

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

Attachment 5

Section 8

**Nebraska New Depletion Plan
For the Platte River Recovery Implementation Program**

December 7, 2005

Updated June 2, 2009

I. Extent of Obligation Relative to New and Expanded Uses of Water

This draft plan describes the actions Nebraska proposes to take to prevent or mitigate for new depletions to United States Fish and Wildlife Service (USFWS) target flows (target flows) to the extent those new depletions are caused by new and expanded uses of water, i.e. those begun or expanded on or after July 1, 1997. Implementation of this plan would serve the following purposes of the Platte River Recovery Implementation Program as described in subsection I.A.4 of the Program Document:

“mitigating the adverse impacts of new water related activities on (1) the occurrence of FWS target flows (as described in Section III.E.1.a) 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.”

Water related activities that were begun prior to July 1, 1997 and are not expanded after that date are not subject to this plan, but will have Endangered Species Act (ESA) coverage under the Platte River Recovery Implementation Program as long as such a Program continues to exist.

Implementation of this plan will occur primarily through actions taken by the Nebraska Department of Natural Resources (NDNR) and by the up to seven natural resources districts (NRDs) that have land area subject to this plan. The dates in this plan are based on an assumption that either (1) decisions to implement a Platte River Recovery Implementation Program will be made by the Department of the Interior and by the Governors of Nebraska, Colorado and Wyoming by January 1, 2006 or (2) all of the geographic area for which new surface water and ground water uses would be subject to this plan after December 31, 2005 will be under a stay or moratorium on new uses by January 10, 2006. If neither assumption proves to be correct, changes may be needed in the implementation dates for this plan. Such changes will be subject to Governance Committee approval. Implementation is also subject to the authorities granted by and limitations of Nebraska statutory and case law and to sufficient funds being appropriated by the Nebraska legislature and/or raised by the natural resources districts involved.

The details of how this plan will be implemented depend on the time of initiation of a new use that causes a depletion to the Platte River or tributary thereof. Depletions to USFWS “target flows” and to “state-protected flows” (both terms are defined later in this document) because of groundwater and surface water uses begun or expanded between July 1, 1997 and December 31, 2005, regardless of where located, will be estimated and will be offset in quantity, time and location according to the schedule set forth in Part IV of this plan. The responsibility for

implementing such offsets will rest with the state except to the extent such offsets are required because (a) the new use causing the depletion is subject to the Federal Depletions Plan or (b) a person or entity other than the state has assumed responsibility for offset for specific new depletions.

Beginning on January 1, 2006, the responsibility for implementing this plan will be shared between the state and the NRDs involved. To the extent that new uses of groundwater require permits from NRDs (presently includes all new wells with pumping capacities greater than 50 gpm), the following new and expanded groundwater uses begun on or after January 1, 2006 (including any for which the purpose is to increase the water supply in a river basin other than the Platte River Basin) will not be allowed **unless** the adverse effects of those uses on state-protected flows and on target flows will be offset: uses that (a) are located within the North Platte, South Platte or the Platte River watershed in Nebraska and (b) are so located and constructed that if water were intentionally withdrawn for 40 years, the cumulative stream depletion to the North Platte, the South Platte, the Platte River or a base flow tributary thereto upstream of Chapman, NE would be greater than or equal to 28% of the total groundwater consumed as a result of the withdrawals from those wells. The relative responsibilities for providing offsets for uses that are initiated will vary depending on the nature of the use and the extent to which it causes new depletions to state-protected flows and/or to target flows. For new or expanded uses of groundwater that are not subject to the Federal Depletions Plan, are within the geographic area described in (a) and (b) above, but do not require permits from NRDs (e.g. less than 50 gpm wells), the cumulative impact of all such uses and of any offsetting decreases in uses of the same type will be estimated and the adverse net effects on state-protected flows and on target flows will be offset by the state.

To the extent that the Department of Natural Resources (DNR) has jurisdiction over new uses of surface water (presently includes all diversions from natural streams except those for instream livestock watering and all on-stream storage reservoirs greater than 15AF), new uses to be begun on or after January 1, 2006 (including any for which the purpose is to increase the water supply in any river basin other than the Platte River Basin) will not be allowed by the department unless any adverse effects on state-protected flows and target flows are either prevented or are offset. The extent to which the new surface water appropriator or the state is responsible for the offset will depend on the nature of the use and the extent to which it causes new depletions to state-protected flows and/or to target flows. For new or expanded sandpits and other surface water bodies that do not require permits from DNR (e.g. some new reservoirs with less than 15AF storage capacity), the cumulative impact of all such uses will be estimated and adverse effects on state-protected flows and on target flows will be estimated and will be offset by the state. Nebraska has not permitted any new surface water storage reservoirs in the Platte River Basin upstream of the confluence of the Platte River with the Loup River since July 1, 1997 and currently has a moratorium on the issuance of any new surface water appropriations in that area. If that moratorium were to be lifted or modified during the term of the Program, the ESA compliance coverage provided for new surface water storage reservoirs through implementation of the Program (including this depletions plan) will include compliance coverage for (1) the depletions to target flows that are caused by all such Nebraska reservoirs constructed after that date, regardless of storage capacity; (2) the impacts to FWS peak flows that are caused by Program-approved reservoirs, regardless of storage capacity, that are implemented after that date

in accordance with the Water Action Plan; and (3) as long as the storage capacities of all other Nebraska reservoirs constructed or permitted for construction in that part of the basin after Program initiation do not collectively exceed 10,000 acre feet, the impacts to FWS peak flows that are caused by any such other reservoir. Any need to mitigate separately for adverse peak flow impacts caused by a new Nebraska reservoir that is subject to ESA Section 7 consultation (other than a reservoir that is to be implemented in accordance with the Water Action Plan) after that collective storage capacity has been exceeded shall be determined during that Section 7 consultation.

Nebraska's Cooperative Hydrology Study models and other tools will be used by the state and the NRDs to determine the amount, timing and location of depletions to state-protected flows and target flows and also to evaluate the effectiveness of proposed offset projects. In all cases, the offset objective will be to replace the water depleted in the amounts needed and at the times and locations needed to prevent harm to the water uses and/or the target flows for which such flow protection is required. All offset measures shall be constructed and operated or implemented so that they do not cause additional shortages to either target flows or state-protected flows.

II. Definitions

- A. **Base Flow Tributary**—Any stream or drain that, for purposes of Nebraska's Cooperative Hydrology Study (COHYST) models, is considered to have contributed base flow to the Platte River under 1997 development conditions. A map showing the streams, stream reaches and drains that are considered to be base flow tributaries is attached as Attachment 1.
- B. **State-Protected Flows**—The rates of flow in specified reaches of the North Platte, South Platte, and Platte Rivers and their base flow tributaries at or above Chapman, NE that would be available under July 1, 1997 surface water and groundwater development conditions and that are needed to: (1) satisfy Nebraska natural flow and storage appropriations above Chapman and in effect when a new use is proposed; (2) satisfy Nebraska instream flow appropriations above Chapman and in effect when a new use is proposed; (3) recharge aquifers above Chapman, but only to the extent needed to prevent loss of available water supply, as opposed to reductions in water levels, for then existing Nebraska groundwater users; and (4) implement the Platte River Recovery Implementation Program's Water Action Plan, the objective of which is to reduce target flow shortages.
- C. **Target Flows**—The following flows, unless and until modified by the Program's Governance Committee, are the target flows for the reach of the Platte River from Lexington to Chapman, NE, that will be used to determine when and to what extent depletions caused by uses subject to this plan must be offset.

<i>Time Period</i>	Target Flow (cfs)	
	<i>Wet and Normal Periods</i>	<i>Dry Periods</i>
Jan. 1 to Jan. 31	1,000	600
Feb. 1 to Feb. 14	1,800	1,200
Feb. 15 to March 15	3,350	2,250
March 16 to March 22	1,800	1,200
March 23 to May 10	2,400	1,700
May 11 to May 19	1,200	800
May 20 to June 20	3,700(wet) 3,400(normal)	800
June 21 to July 31	1,200	800
August 1 to Sept. 15	1,200	800
Sept. 16 to Sept. 30	1,000	600
Oct. 1 to Nov. 15	2,400(wet) 1,800(normal)	1,300
Nov. 16 to Dec. 31	1,000	600

For the purpose of determining whether a specific time period is wet, normal or dry, the methodologies approved by the Governance Committee for the Platte River Recovery Implementation Program will be utilized (Attachment 5, Section 4, III B-F).

III. Sources of Offset Water

The following water sources may be used to offset depletions for which mitigation is required by this plan:

- The portions of the yields from the following Reconnaissance-Level Water Action Plan projects reserved by Nebraska for offset purposes: the CNPPID reregulating reservoir, groundwater mound management, the Dawson/Gothenburg Canal recharge project, and power interference.
- Water leasing and water right transfers
- Water management incentives including but not limited to: irrigation system conversions, changes in tillage practices, changes in cropping mix, and deficit irrigation
- Retirement of or reduction in consumption by existing surface water and groundwater uses
- Other groundwater recharge/retiming projects
- Construction of new surface water storage projects
- Purchase of storage water from existing surface water storage projects
- Pumping groundwater directly into a stream
- Converting from surface water to groundwater to eliminate a portion of the depletion or to change the timing of the depletion

- Relocating the point of groundwater withdrawal so that the depletion is reduced and/or the timing is changed
- New controlled drainage projects
- Other offset projects as feasible and appropriate

Specific offset projects will not be selected for implementation until the amount, timing and location of depletions that must be offset has been determined.

IV. Schedule and Reporting

- By January 1, 2007, the state will report the amount of new and expanded water use in the COHYST modeled area begun between July 1, 1997 and December 31, 2005 and the amount, timing, and location of any depletions to target flows because of such new uses.
- By December 31, 2010, the state (or other responsible person or entity when applicable) will (a) put into place the measures necessary to offset in amount, timing and location then existing depletions to target flows and to state-protected flows caused by new water uses that are not subject to the Federal Depletions Plan and are begun between July 1, 1997 and December 31, 2005 and/or (b) will indicate the extent to which it intends to rely on water from one or more Program water projects that have not yet been completed but for which yields are reserved by Nebraska for the purpose of providing such offsets. To the extent that option (b) is utilized, the state shall at the same time demonstrate its preparedness to assume its proportionate share of the responsibility to complete that Program project. In the event that it is determined by the Governance Committee that a Program water project relied upon by Nebraska under option (b) either will not be implemented at all or that the operational date for such project will be delayed by more than two years past the operational date projected by the Governance Committee at the end of Year 3 of the First Increment, Nebraska will, no later than two years after such originally projected operational date, implement such other interim or permanent offset measures as are necessary to fulfill its extant offset obligation. Offset measures for depletions that are caused by such new (7-1-97 to 12-31-05) water uses but that do not occur until after December 31, 2008 will be put into place as necessary to offset such new depletions in amount, timing and location by the time they occur, or the state will indicate the extent to which it intends to utilize option (b) above for that purpose. Reliance on option (b) as the means for achieving such offsets will be subject to the same conditions as described above.
- Each year, commencing in 2007 and continuing as long as the First Increment of the Program remains in effect, the state will provide the Governance Committee with a report containing the following information for the preceding year: (1) any permitted new and expanded uses of surface water subject to this plan; (2) any permitted new and expanded uses of groundwater subject to this plan; (3) the collective amount, timing, and locations of the depletions to target flows because of those new and expanded uses; (4) the collective amount, timing, and locations of all mitigation required by the NRDs or otherwise documented (e.g. reductions in other water uses) or to be provided; and (5) the collective amount, timing, and locations of any additional measures to be implemented by

the state to satisfy all mitigation elements required because of new depletions to target flows. To the extent that the NRD required offsets, i.e. those needed because of depletions to state-protected flows, collectively fail to provide sufficient offset of depletions to target flows to cover the mitigation required because of new and expanded uses begun on or after January 1, 2006, additional offset measures will be implemented within two years after the date those new and expanded uses are initiated or will be implemented by the time the depletions to the flows actually occur, whichever is later.

- Starting in 2010 and every five years thereafter, the state also will begin to conduct a new land use inventory and will collect such other information as is necessary to assess the sufficiency of the combined NRD required and state offset measures implemented because of new and expanded uses of surface water and groundwater subject to this plan. Such assessment shall be completed by December 31 of the year following the year the assessment was begun. If that assessment indicates that more offset measures have been put in place than this plan requires to fully mitigate for the new depletions to target flows since the last such assessment, the amount of the excess shall be available to offset future new depletions. If the assessment indicates that additional offset measures need to be put in place, the state will identify the amount, timing, and location of the offset water to be provided by such additional measures. Within two years after the completion of the assessment, the state will put in place any such required additional offset measures. All such offset measures shall be constructed and operated or implemented so that they do not cause additional shortages to either target flows or state-protected flows.

While new and expanded uses of groundwater that are begun on or after January 1, 2006 and are outside the watershed boundaries of the North Platte, South Platte and Platte Rivers and/or the 28% in 40 year lines are not subject to this plan and therefore do not require mitigation for any adverse effects on state-protected flows or target flows, the state, as part of its assessment every five years, will use well registration records and other available information to determine the extent and distribution of such new groundwater uses. Following such assessments, the state will report the following additional information to the Governance Committee:

- By January 1, 2012 and every five years thereafter through the end of the First Increment of the Program, the state will report on the results of its most recent assessment as outlined above.
- By December 31, 2013 and every five years thereafter through the end of the First Increment of the Program, the state will report, as applicable, the amount, timing and location of any excess offsets that are available to offset future new depletions or the amount, timing, and locations of water being provided because of any additional offset measures taken to make up for any offset shortages identified in the previous assessment and which result from new and expanded uses subject to this plan.

If it is determined prior to the end of a Program increment that the aggregate new depletions to target flows associated with all Nebraska uses that are initiated or expanded after January 1, 2006 and are outside the watershed boundaries of the North Platte, South Platte and Platte Rivers

and/or outside the 28% in 40 year lines will exceed an average of 2,000 AF per year by the end of the next Program increment, Nebraska understands that, for such subsequent increment, the depletion plan exemption for any such additional new or expanded uses may not be acceptable to the Governance Committee.

V. Tasks Remaining to be Completed as Implementation Occurs

For this plan to be fully implemented, the following additional tasks need to be completed:

- a. Refine the COHYST models as needed following the completion of peer review;
- b. Determine the extent of any increase in irrigated acreage in the COHYST modeled area between 1997 and 2005;
- c. Determine the extent of any increase in average annual consumptive water use by municipalities, industries, rural domestic and other new water related activities in the COHYST modeled area between 1997 and 2005;
- d. Determine the amount, timing and location of any depletions to the Platte River or a base flow tributary because of any increase described in b. or c. above;
- e. Determine by stream reach and time period the flows that will serve as state-protected flows for purposes of this plan;
- f. Develop a tracking system to route depletions described in d. above downstream to locations where those depletions adversely affect state-protected flows and/or target flows;
- g. Quantify by stream reach and time period the extent to which the increases described in b. and c. above cause depletions to state-protected flows and/or target flows;
- h. Determine what measures will be utilized to offset, in amount, timing and location, the depletions quantified as per g. above;
- i. Secure funding for and implement the measures identified in h. above.
- j. Establish 12-31-05 baselines for irrigated acreage within the Platte River Basin and inside the 28% in 40 year lines;
- k. Establish 12-31-05 baselines for municipal, industrial, rural domestic and other water related activities within the Platte River Basin and inside the 28% in 40 year lines and determine methods to be used to measure increases and decreases in consumptive water use thereafter;
- l. Determine methods to be used to measure post 2005 changes in water consumption for municipal, industrial and other water related activities inside the COHYST modeled area but outside the Platte River Basin and/or the 28% in 40 year lines; and
- m. Adopt and implement, in at least six natural resources districts, integrated management plans governing the initiation of new water related activities and the expansion of water related activities that have been initiated through 2005; such plans will encompass at least the geographic area that is within the Platte River Basin and inside the 28% in 40 year lines for the Platte and base flow tributaries.

Nebraska will brief the Governance Committee as these tasks are completed. Any resulting work products may be reviewed by the Governance Committee and any such products that are comparable to Governance Committee approved elements of the other states' depletion plans will be subject to Governance Committee approval. The work products that are subject to approval will include, but are not necessarily limited to: use of the COHYST models in the implementation of the new depletion plan (including establishment of the 28% in 40 years lines);

the tracking system used to route depletions; and the baselines for irrigated acreage and for municipal, industrial, rural domestic and other water related activities.

VI. Section 7 ESA Consultations for New Water Related Activities with a Federal Nexus

This section, including the flow chart that follows, is intended to explain and illustrate: (1) how consultations between FWS and federal action agencies will proceed when Section 7 ESA consultations are required on proposed new water related activities in Nebraska; (2) the function of this plan relative to such consultations; and (3) how the role of the State and any other party with responsibility for implementing any depletion offsets or other required reasonable and prudent alternatives will be formalized when such consultations are required. The term “new water related activity” is defined in footnote 3 to item I.A.2 of the Program Document, but for purposes of this section of the Nebraska plan, it applies only to new water related activities for which consultation occurs after the initiation of the PRRIP.

The following narrative corresponds with the box numbers and brief descriptions displayed in the flow chart which follows:

Box 1: Platte River Basin New Water Related Activity (NWRA)

Is the proposed activity a new water related activity as defined above? If no, the remainder of the flow chart does not apply. If yes, go to Box 2.

Box 2: Is there a federal nexus?

Is this new water related activity one for which Section 7 ESA consultation between the federal action agency and FWS is required? If no, go to Box 3. If yes, go to Box 4.

Box 3: Use Nebraska’s Depletion Plan, if applicable.

Whether or not offset or other mitigation for the activity will be required will be governed by this plan. No further agency action is needed and no recovery agreement needs to be signed.

Box 4: Federal Consultation Initiated.

The federal action agency and the FWS begin consultation and the proponent of the new water related activity is asked to provide such information as is required by FWS to do the consultation.

Box 5: Depletion Analysis.

The federal action agency, consulting with the FWS and using information obtained from the proponent of the new water related activity, provides a project description of the proposed federal action, including an estimate of the amount, timing and location of the depletions to the Platte River that will be caused by the proposed activity.

Box 6: Is the NWRA one for which DNR or an NRD requires permits?

The Nebraska Department of Natural Resources will keep FWS informed as to what kinds of new surface water and ground water activities require DNR permits and, for each NRD with land area subject to this plan, what kind of new ground water related activities require permits from that NRD. FWS will coordinate with DNR in the event of questions about answers to this

question for particular types of new water related activities. If the answer to the question is yes, go to Box 8. If the answer is no, go to Box 7.

Box 7: Is the NWRA of another type for which offsets are provided by the NE Depletion Plan?

This depletion plan provides for state offset of some new water related activities for which permits are not required from either DNR or an NRD. If the answer to the question is yes, go to Box 8. If the answer is no, go to Box 9.

Box 8: FWS and federal action agency have streamlined consultation regarding depletions covered by the NE Depletions Plan; NDP to serve as RPA for NWRA to that extent.

This depletion plan provides ESA coverage for all depletions caused by new ground water activities and such coverage for most depletions caused by new surface water activities (see other portions of the plan for details). Except for any depletions that are caused by a new surface water activity but are not covered by this plan, the measures required by this plan will serve as the reasonable and prudent alternative for depletions caused by a proposed new water related activity.

Box 9: NE Depletion Plan modified to provide offsets (GC approval required).

If the answer to the question in Box 7 is no, the Program Document allows for GC approval of changes in any state's depletion plan for the purpose of broadening ESA coverage under that plan. FWS and state concurrence on any such proposed amendment to this plan will be required before GC action is requested. If this plan is not modified to allow ESA coverage of the new water related activity involved, go to Box 10. If such modification is approved by the GC, go to Box 8.

Box 10: FWS and federal action agency develop RPA for NWRA.

This box will apply only when the Nebraska new depletion plan will play no role in the development of reasonable and prudent alternatives for the proposed new water related activity. When the RPA has been developed in that situation, go to Box 13.

Box 11: FWS and federal action agency develop RPA for any depletions not covered by the NDP and for other ESA issues concerning the NWRA.

If there are water depletion issues that are not covered by this plan, those issues will be addressed separately by the FWS and the federal action agency. The same is true concerning ESA issues related to the proposed activity, but not involving water depletions. When any issues addressed at this stage have been resolved, go to Box 12 and when applicable Box 13.

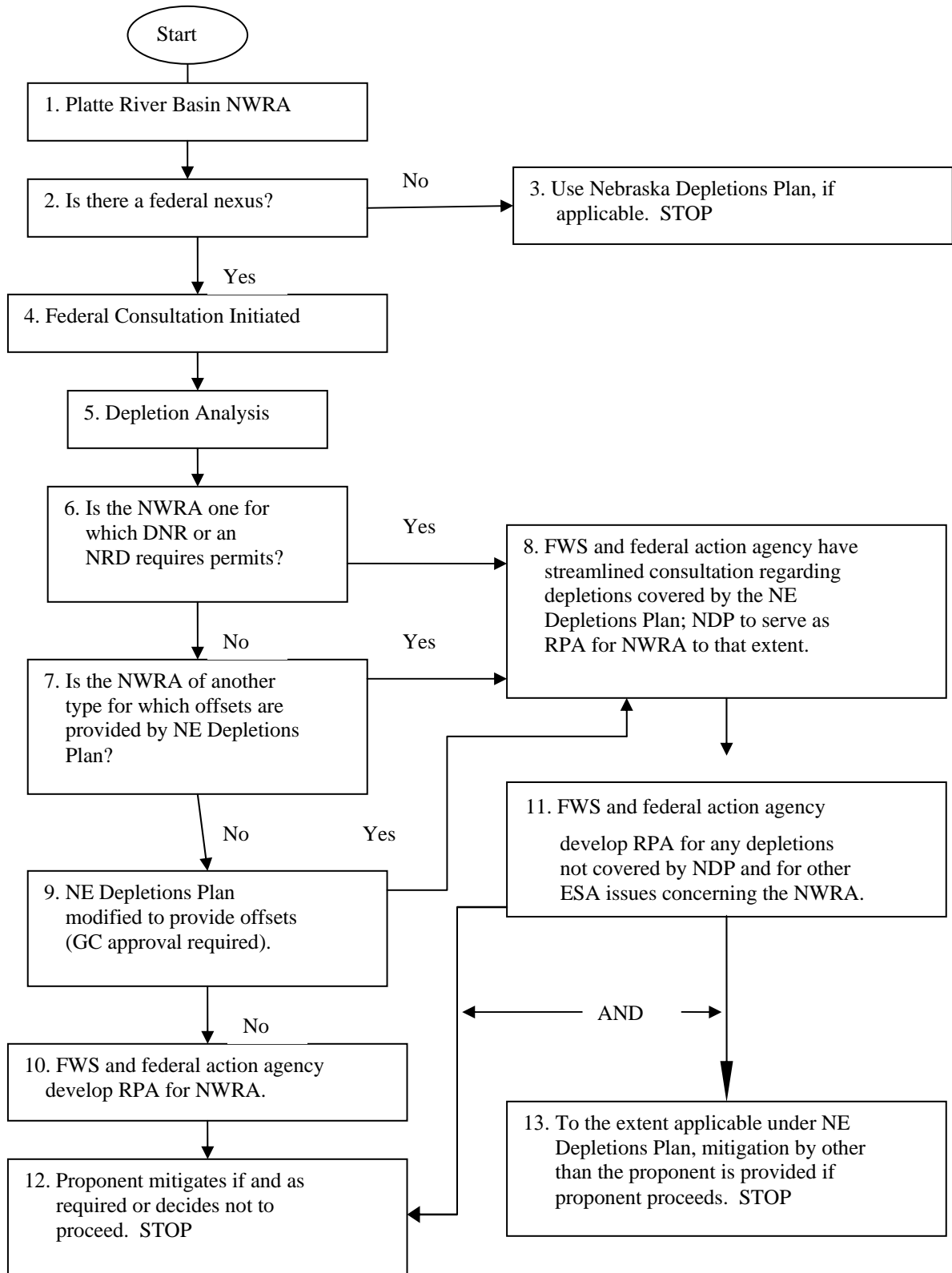
Box 12: Proponent mitigates if and as required or decides not to proceed.

Obviously, the proponent of the new water related activity may decide not to proceed. If the decision is to proceed, any mitigation required of the proponent as a result of actions taken under Box 10 or under Boxes 8, 9, 11 and 12 will be provided in the amounts and at the times and locations required.

Box 13: To the extent applicable under NE Depletion Plan, mitigation by other than the proponent is provided if proponent proceeds.

Under this depletion plan, the state is responsible for offsetting depletions to FWS target flows that are not otherwise offset by the project proponent or some other party on behalf of the project proponent. The state alone is also responsible for depletion offsets for some new water related activities (see Box 7). Depending upon how offsets are to be actually developed and implemented, other parties, such as NRDs who plan to own and operate offset projects, might also be responsible for some or all of the depletion mitigation required for a given new water related activity.

Nebraska New Depletion Plan—Flow Chart for Section 7 Consultations



Attachment 1

