RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT
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CHAPTER 1 – AUTHORITY FOR ISSUING THESE RULES AND REGULATIONS

01 Control Area was declared –
On December 9, 1977, the State of Nebraska, Director of Water Resources issued an order, in accordance with the Nebraska Ground Water Management and Protection Act, declaring a certain geographic area within the boundaries of the Upper Big Blue Natural Resources District a "Control Area".

02 Special Protection Area was declared –
On September 23, 1993, the State of Nebraska, Director of Environmental Quality, issued an order declaring the Upper Big Blue Natural Resources District a "Special Groundwater Quality Protection Area".

03 Action Plan first adopted –
On May 19, 1994, after holding a public hearing on April 18, 1994, the District adopted the Special Protection Area Action Plan.

04 Action Plan Approved by Director of Environmental Quality –
On September 14, 1994, the Director of Environmental Quality issued an order approving the Special Protection Area Action Plan.

05 Legislative Name Change to Groundwater Management Areas –
On July 19, 1996, LB 108 became effective. This legislation designated all existing control areas and special protection areas as "management areas."

06 Upper Platte Basin Fully Appropriated –
On December 30, 2005, the Nebraska Department of Natural Resources notified the District of the Department's preliminary determination that portions of the Upper Platte River Basin, part of which lies within the District, are fully appropriated and the geographic area in which the surface water and groundwater are hydrologically connected. Pursuant to Department rule, 457 NAC 24001.02, the hydrologically connected area is the area within which pumping of a water well for fifty (50) years will deplete the river or a baseflow tributary thereof by at least ten percent (10%) of the amount pumped in that time (the "10/50 Area").

On April 21, 2006, the Department issued the "Order of Final Determination of River Basins, Subbasins, or Reaches as fully Appropriated, and Describing Hydrologically Connected Geographic Areas", confirming the preliminary determination of December 30, 2005.

07 Hastings Wellhead Protection Groundwater Management Area Action Plan –
On February 16, 2012, the District adopted the Hastings Wellhead Protection Groundwater Management Area Action Plan, which is a joint plan with the Little Blue Natural Resources District and Hastings Utilities.

08 Date these rules and regulations were adopted –
The Upper Big Blue Natural Resources District, in accordance with the requirements of the Nebraska Ground Water Management and Protection Act, and after holding a public hearing on, August 19, 2019, hereby adopts the following revised rules and regulations governing the use of groundwater in Groundwater Management Area #1, activities related to the management of nonpoint source groundwater contamination in Groundwater Management Area #2 and the Upper Platte River Basin Integrated Management Area.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 2 – APPLICATION OF THESE RULES AND REGULATIONS

01 Rules and Regulations for GWMA#1 –
Rule 5, Chapters 1 through 19 shall apply to Groundwater Management Area #1 only. Rule 5, Chapter 13 shall also apply to the Upper Platte River Basin Integrated Management Area.

02 Rules and Regulations for GWMA#2 –
Rule 5, Chapters 1 through 9 and 20 through 24 shall apply to Groundwater Management Area #2 only.

03 Rules and Regulations for Upper Platte River Basin Integrated Management Area –
Rule 5, Chapter 25 shall apply to the Upper Platte River Basin Integrated Management Area only.

04 Rules and Regulations for the Hastings Wellhead Protection Groundwater Management Area –
Rule 5, Chapter 26 shall apply to that portion of the Hastings Wellhead Protection Groundwater Management Area that lies within the boundaries of the Upper Big Blue NRD only.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 3 – EFFECTIVE DATE OF THESE RULES AND REGULATIONS

01 Effective date –
These rules and regulations are effective commencing on May 16, 2025, and shall remain in full force and effect until revised, repealed, amended or superseded.

02 Previous rules and regulations superseded –
All previous Groundwater Management Area Rules and Regulations are hereby superseded.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 4 – DEFINITIONS THAT APPLY TO THESE RULES AND REGULATIONS

Abandoned water well –
Abandoned water well means any water well, the use of which has been accomplished or permanently discontinued, which has been decommissioned as described in the rules and regulations of the Nebraska Department of Health and Human Services Regulation and Licensure, and the owner of which has filed a notice of abandonment with the Nebraska Department of Natural Resources.

Acre inch –
Acre inch means the amount of water that will cover one (1) surface acre to the depth of one (1) inch. One (1) acre inch is equal to twenty-seven thousand one hundred fifty-four (27,154) gallons.

Allocation –
Allocation means the apportioning of groundwater.

Board or Board of Directors –
Board or Board of Directors means the Board of Directors of the Upper Big Blue Natural Resources District acting in its official capacity.

Certified groundwater use acre –
Certified groundwater use acre means a groundwater use acre certified by the Board for the application of groundwater pursuant to these rules and regulations.

Decommission –
Decommission means the complete filling and sealing of a water well cavity in accordance with the rules and regulations adopted pursuant to the Water Well Standards and Contractors' Licensing Act.

District –
District means the Upper Big Blue Natural Resources District.

District groundwater level –
District groundwater level means the average level of the surface of the groundwater table in GWMA#1 as determined in accordance with Rule 5, Chapter 11 of these rules and regulations.

Field –
Field means land controlled by one Operator in a tract, or in adjoining tracts, where the same cropping sequence and irrigation practice (i.e. irrigated or dryland) occurs in two (2) consecutive growing seasons.

Flow meter –
Flow meter or meter means a device of a type and design approved by the District and installed in connection with the use of a water well that, when properly installed, measures the quantity and rate of groundwater withdrawn.

Government survey section –
Government survey section means a section of land approximately one (1) square mile in size as defined by the United States Government Survey System of towns, ranges, sections, quarter sections, etc.

Groundwater –
Groundwater means water that occurs, moves, seeps, filters or percolates through the ground under the surface of the land.

Groundwater withdrawal shall mean –
For the purposes of Rule 5, Chapter 5, groundwater withdrawal shall mean the total groundwater pumped, less any water returned to the aquifer through an injection well within one thousand (1,000) feet of the source. Injection wells that return water to the aquifer must comply with federal, state and local rules and regulations governing such activities.

Groundwater Management Area #1 –
Groundwater Management Area #1 or GWMA #1 means the area designated for the management of groundwater quantity. A map showing the geographic area and the legal description of GWMA #1 are attached hereto as Appendix A and B respectively and incorporated herein by reference.

Groundwater Management Area #2 –
Groundwater Management Area #2 or GWMA #2 means the area designated for the management of groundwater quality. GWMA #2 includes the entire Upper Big Blue Natural Resources District.

Groundwater use acre –
Groundwater use acre means an acre of land that a Groundwater User wants to apply groundwater to, pursuant to these rules and regulations.

Groundwater transfer –
Groundwater transfer or transfer of groundwater means the conveyance of groundwater from a water well or water wells located in one government survey section to be used for a beneficial purpose in another government survey section.

Groundwater use period –
Groundwater use period means a period of years designated by the Board for which an allocation is set. The first groundwater use period shall begin on the effective date of Rule 5, Chapters 17 through 19.

Groundwater User –
Groundwater User means a person that withdraws groundwater.
Agricultural User means a Groundwater User that uses groundwater for irrigation, recreation, wildlife or any uses that require the application of groundwater to the surface of the land.
Municipal User means a Groundwater User that is an incorporated city or village, rural water district or sanitary improvement district that withdraws groundwater from a water well to serve its customers.
Other User means a Groundwater User that uses groundwater for purposes other than those described in the definitions of agricultural and Municipal Users. Other user shall include a customer of a Municipal User that uses groundwater for manufacturing at a maximum rate greater than 50 gallons per minute.

Hastings Wellhead Protection Groundwater Management Area –
Hastings Wellhead Protection Groundwater Management Area means that area within the District designated in the Hastings Wellhead Protection Groundwater Management Area Action Plan.

High Risk Groundwater Area –
High Risk Groundwater Area means part of the District which the Board has designated due to limitations on the availability of groundwater. The legal description of the High-Risk Groundwater Area is incorporated in District Rule 5 as Appendix D.

Illegal water well –
Illegal water well means: A water well not in compliance with any other applicable

laws of the State of Nebraska, as set forth in Neb. Rev. Stat. §§ 46-601 et.seq., or with any provisions of these rules and regulations.

Integrated management area –
Integrated management area means that portion of the District designated by the Department of Natural Resources as hydrologically connected to the fully appropriated Upper Platte River Basin. A map showing the Integrated Management Area is attached hereto as Appendix C.

Livestock Feeding Operation or LFO –
Livestock Feeding Operation or LFO means a confined animal feeding operation as defined in Nebraska Administrative Code Title 130 and utilizes one (1) or more wells with a combined pumping capacity greater the fifty (50) gallons per minute to provide groundwater for the operation.

Monitoring well –
Monitoring well means a water well from which the District or other public agency collects groundwater samples or acquires data.

Nitrogen Fertilizer –
Nitrogen Fertilizer means a chemical compound in which the percentage of nitrogen is greater than the percentage of any other nutrient in the compound.

Nitrification Inhibitor –
Nitrification inhibitor means a chemical compound used to slow the nitrification of ammonia, ammonium-containing, or urea-containing fertilizers, which are applied to soil as fertilizers. These inhibitors can help reduce losses of nitrogen in soil that would otherwise be used by crops. For the purpose these regulations a nitrification inhibitor must include one of the following active ingredients Nitropyrin, Pronitridine, or Dicyandiamide. Requests for additions to the list of approved nitrification inhibitor active ingredients will be considered by the board upon request.

Nonpoint source –
Nonpoint source shall have the definition provided by the Rules and Regulations of the Nebraska Department of Environment and Energy.

Observation well –
Observation well means a water well measured by the District or other public agency to determine changes in the groundwater level.

Operator –
Operator means a person, partnership, association, corporation, municipality or other entity which operates irrigated or dryland properties to produce agricultural, horticultural, silvicultural, nursery products or aquiculture.

Parcel of land –
Parcel of land or parcel means a description of property formally set forth in a conveyance, together with the boundaries thereof, so that it may be easily identified.

Permit –
Permit means a document obtained, in accordance with the Nebraska Groundwater Management and Protection Act and these rules and regulations, authorizing the construction or modification of a water well and/or its use.
Initial Permit may be issued for construction of a new water well, or modification of an existing water well for which a permit was not previously issued.
Supplemental Permit may be issued for modification of, or increased groundwater withdrawal from, an existing water well.
Late Permit may be issued when a water well was illegally constructed or modified without first receiving an Initial or Supplemental Permit.

Person –
Person means a natural person, personal representative, trustee, guardian, conservator, partnership, association, corporation, municipality, irrigation district, agency or political subdivision of the State of Nebraska.

Tract of land –
Tract of land or tract means the legally deeded property of a person that is contiguous and lies within one government survey section.
Destination tract means a tract of land to which groundwater is being transferred.
Source tract means a tract of land from which groundwater is being transferred.

Water well –
Water well means an artificial opening or excavation in the ground from which groundwater flows under natural pressure or is artificially withdrawn.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 4 – DEFINITIONS THAT APPLY TO THESE RULES AND REGULATIONS

01 Except as provided in Rule 5, Chapter 7, a, water wells that are commingled, combined, clustered, or joined shall be considered one (1) water well. Water wells with a capacity of less than fifty (50) gallons per minute are considered to be commingled, combined, clustered, or joined with any other water well when the wells use a common pipeline or water storage facility or, are located on the same tract and are used for a similar or related purpose, and are within one thousand (1,000) feet of the other water well.

A. A water well with a capacity of fifty (50) gallons per minute or less is not subject to these rules and regulations unless otherwise indicated.
A water well, that withdraws groundwater that is returned to the aquifer of origin by injection into an injection well is exempt as provided in Rule 5, Chapter 4 if the following provisions are met.
The injection well must be no more than one thousand (1,000) feet from the water well.
The maximum water loss from withdrawal to injection must be fifty (50) gallons per minute or less.

B. Artesian water well means a water well-constructed into a confined aquifer containing groundwater under natural pressure that is sufficient to cause water to reach the ground surface.

C. Domestic water well means a water well that provides ground water required for human needs as it relates to health, fire control, and sanitation.

D. Municipal water well means a public water supply well owned and operated by a city, village, municipal corporation, or sanitary improvement district that provides water to the public fit for human consumption through at least 15 service connections or regularly serves at least 25 individuals.

E. Source water well means a water well located on a source tract that provides groundwater for a groundwater transfer.

F. Reserve water well means a well operated by an Other User that is only used if it is needed to replace the function of an active water well. The pumping capacity of reserve water well shall not be included when determining the capacity of water wells that are commingled, combined, clustered, or joined until it is needed to replace the function of an active water well.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 5 – WATER WELLS

01 Construction, decommissioning and temporary capping of water wells –
Any person that owns or controls land upon which the construction, decommissioning or temporary capping of a water well is to be accomplished, shall accomplish such tasks in accordance with the Water Well Standards and Contractor's Licensing Act and the regulations adopted pursuant thereto.

Any person that owns or controls land upon which an abandoned water well is located shall notify the District within sixty (60) days after decommissioning has been completed.

Artesian water wells constructed on or after July 1, 2013, must be operated in such a manner as to prevent groundwater from the well to flow out and run to waste in an amount that exceeds what will flow through a pipe one-half of one inch (1/2") in diameter.

Artesian water wells constructed prior to July 1, 2013, may continue to operate as constructed until such time that the allocation provisions of Rule 5, Chapters 17, 18 and 19 are implemented. Upon implementation of Rule 5, Chapters 17, 18 and 19, artesian water wells must be operated in such a manner as to prevent groundwater from a well to flow out and run to waste in an amount that exceeds what will flow through a pipe one-half of one inch (1/2") in diameter.

An artesian water well decommissioned after July 1, 2013, must be decommissioned in such a manner as to stop the flow of groundwater to waste.

02 Information required on a permit application –
In addition to the requirements of Nebraska Revised Statutes ¶ 46-735, each application for any Permit shall include all additional information deemed necessary by the District to determine compliance with these rules and regulations.

03 When a permit is required –
Any person that undertakes any of the following activities shall, before commencing such activity, apply for and receive an Initial or Supplemental Permit from the District:

Construction of a water well designed and constructed to pump more than fifty (50) gallons per minute.
Construction of a water well designed to pump fifty (50) gallons per minute or less, if such water well is to be commingled, combined, clustered, or joined with any other water well or wells in a manner that will cause the total capacity of said water wells to be more than fifty (50) gallons per minute.

Water wells used solely to water range livestock are exempt from Rule 5, Chapter 5.

Modification of a water well for which a permit was not required, into one for which a permit would be required.

Use of a water well to transfer groundwater as provided in Rule 5, Chapter 13.

Construction of a water well or wells on a parcel or parcels of land for groundwater withdrawal in the amount of five hundred (500) acre feet or more each year.

04 Increasing the groundwater withdrawal from an existing water well or wells on a parcel or parcels of land to five hundred (500) acre feet or more each year, or in the case of an existing water well or wells on a parcel or parcels of land that currently withdraw five hundred (500) or more acre feet each year, increasing groundwater withdrawal by an additional two hundred and fifty (250) acre feet or more each year.

A. Hydrologic evaluation required –
When the withdrawal of groundwater by any person requires an Initial or Supplemental Permit from the District under Rule 5, Chapter 5, such person shall, in addition to the information required on the application, provide the District with a hydrologic evaluation, conducted at permittee's expense, showing the impact, if any, of the intended withdrawal on current Groundwater Users and a minimum twenty (20) year impact on the groundwater table for potential future uses.

In addition to the required non-refundable permit fee, the applicant shall reimburse the District for its actual costs expended for peer review and assessment of the hydrologic evaluation after the first review. A five thousand (5,000) dollar deposit shall be paid to the District prior to the second review. Any additional costs shall be paid prior to issuing a permit. The applicant will be reimbursed any unused portion of the deposit.

05 Except as otherwise required, all applications for a permit will be reviewed by the District. The District will approve, approve with conditions, deny, or request additional information before action on the application based on the following:

A. The use of accepted methods in conducting the hydrologic evaluation.

B. Satisfactory compliance with District rules and regulations.

C. The goals and objectives of these rules and regulations.

D. Preference of use as follows: 1) domestic, 2) agriculture and 3) manufacturing and industry in accordance with Nebraska Revised Statutes §46-613.

E. Reasonable probability of adversely impacting other groundwater or surface water users.

F. Any adverse impacts on the State's ability to comply with an interstate compact or decree or to fulfill the provisions of any other formal state contract or agreement.

G. Protection of the public's interest and welfare.

H. Waivers of liability considered –
Waivers of liability obtained from potentially impacted Groundwater Users will be considered by the District when determining whether to grant or deny a permit.

06 Flow meter required –
All water wells must be equipped with a District approved flow meter in accordance with Rule 5, Chapter 16, prior to groundwater withdrawal if any of the following conditions are met:

Allocation per Rule 5, Chapters 17, 18 and 19 becomes effective.
By January 1, 2016, per Rule 5, Chapter 16.
A permit is issued for construction or modification of a water well after March 1, 2004.

07 Exempt water wells –
No permit shall be required for test holes or dewatering wells with an intended use of ninety (90) days or less, or for a single water well designed and constructed to pump fifty (50) gallons per minute or less.

08 Permit no exemption from liability –
The issuance of a permit by the District, as provided for in Rule 5, Chapter 5, should not be construed by the applicant to exempt him or her from any liability which may result from the withdrawal of groundwater.

Situations not covered by these rules and regulations –
The Board may consider situations not covered by these rules and regulations on a case by case basis.

Necessary forms provided by the District –
The District will provide the Groundwater User with the forms necessary to report information required by these rules and regulations.

Severability –
If a rule or part of a rule herein is declared invalid or unconstitutional by a court of competent jurisdiction, such declaration will not affect the validity or constitutionality of the remaining rules or portions thereof.

Rules and Regulations not an exemption from state laws –
Nothing contained in these rules and regulations shall exempt a person from the provisions of applicable state laws.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 7 – LARGE VOLUME WATER USER PERMITS

01 Large Volume Water Wells shall mean water wells that withdraw, or will be used to withdraw, groundwater in volumes greater than five hundred (500) acre-feet in any calendar year from a single well, or collection of wells and combine ground water from such collection, for a single use. Groundwater that is combined from multiple wells for a single use shall be permitted as a single project as set forth below.

02 The District shall regulate new Large Volume Water Users pursuant to the declaration of policy adopted by the Nebraska Legislature and codified as Neb. Rev. Stat. §46-613. Section 46-613 states in full: "Preference in the use of ground water shall be given to those using the water for domestic purposes. They shall have preference over those claiming it for any other purpose. Those using the water for agricultural purposes shall have the preference over those using the same for manufacturing or industrial purposes. As used in this section, (1) domestic use of ground water shall mean all uses of ground water required for human needs as it relates to health, fire control, and sanitation and shall include the use of ground water for domestic livestock as related to normal farm and ranch operations and (2) agricultural purposes shall include, but not be limited to, aquaculture as defined in section 2-3804.01."

03 All new Large Volume Water Wells must receive a permit issued by the District before being constructed and operated. Before issuing a permit for a Large Volume Water Well, the District shall evaluate the impacts of the new Large Volume Water Well on surrounding domestic, agricultural, and manufacturing/industrial wells and on streamflow.

The evaluation shall consist of, but not be limited to, a hydrologic evaluation prepared by the applicant and at the expense of the applicant. The hydrologic evaluation shall be prepared using the most recent and reliable scientific data and information that is publicly available. The hydrologic evaluation shall also include an analysis of conservation measures that can reasonably be employed by the applicant to minimize the short- and long-term negative impacts to the source aquifer. The hydrologic evaluation shall also identify the rate and volume of any discharge water and recharge associated with any discharge water.

The hydrologic evaluation shall also identify the number and location of monitoring wells that can be constructed and used to assess any future unanticipated impacts to surrounding wells or streamflow.

To ensure the highest degree of reliability, the District shall select a qualified hydrologist to conduct a peer review of the hydrologic analysis. The applicant shall be responsible for any expense incurred for the peer review of the hydrologic

analysis. The applicant shall be advised of the District's intent to select the hydrologist, the identity of the hydrologist, and the anticipated cost.

The District may provide additional guidelines to aid the applicant in the preparation of the hydrologic evaluation.

04 A draft of the application, hydrologic evaluation, and associated documents will be made available to the Water Committee at least 30 days prior to the application being submitted to the Board of Directors for approval. The District shall grant the application for a permit if the District determines, based on all available information, that: (1) The project is for a beneficial use of ground water; and (2) The project will not result in unreasonable harm to surrounding domestic, agricultural, or manufacturing/industrial wells or unreasonably diminish streamflow.

Unreasonable harm includes, but is not limited to, reductions to the static water level of the groundwater source that impairs the operation of surrounding wells or causes streamflow reductions that impair surface water appropriations.

In approving the application, the District may include permit conditions that require the applicant to construct monitoring wells with full access to the monitoring wells and monitoring data provided to the District. Conditions for operation may also include groundwater well operation restrictions, including allocations, if the monitoring wells indicated unanticipated negative impacts to surrounding wells or to streamflow. Conditions for operation may be imposed by the District at any time as is necessary to prevent unreasonable harm to surrounding wells.

05 Large Volume Water Well Permits shall specify the period within which the proposed wells must be constructed to completion and begin operations. The period specified for construction shall not exceed one year from the date of permit issuance unless the applicant clearly demonstrates on the application for a permit, that one year will be an insufficient period to time for such construction. Operation of the wells under a Large Volume Well Permit may be of limited duration or in perpetuity as the Board shall determine but the District may, as water management needs require, impose operational restrictions or limitations as set forth in the conditions stated in subsection 4 above.

06 Within five (5) years of the date of completion of any Large Volume water well authorized by a permit issued under this Chapter, the holder of the permit shall operate the well as represented in the application, unless sufficient cause for non-use exists. The failure to operate the well as represented in the application within

this five (5) year period, or for any five (5) year period after operations have begun, may result in the termination of the permit if no sufficient cause for non-use exists. No permit shall be canceled without a hearing before the full Board. Sufficient cause for non-use may include, but is not limited to, the reasons specified in Neb. Rev. Stat. §46-229.04(4)(a),(d)(e) or (f), for surface water appropriations.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 8 – HIGH RISK GROUNDWATER AREA

01 NOTICE TO APPLICANT
Review of a permit for construction of a new water well in the High-Risk Groundwater Area may require that the District notify the owners of adjacent property and field verification of wells on adjacent property. The applicant should expect the permitting process to take up to thirty (30) days. Applications for replacement wells will be expedited, to the extent possible, between June 1 and September 1.

02 The District shall regulate new wells in the High Risk Groundwater Area pursuant to the declaration of policy adopted by the Nebraska Legislature and codified as Neb. Rev. Stat. §46-613. Section 46-613 states in full: "Preference in the use of ground water shall be given to those using the water for domestic purposes. They shall have preference over those claiming it for any other purpose. Those using the water for agricultural purposes shall have the preference over those using the same for manufacturing or industrial purposes. As used in this section, (1) domestic use of ground water shall mean all uses of ground water required for human needs as it relates to health, fire control, and sanitation and shall include the use of ground water for domestic livestock as related to normal farm and ranch operations and (2) agricultural purposes shall include, but not be limited to, aquaculture as defined in section 2-3804.01."

03 A new water well constructed shall meet the following spacing requirements. –

A. The new water well must be located at least twelve hundred fifty (1,250) feet from any other water well regardless of ownership.
B. The new water well must be located at least two (2) miles (10,560 feet) from any municipal well.
C. The new water well must be located at least twelve hundred fifty (1,250) feet from a documented domestic water well under different ownership, including domestic water wells with a pumping capacity of fifty (50) gallons per minute or less.

A domestic water well shall be considered "documented" if it is registered with the Nebraska Department of Natural Resources or if the District has been notified of its existence and location.

No more than one (1) water well shall be constructed on a tract, a part of a tract, or tracts of land that are eighty (80) acres or less in size, with a maximum of two (2) water wells per one-hundred sixty (160) acres.

Each individual water well that is commingled, combined, clustered, or joined with other water wells in a series shall be considered a water well.
Each existing water well on a tract of land may be replaced. When a water well located less than twelve hundred fifty (1,250) feet from another water well or less than two (2) miles (10,560 feet) from a municipal water well is replaced, the replacement water well may be constructed no more than fifty (50) feet closer to the other water well.
Municipal wells are exempt from Rule 5, Chapter 8.

04 Illegal water wells not protected –
Illegal water wells are not protected by the provisions of Rule 5, Chapter 8.
The failure of a person to update water well ownership and irrigated acres records shall not jeopardize the well spacing protection provided under Rule 5, Chapter 8 unless the District determines that said person has knowingly attempted to deceive the District or has failed to act in good faith in matters pertaining to these rules and regulations.

05 Municipal Conservation Procedures Required in the High-Risk Groundwater Area –
By March 1 after implementation of Rule 5, Chapter 25, the Municipal User in the High-Risk Groundwater Area shall have adopted an administrative procedure that allows the Municipal User to require water conservation practices and restrict the water use of its customers.

06 Domestic Water Wells in the High-Risk Groundwater Area.
New or replacement domestic water wells shall be constructed to such a depth that they are less likely to be affected by seasonal water level declines caused by other water wells in the same area. Any person who installs a new or replacement domestic water well shall submit a certification from the water well contractor that the well was constructed in compliance with this section. The certification shall be submitted to the District within 90 days of completing construction.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

DISTRICT-WIDE GENERAL REGULATIONS

CHAPTER 9 – REQUEST FOR VARIANCE

01 Information required –
A request for a variance shall include the following:

A. A citation of the provisions of Rule 5 for which the variance is requested.

B. A map or sketch showing the location of lands and/or water wells that would be affected by the variance. If the request for a variance is for well spacing, the sketch must include measured distances from the proposed water well to any affected water wells.
An explanation as to why the variance is needed including:
    i: How the person making applications for the variance would be affected if the variance is not granted, and
    ii: Alternatives considered, including why each alternative was rejected in lieu of a variance.

C. The name and address of all landowners adjacent to the location of the requested variance.

D. A written waiver of objections signed by adjacent landowner(s) or water well owner(s) that would be directly affected by the granting of a variance.

E. Any other information the person making the request shall deem relevant.

F. Any other information deemed necessary by the District.

G. A $100 non-refundable application fee payable to the Upper Big Blue Natural Resources District.

02 Applicant shall appear before the Water and Regulations Committee –
The person applying for a variance shall appear before the District's Water and Regulations Committee to present the reasons for the variance.

Requests for variances shall be considered by the Board on a case by case basis. If a variance is granted, the grantee shall sign an affidavit agreeing to all terms and conditions of the variance. The District may require the affidavit to be recorded with the Register of Deeds by the District. The recorded affidavit will be attached to all properties affected by the variance.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

GENERAL REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 10 – GOALS AND OBJECTIVES OF THESE REGULATIONS

01 The objective of promulgating these rules and regulations –
The objective of promulgating these rules and regulations is to encourage, promote and regulate the efficient management and conservation of groundwater and maintain an adequate groundwater supply for the foreseeable future.

02 Long term goal of the District –
The long-term goal of the District is to hold the District groundwater level above the 1978 District groundwater level through various programs sponsored by the District and through the requirements of Rule 5, Chapters 1 through 13 of these rules and regulations.

03 Groundwater withdrawal reporting trigger –
When the District groundwater level, as defined in Rule 5, Chapter 11, falls below a level that is three (3) feet above the 1978 District groundwater level, Rule 5, Chapters 14, 15 and 16 shall be implemented.
Implementation of Rule 5, Chapters 14, 15 and 16 will continue until it is discontinued by the Board through amendments to Rule 5 in accordance with the requirements of state law.

04 Groundwater allocation trigger –
When the District groundwater level falls below the 1978 District groundwater level, Rule 5, Chapters 17, 18 and 19 of these rules and regulations will be implemented and shall become effective on January 1 of the following year.

05 Groundwater use period and allocation –
The Board will set the duration of the groundwater use period and allocation amount by September 1 prior to the start of the initial and each subsequent groundwater use period. The groundwater use period and allocation will be set by amendments to Rule 5 in accordance with the requirements of state law.

A. Initial Groundwater Use Period –
The first groundwater use period shall begin upon the implementation of Rule 5, Chapters 17, 18 and 19 for period of thirty-six (36) months.
The second groundwater use period shall be for a period of sixty (60) months.

B. Groundwater Allocation –
The groundwater allocation for the first groundwater use period shall be thirty (30) inches per certified groundwater use acre.
The groundwater allocation for the second groundwater use period shall be forty-five (45) inches per certified groundwater use acre.

06 Discontinuance of allocation –
If the District groundwater level, determined for the final year of a groundwater use period, has risen to a level that is more than three (3) feet above the 1978 District groundwater level, implementation of Rule 5, Chapters 17, 18 and 19 will be suspended. The Board may consider suspending allocation for the final year of the current allocation period.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

GENERAL REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 11 – DETERMINATION OF DISTRICT GROUNDWATER LEVELS

01 Groundwater levels shall be determined as set forth in the appendix. –
The average annual groundwater level change is determined annually by comparing the spring groundwater level measurements taken from observation wells to measurements taken in the spring of the prior year.

02 How District groundwater level is determined –
The average annual groundwater level change is added to the groundwater level change of the previous year to determine the District groundwater level.
The spring 1962 groundwater level measurements are the base from which the District calculated the first District groundwater level. The base is assumed to be zero (0). The District groundwater level for each year is referred to as the groundwater level for the year preceding the year in which the spring groundwater level measurements are taken.

03 Determination of area represented by each observation well –
The area represented by each observation well is determined by its location in relationship to other observation wells using the Thiessen weighting method.

04 Observation wells measured determined by the District –
Observation wells used in the calculation of the District groundwater level are determined by the District. The District will attempt to use measurements from the same observation wells each year, however an observation well may be decommissioned, and it may become necessary to find another water well in the area that is available for measurement.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

GENERAL REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 12 – WATER WELL SPACING

01 All water wells constructed after the effective date of Rule 5 must comply with the well spacing requirements of Rule 5, Chapter 12. A water well constructed in the High-Risk Groundwater Area must also meet the provisions of Rule 5, Chapter 12 and Chapter 7. When the provisions of Chapters 12 and Chapter 9 conflict, Chapter 7 shall prevail.

02 Well spacing required –
A water well constructed after the effective date of Rule 5, must be located at least one thousand (1,000) feet from any other water well under different ownership.

03 Replacement well spacing, special conditions –
When a water well located less than one thousand (1,000) feet from a water well under different ownership is replaced, the replacement water well may be constructed no more than fifty (50) feet closer to the water well under different ownership.

04 Illegal water wells not protected –
Illegal water wells are not protected by the provisions of Rule 5, Chapter 12.
The failure of a person to update water well ownership and irrigated acres records shall not jeopardize the well spacing protection provided under Rule 5, Chapter 12 unless the District determines that said person has knowingly attempted to deceive the District or has failed to act in good faith in matters pertaining to these rules and regulations.

05 Spacing for commingled water wells –
When water wells are commingled, combined, clustered, or joined and have a combined total capacity of more than fifty (50) gallons per minute, each water well shall comply with all provisions of Rule 5, Chapter 12.

06 Water well spacing exemption –
A water well with a pumping capacity of less than 100 gallons per minute, constructed between March 1, 1979, and February 29, 2004, is not subject to the well spacing provisions of Rule 5, Chapter 12.

CHAPTER 13 – GROUNDWATER TRANSFERS

01 On or after June 21, 2007, a person who intends to transfer groundwater from an overlying tract, shall apply for a transfer authorization on forms provided by the District. A non-refundable application fee of fifty (50) dollars payable to the District shall accompany all requests for a groundwater transfer to cover costs associated with its review.

02 Transfers for Agricultural Users –
The District will consider a request for a new groundwater transfer by an Agricultural User, as defined in Rule 5, Chapter 4, when the following criteria are met:

A. The destination tract is directly adjacent or diagonal to the source tract; and
B. At its closest point, the destination tract is not more than three thousand (3,000) feet from the source well; and
C. The source well is at least one thousand (1,000) feet from all other water wells under separate ownership, including water well that have a pumping capacity of fifty (50) gallons per minute or less; and
D. The groundwater use acres in the destination tract is limited to an amount less than or equal to the total number of acres in the source tract; and
E. The total transfer from the source tract shall not apply groundwater to more than one hundred and sixty (160) acres.
F. On or after July 1, 2013, agricultural groundwater transfers are prohibited into, out of or within the “High Risk Groundwater Area” attached as Rule 5 Appendix D.

03 Transfers for uses for Municipal and Other Users –
A Municipal User or Other User, as defined in Rule 5, Chapter 4, shall only be allowed to initiate new groundwater transfers to a government survey section that is directly adjacent or diagonal to the source tract.

Transfers proposing to withdraw more than two hundred and fifty (250) acre feet annually shall conduct a hydrologic evaluation as provided in Rule 5, Chapter 5.

04 In determining whether to grant a permit under Rule 5, Chapter 13, the Board of Directors shall consider the following:

A. Whether the proposed use is a beneficial use of groundwater;

B. The availability to the applicant of alternative sources of surface water or groundwater for the proposed withdrawal, transport, and use;

C. Any negative effect of the proposed withdrawal, transport, and use on groundwater supplies needed to meet present or reasonable future demands for water in the area of the proposed withdrawal, transport, and use, to comply with any interstate compact or decree, or to fulfill the provisions of any other formal state contract or agreement;

D. Any negative effect of the proposed withdrawal, transport, and use on surface water supplies needed to meet present or reasonable future demands for water within the state, to comply with any interstate compact or decree, or to fulfill the provisions of any other formal state contract or agreement;

E. Any adverse environmental effect of the proposed withdrawal, transport, and use of the groundwater;

F. The cumulative effects of the proposed withdrawal, transport, and use relative to the matters listed in this section when considered in conjunction with all other withdrawals, transports, and uses subject to this section;

G. Whether the proposed withdrawal, transport, and use is consistent with the district's groundwater quantity and quality management plan and with any integrated management plan previously adopted or being considered for adoption in accordance with sections Nebraska Revised Statutes 46-713 to 46-719; and

H. Any other factors consistent with the purposes of these rules and regulations which the board of directors deems relevant to protect the interests of the state and its citizens.

05 New transfers of groundwater prohibited when allocation has been established –
New transfers of groundwater from within the District where a groundwater allocation has been established, is prohibited.

06 Not exempt from applicable state laws –
Nothing in Rule 5, Chapter 13, shall exempt a person from the provisions of applicable state laws regarding groundwater transfers.

07 Transfers exempt from Rule 5, Chapter 13 –
The following types of transfers are exempt from Rule 5, Chapter 13:

A. A Groundwater transfer authorized by the Municipal Rural Domestic Ground Water Transfers Permit Act.
B. Transfer of groundwater that was started prior to August 1, 2007.
C. The physical transfer of groundwater within the same government survey section.
D. Groundwater transfer within the corporate limits of a municipality.

08 Authorization Revoked.
The District may revoke a groundwater transfer authorization if the Groundwater User does not comply with the provisions of Rule 5, Chapter 13 including any conditions placed on the groundwater transfer authorization at the time of issuance.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 14 – CERTIFICATION OF GROUNDWATER USE ACRES AND WATER WELLS

01 Public warning of groundwater declines –
The District shall issue a public notice warning Groundwater Users that groundwater use restrictions will be implemented if the District groundwater level falls below the 1978 District groundwater level.

02 Agricultural Users must report –
By March 1 after the issuance of the public notice described in Rule 5, Chapter 14, an Agricultural User must report the following:

A. The number and location of groundwater use acres.
B. The water wells under their control.
C. A copy of the most recent property tax statement, or other documentation from the county assessor showing irrigated acres, must be attached.
D. For tax exempt groundwater use acres, the Groundwater User shall provide available documentation as deemed necessary by the District.
E. Any other information deemed necessary by the District.

03 Board will certify groundwater use acres –
The Board will certify the number of groundwater use acres for each Agricultural User based on the county assessor's records.
The Board will certify tax exempt groundwater use acres based on available information.
The Board will consider new requests for certification of groundwater use acres monthly.
The Board may consider adjustment to certified groundwater use acres based on evidence presented by the Groundwater User.

04 Units of groundwater use acres –
The certified groundwater use acres under the control of the same Agricultural User in the same government survey section and/or irrigated by the same water well shall be considered one (1) unit for the purposes of allocation.
The owner of the land shall be considered the Agricultural User in control of groundwater withdrawal unless their land is included in a pooling agreement.

05 Pooling agreements –
Pooling agreements will be permitted between Agricultural Users and units of groundwater use acres under the following conditions:

A. Groundwater use acres served by the same water well which are under the control of two or more Agricultural Users shall be pooled unless the groundwater withdrawn by each Agricultural User is measured by a different flow meter.
B. Groundwater use acres in the same farming operation may be pooled.
C. The pooling agreement shall designate the water wells and groundwater use acres included in the pool. The pooling agreement shall also designate the person or persons responsible for all reporting of groundwater withdrawal and other information required by the District.
D. A new pooling agreement, or amendments to an existing pooling agreement, must be submitted to the District by March 1.
E. All Agricultural Users with groundwater use acres included in the pooling agreement must sign the agreement or provide appropriate power of attorney.
F. Certified groundwater use acres which have exhausted their allocation shall not be added to a pooling agreement.

06 Municipal Users must report –
By March 1, after the issuance of the public notice described in Rule 5, Chapter 14, a Municipal User must report the following information to the District:
A. The water wells operated by the Municipal User.
B. The total acreage within the municipal jurisdictional limits.
C. The irrigated agricultural acreage within the municipal jurisdictional limits.
D. The dryland agricultural acreage within the municipal jurisdictional limits.
E. Any acreage outside the municipal jurisdictional limits served by the municipal water supply system.
F. The municipality's population according to the most recent federal census.
G. The number of people served by the municipal water supply system.
H. Any other information deemed necessary by the District.

07 Other Users must report –
By March 1 after the issuance of the public notice described in Rule 5, Chapter 14, the Other User must report the following information to the District:
A. The water wells under the User’s control.
B. Water wells reported shall include active, inactive and reserve wells.
C. The purpose of the groundwater withdrawal.
D. Historic annual groundwater withdrawal, if known.

08 Groundwater User must report changes in information –

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 14 – CERTIFICATION OF GROUNDWATER USE ACRES AND WATER WELLS

A Groundwater User must report to the District any changes or additions to the information required in Rule 5, Chapter 14, within sixty (60) days.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 15 – ANNUAL GROUNDWATER USE REPORTS

01 Agricultural User groundwater withdrawal report required –
By December 1 of each year, an Agricultural User shall report the groundwater withdrawal from each water well he or she controlled during the twelve (12) months ending October 31.

A Groundwater User's first report shall be due on December 1, following the initial information report required by Rule 5, Chapter 15.

The totalizer reading for each flow meter must be included on the report.

The totalizer may not be reset or altered without prior approval of the District.

02 Municipal and Other User groundwater withdrawal report required –
By March 1 of each year, a Municipal User and each Other User shall report the groundwater withdrawal from each water well he or she controlled during the previous calendar year.

A Groundwater User's first report shall be due on March 1, following the initial information report required by Rule 5, Chapter 15.

The totalizer reading for each flow meter must be included on the report.

The totalizer may not be reset or altered without prior approval of the District.

03 Temporary methods of determining withdrawal –
Prior to installation of a flow meter, the Groundwater User shall determine the acre inches of groundwater withdrawal by the hours pumped, multiplied by sixty (60) minutes, multiplied by the gallons per minute capacity of a water well, divided by twenty-seven-thousand one hundred fifty-four (27,154) gallons (Hours x 60 x G.P.M. ÷ 27,154).

Fuel or electrical consumption may provide information on actual hours pumped.

04 Assistance to determine groundwater withdrawal –
Upon request, the District will assist Groundwater Users in determining annual groundwater withdrawal.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 16 – WATER MEASURMENT REQUIREMENTS

01 Flow meters installed –
A flow meter shall be installed on all water wells prior to being used to withdraw groundwater. If a water well, as described in Rule 5, Chapter 16, is not being used, a metal plate must be attached over the pump head discharge.

The metal plate must be attached in a manner that is satisfactory to the District so as to make the pump discharge non-functional and allow for the installation of a wire seal by the District.

02 All Groundwater withdrawal must be measured –
When a flow meter is installed all groundwater withdrawal must be measured. Groundwater withdrawals from water wells that are connected by a common pipeline may be measured by one flow meter, provided all groundwater withdrawal is measured.

03 All flow meters installed must be approved –
The flow meter installed must be a brand and/or model approved by the District. The Minimum Specifications for Inclusion on the Approved Flow Meter List are included as Appendix E.

A. The flow meter must be installed according to the manufacturer's specifications. The flow meter must be installed into the size of pipe for which it was designed.

B. The flow meter must have a rated accuracy no greater than plus or minus two (2) percent throughout its flow range.

C. The totalizer shall have sufficient capacity to record the quantity of water measured in one calendar year. The totalizer may not be reset or altered without prior approval of the District.

D. The flow meter shall be capable of accurately registering the expected operating range of well discharge. The flow meter must be installed in such a manner that there is a full pipe flow of water at all times while groundwater is being pumped.

E. The District will consider approval of flow meters installed prior to the implementation of Chapter 16 on a case by case basis.

04 Reporting flow meter installation –
The Groundwater User shall report the installation of a water flow meter in writing on the District's "Report of Flow Meter Installation" form, within thirty (30) days after installation. The flow meter must be installed according to the manufacturer's

specifications.

05 Reporting malfunctioning meters –
During an allocation period a malfunctioning flow meter must be reported to the District within one (1) day after discovery.

06 Flow meter maintenance –
The District will inspect flow meters for proper installation and operation.

A. The Groundwater User shall be responsible for maintenance, repair and/or replacement of an improperly installed or malfunctioning flow meter.
Maintenance must be done according to the schedule recommended by the manufacturer. If the manufacturer does not have written recommendations for maintenance, the NRD will determine an appropriate maintenance schedule. The District may offer maintenance of flow meters.

B. Removal of a flow meter or seal –
The flow meter or seal on a flow meter shall not be removed without prior approval of the District.

C. The Groundwater User must keep a record of the flow meter totalizer reading and report it to the District when a flow meter is removed for offsite service or replacement.

D. When a flow meter is removed for repair at a time when the Groundwater User desires to withdraw groundwater, the District may install a temporary flow meter.
Another District approved method of determining groundwater consumption may be used if a flow meter is not available or cannot be readily installed.

E. The service provider shall certify in writing that a flow meter meets the manufacturer's specifications following repairs or calibration.
The Groundwater User shall provide the District with a copy of the certification and the totalizer reading following the repairs.

07 Sealing of flow meters –
Flow meters may be sealed by the District to prevent tampering.
The District may consider whether to seal a flow meter when circumstances indicate doing so may cause unnecessary inconvenience for the Groundwater User or the District.

08 Random inspection of flow meters –
Flow meters shall be subject to random inspection.

09 Penalty for failure to comply –
A Groundwater User that does not install a flow meter, fails to report, or falsely reports groundwater withdrawal, removes a flow meter or a seal from a flow meter without prior approval of the District, damages or interferes with the operation of a flow meter, neglects to perform required maintenance, or allows another person to do so, shall be subject to forfeiture of allocation, or just other penalties as may be allowed by law.

10 Variances will be considered –
The District will consider variances in instances where Nebraska Health and Human Services regulations governing municipal water supply systems conflict with these rules and regulations.

11 Livestock Feeding Operation – Special Rules
A Livestock Feeding Operation (LFO) shall be considered an Other User and must comply with all applicable provisions of District Rule 5, with the following exceptions:

A. Water wells constructed prior to January 1, 2016, are not required to be metered.
B. Water wells constructed after January 1, 2016, must be metered.
C. If the groundwater user of the LFO chooses not to meter his or her groundwater withdrawal, groundwater withdrawal will be estimated based on the LFO's permitted capacity at the following livestock water use rates:

Dairy cows – 20 gallons per day	Finishing cattle – 7 gallons per day
Feeder cattle – 5 gallons per day	Finishing hogs – 4 gallons per day
Feeder pigs- 2 gallons per day	Sows and boars – 6 gallons per day
Chickens – 0.3 gallons per day	Turkeys – 0.5 gallons per day

D. Other species of livestock will be considered on a case by case basis decided by the Board of Directors.

CHAPTER 17 – ALLOCATION TO AGRICULTURAL USERS

01 Amount of groundwater allocated –
Each Agricultural User shall limit groundwater withdrawal to the allocation amount per certified acre determined by the Board as provided in Rule 5, Chapter 10. Certified acres that have been converted to renewable energy site/s or to an industrial site/s shall be ineligible for and prohibited from pooling.

02 Change in Operators–
When the control of certified groundwater use acres is conveyed to a different Agricultural User during a groundwater use period, the remaining allocation balance for said acres shall also be given to the new Agricultural User. If the groundwater use acres are in a pooling agreement, the affected agreements must be amended as provided in Rule 5, Chapter 14.

03 Carry Over of Unused Allocation –
Subject to the limitation below, any remaining allocation during a groundwater use period may be carried over to the next consecutive groundwater use period. The maximum carryover shall not exceed ten percent (10%) of the total allocation for the groundwater use period.

04 Next allocation set by the Board –
The Board will set a new allocation for the next groundwater use period by September 1 prior to the end of each groundwater use period. The new allocation will be set by amendments to Rule 5 in accordance with the requirements of state law.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 18 – ALLOCATION TO MUNICIPAL USERS

01 Allocation for Municipal User –
A Municipal User shall limit groundwater withdrawal to an average of two hundred and fifty (250) gallons per capita served per day plus the allocation amount per certified acre determined by the Board as provided in Rule 5, Chapter 10, for one-third ($^1/_3$) of the non-agricultural lands within the municipal jurisdictional limits for the groundwater use period.

A Municipal User shall receive an allocation amount per certified acre determined by the Board as provided in Rule 5, Chapter 10, for the groundwater use period for irrigated agricultural lands that it serves. This allocation shall be added to the Municipal User's total allocation.

02 Conservation procedures required –
By March 1 after implementation of Rule 5, Chapter 18, the Municipal User shall have adopted an administrative procedure that allows the Municipal User to require water conservation practices and restrict the water use of its customers.

03 Carry Over of Unused Allocation –
Subject to the limitation below, any remaining allocation during a groundwater use period may be carried over to the next consecutive groundwater use period. The maximum carryover shall not exceed ten percent (10%) of the total allocation for the groundwater use period.

04 Population census used to determine per capita use –
The most recent population census information available from the United States Census Bureau will be used to determine per capita groundwater use.
When a Municipal User provides evidence that it delivers water to persons that have not been counted as part of the most recent census or to lands that had not previously been considered, the District shall adjust the Municipal User's allocation to compensate for these added water requirements.

05 Exempted groundwater uses –
Groundwater used for fire protection, water and sewage system maintenance and construction and repairs shall not be considered when calculating annual groundwater withdrawal. The Municipal User shall provide documentation to estimate such uses.
The District shall consider other exemptions on a case by case basis when requested.

CHAPTER 18 – ALLOCATION TO MUNICIPAL USERS

06 A Municipal User must report Other Users which are supplied groundwater –
A Municipal User shall report to the District any Other User, as described in Rule 5, Chapter 4, which is served by its water system. Groundwater delivered to the Other User shall not be considered part of a Municipal User's allocation.

07 Allocation adjustments –
When a Municipal User provides evidence that it has begun to serve additional people and/or land, the allocation for these people and/or land, during a groundwater use period shall be based on the actual remaining part of the groundwater use period in which groundwater withdrawal is expected to occur.

08 Next allocation set by the Board –
The Board will set a new allocation for the next groundwater use period by September 1 prior to the end of each groundwater use period.
The new allocation will be set by amendments to Rule 5 in accordance with the requirements of state law.

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #1

CHAPTER 19 – ALLOCATION TO OTHER USERS

01 Allocation for Other Users –
An Other User shall limit their groundwater withdrawal during the groundwater use period to one hundred (100) percent of their historic withdrawal.
Historic withdrawal shall be determined based on the average annual withdrawal for the three (3) year period prior to the first groundwater use period.

02 New or modified operations requiring additional groundwater –
If, at any time, an Other User desires to start a new operation or modify an existing operation that will require a new or additional allocation, he or she shall request such an allocation. The request shall include:

A. The quantity of groundwater desired annually.
B. The purpose for which the groundwater is to be used.
C. An explanation of operation methods, including water conservation features, for that type of water use.
D. An estimate of the water use per unit of production, if applicable.
E. Other information requested by the District.

03 Consideration of requests for additional groundwater allocation –
When considering an Other User's request for additional groundwater, the District will approve, approve with conditions, deny, or request additional information before action on the request based on the following:

A. Satisfactory compliance with District rules and regulations.
B. The goals and objectives of these rules and regulations (Rule 5 Chapter 10).
C. Preference of use as follows: 1) domestic, 2) agriculture and 3) manufacturing and industry in accordance with Nebraska Revised Statutes ¶ 46-613.
D. Reasonable probability of adversely impacting other groundwater or surface water Users.
E. Protection of the public's interest and welfare.

04 Carry Over of Unused Allocation –
Subject to the limitation below, any remaining allocation during a groundwater use period may be carried over to the next consecutive groundwater use period.
The maximum carryover shall not exceed ten percent (10%) of the total allocation for the groundwater use period.

05 Next allocation set by the Board –
The Board will set a new allocation for the next groundwater use period by September 1 prior to the end of each groundwater use period.

The new allocation will be set by amendments to Rule 5 in accordance with the requirements of state law.

06 Change in Groundwater User –
When the control of an Other User's withdrawal is conveyed to a different Groundwater User during a groundwater use period, the remaining allocation balance for the groundwater use period shall also be given to the new Groundwater User.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #2

CHAPTER 20 – PHASE I REQUIREMENTS

01 All Operators subject to Phase I requirements –
All Operators of land within the District are subject to the requirements of Phase I.

02 Anhydrous application date –
Pre-plant anhydrous ammonia may not be applied prior to November 1.

03 Other nitrogen fertilizer application date –
Pre-plant nitrogen fertilizer in liquid or dry forms may not be applied prior to March 1.

04 Fertilizer application exemptions –
The following fertilizer application activities are exempt from the provisions of Rule 5, Chapter 20:

A. The application of nitrogen fertilizer for any purpose other than fertilization for spring planted crops.
B. The application of nitrogen fertilizer for spring planted small grains such as barley, oats and rye.
C. The application of fertilizer that is not considered a “nitrogen fertilizer” as defined in Rule 5, Chapter 4.
D. The spreading of manure, sewage and other by-products conducted in compliance with state laws and regulations.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #2

CHAPTER 21 – DETERMINATION OF A PHASE II MANAGEMENT AREA

01 Determination of a Phase II Management Area –
A Phase II Management Area will be designated when the median nitrate level, in the District designated monitoring wells, is seven (7) milligrams per liter or more.

02 Implementation of a Phase II Management Area –
No more than one management zone shall be designated a Phase II management area each year.
If more than one (1) management zone meets the criteria for Phase II designation, the zone with the highest median nitrate shall be designated a Phase II management area.

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #2

CHAPTER 22 – PHASE II REQUIREMENTS

01 Phase I requirements continued in Phase II –
All Phase I requirements continue to be in force in Phase II.

02 Phase II Operator training –
Within two (2) years following the designation of a Phase II Management Area, all Operators of land in the designated Management Area must attend a Natural Resources District approved training session and be certified by the District.
Training and certification must be renewed every four (4) years.
The District will accept certification by other Natural Resources Districts.
Renewal certification may be received by District approved methods which may include: Attending a Natural Resources District approved training session; Passing a Natural Resources District approved test; Completing a Natural Resources District approved home study course.

03 Phase II soil sampling –
Prior to applying nitrogen fertilizer each year, the Operator must obtain analysis for at least one (1) composite, zero to eight inch (0-8”) soil sample per field for organic matter and residual nitrogen and one (1) composite eight to twenty-four inch (8-24”) soil sample per field for residual nitrogen in years that corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal or industrial waste was applied within the last twelve (12) months.

04 Phase II nitrogen needs calculations –
Prior to applying nitrogen fertilizer, the Operator must calculate the nitrogen application rate needed for each field.
Calculations must be based on University of Nebraska recommended procedures and must account for soil analysis and all other nitrogen credits.

05 Phase II irrigation scheduling –
Each Operator must schedule irrigation in one field that is at least 65 acres in size or in their largest irrigated field in the Phase II area by one (1) of the following methods:
Capacitance probes,
Resistance blocks, and any other methods approved by the District.

06 Phase II annual reporting required –
No later than April 1 of each year, each Operator in the Management Area is required to report information regarding the use of best management practices. The report must include the following information:

The nitrogen application rate must be calculated for each irrigated field where corn is grown. Calculations shall be based on University of Nebraska recommended procedures and must account for soil analysis and all other nitrogen credits.

Nitrogen credits include but are not limited to: Irrigation water nitrates (if known), Previous crops, Livestock, municipal and industrial waste. The report shall also include a copy of the soil sample results and the previous year irrigation scheduling information must accompany the annual report.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #2

CHAPTER 23 – DETERMINATION OF PHASE III MANAGEMENT AREA

01 Phase III Criteria –

A Phase III Management Area will be designated when the median nitrate level, in the District designated monitoring wells, is equal to or greater than ten (10) milligrams per liter.

CHAPTER 24 – PHASE III REQUIREMENTS

01 Phase I and Phase II requirements continued –
All Phase I and Phase II requirements continue to be in force in Phase III.

02 Phase III soil sampling requirements –
Prior to applying nitrogen fertilizer each year, the Operator must obtain analysis for at least one (1) composite, zero to eight inch (0-8") soil sample per forty (40) acres, or any portion thereof, for organic matter and residual nitrogen and one (1) composite eight to twenty-four inch (8-24") soil sample per forty (40) acres, or any portion thereof, for residual nitrogen in years that corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal or industrial waste was applied within the last twelve (12) months.

03 Phase III irrigation water nitrate analysis –
The Operator must have the irrigation water tested for nitrates at least once every three (3) years.

04 Fall and winter application of anhydrous ammonia –
If anhydrous ammonia is applied between November 1 and February 29, a District approved, active ingredient containing, nitrification inhibitor must also be applied at the manufacturer's recommended rate. A receipt as proof of purchase for the nitrification inhibitor must accompany the producer's Phase II/III annual report.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR GROUNDWATER MANAGEMENT AREA #2

CHAPTER 25 – UPPER PLATTE BASIN INTEGRATED MANAGEMENT AREA

01 Moratorium on new and expanded uses of groundwater –
A person shall not construct a water well or use an existing water well to develop a new or expand an existing groundwater use unless the District has determined that there will be no increase in the consumptive use of groundwater.

02 Permit – When required –
In addition to the requirements of Rule 5, Chapter 5, a person desiring to withdraw and/or consumptively use groundwater shall obtain a permit for the following:

A. Changing the type of groundwater use from an existing water well.
B. Adding or modifying infrastructure for the purpose of expanding the consumptive use of groundwater.

03 Additional Information Required –
In addition to the information required in Rule 5, Chapter 5, a permit application shall include the following:

A. The source of offset for the proposed groundwater use.
If the source of the offset is to be transferred from another natural resources district, the applicant must provide evidence that the other district has approved the use of the proposed offset.
B. The depletion factor at the source and destination tracts.
C. If the offset will require the physical transfer of groundwater.
D. If the proposed activity will result in a change in the type of groundwater use.
E. Any additional information deemed necessary by the District to determine compliance with these rules and regulations.

04 Source of offset limitations –
Groundwater offsets shall comply with the transfer criteria set out in Rule 5, Chapter 13.

RULE 5 – UPPER BIG BLUE NATURAL RESOURCES DISTRICT GROUNDWATER MANAGEMENT RULES AND REGULATIONS

REGULATIONS FOR HASTINGS WELLHEAD PROTECTION GROUNDWATER MANAGEMENT AREA

CHAPTER 26 – HASTINGS WELLHEAD PROTECTION GROUNDWATER MANAGEMENT AREA

01 When initiated –
The following requirements will be initiated on July 1, 2013.

02 Nitrogen application requirements:

A. Anhydrous ammonia may not be applied prior to November 1.

B. A nitrification inhibitor must be applied with all anhydrous ammonia applications made between November 1 and March 1 at the manufacturer's recommended rate.

C. Liquid and dry nitrogen fertilizers may not be applied between September 1st and March 1.

D. All pre-plant nitrogen fertilizer applied on or after March 1 at a rate greater than one hundred (100) pounds of actual nitrogen per acre, must be applied with a nitrification inhibitor at the manufacturer's recommended rate.

E. Fertilizer Application Exceptions.
The following fertilizer application activities are exempt from the provisions of Rule 5, Chapter 26:

- The application of nitrogen fertilizer for any purpose other than fertilization for spring planted crops.
- The application of nitrogen fertilizer for spring planted small grains such as barley, oats, and rye.
- The application of nitrogen fertilizer on pastures.
- The application of a fertilizer that is not considered a "nitrogen fertilizer" as defined in Rule 5, Chapter 4.
- The spreading of manure, sewage and other by-products conducted in compliance with state laws and regulations.

F. Nitrogen fertilizer means a chemical compound in which the percentage of nitrogen is greater than the percentage of any other nutrient in the compound or, when applied, results in an average application rate of more than twenty-five (25) pounds of nitrogen per acre over the field onto which it is being applied.

03 Soil sampling requirements –
At least one zero to eight inch (0-8') soil sample per forty (40) acres, or portion thereof, shall be taken and tested for residual nutrients and organic matter each year and at least one eight to twenty-four inch (8-24") soil sample per forty (40) acres, or portion thereof, shall be taken and tested for residual nitrogen each year in which corn or sorghum will be grown following a non-legume crop and/or when livestock, municipal or industrial waste was applied within the last twelve (12) months.

It is recommended that soil samples be collected as described in University of Nebraska NebGuide G1740.

It is recommended that a minimum of eight (8) cores be combined into one (1) sample per each forty (40) acres.

Deep soil sampling (8-24 inches) exemptions will be given for corn-soybeans rotations as referred to by University of Nebraska NebGuide G74-174-A.

04 Irrigation scheduling requirements –
Each Operator must conduct irrigation scheduling on one irrigated field in the management area by soil moisture measurements collected with electrical resistance sensors or similar devices. Other methods may be approved by the NRD.

05 Training requirements –
Within one (1) year of July 1, 2012, all Operators of crop land in the designated Management Area must attend a NRD approved training session and be certified by the NRD. NRD certification must be renewed every four (4) years. The NRD will accept certification by other NRDs. Renewal certification may be received by NRD approved methods. Approved methods may include items such as attending another training session, passing a test or completing an approved home study course.

The following persons are required to attend: Owner/Operators, Tenants, Hired Hands, and Crop Consultants if any of them are responsible for making decisions concerning fertilizer application.

06 Annual reporting requirement –
By April 1 of each year, each Operator in the Management Area is required to report information regarding the use of best management practices. Forms will be provided by the NRD. The report must include the following information:
The nitrogen application rate must be calculated for each field where corn is grown. Calculations shall be based on University of Nebraska recommended procedures and must account for soil analysis and all other nitrogen credits.

A. Nitrogen credits include but are not limited to: Irrigation water nitrates (if known), Previous crops, Livestock, municipal and industrial waste, Other information deemed necessary by the District.

B. A copy of the soil sample results must accompany the annual report.

C. Farmers are encouraged to apply no more than the amount of nitrogen

fertilizer needed as determined by the University of Nebraska recommendation.

07 Lawn care requirements –
Within one (1) year of July 1, 2012, all lawn care services that apply nitrogen fertilizer to lawns are required to complete a lawn nitrogen course recommended by the NRD every 4 years.
This includes Operators and employees.
Annual reports will be required from all lawn care services on nitrogen fertilizer use.
Reports will be due on December 1st of each year and must include the following: Total nitrogen fertilizer uses within the Wellhead Protection Groundwater Management Area, and Total number of acres or square footage nitrogen fertilizer is applied.

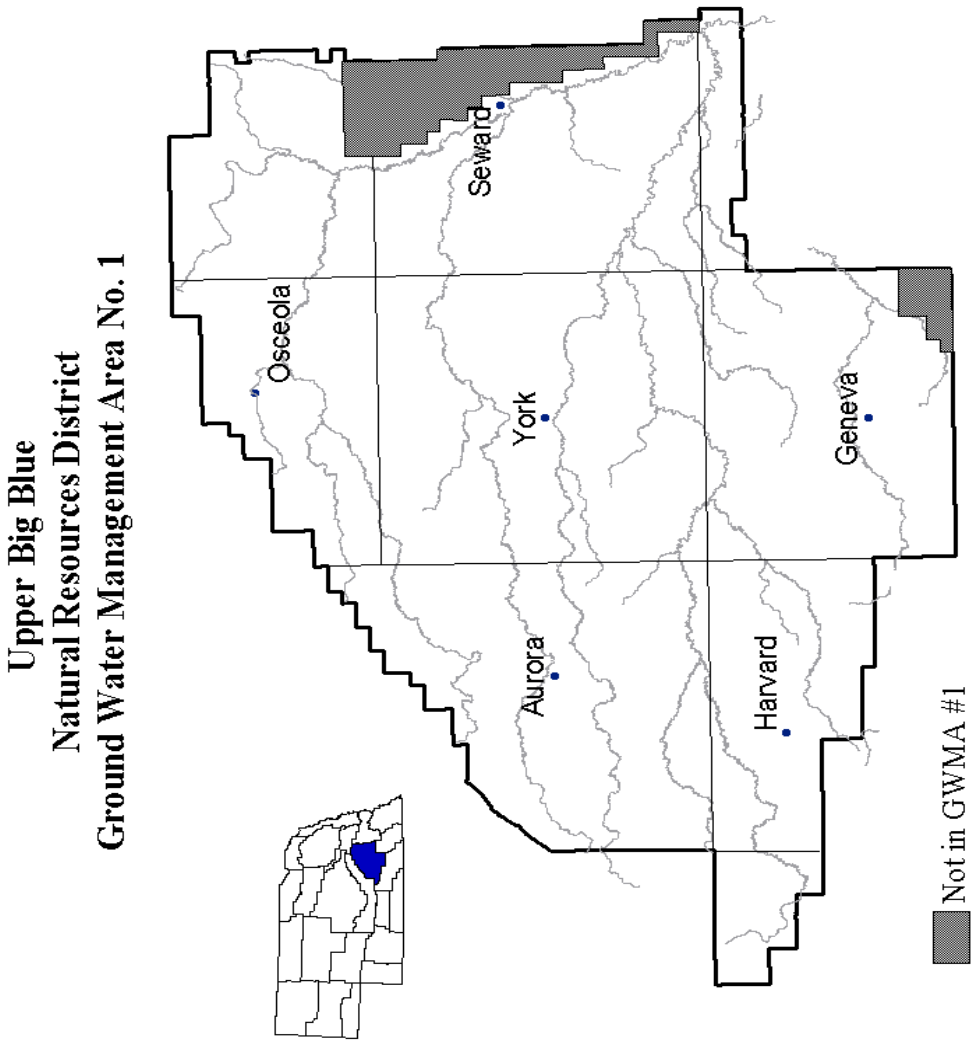
All persons who apply nitrogen fertilizer to more than one (1) acre of grass or turf in the Hastings Wellhead Protection Groundwater Management Area are required to attend a lawn nitrogen course or other approved training. This may include web-based training. Certification must be renewed every four (4) years Certification must be completed within one (1) year of July 1, 2012.

The utilization of mulching mowers and blades are encouraged to reduce the nitrogen fertilizer uses for lawns.

Soil sampling is encouraged before applying nitrogen fertilizer to a lawn or turf.

First adopted	December 12, 1978 (control area)
First adopted	November 17, 1994 (special protection area)
Revisions adopted	April 22, 1982 (control area)
Revisions adopted	May 24, 1990 (control area)
Revisions adopted	July 18, 1996 (groundwater management areas)
Revisions adopted	March 19, 1998
Revisions adopted	June 17, 1999
Revisions adopted	November 18, 1999
Revisions adopted	May 17, 2001
Revisions adopted	January 15, 2004
Revisions adopted	June 21, 2007
Revisions adopted	February 18, 2010
Revisions adopted	September 16, 2010
Revisions adopted	December 16, 2010
Revisions adopted	May 17, 2012
Revisions adopted	December 27, 2012
Revisions adopted	May 16, 2013
Revisions adopted	December 19, 2013
Revisions adopted	August 21, 2014
Revisions adopted	July 20, 2017
Revisions adopted	February 21, 2019
Revisions adopted	August 20, 2020
Revisions adopted	April 22, 2024

APPENDIX A

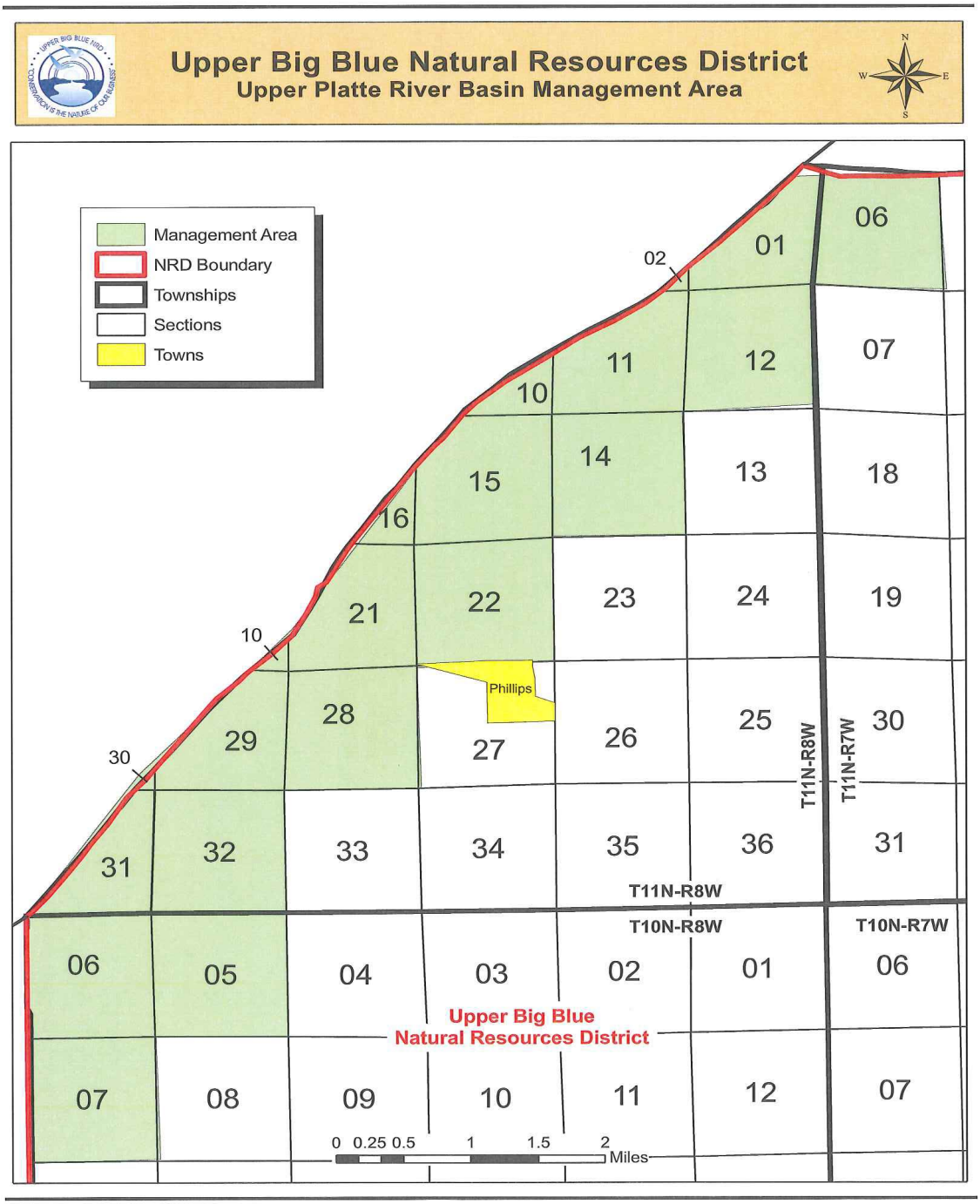

Upper Big Blue
Natural Resources District
Ground Water Management Area No. 1
Seward
Osceola
York
Geneva
Aurora
Harvard
Not in GWMA #1

APPENDIX B

Legal Description of the Upper Big Blue NRD Groundwater Management Area 1

Commencing at a point on the Clay-Adams County line at the SW corner of Sec. 7, T7N, R8W of the 6th PM; thence westerly to the SW corner of Sec. 9, T7N, R9W of the 6th PM; thence northerly to the SW corner of Sec. 33, T8N, R9W of the 6th PM; thence westerly to the SW corner of Sec. 34, T8N, R10W of the 6th PM; thence northerly to the SW corner of Sec. 22, T8N, R10W of the 6th PM; thence westerly to the SW corner of Sec. 19, T8N, R10W of the 6th PM; thence northerly to the Adams-Hall County line at the NW corner of Sec. 6, T8N, R10W of the 6th PM; thence easterly along the Adams-Hall County line to the SW corner of Hamilton County at the SW corner of Sec. 31, T9N, R8W of the 6th PM; thence northerly along the Hamilton-Hall County line to its intersection with the middle of the south channel of the Platte River; thence along the middle of said channel to the NW corner of Sec. 6, T11N, R7W of the 6th PM; thence easterly to the NW corner of Sec. 3, T11N, R7W of the 6th PM; thence northerly to the NW corner of Sec. 34, T12N, R7W of the 6th PM; thence easterly to the NW corner of Sec. 31, T12N, R6W of the 6th PM; thence northerly to the NW corner of Sec. 19, T12N, R6W of the 6th PM; thence easterly to the NW corner of Sec. 21, T12N, R6W of the 6th PM; thence northerly to the NW corner of Sec. 16, T12N, R6W of the 6th PM; thence easterly to the NW corner of Sec. 15, T12N, R6W of the 6th PM; thence northerly to the NW corner of Sec. 3, T12N, R6W of the 6th PM; thence easterly to the SW corner of Sec. 36, T13N, R6W of the 6th PM; thence northerly to the NW corner of Sec. 36, T13N, R6W of the 6th PM; thence easterly to the NW corner of Sec. 32, T13N, R5W of the 6th PM; thence northerly to the NW corner of Sec. 29, T13N, R5W of the 6th PM; thence easterly to the NW corner of Sec. 27, T13N, R5W of the 6th PM; thence northerly to the NW corner of Sec. 22, T13N, R5W of the 6th PM; thence easterly to the NW corner of Sec. 23, T13N, R5W of the 6th PM; thence northerly to the NW corner of Sec. 14, T13N, R5W of the 6th PM; thence easterly to the Hamilton-Polk County line at the SW corner of Sec. 7, T13N, R4W of the 6th PM; thence northerly to the NW corner of Sec. 7, T13N, R4W of the 6th PM; thence easterly to the NW corner of Sec. 10, T13N, R4W of the 6th PM; thence northerly to the NW corner of Sec. 27, T14N, R4W of the 6th PM; thence easterly to the NW corner of Sec. 27, T14N, R3W of the 6th PM; thence northerly to the NW corner of Sec. 15, T14N, R3W of the 6th PM; thence easterly to the NW corner Sec. 13, T14N, R3W of the 6th PM; thence northerly to the NW corner of Sec. 12, T14N, R3W of the 6th PM; thence easterly to the NW corner of Sec. 7, T14N, R2W of the 6th PM; thence northerly to the NW corner of Sec. 31, T15N, R2W of the 6th PM; thence easterly to the NW corner of Sec. 34, T15N, R1W of the 6th PM; thence northerly to the NW corner of Sec. 22, T15N, R1W of the 6th PM; thence easterly to the Polk-Butler County line at the NW corner of Sec. 19, T15N, R1E of the 6th PM; continuing easterly to the NE corner of Sec. 24, T15N, R2E of the 6th PM; thence southerly to the SE corner of Sec. 36, T15N, R2E of the 6th PM; thence easterly to the NE corner of Sec. 6, T14N, R4E of the 6th PM; thence southerly to the SE corner of Sec. 7, T14N, R4E of the 6th PM; thence westerly to the SE corner of Sec. 12, T14N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 24, T14N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 19, T14N, R4E of the 6th PM; thence southerly to the SE corner of Sec. 7, T13N, R4E of the 6th PM; thence westerly to the SE corner of Sec. 12, T13N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 24, T13N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 19, T13N, R4E of the 6th PM; thence southerly to the SE corner of Sec. 19, T13N, R4E of the 6th PM; thence westerly to the SE corner of Sec. 22, T13N, R2E of the 6th PM; thence southerly to the south Butler County line at the SE corner of Sec. 34, T13N, R2E of the 6th PM; continuing southerly to the NE corner of Sec. 15, T12N, R2E of the 6th PM; thence easterly to the NE corner of Sec. 14, T12N, R2E of the 6th PM; thence southerly to the NE corner of Sec. 26, T12N, R2E of the 6th PM; thence easterly to the NE corner of Sec. 25, T12N, R2E of the 6th PM; thence southerly to the NE corner of Sec. 36, T12N, R2E of the 6th PM; thence easterly to the NE corner of Sec. 31, T12N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 7, T11N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 8, T11N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 17 , T11N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 16, T11N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 28, T11N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 27, T11N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 15, T10N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 14, T10N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 35, T10N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 36, T10N, R3E of the 6th PM; thence southerly to the NE corner of Sec. 24, T9N, R3E of the 6th PM; thence easterly to the NE corner of Sec. 20, T9N, R4E of the 6th PM; thence southerly to the Seward-Saline County line at the SE corner of Sec. 32, T9N, R4E of the 6th PM; thence easterly to the NE corner of Sec. 3, T8N, R4E of the 6th PM; thence southerly to the SE corner of Sec. 15, T8N, R4E of the 6th PM; thence westerly to the SW corner of Sec. 18, T8N, R2E of the 6th PM; thence northerly to the SW corner of Sec. 7, T8N, R2E of the 6th PM; thence westerly to the SE corner of Sec. 9, T8N, R1E of the 6th PM; thence southerly to the SE corner of Sec. 16, T8N, R1E of the 6th PM; thence westerly to the Saline County line at the SW corner of Sec. 18, T8N, R1E of the 6th PM; thence southerly on the Saline-Fillmore County line to the SE corner of Sec. 12, T6N, R1W of the 6th PM; thence westerly to the SE corner of Sec. 8, T6N, R1W of the 6th PM; thence southerly to the SE corner of Sec. 20, T6N, R1W of the 6th PM; thence westerly to the SE corner of Sec. 24, T6N, R2W of the 6th PM; thence southerly to the SE corner of Sec. 25, T6N, R2W of the 6th PM; thence westerly to the SE corner of Sec. 26, T6N, R2W of the 6th PM; thence southerly to the SE corner of Sec. 35, T6N, R2W of the 6th PM; thence westerly to the Fillmore-Clay County line at the SW corner of Sec. 31, T6N, R4W of the 6th PM; thence northerly to the SE corner of Sec. 36, T7N, R5W of the 6th PM; thence westerly to the SW corner of Sec. 34, T7N, R6W of the 6th PM; thence northerly to the SW corner of Sec. 27, T7N, R6W of the 6th PM; thence westerly to the SW corner of Sec. 27, T7N, R7W of the 6th PM; thence northerly to the SW corner of Sec. 10, T7N, R7W of the 6th PM; thence westerly to the point of beginning and shall include all unconsolidated and semiconsolidated materials of Pleistocene to Recent Age within those boundaries.

APPENDIX C


Upper Big Blue Natural Resources District
Upper Platte River Basin Management Area
Management Area
NRD Boundary
Townships
Sections
Towns
Phillips
T11N-R8W
T11N-R7W
T10N-R8W
T10N-R7W
Upper Big Blue
Natural Resources District
0 0.25 0.5 1 1.5 2
Miles

APPENDIX D

High Risk Groundwater Area

Adams County
Township 8 North, Range 9 West - Sections 1, 2, 10 thru 12, 15, 16, 20 thru 22, 28, 29, and 33.

Butler County
Township 13 North, Range 2 East – Sections 1 thru 3, 10 thru 15, 22 thru 24, 27, and 34.
Township 13 North, Range 3 East – Sections 1 thru 24.
Township 13 North, Range 4 East – Sections 6, 7, 19.
Township 14 North, Range 1 East – Sections 1, 12, and 13.
Township 14 North, Range 2 East – Sections 1, thru 29, and Sections 34 thru 36.
Township 14 North, Range 3 East – Sections 1 thru 36 (All Sections).
Township 14 North, Range 4 East – Sections 6, 7, 19, 30, 31.
Township 15 North, Range 1 East – Sections 25 and 36.
Township 15 North, Range 2 East – Sections 25 thru 36.

Clay County
Township 7 North, Range 5 West – Sections 25 thru 36.
Township 7 North, Range 6 West – Sections 25 thru 29, 34, 35, and 36.
Township 8 North, Range 5 West – Sections 1 thru 5, 8 thru 16, 23, and 24.
Township 8 North, Range 8 West – Sections 5 and 6.

Fillmore County
Township 6 North, Range 1 West – Sections 1 thru 3, 8 thru 12, 17, 19 and 20.
Township 6 North, Range 2 West – Sections 24 thru 26, and 34, and 35.
Township 6 North, Range 4 West – Sections 2 thru 11.
Township 7 North, Range 1 West – Sections 34 thru 36.
Township 7 North, Range 4 West – Sections 27 thru 35.
Township 8 North, Range 3 West – Sections 18, 19.
Township 8 North, Range 4 West – Sections 5 thru 24.

Hamilton County
Township 9 North, Range 8 West – Sections 14 thru 16, 20 thru 23, and 26 thru 35.

Township 12 North, Range 5 West – Sections 6 and 7.
Township 12 North, Range 6 West – Sections 1 thru 3, 10 thru 12, 14 thru 16, and 21.
Township 13 North, Range 5 West – Sections 13, 14, and 31
Township 13 North, Range 6 West – Section 36.

Polk County
Township 13 North, Range 4 West – Sections 2, 3, 7 thru 10, and 18.
Township 14 North, Range 3 West – Sections 28 thru 30.
Township 14 North, Range 4 West – Sections 25 thru 27, and 34 thru 36.

Saline County

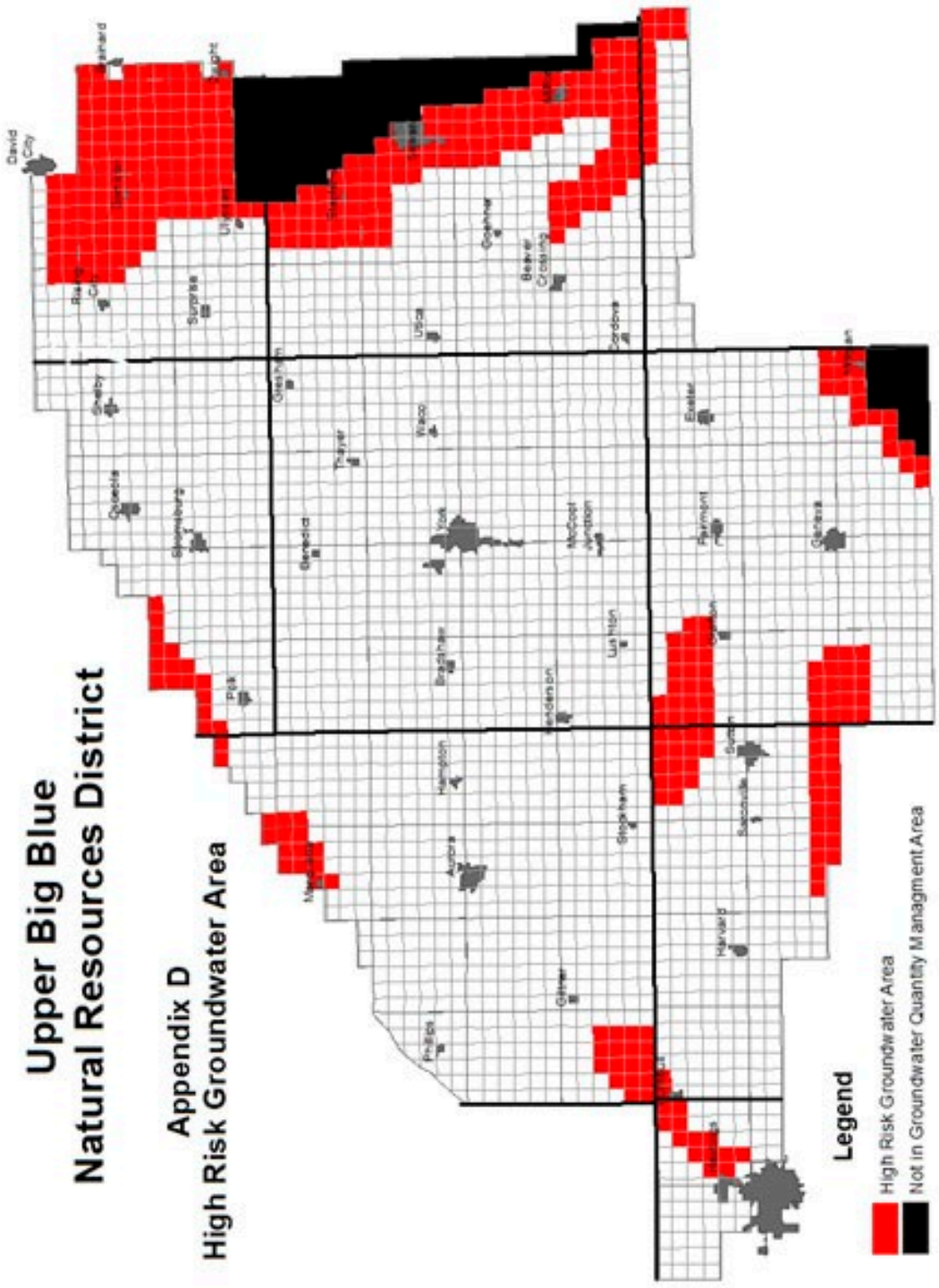
Township 8 North, Range 3 East – Sections 1 thru 6.
Township 8 North, Range 4 East – Sections 3 thru 6, 9, 10, 15, and 16.

Seward County

Township 9 North, Range 2 East – Sections 2 thru 5, 9 thru 11, 13 thru 15, 22 thru 26, and 36.
Township 9 North, Range 3 East – Sections 1 thru 4, 10 thru 15, 19, and 22 thru 36.
Township 9 North, Range 4 East – Sections 19, 29 and 29 thru 32.
Township 10 North, Range 3 East – Sections 3 thru 10, 14 thru 18, 20 thru 23, 26 thru 29 and 33 thru 36.

Township 11North, Range 2 East – Sections 1 thru 5, 8 thru 13, and 24.
Township 11North, Range 3 East – Sections 6 thru 8, 16 thru 21, and 27 thru 34.

Township 12North, Range 2 East – Sections 3 thru 5, 8 thru 10, 14 thru 17, 20 thru 23, 25 thru 29, and 32 thru 36.
Township 12North, Range 3 East – Section 31.


Upper Big Blue
Natural Resources District
Appendix D
High Risk Groundwater Area
Legend
High Risk Groundwater Area
Not in Groundwater Quantity Managment Area

APPENDIX E

Upper Big Blue Natural Resources District

Minimum Specifications
For Inclusion on the Approved Flow Meter List
February 1, 2014

Flow meters are critical in implementing accurate groundwater use reporting. In order to promote accuracy, the District has established the following minimum specification to determine if a brand or model of flow meter can be approved for use in the District as required by the Groundwater Management Are Rules and Regulations (District Rule 5).

1. Flow meters which require an external electrical power source are not approved for use in the District. Flow meters installed prior to February 1, 2014 will be considered on a case by case basis.

2. The flow meter must have a rated accuracy of plus or minus two (2) percent throughout its flow range when installed according to the manufacturers minimum specifications.

3. The flow meter must be constructed of non-corrosive materials and have a minimum one (1) year manufacturer's warranty for both parts and labor on accuracy and workmanship.

4. The flow meter must have a visual volume recording totalizer. Flow meters used to record groundwater withdrawal used for irrigation must record in **acre inches**. Flow meters used to record groundwater withdrawal for other uses must record in gallons, acre inches or acre feet.

5. The flow meter must have a rate of flow indicator showing the instantaneous flow in gallons per minute, or a sweep hand indicator from which the flow rate can be determined by timing.

6. The registry must be adequately protected from the elements.

7. The totalizer shall provide a direct reading and the multiplier shall be clearly indicated.

8. The totalizer shall be constructed so that it records in the forward flow directions only (anti-reverse).

9. The flow meter shall have a storage temperature range of -40 to 140 degrees Fahrenheit and shall be constructed in such a manner as to allow it to remain in the field during the winter months.

10. The flow meter must have a method of sealing the meter in the pipe and sealing the registry to prevent unauthorized tampering or removal.

11. The flow meter size, serial number, model number and direction of flow shall be clearly tamped on the body of the meter.

12. For saddle and insertion style flow meters, the inside pipe and outside diameter for which the flow meter has been calibrated shall be clearly shown on flow meters to the a