Upper Elkhorn Natural Resources District
Groundwater Management Plan
Rules & Regulations

FOR THE ENFORCEMENT OF THE NEBRASKA GROUNDWATER MANAGEMENT AND PROTECTION ACT

(Order issued March 27, 2017; effective May 1, 2017)
(Order issued December 18, 2017; effective February 1, 2018)
(Order issued December 17, 2018; effective February 1, 2019)
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(Order issued August 23, 2021; effective October 1, 2021)

RULES & REGULATIONS
FOR THE ENFORCEMENT OF THE NEBRASKA GROUNDWATER MANAGEMENT AND PROTECTION ACT
Adopted by the Upper Elkhorn Natural Resources District

GENERAL PROVISIONS AND PROCEDURES FOR ENFORCEMENT

1. **AUTHORITY –** These Rules and Regulations are adopted pursuant to the authority granted in, the Nebraska Groundwater Management and Protection Act (Act), Neb. Rev. Stat. §§ 46-701 to 46-754.

2. **PURPOSE –** The purpose of these Rules and Regulations is to implement the Upper Elkhorn Natural Resources District's (UENRD) Groundwater Management Plan (GWMP or Plan). The Act provides authority to the District to establish a Groundwater Management Area (GWMA) to protect groundwater quality and quantity and for the prevention or resolution of conflicts between users of groundwater and appropriators of surface water, which groundwater and surface water are hydrologically connected. The District-wide GWMA, which was originally for the purpose of protecting groundwater quality, will, in the future, also facilitate the proper management of groundwater with respect to issues concerning quantity and integrated management. The Upper Elkhorn NRD was designated as a groundwater quality management area on June 1, 1997.

3. **APPLICABILITY – Creation of Areas:** These Rules and Regulations apply to all lands within the District which have been designated as the District-wide GWMA, LB962-04 (fully appropriated) and LB483-09 Designations. The GWMA and associated Rules and Regulations originally became effective on January 1, 1997 and LB483 rules on July 27, 2009. The controls adopted pursuant to the authority in the Act are set forth beginning with ~~Rule 3~~Chapter 2 of these Rules and Regulations.

4. ~~**MAP(S) –** A map of the area subject to the District-wide GWMA is attached to these Rules and Regulations. The map shows the Phase area designations (Map A).~~

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~~RULE 1~~

CHAPTER 1: DEFINITIONS~~:~~

1.1 **Abandoned Water Well** - shall mean any water well ~~1) the use of which has been accomplished or permanently discontinued, 2) which has been decommissioned as described in the Rules and Regulations of the Nebraska Department of Health and Human Services Regulation and Licensure, or~~and 3) for which notice of abandonment required by Neb. Rev. Stat. ~~§ 46-602(8) has been filed with the Nebraska Department of Natural Resources~~Water, Energy, and Environment ~~by the licensed water well contractor or pump installation contractor who decommissioned the water well or by the water well owner if the owner decommissioned the water well.~~determined to be abandoned in accordance with state law.

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1.2 **Act** - shall mean the Nebraska Groundwater Management and Protection Act.

1.3 **Active Status Water Well** - shall mean a water well that is actively engaging in the intended purpose of operation and is not an illegal water well.

1.4 **Alleged Violator** - shall mean the groundwater user, landowner, or operator of the land who allegedly has failed to comply with any of these Rules and Regulations.

1.5 **Application for a Late Permit** - shall mean an application to the District for a water well construction permit that was not timely filed. Such permit shall be reviewed by the District in accordance with Neb. Rev. Stat. § 46-736.

1.6 **Application for a Water Well Construction Permit** - shall mean an application to the District on a form supplied by the District for the construction of a water well in accordance with Neb. Rev. Stat. §§ 46-735 through 46-738.

1.7 **Best Management Practices or BMPs** - shall mean schedules of activities, maintenance procedures, and other management practices utilized for purposes of irrigation efficiency, to conserve or affect a savings of groundwater, or to prevent or reduce present and future contamination of groundwater. Best management practices relating to contamination of groundwater may include, but not be limited to, irrigation scheduling, proper rate and timing of fertilizer application, and other fertilizer and pesticide management programs. In determining the rate of fertilizer application, the District shall consult with the University of Nebraska or a certified crop advisor certified by the American Society of Agronomy.

1.8 **Board, Board of Directors, or Directors** - shall mean the Board of Directors of the Upper Elkhorn Natural Resources District and/or its employees and agents *acting at the direction* of the Board of Directors.

1.9 **Certification** - shall mean a current certificate of completion issued by the District to the operator for completion of the necessary educational programs outlined by the District.

1.10 **Certified Irrigated Acre** - shall mean any acre of land for which the landowner has provided District approved documentation and which has been approved by the Board for the application of groundwater.

1.11 **Certified Operator** - shall mean the person or persons responsible for making decisions on ~~any type of~~ applications of nitrogen fertilizer on an area greater than one (1) acre and applying more than fifty (50) pounds per acre of actual nitrogen fertilizer on any agricultural land within the Upper Elkhorn Natural Resources District, either commercially or privately, who ~~must be~~has been certified by the District to apply nitrogen fertilizer. ~~Recertification is required once every four (4) years by attending and participating in a nitrogen certification class given by the District or by neighboring Natural Resources Districts, approved~~pending approval by the Board. ~~If an operator needs to become certified or recertified and cannot attend the scheduled classes a take home test or online certification will be available. A passing score of 70% will be required.~~

~~1.12~~

~~**1.12 Commencement of Construction** – means the beginning of the boring, drilling jetting, digging, or excavation of the actual water well from which groundwater is to be withdrawn.~~

~~1.16~~ **Commingled Wells** - shall mean two (2) or more groundwater wells that are commingled, combined, clustered, or joined and shall be considered for the purpose of these Rules and Regulations as one (1) water well. Other than a water source used to water range livestock, the combined capacity of commingled water wells shall require a water well construction permit pursuant to these Rules and Regulations and shall be subject to the same Rules and Regulations as any water well located within the District.

1.1~~4~~3 **Complainant** - shall mean any person who files a complaint alleging violation of these Rules and Regulations ~~in accordance with Rule 2.2.~~

1.~~15~~14 **Compliance Officer or Inspector** – shall mean an employee, agent, or director of the District authorized to perform the functions assigned thereto by these Rules and Regulations.

1.~~16~~15 **Consumptive Use** - shall mean the amount of water that is consumed under appropriate and reasonably efficient practices to accomplish without waste the purposes for which the appropriation or other legally permitted use is lawfully made.~~the amount of water that is consumed lost to percolation, transpiration, and evapotranspiration under appropriate and reasonably efficient practices to accomplish, without waste, the purposes for which the appropriation or other legally permitted use is lawfully made to which the water is put to use.~~

1.~~17~~16 **Contamination or contamination of groundwater** – shall mean nitrate-nitrogen or other material, which enters the groundwater due to the action of any person and causes degradation of the quality of groundwater sufficient to make such groundwater unsuitable for present or reasonably foreseeable beneficial uses.

~~**1. 18 Controls** – means any requirement, obligation, duty, or restriction placed upon a landowner and/or operator of the land by these Rules and Regulations.~~

1.~~19~~ 17 County Tax Record - shall mean a property valuation completed by each county and certified by an official county employee that has a recorded amount of groundwater irrigated acres located for each landowner in the District.

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1.~~20~~18 **Decommission** - when used in relation to a water well, shall mean the act of filling, sealing, and plugging the water well in accordance with the Department of ~~Health and Human Services~~Water, Environment, and Energy Regulation and Licensure Rules and Regulations.

1.~~21~~19 **Department, or ~~NeDNR~~ DWEE** – means the Nebraska Department of ~~Natural Resources~~Water, Energy, and Environment.

1.~~22~~20 **Dewatering Water Well** - shall mean a water well constructed and used solely for the purpose of lowering the groundwater table elevation.

1.~~23~~21 **District or UENRD** - shall mean the Upper Elkhorn Natural Resources District.

1.~~24~~22 **Domestic Water Well** - shall mean a water well designed and constructed to pump fifty (50) gallons per minute or less, used by a person or by a family unit or household for normal household uses and for the irrigation of lands not exceeding two (2) acres in area for the growing of gardens, orchards, and lawns, and keeping domestic animals. Domestic water wells are exempt from the application of these Rules and Regulations.

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~~1.55 **DWEE** – means the Nebraska Department of Water, Energy, and Environment~~

1.~~25~~~~26~~3 **Educational Programs** - shall mean informational and educational training sessions designed to acquaint landowners and/or operators with best management practices in the operation of their irrigation and cropping systems.

1.~~26~~ ~~27~~4 **Flowmeter or Meter** – means a device of a type or design approved by the Board, which measures the total amount of groundwater withdrawn, and is installed, operated and maintained according to manufacturer's specifications.

1.~~27~~~~28~~5 **Formal Notice** - shall mean written notice provided from the District to an alleged violator ~~of an alleged violation~~ of the Groundwater Management Area Rules and Regulations.

1.~~28~~~~29~~6 **Fully Appropriated Area –** shall mean the area of the UENRD that has been determined to be fully appropriated by the Nebraska Department of ~~Natural Resources~~Water, Energy, and Environment.

~~1.2930 **Good Cause Shown** - shall mean a reasonable justification for granting a variance for a consumptive use of water that would otherwise be prohibited by rule or regulation and which the District reasonably and in good faith believes will provide an economic, environmental, social, or public health and safety benefit that is equal to or greater than the benefit resulting from the rule or regulation from which a variance is sought. Evidence of good cause shown and the subsequent variance must be presented by the requesting landowner in front of the Board, and determination of good cause shown will be left to the discretion of the Board.~~

1.~~30~~~~31~~27 **Groundwater** - shall mean that water which occurs in or moves, seeps, filters, or percolates through ground under the surface of the land.

1.~~31328~~ **Groundwater Reservoir Life Goal** – shall be the goal of the District to protect the quality and quantity of groundwater, and to support reasonable and beneficial uses for the District's groundwater for an infinite period of time.

1.~~32 33~~29 **Groundwater User** - shall mean a person who at any time pumps, extracts, withdraws, or confines groundwater at a rate greater than fifty (50) gallons per minute. Whenever the landowner and operator are different, groundwater user shall mean both the landowner and the operator.

~~1.32.1~~ Agricultural user means a groundwater user who uses groundwater for livestock, irrigation or other purposes, which requires pumping groundwater to the surface of the land.

1.29.1

~~1.32.2~~ Municipal user means a groundwater user that is an incorporated city or village, rural water district or sanitary improvement district, or other public water system that withdraws groundwater from a water well to serve its customers.

1.29.2

~~1.32.3~~1.29.3 Other user means a groundwater user that uses groundwater for purposes other than those described in the definitions of agricultural and municipal user and includes, but is not limited to; recreational, wildlife, manufacturing and industrial uses.

1.~~33~~340 **Helper Water Well** - shall mean any water well or wells ~~that is~~ used in conjunction with other irrigation well(s) ~~and is used~~ for the purpose of supplementing the rate of withdrawal, in gallons per minute, of the irrigation well or series of irrigation wells without increasing the number of acres irrigated.

1.~~34~~351 **High Capacity Livestock Well** – means a well or commingled wells with pumping capacity of over 50 gallons per minute that is used for the watering of livestock and other uses of water directly related to the operation of a feedlot or other confined livestock or dairy operation.

1.~~35 36~~2 **Historically Groundwater Irrigated Acre** – shall mean any acre of land with required documentation proving that it was historically supplied with groundwater through irrigation works, mechanisms, or facilities.

1.~~36~~373 **Hydrologic Unit Code or HUC –** United States Geological Survey (USGS) 10-digit Hydrologic Unit Code.

1.~~37~~384 **Illegal Water Well -** shall mean

~~1.37.1 Any water well operated or constructed without or in violation of a permit required by the Act;~~

~~1.37.4 Any water well not in compliance with the Rules and Regulations adopted and promulgated pursuant to the Act;~~

~~1.37.5 Any water well not properly registered in accordance with Neb. Rev. Stat. §§ 46-602 to 46-606 or~~

~~1.37.6 Any water well in violation of spacing requirements specified in the District's Water Well Permit Restrictions or by Neb. Rev. Stat. 46-609 and 46-651~~

~~1.37.7 Any water well used for the application of chemical materials in violation of Neb. Rev. Stat. 46-1011 to 46-1148 as such statutes may be amended and supplemented, and such Rules and Regulations as may be adopted from time to time by the Nebraska Department of Environment and Energy~~

~~1.37.8 Any water well located within fifty (50) feet of the bank of any natural stream and used for irrigation purposes without a permit issued pursuant to Neb. Rev. Stat. 46-637 and 46-735.~~

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~~1.37.9 Any well or pit from which water is transported to an adjoining state in violation of Neb. Rev. Stat 46-613.01 and~~

~~1.37.10 Any well from which water flows under natural pressure in excess of the amounts specified in Neb. Rev. Stat. 46-281.~~

~~1.37.11~~ ~~Any~~ any water well not in compliance with other applicable laws of the ~~-~~State of Nebraska or with Rules and Regulations adopted and promulgated pursuant to such laws.

1.~~28~~39~~5~~ Improper Irrigation Runoff - shall mean the occurrence of irrigation runoff water after January 1, 1977, which causes or contributes to (a) the accumulation of water upon or beneath the surface of the lands of any other person(s) to their detriment; or (b) the deterioration of water quality by depositing sediment and/or associated chemicals in surface waters within the area.

1.~~39~~40~~36~~ Inactive Status Water Well - shall mean a water well that is not currently in use and is in a good state of repair and for which the landowner has provided evidence of intent for future use by maintaining the water well in a manner which meets the following requirements:

1.~~39~~36.1~~40.1~~ The water well does not allow impairment of the water quality in the water well or of the groundwater encountered by the well;

1.~~39~~40~~36~~.2 The top of the water well or water well casing has a water-tight welded or threaded cover or some other water-tight means to prevent its removal without the use of equipment or tools to prevent unauthorized access, to prevent a safety hazard to humans and animals, and to prevent illegal disposal of wastes or contaminants into the well water;

1.~~39~~40~~36~~.3 The pump and the pumping column have been removed;

1.~~39~~40~~36~~.4 All entrances and discharge piping to the water well are effectively sealed to prevent the entrance of contaminants; and

1.~~39~~40~~36~~.5 The water well is marked so as to be easily visible and located and is labeled or otherwise marked so as to be easily identified as a water well and the area surrounding the water well is kept clear of brush, debris and waste material.

1.~~40~~41~~37~~ Industrial or Commercial Water Well - shall mean any water well or series of wells that pumps groundwater at a rate in excess of fifty (50) gallons per minute for use in non-municipal manufacturing, commercial, and/or power generation. Commercial use shall include, but not be limited to, maintenance of the turf of a golf course and injection wells.

~~**1.41 Information and Education** - Information and Education means the collection, compilation, and dissemination of groundwater data as well as training, demonstration, and educational instruction.~~

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1.~~42~~41~~38~~ Irrigated Groundwater Acre - shall mean any acre of land that is being supplied with groundwater through irrigation works, mechanisms, or facilities.

1.~~43~~42~~39~~ Irrigation Run-off Water - shall mean groundwater used for irrigation purposes which escapes from land owned, leased, or otherwise under the direct supervision and control of a groundwater user.

1.~~44~~43~~40~~ Irrigation Distribution System - shall mean the necessary appurtenances to a water well(s), including the pump to convey irrigation water to irrigated acres. This includes, but is not limited to, any combination of set-move, solid-set, traveler, center pivot, or linear move sprinkler system(s), subsurface drip system, and gravity, furrow, border, or flood irrigation utilizing water from a ditch, canal, reuse pit, groundwater excavation pit, or pipe.

1.~~45~~44~~51~~ **Irrigation Water Well** - shall mean any water well pumping greater than fifty (50) gallons per minute that pumps groundwater through irrigation works, mechanisms, or facilities.

~~1.46456 **Landowner** - shall mean any person who owns land or is the power of attorney for that person.~~

~~1.47467 **Livestock Operation** - shall mean 1) livestock kept in buildings, lots or pens, which normally are not used for the growing of crops or vegetation; 2) any livestock kept in any livestock facility that is required by the Livestock Waste Management Act or state livestock waste regulations to obtain a permit from the Nebraska Department of Environment and Energy; or 3) livestock which are confined for more than ninety (90) days per year. Livestock operation shall not mean livestock that are kept in pastures, on rangeland, or on other grazing lands and allowed to feed on vegetation growing therein.~~

1.~~48~~47~~82~~ **Livestock Operation Water Well** - shall mean any water well or series of wells pumping greater than fifty (50) gallons per minute that is used as a groundwater source for a livestock operation.

1.~~49~~48~~93~~ **Management Area** - shall mean any area designated by the District pursuant to Neb. Rev. Stat. § 46-712.

1.~~50~~49~~50~~44 **Management Plan or Plan** – means the groundwater management plan developed and maintained by a Natural Resources District and approved by the Department of ~~Natural Resources~~Water, Energy, and Environment pursuant to Neb. Rev. Stat. 46-709 to 46-711.

1.~~51~~ ~~50~~145 **Maximum Contaminant Level or MCL** – shall mean the maximum permissible level of a contaminant in water, which is delivered to any user of a public or private water system as established by the Environmental Protection Agency (EPA). The MCL represents a level of a contaminant beyond which serious health problems have occurred or can occur.

~~1.52 512 **Means to Irrigate** – shall mean the landowner is in possession of an Irrigation Distribution System.~~

~~1.53 523 **Monitoring Period** – means the period of time which groundwater information is collected and analyzed for making management decisions.~~

1.~~54~~ ~~53~~446 **Monitoring Water Well** - shall mean a water well that is designed and constructed to provide ongoing hydrologic or water quality information and is not intended for consumptive use.

1.~~55~~545~~51~~47 **Municipal Well** – shall mean any water well or series of wells pumping greater than fifty (50) gallons per minute which is owned by a municipality and is used for municipal purposes.

~~1.5655 **DWENDEE** – means the Nebraska Department of Water, Energy, and Environment~~Environment and Energy~~~~

1.~~57~~ ~~56~~648 **Nitrogen Fertilizer** – shall mean a chemical or organic substance added to supply nitrogen~~livestock waste or 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 fifty (50) pounds of nitrogen per acre over the field to which it is being applied.~~

1.~~58~~ ~~57~~49 **Non-regulated Well** – shall mean a groundwater well designed and constructed to pump fifty (50) gallons per minute or less, unless it is a Commingled Well utilized for range/pasture management.

1.~~59~~ ~~58~~0 **Non-Point Source Contamination** – shall mean any source of pollution resulting from the dissolution and disbursement of widespread, relatively uniform contaminants of a nonspecific origin.

1.~~60~~591 **Observation Water Well** - shall mean a water well that has been cased and is used for the purpose of monitoring static water levels and quality parameters.

1.~~61~~ ~~60~~52 **Offset** – shall mean the transfer or retirement of water use from one source, to ~~allow an increase in use for another source at another location.~~replace a new use of water.

1.~~62~~~~61~~53 **Operator** - shall mean that person who has the most direct control over day-to-day operations of the land, which may include any landowner and/or any tenant.

~~1.63 Party – shall mean groundwater user, landowner, operator, and/or nitrogen applicator~~

1.~~64~~~~62~~54 **Person** - shall mean a natural person, partnership, limited liability company, association, corporation, municipality, irrigation district, and any agency or political subdivision of the State of Nebraska, or a department, agency, or bureau of the United States.

1.~~65~~~~63~~55 **Permit** - shall mean ~~an approved document applied for by a person and obtained from and approved by the District,~~ a written approval from a government body to engage in a specific activity in accordance with the District's Rules and Regulations for the enforcement of the Act.

1.~~66~~~~64~~56 **Point Source Pollution** – shall mean any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, channel, tunnel conduit, well, discrete fissure, container, rolling stock, vessel, other floating craft, or other conveyance over which the Nebraska Department of Environment and Energy has regulatory authority and from which a substance which can cause or contribute to contamination of groundwater is discharging or may discharge.

1.~~67~~ ~~65~~57 **Range Livestock** - shall mean livestock that are kept in pastures, on rangeland, or on other grazing lands and allowed to feed on vegetation growing therein.

1.~~68~~~~66~~58 **Range Livestock Water Well** - shall mean water well that is used for the watering of range livestock regardless of capacity.

1.~~69~~ ~~67~~59 **Recreational Use** – shall mean utilizing water from a regulated well for any form of play, amusement, or relaxation.

1.~~70~~~~68~~0 **Replacement Water Well** - shall mean a water well which, if the purpose is for irrigation, delivers water to the same tract of land served by the original water well and is (a) constructed to provide water for the same purpose as the original water well; (b) operating in accordance with any applicable permit from the Department and any applicable Rules and Regulations of the District; (c) the replacement well irrigates the same number of acres; and (d)(i) replaces a decommissioned water well within one hundred eighty (180) days after the decommissioning of the original water well; (ii) replaces

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a water well that has not been decommissioned but will not be used after construction of the new water well and the original water well will be decommissioned within one hundred eighty (180) days after such construction, except that in the case of a municipal water well, the original municipal water well may be used after construction of the new water well but shall be decommissioned within one year after completion of the replacement water well; or (iii) the original water well will continue to be used but will be modified and equipped within one hundred eighty (180) days after such construction of the replacement water well to pump fifty (50) gallons per minute or less and will be used only for range livestock, monitoring, observation, or any other non-consumptive or de-minimis use and approval by the District.

~~1.7169 State – shall mean the State of Nebraska.~~

1.~~727~~061 **Subarea** - shall mean a geographic area within a subdistrict ~~as defined in Rule 1.73~~ as designated by the Board of Directors.

1.~~73 71~~62 **Subdistrict** – shall mean a geographic area within the district as designated by the Board of Directors.

1.~~7472~~63 **Surface Irrigation** – shall mean irrigation by gravity, furrow or flood utilizing water from a ditch, canal, pipe, or other conveyance directly to the surface of the ground. Such water is distributed across the field through a channel or furrow by the force of gravity.

1.~~7573~~64 **Test Hole** - shall mean a hole designed solely for the purpose of obtaining information on hydrologic or geologic conditions.

1.~~767~~465 **Transfer of Groundwater** – means any arrangement approved by the Department and/or the Board through the granting of a permit in which the point of withdrawal, location of use, type of use, addition of type of use, or location of certified irrigated acres is altered.

1.~~777~~566 **Variance** - shall mean the approval of the District to act in a manner contrary to existing rules or regulations of the District ~~whose rule or regulation is otherwise applicable~~.

1.~~787~~667 **Water Bank** – shall mean an accounting system administered by the District to track credits and debits of groundwater consumptive use within the Management Area. Monetary value may be assigned to groundwater for offset purposes.

1.~~797~~768 **Water Well** - shall have the same definition as set forth in Neb. Rev. Stat. §46-601.01~~mean any excavation that is drilled, cored, bored, washed, driven, dug, jetted or otherwise constructed for the purpose of exploring for groundwater, monitoring groundwater, utilizing the geothermal properties of the ground, obtaining hydrogeology information or extracting water from or injecting fluid as defined in Neb. Rev. Stat. § 81-1502 into the underground water reservoir. Water well includes any excavation made for any purpose if groundwater flows into the excavation under natural pressure and a pump or other device is placed in the excavation for irrigation. For such excavations, construction means placing a pump or other device into the excavation for the purpose of withdrawing water for irrigation. Water well shall not include any excavation made for obtaining or prospecting for minerals, oil or natural gas or for inserting media to repressure minerals, oil or natural gas bearing formation regulated~~

~~by the Nebraska Oil and Gas Commission or the Nuclear Regulatory Commission or any structure requiring a permit by the Department used to exercise a surface water appropriation.~~

~~**RULE 2**~~

CHAPTER 2: ~~GENERAL PROVISIONS AND PROCEDURES FOR ENFORCEMENT AND PENALTIES:~~ENFORCEMENT OF RULES AND REGULATIONS

~~2.1 Enforcement and Penalties~~ - Any person who violates any controls~~/~~ or Rules or Regulations adopted by the UENRD shall be subject to the issuance of a cease~~-~~and~~-~~desist order and such other legal action as is necessary to bring about compliance.

Any person who violates a cease~~-~~and~~-~~desist order~~,~~ or who ~~has repeated or multiple violations of~~violates the Rules and Regulations of the UENRD, ~~shall~~ be subject to a penalty, including but not limited to the following: (1) a reduction ~~(in whole or in part) in that person's allocation of groundwater~~in the number of Certified Irrigated Acres; and/or~~;~~ (2) a ~~reduction in the number of certified irrigated acres;~~ permanent forfeiture (revocation) of Certified Irrigated Acres; and/or (3) a ~~permanent forfeiture (revocation) of certified irrigated acres.~~reduction in Allocation; and/or (4) disqualification from participation in certain UENRD programs. Such penalties may be permanent or for a specified period of time. The UENRD Board shall consider the seriousness of the violation when determining the nature of the penalty to be imposed.

- The circumstances for imposing penalties include, but are not limited to, the following: (1) a violation of any particular Rule or Regulation; (2) repeated violations of these Rules and Regulations; (3) severity of the violation; and (4) being in violation of more than one Rule at any particular time. The Board may also pursue a penalty i~~o~~f a Person has been warned in writing on more than one occasion that they are in violation of these Rules and Regulations.
-
- Notice and hearing shall be provided to any such person before the UENRD imposes the additional penalties identified in this Paragraph.

Any Person subject to these Rules and Regulations has full knowledge of their contents, requirements, and prohibitions. No Person shall be able to use ignorance of the provisions of these Rules and Regulations as a defense in any enforcement action or penalty proceeding.

~~2.1.1 In addition to the authority set forth in Neb. Rev. Stat. §§ 46-745 and 46-746, the District may enforce these Rules and Regulations through voluntary compliance and/or through a formal enforcement action.~~

~~2.1.2 Any person subject to these Rules and Regulations has full knowledge of their contents, requirements, and prohibitions. No person shall be able to use ignorance of the provisions of these Rules and Regulations as a defense in any enforcement action or penalty proceeding.~~

~~2.1.23 Any person who fails to comply with any of the Upper Elkhorn Natural Resources District's Rules and Regulations shall not be eligible to participate in any programs or receive payments that are administered by the District. Programs requiring compliance include but are not limited to the following: UENRD Groundwater Management Plan – Phase I, II, and III Rules and Regulations; Chemigation Act; Irrigation Runoff and Erosion and Sediment Control. Cost share programs that may be affected due to lack of compliance include but are not limited to the following: Nebraska Soil and Water Conservation Program; Upper Elkhorn NRD Conservation Program – Land Treatment Fund; Wild Nebraska/Wildlife Habitat Improvement Program; Nebraska Buffer Strip Program; Corners for Wildlife; Liquid/NH3 Application Program; Livestock~~

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~~Manure Analysis Program; Domestic Water Quality Program; Nitrogen Management Program; and the Water Well Decommissioning Program. Anyone who is already a participant in any of these programs or may be a participant will not receive any payments as long as they fail to comply with any District Rules and Regulations.~~

2.~~2~~1 Complaints

2.2.1 Any ~~person~~ Person may file a complaint with the District against a ~~Party~~ Groundwater User, Landowner, or Operator alleging ~~a~~that they are in violation of these Rules and Regulations; the Nebraska Ground Water Management and Protection Act (the Act); and/or other Nebraska law, the violation of which is within the jurisdiction of the District.

2.~~3~~2 Inspections ~~– Pursuant to Neb. Rev. Stat. § 46-707, District staff may conduct investigations, document reviews and field inspections to confirm compliance with these Rules and Regulations, the Act, and/or other Nebraska law.~~

2.2.1 Pursuant to Neb. Rev. Stat. § 46-707, District staff may conduct investigations, document reviews and field inspections to confirm compliance with these Rules and Regulations; the Act; and/or other Nebraska law.

2.~~3~~2.~~1~~2 District staff shall notify the ~~Party~~Groundwater User, Landowner, or Operator, either in person, by ~~postal~~ United States mail, by electronic communication, or by leaving notice posted at the ~~Party's~~ Groundwater User's last known address, of any suspected violation(s), of the District's intent to conduct an inspection, and of the purpose of such inspection.

2.~~3~~2.~~2~~3. ~~Pursuant to Neb. Rev. Stat. §2-3232(1),~~ District staff shall be authorized to enter upon the land to investigate complaints and alleged violations, and to conduct field inspections after providing the ~~Party~~ Groundwater User, Landowner, or Operator with notice as described above.

2.~~3~~2.~~4~~3 ~~Upon completion of the investigations and/or inspections described above, the District staff member shall file with the UENRD Manager a written report setting forth his or her findings.~~Following the investigation, document review and/or field inspection, the District staff responsible for the investigation, review, and/or inspection shall complete a report detailing their findings.

2.~~4~~3 Submission of Inspection Report Alleging Violation and Alleged Violator's Alternatives ~~–~~

2.3.1 If the District Manager finds that the ~~Party~~ Groundwater User, Landowner, or Operator is in violation of these Rules and Regulations, the Act and/or other Nebraska law, the staff report described above shall be sent to the ~~violator~~Groundwater User, Landowner, and Operator, accompanied by a formal notice of intent to issue a cease~~-~~and~~-~~desist order as approved and executed by the Board Chairman or the District Manager. The staff report and notice of intent to issue a ~~cease and desist~~cease-and-desist order shall be provided to the ~~Party~~ Groundwater User, Landowner, and Operator by hand delivery, or via certified mail, return receipt requested, and by postage prepaid First~~-~~Class U.S. Mail.

2.3.2 If the ~~Party~~ Groundwater User, Landowner, or Operator believes the staff report ~~to be~~is in error and no violation has or is occurring, he/she may make a written request for a hearing before the UENRD Board of Directors. Any written request for a hearing must be received at the

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UENRD Office within ~~seven (7)~~ten (10) business days (excluding Saturdays, Sundays, and legal holidays), of receipt of the staff report and notice of intent to issue a cease~~-~~and~~-~~desist order.

2.3.3 If ~~the violator fails to make a timely request for a hearing~~no hearing is requested, the ~~District~~ Board of Directors ~~shall~~ may issue ~~the~~ a cease~~-~~and~~-~~desist order ~~and provide a copy to the violator~~against the Groundwater User, Landowner, and/or Operator.

2.~~5~~ 4 Compliance

2.4.1 ~~—~~When a ~~Party~~ Groundwater User, Landowner, or Operator achieves compliance, the District shall lift the cease~~-~~and~~-~~desist order or modify it to ensure future compliance. Not withstanding compliance, the District may impose penalties including, but not limited to, revoking the certification for the irrigated parcel(s) that is the subject of the violation.

2.~~6~~ 5 Hearing

2.5.1 ~~—~~If the ~~Party~~ Groundwater User, Landowner, or Operator makes a timely, written request for a hearing, the UENRD Board shall schedule such hearing at ~~its~~ the District ~~O~~office. ~~-~~Such hearing shall be held no sooner than ten (10) days and not more than forty-five (45) days after receipt of the ~~request for a hearing has been received by the District~~notice provided pursuant to Rule ~~X~~2.3.~~2~~1.

2.5.2~~6.1~~ Notice of the hearing shall be provided to the ~~Party~~ Groundwater User, Landowner, and Operator and any other necessary person. ~~-~~Such notice shall be provided via certified mail, return receipt requested, or hand delivery, and by postage prepaid First~~-~~Class U.S. Mail. ~~-~~The notice shall inform the ~~Party~~ Groundwater User, Landowner, and Operator that, if he or she fails to respond to any notice and/or fails to appear at the scheduled hearing, the Board shall proceed to make a final determination as to the alleged violation of these Rules and Regulations, the Act and/or other Nebraska law, and as to whether to issue a cease~~-~~and~~-~~desist order against the ~~Party~~Groundwater User, Landowner, or Operator.

2.5.3~~6.2~~ The UENRD Board shall conduct the hearing to provide due process ~~of law~~ and ~~shall~~ receive all relevant information regarding the alleged violation, from the District and from the ~~Party~~Groundwater User, Landowner, or Operator. The UENRD Board shall keep a record of the hearing and shall base its decision on whether to issue a ~~cease-and-desist~~cease-and-desist order solely on the information received at the hearing. The UENRD Board shall render its decision in writing and provide the same to the ~~Party~~ Groundwater User, Landowner, and Operator via certified mail, return receipt requested, or hand delivery, and via postage prepaid First~~-~~Class U.S. Mail.

2.5.4~~6.3~~ In the event of multiple or repeated violations or a violation of the cease~~-~~and~~-~~desist order by the same ~~Party~~Groundwater User, Landowner, or Operator, the District may hold a separate hearing to determine whether to impose additional penalties. ~~-~~The UENRD Board shall provide written notice of the separate hearing to impose additional penalties on the ~~Party~~ Groundwater User, Landowner, or Operator via certified mail, return receipt requested, or hand delivery, and by ~~postage~~ prepaid First~~-~~Class U.S. ~~-~~Mail. Such notice shall specify the date, time, and location of any such hearing and advise the Groundwater User, Landowner, and Operator that they may be represented by counsel of their choosing.~~-~~ The hearing shall be conducted to provide the appropriate due process and ensure all relevant information from the Groundwater User, Landowner, or Operator~~Party~~ is considered before rendering a written decision. Only

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information received at the hearing shall be considered by the UENRD Board to determine whether to impose any penalty. The District shall keep a record of that hearing and provide its written decision to the ~~Party~~ Groundwater User, Landowner, and Operator via certified mail, return receipt requested, or hand delivery, and via postage prepaid First Class U.S. Mail.

2.~~7~~6 Board Authorization to Initiate Court Action

2.6.1 The Board may initiate appropriate legal actions to enforce any action or order of the District.

2.~~8~~7 Cease and Desist Order; Violation; Penalty

2.7.1 As provided by the Act, any violation of a cease and desist order issued by the District pursuant to the Act shall be subject to a civil penalty of not less than one thousand dollars ($1,000) and not more than five thousand dollars ($5,000) for each day an intentional violation occurs, per Neb. Rev. Stat. § 46-745(1).

2.7.2 Nothing contained in these Rules and Regulations shall exempt a Person from the provisions of applicable state laws.

~~RULE 3~~

~~Groundwater Management Area Regulation Authorities~~:

~~3.1 Following a public hearing, the District may manage the use of water in a Management Area for water quality or quantity purposes pursuant to Neb. Rev. Stat. § 46-739.~~

CHAPTER 3: GROUNDWATER CONTROLS~~RULE 4~~

3.1 Certification of Groundwater Irrigated Acres

3.1.1

~~11.1~~ After the effective date of these rules/controls, and except as otherwise provided herein, no acres will be irrigated with groundwater unless those acres have been certified for irrigation by the UENRD. Any acres ~~new irrigated acres requests will be reviewed by the board on a case-by-case basis.~~

that are not certified ~~on or before dates listed~~ will not be allowed to have groundwater applied to ~~t~~them for any purpose. ~~(unless approved by the board).~~ Any groundwater irrigated acres request(s) will be reviewed ~~by the board~~ on a case-by-case basis.

Certification of groundwater irrigated acres applications will be subject to the following requirements:

3.1.1.1

Any lands that have been converted to groundwater irrigation from surface water appropriations shall be certified for irrigation by the UENRD. As a condition to certification of such lands, the landowner must present proof that the surface water appropriation to such lands has been relinquished to the Nebraska Department of Water, Energy, and Environment.

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11.1.1 3.1.1.2 Acres that have been irrigated within the Lower Niobrara River Basin Fully-Appropriated designation at least one (1) time during 2003-2007 (Lower Niobrara River Basin Designation), 2004-2008 (Lower Platte River Basin Designation), and 2008-2012 for the acres outside the 10/50 line of these respective areas the calendar years 2003-Octobershown in Appendix CA -16, 2007-shall receive full certification credit and will be certified provided documentation described in Rule 11.1.83-3.1.1.6-is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

3.1.1.3 Acres that have been irrigated within the Lower Platte River Basin at least one (1) time during the calendar years 2004-December 16th, 2008 shall receive full certification credit and will be certified provided documentation described in Rule 11.1.8 is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

Acres that have been irrigated outside of the Lower Niobrara and Lower Platte River Basin 10/50 line at least one (1) time during the growing season between the calendar years of 2008 and 2012 shall receive full certification credit and will be certified provided documentation described in Rule 11.1.8 is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

Acres that were historically irrigated prior to 2003 (Lower Niobrara River Basin Designation) and prior to 2004 (Lower Platte River Basin Designation) and prior to 2008 for the acres outside the 10/50 line of these respective areas and have documentation required by Rule 11.1.83.1.1.6, shall receive 95% certification of the total amount of irrigated acres should the person certifying the acres decide to reactivate those acres for irrigation purposes.

3.1.1.4 Acres with documented irrigated history but enrolled in any local, state, or federal conservation programs that would prevent the landowner from irrigating during the designated basin timeframe, as described by Rule 11.1.33.1.1.68, shall receive 95% certification for the total amount of irrigated acres. should they choose to proceed with the certification process with the following conditions:

Table 11: Acre Certification Amount by Basin and Year

Area	Acre Certification Amount	
	100%	95%
Lower Niobrara River Basin	2003-2007	Prior to 2003
Lower Platte River Basin	2004-2008	Prior to 2004
Outside 10/50 Line	2008-2012	Prior to 2008

3.1.1.5 Acres with documented irrigated history but currently enrolled in any local, state, or federal conservation programs that would prev
ent the landowner from irrigating, as described by Rule 11.1.8, shall receive 95% certification for the total amount of irrigated acres should they choose to proceed with the certification process with the following conditions:

Acres must be certified respectfully by dates associated with Rule 11.1.2, 11.1.3, 11.1.4, and 11.1.5.

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~~Proof of historical use shall be by submission of information specified in Rule 11.1.8 and had the means to irrigate during that time period.~~

For all acres for which a person seeks certification, the following information is required to be reported on a form provided by the District and will be completed by a landowner or power of attorney in order to complete the certification process:

3.1.1.5.1 Landowner contact information;

3.1.1.5.2 Operator contact information;

3.1.1.5.3 Location of historically irrigated acres by legal description to the nearest quarter section;

3.1.1.5.4 The total number of historically irrigated acres

~~3.1.1.5.5 Last calendar date of active irrigation~~

3.1.1.5.~~6~~5 The DWEE registration number(s) of any groundwater well(s) associated with the irrigation of the land to be certified;

3.1.1.5.~~7~~6 Identification of any other sources of irrigation water other than groundwater;

3.1.1.5.~~8~~7 If relevant, documented proof of enrollment in any local, state, or federal conservation programs as described by Rule ~~11.1.10~~3.1.1.8 and

3.1.1.5.8 Any other information requested by the District.

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3.1.1.6 Documentation of irrigation or ~~-~~historical irrigation on acres to be certified will be required along with a signed application form to complete the certification process. The landowner or power of attorney for the landowner will obtain and submit to the District corresponding Farm Service Agency (FSA) documentation (Form #578 Report of Acreage) and a delineated FSA aerial photograph or county assessor tax records ~~of when last taxed as irrigated~~based on Table 1 ~~(table with the designated years) or other board approved documentation with the historically irrigated acres to be certified identified by the landowner.~~.

Table 1: Acre Certification Amount by Basin and Year

Area	Acre Certification Amount	
	100%	95%
Lower Niobrara River Basin	2003-2007	Prior to 2003
Lower Platte River Basin	2004-2008	Prior to 2004
Outside 10/50 Line	2008-2012	Prior to 2008

~~3.1.1.7 A variance to the FSA documentation form /County Tax Records requirement will be granted if a landowner or power of attorney submits board approved documentation for historically irrigated acres along with the application form.~~

~~Such documentation includes:~~

~~Other documentation that accurately identifies the historically irrigated acres, subject to Board approval.~~

~~Acres irrigated by multiple water sources may not be duplicated and certified with each source in the acre certification process. Each acre will have only one primary source of irrigation.~~

Modifications to groundwater certified irrigated acres must be submitted~~applied for through~~ to the District and will be reviewed ~~by the board~~ on a case-by-case basis.~~are subject to Board approval.~~

3.1.1.7.1 The District~~Board~~ has up to ninety (90) days upon reception of the ~~application~~documentation as described by Rule 3.1.1.6 for modification to either approve or deny the certified irrigated acres as they are applied for.

3.1.1.8 Historically irrigated acres ~~currently~~ enrolled with the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), Envi~~v~~ ~~i~~ronmental Quality Incentive Program (EQIP), or other federal, state or local conservation program during the basin years listed must be certified if future irrigation of those acres is desired.

3.1.1.9 Acres being certified as part of the acre transfer or acre expansion process are subject to the rules for transfer (Rule 3.2) and expansions (Rule 3.3).

3.1.1.~~9~~10 Acres irrigated by multiple groundwater sources may not be duplicated and certified with each source in the acre certification process. All water sources will be attached to the groundwater irrigated certified acres by tract.

3.1.1.1~~0~~1 Active irrigation wells on ground that ha~~ve~~s not been certified as irrigated shall be ~~subject to the following conditions by October 18, 2015 or otherwise be deemed an~~ illegal wells according to Neb. Rev. Stat. § 46-706.05.~~:~~

~~Decommissioning of the well and filing a notice of abandonment form with the Department.~~

~~Listing the registration on the irrigation well as inactive status with the Department and effectively sealing the well to prevent groundwater contamination in accordance to Neb. Rev. Stat. § 54-311.~~

~~Modifying the well use into a well pumping fifty (50) gallons per minute or less and filing a modification form with the Department.~~

3.2 Transfers

3.2.1

Groundwater Transfers:

3.2.1.1 The withdrawal and transfer of groundwater for domestic purposes that is subject to Neb. Rev. Stat. § 46-691.01 will not be subject to Rule ~~12~~3.2.

3.2.1.2 The withdrawal and transfer of groundwater within the District solely for the purpose of providing water to range livestock will not be subject to Rule ~~12~~3.2.

3.2.2 Transfer of Groundwater Certified Acres:

~~12.1.0.0~~ Any ~~Groundwater users~~Landowner/Power of Attorney intending to ~~to withdraw and physically transfer groundwater,~~ transfer groundwater certified irrigated acres~~,~~ ~~transfer the type of use, or add a type of use of groundwater within the Management Area~~ shall, before making any such transfer, apply for and be approved for the transfer by the Board. Application period for groundwater certified acre -transfers will occur during November- 1st to March 1st. Fees for transfers will follow fee structure in Rule ~~12.1.14.3~~3.2.3.3.

3.2.2.1

~~The withdrawal and transfer of groundwater for domestic purposes that is subject to Neb. Rev. Stat. § 46-691.01 will not be subject to Rule 12.~~

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~~3.2.1.1~~ The transfer of groundwater certified irrigated acres may be denied by the UENRD Board of Directors based on the UENRD Groundwater Irrigated Acre ~~t~~Transfer ~~A~~agreement.

3.2.2.2

3.2.2.3 Legal descriptions that groundwater certified irrigated acres have been transferred from are ineligible to receive transferred groundwater certified irrigated acres for a minimum of 5 years.

3.2.2.4 The legal descriptions receiving (transferring into) acres must have an equal to or higher area weighted average ~~of each~~ land classification from the Web Soil Survey than the legal description where the acres are being transferred from ~~on the Web Soil Survey~~.

~~3.2.1.1.1~~ For transfers of 15 acres or less, where an irrigation distribution system is being completed, the area weighted average of each land classification is not considered for transfer approval.

3.2.2.4.1

3.2.2.5 The section to which the groundwater certified irrigated acres are to be transferred to has a stream depletion factor equal to or lower than the section the acres are being transferred from as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).

3.2.2.5.1 For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.

The number of groundwater certified irrigated acres recertified at the legal descriptions receiving (transferring into) ~~transferred to~~ location shall not exceed the number of groundwater certified irrigated acres applied for on the transfer agreement.

~~3.2.1.1 Legal descriptions that groundwater certified irrigated acres have been transferred from are ineligible to receive transferred groundwater certified irrigated acres for a minimum of 5 years.~~

~~3.2.1.1 Groundwater certified irrigated acre transfers shall not exceed the groundwater certified irrigated acres and/or historic consumptive use and/or the groundwater certified irrigated acres.~~ Transferred groundwater certified irrigated acres must be irrigated no later than October 1st of the first growing season following the approved transfer ~~following growing season~~ and must remain on that legal descriptions receiving (transferring into) for a minimum of 5 years before being eligible for transfer.

3.2.2.6

~~3.2.1.1~~ A flowmeter is required on irrigation distribution systems located on the legal description~~s~~ receiving (transferring into) acres by October 1st of the first growing season following the approved transfer.~~.~~

3.2.2.7

~~The withdrawal and transfer of groundwater within the District solely for the purpose of providing water to range livestock will not be subject to~~

~~Rule 12.~~

~~3.2.1.1 Permanent g~~Groundwater certified irrigated acre transfers may occur only if the following conditions are met:

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3.2.2.8.1 All transfers of groundwater irrigated certified acres~~or use~~ must occur within the subdistrict USGS 10-Digit Hydrologic Unit Code (HUC) where the groundwater was originally withdrawn or within Rule 3.2.2.~~78~~.2~~12.1.8.2~~.

3.2.2.8.1.1 For purposes of this subsection, the term "HUC" does not include those areas or lands that the Nebraska Department of Water, Energy, and Environment has determined to be in more than one basin."

3.2.2.8.2 Transfers to an adjacent HUC will be allowed if the subdistrict of the adjacent HUC has not suffered a static groundwater level decline of more than three (3) feet based on the 20-year trend line calculated by the UENRD. Certified irrigated acres within the ~~two mile~~two-mile border of a HUC are not to be transferred beyond two miles of the adjoining HUC.

3.2.2.8.3 Certified irrigated acres will not be allowed to be transferred within the ~~two mile~~two-mile border of an adjoining HUC if the subdistrict for that HUC is showing a groundwater decline of more than three (3) feet based on the 20-year trend line.

~~3.2.1.1.1 Transfers from lands within the HUC of the 10/50 area that are within the area overlapped by the Lower Niobrara River Basin and the Lower Platte River Basin will remain within the same overlapped area. This may be lifted after December 31, 2015 or upon the Nebraska Department of Water, Energy, and Environment basin determination if neither basin is labeled fully appropriated at that time~~

~~The section to which the certified irrigated acres are to be transferred to does not have a higher stream depletion factor as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).~~

~~For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.~~

~~The certified irrigated acres are within the same, single, HUC. For purposes of this subsection, the term "HUC" does not include those areas or lands that the Nebraska Department of Water, Energy, and Environment has determined to be in more than one basin."~~

~~Transfers from lands within the HUC of the 10/50 area that are within the area overlapped by the Lower Niobrara River Basin and the Lower Platte River Basin will remain within the same overlapped area. This may be lifted after December 31, 2015 or upon the Nebraska Department of Water, Energy, and Environment basin determination if neither basin is labeled fully appropriated at that time.~~

~~The section to which the groundwater certified irrigated acres are to be transferred to does not have a higherhashas a stream depletion factor equal to or lower a lower stream depletion factor than the section the acres are being transferred from as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).~~

~~For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.~~

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3.2.2.8.4 ~~C~~Groundwater certified irrigated acres will not be allowed to be transferred from a lower to a higher water quality designated Phase Area.

3.2.2.8.5 ~~The applicant(s)/landowners~~The landowners/power of attorneys ~~-~~for land from where the acres are transferring from and transferring to must be in compliance with Upper Elkhorn NRD Rules and Regulations.

~~Agricultural Transfers: After the effective date of these rules, an agricultural user intending to withdraw and physically transfer groundwater off of the overlying land which he or she controls or transfer the certified irrigated acres shall, before making such transfer, apply for and be subject to Board approval for the transfer. Application period for agricultural transfers will occur during November 1st to March 1st. Fees for transfers will follow fee structure in Rule 12.1.14.3.~~

~~Transfers to the adjacent section or within the same section are not subject to Rule 12.1.8. except the following:~~

~~Transfers within the District may not occur in any subdistrict determined by the Board to be undergoing significant groundwater declines; and~~

~~Groundwater use or acres will not be transferred to a section designated with a higher stream depletion factor as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).~~

~~For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.~~

3.2.2.9 The ~~permanent~~ transfer of groundwater certified irrigated acres may be accomplished by decommissioning the well, changing the status of the well with DWEE to inactive, or modifying it into a well pumping fifty (50) gallons per minute or less.

~~3.2.1.1.2~~ If decommissioning the well, filing a notice of abandonment form with the Department, or if changing the status of a well or modifying a well, filing a modification form with the Department within 180 days of the transfer; and

3.2.2.9.1

3.2.2.10 The landowner/power of attorney to whom the acres are transferred to must re-certify the acres with the District as well as submit county assessor and/or the USDA/FSA documentation that they are recorded as irrigated by May 1st following the 1st irrigated season after approval.~~.~~

~~The The person to whom the acres are to be transferred must re-certify the acres with the District as well as submit county assessor and/or the USDA/FSA documentation that they are recorded as irrigated.~~

~~landowner/power of attorney person to whom the acres are to be transferred to must re-certify the acres with the District as well as submit county assessor and/or the USDA/FSA documentation that they are recorded as irrigated.~~

3.2.2.11 Transfers of groundwater certified irrigated acres ~~off of~~on to land that is also served by surface water will not be permitted unless the surface water appropriation is relinquished for that parcel of land or an offset is provided to the District for the new acres to be irrigated.

3.2.3 Application for and Approval of Transfers

3.2.3.1 In accordance with Neb. Rev. Stat. § 46-739(k) the District may deny or condition its approval of any transfers to the extent such conditions are necessary to:

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3.2.3.1.1 Ensure the consistency of the transfer with the purpose or purposes for which the management area or HUC was designated;

3.2.3.1.2 Prevent adverse effects on other groundwater users or on surface water appropriators;

3.2.3.1.3 Prevent adverse effects 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; and

3.2.3.1.4 Otherwise protect the public interest and public welfare.

3.2.3.2 In making its decision regarding a transfer of groundwater certified irrigated acres ~~application~~request, the Board may consider relevant information, including but not limited to:

3.2.3.2.1 Information obtained from studies within the District

3.2.3.2.2 Whether the proposed use is a beneficial use of groundwater;

3.2.3.2.3 Alternative sources of surface water or groundwater available to the applicant for the proposed withdrawal, transport, and use;

3.2.3.2.4 Any negative effect of the proposed withdrawal, transfer and use on groundwater or surface water supplies needed to meet reasonable future demands for water within the state;

3.2.3.2.5 Groundwater quality of the area being transferred to;

3.2.3.2.6 Whether the proposed withdrawal, transfer, and use is consistent with the goals and objectives of the Groundwater Management Plan or the voluntary integrated management plan (V-IMP);

3.2.3.2.7 The trend in the change of groundwater levels in the subdistrict;

3.2.3.2.8 Other transfers into the area in proximity to the well proposed to be used;

3.2.3.2.9 The total usage in proximity to the well proposed to be used; and

3.2.3.2.10 Other factors that would increase the rate of consumptive use in the area of the well proposed to be used.

3.2.3.3 Each ~~application~~request for the transfer of groundwater certified irrigated acres will be charged a non-refundable $50 application fee. Additional fees include:

3.2.3.3.1 For qualifying applications the acre fee for 25 acres or less is $125.00.

3.2.3.3.2 For qualifying applications the acre fee for over 25 acres is $5.00 per acre.

3.2.3.4 ~~A~~n ~~application~~ transfer agreement for a transfer shall include, but not be limited to the following:

3.2.3.4.1 Names, addresses, phone number for each landowner involved in the proposed transfer, and the name, address, and phone number of the operator if different than the landowner;

3.2.3.4.2 Legal description of the land involved in the proposed transfer along with well registration numbers of all wells proposed to be used;

~~The nature of the proposed use;~~

3.2.3.4.3 Identification of any other alternative sources of surface water or groundwater available to the applicant for the proposed use and the reasons why use of such alternative source or sources are not being sought;

3.2.3.4.4 Proof of ownership from the United States Farm Service Agency or county tax assessor for each certified irrigated acre to be involved in the transfer request;

3.2.3.4.5 If exceeding limits set out in Rule 3.4.13 and a hydrologic evaluation is required:~~9.1~~

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3.2.3.4.5.1 ~~, a~~An assessment of the effects of the proposed withdrawal, transfer, and use on existing groundwater users, on existing surface water appropriators, and on groundwater and surface water supplies needed to meet present or reasonable future demands within the State;

3.2.3.4.5.2 ~~If exceeding limits set out in Rule 9.1,~~A ~~a~~n assessment of the effects of the proposed withdrawal, transfer, and use on the environment in the vicinity of the proposed withdrawal and proposed use;

3.2.3.4.6 Any other information the applicant deems relevant to the District's criteria for approval of the proposed withdrawal, transfer, and use;

3.2.3.4.7 Signatures from all of the landowners/power of attorneys involved;

3.2.3.4.8 Aerial photograph(s) showing all groundwater certified irrigated acres involved in the transfer.

3.2.3.5 ~~Application~~A transfer agreement is transferable from one landowner to another for the life of the contract.

3.2.3.5.1 New landowner must fulfill original agreement.

3.2.3.5.2 New landowner must comply to application criteria with 6 months of closing date on the property.

~~3.2.1.1.2~~ Application is only transferable to new landowner with a completed purchase agreement.

3.2.3.5.3

3.2.3.6 ~~12.1.14.6~~ Public notice of the transfer of groundwater certified irrigated acres will only be submitted to the county assessor after the recertification of those irrigated acres.

~~Transfers of Type of Use: Any person who withdraws groundwater from a well located within the District and transfers the type of use of that water (e.g. irrigation to industrial) or adds a type of use of groundwater to the well (e.g. adds an industrial use to an existing irrigation well), shall apply for a transfer permit on forms provided by the District before beginning any such transfer.~~

~~No change in the type of groundwater use shall be approved unless such change results in no increase in the historical consumptive use of theh~~

~~e groundwater to be transferred or an offset is provided for any increase in historical consumptive use.~~

~~No transfer will be approved if the water use moves to another section with a higher stream depletion factor as determined by the Elkhorn-Loup Modeling Project or other updated model(s).~~

~~No person shall use a water well for purposes other than its registered purpose until the water well registration has been changed to the intended new use or the additional use has been added to the registration.~~

~~In the case of a replacement well, a person may modify and equip the original water well to be used for range livestock, monitoring, observation, or any other non-consumptive or de minimis use approved by the District.~~

~~The change to a new use or the addition of a use shall be made by filing a water well registration modification with the Department and the change must be in conformance with Neb. Rev. Stat. §§ 46-609(1) and 46-651.~~

3.2.4 Municipal Transfer Permits: The District shall approve, without the filing of a District transfer permit application, the withdrawal and transport of groundwater when a public water supplier

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is providing water for municipal purposes, so long as that water supplier submits a notification of Department application to the District. If a public water supplier files an application for a permit from the Department under the Municipal and Rural Domestic Groundwater Transfers Permit Act, then the permit applicant shall advise the District of its filing.

3.2.5 Industrial Transfer Permits: Transfers for which permits or approval for transfer have been obtained pursuant to the Industrial Ground Water Regulatory Act are not required to apply for a transfer permit from the District. Commercial and industrial users who are required to file for a permit from the Department under the Industrial Groundwater Regulatory Act shall advise the District of such application.

3.2.6 Transfer In or Out of District

3.2.6.1 Requests for transfer of groundwater certified irrigated acres in or out of the District pursuant to Neb. Rev. Stat. § 46-613.01 shall require District action to approve or deny the transfer request ~~prior to submission of the required transfer permit application to the Department~~.

3.2.6.1.1 All Natural Resources Districts involved with the transfer request must review and approve the proposed transfer of groundwater certified irrigated acres.

~~T~~

~~When the Department initiates the consultation with the District regarding a permit application, the District shall respond according to the following provisions:~~

~~3.2.1.1.2 The District shall advise the Department of any of the~~he applicant~~'s unmet obligations under District rules (e.g., variance not yet applied for or granted).~~must be in compliance with all Natural Resources Districts Rules and Regulations

3.2.6.1.2

~~3.2.1.1.2~~ Any formal action taken by the Board adopting any offset determined by the Department or the District to be necessary to maintain compliance with any formal agreement or to mitigate any effects to surrounding groundwater users or surface water appropriators for uses other than municipal or industrial/commercial.

3.2.6.1.3

~~3.2.1.1.2~~ If the District determines an offset on behalf of the user, the nature of the offset and of the enforcement provisions that will be required.

3.2.6.1.4

3.2.6.1.5 A water well construction permit shall not be issued until a permit and/or transfer agreement to transfer groundwater to an adjoining District has been obtained ~~from the Department~~ and a copy of the permit and/or transfer agreement is on file with the original District.

~~Application for and Approval of Transfers~~

~~In accordance with Neb. Rev. Stat. § 46-739(k) the District may deny or condition its approval of any transfers to the extent such conditions are necessary to:~~

~~Ensure the consistency of the transfer with the purpose or purposes for which the management area or HUC was designated;~~

~~Prevent adverse effects on other groundwater users or on surface water appropriators;~~

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- Prevent adverse effects 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; and
- Otherwise protect the public interest and public welfare.

In making its decision regarding a transfer application, the Board may consider relevant information, including but not limited to:

- Information obtained from studies within the District
- Whether the proposed use is a beneficial use of groundwater;
- Alternative sources of surface water or groundwater available to the applicant for the proposed withdrawal, transport, and use;
- Any negative effect of the proposed withdrawal, transfer and use on groundwater or surface water supplies needed to meet reasonable future demands for water within the state;
- Groundwater quality of the area being transferred to;
- Whether the proposed withdrawal, transfer, and use is consistent with the goals and objectives of the Groundwater Management Plan or the voluntary integrated management plan (V-IMP);
- The trend in the change of groundwater levels in the subdistrict;
- Other transfers into the area in proximity to the well proposed to be used;
- The total usage in proximity to the well proposed to be used; and
- Other factors that would increase the rate of consumptive use in the area of the well proposed to be used.

Each application for the transfer of irrigated acres will be charged a non-refundable $50 application fee. Additional fees include:

- For qualifying applications the acre fee for 25 acres or less is $125.00.
- For qualifying applications the acre fee for over 25 acres is $5.00 per acre.

An application for a transfer shall include, but not be limited to the following:

- Names, addresses, phone number for each landowner involved in the proposed transfer, and the name, address, and phone number of the operator if different than the landowner;
- Legal description of the land involved in the proposed transfer along with well registration numbers of all wells proposed to be used;
- The nature of the proposed use;
- Identification of any other alternative sources of surface water or groundwater available to the applicant for the proposed use and the reasons why use of such alternative source or sources are not being sought;
- Proof of ownership from the United States Farm Service Agency or county tax assessor for each certified irrigated acre to be involved in the transfer request;
- If exceeding limits set out in Rule 9.1, an assessment of the effects of the proposed withdrawal, transfer, and use on existing groundwater users, on existing surface water appropriators, and on groundwater and surface water supplies needed to meet present or reasonable future demands within the State;

~~If exceeding limits set out in Rule 9.1, an assessment of the effects of the proposed withdrawal, transfer, and use on the environment in the vicinity of the proposed withdrawal and proposed use;~~

~~Any other information the applicant deems relevant to the District's criteria for approval of the proposed withdrawal, transfer, and use;~~

~~Signatures from all of the landowners involved;~~

~~Aerial photograph(s) showing all certified irrigated acres involved in the transfer.~~

~~Application is transferable from one landowner to another for the life of the contract.~~

~~New landowner must fulfill original agreement.~~

~~New landowner must comply to application criteria with 6 months of closing date on the property.~~

~~Application is only transferable to new landowner with a completed purchase agreement.~~

~~12.1.14.6 Public notice of the transfer of certified irrigated acres will only be submitted to the county assessor after the recertification of those irrigated acres.~~

3.3 Expansions

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3.3.1 PURPOSES AND AUTHORITY: In accordance with Neb. Rev. Stat. § 46-714(12) and § 46-707(1), this Rule is to:

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3.3.1.1 Allow a limited number of total new groundwater irrigated acres annually;

3.3.1.2 Maintain the status of "not fully appropriated" under Neb. Rev. Stat. § 46-713; and

3.3.1.3 Limit the number of new permits so that total new groundwater irrigated acres do not exceed 2,500 acres annually as set forth in Rule ~~13.1.4~~ 3.3.1.4 below. Lands from which certified irrigated acres have been transferred are not eligible to apply or replace acres transferred under this allotted 2,500 acre annual expansion limit.

3.3.1.4 ~~13.1.4~~ After December 31, 2012, the Upper Elkhorn NRD will allow up to a maximum of 2,500 acres annually to be developed throughout the whole district.

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3.3.2 ~~13.2~~ LIMITATION ON EXPANSION OF IRRIGATED ACRES: T~~Effective immediately, t~~here shall be no expansion of groundwater irrigated acres within the Upper Elkhorn NRD ~~as stated in Rule 3.3.1.4 Rule 13.1.4~~ *unless* the development is approved by the Upper Elkhorn NRD in accordance with these Rules and Regulations.

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3.3.3 ~~13.3~~ ENFORCEMENT: The NRD will enforce this limitation consistent with its authority under the law and its Rules and Regulations. In addition, a violation of these provisions may be grounds for denying an application to develop new groundwater irrigated acres under the ranking criteria set forth below.

3.3.4 WELL PERMITS: If a request for expansion of irrigated acres requires installation of a new groundwater well, the respective well permit application will not be deemed complete until authorization is granted by the Upper Elkhorn NRD for the expansion of those irrigated acres.

3.3.5 PROCESS FOR APPLICATIONS TO EXPAND IRRIGATED ACRES: The process that allows expansion of groundwater irrigated acres shall be as follows:

3.3.5.1 The application period ~~for 2013 and proceeding years~~ will occur during the month of October~~, starting 2012~~. Any application received outside of an application period will be returned to the applicant as incomplete.

3.3.5.2 The application shall be made on forms provided by the district. The Board instructs staff to prepare the relevant forms and submit them to the Board for approval.

3.3.5.2.1 The application shall include the most recent aerial photo delineating the new acres being applied and, as applicable, the proposed location of the new well or location of the existing well to be used.

3.3.5.2.2 If the acres will be irrigated with an existing well, the application shall include the well registration number. If the acres will be irrigated with a new well, the application shall include the approximate legal description for the new well, well logs and test pump data (if any).

3.3.5.2.3 Each application for expansion of irrigated acres will be charged a non-refundable $50.00 application fee. Additional fees include:

3.3.5.2.3.1 For qualifying applications the acre fee for 25 acres or less is $125.00.

3.3.5.2.3.2 For qualifying applications the acre fee for over 25 acres is $5.00 per acre.

~~Applications not approved with or without modifications will have to reapply annually with a $75.00 fee.~~

~~Modifications to an application will be charged at above rates stated in 13.5.2.3.1 & 13.5.2.3.2.~~

3.3.5.2.4 The application shall be signed by the current landowner or power of attorney.

3.3.5.2.5 Application is transferable from one landowner to another for the life of the contract.

3.3.5.2.5.1 New landowner must fulfill original agreement.

3.3.5.2.5.2 New landowner must comply ~~to~~with application criteria within 6 months of closing date on the property.

3.3.5.2.5.3 Application is only transferable to new landowner with a completed purchase agreement.

3.3.5.2.6 ~~13.5.2.6~~ The landowner is obligated to fulfill the contract for a minimum of five (5) years.

3.3.5.2.7 ~~13.5.2.7~~ Application does not include the Permit Fee to Construct a Water Well.

3.3.5.2.8 Application may be declined if it is incomplete or information is inaccurate.

3.3.5.3~~13.5.3~~ The applicants will be notified on the status of their application(s) within 60 days following the application period.

3.3.6 RANKING CRITERIA: The Upper Elkhorn NRD will review the application for expanding groundwater irrigated acres based on discretionary factors, including but not limited to, whether the application would promote the health and welfare of the NRD by contributing to the conservation, protection, development, and sound management of natural resources within this District. The Board will establish ranking criteria to assist with evaluating applications. Factors to be considered in the ranking criteria include but are not limited to: (i) irrigation type; (ii) groundwater quality and quantity levels; (iii) irrigation concentration; (iv) soil classification (i.e., Highly Erodible Lands, or HEL); (v) stream depletion factors; (vi) compliance with Nitrogen Certification Guidelines of the Upper Elkhorn NRD's Groundwater Management Plan; (vii) compliance with Upper Elkhorn NRD Rules and Regulations, including compliance with the limitation on expansion of groundwater irrigated acres under these provisions; and

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(viii) such other factors that assist in determining whether the application would promote conservation of the natural resources and the health and welfare of the residents of the NRD.

3.3.7 ~~13.7~~ FLOWMETERS REQUIRED: Installation of a flowmeter approved by the Upper Elkhorn NRD staff is required as a condition for any application for expansion of groundwater irrigated acres by October 1st of the first growing season following the approved expansion. Data from flowmeters shall be collected by District staff on an annual basis. As a condition of approval to expand groundwater irrigated acres, District staff shall be granted free access to all lands to read the flowmeter. Data obtained from the flowmeters will assist the District in better understanding water use and aid in future water management activities throughout the District.

3.3.8 GRANTED APPLICATIONS: Applications granted under these provisions are deemed unique and special with regard to the specific application, and do not create a precedent for future application or matters pertaining to other lands, whether or not they are similarly situated. ~~Expansion of irrigated acres approved within 60 days following the 2012 January application period, under LB483 have until October 1, 2012 of the application year to complete well installation, install flowmeter and irrigate acres.~~ Applications approved within 60 days following the October 2012 application period and thereafter will have until October 1st of each application year to complete well installation, install flowmeter and irrigate acres.

3.3.8.1 Within a year of approval of acre expansion of certified irrigated acres; the landowner must submit documentation to the Upper Elkhorn NRD for certification that they have verified with the county assessors or USDA/FSA that these acres should be documented as irrigated.

3.~~1~~3.8.1.1 ~~-~~A letter will be sent to the county assessor by the NRD with a map showing where the new acres are located.

3.3.9 CANCELLATION OF APPROVED EXPANSION: The Upper Elkhorn NRD may cancel or void an approved expansion application at any time for violation of the NRD's Rules and Regulations.

3.4 **Water Well Permits**~~:~~

3.4.1

~~4.2~~ Any person intending to construct a water well on land which he/she owns or controls ~~in any manner at any location~~ within an Upper Elkhorn Natural Resources District Groundwater Management Area shall, before commencing construction, apply for a permit on forms provided by the District, with the following exemptions:

~~4.2.1~~3.4.1.1 ~~No permit shall be required for test~~ Test holes or dewatering wells with an intended use of ninety (90) days or less;

~~3.4.1.1 No permit shall be required for water~~ Water wells designed and constructed to pump fifty (50) gallons per minute (gpm) or less;

3.4.1.2

~~4.2.3~~3.4.1.3 Commingled wells with a combined capacity of fifty (50) gallons per minute or less with exception of range livestock wells.

~~3.4.2 Any user intending to commence or expand pumping to five hundred (500) acre feet (162,925,700 gallons) or more of groundwater annually for a single development will be required to submit a hydrologic evaluation prior to commencing or expanding water use. The hydrologic evaluation will be developed at the cost of the water well applicant.~~

~~Where a hydrologic evaluation is required the applicant will be required to contact NRD staff and complete the hydrologic evaluation before completing a permit as detailed in Rule 3.5.~~

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~~A hydrologic evaluation is required for any existing locations where 500 acre feet or more is currently used when an additional 250 acre feet or more annually is requested.~~

A water well ~~which falls under any exemption mentioned in~~under ~~Rule 4.1.~~ shall be required to obtain a UENRD permit if such well is modified into a well for which a permit is required in these Rules and Regulations. The permit shall also include any available well registration or old permitting documentation. The permit shall be obtained prior to commencement of modification.

~~3.4.2.1 Transfers of Type of Use: Any person who withdraws groundwater from a well located within the District and transfers the type of use of that water (e.g. irrigation to industrial) or adds a type of use of groundwater to the well (e.g. adds an industrial use to an existing irrigation well), shall apply for a transfer permit on forms provided by the District before beginning any such transfer.~~

No ~~change~~modification ~~in the type of groundwater use~~ shall be approved unless ~~such change~~the modification results in no increase in the historical consumptive use ~~of the groundwater to be transferred~~ or an offset is provided for any increase in historical consumptive use.

~~3.4.2.2 No transfer will be approved if the water use moves to another section with a higher stream depletion factor as determined by the Elkhorn-Loup Modeling Project or other updated model(s).~~

No person shall use a water well for purposes other than its registered purpose until the water well registration has been ~~changed~~modified to the intended new use or the additional use has been added to the registration.

3.4.2.3 In the case of a replacement well, a person may modify and equip the original water well to be used for range livestock, monitoring, observation, or any other non-consumptive or de minimis use approved by the District.

The change to a new use or the addition of a use shall be made by filing a water well registration modification with the Department and the change must be in conformance with Neb. Rev. Stat. §§ 46-609(1) and 46-651.

~~4.3~~3.4.2.4

~~4.4~~3.4.3 The applicant for such a water well permit shall pay a nonrefundable $50.00 filing fee to the District upon filing the permit application.

3.4.4 Any person who fails to obtain a water well permit as required by these Rules and Regulations shall apply for a late permit on forms provided by the District, accompanied by a nonrefundable $250.00 filing fee.

~~4.5~~3.4.5 The water well permit shall be signed by the landowner or power of attorney.

~~4.6~~3.4.6 The District shall review permit applications and either issue, with or without conditions, or deny permits within thirty (30) days after the application is filed.

~~4.6.1~~3.4.7 The District may approve a permit with conditions as deemed appropriate.

~~4.7~~3.4.8 A water well permit pursuant to Rule ~~4~~3.4, whether late or otherwise, shall be granted unless the District finds:

3.4.8.1 The proposed water well(s) does not interfere~~comply~~ with an well of a higher preference order~~the preference of use order: 1) domestic 2) agriculture 3) manufacturing and industry~~ in accordance with Nebraska Revised Statues §46-613

~~4.7.1~~3.4.8.2 The location or operation of the proposed water well is in conflict with any of these Rules and Regulations;

~~4.7.2~~3.4.8.3 The proposed water well is located within fifty (50) feet of the bank of a channel of any natural stream;

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~~4.7.3~~3.4.8.4 In the case of an irrigation water well, the proposed water well is within six hundred (600) feet of another irrigation well not currently registered to the applicant;

~~4.7.4~~3.4.8.5 In the case of an irrigation or industrial water well, the proposed water well is within one thousand (1,000) feet of a public water supplier or industrial water well not currently registered to the applicant;

~~4.7.5~~3.4.8.6 The proposed well conflicts with the purpose or purposes for which a District's Groundwater Management Area was designated;

~~4.7.6~~3.4.8.7 The proposed use would not be a beneficial use of water; or

~~4.7.7~~3.4.8.8 In the case of a late permit only, that the applicant did not act in good faith in failing to obtain a timely permit.

~~4.7.8~~3.4.8.9 A water well permit that has been applied for and would be utilized for groundwater irrigation must have those acres certified with the Upper Elkhorn NRD prior to permit approval.

~~4.7.8.1~~3.4.8.9.1 Water well permits applied for as part of an acre expansion or transfer require the acres to be certified after approval as part of the expansion or transfer agreement.

~~4.7.9~~3.4.8.10 The applicant for a water well permit must be in compliance with Upper Elkhorn NRD Rules and Regulations.

3.4.9

~~4.9~~ If the District finds that the application for a permit is incomplete or needs corrections, it shall return the application to the applicant for any necessary corrections.

~~4.9.1~~3.4.9.1 Corrections must be made within sixty (60) days or the application will be cancelled.

~~4.8~~3.4.10 The District shall transmit one copy of each permit issued to the Nebraska Department of ~~Natural Resources~~Water, Energy, and Environment.

~~4.9~~3.4.11 The issuance by the District of a water well construction permit, or the registration of a water well by the Department pursuant to Neb. Rev. Stat. § 46-602, shall not vest in any person the right to violate any District rule, regulation, or control in effect on the date of issuance of the permit or the registration of the water well, or to violate any rule, regulation, or control properly adopted after such date.

~~4.10~~3.4.12 When any permit is approved, the applicant shall commence construction of the water well as soon as possible after the date of permit approval and shall complete such construction and equip the water well prior to the date specified:

~~4.10.1~~3.4.12.1 Approved permits will have one year after the date of approval to complete well , irrigate approved acres, and install flowmeter.

3.4.12.2 If the applicant fails to complete the project under the terms of the permit, the District may withdraw the permit.

3.4.13 HYDROLOGIC EVALATION: Any user intending to commence or expand pumping to five hundred (500) acre feet (162,925,700 gallons) or more of groundwater annually for a single development will be required to submit a hydrologic evaluation prior to commencing or expanding water use. ~~A hydrologic evaluation is required for any existing locations where 500 acre feet or more is currently used when an additional 250 acre feet or more annually is requested.~~

3.4.13.1 The hydrologic evaluation will be developed at the cost of the water well applicant.

3.4.13.2 Where a hydrologic evaluation is ~~required~~required, the applicant will be required to contact NRD staff to get the hydrologic evaluation guidelines to~~and~~ complete the

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hydrologic evaluation and ~~before~~ completeing a water well permit ~~as detailed in Rule 3.5.~~

3.4.13.3 The hydrologic evaluation shall use the most recent and reliable scientific data and information that is publicly available.

3.4.13.4 The proposed water well(s) does not interfere with a well of a higher preference order in accordance with Nebraska Revised Statues §46-613.

3.4.13.5 Any use of groundwater requiring a hydrologic evaluation will be reviewed by the Board. A draft of the hydrologic evaluation, well permit, and associated documents should be made available to the Water Committee at least 30 days prior to being submitted to the Board of Directors for approval.

3.4.13.6 Permits requiring hydrologic evaluation approved by the Board of Directors may include additional requirements beyond the regular new well permit requirements. This may include, but is not limited to, allocations, well operation restrictions, or installation of monitoring wells.

3.4.13.7 Approved permits will have one year after the date of approval to complete construction of the well and install flowmeter. If construction of the well is not complete within one year of permit approval, a new permit will be required and the previous permit will be cancelled, unless the applicant clearly demonstrates when applying for the permit that one year will be an insufficient period to time for such construction. The timeline for beginning operation should be included with the hydrologic evaluation and well permit. ~~A large use well must begin operation within 5 years of the approval date of the well permit.~~

3.4.13.8 Approved permits will be required to have and maintain a working flowmeter and annually report water usage to UENRD.

~~4.10.1 A hydrologic evaluation is required for any existing locations where 500 acre feet or more is currently used when an additional 250 acre feet or more annually is requested.~~

~~4.12~~

~~RULE 9~~

~~3.5 Hydrologic Evaluation Report Required: Large Volume Water User **Permit**~~

~~A large volume water use is where a water well or wells withdraws groundwater in volumes of 500 acre feet or more annually. This includes single wells or multiple wells used together for a single use.~~

~~The proposed water well(s) does not interfere with ana well of a higher preference order in accordance with Nebraska Revised Statues §46-613~~

~~Nebraska Revised Statues §46-613~~

~~All large volume water uses must complete a hydrologic evaluation and water well permit before construction or operation of the water well use can begin or be expanded. The applicant must first contact NRD staff to obtain the guidelines of the hydrologic evaluation. The hydrologic evaluation must be completed before a permit can be issued.~~

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~~Large water users well permits are subject to the same rules as detailed in Rule 3.4 unless otherwise specified by this rule or District Board.~~

~~The evaluation shall use the most recent and reliable scientific data and information that is publicly available.~~

~~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.~~

~~Approved permits will have one year after the date of approval to complete construction of the well and install flowmeter. If construction of the well is not complete within one year of permit approval, a new permit will be required and the previous permit will be cancelled, unless the applicant clearly demonstrates on the application for a permit, that one year will be an insufficient period to time for such construction. The timeline for beginning operation should be included with the hydrologic evaluation and well permit. A large use well must begin operation within 5 years of the approval date of the well permit.~~

~~The hydrologic evaluation is to be completed at the expense of the applicantshall consist of, but is not limited to, Large water uses will be required to have and maintain a working flowmeter and annually report water usage to UENRD.~~
~~Any user intending to commence or expand pumping more than five hundred (500) acre feet (162,925,700 gallons) of groundwater annually for a single development will be required to submit a hydrologic evaluation prior to commencing or expanding water use. The hydrologic evaluation will be developed at the cost of the water well owner.~~
~~The information required to be included in the hydrologic evaluation includes, but is not limited to, the following:~~
~~Inventory of all wells within a two (2) mile radius of the proposed well(s) location~~
~~Static water levels~~
~~Yield capacities~~
~~Ownership information~~
~~DWEE registration numbers~~
~~Water level trends within the two (2) mile radius~~
~~Overall well development assessment within the two (2) mile radius of industrial or commercial user~~

~~Physical properties of area aquifer(s)~~
~~Transmissivity~~
~~Aquifer composition~~
~~Conductivity~~
~~Specific yield~~
~~Saturated thickness~~
~~Depth to shale~~
~~All available test holes and bore hole logs from wells within two (2) mile radius~~
~~Summary of depths to and thickness of each aquifer formation and water availability~~
~~Copy of all available test hole and bore hole logs~~
~~Contingency plan in case of negative impact on area wells~~
~~Complaint form~~
~~Impact scenarios~~
~~Potential water restrictions~~
~~Water offsets~~
~~Other conservation practices~~
~~Overall summary of required data and conclusion of impacts to area aquifers~~
~~Other information deemed necessary by Board~~

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~~RULE 5~~

3.5~~6~~ **Required Flowmeters**

3.5.1 ~~10.1~~ ~~—~~All new, ~~or~~ replacement, reclassified (change of use) irrigation, municipal, commercial, industrial or commingled wells pumping greater than fifty (50) gallons per minute, expansion of irrigated acres, and transfer of irrigated acres will be required to install a flowmeter.

3.5.1.1 Installation of Flowmeters:

3.5.1.1.1 Installation will be done by a person qualified through training to install flowmeters to ensure correct installation.

3.5.1.1.2 All flowmeters are required to measure the entire amount of water pumped by a regulated well in conformance with all specifications and requirements contained with these Rules and Regulations. In cases where water from two or more wells is commingled, ~~one flowmeter may be installed at a point after the water has been commingled.~~ the flowmeter should be placed where it measures the amount of water applied to the whole field. Total amount of water pumped annually must be submitted to the District by December 31st each year.

3.5.1.1.2.1 The District may request pumping amounts for different time periods for reporting other than annually.

3.5.1.1.3 All flowmeters must be verified by the UENRD for proper installation.

3.5.1.1.4 The District will maintain a list of all approved flowmeters.

3.5.1.1.5 District staff will have access to the well or commingled wells and flowmeter(s).

3.5.1.2 Flowmeter specifications and requirements ~~– All flowmeters installed and maintained for purposes of compliance with these Rules and Regulations are required to meet or exceed the following specifications and requirements:~~

3.5.1.2.1 Each flowmeter is required to be installed (physically attached) according to the manufacturer's specifications and calibrated to the pipe size. Calibration must maintain an accuracy of plus or minus two (2) percent of normal flow range of comparable measurement.

3.5.1.2.2 The meter registry will have a visual volume recording totalizer, which is protected from the elements, with sufficient capacity to record for the period of one year the quantity of water diverted from each well or commingling of wells. All flowmeters also will have a clearly visible and readable analog or digital display that provides a real time reading of the rate of flow of water through the flowmeter.

3.5.1.3 Flowmeter reading, inspections and maintenance:

3.5.1.3.1 Flowmeters installed that do not meet manufacturers' or District standards must be corrected.

3.5.1.3.2 Flowmeters may be periodically inspected for performance, accuracy and evidence of tampering.

3.5.1.3.3 Each flowmeter is required to be kept in working order and clear of debris, vegetative growth or other material that would impede operation.

3.5.1.3.3.1 This includes flowmeters that have been required by these Rules and Regulations or cost shared through local NRD, State, Federal cost

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share programs, or grants independent of the status of the funding source contract.

3.5.1.3.4 Landowner and operators are responsible to ensure that flowmeters are fully functional, properly maintained and operational ~~indefinitely~~. The District, at the request of the landowner or operator, may perform maintenance and operational service to flowmeters, at the landowners or operators cost. A form, provided by the District, will authorize this service and the District may enter onto property to provide this service. This service will be provided in the off-season and will not interfere with the normal operation of the meter or the well.

3.5.1.3.5 Any malfunctioning flowmeter will be reported to the District office at O'Neill, NE within twenty-four (24) hours after discovery. Malfunctioning flowmeters discovered on any day other than workdays (weekends and holidays) will be reported before the office closes on the first working day following the discovery. During the malfunctioning period, the landowner or operator shall use a method prior approved by the District to determine water-pumpage/yield. The District and landowner or operator is required to make a diligent effort to put the flowmeter back in service as soon as possible. When flowmeters are removed for servicing or replacement, the landowner or operator must keep records of the flowmeter reading. Failure to report inoperative meters may result in the loss of the certified irrigated acres for the next crop year.

3.5.1.3.6 The District may require any groundwater user to provide information that will enable the District personnel to determine the amount of energy used to operate any well on which a flowmeter is required. The groundwater user is required to provide such information, or the groundwater user shall notify the entity providing such power of authorization for the compliance officer to procure such information. The District will seek such information in the event a flowmeter is malfunctioning, or if the landowner, operator, or the compliance officer have reason to believe the flowmeter reading is incorrect. If any power source on a well within the Management Area is equipped with an hour meter, the District may require the groundwater user to provide appropriate readings from said hour meter.

3.5.1.4 Damage to or tampering with flowmeters.

3.5.1.4.1 It shall be a violation of these Rules and Regulations for any person to willfully alter, remove, reset, adjust, manipulate, obstruct or in any manner interfere with or tamper with any flowmeter within the Management Area, without District consent, for the purpose or with the intent to produce an incorrect, inaccurate, or misleading measurement or to cause, procure, or direct any other person to do so. Removing a seal placed on a flowmeter by the District will be considered tampering with a flowmeter.

~~Flowmeters that have been required by these Rules and Regulations or cost shared through local NRD, State, Federal cost share programs, or grants must be maintained for proper operation (See Rule 1.26) independent of the status of the funding source contract.~~

~~Any malfunctioning flowmeter will be reported to the District office at O'Neill, NE within twenty four (24) hours after discovery. Malfunctioning flowmeters discovered on any day other than workdays (weekends and holidays) will be reported before the~~

~~office closes on the first working day following the discovery. During the malfunctioning period, the landowner or operator shall use a method prior approved by the District to determine water pumpage/yield. The District and landowner or operator is required to make a diligent effort to put the flowmeter back in service as soon as possible. When flowmeters are removed for servicing or replacement, the landowner or operator must keep records of the flowmeter reading. Failure to report inoperative meters may result in the loss of the certified irrigated acres for the next crop year.~~

~~The District may require any groundwater user to provide information that will enable the District personnel to determine the amount of energy used to operate any well on which a flowmeter is required. The groundwater user is required to provide such information, or the groundwater user shall notify the entity providing such power of authorization for the compliance officer to procure such information. Compliance officerThe District will seek such information in the event a flowmeter is malfunctioning, or if the landowner, operator, or the compliance officer have reason to believe the flowmeter reading is incorrect. If any power source on a well within the Management Area is equipped with an hour meter, the District may require the groundwater user to provide appropriate readings from said hour meter.~~

~~Damage to or tampering with flowmeters.~~

~~It shall be a violation of these Rules and Regulations for any person to willfully injure, alter, remove, reset, adjust, manipulate, obstruct or in any manner interfere with or tamper with any flowmeter within the Management Area, without District consent, for the purpose or with the intent to produce an incorrect, inaccurate, or misleading measurement or to cause, procure, or direct any other person to do so. Removing a seal placed on a flowmeter by the District will be considered tampering with a flowmeter. Following a hearing before the Board, it is found that tampering has affected the accuracy or use of the meter, the District may withhold the cost share or any local, state, or federal program funds administered through the District.~~

3.~~7~~6 **Nitrogen Certification~~:~~**

~~5.1~~ 3.6.1 Nitrogen Certification is required for ~~Nitrogen Certification Course~~

~~T~~the person or persons responsible for making decisions on any type of nitrogen fertilizer application, including purchasing, on an area larger than one (1) acre and applying more than fifty (50) pounds per acre of actual nitrogen on any ~~crop~~ agricultural land (ex. crop ground, hay meadows, etc.) within the UENRD, either commercially or privately within an Upper Elkhorn Natural Resources District Groundwater Management Area.

~~3.6 shall be recertified by the District once every four (4) years.~~

3.6.2.1 The person or persons will be considered the certified operator.

~~Professionals, like crop consultants and fertilizer dealers, are also required to obtain nitrogen certification.~~

3.6.3 Nitrogen Certification recertification is required by the District every four (4) years after initial certification.

~~5.1 The person or persons will be considered the certified operator.~~ The certification requirement will include attending educational classes established by the District with assistance from the county extension, University of Nebraska Research and Extension personnel, or others;

3.6.4

~~5.1~~ Nitrogen certification offered by the State or from other NRDs will be accepted as fulfillment of the UENRD nitrogen certification class requirement;

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3.6.5

~~5.1~~ Proof of certification and other relevant data shall be required if an operator is certified by another NRD;

3.6.6

~~5.1.4~~3.6.7 Certification can be completed by an ~~Board~~ approved take-home test provided by an NRD or online certification class. A passing score of 70% will be required.

3.6.6

Irrigation Well Sampling

~~3.6.6.1 Upon completion of the nitrogen certification course, passage (70% correct) of the take home test, or other NRD approved alternative, a~~Certified operator(s)~~ny person who approves fertilizer decisions~~ on lands within an Upper Elkhorn NRD Groundwater Management Area, must submit analysis of nitrate-nitrogen content of a water sample taken from each irrigation well they operate. This water sample analysis must be completed and turned into the NRD at least ~~within the upcoming growing season of completing the certification course or passing the take home test to complete the certification~~once every four years. The sample must be ~~collected by landowner/operator and~~ analyzed using a District approved lab or by the District. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program.

3.6.6.1

3.6.6.2 This information will *not* be used in determining a Phase Area.~~Water samples are not required for professionals.~~

~~5.3~~ 3.6.7

~~5.3.0 Upon completion of the nitrogen certification course, passage (70% correct) of the take home test, or other NRD approved alternative, any person who approves fertilizer decisions on lands within the Upper Elkhorn NRD Groundwater Management Area, must submit analysis of nitrate-nitrogen content of a water sample taken from each irrigation well they operate. This water sample analysis must be completed within the upcoming growing season of completing the certification course or passing the take home test to complete the certification. Upon completion of the certification requirements the cooperator will receive a nitrogen certification card that will be valid for four (4) years. Nitrogen certification cards will expire on December 31st of the fourth year of the certification license. The sample must be collected by landowner/operator and analyzed using a District approved lab or by the District. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program.~~

Upon completion of the certification requirements the cooperator will receive a nitrogen certification card that will be valid for four (4) years. Nitrogen certification cards will expire on ~~December 31st~~March 1st of the fourth year of the certification license.

~~**RULE 6**~~

3.7 ~~3.8~~ Groundwater Quality Management Area Designation and Controls

The Upper Elkhorn Natural Resources District has monitored groundwater quality in the District since 1974. Since this time, the District has expanded its monitoring program to include approximately 700 irrigation wells. These monitoring programs along with additional research programs and aerial studies have identified areas of varying degrees of nitrate contamination in groundwater within the District. Although other contaminants

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have also been identified in the District's groundwater, levels are well below Health Advisory Levels (HALs) or Maximum Contaminant Levels (MCLs) as established by the Environmental Protection Agency (EPA).

3.7.1 ~~14.1~~ **Designation**

3.7.1.1 The ~~varying~~ degree of nitrate contamination is not uniform throughout the entire District. Thus, the District will utilize management areas referred to as Groundwater Quality Management Areas (GWQMAs).

3.7.1.2 ~~14.1.1~~ Phase Levels: There are three phases of GWQMAs~~, with~~, each corresponding to a particular range of nitrate concentrations in the groundwater based on samples collected by the UENRD staff.

Initial Phase I GWQMAs corresponded to areas with nitrate-nitrogen levels of 0% to 7.5% of the maximum contaminant level (MCL)~~ ppm (parts per million or mg L^{-1})~~. The entire UENRD was designated a Phase I Groundwater Quality Management Area on June 30, 1997; Phase II GWQMAs corresponded to areas with nitrate-nitrogen levels of > 7.5% to 9.5% of the MCL~~-ppm~~; and Phase III GWQMAs corresponded to areas with nitrate-nitrogen levels of >~~-~~9.5% of the MCL~~-ppm~~.

Changes to Phase levels were made when the order was issued and became effective on May 1, 2017. Upon this date Phase I GWQMAs now range from 0% to ~~5.0 ppm~~50% of the MCL, Phase II GWQMAs now range from >~~-~~5.0% to 9.0%~~-ppm~~ of the MCL, and Phase III GWQMAs are areas >~~-~~9.0% of the MCL~~-ppm~~.

Existing Designated Areas will maintain the same Phase level upon changes to the Rules and Regulations until criteria is met to label those areas a different Phase level.

Phase Level	~~Qualifier~~**Phase Range**
Phase I	0% to 50% of the MCL
Phase II	>~~-~~50% to 90% of the MCL
Phase III	>~~-~~90% of the MCL

3.7.1.3~~–~~ **Phase I Groundwater Quality Management Area - 0% to 50% of the MCL**

3.7.1.3.1 Following a public hearing and evidence presented at the hearing, the entire Upper Elkhorn Natural Resources District was designated a Phase I Groundwater Quality Management Area (GWQMA) June 30th, 1997. A Phase I GWQMA primarily promotes the implementation of Best Management ~~Practices through~~Practices through educational programs. Specific criteria are outlined in ~~the "Groundwater Quality Management Area Controls" section of this document.~~ Rule 3.7.2.

3.7.1.4 **Phase II Groundwater Quality Management Area - >50% to 90% of the MCL.**

~~Prior to the establishment of any GWQMA, there will be a public hearing held to allow testimony in favor or against the establishment of the proposed GWQMA. A public hearing must also be held prior to the redesignation of a GWQMA from a lower to a higher phase area or vice-versa.~~

~~Phase I Groundwater Quality Management Area - 0% to 50% of the MCL~~

~~Following a public hearing and evidence presented at the hearing, the entire Upper Elkhorn Natural Resources District was designated a Phase I Groundwater Quality Management Area (GWQMA) June~~

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~~30th, 1997. A Phase I GWQMA primarily promotes the implementation of Best Management Practices through educational programs. Specific criteria are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

- ~~Phase II Groundwater Quality Management Area - >50% to 90% of the MCL.~~

3.7.1.4.1 Following a public hearing and evidence presented at the hearing, the first Phase II GWQMAs were designated on January 1, 2003. ~~Additional Phase II areas were labeled October 1, 2012 and January 1, 2027.~~See Appendix B for current Phase Areas. ~~This timeline has been established only to show the District's commitment to addressing the nitrate problem.~~

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3.7.1.4.2

Phase II GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township or subarea should be designated a Phase II GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the average contamina~~t~~ent concentrations in proposed and established Phase II GWQMAs. Specific criteria are outlined in Rule 3.7.2. ~~Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

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3.7.1.4.3 Before a Phase II GWQMA can be designated, the average nitrate concentration in the monitored irrigation wells and monitoring wells must be greater than 50% of the Maximum Contaminant Level~~, which is currently 10 ppm (parts per million or mg L^{-1})~~ for a minimum of three consecutive years. However, the District reserves the right to designate a Phase II GWQMA at any time in lieu of these criteria, if deemed necessary.

3.7.1.4.4 In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 50% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase II or Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated phase area. Applicability of this requirement is at the Board's discretion.

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3.7.1.4.5 After initial Phase II designation, it will be determined to redesignate a Phase II GWQMA area as a Phase I GWQMA if data from monitored irrigation and dedicated monitoring wells show a decrease in nitrate concentrations and the average nitrate concentration falls below 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. Areas will remain as Phase II GWQMAs if the average nitrate concentrations from the monitored wells exceed 50% of the MCL, but are equivalent to or less than

90% of the MCL in the wells monitored by the District. An area will be designated a Phase III GWQMA if it meets the criteria outlined below.

3.7.1.5 **Phase III Groundwater Quality Management Areas - >90% of the MCL.**

3.7.1.5.1

Following a public hearing and evidence presented at the hearing, the first Phase III GWQMAs were designated February 1, 2019. See Appendix B for current Phase Areas. ~~Additional Phase III areas were labeled January 1, 2027. This timeline has been established only to show the District's commitment to addressing the nitrate problem since several areas in the District currently meet the criteria for designation as a Phase III GWQMA. Phase III GWQMAs can be established prior to and following the cutoff date of January 1, 2018 as data and other evidence indicate.~~

3.7.1.5.2

Phase III GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township should be designated a Phase III GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the contaminant~~e~~ concentrations in proposed and established Phase III GWQMAs. Specific criteria are outlined in Rule 3.7.2.~~Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

3.7.1.5.3

Before a Phase III GWQMA can be designated, an area must have been designated a Phase II GWQMA for a minimum of three consecutive years, and the irrigation wells and monitoring wells monitored by the District must have an average nitrate concentration greater than 90% of the Maximum Contaminant Level~~, which is currently 10 ppm (parts per million or mg L^{-1}~~. However, the District reserves the right to designate a Phase III GWQMA at anytime in lieu of these criteria, if deemed necessary.

3.7.1.5.4 In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 90% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated Phase III GWQMA. Applicability of this requirement is at the Board's discretion.

3.7.1.5.5

After initial designation, it will be determined to redesignate a Phase III GWQMA area as a Phase II GWQMA if data from monitored irrigation wells and monitoring wells shows a decreasing trend in nitrate concentrations the average nitrate concentration falls below 90% of the MCL, but ~~exceed~~

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~~50~~exceed 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. A Phase III GWQMA will be redesignated a Phase I GWQMA if data from monitored irrigation wells shows a decreasing trend in nitrate concentrations and the average nitrate concentration falls ~~below 50~~below 50% of the MCL in the wells monitored by the District. Areas will remain as Phase III GWQMAs if the average nitrate concentrations from monitored irrigation wells and monitoring wells exceed 90% of the MCL in the wells monitored by the District. Specific criteria are outlined in Rule 3.7.2. ~~Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

3.7.2~~14.2~~ **Controls**

3.7.2.1~~●~~ **Phase I Groundwater Quality Management Areas - 0 to 50% of the MCL ~~(0 - 5.0 ppm nitrate-nitrogen)~~**

~~3.7.2.1.1~~ The person or persons responsible for making final decisions on any type of applications of nitrogen fertilizer ~~on an area larger than **one acre** and applying more than 50 pounds per acre of actual nitrogen on any cropagricultural land within the UENRD, either commercially or privately, must be certified by the District once every four (4) years. The person or persons will be considered the *certified operator(s)*.~~must become a certified operator with the UENRD. ~~The~~ Nitrogen Ceertification requirements are detailed in Rule 3.5~~6~~. ~~will include attending educational classes established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others. Nitrogen certification from bordering NRDs will be accepted as fulfillment of the UENRD nitrogen certification requirement pending UENRD Board approval. This is possible since most NRDs will be using essentially the same educational program being developed statewide in coordination with the University of Nebraska Cooperative Extension. To address specific issues in the UENRD, additional educational materials may be given to operators certified in other neighboring NRDs.~~

3.7.2.1.1

~~3.7.2.1.1~~ A groundwater analysis for nitrate-nitrogen content in all registered wells used for irrigation of crops must be accomplished by the certified operator once every four (4) years prior to recertification. The irrigation water sampling requirements are detailed in Rule 3.6.6. ~~The results of this analysis must be submitted to the UENRD by the following December 31st report deadline. The sample must be collected and analyzed using UENRD approved methods. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program. Information from this analysis will give the certified operator knowledge of usable nitrate-nitrogen already present in the groundwater. This information will *not* be used in determining a Phase Area.~~

3.7.2.1.2

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~~3.7.2.1.1~~ With the passage of LB 981(1994), all new wells constructed in a control or management area (including a GWQMA) must have a permit from the local NRD prior to construction (see Rule 3.4). Exceptions include, test holes, dewatering wells with intended use of ninety days or less, and water wells which are designed and constructed to pump fifty gallons per minute or less. A copy of this permit will be retained at the District office and with the Nebraska Department of Water, Energy, and Environment. The cost of permitting and penalties applied will be consistent with the laws of the state of Nebraska.

3.7.2.1.3

~~3.7.2.1.1~~ Certified operators are encouraged to set a realistic yield goal for crops where more than 50 lbs of actual nitrogen fertilizer per acre is to be applied. A realistic goal is based on the last five years actual yield averaged plus five percent.

3.7.2.1.4

~~3.7.2.1.1~~ Residents residing in communities within the UENRD who apply nitrogen fertilizer will be encouraged to attend Nitrogen Awareness Programs established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others.

3.7.2.1.5

~~Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) applications of commercial nitrogen fertilizer will be discouraged on all soils. Spring (March 2nd to June 20th) applications of commercial nitrogen fertilizer greater than **100 pounds of actual nitrogen fertilizer per acre** will be encouraged through split applications (i.e. preplant, planting, weed and feed, post emergence side-dressing, and, if applicable, through an irrigation distribution system).~~

~~3.7.2.1.1~~ The District encourages voluntary testing of all domestic and stock wells for nitrate-nitrogen content.

3.7.2.1.6

~~3.7.2.1.1~~ The District encourages a deep soil sampling analysis (minimum two ~~or three~~ foot sample if applicable) for nitrate-nitrogen content on each field larger than 40 acres with more than 50 lbs per acre of actual nitrogen fertilizer applied. Approved sampling and analysis techniques will be included as part of the educational program. This analysis will give the certified operator knowledge of usable and inaccessible (below the root zone) nitrogen in the soil profile.

3.7.2.1.7

~~3.7.2.1.1~~ The District encourages the use of calibration monitors on all applications of fertilizers and pesticides. Proper maintenance of all fertilizer and pesticide equipment is also encouraged.

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3.7.2.1.9 The District encourages producers to use alternative irrigation and fertility management technology as it becomes available to increase efficiency and protect the environment.

3.7.2.2

~~●~~Phase II Groundwater Quality Management Areas - > 50% to 90% of the MCL ~~(>5.0 - 9.0 ppm nitrate-nitrogen)~~

A continuation of Phase I activities will remain in effect unless modified or negated by Phase II requirements.

3.7.2.2.1

3.7.2.2.2 The District will require the certified operator to accomplish an annual deep soil sampling analysis (mandatory two foot sample, three foot sample encouraged, if applicable) for nitrate-nitrogen content on each field larger than 40 acres with more than 50 lbs per acre of actual nitrogen fertilizer applied. The sample must be collected and analyzed using UENRD approved methods. Approved sampling and analysis techniques will be included as part of the District's educational program. This analysis will give the certified operator knowledge of usable and inaccessible nitrogen (below the root zone) in the soil profile. See Rule 3.8 for soil sampling requirements.

3.7.2.2.3 Certified operators must submit a report to the Upper Elkhorn NRD by December 31st following each crop year ~~on forms provided by the District~~ for areas larger than 40 acres. ~~where more than 50 lbs per acre of actual nitrogen fertilizer is applied.~~ See Rule 3.9 for additional report information.

~~3.7.2.2.1~~ An informational packet will be provided to each of the certified operators containing any necessary information and a list of possible information sources. Similar reports are used by the Natural Resources Conservation Service (NRCS) and other NRDs. This continuity allows for greater information exchange and dissemination. Many different entities will be available to certified operators should questions arise. The District reserves the right to request additional information needed to assist in the successful implementation of this groundwater management plan.

3.7.2.2.4

~~1.0.0.0.0~~ The District will encourage certified operators to incorporate credits from application of animal waste (solid or effluent) and municipality waste into the total nitrogen requirement for the specific crop where this application of waste is made. An analysis of waste slurry will be encouraged to determine nitrogen content. Operators are encouraged to apply animal and municipality waste evenly over as many acres as possible. The following Rules and Regulations apply to the application of animal and municipal waste, accordingly:

3.7.2.2.5

3.7.2.2.5.1 All required livestock waste facilities must be properly permitted by the State of Nebraska.

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3.7.2.2.5.2 Nitrogen application including livestock waste (solid or effluent) should not exceed agronomic rates for a crop.

3.7.2.2.5.3 Waste application on land subject to frequent flooding (see County Soil Survey) will be discouraged.

3.7.2.2.5.4 Waste applications within 200 feet of, and draining into, adjacent water bodies will be discouraged.

3.7.2.2.5.6 Spreading of animal and municipality waste on frozen or snow-covered ground will be discouraged. Animal and municipality waste should be applied to land where slopes are four percent (4%) or less or adequate erosion control practices are used.

3.7.2.2.5.7 The application of waste disposal on tilled ground with greater than ten percent (10%) slopes is discouraged unless adequate erosion control practices are present.

3.7.2.2.5.8 A nitrogen analysis of animal waste slurry will be encouraged.

~~3.7.2.2.6 Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) application of all commercial nitrogen fertilizer will not be allowed before **November 1st**. It will be discouraged until after **March 1st** on all soils. Exceptions will be allowed for Spring and Fall seeded crops and meadows if the actual nitrogen application rate is **less than 20 pounds per acre**.~~

The use of monitoring equipment (i.e., flowmeters, rain gauges, hour meters, etc.) and distribution equipment (i.e. pressure regulators, low pressure nozzles, etc.) for efficient fertilizer and water distribution will be encouraged by the District.

3.7.2.3

~~**Phase III Groundwater Quality Management Areas - > 90% of the MCL (> 9.0 ppm nitrate-nitrogen)**~~

All Rules and Regulations established for Phases I & II will remain in effect unless modified or negated by Phase III requirements.

3.7.2.3.1

~~If the groundwater analysis from Phase I, #2 and reported in Phase II, #3(c) shows nitrate-nitrogen levels greater than (90%) of the MCL, then the groundwater analysis for nitrate-nitrogen in Phase I, #2 must be made annually and results submitted in the report discussed in Phase II, #3 (c). In other words, the G~~groundwater analysis for nitrate-nitrogen ~~required prior to recertification (once every four~~

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~~years) in a Phase I GWQMA, now~~ must be conducted on an annual basis ~~if~~upon the nitrate-nitrogen levels meeting or exceeding 90% of the MCL~~, or 9.0 ppm in the case of nitrate-nitrogen.~~

3.7.2.3.2

3.7.2.3.3 If a town, village, or city lies within a Phase III Area, they will be encouraged to complete a Wellh~~H~~ead Protection Area Plan. The Upper Elkhorn NRD will provide assistance to the communities for completing this plan, if requested.

3.7.2.3.4 Randomized soil sampling will be conducted in the Phase III areas to identify fields, which are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied, with high residual soil nitrate-nitrogen. UENRD staff or contracted workers/agronomists will collect deep soil samples (three-foot samples) based on proper soil sampling protocol from University of Nebraska-Lincoln (UNL) NebGuide G1740, "Guidelines for Soil Sampling." ~~Following these guidelines, for every 40 acres, 10-15 randomly collected surface cores (0-8" deep) and 6-8 subsoil cores (8-36" deep) will be collected and analyzed for nitrate-nitrogen analysis.~~

3.7.2.3.5

Field Selection: Fields will be randomly selected within the Phase III designated townships annually. The UENRD staff or contracted workers/agronomists will contact the landowner and/or operator to determine crop for that field; only fields that are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied during that growing season will be tested.

3.7.2.3.6 **Timing**: Samples will be collected in the fall, after harvest, to determine the amount of nitrate-nitrogen left in the soil. Samples will be taken from fields in either a one- or three-year program. Samples will only be taken from fields with more than 50 lbs/ac of actual nitrogen applied (i.e., corn fields) in Year 1, seeing as little to no nitrogen is commonly applied to beans. If the field does not meet the trigger level of residual nitrate-nitrogen in Year 1, the field will not need to be retested. If the field meets the trigger level of residual nitrate-nitrogen, the same field will also be tested in Year 2 and Year 3. This is because of the common crop rotation of corn then beans, so the field will need to be tested in Year 2 (beans) and again in Year 3 (corn) to assess the producer's nitrogen management.

Analysis: Samples will be shipped to and analyzed by an NRD approved agricultural analysis laboratory. Soil sample analysis will be conducted for each sampled field for pounds of nitrate-nitrogen per acre (lbs/ac) and will fall within the following trigger levels based on the 2-foot sample results.

3.7.2.3.7

~~Organic Matter Percentage (%)~~	~~Trigger Level in Pounds per acre residual nitrate-nitrogen (lbs/acre)~~
~~<1~~	~~40~~

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~~1-2~~	~~50~~
~~> 2-3~~	~~60~~
~~> 3~~	~~65~~

3.7.2.3.7.1 If any portion of the field triggers the entire field will be considered a triggered field.

Organic Matter Percentage (%)	Trigger Level in Pounds per acre residual nitrate-nitrogen (lbs/acre)
< 1	40
1-2	50
> 2-3	60
> 3	65

3.7.2.3.8 **Triggers**: The landowner, operator, and/or nitrogen applicator (henceforth "the party") will be notified of their lbs/ac of nitrate-nitrogen every year that the field is sampled. If the field does not trigger in Year 1, the party will be notified of their result and no more testing for Phase III will be required, unless randomly selected in the future. If the field meets the trigger level of residual nitrate-nitrogen, the field will be tested for two additional years and the party:

3.7.2.3.8.1 Will be provided a list of potential Best Management Practices (Appendix ~~C~~A) which are reasonably considered to achieve compliance with Phase III Controls.

~~1.1.1.0.0.0~~ Will meet with UENRD staff to discuss the sample results and Best Management Practice options.

3.7.2.3.8.2

~~1.1.2.0.0.0~~ May be required to meet with the UENRD Water Committee to explain why the residual nitrate-nitrogen was above the limit for that field for that season.

3.7.2.3.8.3

3.7.2.3.8.4 May be required to pay for the cost of soil samples for future sampling years.

3.7.2.3.9

Failure to Reduce: Any party that fails to reduce residual nitrate-nitrogen to levels below the trigger level as described above, will receive a notice of violation and may receive a cease-and-desist order. The cease and desist order may order the immediate cessation of the application of nitrogen, the reduction or cessation of irrigation, the reduction or removal of certified irrigated acres, or such other measure authorized pursuant to Neb. Rev. Stat. 46-739, that are reasonably considered to achieve compliance with this section, as determined by the Upper Elkhorn Board of Directors.

~~The application of commercial nitrogen fertilizer is prohibited on all soils until after **March 1st**. Spring (March 2nd to June 20th) application~~

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~~of commercial nitrogen fertilizer at a rate of **over 100 pounds of actual nitrogen per acre** will require split applications (i.e. pre-plant, post emergence side dress, weed and feed, planting time, and through the center pivot, if applicable).~~ 3.7.2.3.10

If the Board of Directors deems it necessary to maintain, enhance, or protect groundwater quality, or to address concerns regarding conjunctive use and adverse effects on groundwater quality, the UENRD may choose to implement additional controls as listed in Nebraska State Statute~~s~~ §46-739. Some of the controls in this Statute are groundwater allocation and irrigated acre reduction.

3.8

~~3.9~~ **Annual Deep Soil Analysis**~~:~~

~~6.1~~3.8.1 ~~9.1~~ In those areas of the District designated as a Phase II or Phase III Groundwater Quality Management Area (see ~~Map A~~Appendix B), the District will require the certified operator to ~~accomplish~~ complete a pre-season deep soil sampling analysis (mandatory two-foot sample; three-foot sample encouraged) for total nitrate-nitrogen content on each ~~irrigated~~ field larger than forty (40) acres with more than fifty (50) pounds per acre of actual nitrogen fertilizer will be applied.

3.~~9~~8.1.1 Soil samples taken must each represent an area no larger than forty (40) acres on each field.

~~6.1.2~~ 3.8.1.2 ~~The sample must be collected and analyzed using UENRD approved methods.~~

~~6.1.3.0~~ Samples must be analyzed by a certified lab with results provided to the UENRD in the annual Phase II report. Approved sampling and analysis techniques will be included as part of the District's educational program.

3.8.1.3 An exception ~~variance~~ allowing sampling to be required every four (4) years may be granted should a landowner prove to the Board, with consistent soil sampling, that no nitrate-nitrogen above three (3) parts per million (ppm) is available in the soil profile.

~~6.1.4~~3.8.1.4 Results of the soil sample analysis ~~should~~shall be reported to the District as part of the Annual Phase II Report described in Rule 3.9.

~~**RULE 7**~~

3.~~10~~9 **Annual Phase II Reports**~~:~~

3.9.~~10~~.1

~~7.1~~ In those areas of the District designated as a Phase II or Phase III Groundwater Quality Management Area (see ~~Map A~~Appendix B), certified operators must submit a cropping report to the Upper Elkhorn NRD by December 31st following each crop year ~~on forms provided by the District~~ for fields larger than forty (40) acres. ~~w~~Where more than fifty (50) pounds per acre of actual nitrogen fertilizer is applied during the crop ~~season~~season, a full crop report is required ~~for each crop type~~. Following a crop where less than 50 pounds of actual nitrogen fertilizer is applied ~~for each crop type~~, the ~~District will require~~producer ~~shall report the crop type~~is required to complete a simplified report including crop type and other data determined by the

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NRD ~~to be reportedonly Section I.~~and estimated yield. ~~Field Information, or in the case of the online report the "Crops" section, of the annual Phase II report to be completed by each landowner.~~

3.~~10~~9.1.1 The report is required to be completed using the online Producer Connect producer portal at https://app.producerconnect.com/ and/or with other portals determined by the NRD.

~~7.1.1 The report consists of four sections and includes, but is not limited to, the following information:~~

~~Section I. Field Information~~ **Formatted:** Font: Not Bold

~~Legal description,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~County,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Field name used by operator (alias),~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Most recent season crop type,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~a) Most recent season cropping year,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Section II. Nitrogen Applications~~ **Formatted:** Font: Not Bold

~~Field size in acres,~~

~~Average soil nitrates in ppm from required annual deep soil analysis,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Soil sample depth (minimum two foot required),~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Results of water nitrate-nitrogen analysis (in ppm) from each irrigation well,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Inches of irrigation water applied for nitrogen credit,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Legume credit from previous year's crop, (if applicable),~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Any additional nitrogen credit applied, (such as manure),~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Organic matter result from soil sampling analysis,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~UNL formula for realistic yield goal for the field (5 year average plus 5%),~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Actual total nitrogen applied in pounds per acre,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

~~Actual yield for the field,~~ **Formatted:** Indent: Left: 0.5", Hanging: 0.5"

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~~Section III. Irrigation Applications~~

~~Well registration number(s) from Department of Natural Resources~~Water, Energy, and Environment,

~~Total field acres irrigated;~~

~~Crop water use for the crop type and field;~~

~~Flow rate of the well;~~

~~Total hours pumped for that cropping season;~~

~~Irrigation system type and/or nozzle packaging~~

~~Total rainfall on the field;~~

~~a) Total annual flowmeter readings (where applicable/available)~~

3.9.2

~~Section IV. Pesticide Applications~~

~~a) Type of pesticide applied by pesticide name~~

~~b) Application rates for each pesticide in one of the following rates:~~

~~i. oz/acre~~

~~ii. pt/acre~~

~~iii. qt/acre~~

The District reserves the right to request additional information.

~~**RULE 8**~~

3.1~~0~~ **Restriction on Nitrogen Application**~~:~~

~~8.1 I~~Restriction on Nitrogen Application will be determined by the designation of the Phase Area of the Groundwater Quality Management Area ~~as laid out in Rule ___ and summarized~~ as such:~~n those areas of the District designated as a Phase II Groundwater Quality Management Area (see Map A~~Appendix B~~), Fall (September 23rd to December 20th) and winter (December 21st to March 1st) application of all commercial nitrogen fertilizer will not be allowed before November 1st. Application will be discouraged until after March 1st on all soils. Exceptions will be allowed for spring and fall small grain crops and meadows if the actual nitrogen application rate is less than twenty (20) pounds per acre. In those areas of the District designated as a Phase III Groundwater Quality Management Area (see Map A) there may be additional restrictions on nitrogen application.~~

Phase Area	Restriction on Nitrogen Application by season			
	Spring (March 2 – June 20)	Summer (June 21 – Sept. 22)	Fall (Sept. 23 – Dec. 20)	Winter (Dec. 21 – March 1)
Phase I	Split application encouraged for applications greater than 100 lbs of actual	No restrictions	Application is discouraged	Application is discouraged

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	Nitrogen fertilizer per acre			
Phase II	Split application encouraged~~/required~~ for applications greater than 100 lbs of actual Nitrogen fertilizer per acre Exception: Meadows and small grain crops when application rate is less ~~then~~than 20 lbs per acre	No restrictions	No application allowed prior to Nov. 1 Application is discouraged after Nov. 1 Exception: Meadows and small grain crops when application rate is less ~~then~~than 20 lbs per acre	Application is discouraged
Phase III	Split application required – no applications over 100 lbs of actual Nitrogen fertilizer per acre allowed Exception: Meadows and small grain crops when application rate is less ~~then~~than 20 lbs per acre	No restrictions	No application allowed Exception: Meadows and small grain crops when application rate is less ~~then~~than 20 lbs per acre	No application allowed

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~~**RULE 9**~~

~~**Hydrologic Evaluation Report Required:**~~

~~9.1 Any industrial or commercial user intending to commence pumping more than five hundred (500) acre feet (162,925,700 gallons) annually for a single development will be required to submit a hydrologic evaluation prior to commencing or expanding water use. The hydrologic evaluation will be developed at the cost of the water well owner.~~

~~9.2 The information required to be included in the hydrologic evaluation includes, but is not limited to, the following:~~

~~9.2.1 Inventory of all wells within a two (2) mile radius of the proposed well(s) location~~

~~9.2.1.1 Static water levels~~

~~9.2.1.2 Yield capacities~~

~~9.2.1.3 Ownership information~~

~~9.2.1.4 NeDNR DWEE registration numbers~~

9.2.1.5 Water level trends within the two (2) mile radius
9.2.1.6 Overall well development assessment within the two (2) mile radius of industrial or commercial user
9.2.2 Physical properties of area aquifer(s)
9.2.2.1 Transmissivity
9.2.2.2 Aquifer composition
9.2.2.3 Conductivity
9.2.2.4 Specific yield
9.2.2.5 Saturated thickness
9.2.2.6 Depth to shale
9.2.3 All available test holes and bore hole logs from wells within two (2) mile radius
9.2.3.1 Summary of depths to and thickness of each aquifer formation and water availability
9.2.3.2 Copy of all available test hole and bore hole logs
9.2.4 Contingency plan in case of negative impact on area wells
9.2.4.1 Complaint form
9.2.4.2 Impact scenarios
9.2.4.3 Potential water restrictions
9.2.4.3.1 Water offsets
9.2.4.4 Other conservation practices
9.2.5 Overall summary of required data and conclusion of impacts to area aquifers
9.2.6 Other information deemed necessary by Board

RULE 10

Required Flowmeters:

10.1 All new or replacement irrigation, municipal, commercial, industrial or commingled wells pumping greater than fifty (50) gallons per minute, expansion of irrigated acres, and transfer of irrigated acres will be required to install a flowmeter.

10.1.1 Installation of Flowmeters:

0.1.1.1 Installation will be done by a person qualified through training to install flowmeters to ensure correct installation.

0.1.1.2 All flowmeters are required to measure the entire amount of water pumped by a regulated well in conformance with all specifications and requirements contained with these Rules and Regulations. In cases where water from two or more wells is commingled, one flowmeter may be installed at a point after the water has been commingled. Total amount of water pumped annually must be submitted to the District by December 31st each year.

1.1.2.1 The District may request pumping amounts for different time periods for reporting other than annually.

0.1.1.3 All flowmeters must be verified by the UENRD for proper installation.

0.1.1.4 The District will maintain a list of all approved flowmeters.

0.1.1.5 District staff will have access to the well or commingled wells and flowmeter(s).

10.1.2 Flowmeter specifications and requirements – All flowmeters installed and maintained for purposes of compliance with these Rules and Regulations are required to meet or exceed the following specifications and requirements:

0.1.2.1 Each flowmeter is required to be installed (physically attached) according to the manufacturer's specifications and calibrated to the pipe size. Calibration must maintain an accuracy of plus or minus two (2) percent of normal flow range of comparable measurement.

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10.1.2.2 The meter registry will have a visual volume recording totalizer, which is protected from the elements, with sufficient capacity to record for the period of one year the quantity of water diverted from each well or commingling of wells. All flowmeters also will have a clearly visible and readable analog or digital display that provides a real time reading of the rate of flow of water through the flowmeter.

10.1.3 Flowmeter reading, inspections and maintenance:

10.1.3.1 Flowmeters installed that do not meet manufacturers' or District standards must be corrected.

10.1.3.2 Flowmeters may be periodically inspected for performance, accuracy and evidence of tampering.

10.1.3.3 Each flowmeter is required to be kept in working order and clear of debris, vegetative growth or other material that would impede operation.

10.1.3.4 Landowner and operators are responsible to ensure that flowmeters are fully functional, properly maintained and operational indefinitely. The District, at the request of the landowner or operator, may perform maintenance and operational service to flowmeters, at the landowners or operators cost. A form, provided by the District, will authorize this service and the District may enter onto property to provide this service. This service will be provided in the off-season and will not interfere with the normal operation of the meter or the well.

10.1.3.5 Flowmeters that have been required by these Rules and Regulations or cost shared through local NRD, State, Federal cost share programs, or grants must be maintained for proper operation (See Rule 1.26) independent of the status of the funding source contract.

10.1.3.6 Any malfunctioning flowmeter will be reported to the District office at O'Neill, NE within twenty-four (24) hours after discovery. Malfunctioning flowmeters discovered on any day other than workdays (weekends and holidays) will be reported before the office closes on the first working day following the discovery. During the malfunctioning period, the landowner or operator shall use a method prior approved by the District to determine water pumpage/yield. The District and landowner or operator is required to make a diligent effort to put the flowmeter back in service as soon as possible. When flowmeters are removed for servicing or replacement, the landowner or operator must keep records of the flowmeter reading. Failure to report inoperative meters may result in the loss of the certified irrigated acres for the next crop year.

10.1.3.7 The District may require any groundwater user to provide information that will enable the District personnel to determine the amount of energy used to operate any well on which a flowmeter is required. The groundwater user is required to provide such information, or the groundwater user shall notify the entity providing such power of authorization for the compliance officer to procure such information. Compliance officer will seek such information in the event a flowmeter is malfunctioning, or if the landowner, operator, or the compliance officer have reason to believe the flowmeter reading is incorrect. If any power source on a well within the Management Area is equipped with an hour meter, the District may require the groundwater user to provide appropriate readings from said hour meter.

10.1.4 Damage to or tampering with flowmeters.

10.1.4.1 It shall be a violation of these Rules and Regulations for any person to willfully injure, alter, remove, reset, adjust, manipulate, obstruct or in any manner interfere with or tamper with any flowmeter within the Management Area, without District consent, for the purpose or with the intent to produce an incorrect, inaccurate, or misleading measurement or to cause, procure, or direct any other person to do so. Removing a seal placed on a flowmeter by the District will be considered tampering with a flowmeter. Following a hearing before the Board, it is found that tampering has affected the accuracy or use of the meter, the District may withhold the cost share or any local, state, or federal program funds administered through the District.

RULE 11

Certification of Irrigated Acres:

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11.1 After the effective date of these rules/controls, and except as otherwise provided herein, no acres will be irrigated with groundwater unless those acres have been certified for irrigation by the UENRD. Any irrigated acres that are not certified on or before dates listed will not be allowed to have groundwater applied to them for any purpose (unless approved by the board). Certification of irrigated acres will be subject to the following requirements:

11.1.2 Any lands that have been converted to groundwater irrigation from surface water appropriations shall be certified for irrigation by the UENRD. As a condition to certification of such lands, the landowner must present proof that the surface water appropriation to such lands has been relinquished to the Nebraska Department of Natural ResourcesWater, Energy, and Environment.

11.1.3 Acres that have been irrigated within the Lower Niobrara River Basin Fully Appropriated designation at least one (1) time during the calendar years 2003 October 16, 2007 shall receive full certification credit and will be certified provided documentation described in Rule 11.1.8 is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

11.1.4 Acres that have been irrigated within the Lower Platte River Basin at least one (1) time during the calendar years 2004 December 16th, 2008 shall receive full certification credit and will be certified provided documentation described in Rule 11.1.8 is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

11.1.5 Acres that have been irrigated outside of the Lower Niobrara and Lower Platte River Basin 10/50 line at least one (1) time during the growing season between the calendar years of 2008 and 2012 shall receive full certification credit and will be certified provided documentation described in Rule 11.1.8 is timely provided. Certification for irrigation of all acres shall be completed by December 31, 2015.

11.1.6 Acres that were historically irrigated prior to 2003 (Lower Niobrara River Basin Designation) and prior to 2004 (Lower Platte River Basin Designation) and prior to 2008 for the acres outside the 10/50 line of these respective areas and have documentation required by Rule 11.1.8, shall receive 95% certification of the total amount of irrigated acres should the person certifying the acres decide to reactivate those acres for irrigation purposes.

11.1.7 Acres with documented irrigated history but currently enrolled in any local, state, or federal conservation programs that would prevent the landowner from irrigating, as described by Rule 11.1.8, shall receive 95% certification for the total amount of irrigated acres should they choose to proceed with the certification process with the following conditions:

1.1.7.1 Acres must be certified respectfully by dates associated with Rule 11.1.2, 11.1.3, 11.1.4, and 11.1.5.

1.1.7.2 Proof of historical use shall be by submission of information specified in Rule 11.1.8 and had the means to irrigate during that time period.

11.1.8 For all acres for which a person seeks certification, the following information is required to be reported on a form provided by the District and will be completed by a landowner or power of attorney in order to complete the certification process:

1.1.8.1 Landowner contact information;

1.1.8.2 Operator contact information;

1.1.8.3 Location of historically irrigated acres by legal description to the nearest quarter section;

1.1.8.4 The total number of historically irrigated acres

1.1.8.5 Last calendar date of active irrigation

1.1.8.6 The NeDNR DWEE registration number(s) of any groundwater well(s) associated with the irrigation of the land to be certified;

1.1.8.7 Identification of any other sources of irrigation water other than groundwater;

1.1.8.8 If relevant, documented proof of enrollment in any local, state, or federal conservation programs as described by Rule 11.1.10 and

1.1.8.9 Any other information requested by the District.

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~~11.1.9 Documentation of historical irrigation on acres to be certified will be required along with a signed application form to complete the certification process. The landowner or power of attorney for the landowner will obtain and submit to the District corresponding Farm Service Agency (FSA) documentation (Form #578 Report of Acreage) and a delineated FSA aerial photograph or county assessor tax records of when last taxed as irrigated or other board approved documentation with the historically irrigated acres to be certified identified by the landowner.~~

~~1.1.9.1 A variance to the FSA documentation form /County Tax Records requirement will be granted if a landowner or power of attorney submits board approved documentation for historically irrigated acres along with the application form.~~

~~1.9.1.1 Such documentation includes:~~

~~9.1.1.1 Other documentation that accurately identifies the historically irrigated acres, subject to Board approval.~~

~~1.9.1.1.2 Acres irrigated by multiple water sources may not be duplicated and certified with each source in the acre certification process. Each acre will have only one primary source of irrigation.~~

~~1.1.10 Modifications to certified irrigated acres must be applied for through the District and are subject to Board approval.~~

~~1.1.10.1 The Board has up to ninety (90) days upon reception of the application for modification to either approve or deny the certified irrigated acres as they are applied for.~~

~~1.1.11 Historically irrigated acres currently enrolled with the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), Environmental Quality Incentive Program (EQIP), or other federal, state or local conservation program must be certified if future irrigation of those acres is desired.~~

~~1.1.12 Active irrigation wells on ground that have not been certified as irrigated shall be subject to the following conditions by October 18, 2015 or otherwise be deemed an illegal well according to Neb. Rev. Stat. § 46-706.05:~~

~~1.1.12.1 Decommissioning of the well and filing a notice of abandonment form with the Department.~~

~~1.1.12.2 Listing the registration on the irrigation well as inactive status with the Department and effectively sealing the well to prevent groundwater contamination in accordance to Neb. Rev. Stat. § 54-311.~~

~~1.1.12.3 Modifying the well use into a well pumping fifty (50) gallons per minute or less and filing a modification form with the Department.~~

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~~RULE 12~~

~~Transfers:~~

~~12.2 Groundwater Transfers: Groundwater users intending to withdraw and physically transfer groundwater, transfer certified irrigated acres, transfer the type of use, or add a type of use of groundwater within the Management Area shall, before making any such transfer, apply for and be approved for the transfer by the Board. Application period for groundwater transfers will occur during November 1st to March 1st. Fees for transfers will follow fee structure in Rule 12.1.14.3.~~

~~12.2.1 The withdrawal and transfer of groundwater for domestic purposes that is subject to Neb. Rev. Stat. § 46-691.01 will not be subject to Rule 12.~~

~~12.2.2 The transfer of certified irrigated acres may be denied by the UENRD Board of Directors based on the transfer agreement.~~

~~12.2.3 The legal descriptions receiving (transferring into) acres must have an equal to or higher area weighted average of each land classification than the legal description where the acres are being transferred from.~~

~~2.2.3.1 For transfers of 15 acres or less, where an irrigation distribution system is being completed, the area weighted average of each land classification is not considered for transfer approval.~~

~~12.2.4 Legal descriptions that certified irrigated acres have been transferred from are ineligible to receive transferred certified irrigated acres for a minimum of 5 years.~~

~~12.2.5 Groundwater transfers shall not exceed the historic consumptive use and/or the certified irrigated acres. Transferred acres must be irrigated no later than October 1st of the following growing season and must remain on that legal descriptions receiving (transferring into) for a minimum of 5 years before being eligible for transfer.~~

~~12.2.6 A flowmeter is required on irrigation distribution systems located on the legal descriptions receiving (transferring into) acres by October 1st.~~

~~12.2.7 The withdrawal and transfer of groundwater within the District solely for the purpose of providing water to range livestock will not be subject to Rule 12.~~

~~12.2.8 Permanent transfers may occur only if the following conditions are met:~~

~~2.2.8.1 All transfers of groundwater or use must occur within the subdistrict USGS 10-Digit Hydrologic Unit Code (HUC) where the groundwater was originally withdrawn or within Rule 12.1.8.2.~~

~~2.2.8.2 Transfers to an adjacent HUC will be allowed if the subdistrict of the adjacent HUC has not suffered a static groundwater level decline of more than three (3) feet based on the 20-year trend line calculated by the UENRD. Certified irrigated acres within the two mile border of a HUC are not to be transferred beyond two miles of the adjoining HUC.~~

~~2.2.8.3 Certified irrigated acres will not be allowed to be transferred within the two mile border of an adjoining HUC if that HUC is showing a groundwater decline of more than three (3) feet based on the 20-year trend line.~~

~~2.2.8.4 The section to which the certified irrigated acres are to be transferred to does not have a higher stream depletion factor as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).~~

~~2.8.4.1 For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.~~

~~2.2.8.5 The certified irrigated acres are within the same, single, HUC. For purposes of this subsection, the term "HUC" does not include those areas or lands that the Nebraska Department of Natural Resources~~Water, Energy, and Environment ~~has determined to be in more than one basin."~~

~~2.2.8.6 Transfers from lands within the HUC of the 10/50 area that are within the area overlapped by the Lower Niobrara River Basin and the Lower Platte River Basin will remain within the same overlapped area. This may be lifted after December 31, 2015 or upon the Nebraska Department of Natural Resources~~Water, Energy, and Environment ~~basin determination if neither basin is labeled fully appropriated at that time.~~

2.2.8.7 Certified irrigated acres will not be allowed to be transferred from a lower to a higher water quality designated Phase Area.

2.2.8.8 The applicant(s)/landowners for land from where the acres are transferring from and transferring to must be in compliance with Upper Elkhorn NRD Rules and Regulations.

12.2.9 Agricultural Transfers: After the effective date of these rules, an agricultural user intending to withdraw and physically transfer groundwater off of the overlying land which he or she controls or transfer the certified irrigated acres shall, before making such transfer, apply for and be subject to Board approval for the transfer. Application period for agricultural transfers will occur during November 1st to March 1st. Fees for transfers will follow fee structure in Rule 12.1.14.3.

2.2.9.1 Transfers to the adjacent section or within the same section are not subject to Rule 12.1.8. except the following;

2.9.1.1 Transfers within the District may not occur in any subdistrict determined by the Board to be undergoing significant groundwater declines; and

2.9.1.2 Groundwater use or acres will not be transferred to a section designated with a higher stream depletion factor as evidenced by data provided to the District through the Elkhorn-Loup Modeling project or other updated model(s).

9.1.2.1 For transfers of 15 acres or less, where an irrigation distribution system is being completed, the stream depletion factor is not considered for transfer approval.

2.2.9.2 The permanent transfer of certified irrigated acres may be accomplished by decommissioning the well, changing the status of the well with NeDNR DWEE to inactive, or modifying it into a well pumping fifty (50) gallons per minute or less.

2.9.2.1 If decommissioning the well, filing a notice of abandonment form with the Department, or if changing the status of a well or modifying a well, filing a modification form with the Department within 180 days of the transfer; and

2.9.2.2 The person to whom the acres are to be transferred must re-certify the acres with the District as well as submit county assessor and/or the USDA/FSA documentation that they are recorded as irrigated.

2.2.9.3 Transfers of certified irrigated acres off of land that is also served by surface water will not be permitted unless the surface water appropriation is relinquished for that parcel of land or an offset is provided to the District for the new acres to be irrigated.

.2.2.10 Transfers of Type of Use: Any person who withdraws groundwater from a well located within the District and transfers the type of use of that water (e.g. irrigation to industrial) or adds a type of use of groundwater to the well (e.g. adds an industrial use to an existing irrigation well), shall apply for a transfer permit on forms provided by the District before beginning any such transfer.

.2.10.1 No change in the type of groundwater use shall be approved unless such change results in no increase in the historical consumptive use of the groundwater to be transferred or an offset is provided for any increase in historical consumptive use.

.2.10.2 No transfer will be approved if the water use moves to another section with a higher stream depletion factor as determined by the Elkhorn-Loup Modeling Project or other updated model(s).

.2.10.3 No person shall use a water well for purposes other than its registered purpose until the water well registration has been changed to the intended new use or the additional use has been added to the registration.

.2.10.4 In the case of a replacement well, a person may modify and equip the original water well to be used for range livestock, monitoring, observation, or any other non-consumptive or de minimis use approved by the District.

.2.10.5 The change to a new use or the addition of a use shall be made by filing a water well registration modification with the Department and the change must be in conformance with Neb. Rev. Stat. §§ 46-609(1) and 46-651.

.2.2.11 Municipal Transfer Permits: The District shall approve, without the filing of a District transfer permit application, the withdrawal and transport of groundwater when a public water supplier is providing water for

municipal purposes, so long as that water supplier submits a notification of Department application to the District. If a public water supplier files an application for a permit from the Department under the Municipal and Rural Domestic Groundwater Transfers Permit Act, then the permit applicant shall advise the District of its filing.

12.2.12 Industrial Transfer Permits: Transfers for which permits or approval for transfer have been obtained pursuant to the Industrial Ground Water Regulatory Act are not required to apply for a transfer permit from the District. Commercial and industrial users who are required to file for a permit from the Department under the Industrial Groundwater Regulatory Act shall advise the District of such application.

12.2.13 Transfer Out of District

12.2.13.1 Requests for transfer of groundwater out of the District pursuant to Neb. Rev. Stat. § 46-613.01 shall require District action to approve or deny the transfer request prior to submission of the required transfer permit application to the Department.

12.2.13.2 When the Department initiates the consultation with the District regarding a permit application, the District shall respond according to the following provisions:

13.2.13.2.1 The District shall advise the Department of any of the applicant's unmet obligations under District rules (e.g., variance not yet applied for or granted).

13.2.13.2.2 Any formal action taken by the Board adopting any offset determined by the Department or the District to be necessary to maintain compliance with any formal agreement or to mitigate any effects to surrounding groundwater users or surface water appropriators for uses other than municipal or industrial/commercial.

13.2.13.2.3 If the District determines an offset on behalf of the user, the nature of the offset and of the enforcement provisions that will be required.

12.2.13.3 A water well construction permit shall not be issued until a permit to transfer groundwater to an adjoining District has been obtained from the Department and a copy of the permit is on file with the original District.

12.2.14 Application for and Approval of Transfers

12.2.14.1 In accordance with Neb. Rev. Stat. § 46-739(k) the District may deny or condition its approval of any transfers to the extent such conditions are necessary to:

12.2.14.1.1 Ensure the consistency of the transfer with the purpose or purposes for which the management area or HUC was designated;

12.2.14.1.2 Prevent adverse effects on other groundwater users or on surface water appropriators;

12.2.14.1.3 Prevent adverse effects 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; and

12.2.14.1.4 Otherwise protect the public interest and public welfare.

12.2.14.2 In making its decision regarding a transfer application, the Board may consider relevant information, including but not limited to:

12.2.14.2.1 Information obtained from studies within the District

12.2.14.2.2 Whether the proposed use is a beneficial use of groundwater;

12.2.14.2.3 Alternative sources of surface water or groundwater available to the applicant for the proposed withdrawal, transport, and use;

12.2.14.2.4 Any negative effect of the proposed withdrawal, transfer and use on groundwater or surface water supplies needed to meet reasonable future demands for water within the state;

12.2.14.2.5 Groundwater quality of the area being transferred to;

12.2.14.2.6 Whether the proposed withdrawal, transfer, and use is consistent with the goals and objectives of the Groundwater Management Plan or the voluntary integrated management plan (V-IMP);

12.2.14.2.7 The trend in the change of groundwater levels in the subdistrict;

12.2.14.2.8 Other transfers into the area in proximity to the well proposed to be used;

12.2.14.2.9 The total usage in proximity to the well proposed to be used; and

2.14.2.10 Other factors that would increase the rate of consumptive use in the area of the well proposed to be used.

.2.14.3 Each application for the transfer of irrigated acres will be charged a non-refundable $50 application fee. Additional fees include:

.14.3.1 For qualifying applications the acre fee for 25 acres or less is $125.00.

.14.3.2 For qualifying applications the acre fee for over 25 acres is $5.00 per acre.

.2.14.4 An application for a transfer shall include, but not be limited to the following:

.14.4.1 Names, addresses, phone number for each landowner involved in the proposed transfer, and the name, address, and phone number of the operator if different than the landowner;

.14.4.2 Legal description of the land involved in the proposed transfer along with well registration numbers of all wells proposed to be used;

.14.4.3 The nature of the proposed use;

.14.4.4 Identification of any other alternative sources of surface water or groundwater available to the applicant for the proposed use and the reasons why use of such alternative source or sources are not being sought;

.14.4.5 Proof of ownership from the United States Farm Service Agency or county tax assessor for each certified irrigated acre to be involved in the transfer request;

.14.4.6 If exceeding limits set out in Rule 9.1, an assessment of the effects of the proposed withdrawal, transfer, and use on existing groundwater users, on existing surface water appropriators, and on groundwater and surface water supplies needed to meet present or reasonable future demands within the State;

.14.4.7 If exceeding limits set out in Rule 9.1, an assessment of the effects of the proposed withdrawal, transfer, and use on the environment in the vicinity of the proposed withdrawal and proposed use;

.14.4.8 Any other information the applicant deems relevant to the District's criteria for approval of the proposed withdrawal, transfer, and use;

.14.4.9 Signatures from all of the landowners involved;

14.4.10 Aerial photograph(s) showing all certified irrigated acres involved in the transfer.

.2.14.5 Application is transferable from one landowner to another for the life of the contract.

.14.5.1 New landowner must fulfill original agreement.

.14.5.2 New landowner must comply to application criteria with 6 months of closing date on the property.

.14.5.3 Application is only transferable to new landowner with a completed purchase agreement.

.1.14.6 Public notice of the transfer of certified irrigated acres will only be submitted to the county assessor after the recertification of those irrigated acres.

RULE 13

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Expansions:

13.1 PURPOSES AND AUTHORITY: In accordance with Neb. Rev. Stat. § 46-714(12) and § 46-707(1), this Rule is to:

13.1.1 Allow a limited number of total new groundwater irrigated acres annually;

13.1.2 Maintain the status of "not fully appropriated" under Neb. Rev. Stat. § 46-713; and

13.1.3 Limit the number of new permits so that total new groundwater irrigated acres do not exceed 2,500 acres annually as set forth in Rule 13.1.4 below. Lands from which certified irrigated acres have been transferred are not eligible to apply or replace acres transferred under this allotted 2,500 acre annual expansion limit.

13.1.4 After December 31, 2012, the Upper Elkhorn NRD will allow up to a maximum of 2,500 acres annually to be developed throughout the whole district.

13.2 LIMITATION ON EXPANSION OF IRRIGATED ACRES: Effective immediately, there shall be no expansion of groundwater irrigated acres within the Upper Elkhorn NRD as stated in Rule 13.1.4 *unless* the development is approved by the Upper Elkhorn NRD in accordance with these Rules and Regulations.

13.3 ENFORCEMENT: The NRD will enforce this limitation consistent with its authority under the law and its Rules and Regulations. In addition, a violation of these provisions may be grounds for denying an application to develop new groundwater irrigated acres under the ranking criteria set forth below.

13.4 WELL PERMITS: If a request for expansion of irrigated acres requires installation of a new groundwater well, the respective well permit application will not be deemed complete until authorization is granted by the Upper Elkhorn NRD for the expansion of those irrigated acres.

13.5 PROCESS FOR APPLICATIONS TO EXPAND IRRIGATED ACRES: The process that allows expansion of groundwater irrigated acres shall be as follows:

13.5.1 The application period for 2013 and proceeding years will occur during the month of October, starting 2012. Any application received outside of an application period will be returned to the applicant as incomplete.

13.5.2 The application shall be made on forms provided by the district. The Board instructs staff to prepare the relevant forms and submit them to the Board for approval.

3.5.2.1 The application shall include the most recent aerial photo delineating the new acres being applied and, as applicable, the proposed location of the new well or location of existing well to be used.

3.5.2.2 If the acres will be irrigated with an existing well, the application shall include the well registration number. If the acres will be irrigated with a new well, the application shall include the approximate legal description for the new well, well logs and test pump data (if any).

3.5.2.3 Each application for expansion of irrigated acres will be charged a non-refundable $50.00 application fee. Additional fees include:

5.2.3.1 For qualifying applications the acre fee for 25 acres or less is $125.00.

5.2.3.2 For qualifying applications the acre fee for over 25 acres is $5.00 per acre.

5.2.3.3 Applications not approved with or without modifications will have to reapply annually with a $75.00 fee.

2.3.3.1 Modifications to an application will be charged at above rates stated in 13.5.2.3.1 & 13.5.2.3.2.

3.5.2.4 The application shall be signed by the current landowner or power of attorney.

3.5.2.5 Application is transferable from one landowner to another for the life of the contract.

5.2.5.1 New landowner must fulfill original agreement.

5.2.5.2 New landowner must comply to application criteria with 6 month of closing date on the property.

5.2.5.3 Application is only transferable to new landowner with a completed purchase agreement.

3.5.2.6 The landowner is obligated to fulfil the contract for a minimum of five (5) years.

3.5.2.7 Application does not include the Permit Fee to Construct a Water Well.

3.5.2.8 Application may be declined if it is incomplete or information is inaccurate.

13.5.3 The applicants will be notified on the status of their application(s) within 60 days following the application period.

13.6 RANKING CRITERIA: The Upper Elkhorn NRD will review the application for expanding groundwater irrigated acres based on discretionary factors, including but not limited to, whether the application would promote the health and welfare of the NRD by contributing to the conservation, protection, development, and sound management of natural resources within this District. The Board will establish ranking criteria to assist with evaluating applications. Factors to be considered in the ranking criteria include but are not limited to: (i) irrigation type; (ii) groundwater quality and quantity levels; (iii) irrigation concentration; (iv) soil classification (i.e., Highly Erodible Lands, or HEL); (v) stream depletion factors; (vi) compliance with Nitrogen Certification Guidelines of the Upper Elkhorn NRD's Groundwater Management Plan; (vii) compliance with Upper Elkhorn NRD Rules and Regulations, including compliance with the limitation on expansion of groundwater irrigated acres under these provisions; and (viii) such other factors that assist in determining whether the application would promote conservation of the natural resources and the health and welfare of the residents of the NRD.

13.7 FLOWMETERS REQUIRED: Installation of a flowmeter approved by the Upper Elkhorn NRD staff is required as a condition for any application for expansion of groundwater irrigated acres. Data from flowmeters shall be collected by District staff on an annual basis. As a condition of approval to expand groundwater irrigated

acres, District staff shall be granted free access to all lands to read the flowmeter. Data obtained from the flowmeters will assist the District in better understanding water use and aid in future water management activities throughout the District.

13.8 GRANTED APPLICATIONS: Applications granted under these provisions are deemed unique and special with regard to the specific application, and do not create a precedent for future application or matters pertaining to other lands, whether or not they are similarly situated. Expansion of irrigated acres approved within 60 days following the 2012 January application period, under LB483 have until October 1, 2012 of the application year to complete well installation, install flowmeter and irrigate acres. Applications approved within 60 days following the October 2012 application period and thereafter will have until October 1st of each application year to complete well installation, install flowmeter and irrigate acres.

13.8.1 Within a year of approval of acre expansion of certified irrigated acres; the landowner must submit documentation to the Upper Elkhorn NRD for certification that they have verified with the county assessors or USDA/FSA that these acres should be documented as irrigated.

3.8.1.1 A letter will be sent to the county assessor by the NRD with a map showing where the new acres are located.

13.9 CANCELLATION OF APPROVED EXPANSION: The Upper Elkhorn NRD may cancel or void an approved expansion application at any time for violation of the NRD's Rules and Regulations.

RULE 14

Groundwater Quality Management Area Designation and Controls:

The Upper Elkhorn Natural Resources District has monitored groundwater quality in the District since 1974. Since this time, the District has expanded its monitoring program to include approximately 600 700 irrigation wells. These monitoring programs along with additional research programs and aerial studies have identified areas of varying degrees of nitrate contamination in groundwater within the District. Although other contaminants have also been identified in the District's groundwater, levels are well below Health Advisory Levels (HALs) or Maximum Contaminant Levels (MCLs) as established by the Environmental Protection Agency (EPA). However, approximately 15% of wells monitored for nitrate are also monitored for other contaminants, primarily pesticides, on a five-year staggered basis.

To address the varying degrees of nitrate in the groundwater, the District has adopted controls to prevent any further human-induced (anthropologic) contribution to the problem and possibly reverse the trend. Most of these controls are Best Management Practices (BMPs), which are designed to not only protect the environment, but also increase management efficiency.

14.1 Designation

The varying degree of nitrate contamination is not uniform throughout the entire District. Thus, the District will be divided intoutilize management areas referred to as Groundwater Quality Management Areas (GWQMAs).

14.1.1 Phase Levels: There are three phases of GWQMAs, with each corresponding to a particular range of nitrate concentrations in the groundwater based on samples collected by the UENRD staff. Phase I GWQMAs correspond to areas with nitrate-nitrogen levels of 0 to 7.5 ppm (parts per million or mg L^{-1}). The entire UENRD was designated a Phase I Groundwater Quality Management Area on June 30, 1997; Phase II GWQMAs correspond to areas with nitrate-nitrogen levels of > 7.5 to 9.5 ppm; and Phase III GWQMAs correspond to areas with nitrate-nitrogen levels of > 9.5 ppm. Changes to Phase levels were made when the order was issued and became effective on May 1, 2017. Upon this date Phase I GWQMAs now range from 0 to 5.0 ppm, Phase II GWQMAs now range from > 5.0 to 9.0 ppm, and Phase III GWQMAs are areas > 9.0

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ppm. Existing Designated Areas will maintain the same Phase level upon changes to the Rules and Regulations until criteria is met to label those areas a different Phase level.

Prior to the establishment of any GWQMA, there will be a public hearing held to allow testimony in favor or against the establishment of the proposed GWQMA. A public hearing must also be held prior to the redesignation of a GWQMA from a lower to a higher phase area or vice versa.

- **Phase I Groundwater Quality Management Area – 0% to 50% of the MCL (0 – 5.0 ppm nitrate-nitrogen)**

  Following a public hearing and evidence presented at the hearing, the entire Upper Elkhorn Natural Resources District was designated a Phase I Groundwater Quality Management Area (GWQMA) June 30th, 1997. A Phase I GWQMA primarily promotes the implementation of Best Management Practices through educational programs. Specific criteria are outlined in the "Groundwater Quality Management Area Controls" section of this document.

- **Phase II Groundwater Quality Management Area – >50% to 90% of the MCL. (> 5.0 - 9.0 ppm nitrate-nitrogen)**

  Following a public hearing and evidence presented at the hearing, the first Phase II GWQMAs were designated on January 1, 2003. Additional Phase II areas were labeled October 1, 2012. This timeline has been established only to show the District's commitment to addressing the nitrate problem.

  Phase II GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township or subarea should be designated a Phase II GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the average contaminate concentrations in proposed and established Phase II GWQMAs. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.

  Before a Phase II GWQMA can be designated, the average nitrate concentration in the monitored irrigation wells and monitoring wells must be greater than 50% of the Maximum Contaminant Level, which is currently 10 ppm (parts per million or mg L^{-1}) for a minimum of three consecutive years. However, the District reserves the right to designate a Phase II GWQMA at any time in lieu of these criteria, if deemed necessary.

  In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 50% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase II or Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated phase area. Applicability of this requirement is at the Board's discretion.

  After initial Phase II designation, it will be determined to redesignate a Phase II GWQMA area as a Phase I GWQMA if data from monitored irrigation and dedicated monitoring wells show a decrease in nitrate

concentrations and the average nitrate concentration falls below 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. Areas will remain as Phase II GWQMAs if the average nitrate concentrations from the monitored wells exceed 50% of the MCL, but are equivalent to or less than 90% of the MCL in the wells monitored by the District. An area will be designated a Phase III GWQMA if it meets the criteria outlined below.

- **Phase III Groundwater Quality Management Areas - >90% of the MCL. (> 9.0 ppm nitrate-nitrogen)**

Following a public hearing and evidence presented at the hearing, the first Phase III GWQMAs were designated February 1, 2019. This timeline has been established only to show the District's commitment to addressing the nitrate problem since several areas in the District currently meet the criteria for designation as a Phase III GWQMA. Phase III GWQMAs can be established prior to and following the cutoff date of January 1, 2018 as data and other evidence indicate.

Phase III GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township should be designated a Phase III GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the contaminate concentrations in proposed and established Phase III GWQMAs. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.

Before a Phase III GWQMA can be designated, an area must have been designated a Phase II GWQMA for a minimum of three consecutive years, and the irrigation wells and monitoring wells monitored by the District must have an average nitrate concentration greater than 90% of the Maximum Contaminant Level, which is currently 10 ppm (parts per million or mg L^{-1}. However, the District reserves the right to designate a Phase III GWQMA at anytime in lieu of these criteria, if deemed necessary.

In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 90% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated Phase III GWQMA. Applicability of this requirement is at the Board's discretion.

After initial designation, it will be determined to redesignate a Phase III GWQMA area as a Phase II GWQMA if data from monitored irrigation wells and monitoring wells shows a decreasing trend in nitrate concentrations the average nitrate concentration falls below 90% of the MCL, but exceed 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. A Phase III GWQMA will be redesignated a Phase I GWQMA if data from monitored irrigation wells shows a decreasing trend in nitrate concentrations and the average nitrate concentration falls below 50% of the MCL in the wells monitored by the District. Areas will remain as Phase III GWQMAs if the average nitrate concentrations from monitored irrigation wells and monitoring wells exceed 90% of the MCL in the wells monitored by the District. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.

14.2 Controls

● Phase I Groundwater Quality Management Areas - 0 to 50% of the MCL (0 - 5.0 ppm nitrate-nitrogen)

- The person or persons responsible for making final decisions on any type of applications of nitrogen fertilizer on an area larger than **one acre** and applying more than 50 pounds per acre of actual nitrogen on any crop within the UENRD, either commercially or privately, must be certified by the District once every four (4) years. The person or persons will be considered the *certified operator(s)*. The certification requirement will include attending educational classes established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others. Nitrogen certification from bordering NRDs will be accepted as fulfillment of the UENRD nitrogen certification requirement pending UENRD Board approval. This is possible since most NRDs will be using essentially the same educational program being developed statewide in coordination with the University of Nebraska Cooperative Extension. To address specific issues in the UENRD, additional educational materials may be given to operators certified in other neighboring NRDs.

- A groundwater analysis for nitrate-nitrogen content in all registered wells used for irrigation of crops must be accomplished by the certified operator once every four (4) years prior to recertification. The results of this analysis must be submitted to the UENRD by the following December 31st report deadline. The sample must be collected and analyzed using UENRD approved methods. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program. Information from this analysis will give the certified operator knowledge of usable nitrate-nitrogen already present in the groundwater. This information will *not* be used in determining a Phase Area.

- With the passage of LB 981(1994), all new wells constructed in a control or management area (including a GWQMA) must have a permit from the local NRD prior to construction (see Rule 4). Exceptions include, test holes, dewatering wells with intended use of ninety days or less, and water wells which are designed and constructed to pump fifty gallons per minute or less. A copy of this permit will be retained at the District office and with the Nebraska Department of Water, Energy, and Environment. The cost of permitting and penalties applied will be consistent with the laws of the state of Nebraska.

- Certified operators are encouraged to set a realistic yield goal for crops where more than 50 lbs of actual nitrogen fertilizer per acre is to be applied. A realistic goal is based on the last five years actual yield averaged plus five percent.

- Residents residing in communities within the UENRD who apply nitrogen fertilizer will be encouraged to attend Nitrogen Awareness Programs established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others.

- Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) applications of commercial nitrogen fertilizer will be discouraged on all soils. Spring (March 2nd to June 20th) applications of commercial nitrogen fertilizer greater than **100 pounds of actual nitrogen fertilizer per acre** will be encouraged through split applications (i.e. preplant, planting, weed and feed, post emergence side-dressing, and, if applicable, through an irrigation distribution system).

- The District encourages voluntary testing of all domestic and stock wells for nitrate-nitrogen content.

- The District encourages a deep soil sampling analysis (two or three foot sample if applicable) for nitrate-nitrogen content on each field larger than **40 acres** with more **than 50 lbs per acre of actual nitrogen fertilizer** applied. Approved sampling and analysis techniques will be included as part of the educational program. This analysis will give the certified operator knowledge of usable and inaccessible (below the root zone) nitrogen in the soil profile.

- The District encourages the use of calibration monitors on all applications of fertilizers and pesticides. Proper maintenance of all fertilizer and pesticide equipment is also encouraged.

- The District encourages producers to use alternative irrigation and fertility management technology as it becomes available to increase efficiency and protect the environment.

Phase II Groundwater Quality Management Areas – > 50% to 90% of the MCL (>5.0 - 9.0 ppm nitrate-nitrogen)

- A continuation of Phase I activities will remain in effect unless modified or negated by Phase II requirements.

- The District will require the certified operator to accomplish an annual deep soil sampling analysis (mandatory two foot sample, three foot sample encouraged, if applicable) for nitrate-nitrogen content on each field larger than **40 acres** with more than **50 lbs per acre of actual nitrogen fertilizer** applied. The sample must be collected and analyzed using UENRD-approved methods. Approved sampling and analysis techniques will be included as part of the District's educational program. This analysis will give the certified operator knowledge of usable and inaccessible nitrogen (below the root zone) in the soil profile.

- Certified operators must submit a report to the Upper Elkhorn NRD by **December 31st** following each crop year on forms provided by the District for areas larger than **40 acres** where more **than 50 lbs per acre of actual nitrogen fertilizer** is applied.

- An informational packet will be provided to each of the certified operators containing any necessary information and a list of possible information sources. Similar reports are used by the Natural Resources Conservation Service (NRCS) and other NRDs. This continuity allows for greater information exchange and dissemination. Many different entities will be available to certified operators should questions arise. The District reserves the right to request additional information needed to assist in the successful implementation of this groundwater management plan.

- The District will encourage certified operators to incorporate credits from application of animal waste (solid or effluent) and municipality waste into the total nitrogen requirement for the specific crop where this application of waste is made. An analysis of waste slurry will be encouraged to determine nitrogen content. Operators are encouraged to apply animal and municipality waste evenly over as many acres as possible. The following Rules and Regulations apply to the application of animal and municipal waste, accordingly:

  - All required livestock waste facilities must be properly permitted by the State of Nebraska.

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- Nitrogen application including livestock waste (solid or effluent) should not exceed agronomic rates for a crop.
- Waste application on land subject to frequent flooding (see County Soil Survey) will be discouraged.
- Waste applications within 200 feet of, and draining into, adjacent water bodies will be discouraged.
- Spreading of animal and municipality waste on frozen or snow-covered ground will be discouraged. Animal and municipality waste should be applied to land where slopes are four percent (4%) or less or adequate erosion control practices are used.
- The application of waste disposal on tilled ground with greater than ten percent (10%) slopes is discouraged unless adequate erosion control practices are present.
- A nitrogen analysis of animal waste slurry will be encouraged.

- Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) application of all commercial nitrogen fertilizer will not be allowed before **November 1st**. It will be discouraged until after **March 1st** on all soils. Exceptions will be allowed for Spring and Fall seeded crops and meadows if the actual nitrogen application rate is **less than 20 pounds per acre**.

- The use of monitoring equipment (i.e., flowmeters, rain gauges, hour meters, etc.) and distribution equipment (i.e. pressure regulators, low pressure nozzles, etc.) for efficient fertilizer and water distribution will be encouraged by the District.

Phase III Groundwater Quality Management Areas - > 90% of the MCL (> 9.0 ppm nitrate-nitrogen)

- All Rules and Regulations established for Phases I & II will remain in effect unless modified or negated by Phase III requirements.

- If the groundwater analysis from Phase I, #2 and reported in Phase II, #3(c) shows nitrate-nitrogen levels greater than (90%) of the MCL, then the groundwater analysis for nitrate-nitrogen in Phase I, #2 must be made annually and results submitted in the report discussed in Phase II, #3 (c). In other words, the groundwater analysis required prior to recertification (once every four years) in a Phase I GWQMA, now must be conducted on an annual basis if the nitrate-nitrogen levels exceed 90% of the MCL or 9.0 ppm in the case of nitrate-nitrogen.

- If a town, village, or city lies within a Phase III Area, they will be encouraged to complete a Well Head Protection Area Plan. The Upper Elkhorn NRD will provide assistance to the communities for completing this plan.

- Randomized soil sampling will be conducted in the Phase III areas to identify fields, which are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied, with high residual soil nitrate-nitrogen. UENRD staff or contracted workers/agronomists will collect deep soil samples (three-foot samples) based on proper soil sampling protocol from University of Nebraska-Lincoln (UNL) NebGuide G1740, "Guidelines for Soil Sampling." Following these guidelines, for every 40 acres, 10-15 randomly collected surface cores (0-8" deep) and 6-8 subsoil cores (8-36" deep) will be collected and analyzed for nitrate-nitrogen analysis.

Field Selection: Fields will be randomly selected within the Phase III designated townships annually. The UENRD staff or contracted workers/agronomists will contact the landowner and/or operator to determine crop for that field; only fields that are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied during that growing season will be tested.

Timing: Samples will be collected in the fall, after harvest, to determine the amount of nitrate-nitrogen left in the soil. Samples will be taken from fields in either a one or three yearone- or three-year program. Samples will only be taken from fields with more than 50 lbs/ac of actual nitrogen applied (i.e., corn fields) in Year 1, seeing as little to no nitrogen is commonly applied to beans. If the field has < 40 lbs/acdoes not meet the trigger level of residual nitrate-nitrogen in Year 1, the field will not need to be retested. If the field is ≥ 40 lbs/acmeets the trigger level of residual nitrate-nitrogen, the same field will also be tested in Year 2 and Year 3. This is because of the common crop rotation of corn then beans, so the field will need to be tested in Year 2 (beans) and again in Year 3 (corn) to assess the producer's nitrogen management.

Analysis: Samples will be shipped to and analyzed by an NRD approved agricultural analysis laboratory. Soil sample analysis will be conducted for each sampled field for pounds of nitrate-nitrogen per acre (lbs/ac) and will fall within the following Ttrigger lLevels based on the 2 foot2 foot sample results.:

Organic Matter Percentage (%)	Trigger Level in Pounds per acre residual nitrate-nitrogen (lbs/acre)
< 1	40
1-2	50
2-3	60
> 3	65

Organic Matter %/ Trigger Level	< 1%	1-2%	2-3%	>3%
No Trigger	< 40 lbs/acre	< 50 lbs/acre	< 60 lbs/acre	< 65 lbs/acre
Level 1 Trigger	< 50 lbs/acre	< 60 lbs/acre	< 70 lbs/acre	< 75 lbs/acre
Level 2 Trigger	< 60 lbs/acre	< 70 lbs/acre	< 80 lbs/acre	< 85 lbs/acre
Level 3 Trigger	≥ 60 lbs/acre	≥ 70 lbs/acre	≥ 80 lbs/acre	≥ 85 lbs/acre

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No Trigger: 0 – < 40 lbs/ac
Level 1: ≥ 40 – < 50 lbs/ac
Level 2: ≥ 50 – < 60 lbs/ac
Level 3: ≥ 60 lbs/ac

- If any portion of the field triggers a higher level, the whole field will be considered to trigger the higher level. For example, if a field is analyzed by the north half and south half, and if the north half is 30 lbs/ac and the south half is 40 lbs/ac, the entire field will be considered Level 1a triggered field.

Timing: Samples will be collected in the fall, after harvest, to determine the amount of nitrate-nitrogen left in the soil. Samples will be taken from fields in either a one or three year program. Samples will only be taken from fields with more than 50 lbs/ac of actual nitrogen applied (i.e., corn fields) in Year 1, seeing as little to no nitrogen is

commonly applied to beans. If the field has < 40 lbs/ac residual nitrate-nitrogen in Year 1, the field will not need to be retested. If the field is ≥ 40 lbs/ac residual nitrate-nitrogen, the same field will also be tested in Year 2 and Year 3. This is because of the common crop rotation of corn then beans, so the field will need to be tested in Year 2 (beans) and again in Year 3 (corn) to assess the producer's nitrogen management.

- **Triggers**: The landowner, operator, and/or nitrogen applicator (henceforth "the party") will be notified of their lbs/ac of nitrate-nitrogen every year that the field is sampled. If the field does not trigger in Year 1, the party will be notified of their result and no more testing for Phase III will be required, unless randomly selected in the future. If the field has > 40meets the trigger level of residual lbs/ac of residual nitrate-nitrogen, the field will be tested for two additional years and the party:
  - Wwill be provided a list of potential Best Management Practices (Appendix A) which are reasonably considered to achieve compliance with Phase III Controls. If the field does not trigger (< 40 lbs/ac) in Year 1, the party will be notified of their result and no more testing for Phase III will be required, unless randomly selected in the future.
  - Will meet with UENRD staff to discuss the sample results and Best Management Practice options.
  - May be required to meet with the UENRD Water Committee to explain why the residual nitrate-nitrogen was above the limit for that field for that season.
  - May be required to pay for the cost of soil samples for future sampling years.

If a field triggers Level 1: The landowner, operator, and/or nitrogen applicator will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac. The field will be sampled for a minimum of two more years.

If in Year 2, the field triggers:

No Trigger: The field will be tested for one more year.

Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for one more year.

Level 2 or 3: The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for one more year. The landowner will be required to pay for the cost of the soil sample for Year 3.

If in Year 3, the field triggers:

No Trigger: No more testing will be required, unless selected in the future.

Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

Level 2 or 3: The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

If a field triggers Level 2: The field will be sampled for a minimum of two more years and will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac.

If in Year 2, the field triggers:

No Trigger: The field will be tested for one more year.

Level 1: The field will be tested for one more year. The party will be required to reduce level below 40 lbs/ac.

Level 2 or 3: The field will be tested for one more year. The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. "Failure to Reduce" procedures may go into effect, see Section 4.D. The landowner will be required to pay for the cost of the soil sample for Year 3.

If in Year 3, the field triggers:

No Trigger: No more testing will be required, unless selected in the future.

Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

Level 2 or 3: The party will meet with the UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv. "Failure to Reduce" procedures may go into effect, see Section 4.D.

If a field triggers Level 3: The landowner, operator, and/or nitrogen applicator will be required to meet with the UENRD Water Committee to explain why the residual nitrate-nitrogen was above the limit for that field for that season. The field will be sampled for a minimum of two more years and will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac.

If in Year 2, the field triggers:

No Trigger: The field will be tested for one more year.

Level 1: The field will be tested for one more year. The party will be required to reduce level below 40 lbs/ac.

Level 2 or 3: The field will be tested for one more year. The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. "Failure to Reduce" procedures may go into effect, see Section 4.D. The landowner will be required to pay for the cost of the soil sample for Year 3.

If in Year 3, the field triggers:

No Trigger**:** No more testing will be required, unless selected in the future.

Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

Level 2 or 3: The party will meet with the UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv. "Failure to Reduce" procedures may go into effect, see Section 4.D.

Year 4 and beyond: If a field has yet to get below 40 lbs/ac after the first three years, continued soil sampling will occur. The landowner will be responsible for the cost of the soil sample. Sampling will occur yearly until the field is below 40 lbs/ac.

- **Failure to Reduce:** Any party that fails to reduce residual nitrate-nitrogen to levels below 40 lbs/acthe trigger level as described above, will receive a notice of violation and may receive a cease and desistcease-and-desist order. The cease and desist order may order the immediate cessation of the application of nitrogen, the reduction or cessation of irrigation, the reduction or removal of certified irrigated acres, or such other measure authorized pursuant to Neb. Rev. Stat. 46-739, that are reasonably considered to achieve compliance with this section, as determined by the Upper Elkhorn Board of Directors.

- **Field Selection**: Fields will be randomly selected within the Phase III designated townships annually. The UENRD staff or contracted workers/agronomists will contact the landowner and/or operator to determine crop for that field; only fields that are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied during that growing season will be tested.

The application of commercial nitrogen fertilizer is prohibited on all soils until after **March 1st**. Spring (March 2nd to June 20th) application of commercial nitrogen fertilizer at a rate of **over 100 pounds of actual nitrogen per acre** will require split applications (i.e. pre-plant, post emergence side-dress, weed and feed, planting time, and through the center pivot, if applicable).

~~If the Board of Directors deems it necessary to maintain, enhance, or protect groundwater quality, or to address concerns regarding conjunctive use and adverse effects on groundwater quality, the UENRD may choose to implement additional controls as listed in Nebraska State Statutes 46-739. Some of the controls in this Statute are groundwater allocation and irrigated acre reduction.~~

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~~**RULE 15**~~

Testing for Other Contaminants~~:~~

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~~-~~At this time, the District has not identified any widespread contamination problems in the groundwater except excessive nitrates. ~~Currently, approximately 15% of wells sampled for nitrate are also sampled for seventeen common pesticides and pesticide metabolites.~~ Other potential contaminants are not monitored on a regular basis, but periodically, specific studies are conducted to assess the quality of groundwater in the District. In addition, the District investigates concerns and complaints from the general public. If a contamination problem is identified, the District will specifically address the contaminant of concern by increasing monitoring and delineating the extent of contamination. For those contaminants with an established Maximum Contaminant Level, MCL, the District will take the following actions at the specified levels:

- **50% of the MCL**
  Recommend increased monitoring and further review of the problem.

- **75% of the MCL**
  In conjunction with the U.S. Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), Nebraska Department of ~~Natural Resources~~Water, Energy, and Environment (~~NeDNR~~DWEE), Nebraska ~~—~~Department of Health and Human Services (NDHHS), ~~the Nebraska Department of Environment and Energy (NDEE),~~ other agencies and organizations, and the general public, amend the UENRD's Groundwater Management Plan to include activities and recommendations which address the contaminant of concern.

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~~**Rule 16**~~

3.12~~3~~ **Static Water Level Triggers: (Effective February 1, 2018)**

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The Upper Elkhorn NRD has developed subdistricts throughout the UENRD to manage groundwater. As part of such management, UENRD has determined a baseline static water level within each of the subdistricts, which will be the lowest static water level reading prior to 2014.

3.12.1 Triggering Mechanisms:

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~~16.1~~ When spring static water levels within a subdistrict are determined to be between 24 inches and 12 inches above the lowest spring reading, the following shall occur:

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~~3.12.1.1~~ The UENRD will conduct an informational and educational campaign for landowners that own and operate irrigation distribution systems that are supplied by individual or

commingled high capacity wells yielding more than fifty (50) gallons per minute Landowners will be informed within that subdistrict that this level has been reached and upon subsequent spring static water level readings, additional regulations may be warranted the following year.

3.12.1.1

~~16.1.1~~3.12.1.2 Historical certified irrigated acres that were not being irrigated by groundwater prior to this trigger will not be allowed to be developed for irrigation as long as these criteria are met.

~~16.2~~3.12.2 When spring static water levels in a subdistrict are determined to be within 12 inches above the lowest spring static reading, the following shall occur:

~~16.2.1~~3.12.2.1 Flowmeters will be required on 10% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than fifty (50) gallons per minute .

~~16.2.2~~3.12.2.2 Installation of flowmeters must be installed to manufacturer's specifications. A legal description must be submitted to UENRD and flowmeters must be installed by December 31st of the current year of meeting the above static water level.

~~16.2.3~~3.12.2.3 If the groundwater irrigation distribution system owner owns less than ten groundwater irrigation distribution systems, they will be required to install one flowmeter if the above criteria is met.

~~16.2.4~~3.12.2.4 If the groundwater irrigation distribution system owner already has 10% of their groundwater irrigation distribution systems equipped with flowmeters within this subdistrict, this requirement will be satisfied.

~~16.2.5~~3.12.2.5 Flowmeter readings will need to be submitted to UENRD by December 31st each year on forms developed by UENRD and may be spot-checked for compliance.

~~16.2.6~~3.12.2.6 Any groundwater irrigation distribution system that is currently equipped or is to be equipped with a flowmeter must certify their irrigated acres if they have not already been certified.

~~16.2.7~~3.12.2.7 Historical groundwater certified irrigated acres that were not being irrigated prior to this trigger will not be allowed to be developed for irrigation as long as the above criteria is met.

~~16.3~~3.12.3 When spring static water levels in a subdistrict remain and are determined to be within 12 inches above the lowest spring static reading in subsequent or non-subsequent years, the following shall occur:

~~16.3.1~~3.12.3.1 Flowmeters will be required on an *additional* 10% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than fifty (50) gallons per minute .

~~16.3.2~~3.12.3.2 Installation of flowmeters must be installed to manufacturer's specifications. A legal description must be submitted to UENRD and flowmeters must be installed by December 31st of the current year of meeting the above static water level.

~~16.3.3~~3.12.3.3 If the groundwater irrigation distribution system owner owns less than ten groundwater irrigation distribution systems, they will be required to install an additional flowmeter within this subdistrict.

~~16.3.4~~3.12.3.4 Flowmeter readings will need to be submitted to UENRD by December 31st each year on forms developed by UENRD and may be spot-checked for compliance.

~~16.3.5~~3.12.3.5 Historical groundwater certified irrigated acres that were not being irrigated prior to this trigger will not be allowed to be developed for irrigation as long as the above criteria is met.

~~16.4~~3.12.4 When spring static water levels in a subdistrict are determined to be 12 inches above the lowest reading, the flowmeter installation requirement will discontinue until the spring static water levels are determined to be *within* 12 inches above the lowest static water level reading.

~~16.5~~3.12.5 When spring static water levels in a subdistrict are determined to be within 12 inches below the lowest spring static water level reading, the following shall occur:

~~16.5.1~~3.12.5.1 Flowmeters will be required on 60% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than 50 GPM.

~~16.5.2~~3.12.5.2 Installation of flowmeters must be installed to manufacturer's specifications. A legal description must be submitted to UENRD and flowmeters must be installed by December 31st of the current year of meeting the above static water level.

~~16.5.3~~3.12.5.3 Flowmeter readings will need to be submitted to UENRD by December 31st each year on forms developed by UENRD and maybe spot-checked for compliance.

~~16.5.4~~3.12.5.4 Historical groundwater certified irrigated acres that were not being irrigated prior to this trigger will not be allowed to be developed for irrigation as long as the above criteria is met.

~~16.6~~3.12.6 When spring static water levels in a subdistrict remain and are determined to be within 12 inches below the lowest spring static reading in subsequent or non-subsequent years, the following shall occur:

~~16.6.1~~3.12.6.1 Flowmeters will be required on 100% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than 50 GPM. No allocation will be implemented at this time.

~~16.6.2~~3.12.6.2 Installation of flowmeters must be installed to manufacturer's specifications. A legal description must be submitted to UENRD and flowmeters must be installed by December 31st of the current year of meeting the above static water level.

~~16.7~~3.12.7 When the spring static water levels in a subdistrict are determined to be below 12 inches of the lowest spring static water level reading, then an allocation system will be implemented within that subdistrict and the following shall occur:

~~16.7.1~~3.12.7.1 Flowmeters will be required on 100% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than fifty (50) gallons per minute .

~~16.7.2~~3.12.7.2 Installation of flowmeters must be installed to manufacturer's specifications. A legal description must be submitted to UENRD and flowmeters must be installed by December 31st of the current year of meeting the above static water level.

~~16.7.3~~3.12.7.3 Variances may be granted upon a demonstration of good cause.

~~16.7.4~~3.12.7.4 Allocations will be allotted the following year of the spring reading reaching this static water level. Each groundwater certified irrigation distribution system will be allocated for a period of 5 years and receive 75 acre inches.

~~16.7.5~~3.12.7.5 Flowmeter readings will need to be submitted to UENRD by December 31st each year on forms developed by UENRD and may be spot-checked for compliance.

~~16.7.6~~3.12.7.6 Historical groundwater certified irrigated acres that were not being irrigated prior to this trigger will not be allowed to be developed for irrigation as long as the above criteria is met.

~~16.8~~3.12.8 When spring static water levels in a subdistrict are determined to be below 12 inches of the lowest spring static water level in **one spring static water level measuring cycle**, the following shall occur:

~~16.8.1~~3.12.8.1 Flowmeters will be required on 100% of the landowner's irrigation distribution systems within that subdistrict that are supplied by individual or commingled high capacity wells yielding more than fifty (50) gallons per minute *and* an allocation will be enforced on all groundwater irrigation distribution systems within the subdistrict.

~~16.8.2~~3.12.8.2 Allocations will be allotted the following year of the spring reading reaching this static water level.

~~16.8.3~~3.12.8.3 Allocations will be maintained for a minimum of 5 years. Any time within this period the UENRD board of directors reserves the right to adjust the allocation amount based on static water levels, trend lines, and weather conditions.

~~16.8.4~~3.12.8.4 Flowmeter readings will need to be submitted to UENRD by December 31st each year on forms developed by UENRD and may be spot-checked for compliance.

~~16.8.5~~3.12.8.5 Historical groundwater certified irrigated acres that were not being irrigated prior to this trigger will not be allowed to be developed for irrigation as long as the above criteria is met.

~~16.9~~3.12.9 Upon static water levels reaching the Rule ~~16.8~~3.12.8 levels above:

~~16.9.1~~3.12.9.1 Expansion of groundwater irrigated acres will not be allowed.

~~16.9.2~~3.12.9.2 Each groundwater certified irrigation distribution system will be allocated for a period of 5 years and receive 75 acre inches.

~~16.9.3~~3.12.9.3 New helper wells will not be allowed once a subdistrict has been determined to be triggered.

~~16.9.4~~3.12.9.4 Transfers of historical or active groundwater irrigated acres will not be allowed.

~~16.9.5~~3.12.9.5 Inactive certified historical acres that are not currently irrigated upon a subdistrict being triggered will not receive an allocation.

~~16.9.6~~3.12.9.6 Historical certified irrigated acres that began irrigating within the five years prior to being triggered will only receive 15 acre inches multiplied by the number of years documented by Farm Service Agency or County Assessor records.

~~16.9.6.1~~3.12.9.6.1 (For example, if documentation demonstrates land was irrigated 3 out of the previous 5 years, such land would receive only 45 acre inches for the 5 year allocation starting the year it was triggered.)

~~16.9.7~~3.12.9.7 Situations where groundwater historical irrigated acres are utilized to complete circle or add to a certified irrigation distribution system will be calculated as such.

~~16.9.7.1~~3.12.9.7.1 (For example, if 5 acres were added to 127 acre pivot and 3 years' worth of documentation are available, 5 acres x 45 inches = 225 acre inches. 127 acres have 75 acre inches, or 9,525 acre inches. So, add (225 acre in + 9,525 acre in) /132 acres = 73.86 acre inches for the 5 year allocation.)

~~16.9.8~~3.12.9.8 Balance of allocations will be based on an annual allocation of 15 acre inches.

~~16.9.9~~3.12.9.9 Once levels rise two feet above the lowest level, the UENRD Board will decide as to whether a subdistrict can sustain more consumptive use and determine if groundwater historical acres that are not being currently irrigated will be allowed to be irrigated.

~~16.10~~3.12.10 Allocation Carry-Over:

~~16.10.1~~3.12.10.1 Any unused allocation at the end of the 5 year time period would only be allowed to carry 5 acre inches into the next allocation. (Starting with a new 75 acre inch allocation + 5 acre inches of carry over = 80 acre inches for next 5 year time period.)

~~16.10.2~~3.12.10.2 Landowners would have to notify on a form provided by UENRD the amount and location where a portion of an allocation is to be moved. This notification would have to occur by January 15th of each year.

~~16.10.3~~3.12.10.3 Moving of allocation as stated above would only be allowed when:

~~16.10.3.1~~3.12.10.3.1 Properties are within the same ownership;

~~16.10.3.2~~3.12.10.3.2 Within subdistricts developed by UENRD; and

~~16.10.3.3~~3.12.10.3.3 Are to a lower stream depletion factor within the same hydrologic unit code (HUC) within the same subdistrict.

~~16.10.3.3.1~~3.12.10.3.3.1 Allocation would be allowed to move within 2 miles of adjacent HUC meeting above criteria.

~~16.11~~3.12.11 Penalties:

~~16.11.1~~3.12.11.1 At the end of the 5 year allocation, any amount of groundwater used over the 75 acre inch allocation will be rounded to the next consecutive inch, multiplied by 5, and subtracted from the next new subsequent allocation.

~~16.11.2~~3.12.11.2 If the district removes the subdistrict from an allocation, those groundwater irrigation distribution systems that ~~was~~were to be penalized by a reduction will remain with an allocation for another year. This 1 year allocation will be based on the annual 15 acre inch allocation minus the penalty.

~~16.11.2.1~~3.12.11.2.1 (For example, if a landowner used 1.2 acre inches more than the 75 acre inch allocation, 1.2 acre inches rounded to 2 acre inches times 5 equals 10 acre inches. 15 acre inches (annual) minus 10 acre inches (penalty) = 5 acre inches for year 6.)

~~16.11.3~~3.12.11.3 Acres that are being irrigated that have not been certified by the groundwater irrigation distribution owner with UENRD will have their allocation reduced on their certified groundwater irrigated acres for that groundwater distribution irrigation system. Certified irrigated acres will be reduced by a multiplier of 10.

~~16.11.3.1~~3.12.11.3.1 (For example, landowner has 127 acres and irrigated 3 acres more that was not certified as irrigated. Landowner would be penalized 3 (acres) x 10 (multiplier) = 30 acres of reduction on that impacted irrigation distribution system for a minimum of 1 year. If this violation occurs during an allocation period, penalty will carry on for completion of existing allocation period and on to next full allocation. If allocation for that sub-basin is removed then the penalty will be enforced for 1 year.

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DESIGNATION OF GROUNDWATER QUALITY MANAGEMENT AREAS

- **Phase I Groundwater Quality Management Area – 0% to 50% of the MCL (0 – 5.0 ppm nitrate-nitrogen)**

Following a public hearing and evidence presented at the hearing, the entire Upper Elkhorn Natural Resources District was designated a Phase I Groundwater Quality Management Area (GWQMA) June 30th, 1997. A Phase I GWQMA primarily promotes the implementation of Best Management Practices through educational programs. Specific criteria are outlined in the "Groundwater Quality Management Area Controls" section of this document.

- **Phase II Groundwater Quality Management Area – >50% to 90% of the MCL. (> 5.0 - 9.0 ppm nitrate-nitrogen)**

Following a public hearing and evidence presented at the hearing, the first Phase II GWQMAs were designated on January 1, 2003. Additional Phase II areas were labeled October 1, 2012. This timeline has been established only to show the District's commitment to addressing the nitrate problem.

Phase II GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township or subarea should be designated a Phase II GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the average contaminate concentrations in proposed and established Phase II GWQMAs. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.

Before a Phase II GWQMA can be designated, the average nitrate concentration in the monitored irrigation wells and monitoring wells must be greater than 50% of the Maximum Contaminant Level, which is currently 10 ppm (parts per million or mg L^{-1}) for a minimum of three consecutive years. However, the District reserves the right to designate a Phase II GWQMA at any time in lieu of these criteria, if deemed necessary.

In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 50% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase II or Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated phase area. Applicability of this requirement is at the Board's discretion.

After initial Phase II designation, it will be determined to redesignate a Phase II GWQMA area as a Phase I GWQMA if data from monitored irrigation and dedicated monitoring wells show a decrease in nitrate concentrations and the average nitrate concentration falls below 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. Areas will remain as Phase II GWQMAs if the average nitrate concentrations from the monitored wells exceed 50% of the MCL, but are equivalent to or less than

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~~90% of the MCL in the wells monitored by the District. An area will be designated a Phase III GWQMA if it meets the criteria outlined below.~~

- ~~**Phase III Groundwater Quality Management Areas - >90% of the MCL. (> 9.0 ppm nitrate-nitrogen)**~~

~~Following a public hearing and evidence presented at the hearing, the first Phase III GWQMAs were designated February 1, 2019. This timeline has been established only to show the District's commitment to addressing the nitrate problem since several areas in the District currently meet the criteria for designation as a Phase III GWQMA. Phase III GWQMAs can be established prior to and following the cutoff date of January 1, 2018 as data and other evidence indicate.~~

~~Phase III GWQMAs will be designated by townships within the Upper Elkhorn Natural Resources District unless data collected from the District's monitoring program or other hydrogeologic evidence indicates a definite boundary whereby only a portion of a township should be designated a Phase III GWQMA. This designation will be done by the UENRD staff and Board of Directors. The District will monitor an adequate number of registered active irrigation wells and dedicated monitoring wells to accurately describe the contaminate concentrations in proposed and established Phase III GWQMAs. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

~~Before a Phase III GWQMA can be designated, an area must have been designated a Phase II GWQMA for a minimum of three consecutive years, and the irrigation wells and monitoring wells monitored by the District must have an average nitrate concentration greater than 90% of the Maximum Contaminant Level, which is currently 10 ppm (parts per million or mg L^{-1}. However, the District reserves the right to designate a Phase III GWQMA at anytime in lieu of these criteria, if deemed necessary.~~

~~In areas with less than ten registered irrigation wells and nitrate concentrations exceeding 90% of the MCL, the District will work with the individual operator(s) to implement BMPs. However, if the area is adjacent to a predesignated Phase III GWQMA, the operator(s) will be required to abide by the Rules and Regulations of that predesignated Phase III GWQMA. Applicability of this requirement is at the Board's discretion.~~

~~After initial designation, it will be determined to redesignate a Phase III GWQMA area as a Phase II GWQMA if data from monitored irrigation wells and monitoring wells shows a decreasing trend in nitrate concentrations the average nitrate concentration falls below 90% of the MCL, but exceed 50% of the MCL in the wells monitored by the District for a minimum of (3) consecutive years. A Phase III GWQMA will be redesignated a Phase I GWQMA if data from monitored irrigation wells shows a decreasing trend in nitrate concentrations and the average nitrate concentration falls below 50% of the MCL in the wells monitored by the District. Areas will remain as Phase III GWQMAs if the average nitrate concentrations from monitored irrigation wells and monitoring wells exceed 90% of the MCL in the wells monitored by the District. Specific criteria and controls are outlined in the "Groundwater Quality Management Area Controls" section of this document.~~

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Groundwater Quality Management Area Controls

Phase I Groundwater Quality Management Areas - 0 to 50% of the MCL (0 - 5.0 ppm nitrate-nitrogen)

10. The person or persons responsible for making final decisions on any type of applications of nitrogen fertilizer on an area larger than **one acre** and applying more than 50 pounds per acre of actual nitrogen on any crop within the UENRD, either commercially or privately, must be certified by the District once every four (4) years. The person or persons will be considered the *certified operator(s)*. The certification requirement will include attending educational classes established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others. Nitrogen certification from bordering NRDs will be accepted as fulfillment of the UENRD nitrogen certification requirement pending UENRD Board approval. This is possible since most NRDs will be using essentially the same educational program being developed statewide in coordination with the University of Nebraska Cooperative Extension. To address specific issues in the UENRD, additional educational materials may be given to operators certified in other neighboring NRDs.

11. A groundwater analysis for nitrate-nitrogen content in all registered wells used for irrigation of crops must be accomplished by the certified operator once every four (4) years prior to recertification. The results of this analysis must be submitted to the UENRD by the following December 31st report deadline. The sample must be collected and analyzed using UENRD approved methods. A methodology for sample collection and proper analysis procedures will be included as part of the District's educational program. Information from this analysis will give the certified operator knowledge of usable nitrate-nitrogen already present in the groundwater. This information will *not* be used in determining a Phase Area.

12. With the passage of LB 981(1994), all new wells constructed in a control or management area (including a GWQMA) must have a permit from the local NRD prior to construction (see Rule 4). Exceptions include, test holes, dewatering wells with intended use of ninety days or less, and water wells which are designed and constructed to pump fifty gallons per minute or less. A copy of this permit will be retained at the District office and with the Nebraska Department of Natural ResourcesWater, Energy, and Environment. The cost of permitting and penalties applied will be consistent with the laws of the state of Nebraska.

13. Certified operators are encouraged to set a realistic yield goal for crops where more than 50 lbs of actual nitrogen fertilizer per acre is to be applied. A realistic goal is based on the last five years actual yield averaged plus five percent.

14. Residents residing in communities within the UENRD who apply nitrogen fertilizer will be encouraged to attend Nitrogen Awareness Programs established by the District with assistance from the County Extension, University of Nebraska Research and Extension personnel, and others.

15. Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) applications of commercial nitrogen fertilizer will be discouraged on all soils. Spring (March 2nd to June 20th) applications of commercial nitrogen fertilizer greater than **100 pounds of actual nitrogen fertilizer per acre** will be encouraged through split applications (i.e. preplant, planting, weed and feed, post emergence side-dressing, and, if applicable, through an irrigation distribution system).

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16. The District encourages voluntary testing of all domestic and stock wells for nitrate-nitrogen content.

17. The District encourages a deep soil sampling analysis (two or three foot sample if applicable) for nitrate-nitrogen content on each field larger than **40 acres** with more **than 50 lbs per acre of actual nitrogen fertilizer** applied. Approved sampling and analysis techniques will be included as part of the educational program. This analysis will give the certified operator knowledge of usable and inaccessible (below the root zone) nitrogen in the soil profile.

18. The District encourages the use of calibration monitors on all applications of fertilizers and pesticides. Proper maintenance of all fertilizer and pesticide equipment is also encouraged.

19. The District encourages producers to use alternative irrigation and fertility management technology as it becomes available to increase efficiency and protect the environment.

● Phase II Groundwater Quality Management Areas – > 50% to 90% of the MCL (>5.0 - 9.0 ppm nitrate-nitrogen)

2. A continuation of Phase I activities will remain in effect unless modified or negated by Phase II requirements.

3. The District will require the certified operator to accomplish an annual deep soil sampling analysis (mandatory two foot sample, three foot sample encouraged, if applicable) for nitrate-nitrogen content on each field larger than **40 acres** with more than **50 lbs per acre of actual nitrogen fertilizer** applied. The sample must be collected and analyzed using UENRD approved methods. Approved sampling and analysis techniques will be included as part of the District's educational program. This analysis will give the certified operator knowledge of usable and inaccessible nitrogen (below the root zone) in the soil profile.

4. Certified operators must submit a report to the Upper Elkhorn NRD by **December 31st** following each crop year on forms provided by the District for areas larger than **40 acres** where more **than 50 lbs per acre of actual nitrogen fertilizer** is applied. The report will consist of four sections and will include, but is not limited to, the following information:

Section I. Field Information

b) Legal description
c) County
d) Field name used by operator
e) Most recent season crop type
f) Most recent season cropping year

Section II. Nitrogen Applications

a) Field size in acres
b) Average soil nitrates in ppm from required annual deep soil analysis
c) Soil sample depth (minimum two foot required)
d) Results of water nitrate-nitrogen analysis (in ppm) from each irrigation well
e) Total nitrogen credit from inches of water applied
f) Legume credit from previous year's crop, if applicable
g) Any additional nitrogen credit applied, such as manure

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h) Organic matter result from soil sampling analysis
i) UNL formula for realistic yield goal for the field (5 year average plus 5%)
j) Actual total nitrogen applied in pounds per acre
k) Actual yield for the field

Section III. Irrigation Applications

b) Well registration number(s) from Department of Natural ResourcesWater, Energy, and Environment
c) Total field acres irrigated
d) Crop water use for the crop type and field
e) Flow rate of the well
f) Total hours pumped for that cropping season
g) Irrigation system type and/or nozzle packaging
h) Total rainfall on the field
i) Total annual flowmeter readings (where applicable/available)

Section IV. Pesticide Applications

c) Type of pesticide applied by pesticide name
d) Application rates for each pesticide in one of the following rates:
i.oz/acre
ii.pt/acre
iii.qt/acre
The District reserves the right to request additional information.

An informational packet will be provided to each of the certified operators containing any necessary information and a list of possible information sources. Similar reports are used by the Natural Resources Conservation Service (NRCS) and other NRDs. This continuity allows for greater information exchange and dissemination. Many different entities will be available to certified operators should questions arise. The District reserves the right to request additional information needed to assist in the successful implementation of this groundwater management plan.

5. The District will encourage certified operators to incorporate credits from application of animal waste (solid or effluent) and municipality waste into the total nitrogen requirement for the specific crop where this application of waste is made. An analysis of waste slurry will be encouraged to determine nitrogen content. Operators are encouraged to apply animal and municipality waste evenly over as many acres as possible. The following Rules and Regulations apply to the application of animal and municipal waste, accordingly:

a) All required livestock waste facilities must be properly permitted by the State of Nebraska.
b) Nitrogen application including livestock waste (solid or effluent) should not exceed agronomic rates for a crop.
c) Waste application on land subject to frequent flooding (see County Soil Survey) will be discouraged.
d) Waste applications within 200 feet of, and draining into, adjacent water bodies will be discouraged.
e) Spreading of animal and municipality waste on frozen or snow-covered ground will be discouraged. Animal and municipality waste should be applied to land where slopes are four percent (4%) or less or adequate erosion control practices are used.
f) The application of waste disposal on tilled ground with greater than ten percent (10%) slopes is discouraged unless adequate erosion control practices are present.

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g) A nitrogen analysis of animal waste slurry will be encouraged.

5. Fall (September 23rd to December 20th) and Winter (December 21st to March 1st) application of all commercial nitrogen fertilizer will not be allowed before **November 1st**. It will be discouraged until after **March 1st** on all soils. Exceptions will be allowed for Spring and Fall seeded crops and meadows if the actual nitrogen application rate is **less than 20 pounds per acre**.

6. The use of monitoring equipment (i.e., flowmeters, rain gauges, hour meters, etc.) and distribution equipment (i.e. pressure regulators, low pressure nozzles, etc.) for efficient fertilizer and water distribution will be encouraged by the District.

● Phase III Groundwater Quality Management Areas - > 90% of the MCL (> 9.0 ppm nitrate-nitrogen)

2. All Rules and Regulations established for Phases I & II will remain in effect unless modified or negated by Phase III requirements.

3. If the groundwater analysis from Phase I, #2 and reported in Phase II, #3(c) shows nitrate-nitrogen levels greater than (90%) of the MCL, then the groundwater analysis for nitrate-nitrogen in Phase I, #2 must be made annually and results submitted in the report discussed in Phase II, #3 (c). In other words, the groundwater analysis required prior to recertification (once every four years) in a Phase I GWQMA, now must be conducted on an annual basis if the nitrate-nitrogen levels exceed 90% of the MCL or 9.0 ppm in the case of nitrate-nitrogen.

4. If a town, village, or city lies within a Phase III Area, they will be encouraged to complete a Well Head Protection Area Plan. The Upper Elkhorn NRD will provide assistance to the communities for completing this plan.

5. Randomized soil sampling will be conducted in the Phase III areas to identify fields, which are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied, with high residual soil nitrate-nitrogen. UENRD staff or contracted workers/agronomists will collect deep soil samples (three-foot samples) based on proper soil sampling protocol from University of Nebraska-Lincoln (UNL) NebGuide G1740, "Guidelines for Soil Sampling." Following these guidelines, for every 40 acres, 10-15 randomly collected surface cores (0-8" deep) and 6-8 subsoil cores (8-36" deep) will be collected and analyzed for nitrate-nitrogen analysis.

a. **Analysis**: Samples will be shipped to and analyzed by an NRD approved agricultural analysis laboratory. Soil sample analysis will be conducted for each sampled field for pounds of nitrate-nitrogen per acre (lbs/ac) and will fall within the following Trigger Levels:

No Trigger: 0 – < 40 lbs/ac
Level 1: ≥ 40 – < 50 lbs/ac
Level 2: ≥ 50 – < 60 lbs/ac
Level 3: ≥ 60 lbs/ac

i. If any portion of the field triggers a higher level, the whole field will be considered to trigger the higher level. For example, if a field is analyzed by the north half and south half, and if the north half is 30 lbs/ac and the south half is 40 lbs/ac, the entire field will be considered Level 1.

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b. **Timing**: Samples will be collected in the fall, after harvest, to determine the amount of nitrate-nitrogen left in the soil. Samples will be taken from fields in either a one or three year program. Samples will only be taken from fields with more than 50 lbs/ac of actual nitrogen applied (i.e., corn fields) in Year 1, seeing as little to no nitrogen is commonly applied to beans. If the field has < 40 lbs/ac residual nitrate-nitrogen in Year 1, the field will not need to be retested. If the field is ≥ 40 lbs/ac residual nitrate-nitrogen, the same field will also be tested in Year 2 and Year 3. This is because of the common crop rotation of corn then beans, so the field will need to be tested in Year 2 (beans) and again in Year 3 (corn) to assess the producer's nitrogen management.

c. **Triggers**: The landowner, operator, and/or nitrogen applicator (henceforth "the party") will be notified of their lbs/ac of nitrate-nitrogen every year that the field is sampled. If the field has > 40 lbs/ac of residual nitrate-nitrogen, the party will be provided a list of potential Best Management Practices (Appendix A) which are reasonably considered to achieve compliance with Phase III Controls. If the field does not trigger (< 40 lbs/ac) in Year 1, the party will be notified of their result and no more testing for Phase III will be required, unless selected in the future.

i. If a field triggers Level 1: The landowner, operator, and/or nitrogen applicator will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac. The field will be sampled for a minimum of two more years.

1. **If in Year 2, the field triggers:**

a. No Trigger: The field will be tested for one more year.

b. Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for one more year.

c. Level 2 or 3: The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for one more year. The landowner will be required to pay for the cost of the soil sample for Year 3.

2. **If in Year 3, the field triggers:**

a. No Trigger: No more testing will be required, unless selected in the future.

b. Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

c. Level 2 or 3: The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

ii. If a field triggers Level 2: The field will be sampled for a minimum of two more years and will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac.

1. **If in Year 2, the field triggers:**

a. No Trigger: The field will be tested for one more year.

b. Level 1: The field will be tested for one more year. The party will be required to reduce level below 40 lbs/ac.

c. Level 2 or 3: The field will be tested for one more year. The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. "Failure to Reduce" procedures may go into effect, see Section 4.D. The landowner will be required to pay for the cost of the soil sample for Year 3.

2. **If in Year 3, the field triggers:**

a. No Trigger; No more testing will be required, unless selected in the future.

b. Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

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c. Level 2 or 3: The party will meet with the UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv. "Failure to Reduce" procedures may go into effect, see Section 4.D.

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iii. If a field triggers Level 3: The landowner, operator, and/or nitrogen applicator will be required to meet with the UENRD Water Committee to explain why the residual nitrate-nitrogen was above the limit for that field for that season. The field will be sampled for a minimum of two more years and will be required to reduce the amount of residual nitrate-nitrogen the following years to below 40 lbs/ac.

1. **If in Year 2, the field triggers:**

a. No Trigger: The field will be tested for one more year.

b. Level 1: The field will be tested for one more year. The party will be required to reduce level below 40 lbs/ac.

c. Level 2 or 3: The field will be tested for one more year. The party will meet with UENRD, and will be required to reduce level below 40 lbs/ac. "Failure to Reduce" procedures may go into effect, see Section 4.D. The landowner will be required to pay for the cost of the soil sample for Year 3.

2. **If in Year 3, the field triggers:**

a. No Trigger: No more testing will be required, unless selected in the future.

b. Level 1: The party will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv.

c. Level 2 or 3: The party will meet with the UENRD, and will be required to reduce level below 40 lbs/ac. The field will be tested for a minimum of one more year, and the landowner will be required to pay for the cost of the soil sample for Year 4 and beyond; see Section 4.C.iv. "Failure to Reduce" procedures may go into effect, see Section 4.D.

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iv. Year 4 and beyond: If a field has yet to get below 40 lbs/ac after the first three years, continued soil sampling will occur. The landowner will be responsible for the cost of the soil sample. Sampling will occur yearly until the field is below 40 lbs/ac.

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d. **Failure to Reduce:** Any party that fails to reduce residual nitrate-nitrogen to levels below 40 lbs/ac as described above, will receive a notice of violation and may receive a cease and desist order. The cease and desist order may order the immediate cessation of the application of nitrogen, the reduction or cessation of irrigation, the reduction or removal of certified irrigated acres, or such other measure authorized pursuant to Neb. Rev. Stat. 46-739, that are reasonably considered to achieve compliance with this section, as determined by the Upper Elkhorn Board of Directors.

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e. **Field Selection**: Fields will be randomly selected within the Phase III designated townships annually. The UENRD staff or contracted workers/agronomists will contact the landowner and/or operator to determine crop for that field; only fields that are larger than 40 acres with more than 50 lbs/ac of actual nitrogen applied during that growing season will be tested.

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6. The application of commercial nitrogen fertilizer is prohibited on all soils until after **March 1st**. Spring (March 2nd to June 20th) application of commercial nitrogen fertilizer at a rate of **over 100 pounds of actual nitrogen per acre** will require split applications (i.e. pre-plant, post emergence side dress, weed and feed, planting time, and through the center pivot, if applicable).

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~~7. If the Board of Directors deems it necessary to maintain, enhance, or protect groundwater quality, or to address concerns regarding conjunctive use and adverse effects on groundwater quality, the UENRD may choose to implement additional controls as listed in Nebraska State Statutes 46-739. Some of the controls in this Statute are groundwater allocation and irrigated acre reduction.~~

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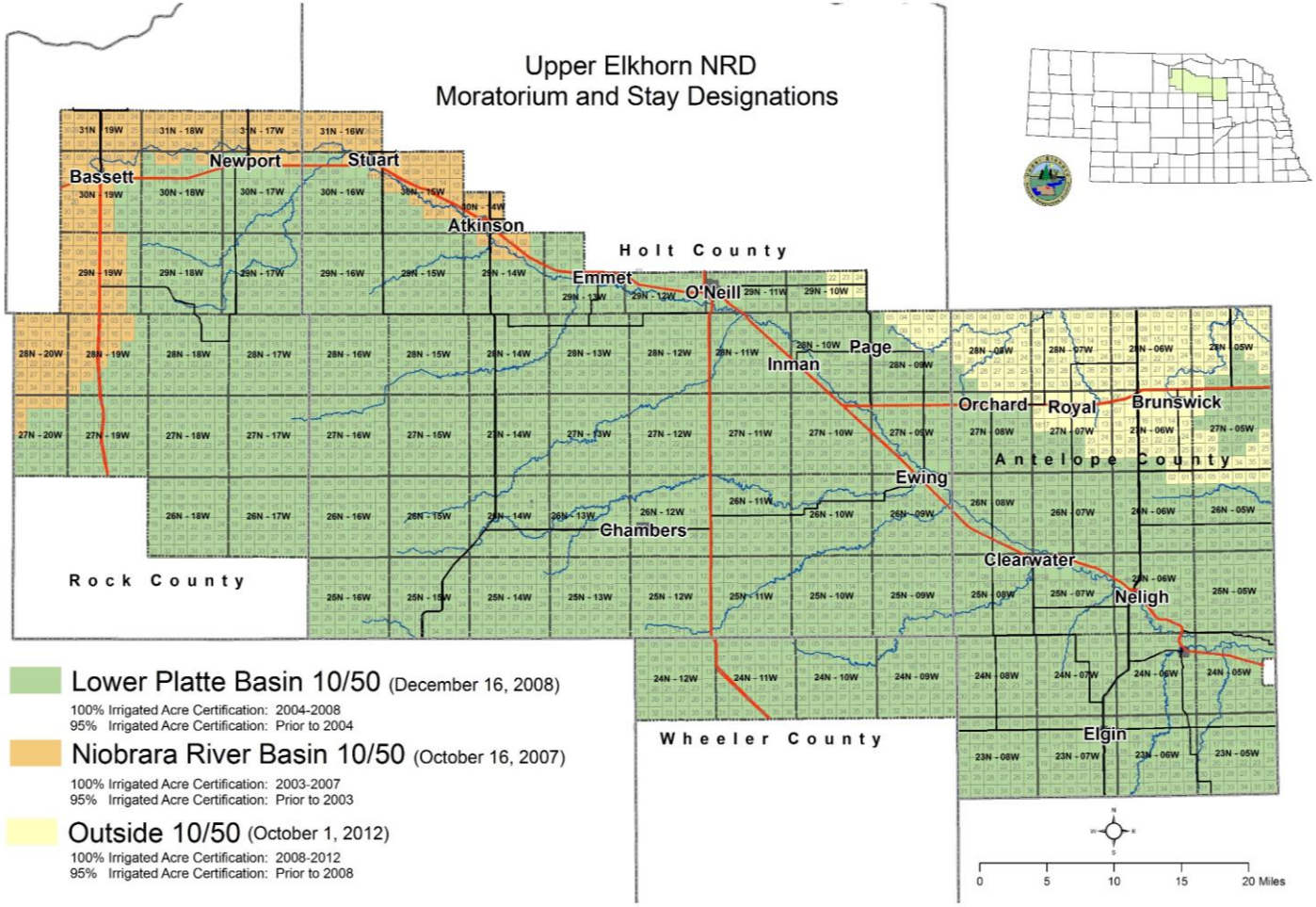
~~APPENDIX A: BEST MANAGEMENT PRACTICESppendix A:~~

~~List of potential Best Management Practices:~~

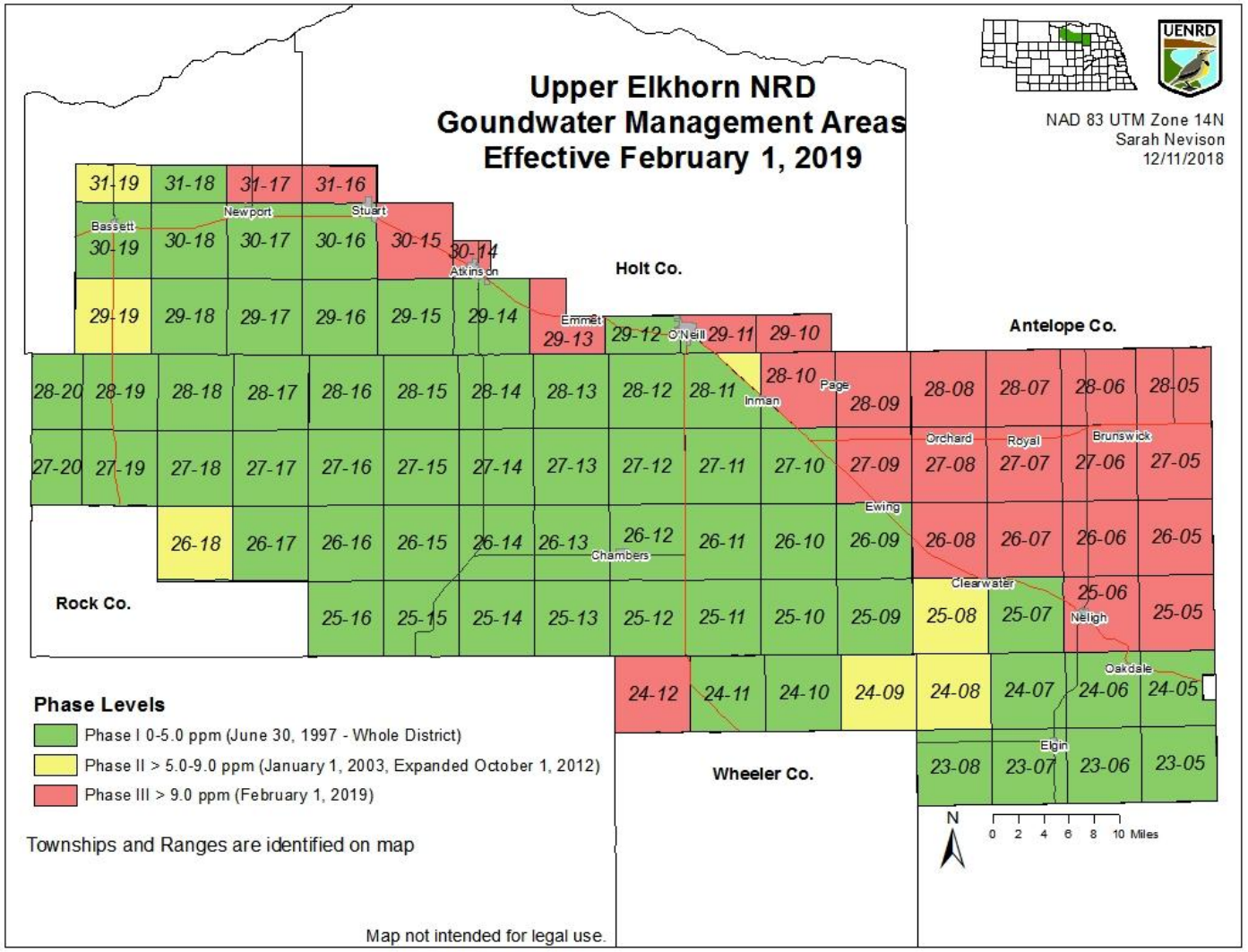
- ~~Soil moisture probes/tensiometers~~
- ~~Flowmeters and flowmeter monitoring and management~~
- ~~Irrigation scheduling, rain gauges, etc.~~
- ~~Rain interrupters on irrigation systems~~
- ~~Irrigation allocations / Irrigation rotation / Reduce irrigated acres~~
- ~~Proper timing of fertilizer application~~
- ~~Nitrogen inhibitors/slow release nitrogen~~
- ~~Use of UNL fertilizer recommended rate~~
- ~~Split application / utilization of chemigation~~
- ~~Review nitrogen receipts (and compare to UNL recommendation)~~
- ~~Review yield receipts~~
- ~~Chlorophyll meters / Crop growth infrared sensors~~
- ~~Pre-cropping reporting and post-cropping reporting~~
- ~~New well drilling rules regarding depth and casings~~
- ~~Test plots~~
- ~~Denitrification ponds/buffer strips~~
- ~~Cover crops~~
- ~~Crop rotation~~
- ~~Further requirements for livestock waste (lab analysis, credit must be taken)~~
- ~~Or other criteria allowed under Neb. Rev. Stat. 46-739~~

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APPENDIX A – UPPER ELKHORN NRD MORATORIUM AND STAY DESIGNATIONS

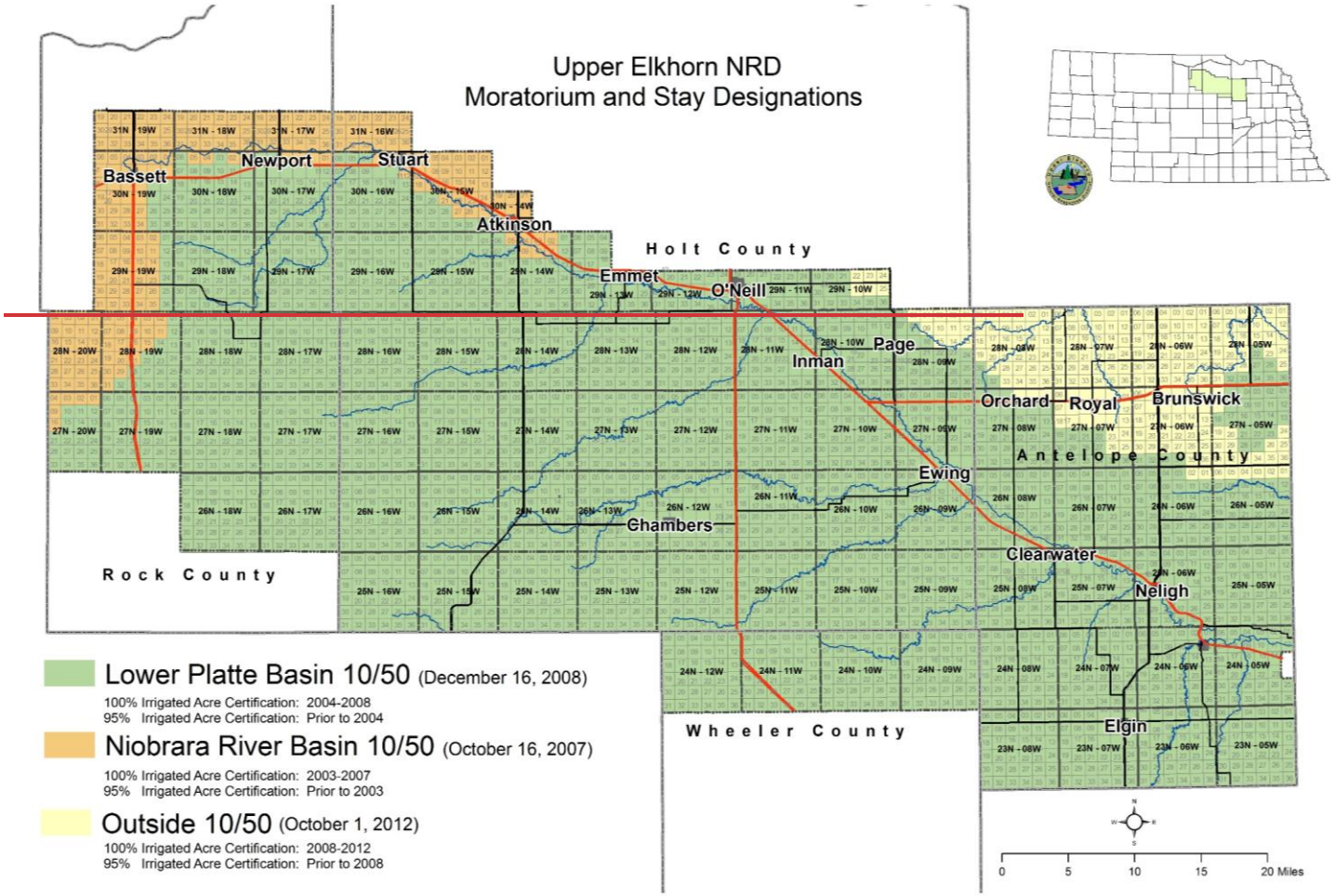


~~Map A~~~~ppendix~~PPENDIX B – UPPER ELKHORN NRD GROUNDWATER MANAGEMENT AREAS~~pper Elkhorn NRD Groundwater Management Areas~~

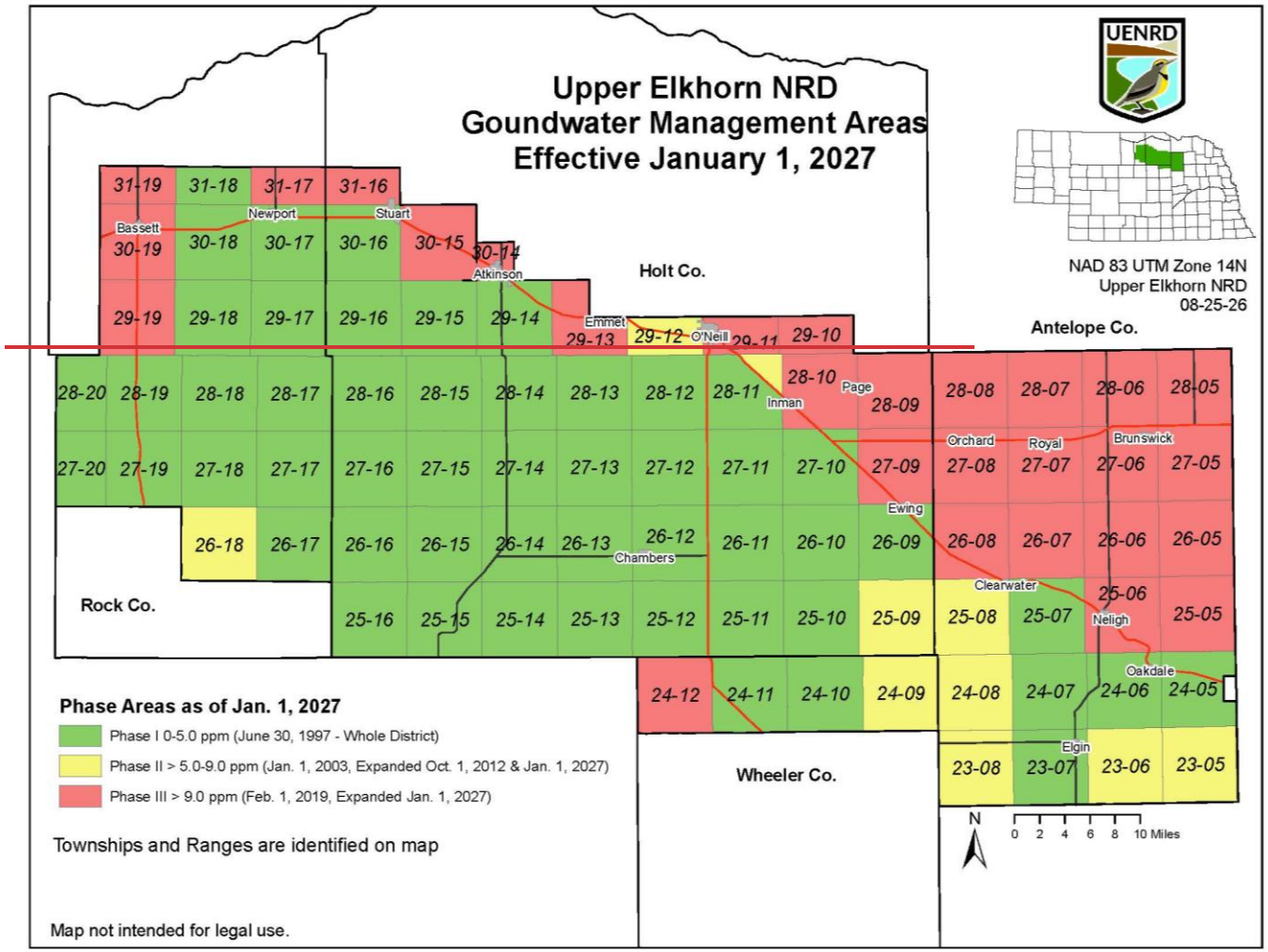


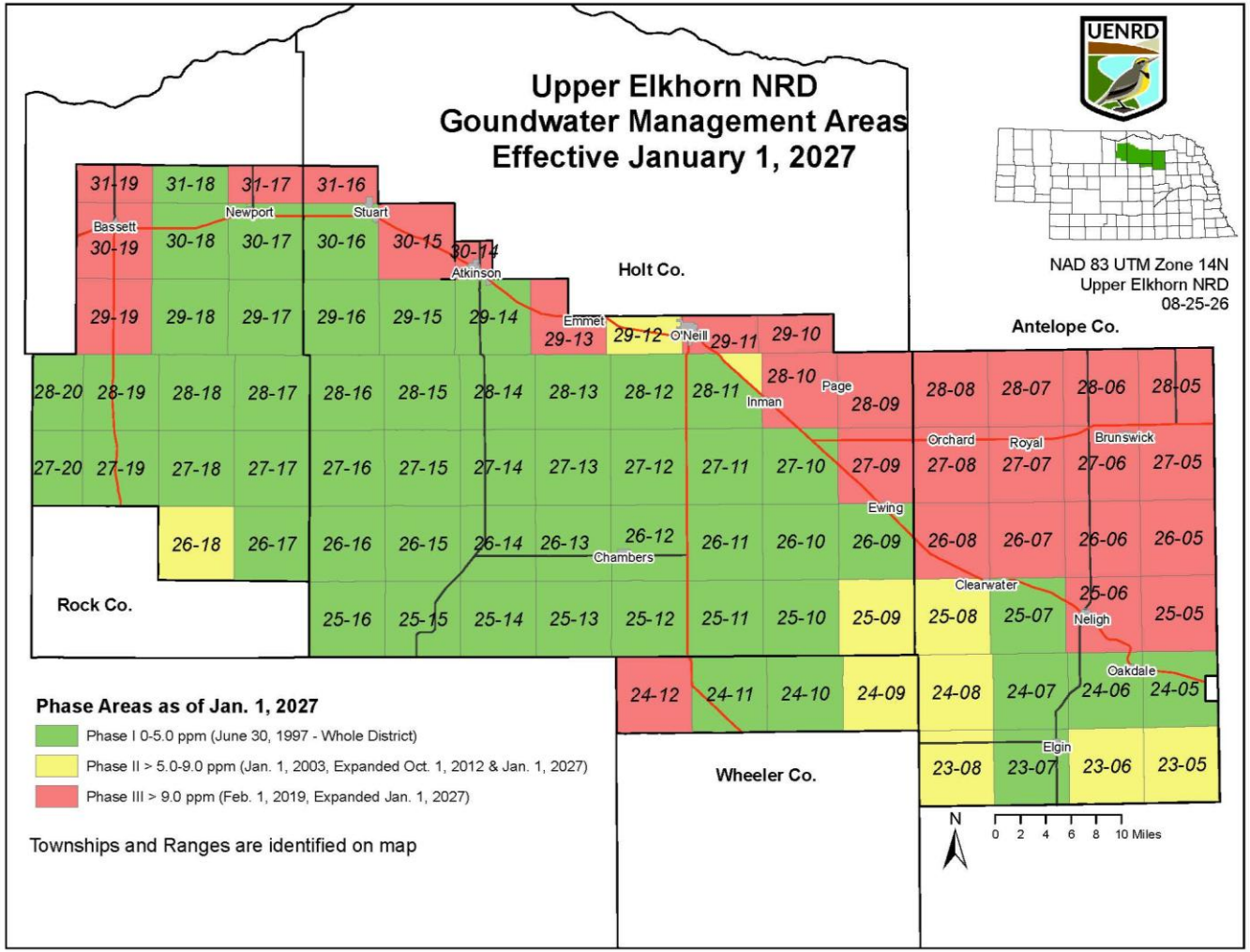
APPENDIX C – UPPER ELKHORN NRD MORATORIUM AND STAY DESIGNATIONS

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Upper Elkhorn NRD
Goundwater Management Areas
Effective January 1, 2027
UENRD
NAD 83 UTM Zone 14N
Upper Elkhorn NRD
08-25-26
Holt Co.
Antelope Co.
Rock Co.
Wheeler Co.
Bassett
Newport
Stuart
Atkinson
Emmet
O'Neill
Inman
Page
Orchard
Royal
Brunswick
Ewing
Chambers
Clearwater
Neligh
Oakdale
Elgin
31-19 31-18 31-17 31-16
30-19 30-18 30-17 30-16 30-15 30-14
29-19 29-18 29-17 29-16 29-15 29-14 29-13 29-12 29-11 29-10
28-20 28-19 28-18 28-17 28-16 28-15 28-14 28-13 28-12 28-11 28-10 28-09 28-08 28-07 28-06 28-05
27-20 27-19 27-18 27-17 27-16 27-15 27-14 27-13 27-12 27-11 27-10 27-09 27-08 27-07 27-06 27-05
26-18 26-17 26-16 26-15 26-14 26-13 26-12 26-11 26-10 26-09 26-08 26-07 26-06 26-05
25-16 25-15 25-14 25-13 25-12 25-11 25-10 25-09 25-08 25-07 25-06 25-05
24-12 24-11 24-10 24-09 24-08 24-07 24-06 24-05
23-08 23-07 23-06 23-05
Phase Areas as of Jan. 1, 2027
Phase I 0-5.0 ppm (June 30, 1997 - Whole District)
Phase II > 5.0-9.0 ppm (Jan. 1, 2003, Expanded Oct. 1, 2012 & Jan. 1, 2027)
Phase III > 9.0 ppm (Feb. 1, 2019, Expanded Jan. 1, 2027)
Townships and Ranges are identified on map
Map not intended for legal use.
N
0 2 4 6 8 10 Miles


Upper Elkhorn NRD
Goundwater Management Areas
Effective January 1, 2027
UENRD
NAD 83 UTM Zone 14N
Upper Elkhorn NRD
08-25-26
Holt Co.
Antelope Co.
Rock Co.
Wheeler Co.
Bassett
Newport
Stuart
Atkinson
Emmet
O'Neill
Inman
Page
Orchard
Royal
Brunswick
Ewing
Chambers
Clearwater
Neligh
Oakdale
Elgin
31-19 31-18 31-17 31-16
30-19 30-18 30-17 30-16 30-15 30-14
29-19 29-18 29-17 29-16 29-15 29-14 29-13 29-12 29-11 29-10
28-20 28-19 28-18 28-17 28-16 28-15 28-14 28-13 28-12 28-11 28-10 28-09 28-08 28-07 28-06 28-05
27-20 27-19 27-18 27-17 27-16 27-15 27-14 27-13 27-12 27-11 27-10 27-09 27-08 27-07 27-06 27-05
26-18 26-17 26-16 26-15 26-14 26-13 26-12 26-11 26-10 26-09 26-08 26-07 26-06 26-05
25-16 25-15 25-14 25-13 25-12 25-11 25-10 25-09 25-08 25-07 25-06 25-05
24-12 24-11 24-10 24-09 24-08 24-07 24-06 24-05
23-08 23-07 23-06 23-05
Phase Areas as of Jan. 1, 2027
Phase I 0-5.0 ppm (June 30, 1997 - Whole District)
Phase II > 5.0-9.0 ppm (Jan. 1, 2003, Expanded Oct. 1, 2012 & Jan. 1, 2027)
Phase III > 9.0 ppm (Feb. 1, 2019, Expanded Jan. 1, 2027)
Townships and Ranges are identified on map
N
0 2 4 6 8 10 Miles

APPENDIX C: BEST MANAGEMENT PRACTICES

List of potential Best Management Practices:

- Soil moisture probes/tensiometers
- Flowmeters and flowmeter monitoring and management
- Irrigation scheduling, rain gauges, etc.
- Rain interrupters on irrigation systems
- Irrigation allocations / Irrigation rotation / Reduce irrigated acres
- Proper timing of fertilizer application
- Nitrogen inhibitors/slow release nitrogen
- Use of UNL fertilizer recommended rate
- Split application / utilization of chemigation
- Review nitrogen receipts (and compare to UNL recommendation)
- Review yield receipts
- Chlorophyll meters / Crop growth infrared sensors
- Pre-cropping reporting and post-cropping reporting
- New well drilling rules regarding depth and casings
- Test plots
- Denitrification ponds/buffer strips
- Cover crops
- Crop rotation
- Further requirements for livestock waste (lab analysis, credit must be taken)
- Or other criteria allowed under Neb. Rev. Stat. 46-739