

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

In the Matter of the)	ORDER OF FINAL
Hat Creek Basin, the White)	DETERMINATION OF RIVER BASINS,
River Basin, the Portion of the)	SUBBASINS, OR REACHES AS
Niobrara River Basin Upstream of)	FULLY APPROPRIATED, AND
the Mirage Flats Diversion Dam,)	DESCRIBING HYDROLOGICALLY
the Box Butte Creek Subbasin and)	CONNECTED GEOGRAPHIC AREA
the Snake Creek Subbasin)	

This matter came on for consideration before the Director of the Department of Natural Resources (the "Department") pursuant to Section 54, subsection (5) of LB 962 (2004 Nebraska Legislature), codified at Neb. Rev. Stat. Section 46-714(5). That section requires the Department to: (1) notify the appropriate natural resources districts, within thirty days after the final hearing required by Section 46-714(4), of the Department's final determination as to whether a river basin, subbasin, or reach is fully appropriated; and (2) if the final determination is that the river basin, subbasin, or reach is fully appropriated, at the same time (a) decide whether to continue or to terminate the stays on new surface water uses and on increases in the number of surface water irrigated acres and (b) designate the geographic area within which the Department considers surface water and ground water to be hydrologically connected to the river basin, subbasin, or reach, and describe the methods and criteria used in making that determination.

The Director FINDS:

1. Prior to July 16, 2004, the Director of the Department made a preliminary determination, pursuant to subsection (2) of Neb. Rev. Stat. Section 46-656.28, as it existed prior to that date, that there was reason to believe that the use of hydrologically connected ground water and surface water in the Upper Niobrara White Natural Resources District was contributing to or was in the reasonably foreseeable future likely to contribute to a conflict, dispute, or difficulty listed in such subsection. The preliminary determination related to the entirety of the natural resources district. The preliminary determination was in response to the written request of the Upper Niobrara White Natural Resources District dated January 10, 2003, that the Department consult with and conduct studies on the natural resources district, and hold a hearing on the preparation of a joint action plan. Prior to July 16, 2004, the Director did not make a determination that a joint action plan should not be prepared, and the preparation of a joint action plan was not completed for the Upper Niobrara White Natural Resources District.
2. On July 16, 2004, the Upper Niobrara White Natural Resources District became subject to the provisions of subsection (3) of Section 60 of LB 962, codified at Neb.

Rev. Stat. Section 46-720, and also Sections 53 to 59 of LB 962, codified at Neb. Rev. Stat. Sections 46-713 to 46-719.

3. Pursuant to Neb. Rev. Stat. Section 46-713, on July 16, 2004, the Department duly provided notice to the public of its preliminary determination that the Upper Niobrara White Natural Resources District was fully appropriated in its entirety.
4. The Department and the Upper Niobrara White Natural Resources District sent a letter dated September 16, 2004 to each irrigation district, reclamation district, public power and irrigation district, mutual irrigation company, canal company, or municipality that relies on water from the affected river basin, subbasin, or reach, and to other water users and stakeholders deemed appropriate by the Department or the natural resources district. Each letter offered the recipient the opportunity to consult with the Department and the natural resources district on the question as to whether the Department should make a final determination that the natural resources district is fully appropriated, and the extent to which the natural resources district is fully appropriated. The Department received, and duly considered, correspondence in response to the request for consultation.
5. The Department issued notice of, and held, two public information meetings in the natural resources district: one on October 1, 2004, and the second on October 4, 2004.
6. Pursuant to statute, the Department issued notice of, and held, a public hearing in the Upper Niobrara White Natural Resources District on October 4, 2004.
7. Public testimony was taken at the public hearing, and the record in the public hearing was held open for one full week following the date of the public hearing, in order to allow the receipt of any additional written testimony into the record.
8. A transcript was made for the public hearing, and the Department duly considered the testimony and evidence produced at the hearings.
9. The Department's method consisted of reviewing, evaluating, and analyzing information, including the surface water records and well registration records of the Department, published maps and reports by the United States Geological Survey and the University of Nebraska Conservation and Survey Division, all relevant portions of the Upper Niobrara White Natural Resources District's Ground Water Management Plan, other information that was included in the record of the public hearing referenced in finding Number 6 above, and reports of and communications with Department hydrographers and researchers at the University of Nebraska Conservation and Survey Division. This resulting information provides a reliable basis for the final

determination of the river basins, subbasins and reaches that are fully appropriated and the description of the geographic area that is hydrologically connected to these river basins, subbasins and reaches for the purposes of this determination.

10. On November 30, 1990, the Department declared a formal moratorium on the issuance of new surface water appropriations in the Niobrara River Basin from the Nebraska-Wyoming state line downstream to the headgate of the Mirage Flats Canal. The moratorium included all applications to use natural flow for irrigation, storage, and other beneficial uses. The Order states that the Department shall not approve any applications for permits for new water appropriations on this stream reach while the moratorium remains in effect. Any interested person may petition the Department to reconsider the moratorium designation.
11. Since 1995, the Department has effectively maintained an informal moratorium through its discussions with possible applicants, its orders regarding applications filed, and its denial of applications in the White River Basin and Hat Creek Basin that would reduce the natural flow of the stream. This informal moratorium was based on the lack of flow existing in most locations of the basins and the number of old water rights that do not receive the full allotment allowed under their appropriations. Applicants were given opportunity to request a hearing to prove that unappropriated water was available.
12. On July 14, 2004, the Department issued an Order Declaring Formal Moratorium on the issuance of new surface water appropriations in the White River Basin including all subbasins, and the Hat Creek Basin including all subbasins.
13. The Upper Niobrara White Natural Resources District ordered a temporary suspension of well construction for all of the Upper Niobrara White Natural Resources District, which temporary suspension took effect on March 20, 2003.
14. According to Department records:
 - a. Surface water rights in the Hat Creek Basin and the White River Basin are administered in most years;
 - b. Each year since 1957, the Niobrara River is administered to meet the 1937 water right on the Mirage Flats Canal;
 - c. Annual average reach gains on the Niobrara River between the state line and the Box Butte Reservoir have declined significantly since 1956;
 - d. Canal diversion records show that diversions to the Mirage Flats Canal between 1976 and 2003 averaged 19

percent less per year than during the 1948 - 1975 time period.

- e. There is no record of administration for surface water rights on the Niobrara River and its tributaries below the Mirage Flats Diversion Dam, excluding Box Butte Creek, and there is no evidence that stream flow below the diversion dam is insufficient to supply the existing surface water rights.
 - f. Administration on Box Butte Creek and Snake Creek has not occurred since the 1970's but this may be because there is currently little flow to administer and because adjudications by the Department have resulted in a significant decrease in the number of rights on each creek.
15. Records of well registrations at the Department show numerous new ground water wells have been registered with the Department since the Department stopped issuing surface water rights.
16. Published reports by the United States Geological Survey and the University of Nebraska Conservation and Survey Division indicate that:
- a. The ground water reservoirs in the White River Basin and Hat Creek Basin are limited to fractures in the otherwise relatively impermeable subsurface materials. Some, though not necessarily all, of these fractures are connected to the White River or Hat Creek.
 - b. The principal ground water aquifers in the Upper Niobrara Basin, the Arikaree Group and the Ogallala Group, are in hydrological connection to the Niobrara River. Box Butte Creek and Snake Creek in the 1930's and 1940's were in part perennial streams that had base flow from ground water. Ground water in these aquifers generally moves in an easterly direction toward the perennial streams except in the southeastern portion of the district. Ground water table declines of up to fifty or more feet have occurred in these ground water reservoirs in Box Butte County.
17. In determining the hydrologically connected areas for purposes of the final fully appropriated determination, consideration was given to the following criteria:
- a. the boundaries of the area for which the Upper Niobrara White Natural Resources District initiated the joint action planning process under previous Section 46-656.28, which was all areas within the natural resources district's boundaries;
 - b. the location of the tributaries to the streams determined to be fully appropriated, an analysis of the

impact of wells on these tributaries, the location of the subsurface geologic formations, and the location of the ground water table divides and surface watershed divides;

- c. the extent to which the methods used to determine hydrologic connectivity demonstrated that withdrawal of ground water from within the area would, at some future time, impact the surface water supply of the fully appropriated basin or subbasins.

It is therefore CONCLUDED that it is in the public interest to (1) make a final determination that the Hat Creek Basin, the White River Basin, the portion of the Niobrara River Basin above the Mirage Flats Diversion Dam (SENW of Section 26, Township 29 North, Range 48 West of the 6th P.M. in Dawes County), Box Butte Creek Subbasin, and Snake Creek Subbasin are fully appropriated, (2) to continue the stays on new surface water uses and on increases in the number of surface water irrigated acres in the area determined to be fully appropriated, (3) to discontinue the stays on new surface water uses and on increases in the number of surface water irrigated acres in the area that is no longer determined to be fully appropriated, and, (4) to designate the area within which surface water and ground water are hydrologically connected for purposes of the final determination of fully appropriated.

It is therefore ORDERED that:

1. The Hat Creek Basin, the White River Basin, the portion of the Niobrara River Basin above the Mirage Flats Diversion Dam (SENW of Section 26, Township 29 North, Range 48 West of the 6th P.M. in Dawes County), Box Butte Creek Subbasin, and Snake Creek Subbasin are hereby determined to be fully appropriated, final determination.
2. The stays on new surface water uses and on increases in the number of surface water irrigated acres, that were effective as a result of the provisions of Section 46-720 and the Department's July 16, 2004 preliminary determination that the affected natural resources district was fully appropriated, are continued in the areas determined to be fully appropriated, and discontinued in the area of the Upper Niobrara White Natural Resources District that is no longer determined to be fully appropriated as a result of this determination. The stays that are continued as a result of this determination shall remain in effect until (a) they are terminated pursuant to law, (b) an integrated management plan for the affected area has been adopted and has taken effect, (c) the Department has completed a reevaluation of the area and has determined that the affected area is not fully appropriated, or (d) the stays expire pursuant to law.
3. The legal description of the geographic area within which the Department has determined ground water to be

hydrologically connected to the surface water for the purposes of the final fully appropriated determination is attached hereto as Appendix I. Appendix II attached hereto is a map showing the area determined to be fully appropriated, and the hydrologically connected area to the fully appropriated basins and subbasins. The stays on the construction of new water wells and on increases in acres irrigated with ground water will remain in effect for the hydrologically connected areas, unless terminated by the Upper Niobrara White Natural Resources District pursuant to subsections (7) and (8) of Section 46-714. The stays on the construction of new water wells and on increases in acres irrigated with ground water are discontinued in the area of the Upper Niobrara White Natural Resources District that is not within the hydrologically connected area. This does not negate any independent action taken by the natural resources district.

4. Interested persons may petition the Department for a rehearing to reconsider the final determination that: 1) the Hat Creek Basin, the White River Basin, the portion of the Niobrara River Basin above the Mirage Flats Diversion Dam (SENW of Section 26, Township 29 North, Range 48 West of the 6th P.M. in Dawes County), the Box Butte Creek Subbasin, and the Snake Creek Subbasin are hereby determined to be fully appropriated, 2) the geographic area within which the Department has determined that surface water and ground water are hydrologically connected for purposes of the final determination of fully appropriated are as designated, or 3) the criteria used to make the determination of hydrologic connectivity for purposes of the final determination of fully appropriated. Such petition for a rehearing must be filed within fifteen days of this Order and must clearly state the basis for such request. For sufficient cause shown, the Director may re-examine the action imposed by this Order at any time.

DEPARTMENT OF NATURAL RESOURCES



Roger K. Patterson, Director

November 3, 2004