

**UPDATE TO  
ANNUAL REPORT OF THE DEPARTMENT OF NATURAL RESOURCES  
TO MEET THE REQUIREMENTS OF THE NORTH PLATTE, SOUTH PLATTE,  
TWIN PLATTE, CENTRAL PLATTE AND TRI-BASIN NATURAL RESOURCES  
DISTRICTS' INTEGRATED MANAGEMENT PLANS  
FOR 2010 BASIN-WIDE MEETING**

Updates have been made to the report originally issued on July 27, 2010. Changes were made to:

- Section III.C on U.S. Census Bureau Population Data
- Table 5 on Change in consumptive use resulting from changes in cattle population between 1997 and 2005

Details on these changes can be found in footnotes throughout this updated report.

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## I. INTRODUCTION

This report is intended to satisfy the Department of Natural Resources (Department) tracking and reporting requirements as described in the Monitoring and Studies section of the North Platte, South Platte, Central Platte, Twin Platte, and Tri-Basin Natural Resources Districts (Platte Basin NRDs) integrated management plans (IMPs). Each of the five (5) Platte Basin IMPs require that the Department track and report on the following items on an annual basis: 1) any surface water permits issued; 2) any dam safety permits issued; 3) any groundwater permits issued; and 4) the associated offsets for any new permits issued. The Department is also required to report these items every five (5) years: 1) National Agricultural Statistics Service livestock data; 2) U.S. Census Bureau population data; 3) inventory of sandpits; 4) inventory of reservoirs of less than fifteen (15) acre-feet; 5) any retirements of irrigated acres or other activities by the Department for the purpose of returning to a fully appropriated condition; and 6) offsets provided for depletions resulting from increased consumptive use related to the items listed above.

The items tracked and reported will be used by the Platte Basin NRDs and the Department to measure the success of the controls, incentive measures, and other action items in meeting the goals and objectives of the IMPs. Two evaluation processes for measuring success are described in the IMPs. The first is an annual evaluation that will forecast the balance of depletions and accretions from the report year through 2048. The second evaluation process occurs periodically (every five years) and will be more robust, including updating and running groundwater models. These evaluation processes will be carried out by the Platte Basin NRDs and the Department following the reporting at the annual basin-wide meeting. The tracking, reporting, and evaluation processes are described in more detail in the Monitoring and Studies section of the IMPs. In addition to the evaluation processes, the information that is tracked and reported will also be used by

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the State to help meet requirements of the Platte River Recovery Implementation Program (Program).

The 2010 report is the first report to be filed following approval of the IMPs in September 2009. Therefore, this report need only contain information on the above listed items from September 11, 2009, to December 31, 2009. However, to facilitate the exchange of information between the Department and the NRDs, and because the information since the year 2005 is necessary for purposes of the Program, this report primarily includes data tracked since December 31, 2005.

## II. ACTIVITIES TO BE REPORTED ANNUALLY

### A. Summary

Items reported annually include permits that are issued by the Department. When a surface water or groundwater permit is reviewed, the Department assesses the potential for the permitted action to increase, decrease, or not affect water use. Depending on the circumstances, the applicant may be required to take action that would mitigate the affect of any increase in water use. Described in each section below are the permits issued by the Department and the associated review of potential changes in the water use. The Department issued eight (8) new surface water permits, fifteen (15) dam safety permits, and twelve (12) groundwater permits. Supporting data and information can be found in Appendix I.

### B. Surface Water Permits Issued – Table 1

A total of eight (8) surface water permits were issued. Two surface water permits were issued in calendar year 2006 and six in calendar year 2007. No permits were issued in 2008 and 2009. Copies of the applications and orders for each permit can be found in Appendix I.

1. The first permit, A-18319, is for a reservoir located near Wood River, a tributary located in the lower portion of the Central Platte River. The reservoir was allowed to fill with surface water diverted from Wood River only when no downstream surface water permit was in priority. Following the one-time fill, the reservoir is maintained by two groundwater wells, G-034343 and G-124097. The two groundwater wells were previously used to irrigate row crops in the area. Those irrigated lands were taken out of production. The net effect of the project was estimated to be a 57 acre-foot decrease in the amount of water being used.

2. The second permit, A-18400, was a temporary permit for seven (7) acre-feet issued for the purpose of compacting soil for building new water treatment lagoons. The source of water was water stored in Kingsley Reservoir under permit A-2374. Under *Neb. Rev. Stat.* § 46-233(8), temporary permits for public-use construction and for less than ten (10) acre-feet in total volume may be granted without any determination of unappropriated water and shall be considered to be

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in the public interest by operation of law. According to a follow up discussion with the applicant, the water allowed under this permit was never used. Instead, the applicant installed a temporary groundwater well and used that to fill the lagoons. Department registration records show that a temporary well was registered for this location as G-140875 to the Sanitary Improvement District #1 of Gosper & Dawson County, Nebraska, and the corresponding Tri-Basin NRD Permit #TB-1303.

3. Permits A-17901, A-17902 and A-17903 are each part of a flood control project that routes water from several Platte River tributaries through floodways to attenuate flow. The water is rerouted so that the water returns flow to the Platte River approximately fifteen (15) miles upstream of where the flow would have joined the river naturally. Due to the nature of the project, the use of water is determined to be non-consumptive.

4. Permits A-17846 and C-35 are related permits that reroute flows from Lost Creek for the purpose of augmenting Platte River flows for wildlife. This project was extensively consulted on by the Nebraska Game and Parks Commission (NGPC) and the U.S. Fish and Wildlife Service (USFWS). The NGPC requested that the applicant submit a management plan to NGPC and USFWS. The plan stated that Lost Creek Diversion #1 was initiated as a cooperative effort between Tri-Basin NRD (TBNRD), Central Nebraska Public Power and Irrigation District (CNPPID), and USFWS in order to protect landowners downstream from Lost Creek Diversion #1 from flood damage due to a severe rain event within the Lost Creek watershed, and to augment streamflows in the Platte River for the benefit of federally listed threatened and endangered species and designated critical habitat.

Before diversions from Lost Creek could occur, the following criteria must be satisfied:

- a. A consensus of the members of the North Dry Creek Drainage District (NDCDD) Board of Directors that the North Dry Creek channel is capable of carrying additional water (applicable only during March to September).
- b. A five (5) cfs minimum flow of water must continue down the original channel of Lost Creek whenever diversions can occur at the Diversion #1 structure. Diversions will not occur until TBNRD personnel determine that flows are sufficient to maintain five (5) cfs in Lost Creek at the diversion point.
- c. TBNRD will consult with USFWS prior to any planned diversions to avoid the potential for adverse impacts to listed species and determine target levels in the Platte River.

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5. Permit A-18438 is for the construction of water detention cells and five (5) floodwater retarding dams, all for flood control. Based upon a consumptive use analysis submitted by the applicant, the project will result in a net decrease of the consumptive use of water on the project lands.

C. Dam Safety Permits Issued – Table 2

A total of fifteen (15) dam safety permits were issued. Four (4) of the dam safety permits, P-16613, P-16854, P-16885 and P-17111, overlap with two of the permits discussed in the surface water permit section above (A-18319 and A-18438). The remaining eleven (11) permits are each for the purpose of livestock waste control. No evaluation of consumptive use is performed on these reservoirs. Any consumptive use from these reservoirs is due to the activities of the livestock, which is covered in two other places in the IMP process, 1) under industrial permitting activities of the NRDs and 2) by the livestock accounting completed by the Department every five (5) years. Copies of the applications and orders for each permit can be found in Appendix I.

D. Groundwater Permits Issued – Table 3

A total of twelve (12) groundwater permits were issued by the Department. Five (5) of the groundwater permits issued by the Department were for municipal purposes. In four of these five permits, the municipality was primarily replacing old groundwater wells with newer wells. One permit was cancelled immediately after it was issued. No significant increase in the consumptive use of water is expected due to the issuance of these permits. Additionally, as described in the IMPs, increases and decreases in the consumptive use of water by municipalities will be tracked by the Platte Basin NRDs and any net increases in depletions to the stream will be compensated for by the municipalities and/or NRDs. Copies of the applications and orders for each permit can be found in Appendix I.

Six (6) of the permits were for two separate applicants petitioning to transfer groundwater for industrial construction purposes across state lines. In one project, 32.5 acres were retired and in the other project, 34.2 acres were retired, each for the 2007 irrigation season. The temporary retirements were to mitigate the temporary increase in consumptive use due to the wind farm construction projects. Local crop irrigation requirement calculations were used to determine the number of acres necessary to match the volumes requested in the applications.

One (1) permit was issued to allow for the transfer of irrigation water across state boundaries. The acres involved were irrigated historically; therefore, the consumptive use did not increase.

E. Offsets for Issued Permits

For each permit where a permanent increase of consumptive use of water was expected, the applicant was required to have a plan in place that would mitigate the increase. For

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purposes of the annual evaluation, the administrative procedures used to estimate the necessary offsets will be reviewed and further analysis may be performed to assess the progress being made toward achieving the goals and objectives of the IMPs.

F. Additional Reporting of Cancelled Permits – Table 4

All or portions of seventeen (17) surface water permits were cancelled during the reporting period. To facilitate the exchange of information between the Department and the NRDs, the Department is also reporting on these cancellations. Some of these permits may have been permanently retired by activities of the Platte Basin NRDs in order to mitigate for depletions to streamflow caused by new permitting activity or for post-1997 uses. Descriptions of those activities will be reported by the NRDs.

III. ACTIVITIES TO BE REPORTED ON A FIVE (5) YEAR BASIS

A. Summary

For purposes of the Platte River Recovery and Implementation Program, the Department collected and analyzed a dataset for these items (listed below) in calendar years 1997 and 2005. The intent is to compile this data again for the year 2010 and every five (5) years thereafter. The Platte Basin IMPs do not require that this data be reported. However, the Department wishes to report the 1997 and 2005 data as reference points for future reports. For the five (5) year tracking requirements, the Department estimated the population of cattle and people in the calendar years 1997 and 2005 and performed an inventory of sandpits and reservoirs in calendar year 2005. Supporting data and information can be found in Appendix I.

B. National Agricultural Statistics Service Livestock Data – Table 5

Livestock changes between 1997 and 2005 were estimated based on the number of cattle reported by the Nebraska Agricultural Statistics Service. Between 1997 and 2005, the annual consumptive use of water due to changes in the livestock population decreased approximately 770 acre-feet.

C. U.S. Census Bureau Population Data – Table 6<sup>1</sup>

The human population in the five Platte Basin NRDs was estimated at 241,947 in 1997 and 250,371 in 2005. The consumptive use per person was estimated to be 100 gallons per day. The annual consumptive use of water increased by approximately 944 acre-feet due to changes in the human population between 1997 and 2005.

D. Inventory of Sandpits and Reservoirs Less Than Fifteen (15) Acre-Feet in Volume

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<sup>1</sup> May 24, 2013: This paragraph replaces the discussion of U.S. Census Bureau Population Data in the original 2010 Annual Basin-wide IMP Report. The values discussed in this paragraph were corrected to correspond to the values reported in table 6, which have not been changed in this Update.

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The majority of sandpits and other reservoirs smaller than fifteen (15) acre-feet do not require a permit in Nebraska; therefore, to determine a baseline condition, the Department conducted an initial inventory of such uses by digitizing water bodies from aerial photography in the year 2005. Post-2005 changes in sandpits and reservoirs under fifteen (15) acre-feet in size will be monitored by conducting a new inventory every five (5) years starting in 2010. A complete methodology for evaluating the effects of these small water bodies is being worked on by Department staff. A copy of the shapefile for the 2005 digitized water bodies is included in Appendix I.

- E. Retirements of Irrigated Acres or Other Activities for the Purpose of Returning to a Fully Appropriated Condition and Offsets Provided for Depletions Resulting from Increased Consumptive Use Related to Items B– D Above.

At this time the projects that are contributing stream flow accretions (offsets) include the activities being pursued and implemented by individual NRDs or Platte Basin Habitat Enhancement Project (PBHEP) and those irrigated acres that have been temporarily or permanently retired under the Conservation Reserve Enhancement Program (CREP) and the Environmental Quality Improvement Program (EQIP).

1. PBHEP

The Platte Basin IMPs call for the Department and the NRDs to participate in incentive programs and other non-regulatory action items to meet the goals and objectives of the IMP, including returning to a fully appropriated condition. To facilitate the ability of the NRDs and the Department to implement an incentive program, PBHEP was created. This group was formed in 2009 and has approved protocols for the assessment and purchase of conservation easements on irrigated lands. As of July 1, 2010, the NRDs have submitted approximately 740 acres of irrigated land retirements to the group for approval.

2. Federal Programs for the Retirement of Irrigation Use

The Department and the Platte Basin NRDs have participated in federal programs such as CREP and EQIP, which have retired irrigated lands on a permanent or temporary basis. Under CREP approximately 9,000 acres of irrigated land have been converted to non-irrigated grasslands in the Platte River Basin and approximately 39,000 in the Republican River Basin. The Department has contributed approximately \$1,700,000 in cash to the retirement of the CREP lands. Under the Pumpkin Creek EQIP program, approximately 2,350 acres have been retired with contributions from the Department of approximately \$176,400. Under the Tri-Basin EQIP program, approximately 200 acres have been enrolled with cash contribution from the Department of approximately \$12,900.

3. Unappropriated Surface Water Analysis

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The Platte Basin IMPs call for an analysis to determine if there is unappropriated surface water available for use in a retiming project that would put the available water back to the river at other times when depletions need to be balanced. The analysis will provide the Department with a spreadsheet tool to run various analyses with differing inputs and demands on the system. The following river reaches are being analyzed: Julesburg to North Platte, Keystone to North Platte, North Platte to Brady, Brady to Cozad, Cozad to Overton, Overton to Odessa, Odessa to Grand Island, and Grand Island to Duncan. In addition to these reaches, the analysis takes into account the instream flow demands downstream of Duncan to the Louisville gage. The Department consulted with the NRDs and other stakeholders throughout this process while working with HDR Engineering, Inc. to perform this analysis and expects the analysis to be complete by September 2010.

#### 4. Conjunctive Management Conceptual Design

The Department and the Twin Platte NRD (TPNRD) have been working with HDR Engineering, Inc. (HDR) to develop a conceptual design of a conjunctive use project with Western Canal. The focus of the conjunctive use project will be to retime the availability of water to make more water available to the river with minimal impact to the beneficial consumptive use of water. For purposes of this scope of work, it is assumed that the project will involve the evaluation of a hypothetical project using the Western Canal Irrigation System as an intentional recharge facility. It is anticipated that this conceptual design standard will serve as a template for developing and evaluating conjunctive management projects. As such, it is anticipated that this analysis will include evaluation of impacts to groundwater levels and South Platte River flows; groundwater quality impacts (nitrates), and potential economic impacts. The Department is consulting with the TPNRD and other stakeholders through this process while working with HDR to complete this project and expects the project to be complete by September 2010.

#### 5. Cooperative Hydrology Study (COHYST) 2010

In February 2010, the COHYST and Conjunctive Water Management (CWM) sponsors agreed in concept on a framework to contribute to a single coordinated modeling effort to further develop tools that will meet the needs of their respective management objectives. On May 4, 2010, the COHYST sponsors and CWM sponsors met and approved an agreement to have COHYST develop the modeling tools for an area beginning near Lake McConaughy at the western edge, and stretching to the confluence of the Loup River with the Platte River in the east. The proposed process includes three phases, which outline the development of an independently derived water budget and a project work plan in Phase I, work plan implementation and tool development in Phase II, and tool use and refinement in Phase III. The tools include three components, which are ultimately linked to provide a closed water budget and meet the needs of the management objectives. These components include: groundwater, which draws on previously

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conducted work and adapts to the inclusion of the other modeling components; watershed, which partitions precipitation within the study area into various water budget terms to be used in the other components; and surface water, which will share budget terms with the other components and route the flow of water through the system. Since January 1, 2010, the Department has contributed more than \$16,000 of in-kind services to COHYST.

6. Western Water Use Project

The Department, the North Platte NRD (NPNRD), and the South Platte NRD (SPNRD) are working to redevelop the Western Unit of the COHYST model so that it will be more focused on evaluating the effectiveness of management actions at achieving the goals of the IMPs. This group is also developing a surface water operations model for the North Platte River and Lodgepole Creek to be integrated into the groundwater model and used to identify management actions that will achieve the goals of the IMPs.

7. Lodgepole Creek

SPNRD received Interrelated Water Management Plan Program Fund (IWMPPF) funding to investigate and study the impacts to the South Platte River due to depletions to Lodgepole Creek. The project has four tasks, including: 1) a historical review, 2) stream flow analysis, 3) depletions analysis and 4) augmentation feasibility.

8. Developing Uniform Methods for Calculating Depletions and Accretions

The Department is working to develop methods for calculating depletions and accretions and plans to begin discussions of the draft methods with the Platte Basin NRDs during July 2010.

9. Develop the Methodology to Identify the Overall Difference between the Current and Fully Appropriated Levels of Development

The Department and the CPNRD published a request for proposals in December of 2009 to solicit assistance in refining the current procedures for determining fully appropriated. A consultant was selected in 2010 and IWMPPF funding was approved to begin July 1, 2010. This refinement of the fully appropriated procedures is a first step in identifying the overall difference between the current and fully appropriated levels of development. Additionally, the Department and the NRDs have been holding discussions with the Executive Director of the Platte Program to coordinate resources to examine the effects of conservation measures on stream flow, which statute states is a component of this analysis.

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**Definitions**

- AF / Acre-Feet:** A unit of volume, commonly used to measure quantities of water used or stored equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.
- Application/  
Appropriation Number** App Number (Docket and Application Numbers):  
Appropriations having docket numbers (D-) refer to claims covering rights which existed prior to April 4, 1895, or those rights that existed on the Missouri River that were covered by the law passed in 1980. Those appropriations having applications numbers (A-) were filed after April 4, 1895.
- Begin Acres:** The amount of acres included in an original appropriation, prior to any acres being cancelled.
- Cancelled Acres:** The amount of acres remaining in an appropriation after any acres may have been cancelled.
- CFS / Cubic Feet per Second:** The USGS defines cubic foot per second (cfs) as "the flow rate or discharge equal to one cubic foot of water per second or about 7.5 gallons per second."
- Date of Action:** The date the water appropriation was approved.
- Water Division:** The State of Nebraska is divided in two water divisions by statute, denoted Water Division No. 1 and Water Division No. 2, respectively. Water Division No. 1 consists of all the lands of the state drained by the Platte Rivers and their tributaries lying west of the mouth of the Loup River; and also all other lands lying south of the Platte and South Platte rivers that may be watered from other superficial or subterranean streams not tributary to the Platte River. Water Division No. 2 consists of all lands that may be watered from the Loup, White, Niobrara and Elkhorn rivers, and Hat Creek and their tributaries, and those lands drained by the Platte River and its tributaries lying east of the mouth of the Loup River.  
For convenience in the administration of the surface water laws and the distribution of water, the two water divisions have been subdivided into 12 water divisions, denoted  
Water Division (River Basin)  
1A Platte River basin  
1B Republican River basin

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<b>Water Division:</b> (continued)	1C Little Blue River basin 1D Big Blue River basin 1E Lodgepole Creek basin 1F Nemaha River basin and Lower Missouri River and tributary basins 2A Loup River basin 2B Elkhorn River and Salt Creek basins 2C Niobrara River basin 2D White River and White Clay Creek basins 2E Hat Creek basin 2F Upper Missouri River and Tributary basins
<b>Flood Control:</b>	This refers to water withdrawn from the surface water source for the purpose of protecting health and well-being of society.
<b>GPD / Gallons per Day:</b>	This refers to the number of gallons pumped per day.
<b>Grant in AF:</b>	This refers to the approved amount of acres per foot of water legally allowed to be pumped.
<b>Grant in CFS:</b>	This refers to the approved amount of cubic feet per second of water legally allowed to be pumped.
<b>Instream Use:</b>	This refers to water that is used, but not withdrawn, from a surface-water source.
<b>Offset:</b>	A reduction in water use that corresponds with an increased use of water. An offset may be used as a management strategy to balance uses and supplies.
<b>Offset Scheme:</b>	Any methods of means by which any new depletions from the permitted project will be offset.
<b>Order Date:</b>	This is the date the water appropriation or project was legally approved, denied, cancelled or altered.
<b>Permit Number:</b>	This refers to the number of a ground water permit, assigned by the DNR. The first letters in the permit number denotes type of permit.
<b>Plan Number:</b>	This number is assigned by the Dam Safety Division and is a unique identifier.

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- Project Name:** This name is provided by the applicant.
- Section/Township/Range:** This is the legal description of where a dam, well, or water appropriation is located.
- Use:** This is the legally accepted use of the dam, well, or water appropriation.

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**Table 1: Report of New Surface Water Permits Issued**  
Reporting Period January 1, 2006 to December 31, 2009

Water Division	Date of Action	Appropriation Number	Use	Acres	Grant in CFS	Grant in AF	More Consumption	Instream Use or Flood Control
Calendar Year 2006								
1-A	2/9/2006	<u>A-18319</u> <sup>[1]</sup>	ST	N/A		201.55	X	
1-A	6/8/2006	<u>A-18400</u> <sup>[2]</sup>	MF	N/A	7		X	
Calendar Year 2007								
1-A	2/22/2007	<u>A-17903</u> <sup>[3]</sup>	FL	N/A		1,480.00		X
1-A	2/22/2007	<u>A-17901</u> <sup>[3]</sup>	FL	N/A		4,200.00		X
1-A	2/22/2007	<u>A-17902</u> <sup>[3]</sup>	FL	N/A		760		X
1-A	5/8/2007	<u>A-17846 &amp; C-35</u> <sup>[4]</sup>	FW	N/A		40		X
1-A	5/8/2007	<u>A-18438</u> <sup>[3]</sup>	ST	N/A		3,650.00		X
Calendar Year 2008 & 2009 No New Permits Issued								

<sup>[1]</sup> Permit allows first fill from Wood River, then the lake is maintained by well water

<sup>[2]</sup> Permit was temporary manufacturing permit which expired June 8, 2007

<sup>[3]</sup> Permit is for flood detention with short duration storage to attenuate flood flows

<sup>[4]</sup> Permit is for instream use of water diverted from Lost Creek into Platte River for wildlife enhancement

USE:

*ST: Storage*

*FL: Flood Control*

*MF: Manufacturing*

*F&W: Fish & Wildlife*

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**Table 2: Report of Dam Safety Permits Issued**  
Reporting Period January 1, 2006 to December 31, 2009

Plan Number	Appropriation Number	Project Name	Section	Township	Range	Order Date	Water Division	Use
16613	A-18319	Stoneridge Dam	N½ SE¼ S24	9N	16W	2/9/2006	1-A	CO-Flood & Erosion Control
16702	N/A	McGinley-Shilz Feedyard Ltd	S19	13N	39W	3/9/2006	1-A	O-Livestock Waste Control (Open Lot Sys)
16706	N/A	Plum Creek Cattle - Holding Pond No. 1	SW ¼ S26	9N	23W	3/10/2006	1-A	O-Livestock Waste Control (Open Lot Sys)
16718	N/A	Sadle Cattle Co. - Chuck Flaming	E½ S26	14N	36W	5/3/2006	1-A	C-Flood Control, Storm Water Mgmt
16861	N/A	Rodney Waller Feedlot	NW¼ S8	6N	18W	3/14/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
16854	A-18438	Upper Prairie SCLL7	SW¼ S1	11N	11W	5/8/2007	1-A	C-Flood Control, Storm Water Mgmt
16885	A-18438	Silver Creek SCLL5	S2	11N	11W	5/8/2007	1-A	O-Livestock Waste Control (Housed Sys)
16957	N/A	Darr Feedlots Inc - South HP2	SE¼ SE¼ S9	9N	23W	5/29/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
16999	N/A	FL Beattie Diversion	S½ NE¼ S11	11N	20W	8/3/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
17086	N/A	Mayes Holding Pond 1	NE¼ S26	7N	19W	10/30/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
17090	N/A	TLC - Buffalo Site	SE¼ S5	11N	22W	10/31/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
17104	N/A	Central Feeders HP1	S4	9N	19W	11/27/2007	1-A	O-Livestock Waste Control (Open Lot Sys)
17159	N/A	Thomas LWCF	SW¼ S33	12N	20W	3/11/2008	1-A	O-Livestock Waste Control (Housed Sys)
17210	N/A	TLC - Pigeon Ranch - LWCF	SW¼ S27	11N	20W	6/9/2008	1-A	O-Livestock Waste Control (Open Lot Sys)
17111	A-18438	Upper Prairie SCLL4S	NW¼ S11	11N	11W	8/22/2008	1-A	O-Livestock Waste Control (Open Lot Sys)
17424	N/A	Knoerzer Dam North	21	8	22	7/28/2009	1-A	Grade Stabilization

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**Table 3: Groundwater Permits Issued**  
Reporting Period January 1, 2006 to December 31, 2009

Permit #	Permittee	Location of well(s)			Nature of use	Average daily rate (gal)	Max day rate (gal)	Total annual (gal)	CU	CU source	Offset scheme
		Section(s)	Township	Range							
MT-6	City of Sidney	*	14	49 W	Municipal	3,561,640	7,632,000	1,300,000,000	70%	Reported by City in permit app; 2007 reported est. 66.5%	Decommissioned 2 irrigation wells at new wellfield; gradual shutdown of NE wellfield
		*	13	49 W							
		*	16	51 W							
		*	15	51 W							
MT-8	Village of Big Springs	*	12	42 W	Municipal	451,000	1,440,000	164,574,899	100%	no WW discharges; lagoon seepage unknown	Decommissioned 2 in-town wells closer to SP River
MT-9	City of North Platte	*	13	30 W	Municipal	28,584,000 (under all permits)	28,800,000 (under all permits)	4,000,000,000 (under all permits)	100% <sup>1</sup>	no WW discharges; lagoon seepage unknown <sup>1</sup>	Gradual shutdown of older wells as new wells brought online
		*	15	30 W							
		*	15	31 W							
TA-38, I-15; TA-43, I-15A <sup>2</sup>	Bruce Nienhueser	15	12	49 W	Construction (CO)	N/A	72,000	38 AF total over 4 yr project	100%	assumed from construc. activities	Temporary retirement of 32.5 acres currently irrigated by Applicant's wells (calc. based on local CIR)
		22	12	49 W							
TA-39, I-16	David Wieser	2	12	53 W	Construction (CO)	N/A	40,000	40 AF total over 1 yr project	100%	assumed from construc. activities	Temporary retirement of 34.2 acres currently irrigated by Applicant's well (calc. based on local CIR)
MT-21	City of Kearney <sup>3</sup>	N/A									
TA-31	Gullett & Young	16	23	58 W	Irrigation (WY)	N/A	440,640	33.5 AF	var.	N/A	N/A <sup>4</sup>
MT-32	City of Scottsbluff	*	22	55 W	Municipal	5,753,400	20,000,000 (same as existing permits)	2,100,000,000	54-57%	Reported by City in permit app; 2007 reported est. 70.8%	Decommission old wells as new constructed; NRD will require offsets for any impacts to SW from change in location; increases in muni use from growth to be offset per 46-740 and IMP

Notes: <sup>1</sup> as of when permit was granted, the City had not yet converted to a discharge system, though construction of such was beginning; est. returns when completed = 14%

<sup>2</sup> TA-43 & I-15A merely extended the expiration date of the project to 2012; no additional water was requested or granted

<sup>3</sup> Permit cancelled at City's request immediately after issuance

<sup>4</sup> The number of acres historically irrigated from this well did not change

\* Section has been removed for Public Water Supply

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**Table 4: Report of Cancelled Surface Water Permits**  
Reporting Period January 1, 2006 to December 31, 2009

Water Division	Date of Action	Appropriation Number	Use	Begin Acres	Cancelled Acres	Cancelled CFS	Less Consumption
Calendar Year 2006							
1-A	7/31/2006	A-698 <sup>[1]</sup>	IR	387	29	0.41	X
1-A	7/31/2006	A-9867	IR	103	103	1.47	X
Calendar Year 2008							
1-A	10/23/2008	A-1772	IR	39	39	0.56	X
1-A	10/23/2008	A-1773	IR	77.3	77.3	1.1	X
1-A	10/23/2008	A-1959	IR	109.4	109.4	1.56	X
1-A	10/23/2008	A-2049	IR	91	91	1.3	X
1-A	10/23/2008	A-2202	IR	72	72	1.03	X
1-A	10/23/2008	A-5145	IR	38.2	38.2	0.36	X
1-A	10/23/2008	A-13174	IR	81	81	1.16	X
1-A	10/23/2008	A-14333R	IR	123	123	1.76	X
1-A	10/23/2008	A-14333	IR	26	26	0.37	X
Calendar Year 2009							
1-A	3/16/2009	A-15681	IR	141.16	141.16	2.02	X
1-A	6/24/2009	A-1495	IR	118	118	1.69	X
1-A	7/28/2009	A-15688	IR	146.98	146.98	2.1	X
1-A	8/24/2009	A-15880	IR	12.9	12.9	0.18	X
1-E	10/27/2009	A-12931	IR	63.02	63.02	0.9	X
1-A	11/6/2009	A-2068	IR	34.5	34.5	0.49	X

<sup>[1]</sup> Cancellation in part, 5.11 cfs remains in effect

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**Table 5: Change in consumptive use resulting from changes in cattle population  
between 1997 and 2005**

	<b>Population 1997</b>	<b>Population 2005</b>	<b>Difference</b>	<b>Total GPD</b>	<b>CFS</b>	<b>Acre- Feet per Year</b>
Central Platte	552,560	486,580	-65,980	-419,963	-0.650	-471
North Platte	425,280	408,210	-17,070	-108,651	-0.168	-122
South Platte	100,980	83,160	-17,820	-113,424	-0.175	-127
Tri-Basin	276,210	267,300	-8,910	-56,712	-0.088	-64
Twin Platte	263,460	265,380	1,920	12,221	0.019	14
<b>Total</b>	<b>1,618,490</b>	<b>1,510,630</b>	<b>-107,860</b>	<b>-686,529</b>	<b>-1.062</b>	<b>-770</b>

Daily Total Consumptive Water Use of 6.4 gallons per head.<sup>2</sup>

**Table 6: Estimated increases in human population and consumptive use for those  
served by municipal and domestic wells.**

	<b>Population 1997</b>	<b>Population 2005</b>	<b>Difference</b>	<b>Total GPD</b>	<b>CFS</b>	<b>Acre- Feet per Year</b>
Central Platte	121,977	129,586	7,609	760,900	1.1774	852
North Platte	45,088	44,928	-160	-16,000	-0.0248	-18
South Platte	15,597	15,779	182	18,200	0.0282	20
Tri-Basin	18,934	18,243	-691	-69,100	-0.1069	-77
Twin Platte	40,351	41,835	1,484	148,400	0.2296	166
<b>Total</b>	<b>241,947</b>	<b>250,371</b>	<b>8,424</b>	<b>842,400</b>	<b>1.303</b>	<b>944</b>

Daily Consumptive Use of 100 gallons per capita.

<sup>2</sup> May 24, 2013: This value has been rounded up from the 6.365 gallons per head that was actually used to calculate the numbers in the last three columns of table 6.

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The complete document and appendix are available from the NDNR website:  
[http://dnr.ne.gov/IWM/NRD/IWM\\_UpperPlattebasin.html](http://dnr.ne.gov/IWM/NRD/IWM_UpperPlattebasin.html).

Or may be requested in paper or electronic format by contacting Jennifer Schellpeper at  
(402) 471-2899 or [jennifer.schellpeper@nebraska.gov](mailto:jennifer.schellpeper@nebraska.gov).

Listing of Document and Appendix

Annual Report of the Department of the Natural Resources to Meet the Requirements of  
the North Platte, South Platte, Twin Platte, Central Platte and Tri-Basin Natural  
Resources  
Districts' Integrated Management Plans for 2010 Basin-Wide Meeting

Appendix I

- Surface Water Permits Issued (Table 1)
- Dam Safety Permits Issued (Table 2)
- Groundwater Permits Issued (Table 3)
- Additional Report of Cancelled Permits (Table 4)
- National Agricultural Statistics Service Livestock Data (Table 5)
- U.S. Census Bureau Population Data (Table 6)
- Inventory of Sandpits and Reservoirs Less than 15 Acre Feet in Volume