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# GROUNDWATER QUANTITY RULES AND REGULATIONS DRAFT 09/2024

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These Rules and Regulations shall become effective [Date] and shall remain in full force and effect until revised, repealed, amended or superseded.

All previous Groundwater Quantity Management Area Rules and Regulations are hereby superseded.

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## CHAPTER 1: AUTHORITY FOR ISSUING THESE RULES AND REGULATIONS

- 1.1 On December 19, 1985, the Lower Big Blue Natural Resources District's ("LBBNRD" or the "District") first Groundwater Management Plan went into effect pursuant to the passage of Nebraska Revised Statute Chapter 46, Article 6, Section 73.01 enacted by the 88th Nebraska Legislature, now within Neb. Rev. Stat. §46-709.
- 1.2 Addendum to the Groundwater Management Plan – In 1993, the District updated the Water Management Plan of 1985 with the Addendum Groundwater Management Plan pursuant to the passage of Nebraska Revised Statute Chapter 46, Article 6, Section 73.13 enacted by the 92nd Nebraska Legislature. The Statute required Natural Resources Districts to amend their groundwater management plans to identify, manage, and establish goals concerning groundwater quality.
- 1.3 Addendum to the Groundwater Management Plan – In 1995, the District updated the Water Management Plan of 1985 with the Addendum Groundwater Management Plan pursuant to the passage of Nebraska Revised Statute Chapter 46, Article 6, Section 73.13 enacted by the 92nd Nebraska Legislature. The Statute required Natural Resources Districts to amend their groundwater management plans to identify, manage, and establish goals concerning groundwater quality. This Addendum proposed a Special Protection Area in a six-township area northwest of Beatrice.
- 1.4 Groundwater Management Plan Rules and Regulations – On November 26th, 2013, the District Board of Directors approved a resolution placing an immediate temporary one hundred eighty (180) day stay on the construction of any new water well designed to pump greater than fifty (50) gallons per minute, pursuant to Neb. Rev. Stat. §46-707(2).
- 1.5 Groundwater Management Plan Rules and Regulations – On March 27, 2014, updated Groundwater Management Plan Rules and Regulations were adopted including the approval of a Ground Water Management Area, placing the entire District into a Phase I Groundwater Management Area. The Phase I designation also required obtaining a permit for any wells designed and constructed to pump greater than fifty (50) gallons per minute.
- 1.6 Groundwater Management Plan Rules and Regulations – On September 20, 2022, updated Groundwater Management Plan Rules and Regulations were adopted by the District Board of Directors.
- 1.7 Groundwater Management Plan Rules and Regulations – On December 8, 2022, the District Board of Directors approved a resolution placing an immediate temporary one hundred eighty (180) day stay on the construction of any new water well designed to pump greater than fifty (50) gallons per minute, pursuant to Neb. Rev. Stat. §46-707(2).
- 1.8 Groundwater Management Plan Rules and Regulations – On June 5, 2023, the District Board of Directors approved a resolution placing the entire District in a permanent moratorium on the construction of any new water well designed to pump greater than fifty (50) gallons per minute, pursuant to Neb. Rev. Stat. §46-707(2).

## CHAPTER 2: APPLICATION OF THESE RULES AND REGULATIONS

- 2.1 Chapters 3 through 16 of these Rules and Regulations shall apply to all lands within the District which have been designated as Groundwater Quantity Management Areas. The

entire geographic area of the Lower Big Blue Natural Resources District is subject to these Rules and Regulations.

- 2.1.1 A map showing the geographic area and the legal description of the District's Ground Water Quantity Management Areas are attached hereto in [Chapter 17: Appendix B: below](#) and incorporated herein by reference.

### CHAPTER 3: DEFINITIONS THAT APPLY TO THESE RULES AND REGULATIONS

- 3.1 Acre-Inch shall mean the amount of water necessary to cover one (1) surface acre of land to a depth of one (1) inch. For the purposes of these Rules and Regulations one (1) Acre-Inch is equal to twenty-seven thousand one hundred fifty-four (27,154) gallons.
- 3.2 Allocation shall mean the apportioning of Groundwater. As related to water use for irrigation purposes – the allotment of a specified total number of Acre-Inches of irrigation water per Certified Groundwater Use Acre per year or an average number of Acre-Inches of irrigation water per Certified Groundwater Use Acre over any reasonable period of time.
- 3.3 Annual Static Water Level Change shall mean the median of the cumulative differences between the Baseline Static Water Level and the Spring Static Water Level for each Observation Well in the District's Observation Well Monitoring Network within a Groundwater Quantity Management Sub-Area.
- 3.4 Aquifer shall mean a geological formation, group of formations, or part of a formation having pores or open spaces that contain sufficient saturated permeable material capable of yielding a significant quantity of water to satisfy a particular demand.
- 3.5 Baseline Static Water Level shall mean the Static Water Level of a Monitoring or Observation Well within the District's Observation Well Monitoring Network against which the Spring Static Water Levels are compared annually.
- 3.6 Beneficial Use shall mean the method and/or degree by which water may be put to use to the benefit of humans or other species.
- 3.7 Board or Board of Directors shall mean the Board of Directors of the Lower Big Blue Natural Resources District acting in its official capacity.
- 3.8 Certified Groundwater Use Acre shall mean a Groundwater Use Acre certified by the Board for the application of Groundwater pursuant to these Rules and Regulations.
- 3.9 Certified Expanded Acres shall mean a Groundwater Use Acre certified by the Board for the application of Groundwater pursuant to these Rules and Regulations to which Groundwater may be applied but an Allocation shall not be granted.
- 3.10 Confined Aquifer shall mean Groundwater that is confined under pressure greater than atmospheric by overlying relatively impermeable strata. Confined aquifers are also known as artesian or pressure aquifers.

- 3.11 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.
- 3.12 Decommission shall mean the act of filling, sealing and plugging of a Water Well cavity in accordance with the rules and regulations adopted pursuant to the Water Well Standards and Contractors' Licensing Act.
- 3.13 Department shall mean the Nebraska Department of Natural Resources.
- 3.14 District shall mean the Lower Big Blue Natural Resources District or the staff or others designated by the Board of Directors to carry out these Rules and Regulations.
- 3.15 District Groundwater Level shall mean the average level of the surface of the Groundwater table.
- 3.16 Flowmeter or Meter shall mean a device of a type and design approved by the District and installed in connection with the use of a Groundwater well that, when properly installed, measures the total quantity and rate of Groundwater withdrawn.
- 3.17 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.
- 3.18 Government Survey Section shall mean a section of land approximately one (1) square mile in size as defined by the United States Government Department of Interior Bureau of Land Management Public Land Survey System (PLSS) of townships, ranges, sections, quarter sections, etc.
- 3.19 Groundwater shall mean water that occurs, moves, seeps, filters or percolates through the ground under the surface of the land.
- 3.20 Groundwater Quantity Management Sub-Area (Sub-Area) shall mean an area or areas of the District designated by the Board to be managed separately from other areas with specific management and regulation activities related to Groundwater quantity.
- 3.21 Groundwater Quantity Management Area Phase One (1) (GWQMA Phase 1) shall mean all areas of the District designated for Phase One (1) management and regulation activities related to Groundwater quantity and shall include all areas of the Lower Big Blue Natural Resources District that are not designated as Phase Two (2) or Phase Three (3) GWQMAs.
- 3.22 Groundwater Quantity Management Area Phase Two (2) (GWQMA Phase 2) shall mean an area designated for Phase Two (2) management and regulation activities related to Groundwater quantity and shall include all management and regulation activities of Phase One (1) GWQMAs. GWQMA Phase Two (2) includes only portions of the Lower Big Blue Natural Resources District as designated.

- 3.23 Groundwater Quantity Management Area Phase Three (3) (GWQMA Phase 3) shall mean an area designated for Phase Three (3) management and regulation activities related to Groundwater quantity and shall include all management and regulation activities of Phase One (1) and Phase Two (2) GWQMAs. GWQMA Phase Three (3) includes only portions of the Lower Big Blue Natural Resources District as designated.
- 3.24 Groundwater Transfer or Transfer of Groundwater shall mean the conveyance of Groundwater from a Water Well or Water Wells located in one Government Survey Section to be used for a beneficial purpose in another Government Survey Section.
- 3.25 Groundwater Use Acre shall mean an acre of land that a Groundwater User may apply Groundwater to with proper certification, pursuant to these Rules and Regulations.
- 3.26 Groundwater Use Period shall mean a three (3) year period of time for which an Allocation is set.
- 3.27 Groundwater User shall mean a Person, who at any time, extracts, withdraws or confines Groundwater for any use. If the Landowner and Operator is not the same Person, the term Groundwater User shall mean both the Landowner and the Operator.
- 3.27.1 Agricultural User shall mean a Groundwater User that uses Groundwater for irrigation, recreation, wildlife or other uses that require the application of Groundwater to the surface of the land.
- 3.27.2 Municipal User shall mean a Groundwater User that is an incorporated city or village, rural water district or sanitary improvement district that withdraws Groundwater from a Water Well to serve its customers for domestic purposes as it relates to human needs of health, fire control and sanitation.
- 3.27.3 Other User shall mean a Groundwater User that uses Groundwater for purposes other than those described in the definitions of Agricultural and Municipal Users and shall include but not be limited to:
- 3.27.3.1 a customer of a Municipal User that uses Groundwater for commercial, industrial, or manufacturing purposes,
- 3.27.3.2 a Livestock Feeding Operation or Livestock Facility.
- 3.28 Historically Irrigated Acres shall mean acres irrigated with Groundwater one (1) year out of the previous five (5) years, unless the acres were a part of a federal set aside program. Acres that were a part of a federal set aside program that were irrigated using Groundwater, prior to entering into the federal set aside program, shall be considered Historically Irrigated Acres.
- 3.29 Landowner shall mean any Person who owns real estate or has contracted to purchase or otherwise acquire title to real estate.
- 3.30 Late Permit shall mean any Permit issued by the District where the Landowner failed to obtain the required Permit prior to construction or modification.

- 3.31 Livestock Feeding Operation (LFO) or Livestock Facility shall mean any livestock kept in buildings, lots, pens, feedlots, or other confined operations used to house livestock which normally are not used for the growing of crops or vegetation, or any livestock kept in any livestock operation 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. Livestock operation shall not mean livestock that are kept in pastures, on rangeland, or on other grazing land and allowed to feed on vegetation growing therein.
- 3.32 Management Area shall mean a geographic area designated by the Board of Directors that is within the Groundwater Management Area.
- 3.33 Nitrogen Fertilizer shall mean a chemical compound in which the percentage of nitrogen is greater than the percentage of any other nutrient in the compound or, when applied, results in an average application rate of more than twenty (20) pounds of nitrogen per acre over the field to which it is being applied.
- 3.34 Nonpoint Source shall mean any source of pollution resulting from the dissolution and disbursement of widespread, relatively uniform contaminants from a nonspecific origin.
- 3.35 Observation Well Monitoring Network shall mean any and all Water Wells the District has dedicated to continually monitor Groundwater quality and quantity.
- 3.36 Operator shall mean a Person, partnership, association, corporation, municipality or other entity which operates or has control over the day-to-day operations of the land or property, irrigated or dryland, for the production of agricultural, horticultural, silvicultural, nursery products, or aquiculture.
- 3.37 Parcel of Land or Parcel shall mean an area of land as defined by distinct boundaries.
- 3.38 Permit shall mean an approval document applied for and obtained, in accordance with the Nebraska Groundwater Management and Protection Act and these Rules and Regulations, authorizing use or changes in use to Groundwater.
- 3.39 Permit Holder shall mean a Person that has been issued a Permit in accordance with these Rules and Regulations.
- 3.40 Person shall mean a natural person, personal representative, trustee, guardian, conservator, partnership, association, corporation, limited liability company, municipality, irrigation district, agency or political subdivision of the State of Nebraska, or a department, agency or bureau of the United States.
- 3.41 Phase Two (2) Trigger Level shall mean a Static Water Level that is five (5) feet or five (5) percent of the Saturated Thickness, if the Saturated Thickness is less than one hundred (100) feet, below the Baseline Static Water Level of a Monitoring or Observation Well within the District's Observation Well Monitoring Network.



- 3.42 **Phase Three (3) Trigger Level** shall mean a Static Water Level that is thirty (30) percent below the Phase Two (2) Trigger Level of a Monitoring or Observation Well within the District's Observation Well Monitoring Network.
- 3.43 **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. Range livestock shall not mean any livestock kept in buildings, lots, pens, feedlots, or other confined operations used to house livestock, which normally are not used for the growing of crops or vegetation, or any livestock kept in any livestock operation 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.
- 3.44 **Saturated Thickness** shall mean the vertical height of a hydrogeologically defined Aquifer unit in which the pore spaces are one hundred (100) percent saturated with water. For unconfined, unconsolidated Aquifers, the saturated thickness is equal to the difference in elevation between the bedrock surface and the water table.
- 3.45 **Site Plan** shall mean a detailed proposal showing any and all relevant components including Water Wells, Certified Groundwater Use Acres, Groundwater Use Acres, facilities, lands, infrastructure, and any other information deemed necessary by the District for an applicable Permit.
- 3.46 **Static Water Level (SWL)** shall mean the level at which Groundwater stands in a Water Well when no Groundwater is being removed from the Aquifer. SWL is expressed as the distance from the ground surface or measuring point near the ground surface to the Groundwater level in the well.
- 3.46.1 **Spring Static Water Level** shall mean a Static Water Level reading from a Monitoring or Observation Well within the District's Observation Well Monitoring Network obtained in the month of April to compare against the well's Baseline Static Water Level.
- 3.47 **Test-Hole** shall mean a hole or shaft, usually vertical, excavated in the earth for subsurface exploration to determine and record or log the depth to water, and the depth, color, character, thickness, size of material of the various geologic formations encountered.
- 3.48 **Thickness of Principle Aquifer Map** shall mean the Nebraska Department of Environmental Control and the Conservation Survey Division – University of Nebraska map titled "Thickness of Principle Aquifer, 1979, Lincoln and Nebraska City Quadrangle, Nebraska."
- 3.48.1 The Aquifer thickness was determined by superimposing maps showing the configuration of the base of the principal Aquifer and configuration of the water table. The difference between the two maps and well data from Test-Holes and registered wells was used to derive contour lines of equal thickness. The principal Aquifer is composed mostly of unconsolidated deposits of fine-grained material, primarily glacial till of the Quaternary age.
- 3.48.2 Digitized from 1980 USGS 1x2 degree quadrangle paper maps, the map contains a series of contour lines illustrating the estimated thickness of the saturated sediments. Areas

where the principal Aquifer is shown to be 'absent or very thin' consist of impermeable rock or clay.

3.48.3 The map is hereby adopted by reference.

3.49 Tract of Land or Tract shall mean the legally deeded property of a Person that is contiguous and lies within one Government Survey Section.

3.49.1 Destination Tract shall mean a Tract of Land to which Groundwater is being transferred.

3.49.2 Source Tract shall mean a Tract of Land from which Groundwater is being transferred.

3.50 Unconfined Aquifer shall mean Groundwater that is under the pressure exerted by the overlying Groundwater and by atmospheric pressure.

3.51 Variance shall mean the approval to act in a manner contrary to these Rules and Regulations or from a governing body whose rule or regulation is otherwise applicable.

3.52 Water Use Report shall mean a report detailing the amount of Groundwater withdrawn from a Water Well or Water Wells submitted by a Groundwater User to the District.

3.53 Water Impoundment Structure shall mean a man-made structure, whether a dam across a watercourse or structure outside a watercourse, used or to be used to retain or store waters or other materials. The term includes surface water impoundments, wastewater treatment and wastewater retention facilities or lagoons, and irrigation reuse pits.

3.54 Water Well shall mean (a) any artificial opening or excavation made in the ground 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 hydrogeologic information, or extracting water from or injecting fluid as defined in Neb. Rev. Stat. § 81-1502 into an underground water reservoir. (b) 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 the purpose of withdrawing water from 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. (c) Water Well shall not include (i) any excavation made for obtaining or prospecting for oil or natural gas or for inserting media to repressure oil or natural gas bearing formations regulated by the Nebraska Oil and Gas Conservation Commission or (ii) any structure requiring a permit by the Department used to exercise a surface water appropriation.

3.54.1 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 Department of Health and Human Services Regulation and Licensure; and (3) for which the notice of abandonment required by Neb Rev. Stat. §46-602(2) has been filed with the Nebraska Department of Natural Resources 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.

- 3.54.2 Commercial or Industrial Well shall mean a Water Well used in manufacturing and commercial operations, and shall include, but not be limited to, watering and maintenance of golf courses.
- 3.54.3 Commercial Livestock Well shall mean a Water Well used for the watering of livestock and other uses directly related to the operation of a feedlot, Livestock Feeding Operation, or other confined livestock or dairy operation.
- 3.54.4 Commingled Well shall mean a Water Well that is commingled, combined, clustered, or joined with another Water Well or wells or other water source. Such wells may be considered one (1) Water Well, although in some instances each may require a separate Permit, and the combined pumping capacity shall be used as the rated capacity.
- 3.54.5 Dewatering Well shall mean a Water Well constructed and used solely for the purpose of lowering the Groundwater table elevation.
- 3.54.6 Domestic Well shall mean a Water Well 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.
- 3.54.7 High Capacity Well shall refer to any Water Well designed and constructed to pump greater than fifty (50) gallons per minute.
- 3.54.8 Illegal Water Well shall mean: (1) A Water Well operated or constructed without, or in violation of, a Permit required by these Rules and Regulations or by the Nebraska Ground Water Management and Protection Act; (2) A Water Well that is not properly registered in accordance with the provisions of Neb. Rev. Stat. § 46-602 to § 46-604; (3) A Water Well constructed or operated in violation of the Water Well Standards and Contractor Licensing Act; A replacement Water Well constructed or operated in the place of a Water Well that has not been properly decommissioned in violation of the Water Well Standards and Contractor's Licensing Act; or a Water Well not in compliance with any other applicable laws of the State of Nebraska or with any provisions of these Rules and Regulations.
- 3.54.9 Irrigation Well shall mean a Water Well that provides Groundwater for purposes of irrigation to more than two (2) acres of crops and other plants.
- 3.54.10 Monitoring Well shall mean a Water Well that is designed and constructed to provide the District ongoing hydrologic and Groundwater quantity and quality information. A Monitoring Well may have a permanent pump installed to withdraw Groundwater samples for analysis but is not intended for Consumptive Use.
- 3.54.11 Observation Well shall mean a Water Well monitored by the District or other public agency to measure fluctuations in the Static Water Level of Groundwater within an Aquifer.
- 3.54.12 Public Water Supply Well or Municipal Well shall mean a Water Well owned and operated by villages, towns, cities, municipal corporations, sanitary improvement districts, or rural

water districts that provides or intends to provide water to inhabitants of cities, villages, or rural areas for domestic and municipal purposes.

**3.54.13 Pump Test Well shall mean a Water Well which is designed and constructed to complete a pumping test in accordance with these Rules and Regulations.**

**3.54.14 Replacement Well shall mean a Water Well which is constructed to provide water for the same purpose as the original Water Well and is operating in accordance with any applicable permit from the Department and any applicable rules and regulations of the District and, if the purpose is for irrigation, the Replacement Water Well delivers water to the same Tract of Land served by the original Water Well and (i) replaces a decommissioned Water Well within one hundred eighty (180) days after the decommissioning of the original Water Well, (ii) replaces 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 shall be used only for livestock, monitoring, observation, or any other nonconsumptive or de minimis use approved by the District.**

**3.54.15 Range Livestock Well shall mean a Water Well used for the watering of Range Livestock and other uses, other than for irrigation purposes, directly related to the operation of a pasture or range.**

**3.54.16 Source Well shall mean a Water Well located on a Source Tract that provides Groundwater for a Groundwater Transfer or provides Groundwater for conveyance into a Water Impoundment Structure or stream.**

## **CHAPTER 4: ENFORCEMENT OF RULES AND REGULATIONS**

**4.1** Any Person who violates any controls or Rules and Regulations adopted by the District shall be subject to the issuance of a cease-and-desist order and such other legal action as is necessary to bring about compliance.

**4.2** Any Person who violates a cease-and-desist order or who violates the Rules and Regulations of the District, may be subject to a penalty, including but not limited to the following: (1) a reduction in the number of Certified Groundwater Use Acres; and/or (2) a permanent forfeiture (revocation) of Certified Groundwater Use Acres. Such penalties may be permanent or for a specified period of time. The Board shall consider the seriousness of the violation when determining the nature of the penalty to be imposed.

**4.2.1** The circumstances for imposing penalties include, but are not limited to, the following: (1) a second 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 such forfeiture of certification and/or Allocation if 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 District imposes the additional penalties identified in this Paragraph.

- 4.3 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.

### **SECTION 1: COMPLAINT**

- 4.4 Any Person may file a complaint with the District against a Groundwater User, Landowner, or Operator alleging 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.

### **SECTION 2: INSPECTIONS**

- 4.5 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.
- 4.5.1 District staff shall notify the Groundwater User, Landowner, or Operator, either in person, by United States mail, by electronic communication, or by leaving notice posted at the 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.
- 4.5.2 District staff shall be authorized to enter upon the land to investigate complaints and alleged violations, and to conduct field inspections, upon showing proper identification, and after providing the Groundwater User, Landowner, or Operator with notice as described above.
- 4.5.3 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.

### **SECTION 3: SUBMISSION OF INSPECTION REPORT ALLEGING VIOLATION AND ALLEGED VIOLATOR’S ALTERNATIVES**

- 4.6 If the District finds that the 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 Groundwater User, Landowner, or Operator, accompanied by a formal notice of intent to issue a cease-and-desist order. The staff report and notice of intent to issue a cease-and-desist order shall be provided to the Groundwater User, Landowner, or Operator by hand delivery, or via certified mail, return receipt requested, and by postage prepaid, First-Class U.S. Mail.

- 4.6.1 If the Groundwater User, Landowner, or Operator believes the staff report is in error and no violation has or is occurring, he/she may make a written request for a hearing before the District Board of Directors. Any written request for a hearing must be received at the District office within seven (7) 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.

#### **SECTION 4: COMPLIANCE**

- 4.7 When a Groundwater User, Landowner, or Operator achieves compliance, the District shall lift the cease-and-desist order or modify it to ensure future compliance. Notwithstanding 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.

#### **SECTION 5: HEARING**

- 4.8 If the Groundwater User, Landowner, or Operator makes a timely, written request for a hearing, the Board shall schedule such hearing at the District office. Such hearing shall be held no sooner than ten (10) days and not more than forty-five (45) days after receipt of the notice provided pursuant to Rule [4.6](#).
- 4.8.1 Notice of the hearing shall be provided to the Groundwater User, Landowner, or Operator and any other necessary person. Such notice shall be provided via certified mail, return receipt requested, and by postage prepaid First-Class U.S. Mail. The notice shall inform the Groundwater User, Landowner, or 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 Groundwater User, Landowner, or Operator.
- 4.8.2 The Board shall conduct the hearing to provide due process and receive all relevant information regarding the alleged violation, from the District and from the Groundwater User, Landowner, or Operator. The Board shall keep a record of the hearing and shall base its decision on whether to issue a cease-and-desist order solely on the information received at the hearing. The Board shall render its decision in writing and provide the same to the Groundwater User, Landowner, or Operator via certified mail, return receipt requested, and via postage prepaid First Class, U.S. Mail.
- 4.8.3 In the event of multiple or repeated violations or a violation of the cease-and-desist order by the same Groundwater User, Landowner, or Operator, the District may hold a separate hearing to determine whether to impose additional penalties. The Board shall provide written notice of the separate hearing to impose additional penalties on the Groundwater User, Landowner, or Operator via certified mail, return receipt requested and by 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, or 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 is considered before rendering a

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

## **SECTION 6: BOARD AUTHORIZATION TO INITIATE COURT ACTION**

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

## **SECTION 7: CEASE AND DESIST ORDER, VIOLATION, PENALTY**

- 4.8.5 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).
- 4.9 Nothing contained in these Rules and Regulations shall exempt a Person from the provisions of applicable state laws.

## **CHAPTER 5: WATER WELL PERMITS**

- 5.1 Any Person that owns or controls land upon which the construction, decommissioning or temporary capping of a Water Well is to be accomplished, will accomplish such tasks in accordance with the Water Well Standards and Contractor Licensing Act (Neb. Rev. Stat. §§46-1201 - 460-1241) and the regulations adopted pursuant thereto.
- 5.2 For purposes of this Chapter, Groundwater Withdrawal shall mean the total Groundwater pumped, less any water returned to the Aquifer through any injection well(s) within one thousand (1,000) feet of the Water Well withdrawing Groundwater.
- 5.2.1 Operations that return water to the Aquifer must provide the District with evidence of compliance with federal, state and local rules and regulations governing such activities.

## **SECTION 1: PERMITS REQUIRED**

- 5.3 Any Person who intends to construct any new or Replacement Water Well(s) or modify an existing Water Well(s) to pump greater than fifty (50) gallons per minute within the District for any purpose, with the exception of Test Holes, Dewatering Wells with an intended use of ninety (90) days or less, or single Water Wells that pump fifty (50) gallons per minute or less, shall, before commencing such activity, apply for a Permit from the District on forms provided by the District and receive approval from the District for such construction.
- 5.4 A Permit shall be required for any Water Well designed and constructed or modified to pump fifty (50) gallons per minute or less if such Water Well is Commingled, combined, clustered, or joined with any other Water Well(s) or other water source serving a single purpose, other than a water source used to water Range Livestock, pursuant to [Chapter 5: Section 3: below](#), unless explicitly exempt.



- 5.5 Any Person who has failed or in the future fails to obtain a Permit as required by these Rules and Regulations is prohibited from using the unpermitted well until a Permit has been issued by the District and shall make application for a Late Permit on forms provided by the District. The Late Permit application shall contain the same information as required by Rule [5.14 below](#). The application for a Late Permit shall be accompanied by a two-hundred-fifty-dollar (\$250.00) fee payable to the District.
- 5.5.1 An Illegal Water Well shall be subject to the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).
- 5.6 The issuance of a Permit by the District, as provided for in this Chapter, shall not be construed by the applicant to exempt him or her from any liability which may result from the withdrawal of Groundwater.
- 5.7 Any Person applying for a Permit to construct a Water Well that would violate any portion of Chapter 5 may request a Variance as outlined in [Chapter 6: below](#).

## **SECTION 2: WATER WELL SPACING**

- 5.8 No Water Well(s) requiring a Permit under this Chapter shall be constructed within one thousand (1,000) feet of any registered High Capacity Well(s) under separate ownership or any non-constructed High Capacity Water Well(s) with a valid Permit. No Water Well requiring a Permit under this Chapter shall be constructed within five hundred (500) feet of any Water Well(s) under separate ownership that has a pumping capacity of fifty (50) gallons per minute or less.
- 5.8.1 When a Water Well requires replacement, the following spacing requirements shall apply:
- 5.8.1.1 If the Replacement Well is a High Capacity Well used as an Irrigation Well and it is being spaced from another Irrigation Well under separate ownership, the one thousand (1,000) foot spacing requirement above shall apply.
- 5.8.1.1.1 If the Irrigation Well being replaced is located less than six hundred (600) feet from a registered Irrigation Well, the Replacement Well may be constructed within fifty (50) feet of the Irrigation Well being replaced only if the Irrigation Well being replaced was constructed prior to September 20, 1957.
- 5.8.1.1.2 If the Irrigation Well being replaced is located between six hundred (600) feet and one thousand (1,000) feet from a registered Irrigation Well, the Replacement Well may be constructed no more than fifty (50) feet closer to the registered Irrigation Well, but may be constructed farther away from the registered Irrigation Well, including between six hundred (600) feet and one thousand (1,000) feet, from the registered Irrigation Well, as long as all other spacing requirements provided by the Groundwater Management and Protection Act and compliance with these Rules and Regulations are maintained.
- 5.8.1.2 If the Replacement Well is a High Capacity Well used as an Irrigation Well and it is being spaced from a High Capacity Well used as a Public Water Supply Well or an Industrial Well, the one thousand (1,000) foot spacing requirement above shall apply.



unless the Replacement Well is drilled within fifty (50) feet of the Water Well being replaced and if the Irrigation Well being replaced was drilled prior to July 16, 2004, was in compliance with the applicable spacing statute when drilled, and is less than one thousand (1,000) feet from the registered Water Well for which spacing protection is provided.

- 5.8.1.3 If the Replacement Well is a High Capacity Well used as a Public Water Supply Well, the one thousand (1,000) foot spacing requirement above shall apply unless the replacement Public Water Supply Well is drilled within fifty (50) feet of the Water Well being replaced and if the Public Water Supply Well being replaced was drilled prior to July 16, 2004, was in compliance with the applicable spacing statute when drilled, and is less than one thousand (1,000) feet from the registered Water Well for which spacing protection is provided.
- 5.8.1.4 If the Replacement Well is a High Capacity Well used as an Industrial Well, the one thousand (1,000) foot spacing requirement above shall apply unless the replacement Industrial Well is drilled within fifty (50) feet of the Water Well being replaced and if the Industrial Well being replaced was drilled prior to July 16, 2004, was in compliance with the applicable spacing statute when drilled, and is less than one thousand (1,000) feet from the registered Water Well for which spacing protection is provided.
- 5.8.1.5 If the Replacement Well is a Water Well with a pumping capacity of fifty (50) gallons per minute or less, the five hundred (500) foot spacing requirement above shall apply.
- 5.8.2 Any person applying for a Permit under this Chapter that intends to violate the spacing requirements set forth in Neb. Rev. Stat. §§ 46-609 or 46-651 for both High Capacity Wells and Replacement Wells shall first obtain a special permit from the Department pursuant to Neb. Rev. Stat. §§ 46-610 or 46-653, depending on the type of use of the High Capacity Well being replaced, and no Permit under this Chapter shall be issued for such a High Capacity Well or Replacement Well until proof of a valid special permit from the Department is submitted to the District. If a special permit is obtained from the Department, no variance shall be required from the District in order to deviate from the spacing requirement provided in Rule [5.8 above](#).
- 5.9 A Replacement Well shall be constructed in the same Tract or in an adjacent Tract under the same ownership within the same Government Survey Section as the original well being replaced.
- 5.10 When Water Wells are Commingled, each Water Well shall comply with Rules [5.8](#) through [5.9 above](#).
- 5.11 Illegal Water Wells are not protected by the provisions of Rules [5.8](#) through [5.8.2 above](#).
- 5.12 The failure of a Person to update Water Well registration information, ownership and irrigated acres records shall not jeopardize his or her well spacing protection provided under these Water Well Spacing Rules unless:
  - 5.12.1 The District determines that said Person has knowingly attempted to deceive the District.

- 5.12.2 The well owner was notified by the District that the Water Well was identified as unregistered and constructed after such date in which registration was required and said Person failed to act in good faith to register the Water Well. If the well owner agrees to comply with registering the Water Well, the District shall provide assistance as needed.
- 5.12.3 The District determines that said Person has failed to act in good faith in matters pertaining to these Rules and Regulations.

### SECTION 3: COMMINGLED WATER WELLS

- 5.13 Except as provided in Rule [5.13.4 below](#), any Person who intends to construct any new or Replacement Water Wells pumping fifty (50) gallons per minute (gpm) or less that are Commingled shall, before commencing such activity, apply for a Permit or Permits from the District on forms provided by the District and receive approval from the District for such construction.
- 5.13.1 If the Commingled Wells will pump simultaneously and the combined total capacity is greater than fifty (50) gpm, each Water Well shall require a Permit individually, and
- 5.13.1.1 Each individual Water Well shall be subject to Rule [5.15.4](#), [5.15.4.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [Chapter 17: Appendix A: below](#), for approval;
- 5.13.1.2 A Test-Hole and log shall be required pursuant to [Chapter 5: Section 5: below](#), Test-Hole Documentation, for each individual Water Well;
- 5.13.1.3 A Flowmeter shall be required and installed pursuant to [Chapter 13: below](#) on each individual Water Well.
- 5.13.1.4 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect the system components, including but not limited to the interconnectivity infrastructure, Water Wells, and Flowmeter(s).
- 5.13.2 If the Commingled Wells will not pump simultaneously and each well will pump less than fifty (50) gpm,
- 5.13.2.1 One (1) Permit shall be required for all the Commingled Water Wells in the system;
- 5.13.2.2 Each Water Well shall be exempt from Rules [5.15.4](#), [5.15.4.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided in [Chapter 17: Appendix A: below](#), for approval;
- 5.13.2.3 Each Water Well shall be exempt from [Chapter 5: Section 5: below](#), Test-Hole Documentation;
- 5.13.2.4 A device approved by the District shall be installed so as to not allow the pumping of the Water Wells simultaneously, or as to not allow the total capacity of each individual Well to be greater than fifty (50) gpm;
- 5.13.2.5 A Flowmeter shall be required and installed pursuant to [Chapter 13: below](#) so as to measure the total Groundwater use of the system;

- 5.13.2.6 The Commingled Wells shall not be used for irrigation purposes including water pumped into a stream or Water Impoundment Structure for irrigation;
- 5.13.2.7 Other allowable uses shall be considered and may be approved by the District on a case-by-case basis;
- 5.13.2.8 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect the system components, including but not limited to the interconnectivity infrastructure, Water Wells, and Flowmeter(s).
- 5.13.3 If the Commingled Wells will pump simultaneously and the combined total capacity is less than fifty (50) gpm, such Water Wells shall require one (1) Permit from the District, and
  - 5.13.3.1 Each Water Well shall be exempt from Rules [5.15.4](#), [5.15.4.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [Chapter 17: Appendix A: below](#), for approval;
  - 5.13.3.2 Each Water Well shall be exempt from [Chapter 5: Section 5: below](#), Test-Hole Documentation;
  - 5.13.3.3 The District shall require a Flowmeter to be installed pursuant to [Chapter 13: below](#) so as to measure the total Groundwater use of the system.
  - 5.13.3.4 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect the system components, including but not limited to, the interconnectivity infrastructure, Water Wells, and Flowmeter(s).
  - 5.13.3.5 The Commingled Wells shall not be used for irrigation purposes including water pumped into a stream or Water Impoundment Structure for irrigation.
- 5.13.4 No Permits shall be required for Commingled Wells with a combined total capacity of less than fifty (50) gpm that are used for Domestic, Range Livestock or other Water Wells required for human needs as it relates to health, fire control, and sanitation.

#### **SECTION 4: PERMIT APPLICATIONS**

- 5.14 The application for a Permit shall be made on a form(s) provided by the District and shall be accompanied by a non-refundable fifty dollar (\$50) filing fee payable to the District. The form(s) shall contain (a) the name and post office address of the applicant or applicants, (b) the intended use, (c) the intended location of the proposed Water Well or other means of obtaining Groundwater, (d) the intended size, type and description of the proposed Water Well and the estimated depth, if known, (e) the estimated or desired capacity in gallons per minute, (f) the acreage and location of the land involved if the water is to be used for irrigation, (g) a description of the proposed use if other than for irrigation purposes, (h) the registration number of the Water Well being replaced if applicable, and (i) such other information as the District requires.

## SECTION 5: TEST-HOLE DOCUMENTATION

- 5.14.1 Each application for a Permit or a Late Permit required by these Rules and Regulations, not otherwise exempt under Rules [5.13.2.3](#), [5.13.3.2](#), and [5.15.8](#), shall be accompanied with documentation proving that a Test-Hole was drilled in accordance with the provisions of Rules [5.14.2](#) through [5.14.2.6](#) below. Such documentation shall include the following information: A geologic/lithologic log of materials encountered with depth, and geographic coordinates of the Test-Hole location.
- 5.14.2 The Test-Hole shall be drilled within three hundred (300) feet of the proposed Water Well location, as indicated on the Permit application.
- 5.14.2.1 The geologic/lithologic log must clearly detail the depth, color, thickness and size of material of the various geologic formations encountered and the measured depth to Groundwater from the ground surface.
- 5.14.2.2 The Person applying for a Permit to construct a well requiring Test-Hole drilling shall notify the District of the time and location of the drilling either in person, by U.S. postal mail, or by electronic communication at least **two (2) full District working days** prior to the drilling.
- 5.14.2.2.1 The District may notify the Person in return either in person, by U.S. postal mail, or by electronic communication that the Test-Hole drilling may proceed prior to the required **two (2) full District working days** after the date that the notification to drill a Test-hole was received by the District.
- 5.14.2.2.2 The failure of the District to notify the Person that Test-Hole drilling may proceed shall not restrict the drilling from proceeding after the required **two (2) full District working days** has passed from the date the notification was received by the District so long as proper notification was given pursuant to Rule [5.14.2.2](#).
- 5.14.2.3 The District may with proper notice either have a staff member or a third-party representative on site during the Test-Hole drilling when deemed necessary by the District in order to inspect Test-Hole log material to ensure accurate drilling depth and adequate log material.
- 5.14.2.4 The District may reject Test-Hole documentation if District staff or a third-party representative determines that the drilling results suggest the geologic/lithologic log of materials is not representative of the area geology.
- 5.14.2.5 The District may reject the Test-Hole documentation if District staff or a third-party representative determines that the drilling results are neither true nor accurate or have been falsified or tampered with.
- 5.14.2.6 Failure to provide true and accurate Test-Hole information shall result in the denial of the Permit application and a referral to the Well Driller's Licensing Board for disciplinary action.

## SECTION 6: PERMIT REVIEW

- 5.14.3 Each application for a Permit or Late Permit, pursuant to [Chapter 5: Section 4: above](#), shall include, any additional information deemed necessary by the District to determine compliance with these Rules and Regulations.
- 5.14.3.1 Additional information may include, but is not limited to, a Test-Hole geophysical log, a Site Plan, a hydrogeologic evaluation and/or Groundwater modeling analysis.
- 5.14.4 Livestock Feeding Operations shall be considered Other Users, as defined in Rule [3.27.3](#), and shall submit a Site Plan with the application including a detailed summary of the number of head to be watered, the number of days the well will be used throughout a year, and an estimated annual volume to be pumped.
- 5.14.5 If a High Capacity Well is permitted to be used for a purpose other than an Irrigation Well, the well shall not be allowed to be used for irrigation including Groundwater pumped into a surface water reach and/or Water Impoundment Structure for the purpose of irrigating.
- 5.14.6 A High Capacity Well can be modified to pump fifty (50) gallons per minute or less without a Permit but shall not be used for irrigation including Groundwater pumped into a surface water reach and/or Water Impoundment Structure for the purpose of irrigating.
- 5.14.7 If the District finds that the application for a Permit or Late Permit is incomplete or needs corrections, it shall return the application to the applicant for any necessary corrections. Corrections must be made within sixty (60) days, or the application shall be cancelled. No refund of any application fees shall be made regardless of whether the Permit is approved, canceled, or denied.
- 5.15 District staff shall review the Permit applications received and compile all pertinent hydrogeologic data, information provided by the applicant and other information that is readily available. Permit applications shall be given a timestamp upon their arrival at the District office and shall be reviewed according to the time they were received. The information shall be brought forth to the Board for consideration where a motion shall be made to approve, approve with conditions, or deny the application. The Board shall review applications and approve or deny the Permit within thirty (30) days after the application is filed.
- 5.15.1 **Permits to commingle Water Wells that have already been properly constructed pursuant to this Chapter shall be approved or denied within sixty (60) days after the application is filed.**
- 5.15.2 The Board may grant the District staff authority to approve Permit applications meeting the requirements of these Rules and Regulations.
- 5.15.2.1 By a motion, the Board shall set certain criteria for the District staff upon which the staff can approve Permit applications meeting these Rules and Regulations.
- 5.15.3 Using the best data available to the District, including any information submitted by the applicant as part of the Permit application, evidence must show that the proposed well has the ability to meet or exceed the flow volume included on the Permit application and produce enough water to support the purpose shown on the Permit application. Data must also show that the well shall not have a significant negative impact to the long-term

sustainability of the Aquifer that serves as the primary source of water for the proposed well and the proposed well shall not negatively impact the ability of pre-existing properly constructed, maintained and operate registered wells served by the same primary Aquifer to operate in a reasonable manner.

- 5.15.4 The District has developed a standardized method for evaluating and ranking well Permit applications based upon criteria set forth in the District's Well Permit Ranking System Methodology (see Appendix A). The main criteria considered includes 1) the thickness of primary Aquifer formation, 2) calculated transmissivity of the primary Aquifer formation, 3) well density of surrounding Irrigation, Domestic, livestock, Commercial or Industrial, Public Water Supply or Municipal, and other wells and 4) the method of applying Groundwater to land if the well Permit application is for irrigation.
- 5.15.4.1 The Water Well Permit application must satisfy the minimum score of the Well Permit Ranking System Methodology, set by the Board, as provided on [Chapter 17: Appendix A: below](#), in order to be approved, **unless a Pumping Well test is performed as provided in Chapter 5: Section 9: below.**
- 5.15.4.2 The Board may, by a motion, adjust the minimum score and methodology in [Chapter 17: Appendix A: below](#) to comply with the best available data and methodologies.
- 5.15.5 Permit applications meeting all the criteria set forth in this Chapter may be approved by the District and those failing to meet the criteria set forth in this Chapter may be denied or approved with conditions as established by the District.
- 5.15.6 Waivers of liability obtained from potentially impacted Groundwater Users shall be considered by the District when determining whether to grant or deny a Water Well Permit.

## **SECTION 7: PERMIT EXEMPTIONS**

- 5.15.7 Public Water Supply or Municipal Wells are exempt from the requirements of Rules [5.15.4](#), [5.15.4.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [Chapter 17: Appendix A: below](#), for approval.
- 5.15.8 Replacement Wells are exempt from the requirements of [Chapter 5: Section 5: above](#), Test-Hole Documentation, and Rules [5.15.4](#), [5.15.4.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [Chapter 17: Appendix A: below](#), for approval.

## **SECTION 8: PERMIT DENIAL**

- 5.16 Denial of an application for a Permit or Late Permit for a Water Well may include but is not limited to the following:
- 5.16.1 that the application fails to meet the criteria set forth in Rule [5.15.3](#);
- 5.16.2 that the location or operation of the proposed Water Well or other work would conflict with any regulations or controls adopted by the District or of other applicable laws of the State of Nebraska;



- 5.16.3 that the applicant fails to meet the requirements and criteria, or refuses to agree to the terms set forth in this Chapter and these Rules and Regulations;
- 5.16.4 that a well Permit application, Test-Hole log, or Site Plan includes any intentionally misleading or falsified data;
- 5.16.5 that the well Permit application fails to meet a minimum ranking score established by the Board as provided on [Chapter 17: Appendix A: below](#);
- 5.16.6 that the proposed use would not be a Beneficial Use of water for domestic, agricultural, manufacturing or industrial purposes; or
- 5.16.7 in the case of a Late Permit only, that the applicant did not act in good faith by failing to obtain a timely permit.
- 5.16.8 No more than two (2) Water Wells completed and pumped into a common carrier as part of a single Site Plan for purposes of irrigation shall be approved.

## **SECTION 9: PUMPING TEST**

- 5.17 Any Person whose Water Well Permit application does not meet the minimum ranking score for approval in the Well Permit Ranking System Methodology established by the Board pursuant to Rule [5.15.4.1](#), may conduct a pumping test through a Pump Test Well to provide additional hydrogeologic information to the District in order to approve the Water Well Permit application.
  - 5.17.1 The Pump Test Well shall be located at the site of the proposed Water Well location indicated on the Permit application or within three hundred (300) feet of the proposed Water Well location.
  - 5.17.2 The Pump Test Well shall be properly constructed and cased to its intended use.
  - 5.17.3 The Pump Test Well shall be pumped for one (1) twenty-four (24) hour period between August 1<sup>st</sup> and September 30<sup>th</sup> for the pumping test.
  - 5.17.4 The Pump Test Well shall be pumped at one hundred (100) percent of its designed rate for the duration of the pumping test.
  - 5.17.5 The Static Water Level, drawdown, and gallons per minute from the Pump Test Well shall be measured during the pumping test by the pump installer or well driller and reported to the District by the pump installer or well driller. The District may gather drawdown information from other Water Wells located within two thousand six hundred forty (2,640) feet of the Pump Test Well for a better understanding of the Aquifer's characteristics and response to pumping.
  - 5.17.6 A water quality sample shall be collected at the end of the pumping test and submitted to an approved laboratory for analysis by the pump installer or well driller including: nitrates, sodium, chloride, pH, and total dissolved solids.
  - 5.17.7 The Pump Test Well shall maintain a five hundred (500) gallon per minute output or more throughout the twenty-four (24) hour test period to be approved by the District.

- 5.17.8 If, after reviewing the pumping test results from the Pump Test Well, the District is satisfied that the location, hydrology, pump test data, and water quality data reflect conditions sufficient to approve the Water Well Permit application, and the application meets all of the requirements of these Rules and Regulations, the Water Well Permit application shall be approved.
- 5.17.9 If the Pump Test Well fails to meet the five hundred (500) gallon per minute requirement, the Pump Test Well shall be abandoned within one hundred eighty (180) days of the pumping test, or, at the option of the Landowner, it may be registered as a Domestic or Range Livestock Well and equipped only for those purposes.

## **SECTION 10: WELLS GREATER THAN 400AF/YEAR**

- 5.18 Any Person who intends to modify any existing Water Well, construct any new or Replacement Water Well, or Commingle a Water Well with another Water Well or water source where the annual withdrawal of Groundwater will be greater than **four hundred (400) acre-feet**, shall, in addition to all the information and requirements for well Permit applications set forth in this Chapter, provide the District with a hydrogeologic evaluation illustrating the impact, if any, from the intended withdrawal on local Groundwater Users and **a minimum twenty (20) year** impact on the Static Water level of the Aquifer for potential future uses as indicated by the hydrogeologic evaluation and/or models.
- 5.18.1 The hydrogeologic evaluation shall be conducted at the Person's expense.
- 5.18.1.1 In addition to the required nonrefundable Permit application fee, the Person shall be responsible for any expense incurred for a peer review of the hydrogeologic evaluation. The Person shall be advised of the District's intent to select the hydrologist, the identity of the hydrologist, and the anticipated cost of the peer review and assessment of the hydrogeologic evaluation. Any costs for a peer review and assessment of the hydrogeologic evaluation shall be paid to the District prior to issuing a Permit.
- 5.18.2 The Board reserves the right to deny any Water Well Permit application under this section for reasons which may include but is not limited to the following:
- 5.18.2.1 the Rules for denial of Permit applications set forth in [Chapter 5: Section 8: above](#).
- 5.18.2.2 the proposed Water Well is shown by the hydrogeologic evaluation and/or other data and information to have a reasonable short or long-term probability of adversely impacting the local Aquifer and surrounding Groundwater wells with a higher preference of use (Neb. Rev. Statute §46-613), or
- 5.18.2.3 the hydrogeologic evaluation does not conform with accepted methods, or the data used does not adequately represent actual hydrologic and/or hydrogeologic conditions, or
- 5.18.2.4 no necessary waivers of liability have been obtained or provided by the well Permit applicant, or
- 5.18.2.5 the construction of the Water Well or increased Groundwater withdrawal would violate any other provisions of these Rules and Regulations.



## SECTION 11: PERMIT APPROVAL

- 5.19 When a Permit is approved the applicant shall commence construction of the Water Well(s) as soon as possible after the date of the Permit approval. The applicant shall have one (1) year after the Permit approval date to complete construction of the Water Well(s). If the applicant fails to complete the Water Well(s) under the terms of the Permit, the Permit shall automatically terminate.
- 5.19.1 For Water Wells requiring Test-Hole log documentation, the Water Well(s) shall be drilled and constructed to the total depth of the Test-Hole log submitted with the Permit application, or to a total depth sufficient to meet the Well Permit Ranking System Methodology minimum required score for approval, as provided on [Chapter 17: Appendix A: below](#), if the total depth of the constructed well is to be less than the total depth of the Test-Hole log.
- 5.19.2 Water Well(s) requiring a Permit in this Chapter shall be equipped with a Flowmeter pursuant to [Chapter 13: below](#) of these Rules and Regulations prior to Groundwater withdrawal.
- 5.19.3 After the Water Well(s) registration filing date with the Department, the applicant shall allow District staff to:
- 5.19.3.1 collect a GPS (global positioning system) location coordinate of said Water Well or Water Wells;
- 5.19.3.2 allow the District to add the approved Water Well or Water Wells to the District's Observation Well Monitoring Network to collect and analyze Groundwater samples in order to establish a benchmark and continually monitor the nitrate-nitrogen concentration annually;
- 5.19.3.3 measure the pumping rate from said Water Well or Water Wells under normal operating conditions; and
- 5.19.3.4 allow the District to add the approved Water Well or Water Wells to the District's Observation Well Monitoring Network for collecting Static Water Level measurement data as deemed necessary.
- 5.20 Any Permit issued under these Rules and Regulations shall specify all regulations and controls adopted by the District relevant to the construction or utilization of the proposed Water Well or Water Wells. The District shall transmit one copy of each Permit issued to the Department, the Permit applicant, and the identified well contractor.

## CHAPTER 6: REQUEST FOR VARIANCE

- 6.1 Unless otherwise prohibited by law, the Board may grant Variances from the strict application of these regulations upon Good Cause Shown. An applicant may apply to the District for a request for a Variance and, if applicable, a Water Well Permit, Groundwater Transfer Permit, or conveyance Permit application shall accompany the request for a Variance.

## SECTION 1: VARIANCE APPLICATION

- 6.2 An application for a Variance shall be made on forms provided by the District. An application for a request for a Variance shall include the following:
- 6.2.1 a citation of the Rule in these Rules and Regulations for which a Variance is requested;
  - 6.2.2 a map showing the location of lands and measured distances from the proposed Water Well(s) or Source Well location to any existing Water Wells or any non-constructed Water Well(s) with a valid and approved Permit within a six thousand (6000) foot radius of the proposed Water Well or Source Well that would be affected by its construction.
  - 6.2.3 An explanation as to why the Variance is needed including:
    - 6.2.3.1 how the Person making an application for the Variance would be affected if the Variance is not granted, and
    - 6.2.3.2 alternatives considered, including why each alternative was rejected in lieu of a Variance.
  - 6.2.4 The names and addresses of all Landowners and Water Well owners within a six thousand (6000) foot radius of the proposed Water Well(s) or Source Well location of the requested Variance.
  - 6.2.5 A written waiver of support or objection signed by all Landowners and Water Well owners within a six thousand (6000) foot radius of the proposed Water Well(s) or Source Well location of the requested Variance that would be directly affected by the granting of a Variance.
    - 6.2.5.1 Written waivers of objection may be sent to the District office.
    - 6.2.5.2 Landowners and Water Well owners shall have thirty (30) days to submit a written waiver of support or objection to the Variance application.
  - 6.2.6 Any other information the Person making the request deems relevant.
  - 6.2.7 Any other information deemed necessary by the District.
  - 6.2.8 A one hundred dollar (\$100) non-refundable application fee payable to the Lower Big Blue Natural Resources District. This fee does not include the Water Well Permit, Groundwater Transfer Permit, or conveyance Permit fee.
  - 6.3 The applicant applying for a Variance or his or her representative shall appear before the Board to present the reasons for the Variance request.
    - 6.3.1 With prior notification to the District, a written statement shall be provided if the applicant cannot appear before the Board.

## SECTION 2: VARIANCE REVIEW

- 6.4 Completed Variance applications shall be given a timestamp upon their arrival at the District office and shall be reviewed according to the time they were received.

- 6.5 District staff shall review the Variance applications received and compile all pertinent information provided by the applicant and other information that is readily available.
- 6.6 Upon receipt of an application for a Variance, the District shall provide notice of the Variance application by publishing it on the regularly scheduled monthly Board meeting agenda.
- 6.7 The Variance application and other necessary information shall be brought forth to the Board for consideration where a motion shall be made to approve, deny, or postpone to a certain time the application.
  - 6.7.1 A motion may be made to postpone to a certain time a Variance application until the next Board meeting if (a) the Board deems additional information is needed from the applicant, (b) the Board requires additional time to review the application, or (c) the application was received after 4:30 pm one (1) week prior to the regularly scheduled monthly Board meeting.
  - 6.7.2 When issuing a Variance, the District may include specific conditions which shall be required as part of the permitting or drilling process.
- 6.8 Requests for Variances shall be considered by the Board on a case-by-case basis.

### **SECTION 3: VARIANCE APPROVAL**

- 6.9 Any Variance granted under this Chapter shall be implemented within one (1) year from its date of approval.
- 6.10 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect an approved Variance for adherence to the terms and conditions, or applicable Rules and Regulations of the Variance.

## **CHAPTER 7: PHASE ONE (1) GROUNDWATER QUANTITY MANAGEMENT AREA DETERMINATION AND REQUIREMENTS**

- 7.1 Upon establishment of these Rules and Regulations, the entire District shall be designated as a Phase One (1) Groundwater Quantity Management Area. The following requirements and controls will be implemented throughout the entire Phase One (1) Groundwater Quantity Management Area:
  - 7.1.1 All Water Wells pumping greater than fifty (50) gallons per minute or Commingled Wells with a combined total capacity of greater than fifty (50) gallons per minute, Commingled Wells described in [Chapter 5: Section 3: above](#), and any Water Wells involved in conveying Groundwater into a stream or Water Impoundment Structure shall be equipped with a Flowmeter and shall meet the requirements for Flowmeters pursuant to [Chapter 13: below](#) of these Rules and Regulations.
    - 7.1.1.1 All Water Wells described in this section located within the northeast quarter of a Government Survey Section shall have a Flowmeter installed by June 30, 2026.

- 7.1.1.2 All Water Wells described in this section located within the northwest quarter of a Government Survey Section shall have a Flowmeter installed by June 30, 2027.
- 7.1.1.3 All Water Wells described in this section located within the southwest quarter of a Government Survey Section shall have a Flowmeter installed by June 30, 2028.
- 7.1.1.4 All Water Wells described in this section located within the southeast quarter of a Government Survey Section shall have a Flowmeter installed by June 30, 2029.
- 7.1.2 Annual Water Use Reports shall be submitted to the District pursuant to [Chapter 12: below](#) of these Rules and Regulations.
- 7.1.3 The Board shall certify Groundwater Use Acres pursuant to [Chapter 11: below](#) of these Rules and Regulations.
- 7.1.3.1 Groundwater shall only be applied to Certified Groundwater Use Acres or Certified Expanded Acres.
- 7.1.4 Groundwater Allocation amounts shall be set pursuant to [Chapter 14: below](#), [Chapter 15: below](#), and [Chapter 16: below](#).

## **SECTION 1: GROUNDWATER QUANTITY MANAGEMENT SUB-AREAS**

- 7.1.5 The Board shall designate Groundwater Quantity Management Sub-Areas within the District. Groundwater Quantity Management Sub-Areas may be managed separately from other Groundwater Quantity Management Sub-Areas with specific controls as provided by Neb. Rev. Stat. § 46-739 as identified in these Rules and Regulations, including setting Groundwater Allocations pursuant to [Chapter 14: below](#), [Chapter 15: below](#), and [Chapter 16: below](#) of these Rules and Regulations.
- 7.1.5.1 The boundaries of each Groundwater Quantity Management Sub-Area shall be based on the best data available including, but not limited to, Aquifer characteristics, geology, hydrogeology, transmissivity, airborne electromagnetic hydrogeologic mapping, current Water Well development, and current Static Water Level measurements and trends from the District's Observation Well Monitoring Network. The boundaries of each Groundwater Quantity Management Sub-Area are provided in [Chapter 17: Appendix C: below](#) of these Rules and Regulations.
- 7.1.5.2 The Board may, with proper notice, adjust the minimum score and/or the methodology in the District's Well Permit Ranking System Methodology in [Chapter 17: Appendix A: below](#) for each Groundwater Quantity Management Sub-Area.
- 7.1.5.3 The Board may, with proper notice, adjust the geographical boundaries and controls of any Groundwater Quantity Management Sub-Areas.

## **SECTION 2: GROUNDWATER LEVEL MEASURING CRITERIA**

- 7.1.6 A Static Water Level reading shall be obtained from each Water Well within the District's Observation Well Monitoring Network each year in the month of April. These annual readings shall be known as the Spring Static Water Levels.
- 7.1.7 Each Water Well within the District's Observation Well Monitoring Network shall have a set Baseline Static Water Level from which to compare annual Spring Static Water Levels.

- 7.1.7.1 The Baseline Static Water Level for each Water Well in the District's Observation Well Monitoring Network is determined by utilizing the first available Spring Static Water Level reading following the Well's inauguration into the District's Observation Well Monitoring Network which can be found in [Chapter 17: Appendix D: below](#).
- 7.1.8 Each year the Spring Static Water Level readings shall be compared against the Water Well's Baseline Static Water Level to determine the extent to which the Static Water Level has changed from the Baseline Static Water Level within the District's Observation Well Monitoring Network. To assess whether the Phase Two (2) or Phase Three (3) Triggers have been reached within each Sub-Area, the following steps shall be taken in order to make such assessment:
- 7.1.8.1 First, for each Observation Well within the District's Observation Well Monitoring Network, the Spring Static Water Level shall be subtracted from the Baseline Static Water Level, as identified in [Chapter 17: Appendix D: below](#), in order to calculate the difference in Static Water Level.
- 7.1.8.2 Second, the median of all calculated differences between the Spring Static Water Level and the Baseline Static Water Level for each Observation Well within the Observation Well Monitoring Network in each Sub-Area shall be determined, which shall be the Annual Static Water Level Change for the Sub-Area.
- 7.1.8.3 Third, the Annual Static Water Level Change for each Sub-Area will be compared against the Phase Two (2) or Phase Three (3) Triggers, as identified in [Chapter 17: Appendix D: below](#).
- 7.1.8.4 Fourth, a determination will be made by the District as to whether a Sub-Area should be moved into or remain in a Phase Two (2) or Phase Three (3) designation, as described in [Chapter 8: and Chapter 9: below](#).
- 7.1.9 When a Water Well in the District's Observation Well Monitoring Network fails or is decommissioned by the owner, the District shall attempt to find a replacement Water Well to add to the District's Observation Well Monitoring Network near the decommissioned Water Well to preserve Network integrity. Comparable land elevations and Spring Static Water Level readings and/or active Observation Well data shall be noted and filed for continuity of the historical Static Water Level record.
- 7.1.10 The District may add additional Monitoring or Observation Wells to the Observation Well Monitoring Network to improve the coverage and distribution of Static Water Level readings.

## **CHAPTER 8: PHASE TWO (2) GROUNDWATER QUANTITY MANAGEMENT AREA DETERMINATION AND REQUIREMENTS**

- 8.1 A Groundwater Quantity Management Sub-Area shall enter into a Phase Two (2) Groundwater Quantity Management Area classification when the Annual Static Water Level Change is at or below the Phase Two (2) Trigger Level for the Groundwater Quantity

Management Sub-Area, calculated in accordance with [7.1.8 above](#), for three (3) consecutive years.

- 8.1.1 [Chapter 17: Appendix D: below](#) shall contain the calculated Baseline Static Water Level and the calculated Phase Two (2) Trigger Level for each Groundwater Quantity Management Sub-Area.
- 8.2 When a Groundwater Quantity Management Sub-Area is designated as Phase Two (2), the District shall take the following actions to become effective throughout the entire Sub-Area:
  - 8.2.1 An immediate moratorium on the construction of new High Capacity Wells used for purposes of Irrigation shall be imposed.
  - 8.2.2 An immediate moratorium on the expansion of Certified Groundwater Use Acres shall be imposed.
  - 8.2.3 Groundwater Allocation amounts shall be set pursuant to [Chapter 14: below](#), [Chapter 15: below](#), and [Chapter 16: below](#).
  - 8.2.4 All Phase One (1) Groundwater Quantity Management Area requirements as set forth in [Chapter 7: above](#) shall apply to any Phase Two (2) Groundwater Quantity Management Sub-Area.
  - 8.2.5 A Groundwater Quantity Management Sub-Area shall be removed from Phase Two (2) classification when the Static Water Level in a Groundwater Quantity Management Sub-Area indicates the Spring Static Water Level is above the Phase Two (2) Trigger Level for three (3) consecutive years. The Groundwater Quantity Management Sub-Area shall then return to Phase One (1) classification.

## **SECTION 1: CERTIFIED EXPANDED ACRES**

- 8.2.6 The Board may, by approving an application submitted in accordance with these Rules and Regulations, grant an Agricultural User Certified Expanded Acres within a Phase Two (2) Area, or Phase Three (3) Area, however, the Agricultural User's Allocation amount shall remain unchanged and be based only on Certified Groundwater Use Acres as provided in [Chapter 14: below](#), [Chapter 15: below](#), and [Chapter 16: below](#). An Allocation amount shall never be increased based on Certified Expanded Acres.

### **SUBSECTION 1: APPLICATIONS**

- 8.2.6.1 The application shall be made on forms provided by the District.
- 8.2.6.2 A non-refundable application fee of fifty dollars (\$50.00) payable to the District shall accompany all applications.
- 8.2.6.3 The form(s) shall contain (a) the name and post office address of the applicant or applicants, (b) the location and registration number of the Water Well(s) from which the Groundwater Use Acres would be irrigated, (c) the location and number of current Certified Groundwater Use Acres from each Water Well, (d) the location and proposed number of Groundwater Use Acres to be irrigated, (e) an aerial map showing the Site Plan, and (f) any other information that the District may require.

## **SUBSECTION 2: APPLICATION REVIEW**

- 8.2.6.4 Applications shall be given a timestamp upon their arrival at the District office and shall be reviewed according to the time they were received.
- 8.2.6.5 District staff shall review the applications received and compile all pertinent information provided by the applicant and other relevant information that is readily available.
- 8.2.6.6 The application along with any other relevant information shall be brought forth to the Board by District staff for consideration where a motion shall be made to approve, deny, or postpone to a certain time the application.

## **SUBSECTION 3: APPLICATION APPROVAL**

- 8.2.6.7 Application review shall occur pursuant to [Chapter 8: Section 1: Subsection 2: above.](#)
- 8.2.6.8 In determining whether to grant the Certified Expanded Acres, the Board shall consider, but is not limited to, the following:
  - 8.2.6.8.1 whether the proposed use is a Beneficial Use of Groundwater;
  - 8.2.6.8.2 the availability to the applicant to use alternative sources of surface water or Groundwater for the proposed withdrawal and use;
  - 8.2.6.8.3 any negative effect of the proposed withdrawal and use on Groundwater supplies needed to meet present or reasonable future demands for water in the area of the proposed withdrawal and use, to comply with any interstate compact or decree, or to fulfill the provisions of any other formal state contract or agreement;
  - 8.2.6.8.4 any adverse environmental effect of the proposed withdrawal and use of the Groundwater;
  - 8.2.6.8.5 the cumulative effects of the proposed withdrawal and use relative to the matters listed in Rules [8.2.6.8.1](#) through [8.2.6.8.4](#) of this section when considered in conjunction with all other withdrawals and uses subject to this section;
  - 8.2.6.8.6 whether the proposed withdrawal and use is consistent with the District's Groundwater quantity and quality management plan and with any integrated management plan previously adopted or being considered for adoption in accordance with Neb. Rev. Statute §46-713 to §46-719; and
  - 8.2.6.8.7 any other factors consistent with the purposes of this section which the Board deems relevant to protect the interests of the state and its citizens.
- 8.2.6.9 When a Certified Expanded Acres application is approved the applicant shall commence construction of the project as soon as possible after the date of the application approval. The applicant shall have one (1) year after the application approval date to complete construction. If the applicant fails to complete the construction under the terms of the application, the application shall automatically terminate.



- 8.2.6.10 When an area is removed from Phase Two (2) and reverts to Phase One (1), the Board may consider, by a Variance outlined in [Chapter 6: above](#), if the acres approved under this section shall be allowed to become Certified Groundwater Use Acres pursuant to [Chapter 11: below](#).

## **CHAPTER 9: PHASE THREE (3) GROUNDWATER QUANTITY MANAGEMENT AREA DETERMINATION AND REQUIREMENTS**

- 9.1 A Groundwater Quantity Management Sub-Area shall enter into a Phase Three (3) Groundwater Quantity Management Area classification when the Annual Static Water Level Change is at or below the Phase Three (3) Trigger Level for the Groundwater Quantity Management Sub-Area, calculated in accordance with [7.1.8 above](#), for three (3) consecutive years.
- 9.1.1 Thirty (30) percent below the Phase Two (2) Trigger Level for three (3) consecutive years shall be known as the Phase Three (3) Trigger Level.
- 9.1.2 [Chapter 17: Appendix D: below](#) shall contain the calculated Phase Three (3) Trigger Level for each Groundwater Quantity Management Sub-Area.
- 9.2 A Phase Three (3) Groundwater Quantity Management Area can only be designated from a previously designated Phase Two (2) Groundwater Quantity Management Area.
- 9.3 When a Groundwater Quantity Management Sub-Area is designated as Phase Three (3), the District shall take the following actions to become effective throughout the entire Sub-Area:
- 9.3.1 Groundwater Allocation amounts set pursuant to Rule [8.2.3](#) shall be sufficiently reduced to return the Static Water Level to Phase Two (2) classification.
- 9.4 The Board may, through an application process pursuant to [Chapter 8: Section 1: above](#), grant an Agricultural User Certified Expanded Acres within a Phase Three (3) Area, however the Allocation amount shall remain unchanged and be based only on Certified Groundwater Use Acres.
- 9.5 All Phase One (1) Groundwater Quantity Management Area requirements as set forth in [Chapter 7: above](#) and all Phase Two (2) Groundwater Quantity Management Area requirements as set forth in [Chapter 8: above](#) shall apply.
- 9.6 A Groundwater Quantity Management Sub-Area shall be removed from Phase Three (3) classification when the Static Water Level in a Groundwater Quantity Management Sub-Area indicates the Spring Static Water Level is above the Phase Three (3) Trigger Level for three (3) consecutive years. The Groundwater Quantity Management Sub-Area shall then return to Phase Two (2) classification.

## **CHAPTER 10: GROUNDWATER TRANSFERS AND CONVEYANCE OF GROUNDWATER INTO A WATER IMPOUNDMENT STRUCTURE OR STREAM**

- 10.1 Any Person who intends to initiate a Groundwater Transfer from an overlying Tract to land which he or she owns or controls, or any Person who intends to increase the amount of



Certified Groundwater Use Acres of a previously approved Permit or unpermitted Groundwater Transfer within the District shall, before commencing such activity, apply for a Permit from the District and receive approval from the District.

10.2 Any Person who has failed or in the future fails to obtain a Permit as required by this Chapter is prohibited from using the unpermitted Groundwater Transfer or conveyance until a Permit has been issued by the District and shall make application for a Late Permit on forms provided by the District. The Late Permit application shall contain the same information as required by [Chapter 10: Section 1: below](#) or [10.15.3](#). The application for a Late Permit shall be accompanied by a one thousand-dollar (\$1000) fee payable to the District.

10.3 An unpermitted Groundwater Transfer or conveyance of Groundwater into a Water Impoundment Structure or stream shall be subject to the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).

10.4 Any Person applying for a Permit to initiate a Groundwater Transfer or conveyance of Groundwater into a Water Impoundment Structure or stream that would violate any portion of [Chapter 10:](#) may request a Variance as outlined in [Chapter 6: above](#).

## **SECTION 1: PERMIT APPLICATIONS**

10.5 The Permit application shall be made on forms provided by the District.

10.6 A non-refundable application fee of fifty dollars (\$50) payable to the District shall accompany all permit applications for a Groundwater Transfer.

10.7 The form(s) shall contain (a) the name and post office address of the applicant or applicants, (b) the location and registration number of the Source Well, (c) the location and number of Certified Groundwater Use Acres of the Source Tract, (d) the location and proposed number of Groundwater Use Acres to be irrigated in the Destination Tract, (e) an aerial map showing the Site Plan (f) and other information as the District requires.

## **SECTION 2: PERMIT REVIEW**

10.8 Permit applications shall be given a timestamp upon their arrival at the District office and shall be reviewed according to the time they were received.

10.9 District staff shall review the applications received and compile all pertinent information provided by the applicant and other information that is readily available.

10.10 The Permit application and other necessary information shall be brought forth to the Board for consideration where a motion shall be made to approve, deny, or postpone to a certain time the application.

10.10.1 A motion may be made to postpone to a certain time a Permit application until the next Board meeting if (a) the Board deems additional information is needed from the applicant, (b) the Board requires additional time to review the application, or (c) the application was received after 4:30 pm one (1) week prior to the regularly scheduled monthly Board meeting.

- 10.11 Upon receipt of an application for a Groundwater Transfer or conveyance of Groundwater into a stream or Water Impoundment Structure, the District shall provide notice of the application by publishing it on the regularly scheduled monthly Board meeting agenda.

### **SECTION 3: OBJECTIONS TO GROUNDWATER TRANSFERS**

- 10.12 Any affected party may object to the Groundwater Transfer by filing a written objection with the District, specifically stating the grounds for such objection.
- 10.12.1 The objection shall be received on or before the regularly scheduled monthly Board meeting.
- 10.12.2 Late objections shall not be considered.
- 10.12.3 Upon the filing of such objection, the District will conduct a preliminary investigation to determine if the withdrawal, Groundwater Transfer and use of Groundwater is consistent with the requirements of Rule [10.11 above](#) and all Rules and Regulations of the District. Following the preliminary investigation, if the District has reason to believe that the withdrawal, Groundwater Transfer and use is consistent with all Rules and Regulations of the District but may not comply with one (1) or more requirements of Rule [10.12 above](#), the District shall request that the Department hold a hearing on such Groundwater Transfer.

### **SECTION 4: GROUNDWATER TRANSFERS FOR AGRICULTURAL USERS**

- 10.13 The District shall consider a request for a new Groundwater Transfer by an Agricultural User when all the following criteria are met:
- 10.13.1 the Destination Tract(s) is directly adjacent or diagonal to the Source Tract(s), and
- 10.13.2 at its closest point, the Destination Tract(s) is not more than three thousand (3000) feet from the Source Well, and
- 10.13.3 the Source Well is at least one thousand (1000) feet from all other High Capacity Wells of separate ownership and at least five hundred (500) feet from all other Water Wells that have a pumping capacity of fifty (50) gallons per minute or less of separate ownership, and
- 10.13.4 the Certified Groundwater Use Acres in the Destination Tract(s) shall not exceed one hundred sixty (160) acres from the Source Well, and
- 10.13.5 the Certified Groundwater Use Acres in the Destination Tract(s) is limited to an amount less than or equal to the total number of Certified Groundwater Use Acres in the Source Tract(s), and
- 10.13.6 both the Source and Destination Tracts are within the District.

### **SECTION 5: GROUNDWATER TRANSFERS FOR MUNICIPAL AND OTHER USERS**

- 10.14 A Municipal User or Other User shall only be allowed to apply for a Permit for a Groundwater Transfer to a Government Survey Section that is directly adjacent or diagonal to the Source Tract(s).

- 10.14.1 Groundwater Transfers proposing to withdraw more than two hundred fifty (250) acre-feet annually will conduct a hydrogeologic evaluation illustrating the impact, if any, from the intended withdrawal on the Static Water Level of the Aquifer and on local Groundwater Users as indicated by the hydrogeologic evaluation and/or models.
- 10.14.2 The Board reserves the right to deny any Groundwater Transfer Permit application which may include but is not limited to the following:
  - 10.14.2.1 the proposed Groundwater Transfer is shown by the hydrogeologic evaluation and/or other data and information to have a reasonable short or long-term probability of adversely impacting the local Aquifer and surrounding Groundwater wells with a higher preference of use (Neb. Rev. Statute §46-613), or
  - 10.14.2.2 the hydrogeologic evaluation does not conform with accepted methods, or the data used does not adequately represent actual hydrologic and/or hydrogeologic conditions, or
  - 10.14.2.3 the Groundwater Transfer would violate any other provisions of these Rules and Regulations.
- 10.14.3 A Groundwater Transfer authorized by the Municipal Rural Domestic Groundwater Transfers Permit Act is exempt from [Chapter 10:](#) .

## **SECTION 6: CONVEYANCE OF GROUNDWATER INTO A WATER IMPOUNDMENT STRUCTURE OR STREAM**

- 10.15 Any Person who intends to convey Groundwater from a High Capacity Well, or a Water Well that has a pumping capacity of fifty (50) gallons per minute or less that is to be used for purposes of irrigation, into a stream or Water Impoundment Structure, or any Person who intends to modify or **increase the number of Certified Groundwater Use Acres** of an approved Permit or previously unpermitted conveyance of Groundwater within the District shall, before commencing such activity, apply for a Permit from the District and receive approval from the District.
  - 10.15.1 The Permit application shall be made on forms provided by the District.
  - 10.15.2 A non-refundable application fee of fifty dollars (\$50) payable to the District shall accompany all Permit applications for conveyance of Groundwater into a stream or Water Impoundment Structure.
  - 10.15.3 The form(s) shall contain (a) the name and post office address of the applicant or applicants, (b) the location and registration number of the Source Well, (c) the location of the discharge point of Groundwater into the stream or Water Impoundment Structure, (d) the location of the withdrawal point of water from the stream or Water Impoundment Structure and proposed number of Groundwater Use Acres to be irrigated, (e) an aerial map showing the Site Plan, (f) and other information as the District requires, including any testing results required by this Chapter.

- 10.16 Conveyance of Groundwater from a High Capacity Well, or a Water Well that has a pumping capacity of fifty (50) gallons per minute or less that is to be used for purposes of irrigation into a stream or Water Impoundment Structure shall remain on the Source Well owner's property and shall be limited to the Government Survey Section where the Source Well is located. The Groundwater shall be tested, and the water quality test results shall be provided to the Board.
- 10.16.1 For purposes of waste management, Municipal Users are exempt from the requirements of [Chapter 10: Section 5:](#) through [10.15.3](#).

## **SECTION 7: GROUNDWATER TRANSFER AND CONVEYANCE PERMIT APPROVAL**

- 10.17 Permit review shall occur pursuant to [Chapter 10: Section 2: above](#).
- 10.18 In determining whether to grant a Permit under this Chapter, the Board shall consider but is not limited to:
- 10.18.1 whether the proposed use is a Beneficial Use of Groundwater;
  - 10.18.2 the availability to the applicant to use alternative sources of surface water or Groundwater for the proposed withdrawal, transport, and use;
  - 10.18.3 any negative effect of the proposed withdrawal, transport, and use on Groundwater supplies needed to meet present or reasonable future demands for water in the area of the proposed withdrawal, transport, and use, to comply with any interstate compact or decree, or to fulfill the provisions of any other formal state contract or agreement;
  - 10.18.4 any adverse environmental effect of the proposed withdrawal, transport, and use of the Groundwater;
  - 10.18.5 the cumulative effects of the proposed withdrawal, transport, and use relative to the matters listed in Rules [10.18.1](#) through [10.18.4](#) of this section when considered in conjunction with all other withdrawals, transports, and uses subject to this section;
  - 10.18.6 whether the proposed withdrawal, transport, and use is consistent with the District's Groundwater quantity and quality management plan and with any integrated management plan previously adopted or being considered for adoption in accordance with Neb. Rev. Statute §46-713 to §46-719; and
  - 10.18.7 any other factors consistent with the purposes of this section which the Board deems relevant to protect the interests of the state and its citizens.
- 10.19 When a Permit is approved the applicant shall commence construction of the Groundwater Transfer or conveyance of Groundwater into a stream or Water Impoundment Structure as soon as possible after the date of the Permit approval. The applicant shall have one (1) year after the Permit approval date to complete construction. If the applicant fails to complete the construction under the terms of the Permit, the Permit shall automatically terminate.
- 10.19.1 a Flowmeter shall be installed on the Source Well pursuant to [Chapter 13: below](#) of these Rules and Regulations.

- 10.19.2 Upon prior notice given by the District, pursuant to [Chapter 4: Section 2: above](#) the applicant shall be required to provide access to his or her property at reasonable times for purposes of inspection by the District where the water is to be withdrawn or to be used.

## CHAPTER 11: CERTIFICATION OF GROUNDWATER USE ACRES

- 11.1 Certification of Groundwater Use Acres by each Landowner that owns irrigated land within the District shall be required of these Rules and Regulations, when the District is designated as a Phase I GWQMA pursuant to [Chapter 7: above](#). **Certification shall be completed no later than December 31, 2024.**
- 11.2 Each Landowner owning irrigated land within a Phase One (1) GWQMA, or their designated representative, shall complete a District provided Certification Form identifying the following information:
- 11.2.1 The Landowner contact information;
  - 11.2.2 The location of Historically Irrigated Acres by legal description and quarter section;
  - 11.2.3 The total number of Historically Irrigated Acres;
  - 11.2.4 The last calendar date of irrigation; and
  - 11.2.5 Any other information required by the District.
- 11.3 Each Certification Form shall be accompanied by documentation of historical irrigation on acres to be certified in order to be assessed by District staff. Such documentation shall be the county assessor tax records or USDA Farm Service Agency records from the year prior to the year in which the Certification Form is submitted. The county assessor tax records or the USDA Farm Service Agency records will be used as the base for the total Certified Groundwater Use Acres. The District staff will then approve, modify and approve, or reject the Certification Form. The Certification Form shall be rejected by District staff without the submission of the necessary records.
- 11.3.1 The number of Certified Groundwater Use Acres within a Parcel shall be the actual number of Historically Irrigated Acres in said Parcel.
  - 11.3.2 The number of Certified Groundwater Use Acres within a Parcel shall not exceed the number of actual acres in said Parcel.
- 11.4 If the Landowner's Certification Form is not accepted by the District staff, the Landowner or their designated representative may request a Variance in accordance with Chapter 6 of these Rules and Regulations. In order to assess such a Variance request, the Board may consider any of the following sources of information: county assessor tax records, USDA Farm Service Agency records, aerial photographs, verified personal documentation, or other requested information.
- 11.4.1 The District staff shall consider new requests for certification of Groundwater Use Acres monthly.

11.4.2 The Board may consider modifications to Certified Groundwater Use Acres such as number of acres irrigated, location of irrigated acres, changes in water source, or change of Landowner, based on evidence presented by the Groundwater User. Such changes shall be reviewed and approved by the Board before the changes may take effect.

11.5 Pooling of Certified Groundwater Use Acres shall not be allowed.

11.6 Transfers of Certified Groundwater Use Acres shall not be allowed.

## SECTION 1: MUNICIPAL USER CERTIFICATION

11.7 A Municipal User shall report the following information to the District:

11.7.1 The Water Well(s) operated by the Municipal User.

11.7.2 The total acreage within the municipal jurisdictional limits.

11.7.3 The irrigated agricultural acreage within the municipal jurisdictional limits.

11.7.4 The dryland agricultural acreage within the municipal jurisdictional limits.

11.7.5 Any acreage outside the municipal jurisdictional limits served by the municipal water supply system.

11.7.6 The municipality's population according to the most recent federal census.

11.7.7 The number of people served by the municipal water supply system.

11.7.8 The number of service connections served by the municipal water supply system.

11.7.9 Any other information deemed necessary by the District.

## SECTION 2: OTHER USER CERTIFICATION

11.8 Other Users must report the following information to the District by December 31, 2024:

11.8.1 The Water Well(s) under the Other User's control.

11.8.2 The purpose of the Groundwater withdrawal.

11.8.3 Historic annual Groundwater withdrawal, if known.

11.9 A Groundwater User must report any changes or additions to the information required in this Rule within sixty (60) days.

11.10 The failure to report any information required by this Rule may result in the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).

## CHAPTER 12: GROUNDWATER USE REPORTING

12.1 Groundwater Users shall submit annual Water Use Reports to the District in order to report the amount of Groundwater withdrawal from each Water Well(s) under his or her control requiring a Flowmeter pursuant to these Rules and Regulations.

- 12.2 The Water Use Reports shall be submitted on forms provided by the District and contain, but not be limited to, the following information:
- 12.2.1 The Water Well(s) registration number(s) issued by the Department;
  - 12.2.2 The serial number of the Flowmeter associated with each Water Well(s); and
  - 12.2.3 The total amount of Groundwater withdrawn from each Water Well(s) during the preceding calendar year.
- 12.3 Water Use Reports shall be returned to the District no later than February 1<sup>st</sup> of each year.
- 12.4 The failure to submit or the falsification of Water Use Reports required by this Chapter shall result in the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).
- 12.5 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect Flowmeters in order to obtain flowrate and totalizer gauge readings to verify Water Use Reports.

## CHAPTER 13: FLOWMETER INSTALLATION, OPERATION, AND MAINTENANCE REQUIREMENTS

- 13.1 Water Wells in the District described in Rule [7.1.1](#) shall be equipped with a District approved and fully operational Flowmeter.
- 13.2 A failure of any Person to properly install, operate, maintain, repair, and calibrate their Flowmeter in accordance with this Chapter, or any Person that willfully alters, removes, resets, manipulates, damages, or tampers with any Flowmeter or Flowmeter seals within the District in violation of this Chapter, or any Person that fails to provide prior notification and receive necessary permission from the District to work on any Flowmeter in accordance with this Chapter, shall be subject to the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).
- 13.2.1 Such Person committing violations described in Rule [13.2](#) shall also be responsible for any costs associated with the repairs or replacement of Flowmeters.
- 13.3 The District shall have the right, pursuant to [Chapter 4: Section 2: above](#), to inspect the installation, components, and operation of Flowmeters. The District shall report to the Groundwater User any corrections required for proper installation or operation of the Flowmeter.
- 13.4 Groundwater withdrawals from Water Wells that are connected by a common pipeline may be measured using one (1) Flowmeter, provided the total Groundwater withdrawal is measured.
- 13.5 Flowmeters shall be installed according to the following requirements:
- 13.5.1 Flowmeters installed shall be a type, brand, and model approved by the District as set forth on the District provided list of approved Flowmeters. **The approved list shall be available for inspection at the District office during regular business hours.**



- 13.5.2 Flowmeters shall have a totalizer gauge that reads in Acre-Inches, **Acre-Feet**, or gallons and a flowrate gauge that reads in gallons per minute. The gauge must be clearly visible and readable.
- 13.5.3 Flowmeters shall be installed according to the manufacturer's specifications.
- 13.5.4 **Flowmeters shall maintain a plus or minus five (5) percent accuracy throughout the operating range.**
- 13.6 The District shall consider approval of Flowmeters installed prior to the implementation of these Rules and Regulations on a case-by-case basis.
- 13.7 The Groundwater User shall report the installation of a Flowmeter to the District within thirty (30) days after installation.

## **SECTION 1: FLOWMETER MAINTENANCE**

- 13.8 **Flowmeters shall be maintained, repaired, and calibrated by the District, a representative of the District, or an authorized service center, unless approval has been granted pursuant to [13.10 below](#).**
- 13.9 **The District may provide cost-share for purchase, installation, maintenance, or repair of Flowmeters.**
- 13.10 **The District shall approve a Groundwater User or another Person to perform maintenance, repairs, or calibrations on Flowmeters as follows:**
  - 13.10.1 **The Groundwater User or other District approved Person shall notify the District of his or her intent to perform, maintenance, repairs, or calibrations on the Flowmeter(s) on a form provided by the District no later than seven (7) days prior to the scheduled work;**
  - 13.10.2 **The Groundwater User or other District approved Person shall certify in writing that the Flowmeter(s) meets the manufacturer's specifications following maintenance, repairs, or calibrations no later than thirty (30) days following the completed work.**
  - 13.10.3 **The Groundwater User or other District approved Person shall provide the District with a copy of the maintenance, repairs, calibrations, and certifications performed on the Flowmeter(s) no later than thirty (30) days following the completed work.**
- 13.11 All maintenance, repairs, and calibrations of Flowmeters shall be done according to the schedule recommended by the manufacturer.
  - 13.11.1 **If the manufacturer does not have written recommendations for maintenance, repairs, and calibrations, the District shall determine an appropriate maintenance schedule.**
- 13.12 A damaged or malfunctioning Flowmeter shall be reported to the District within twenty-four (24) hours after discovery, **excluding weekends and holidays. In the event of damage or malfunction on a weekend or holiday, such damage or malfunction shall be reported before the office closes on the first working day following the holiday or weekend day.**



- 13.13 During the time when a Flowmeter may be malfunctioning, the Groundwater user shall use a method approved by the District to determine the volume of water withdrawn from the well.
- 13.14 When a Flowmeter is removed from the well for service, repair, or replacement at a time when the Groundwater User desires to withdraw Groundwater, a temporary Flowmeter **shall** be installed.
- 13.14.1 District approved methods of determining Groundwater consumption may be used if a Flowmeter is not available or cannot be readily installed.

## **SECTION 2: FLOWMETER SEAL**

- 13.15 Flowmeters may be sealed by the District to ensure proper location, installation, operation, and to prevent tampering. The District shall notify the Groundwater User, pursuant to [Chapter 4: Section 2: above](#), in advance that it intends to enter upon the land for such purposes.
- 13.15.1 The District may consider whether or not to seal a Flowmeter when circumstances indicate doing so may cause unnecessary inconvenience for the Groundwater User or the District.
- 13.15.2 The District shall have access at all reasonable times to inspect installed Flowmeters with proper notice.
- 13.15.3 The seal on a Flowmeter shall not be removed without prior approval of the District.
- 13.16 A Flowmeter may be removed for off season storage, where applicable.
- 13.16.1 To prevent Groundwater contamination, when a Flowmeter is removed, the pipe opening shall be covered in such a manner as to provide a watertight seal.

## **CHAPTER 14: ALLOCATION TO AGRICULTURAL USERS**

- 14.1 **The Board shall set an Allocation for Agricultural Users as required by these Rules and Regulations pursuant to Rules [7.1.4](#), [8.2.3](#), and [9.3.1](#).**
- 14.1.1 **Groundwater Use Periods and initial Allocation amounts shall be set by the Board for the proceeding growing season no later than January 1<sup>st</sup> pursuant to Rule [7.1.4](#) in Phase One (1) and following a Phase Two (2) or Phase Three (3) classification pursuant to Rules [8.2.3](#) and [9.3.1](#).**
- 14.1.2 **An Allocation shall initially be set for one (1) Groundwater Use Period based on the best available information including but not limited to Static Water Levels, trend lines, and weather conditions. If necessary, a new Allocation shall be set at the end of the current Groundwater Use Period for the subsequent Groundwater Use Period no later than January 1<sup>st</sup> based on the best available information.**
- 14.1.3 **Pursuant to Rule [7.1.4](#), the initial Allocation shall be a maximum of forty-eight (48) Acre-Inches per Certified Groundwater Use Acre per year for the first Groundwater Use Period.**

- 14.1.4 Pursuant to Rule 8.2.3, the initial Allocation shall be a maximum of thirty-six (36) Acre-Inches per Certified Groundwater Use Acre per year for the first Groundwater Use Period.
- 14.2 Each Agricultural User shall limit Groundwater withdrawal to the Allocation amount per Certified Groundwater Use Acre specified by the Board as set in Rule 14.1.3, 14.1.4, or 9.3.1 for the Groundwater Use Period specified in Rule 14.1.2.
- 14.2.1 When an Agricultural User does not withdraw all of his or her Allocation during a Groundwater Use Period, the unused amount shall be carried forward and added to his or her next Groundwater Use Period Allocation amount pursuant to these Rules and Regulations.
- 14.2.1.1 The maximum Allocation amount that may be carried forward to the subsequent Groundwater Use Period shall not exceed ten (10) percent of the Allocation amount for the current Groundwater Use Period.
- 14.2.2 Groundwater withdrawn in excess of the Allocation during the current Groundwater Use Period shall be deducted at two (2) times the Acre-Inches withdrawn in excess of the Allocation amount for the subsequent Groundwater Use Period Allocation. As an example, if an Agricultural User utilizes three (3) Acre-Inches more than their Allocation for the Groundwater Use Period, they would have their Allocation amount for the subsequent Groundwater Use Period reduced by six (6) Acre-Inches.
- 14.3 When the control of Certified Groundwater Use Acres is transferred to a different Agricultural User during a Groundwater Use Period, the remaining Allocation balance for said acres shall also be transferred to the new Agricultural User.
- 14.4 The failure of any Person to adhere to the Rules and Regulations in this Chapter shall result in the enforcement of these Rules and Regulations pursuant to Chapter 4: above.

## CHAPTER 15: ALLOCATION TO MUNICIPAL USERS

- 15.1 When Allocations are set as required by these Rules and Regulations pursuant to Rules 7.1.4, 8.2.3, and 9.3.1, all Municipal Users within the Groundwater Quantity Management Sub-Area shall limit Groundwater withdrawal to the Allocation amount specified in 15.3 below.
- 15.2 The Board shall set a new Allocation for the next Groundwater Use Period no later than January 1<sup>st</sup> prior to the end of each Groundwater Use Period.
- 15.3 A Municipal User shall limit Groundwater use to two hundred seventy-four thousand (274,000) gallons per capita served per year plus forty-eight (48) inches per acre for one third ( $\frac{1}{3}$ ) of the non-agricultural lands within the municipal jurisdictional limits for the Groundwater Use Period.
- 15.3.1 A Municipal User shall receive an Allocation of forty-eight (48) inches per acre for the Groundwater Use Period for irrigated agricultural lands that it serves. This Allocation shall be added to the Municipal User's total Allocation.

- 15.4 By **January 1<sup>st</sup> one (1) year following** implementation of this Rule, the Municipal User shall submit to the District an adopted administrative procedure that allows the Municipal User to require water conservation practices and restrict the water use of its customers.
- 15.4.1 The Municipal User shall provide the District documentation of such passed ordinances and/or resolutions.
- 15.5 By **January 1<sup>st</sup>** of each year after implementation of this Rule, the Municipal User shall submit to the District a conservation information and education plan designed for its customers and begin implementation of the plan.
- 15.6 The most recent population census information available from the United States Bureau of Census shall be used to determine total capita Groundwater use.
- 15.6.1 When a Municipal User provides evidence that it delivers water to Persons that have not been counted as part of the most recent census or to lands that had not previously been considered, the District shall make adjustments to the Municipal User's Allocation to compensate for these added water requirements.
- 15.7 Groundwater used for fire protection, water and sewage system maintenance, construction and repairs shall not be considered when calculating annual Groundwater withdrawal.
- 15.7.1 The Municipal User shall provide documentation to estimating such uses.
- 15.7.2 The District shall consider other exemptions on a case-by-case basis when requested.
- 15.8 A Municipal User shall report to the District any Other User which is served by its water system.
- 15.8.1 Groundwater delivered to the Other User shall not be considered part of a Municipal User's Allocation.
- 15.9 When a Municipal User provides evidence that it has begun to serve additional people and/or land, the Allocation for these people and/or land, during a Groundwater Use Period shall be based on the actual remaining part of the Groundwater Use Period in which Groundwater withdrawal is expected to occur.
- 15.10 When a Municipal User does not withdraw all of its Allocation of Groundwater during a Groundwater Use Period, the unused amount shall be added to his or her next Groundwater Use Period Allocation.
- 15.10.1 The maximum accumulated carry over shall not exceed one-third ( $\frac{1}{3}$ ) of the Allocation amount for the current Allocation period.
- 15.11 Groundwater withdrawn in excess of Municipal User's Allocation shall be deducted from its next Groundwater Use Period Allocation.

## CHAPTER 16: ALLOCATION TO OTHER USERS

- 16.1 The Board shall set an Allocation for Other Users as required by these Rules and Regulations pursuant to Rules [7.1.4](#), [8.2.3](#), and [9.3.1](#).
- 16.1.1 Groundwater Use Periods and initial Allocation amounts shall be set by the Board no later than January 1<sup>st</sup> pursuant to Rule [7.1.4](#) in Phase One (1) and following a Phase Two (2) or Phase Three (3) classification pursuant to Rules [8.2.3](#) and [9.3.1](#).
- 16.1.2 An Allocation shall initially be set for one (1) Groundwater Use Period based on the best available information including but not limited to static water levels, trend lines, and weather conditions. If necessary, a new Allocation shall be set at the end of the proceeding Groundwater Use Period for the subsequent Groundwater Use Period no later than January 1<sup>st</sup> based on the best available information.
- 16.2 The initial allocation for Other Users during the initial Groundwater Use Period shall be equal to one hundred (100) percent of the Other Users' withdrawal for the three (3) year period prior to the first Groundwater Use Period.
- 16.3 If, at any time, any Other User desires to start a new operation or modify an existing operation that shall require a new or additional Allocation, the Other User shall request such an Allocation from the Board. The request shall include:
- 16.3.1 The quantity of Groundwater desired annually;
- 16.3.2 The purpose for which the Groundwater is to be used;
- 16.3.3 An explanation of operation methods, including water conservation features, for that type of water use;
- 16.3.4 An estimate of the water use per unit of production, if applicable; and
- 16.3.5 Other information requested by the District.
- 16.4 When an Other User does not withdraw all the Allocation of Groundwater during a Groundwater Use Period, the unused amount shall be carried over and added to the next Groundwater Use Period Allocation amount pursuant to these Rules and Regulations.
- 16.4.1 The maximum amount of the Allocation to be carried forward shall not exceed **ten (10) percent** of the Allocation amount for the current Groundwater Use Period.
- 16.4.2 Groundwater withdrawn in excess of an Other User's Allocation during the current Groundwater Use Period shall be deducted at **two (2) times** the Acre-Inches from the next Groundwater Use Period Allocation. As an example, if an Other User utilizes three (3) Acre-Inches more than their Allocation for the Groundwater Use Period, they would have their Allocation amount for the subsequent Groundwater Use Period reduced by **six (6) Acre-Inches**.
- 16.4.3 The total amount of Groundwater withdrawn in excess of Allocation during a Groundwater Use Period after the implementation of this Rule shall not exceed one-fifth (1/5) of the Allocation for the current Groundwater Use Period.

- 16.5 When the control of an Other User's withdrawal is transferred to a different Groundwater Use during a Groundwater Use Period, the remaining Allocation balance for the Groundwater Use Period shall also be transferred to the new Groundwater Use.
- 16.6 The failure of any Person to adhere to the Rules and Regulations in this Chapter shall result in the enforcement of these Rules and Regulations pursuant to Chapter 4.

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## CHAPTER 17: APPENDICES

### APPENDIX A: WELL PERMIT RANKING SYSTEM METHODOLOGY

Goal: The goal of the Well Permit Ranking System Methodology is to allow High Capacity Well development throughout the District without creating impacts, conflicts or interference with neighboring Water Well users. This System provides a method through which the District assesses Water Well Permit applications.

The following criteria will be used in the District's Well Permit Ranking System Methodology in order to assess Water Well Permit applications:

1. Thickness of Primary Aquifer Formation
2. Calculated Transmissivity
3. Irrigation Well Density
4. Public Water Supply Well Density
5. Domestic, Livestock & other Well Density
6. Irrigation Best Management Practices

Each of these criteria will be assessed using a points system in which points may be awarded when an application demonstrates that a Water Well location will exhibit certain characteristics as determined by the District and described below. The points will then be accumulated and the sum total of all points awarded under all criteria will be utilized as the cumulative score to assess the Water Well application.

The minimum score necessary for a Permit application to be approved is: two hundred (200) points.

#### 1. Thickness of Primary Aquifer Formation

One (1) point awarded for each foot of primary aquifer thickness beginning with zero (0) points at ten (10) feet of thickness.

- Example – Eighteen (18) feet of aquifer thickness equals eight (8) points (18ft – 10 ft).

Maximum point value of one hundred (100).

#### 2. Calculated Transmissivity

The test-hole log submitted will be reviewed and scored by comparing the test-hole geologic entry to the estimated equivalent hydraulic conductivity table based upon work at the University of Nebraska Conservation and Survey by E.C. Reed and R. Piskin. (see Hydraulic Conductivity Table below).

The hydraulic conductivity value for each geologic entry is then multiplied by the number of feet of thickness of the material as shown in the equation (1):

$T = K \cdot b$ , in which:

T = transmissivity, gpd/ft

K = hydraulic conductivity, ft/day

b = saturated thickness, ft

The corresponding “T” values for each layer of material are then added together and multiplied by 7.48 gal/ft<sup>3</sup> to get “Teff”, the effective transmissivity.

One (1) point is awarded for each 1,000 gpd/ft of transmissivity rounded to the nearest integer.

Maximum point value of one hundred (100).

**Hydraulic Conductivity Table**

Estimated Hydraulic Conductivity from Particle Size Descriptions						
Grain Size	Degree of Sorting			Silt Content		
	Poor	Moderate	High	Slight	Moderate	Very
<b>Clay and silt:</b>						
Clay	0.0			2		
Silt, slightly clayey	1.3			18		
Silt, moderately clayey	2.7			11		
Silt, very clayey				7		
Silt, loess; sandy silt				20		
<b>Sand and gravel</b>						
Very fine sand	13	20	27	23	19	13
Very fine to fine sand	27	27		24	20	13
Very fine to medium sand	36	41-47		32	27	21
Very fine to coarse sand	48			40	31	24
Very fine to very coarse sand	59			51	40	29
Very fine sand to fine gravel	76			67	52	38
Very fine sand to medium gravel	99			80	66	49
Very fine sand to coarse gravel	128			107	86	64
Fine sand	27	40	53	33	27	20
Fine to medium sand	53	67		48	39	30
Fine to coarse sand	58	67-72		53	43	32
Fine to very coarse sand	70			60	47	35
Fine sand to fine gravel	88			74	59	44
Fine sand to medium gravel	114			94	75	57
Fine sand to coarse gravel	145			107	87	72
Medium sand	67	80	94	64	51	40
Medium to coarse sand	74	94		72	57	42
Medium to very coarse sand	84	98-111		71	61	49
Medium sand to fine gravel	103			84	68	52
Medium sand to medium gravel	131			114	82	66
Medium sand to coarse gravel	164			134	108	82
Coarse sand	80	107	134	94	74	53
Coarse to very coarse sand	94	134		94	75	57
Coarse sand to fine gravel	116	136-156		107	88	68
Coarse sand to medium gravel	147			114	94	74
Coarse sand to coarse gravel	184			134	100	92
Very coarse sand	107	147	187	114	94	74
Very coarse sand to fine gravel	134	214		120	104	84
Very coarse sand to medium gravel	170	199-227		147	123	99
Very coarse sand to coarse gravel	207			160	132	104
<b>Gravel</b>						
Fine gravel	160	214	267	227	140	107
Fine to medium gravel	201	334		201	167	134
Fine to coarse gravel	245	289-334		234	189	144
Medium gravel:	241	321	401	241	201	160
Medium to coarse gravel	294	468		294	243	191
Coarse gravel	334	468	602	334	284	234

The table above shows the estimated hydraulic conductivities values from an unpublished and undated paper by E.C. Reed and R. Piskin as it was published in "Hydrogeology of Parts of the Twin Platte and Middle Republican Natural Resources Districts, Southwestern Nebraska" by J. W. Goeke, J. M. Peckenpaugh, R. E. Cady, and J. T. Dugan, Nebraska Water Survey Paper No. 70, April 1992, published through the Conservation and Survey Division, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln.



### 3. Irrigation Well Density

The Irrigation Well density is the distance away from the proposed Irrigation Well in relation to all other Irrigation Wells located within a six thousand (6,000) foot radius. The point value is calculated using the following equation (2):

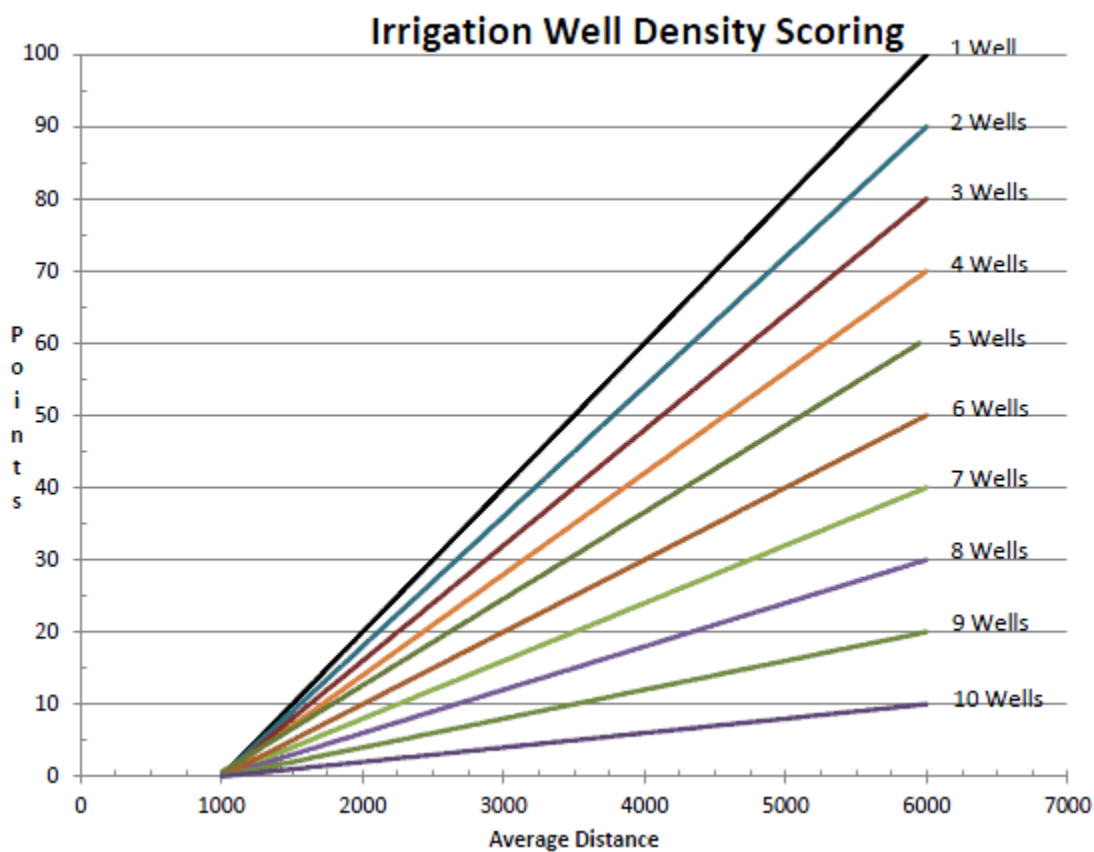
Points =  $[(0.02 - [(n - 1) * (0.002)] * d] - (22 - (2 * n))$ , in which:

n = number of irrigation wells

d = average distance of all irrigation wells within six thousand (6,000) feet

As the number of wells increases the maximum total point value decreases by ten (10) points for each additional well within the six thousand (6,000) foot radius. A zero (0) point score is automatically assigned for eleven (11) or more neighboring Irrigation Wells within the six thousand (6,000) foot radius.

Maximum point value of one hundred (100) and a minimum value of zero (0).



### 4. Public Water Supply Well Density

The public water supply well density is the distance away from the proposed Irrigation Well in relation to Public Water Supply Wells located within a six thousand (6,000) foot radius. The point value for one (1) to five (5) Public Water Supply Wells located within a six thousand (6,000) foot radius is calculated using the following equation (3):

Points =  $[(0.01 - [(n - 1) * (0.002)] * d] - (12 - (2 * n))$ , in which:

n = number of public water supply wells

d = average distance of all Public Water Supply Wells within a six thousand (6,000) foot radius

As the number of wells increases the maximum total point value decreases by ten (10) points for each additional well within the six thousand (6,000) foot radius.

Maximum positive point value of 50

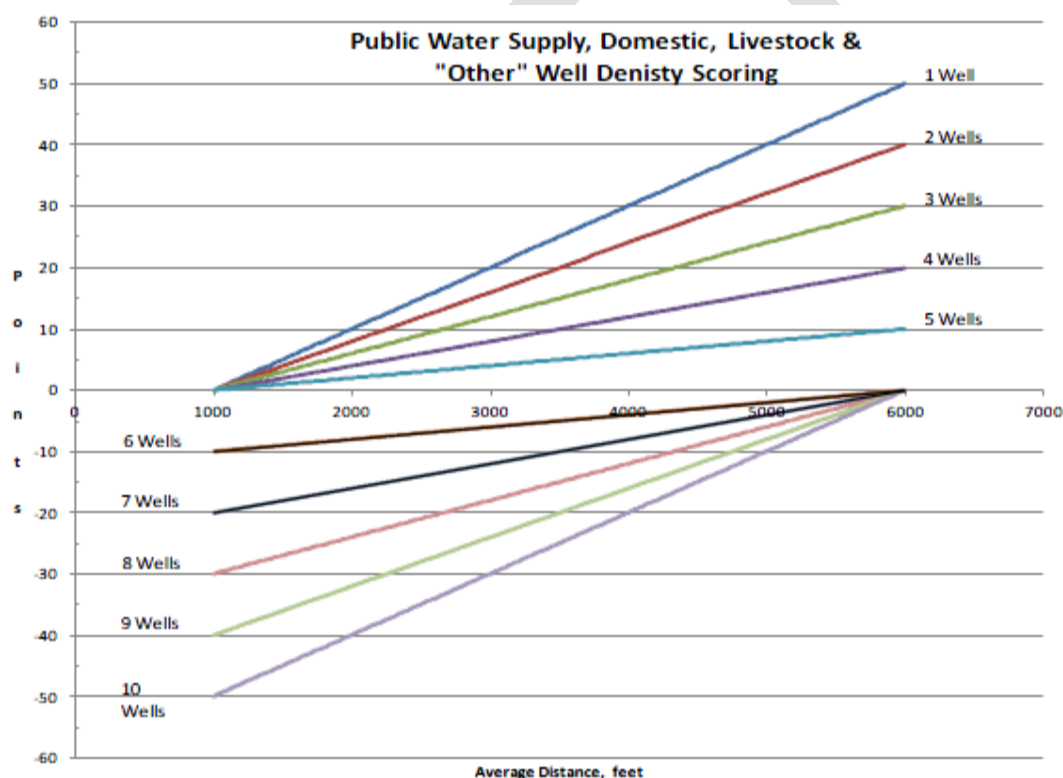
The point value for six (6) or more Public Water Supply Wells located within a six thousand (6,000) foot radius is calculated using the following equation (4):

Points =  $[(0.002 * (n - 5) * (d)) - (12 * (n - 5))]$ , in which:

n = number of Public Water Supply Wells

d = average distance of all Public Water Supply Wells within a six thousand (6,000) foot radius

Maximum negative point value of 50



## 5. Domestic, Livestock & Other Well Density

The Domestic, Livestock & other Water Well density is also calculated using equations (3) and (4) in the Public Water Supply Well density.

All Domestic, Commercial Livestock, and Range Livestock Wells shall be credited twenty-five (25) points.

## **6. Irrigation Best Management Practices**

The following points will be awarded if any of the following irrigation management practices will be utilized:

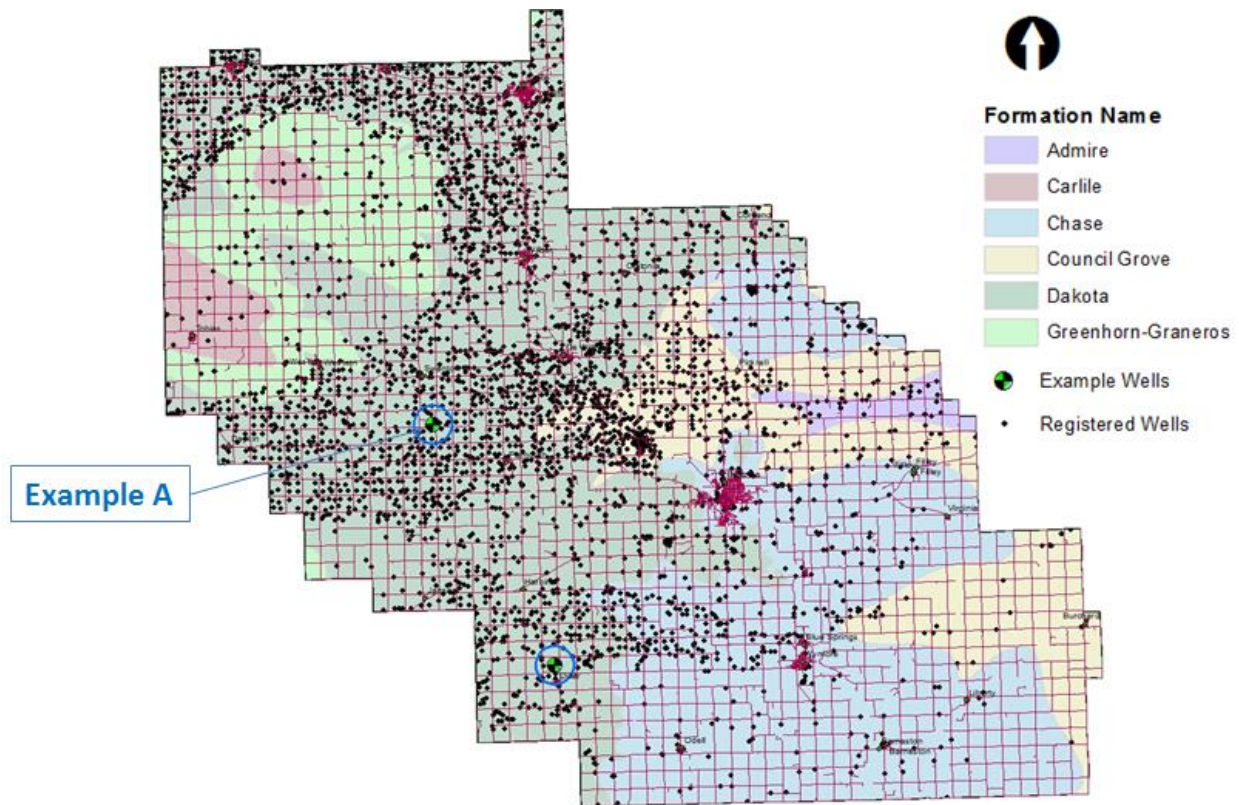
Irrigation Method:

- Gravity irrigation: negative twenty-five (0) points
- Pivot/Sprinkler irrigation: zero (25) points
- Subsurface Drip irrigation: zero (50) points

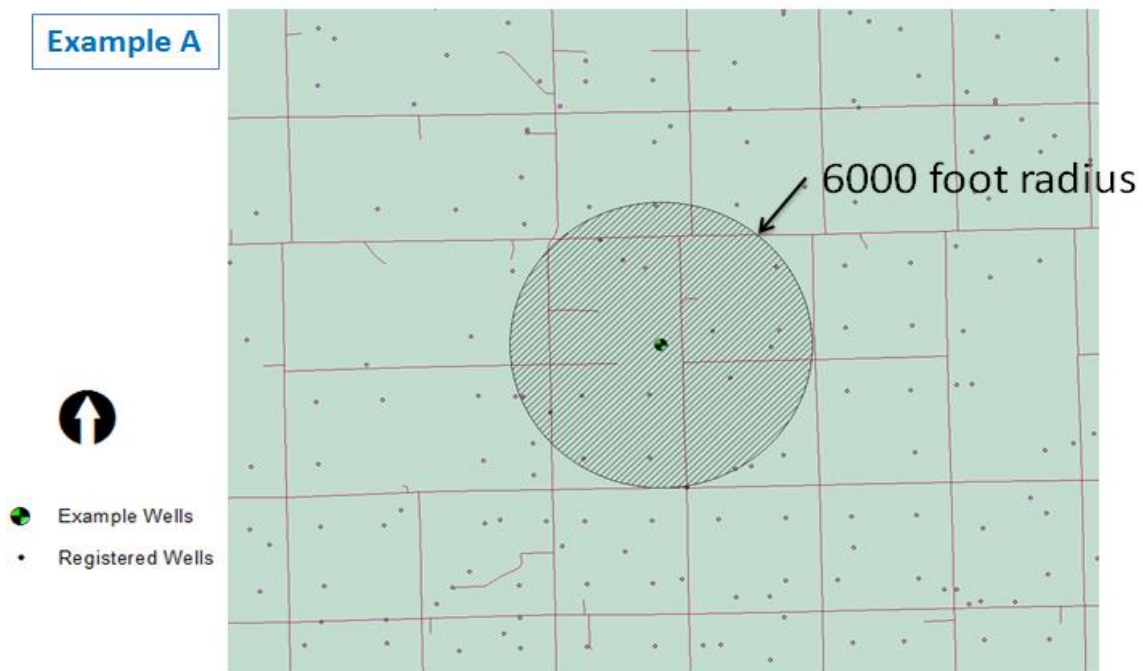
On the following pages is an example worksheet on how a well Permit application would be scored according to the above methodology.

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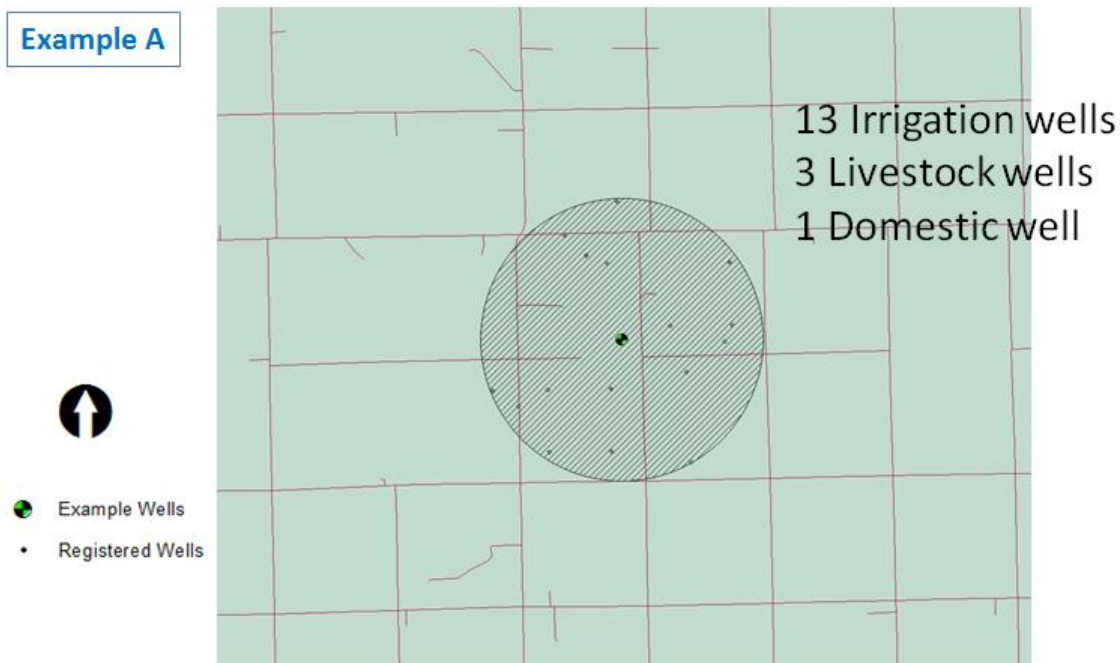
## Step 1: Locate the well



## Step 2: Draw a 6000 foot radius



**Step 3: Catalog all registered wells within the 6000 foot radius and their distance from proposed well**



**Step 4: Enter Information into the Ranking System Calculator**

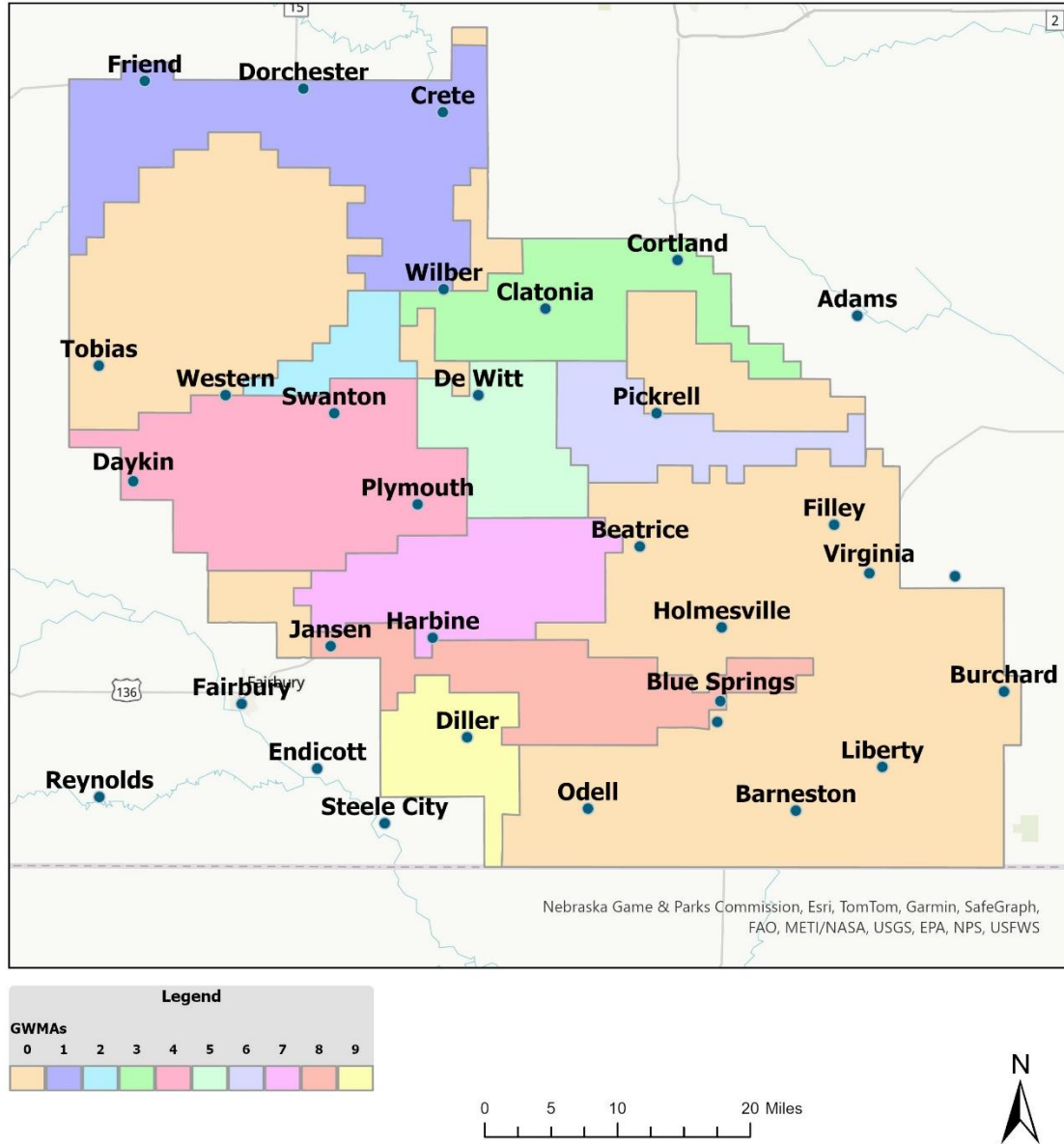
**Example A**

Well Permit Ranking System Calculator				
NAME				
LEGAL				
TESTHOLE ID				Date Scored:
Criteria	Maximum Points	Value	Units	Point Value
1. Thickness of Primary Aquifer Formation	100	0	feet	0
2. Transmissivity	100	0	gallons per day per foot	0
3. Irrigation Well Density	100	0	average distance, feet 0 # of wells	100
4. Public Water Supply Well Density	50	0	average distance, feet 0 # of wells	50
5. Domestic & Livestock Well Density	50	0	average distance, feet 0 # of wells	50
6. Irrigation Method [Efficiency Credit*]				25
Gravity = 0 points      Pivot = 25 points      Subsurface Drip = 50 points				
*All domestic, commercial or range livestock wells credited 25 points				
	450	Total Score		225



## APPENDIX B: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA MAP

Figure 1: LBBNRD Sub-Area Map

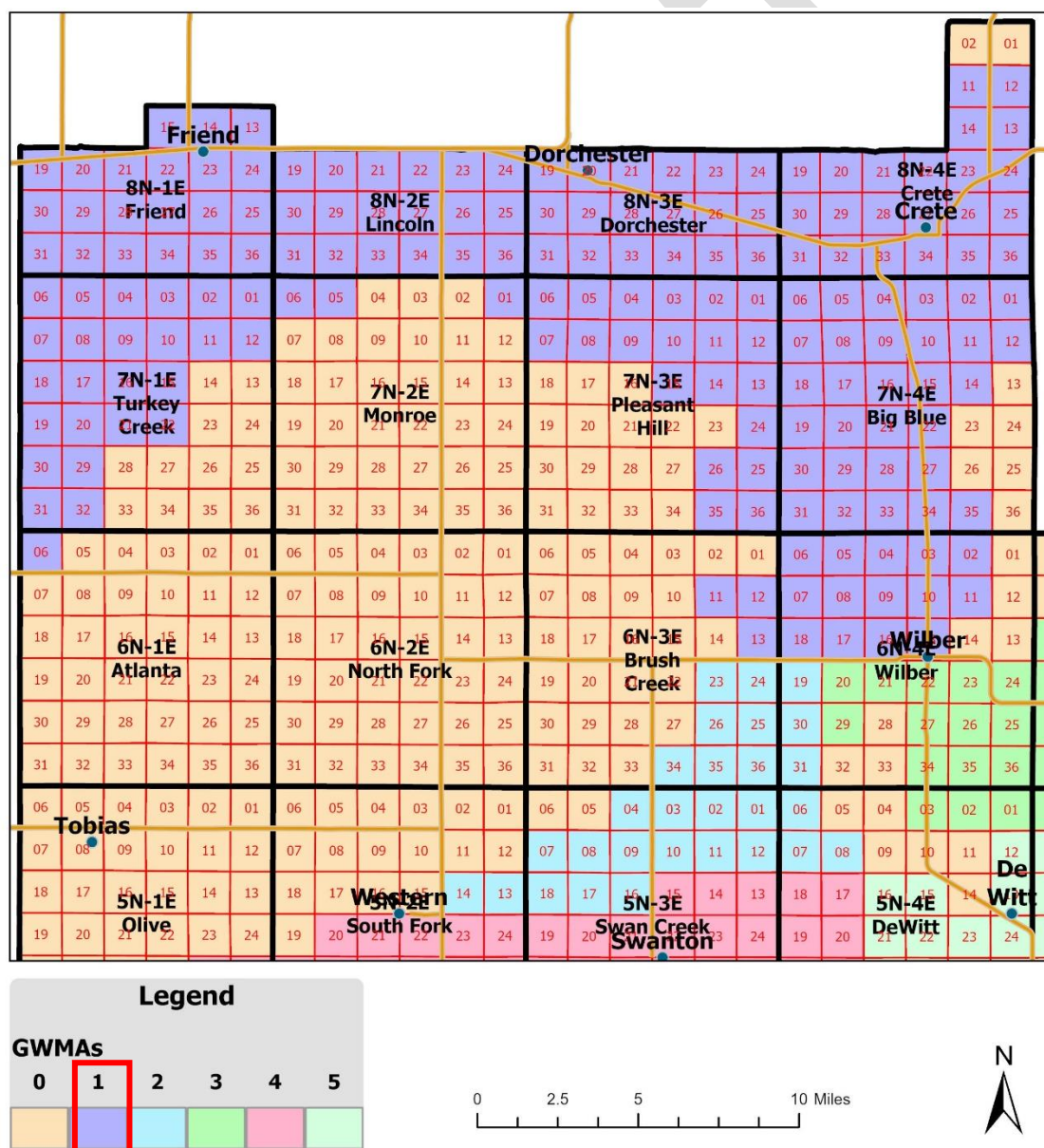


## APPENDIX C: GROUNDWATER QUANTITY MANAGEMENT SUB-AREAS DETAILS

### SECTION A: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 1

- Northern Saline County
- Alluvial Aquifer of the Big Blue River
- Median Phase 2 Trigger Level is 5.00 feet below baseline
- Phase 3 Trigger Level is 6.50 feet below baseline
- Minimum score required for approval of a new well permit: 200 points

Figure 2: Sub-Area 1

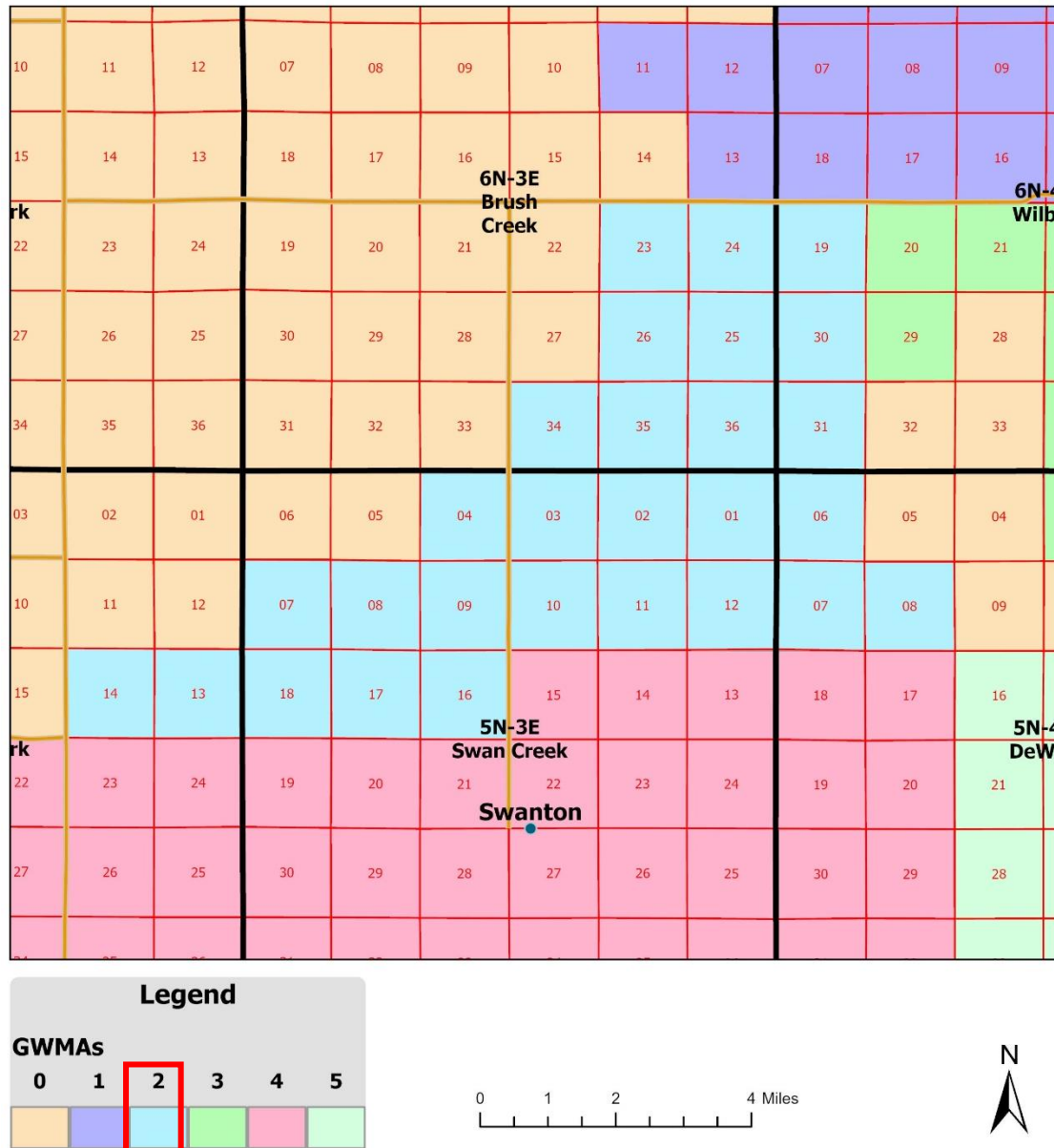




## SECTION B: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 2

- Southeastern Saline County
- Portions of Alluvial Aquifer of the Big Blue River and Paleovalley Aquifer
- Median Phase 2 Trigger Level is 1.95 feet below baseline
- Phase 3 Trigger Level is 2.54 feet below baseline
- Minimum score required for approval of a new well permit: 200 points

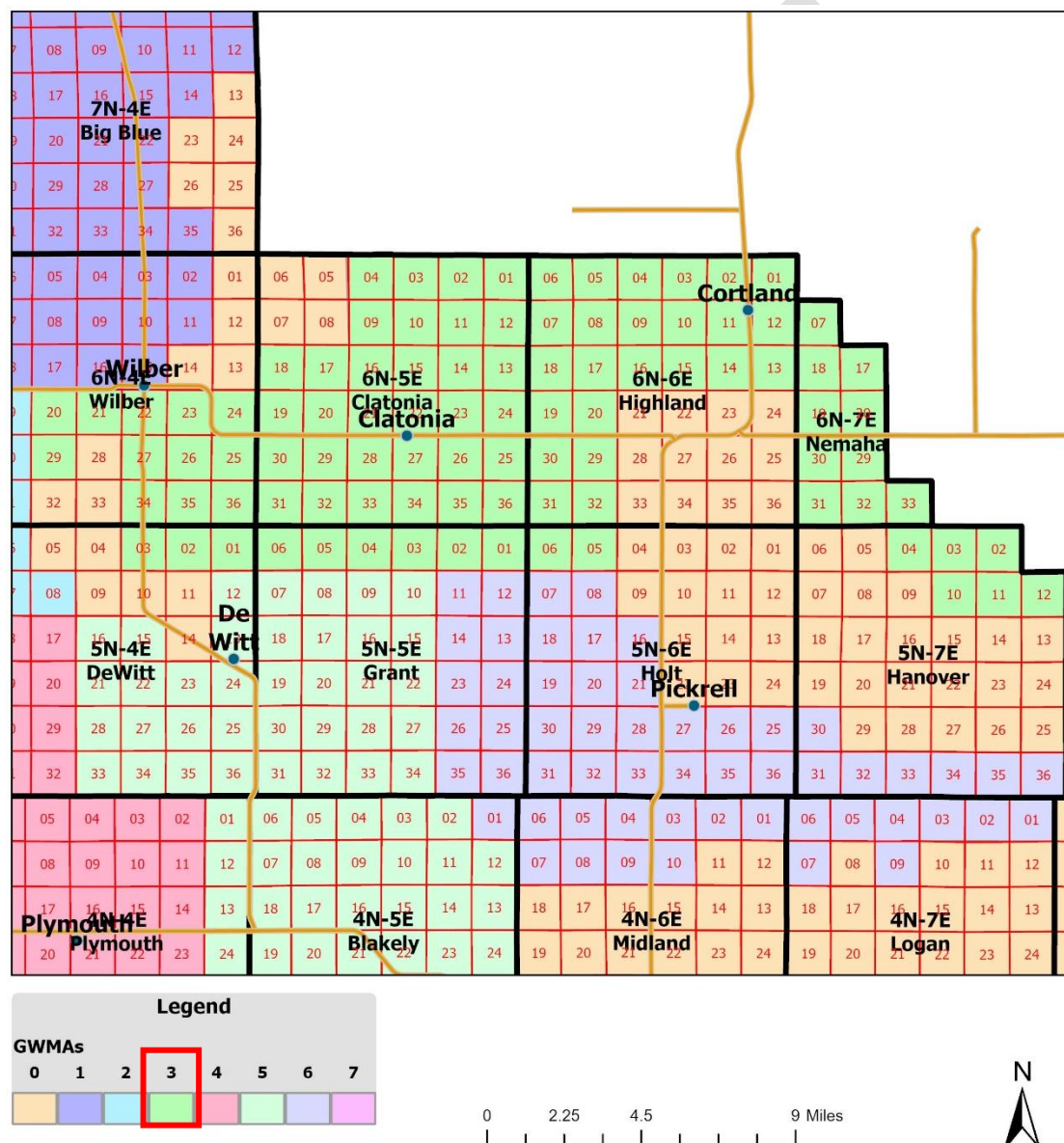
Figure 3: Sub-Area 2



### SECTION C: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 3

- Northern Gage County
- Pockets of development pump from the Crete-Princeton-Adams Aquifer along the northern boundary or from the Big Blue River alluvial Aquifer along the southwest boundary
- Median Phase 2 Trigger Level is 2.80 feet below baseline
- Phase 3 Trigger Level is 3.64 feet below baseline
- Minimum score required for approval of a new well permit: 225 points

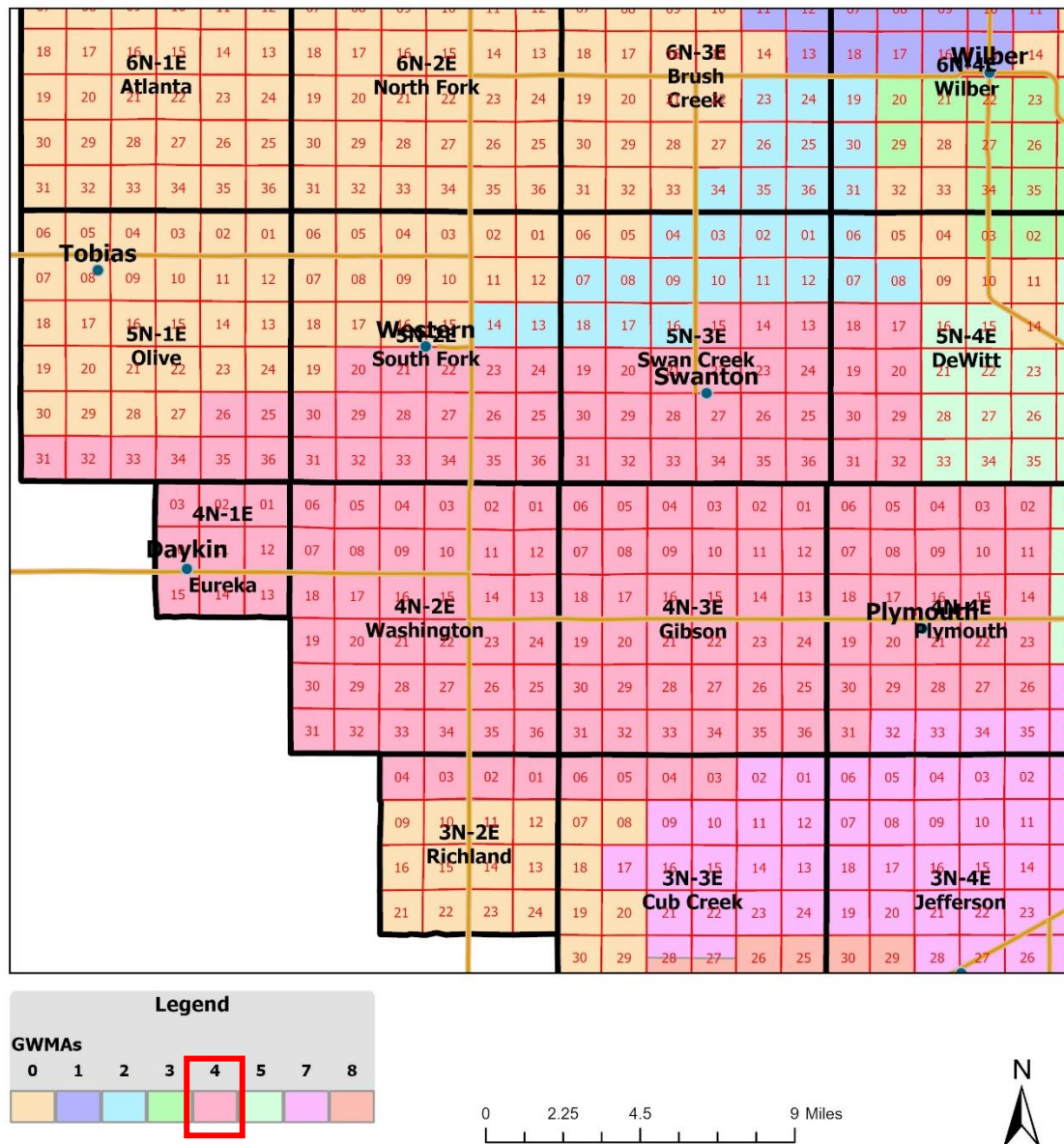
Figure 4: Sub-Area 3



## SECTION D: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 4

- Northern Jefferson and Southern Saline Counties
- Major Paleovalley Aquifer
- Median Phase 2 Trigger Level is 4.05 feet below baseline
- Phase 3 Trigger Level is 5.27 feet below baseline
- Minimum score required for approval of a new well permit: 200 points

Figure 5: Sub-Area 4



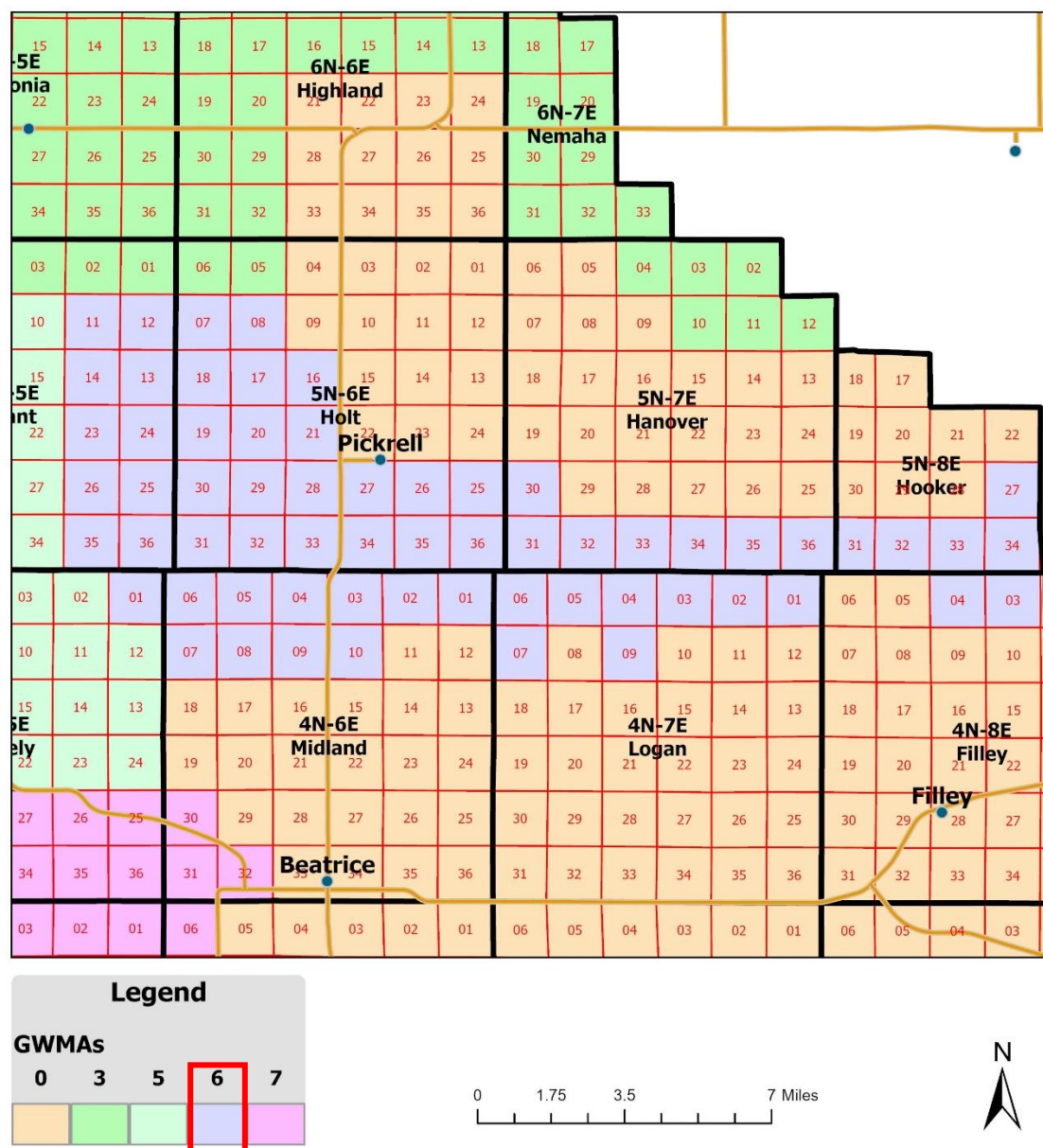




## SECTION F: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 6

- North Central Gage County
- Major Paleovalley Aquifer
- Median Phase 2 Trigger Level is 5.00 feet below baseline
- Phase 3 Trigger Level is 6.50 feet below baseline
- **Minimum score required for approval of a new well permit: 225 points**

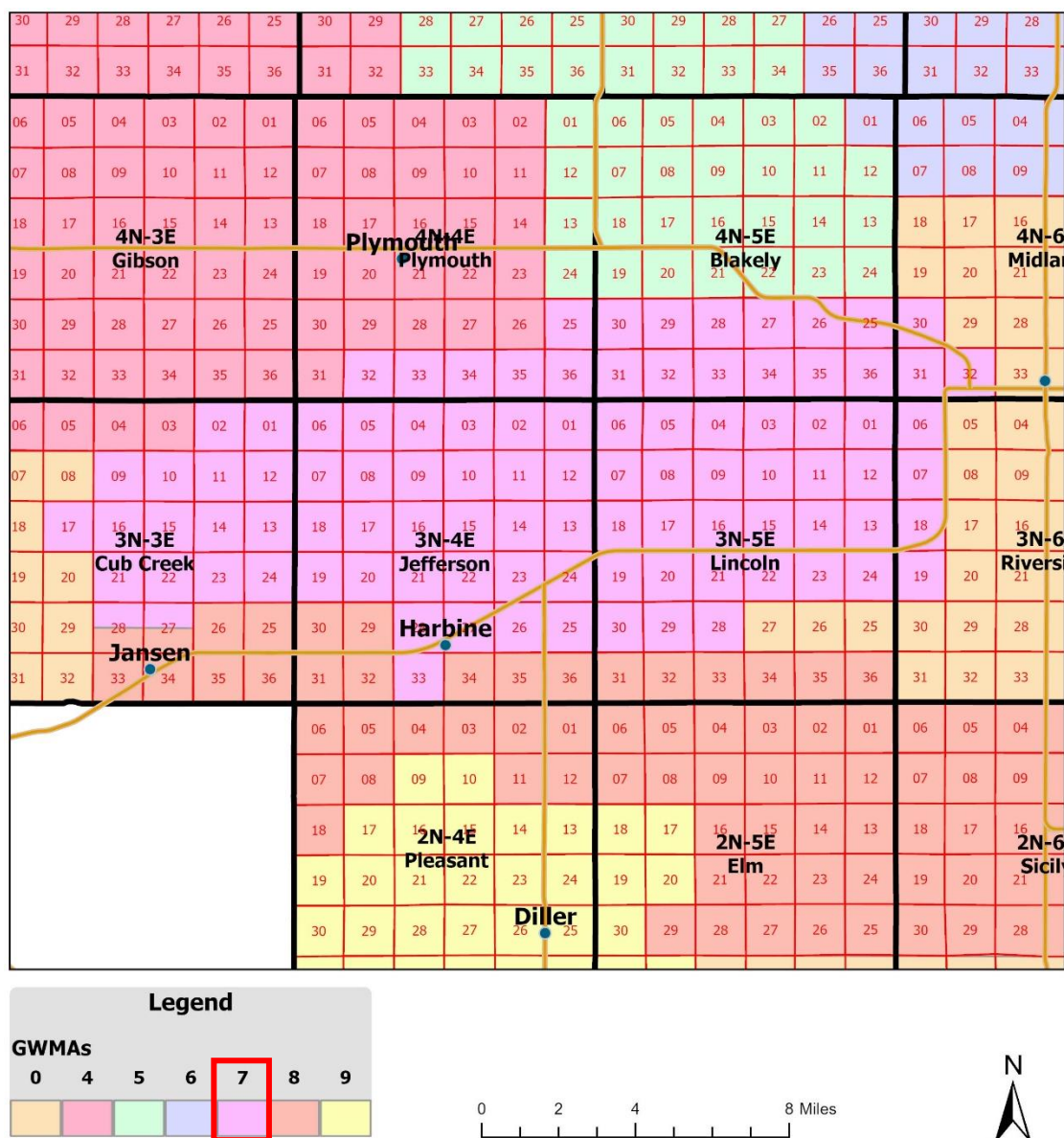
Figure 7: Sub-Area 6



## SECTION G: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 7

- North Central Jefferson to Central Gage Counties
- Dakota Bedrock Aquifer
- Median Phase 2 Trigger Level is 2.08 feet below baseline
- Phase 3 Trigger Level is 2.70 feet below baseline
- **Minimum score required for approval of a new well permit: 225 points**

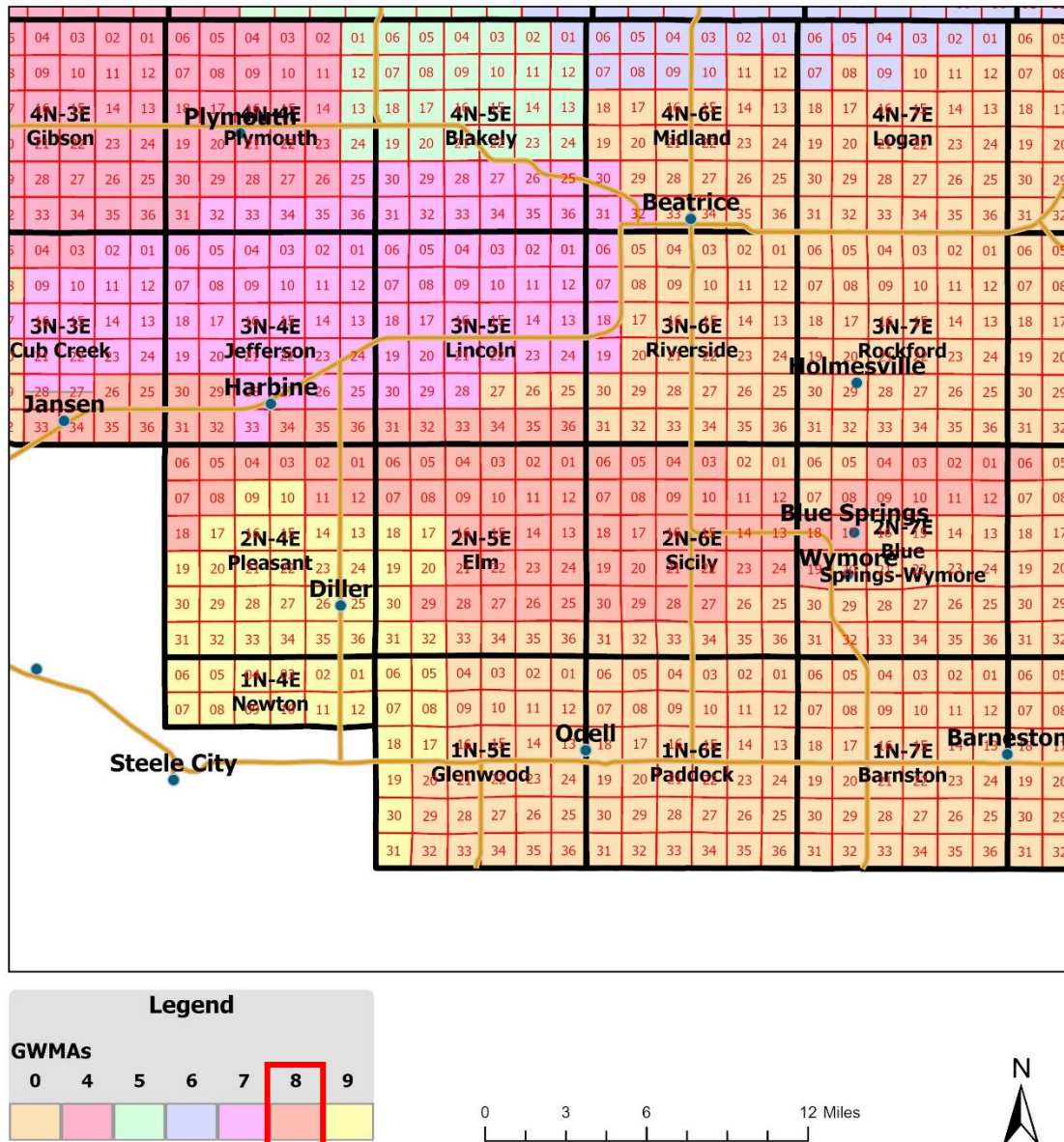
Figure 8: Sub-Area 7



## SECTION H: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 8

- Jansen to Blue Springs
- Major Paleovalley Aquifer
- Median Phase 2 Trigger Level is 3.23 feet below baseline
- Phase 3 Trigger Level is 4.2 feet below baseline
- **Minimum score required for approval of a new well permit: 225 points**

Figure 9: Sub-Area 8

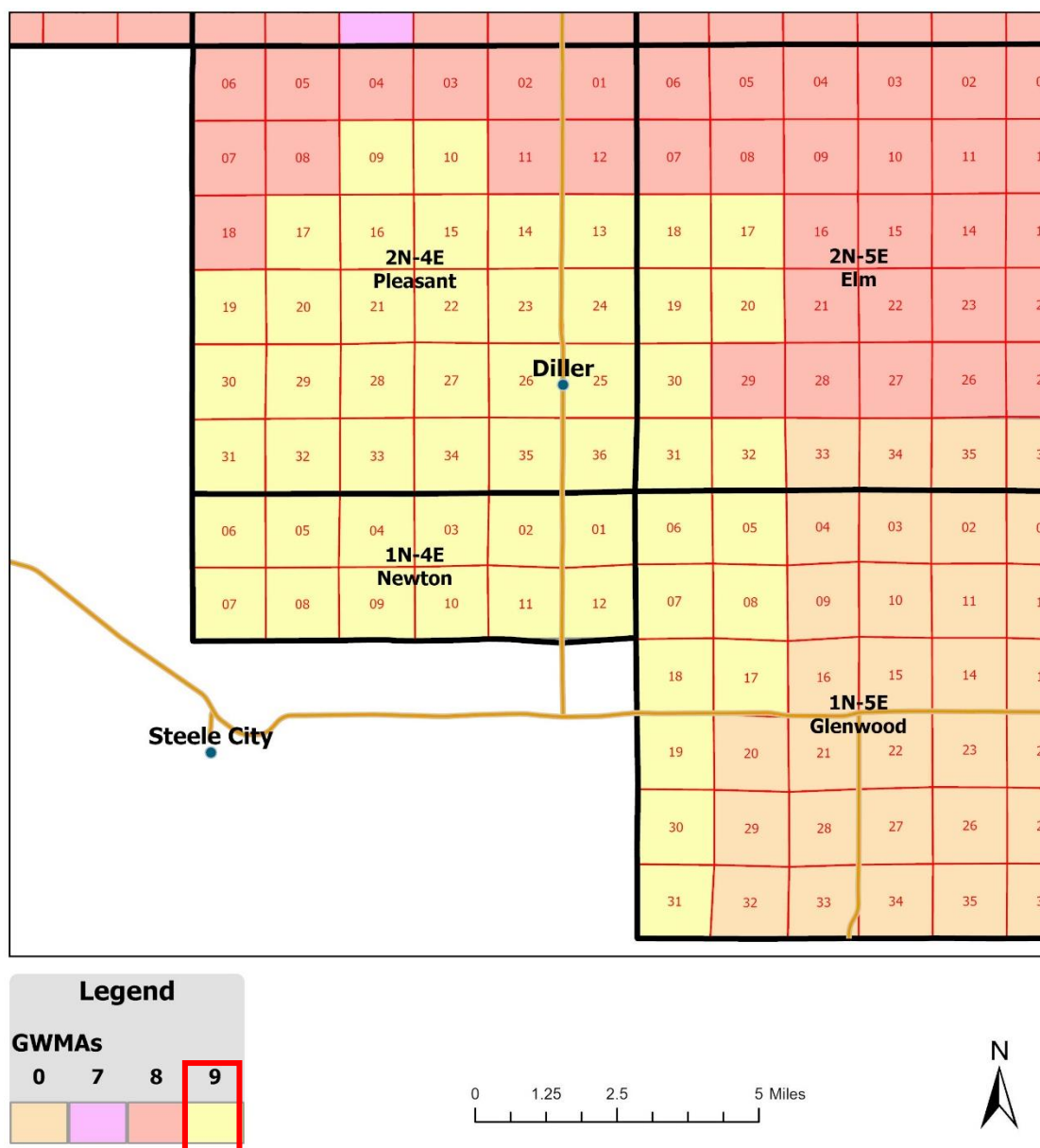




## SECTION I: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 9

- Southern Jefferson and Gage Counties
- Dakota Bedrock Aquifer
- Median Phase 2 Trigger Level is 2.90 feet below baseline
- Phase 3 Trigger Level is 3.77 feet below baseline
- **Minimum score required for approval of a new well permit: 225 points**

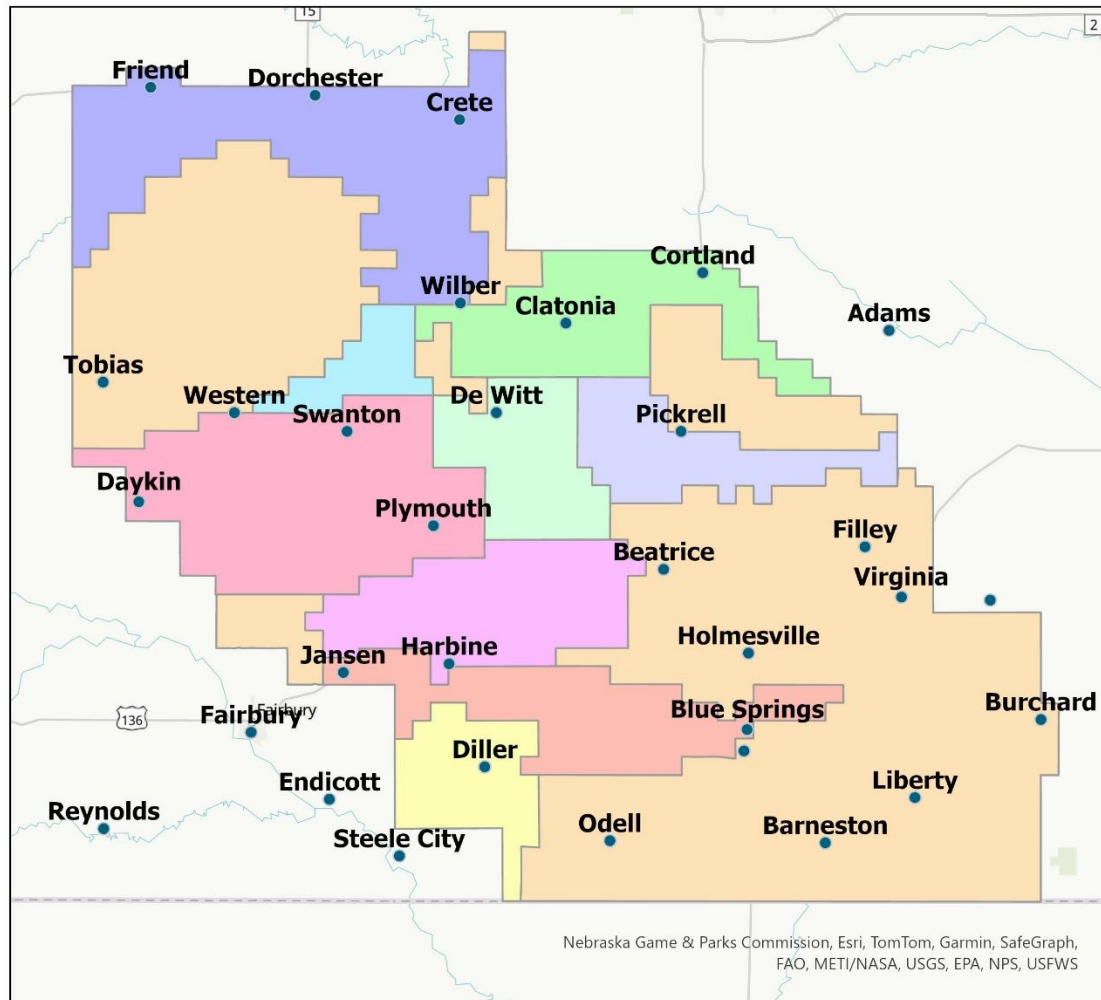
Figure 10: Sub-Area 9



## SECTION J: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 0 (REMAINING AREA)

- Discontinuous, low productivity aquifer
- Minimum score required for approval of a new well permit: 225 points

Figure 11: Remaining Area (0)



## APPENDIX D: OBSERVATION WELL MONITORING NETWORK

Figure 12: Observation Well Monitoring Network

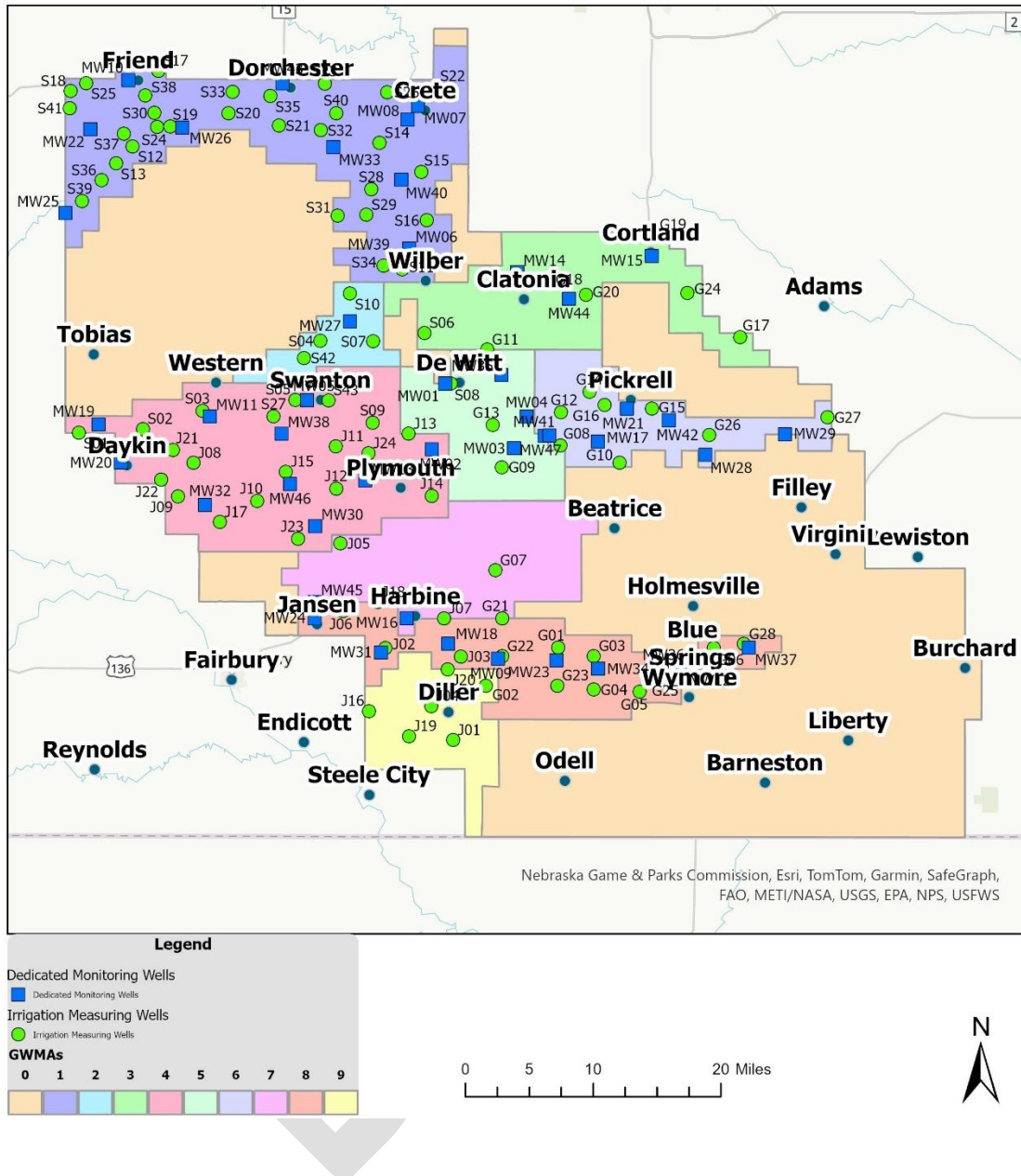


Figure 13: Sub-Area 1 Observation Wells

LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
MW06	Friend	1	2016	93.8	95.6	1.8
MW07	Friend	1	2016	17.65	22.65	5
MW08	Friend	1	2016	17.28	21.87	4.59
MW10	Friend	1	2016	100.03	105.03	5
MW22	Friend	1	2016	79.78	84.78	5
MW25	Friend	1	2016	75.91	80.91	5
MW26	Friend	1	2016	14.95	19.45	4.5
MW33	Friend	1	2016	80.69	85.1	4.41
MW39	Friend	1	2016	87.47	90.64	3.17
MW40	Friend	1	2016	48.48	53.35	4.87
MW43	Friend	1	2020	101.11	106.11	5
S11	Friend	1	1982	91.98	95.53	3.55
S12	Friend	1	1997	93.6	98.6	5
S13	Friend	1	1982	72.13	76.58	4.45
S14	Friend	1	1982	85.65	90.65	5
S15	Friend	1	1982	17.47	22.47	5
S16	Friend	1	1982	16.72	19.22	2.5
S17	Friend	1	1982	101.33	105.38	4.05
S18	Friend	1	1996	73.96	78.96	5
S19	Friend	1	1982	8.42	13.32	4.9
S20	Friend	1	1996	52.63	57.63	5
S21	Friend	1	1982	71.68	76.68	5
S22	Friend	1	1982	97.61	102.61	5
S23	Friend	1	2011	99.5	104.5	5
S24	Friend	1	2011	7.93	12.93	5
S25	Friend	1	2011	77.49	82.49	5
S26	Friend	1	2011	99.2	104.2	5
S28	Friend	1	2011	84.64	89.64	5
S29	Friend	1	2011	37.59	41.34	3.75
S30	Friend	1	2011	52.42	57.42	5
S31	Friend	1	2011	79	82.85	3.85
S32	Friend	1	2011	94.43	99.43	5
S33	Friend	1	2011	72.03	77.03	5
S34	Friend	1	2011	21.55	26.55	5
S35	Friend	1	2011	87.95	92.95	5
S36	Friend	1	2011	78.58	82.78	4.2
S37	Friend	1	2011	32.95	37.75	4.8
S38	Friend	1	2011	91.7	96.7	5
S39	Friend	1	2011	73.86	78.86	5
S40	Friend	1	2011	88.99	93.99	5
S41	Friend	1	2011	90.1	95.1	5
Median Phase 2 Level						5
Phase 3 Level (30% Below Phase 2 Level)						6.5

Figure 14: Sub-Areas 2-3 Observation Wells

LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
MW27	Swan Creek	2	2016	62.53	63.47	0.94
S04	Swan Creek	2	1982	80.73	82.38	1.65
S07	Swan Creek	2	1982	48.72	53.32	4.6
S10	Swan Creek	2	1982	81.97	86.17	4.2
S42	Swan Creek	2	2011	35.62	37.57	1.95
Median Phase 2 Level						1.95
Phase 3 Level (30% Below Phase 2 Level)						2.54
LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G17	Cortland	3	1982	77.2	79.4	2.2
G18	Cortland	3	1982	82.57	83.67	1.1
G20	Cortland	3	1982	146.9	151.15	4.25
G24	Cortland	3	2011	82.73	86.63	3.9
MW14	Cortland	3	2016	104.96	106.81	1.85
MW15	Cortland	3	2016	129.54	134.54	5
MW44	Cortland	3	2017	174.29	176.04	1.75
S06	Cortland	3	1982	22.9	26.3	3.4
Median Phase 2 Level						2.80
Phase 3 Level (30% Below Phase 2 Level)						3.64

Figure 15: Sub-Areas 4-5 Observation Wells

LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
J08	Plymouth	4	1982	136.64	140.69	4.05
J09	Plymouth	4	1998	114.69	117.94	3.25
J10	Plymouth	4	1997	111.7	116.45	4.75
J11	Plymouth	4	1982	97.34	101.59	4.25
J12	Plymouth	4	1982	107.87	112.87	5
J13	Plymouth	4	1998	78.59	82.99	4.4
J14	Plymouth	4	2005	117.55	121.1	3.55
J15	Plymouth	4	2011	96.22	99.77	3.55
J17	Plymouth	4	2011	101.31	105.46	4.15
J21	Plymouth	4	2011	63.95	68.3	4.35
J22	Plymouth	4	2011	142.56	147.56	5
J23	Plymouth	4	2011	56.81	61.41	4.6
J24	Plymouth	4	2011	116.75	121.75	5
MW02	Plymouth	4	2016	65.03	70.03	5
MW05	Plymouth	4	2016	15.86	17.39	1.53
MW11	Plymouth	4	2016	38.34	41.77	3.43
MW13	Plymouth	4	2017	115.28	120.28	5
MW19	Plymouth	4	2016	138.02	138.91	0.89
MW20	Plymouth	4	2016	120.6	124.63	4.03
MW30	Plymouth	4	2016	67.61	72.61	5
MW32	Plymouth	4	2016	88.9	93.9	5
MW38	Plymouth	4	2016	98.53	101.48	2.95
MW46	Plymouth	4	2023	107.63	112.63	5
S01	Plymouth	4	1982	129.58	132.58	3
S02	Plymouth	4	1982	67.29	69.79	2.5
S05	Plymouth	4	1981-2023 Median	14.88	15.98	1.1
S09	Plymouth	4	1982	92.28	95.83	3.55
S27	Plymouth	4	2011	17.83	19.98	2.15
S43	Plymouth	4	2011	21.68	24.58	2.9
				Median Phase 2 Level		4.05
				Phase 3 Level (30% Below Phase 2 Level)		5.27
LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G09	DeWitt	5	1982	64.83	68.93	4.1
G11	DeWitt	5	1982	53.9	56.35	2.45
G13	DeWitt	5	1982	15.17	20.17	5
MW01	DeWitt	5	2016	11.69	13.56	1.87
MW03	DeWitt	5	2016	16.36	20	3.64
MW04	DeWitt	5	2016	27.92	32.29	4.37
MW35	DeWitt	5	2016	72.49	74.83	2.34
MW41	DeWitt	5	2016	56.78	60.44	3.66
S08	DeWitt	5	1981-2023 Median	16.44	18.34	1.9
				Median Phase 2 Level		3.64
				Phase 3 Level (30% Below Phase 2 Level)		4.73

Figure 16: Sub-Areas 6-7 Observation Wells

LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G08	Pickrell	6	1982	96.02	101.02	5
G10	Pickrell	6	1982	22.23	23.38	1.15
G12	Pickrell	6	1981-2023 Median	122.17	127.17	5
G14	Pickrell	6	1981-2023 Median	165.75	170.75	5
G15	Pickrell	6	1994	110.45	113.55	3.1
G16	Pickrell	6	1982	163.99	168.99	5
G26	Pickrell	6	2011	87.46	92.46	5
G27	Pickrell	6	2012	247.93	252.93	5
MW17	Pickrell	6	2016	109.46	114.08	4.62
MW21	Pickrell	6	2016	58.43	61.1	2.67
MW28	Pickrell	6	2016	111.17	114.55	3.38
MW29	Pickrell	6	2017	184.32	189.32	5
MW42	Pickrell	6	2016	132.29	137.29	5
MW47	Pickrell	6	2024	60.92	65.92	5
Median Phase 2 Level						5
Phase 3 Level (30% Below Phase 2 Level)						6.5
LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G07	Ellis	7	1982	81.15	82.15	1
G21	Ellis	7	2011	108.37	111.12	2.75
J05	Ellis	7	1982	26.99	31.99	5
J07	Ellis	7	1982	95.26	99.41	4.15
MW16	Ellis	7	2016	123.51	124.45	0.94
MW45	Ellis	7	2017	84.06	85.46	1.4
Median Phase 2 Level						2.08
Phase 3 Level (30% Below Phase 2 Level)						2.70

Figure 17: Sub-Areas 8-9 Observation Wells

LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G01	Jansen-Wymore	8	1982	50.5	52.7	2.2
G03	Jansen-Wymore	8	1982	78.8	81.2	2.4
G04	Jansen-Wymore	8	1994	76.89	81.34	4.45
G05	Jansen-Wymore	8	1982	86.69	90.39	3.7
G06	Jansen-Wymore	8	1998	39.21	42.46	3.25
G22	Jansen-Wymore	8	2011	96.56	101.56	5
G23	Jansen-Wymore	8	2011	93.45	94.85	1.4
G25	Jansen-Wymore	8	2011	60.44	62.99	2.55
G28	Jansen-Wymore	8	2011	94.58	97.38	2.8
J02	Jansen-Wymore	8	1982	95.23	97.73	2.5
J03	Jansen-Wymore	8	1982	88.76	92.41	3.65
J06	Jansen-Wymore	8	1982	136.16	138.51	2.35
J18	Jansen-Wymore	8	2011	139.96	144.21	4.25
MW09	Jansen-Wymore	8	2017	83.84	87.89	4.05
MW12	Jansen-Wymore	8	2016	31.84	33.58	1.74
MW18	Jansen-Wymore	8	2016	67.47	70.92	3.45
MW23	Jansen-Wymore	8	2016	54.82	58.76	3.94
MW24	Jansen-Wymore	8	2016	94.42	94.99	0.57
MW31	Jansen-Wymore	8	2017	72.82	77.82	5
MW34	Jansen-Wymore	8	2016	30.56	33.76	3.2
MW36	Jansen-Wymore	8	2016	34.58	36.54	1.96
MW37	Jansen-Wymore	8	2016	56.42	61.42	5
Median Phase 2 Level						3.23
Phase 3 Level (30% Below Phase 2 Level)						4.20
LBBNRD_ID	Sub Area	Sub Area #	Baseline Year	Baseline DTW	Phase 2 DTW	Phase 2 DTW - Baseline DTW
G02	Diller	9	1982	83.23	85.28	2.05
J01	Diller	9	1982	49.24	53.24	4
J04	Diller	9	1982	82.15	85.9	3.75
J16	Diller	9	2011	15.42	16.57	1.15
J19	Diller	9	2011	118.19	123.19	5
J20	Diller	9	2011	51.58	53.28	1.7
Median Phase 2 Level						2.90
Phase 3 Level (30% Below Phase 2 Level)						3.77