in accordance with the 4 step process.

Reporting. Data on average daily diversions into the Central Supply Canal and hourly data on J-2 discharge, Johnson Lake level and Phelps Canal inflows will be provided electronically in conjunction with Central's monthly report to the EA Manager for periods when cycling operations are used. Central will identify to the EA Manager in that report any instances when cycling operations different from those described in the Agreement were implemented due to a Contingency and will identify the Contingency in any case when Central is hydrocycling during the period covered by this section of the Agreement.

Contingencies

Central may not operate within the guidelines under emergency conditions or when necessary to comply with FERC license conditions or other operational constraints including legal or legislative barriers, non-routine inspection and maintenance of facilities, failure of a structure, necessary repair of facilities, hydraulic limitations of facilities, weather related events such as icing conditions or high wind conditions, or existence of an emergency condition which is not otherwise predicted, including being called upon under its contractual obligations to respond to an emergency called by MAPP or a successor organization¹. Central may also in some instances be required to provide 450 cfs in cooling water to Canaday Steam Station if necessary to comply with state NPDES temperature limits. When Central is bringing Phelps Canal into service for the irrigation season and adjusting flows into the Phelps Canal, Central may cycle the turbine at its discretion provided that flows returned to the river rather than directed into the Phelps Canal are similar in timing and magnitude to the operations described above. Further, if additional studies/testing or physical changes in the plant show that the operating range in which cavitation is a significant concern is different than the limitations described above, the operating points may need to be revised to avoid cavitation damage. If new facilities are constructed or current facilities are operated to lessen the overnight rise in river stage downstream of the J-2 Return when cycling the J-2 hydro, operation of the J-2 hydro may be modified. Modification of the operating points would be the subject of further analysis and may require additional consultation between the Parties.

¹ The Mid-Continent Area Power Pool (MAPP) is an association of electric utilities and other electric industry participants that provides for regional generation reserve sharing within the upper Midwest. MAPP works through the Midwest Reliability Organization (MRO) on ensuring the reliability of the bulk power system in the North Central part of North America.