

Groundwater Quantity Rules and Regulations



These Rules and Regulations shall become effective December 22, 2025, and shall remain in full force and effect until revised, repealed, amended or superseded.

All previous Groundwater Quantity Management Area Rules and Regulations are hereby superseded.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).
- 1.9 Groundwater Management Plan Rules and Regulations – At its monthly meeting on November 13, 2025, the District Board of Directors approved the revisions to the District’s Groundwater Quantity Rules and Regulations presented at a public hearing

on October 30, 2025, at 7:00 p.m. held in the 4-H Building located at the Gage County Fairgrounds. These Rules and Regulations shall become effective on December 22, 2025.

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 Water, Energy, and Environment.
- 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, 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 Recreational use;
- 3.27.3.2 Commercial, industrial, or manufacturing use;
- 3.27.3.3 a Livestock Feeding Operation or Livestock Facility, and
- 3.27.3.4 Watering and maintenance of golf courses
- 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 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.
- 3.40 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 as specified in these Rules and Regulations.

- 3.41 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 as specified in these Rules and Regulations.
- 3.42 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.
- 3.43 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.
- 3.44 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.
- 3.45 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.
- 3.45.1 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.
- 3.46 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.
- 3.47 Tract of Land or Tract shall mean the legally deeded property of a Person that is contiguous and lies within one Government Survey Section.
- 3.47.1 Destination Tract shall mean a Tract of Land to which Groundwater is being transferred.
- 3.47.2 Source Tract shall mean a Tract of Land from which Groundwater is being transferred.
- 3.48 Unconfined Aquifer shall mean Groundwater that is under the pressure exerted by the overlying Groundwater and by atmospheric pressure.

- 3.49 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.
- 3.50 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.
- 3.51 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.
- 3.52 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.
- 3.52.1 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.
- 3.52.2 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.
- 3.52.3 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.
- 3.52.4 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.

- 3.52.5 Dewatering Well shall mean a Water Well constructed and used solely for the purpose of lowering the Groundwater table elevation.
- 3.52.6 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.
- 3.52.7 High Capacity Well shall refer to any Water Well designed and constructed to pump greater than fifty (50) gallons per minute.
- 3.52.8 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.
- 3.52.9 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.
- 3.52.10 Large Volume Water Wells shall mean Water Wells that withdraw, or will be used to withdraw, Groundwater in volumes greater than four hundred (400) acre-feet in any calendar year from a single well, a Commingled Well, or collection of wells and combine Groundwater from such collection.
- 3.52.11 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.
- 3.52.12 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.
- 3.52.13 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.
- 3.52.14 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.
- 3.52.15 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.

- 3.52.16 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.
- 3.52.17 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 as approved and executed by the Board Chairman. 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 [5.15.3](#), [5.15.3.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [5.15.3.1 below](#), or [Chapter 5: Section 10: below](#), for Wells pumping greater than 400 AF/Year 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 [5.15.3](#), [5.15.3.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided in [5.15.3.1 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 [5.15.3](#), [5.15.3.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score, as provided on [5.15.3.1 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 may 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, other than a Large Volume Water Well described in [Chapter 5: Section 10: below](#) 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 [5.15.7](#), shall be accompanied

with documentation proving that a Test-Hole was drilled in accordance with the provisions of Rules [5.14.2](#) through [5.14.2.7](#) 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 Person applying for a Permit to construct a Water Well requiring Test-Hole documentation shall be responsible for all costs of obtaining such Test-Hole documentation.
- 5.14.2.5 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.
- 5.14.2.6 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.
- 5.14.2.7 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 received pursuant to [Chapter 5: Section 4: above](#) 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 each Permit application received pursuant to [Chapter 5: Section 4: above](#) 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 Using the best data available to the District, including any information submitted by the applicant as part of the Permit application pursuant to [Chapter 5: Section 4: above](#), 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.

5.15.3 The District has developed a standardized method for evaluating and ranking well Permit applications submitted pursuant to [Chapter 5: Section 4: above](#) based upon criteria set forth in the District’s Well Permit Ranking System Methodology (see [Chapter 17: Appendix A: below](#)). 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.

5.15.3.1 The Water Well Permit application submitted pursuant to [Chapter 5: Section 4: above](#) must satisfy the minimum score of the Well Permit Ranking System Methodology for the Groundwater Quantity Management Sub-Area in which the Water Well will be located in order to be approved, unless a Pumping Well test is performed as provided in [Chapter 5: Section 9: below](#). The minimum score of the Well Permit Ranking System Methodology required for approval of a new Water Well Permit for each Groundwater Quantity Management Sub-Area is as follows:

- 5.15.3.1.1 Sub-Area One (1): 200 total points
- 5.15.3.1.2 Sub-Area Two (2): 200 total points
- 5.15.3.1.3 Sub-Area Three (3): 225 total points
- 5.15.3.1.4 Sub-Area Four (4): 200 total points
- 5.15.3.1.5 Sub-Area Five (5): 200 total points
- 5.15.3.1.6 Sub-Area Six (6): 225 total points
- 5.15.3.1.7 Sub-Area Seven (7): 225 total points
- 5.15.3.1.8 Sub-Area Eight (8): 225 total points
- 5.15.3.1.9 Sub-Area Nine (9): 225 total points
- 5.15.3.1.10 Sub-Area Zero (0): 225 total points

5.15.3.2 The Board may adjust the methodology in [Chapter 17: Appendix A: below](#) to comply with the best available data and methodologies.

5.15.4 Permit applications submitted pursuant to [Chapter 5: Section 4: above](#) 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.

5.15.5 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

- 5.15.6 Public Water Supply or Municipal Wells are exempt from the requirements of Rules [5.15.3](#), [5.15.3.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score for approval.
- 5.15.7 Replacement Wells are exempt from the requirements of [Chapter 5: Section 5: above](#), Test-Hole Documentation, and Rules [5.15.3](#), [5.15.3.1](#), and [5.16.5](#), the Well Permit Ranking System Methodology and required minimum score for approval.

SECTION 8: PERMIT DENIAL

- 5.16 Denial of an application for a Permit or Late Permit for a Water Well submitted pursuant to [Chapter 5: Section 4: above](#) may include but is not limited to the following:
- 5.16.1 that the application fails to meet the criteria set forth in Rule [5.15.2](#);
- 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, Pumping Test, or Site Plan includes any intentionally misleading or falsified data;
- 5.16.5 that the well Permit application fails to meet the minimum ranking score of the Well Permit Ranking System Methodology for the Groundwater Quantity Management Sub-Area in which the Water Well will be located pursuant to [5.15.3.1 above](#);
- 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 submitted pursuant to [Chapter 5: Section 4: above](#) does not meet the minimum ranking score for approval in the Well Permit Ranking System Methodology for the Groundwater Quantity Management Sub-Area in which the Water Well will be located pursuant to [5.15.3.1 above](#), may conduct a pumping test in order to support 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 1st and September 30th 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, but no less than five hundred (500) gallons per minute.
- 5.17.5 The Person applying for the Water Well Permit to construct a well utilizing a pumping test shall notify the District of the time and location of the pumping test either in person, by U.S. postal mail, or by electronic communication at least two (2) full District working days prior to the pump test.
- 5.17.6 The District may notify the Person in return either in person, by U.S. postal mail, or by electronic communication that the pumping test may proceed prior to the required two (2) full District working days after the date that the notification to run a pumping test was received by the District.
- 5.17.7 The failure of the District to notify the Person that the pumping test may proceed shall not restrict the pumping test 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 [5.17.5 above](#).
- 5.17.8 The District may with proper notice either have a staff member or a third-party representative on site during the pumping test when deemed necessary by the District in order to ensure accurate pumping test procedures.
- 5.17.9 The Person applying for the Water Well Permit to construct a well utilizing a pumping test shall be responsible for all costs associated with the Pump Test.
- 5.17.10 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.
- 5.17.11 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.
- 5.17.12 The Pump Test Well shall maintain at least a five hundred (500) gallon per minute output or more throughout the twenty-four (24) hour test period to be approved by the District.
- 5.17.13 If, after reviewing the pumping test results from the Pump Test Well, the District is satisfied that the location, hydrology, pumping 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 in an amount specified by the District.

- 5.17.13.1 The Water Well Permit shall specify the maximum amount of water that the Well may pump. If the pumping test was only conducted at five hundred (500) gallons per minute, the Water Well shall not be permitted to pump more than five hundred (500) gallons per minute. If the pumping test maintained a rate higher than five hundred (500) gallons per minute at the Water Well's designed rate, the Water Well may be permitted to pump the full amount sustained by the pump test.
- 5.17.14 The District may reject pumping tests if District staff or a third-party representative determines that the pumping test results are neither true nor accurate or have been falsified or tampered with.
- 5.17.15 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 400 ACRE-FEET/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 apply for a Permit pursuant to this section.
- 5.19 The District shall regulate new Large Volume Water Users pursuant to the declaration of policy adopted by the Nebraska Legislature and codified as Neb. Rev. Stat. §46-613. Section 46-613 states in full: *“Preference in the use of ground water shall be given to those using the water for domestic purposes. They shall have preference over those claiming it for any other purpose. Those using the water for agricultural purposes shall have the preference over those using the same for manufacturing or industrial purposes. As used in this section, (1) domestic use of ground water shall mean all uses of ground water required for human needs as it relates to health, fire control, and sanitation and shall include the use of ground water for domestic livestock as related to normal farm and ranch operations and (2) agricultural purposes shall include, but not be limited to, aquaculture as defined in section 2-3804.01.”*
- 5.20 All new Large Volume Water Wells must receive a Permit issued by the District before being constructed and operated. Before issuing a Permit for a Large Volume Water Well, the District shall evaluate the impacts of the new Large Volume Water Well on surrounding Domestic, Agricultural, and Manufacturing/Industrial Wells and on streamflow. The evaluation shall consist of, but not be limited to, a hydrologic evaluation prepared by the applicant and at the expense of the applicant. The hydrologic evaluation shall be prepared using the most recent and reliable scientific data and information that is publicly available. The hydrologic evaluation shall also include an analysis of conservation measures that can reasonably be employed by the applicant to minimize the short and long term negative impacts to the source Aquifer. The hydrologic evaluation shall also identify the rate and volume of any discharge water and recharge associated with any discharge water. The

hydrologic evaluation shall also identify the number and location of Monitoring Wells that can be constructed and used to assess any future unanticipated impacts to surrounding Water Wells or streamflow. To ensure the highest degree of reliability, the District shall select a qualified hydrologist to conduct a peer review of the hydrologic analysis. The applicant shall be responsible for any expense incurred for the peer review of the hydrologic analysis. The applicant shall be advised of the District's intent to select the hydrologist, the identity of the hydrologist, and the anticipated cost. The District may provide additional guidelines to aid the applicant in the preparation of the hydrologic evaluation.

- 5.20.1 A draft of the application, hydrologic evaluation, and associated documents will be made available to the District's Water Committee at least thirty (30) days prior to the application being submitted to the Board of Directors for approval. The District shall grant the application for a Permit if the District determines, based on all available information, that: (1) The project is for a Beneficial Use of Groundwater; and (2) The project will not result in unreasonable harm to surrounding Domestic, Agricultural, or Manufacturing/Industrial wells or unreasonably diminish streamflow. Unreasonable harm includes, but is not limited to, reductions to the Static Water Level of the Groundwater source that impairs the operation of surrounding Water Wells or causes streamflow reductions that impair surface water appropriations. In approving the application, the District may include Permit conditions that require the applicant to construct Monitoring Wells with full access to the Monitoring Wells and monitoring data provided to the District. Conditions for operation may also include Groundwater well operation restrictions, including Allocations, if the Monitoring Wells indicated unanticipated negative impacts to surrounding Water Wells or to streamflow. Conditions for operation may be imposed by the District at any time as is necessary to prevent unreasonable harm to surrounding Water Wells.
- 5.20.2 Large Volume Water Well Permits shall specify the period within which the proposed Water Well(s) must be constructed to completion and begin operations. The period specified for construction shall not exceed one (1) year from the date of Permit issuance unless the applicant clearly demonstrates on the application for a Permit, that one (1) year will be an insufficient period to time for such construction. Operation of the Water Well(s) under a Large Volume Water Well Permit in accordance with this [Chapter 5: Section 10](#): may be of limited duration or in perpetuity as the Board shall determine but the District may, as water management needs require, impose operational restrictions or limitations as set forth in the conditions stated above.
- 5.20.3 Within five (5) years of the date of completion of any Large Volume Water Well authorized by a Permit issued under this section, the holder of the Permit shall operate the Water Well as represented in the application, unless sufficient cause for non-use exists. The failure to operate the Water Well as represented in the application within this five (5) year period, or for any five (5) year period after operations have begun, may result in the termination of the Permit if no sufficient cause for non-use exists. No Permit shall be canceled without a hearing before the full Board. Sufficient cause for non-use may include, but is not limited to, the reasons specified in Neb. Rev. Stat. §46-229.04(4)(a),(d)(e) or (f), for surface water appropriations.

SECTION 11: PERMIT APPROVAL

- 5.21 When a Permit application submitted pursuant to [Chapter 5: Section 4: above](#) 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.
- 5.21.1 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 in [5.15.3.1 above](#) if the total depth of the constructed well is to be less than the total depth of the Test-Hole log.
- 5.21.2 Water Well(s) requiring a Permit pursuant to [Chapter 5: Section 1: above](#) shall be equipped with a Flowmeter pursuant to [Chapter 13: below](#) of these Rules and Regulations prior to Groundwater withdrawal, unless a Flowmeter is not required pursuant to Rule [5.13.3.3 above](#).
- 5.21.3 After the Water Well(s) registration filing date with the Department, the applicant shall allow District staff to:
- 5.21.3.1 collect a GPS (global positioning system) location coordinate of said Water Well or Water Wells;
- 5.21.3.2 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;
- 5.21.3.3 measure the pumping rate from said Water Well or Water Wells under normal operating conditions; and
- 5.21.3.4 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.
- 5.22 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 The applicant shall make a good-faith effort to obtain signed written waivers of support or objection from 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 directly 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 The Board shall certify Groundwater Use Acres pursuant to [Chapter 11: below](#) of these Rules and Regulations.
 - 7.1.1.1 Groundwater shall only be applied to Certified Groundwater Use Acres or Certified Expanded Acres.

- 7.1.2 All Large Volume Water Wells shall be required to have a Flowmeter installed no later than December 31, 2026.
- 7.1.2.1 All Flowmeters shall meet the requirements for Flowmeters pursuant to [Chapter 13: below](#) of these Rules and Regulations.
- 7.1.3 Once a Flowmeter is installed pursuant to [7.1.2 above](#), the Groundwater User shall submit annual Water Use Reports pursuant to [Chapter 12: below](#). 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](#).
- 7.1.4 Groundwater Users shall submit annual Water Use Reports pursuant to [Chapter 12: below](#) once a Flowmeter has been installed pursuant to [8.3.2 below](#), even after a Groundwater Quantity Management Sub-Area returns to a Phase One (1) designation.

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:](#), [Chapter 15:](#), and [Chapter 16: below](#) of these Rules and Regulations due to the Sub-Areas varying climatic, hydrologic, geologic, and soil conditions.
- 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 Each Groundwater Quantity Management Sub-Area may be designated as a Groundwater Quantity Management Area Phase Two (2) or Groundwater Quantity Management Area Phase Three (3) only when they reach the Phase Two (2) and Phase Three (3) Trigger Levels provided below.
- 7.1.5.3 The Board may, with proper notice, adjust the methodology in the District's Well Permit Ranking System Methodology in [Chapter 17: Appendix A: below](#) for each Groundwater Quantity Management Sub-Area.
- 7.1.5.4 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 District shall take the following steps 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 8:](#) and [Chapter 9: 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 following Phase Two (2) Trigger Levels for each Groundwater Quantity Management Sub-Area calculated in accordance with [7.1.8 above](#), for three (3) consecutive years:
- | | | |
|--------|---|--------------------------|
| 8.1.1 | Sub-Area One (1) Median Phase Two (2) | Trigger Level: 5.00 feet |
| 8.1.2 | Sub-Area Two (2) Median Phase Two (2) | Trigger Level: 1.95 feet |
| 8.1.3 | Sub-Area Three (3) Median Phase Two (2) | Trigger Level: 2.80 feet |
| 8.1.4 | Sub-Area Four (4) Median Phase Two (2) | Trigger Level: 4.05 feet |
| 8.1.5 | Sub-Area Five (5) Median Phase Two (2) | Trigger Level: 3.64 feet |
| 8.1.6 | Sub-Area Six (6) Median Phase Two (2) | Trigger Level: 5.00 feet |
| 8.1.7 | Sub-Area Seven (7) Median Phase Two (2) | Trigger Level: 2.08 feet |
| 8.1.8 | Sub-Area Eight (8) Median Phase Two (2) | Trigger Level: 3.23 feet |
| 8.1.9 | Sub-Area Nine (9) Median Phase Two (2) | Trigger Level: 2.90 feet |
| 8.1.10 | Sub-Area Zero (0) Median Phase Two (2) | Trigger Level: None |
- 8.2 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.
- 8.3 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:
- 8.3.1 An immediate moratorium on the construction of new High Capacity Wells used for purposes of Irrigation shall be imposed.
- 8.3.2 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](#), Large Volume Water Wells, and any Water Wells involved in conveying Groundwater into a stream or Water Impoundment Structure shall be equipped with a Flowmeter no later than December 31st of the calendar year following the calendar year the Groundwater Quantity Management Sub-Area enters Phase Two (2).
- 8.3.2.1 All Flowmeters shall meet the requirements for Flowmeters pursuant to [Chapter 13: below](#) of these Rules and Regulations.
- 8.3.2.2 Once a Flowmeter is installed pursuant to [8.3.2 above](#), the Groundwater User shall submit annual Water Use Reports pursuant to [Chapter 12: below](#).

- 8.3.3 An immediate moratorium on the expansion of Certified Groundwater Use Acres shall be imposed, unless Certified Expanded Acres are obtained in accordance with [Chapter 8: Section 1: below](#).
- 8.3.4 Groundwater Allocation amounts shall be set pursuant to [Chapter 14:](#) , [Chapter 15:](#) , and [Chapter 16: below](#).
- 8.4 A Groundwater Quantity Management Sub-Area shall be removed from Phase Two (2) classification when the Static Water Levels in a Groundwater Quantity Management Sub-Area indicates the Annual Static Water Level Change 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

- 8.5 The Board may, by approving an application submitted in accordance with these Rules and Regulations, grant a Landowner 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:](#) , [Chapter 15:](#) , and [Chapter 16: below](#). An Allocation amount shall never be increased based on Certified Expanded Acres. Certified Expanded Acres may only be granted within the same Government Survey Section as the Water Well that will serve the Certified Expanded Acres.

SUBSECTION 1: APPLICATIONS

- 8.5.1 The application shall be made on forms provided by the District.
- 8.5.2 A non-refundable application fee of fifty dollars (\$50.00) payable to the District shall accompany all applications.
- 8.5.3 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

- 8.5.4 Applications shall be given a timestamp upon their arrival at the District office and shall be reviewed according to the time they were received.
- 8.5.5 District staff shall review the applications received and compile all pertinent information provided by the applicant and other relevant information that is readily available.
- 8.5.6 The application along with any other relevant information shall be brought forth to the Board by District staff within forty-five (45) days after the application is filed for consideration where a motion shall be made to approve, deny, or postpone to a certain time the application.

SUBSECTION 3: APPLICATION APPROVAL

- 8.5.7 Application review shall occur pursuant to [Chapter 8: Section 1: Subsection 2: above](#).
- 8.5.8 In determining whether to grant the Certified Expanded Acres, the Board shall consider, but is not limited to, the following:
- 8.5.8.1 whether the proposed use is a Beneficial Use of Groundwater;
 - 8.5.8.2 the availability to the applicant to use alternative sources of surface water or Groundwater for the proposed withdrawal and use;
 - 8.5.8.3 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;
 - 8.5.8.4 any adverse environmental effect of the proposed withdrawal and use of the Groundwater;
 - 8.5.8.5 the cumulative effects of the proposed withdrawal and use relative to the matters listed in Rules [8.5.8.1](#) through [8.5.8.4](#) of this section when considered in conjunction with all other withdrawals and uses subject to this section;
 - 8.5.8.6 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
 - 8.5.8.7 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.
- 8.5.9 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 approved application, the application shall automatically terminate and the Certified Expanded Acres shall be revoked.
- 8.5.10 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 following Phase Three (3) Trigger Level for each Groundwater Quantity Management Sub-Area, calculated in accordance with [7.1.8 above](#), for three (3) consecutive years, or sooner if the board determines is necessary:

- 9.1.1 Sub-Area One (1) Median Phase Three (3) Trigger Level: 6.50 feet
 - 9.1.2 Sub-Area Two (2) Median Phase Three (3) Trigger Level: 2.54 feet
 - 9.1.3 Sub-Area Three (3) Median Phase Three (3) Trigger Level: 3.64 feet
 - 9.1.4 Sub-Area Four (4) Median Phase Three (3) Trigger Level: 5.27 feet
 - 9.1.5 Sub-Area Five (5) Median Phase Three (3) Trigger Level: 4.73 feet
 - 9.1.6 Sub-Area Six (6) Median Phase Three (3) Trigger Level: 6.50 feet
 - 9.1.7 Sub-Area Seven (7) Median Phase Three (3) Trigger Level: 2.70 feet
 - 9.1.8 Sub-Area Eight (8) Median Phase Three (3) Trigger Level: 4.20 feet
 - 9.1.9 Sub-Area Nine (9) Median Phase Three (3) Trigger Level: 3.77 feet
 - 9.1.10 Sub-Area Zero (0) Median Phase Three (3) Trigger Level: None
- 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 which has been designated as such for three (3) consecutive years, or sooner if the board so chooses.
- 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 [8.3.4 above](#) 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 Levels in a Groundwater Quantity Management Sub-Area indicates the Annual Static Water Level Change 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 a Landowner 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 (\$50.00) 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 One (1) Groundwater Quality Management Area pursuant to [Chapter 7: above](#).

11.2 Each Landowner owning irrigated land within a Phase One (1) Groundwater Quantity Management Area, 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: above](#).

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, unless a prohibition on expansion of Certified Groundwater Use Acres is in place.
- 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 certify the following information to the District each year no later than December 31st:
 - 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, 2025:
 - 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 1st 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 Rules [5.21.2](#), [7.1.2](#), and [8.3.2 above](#) 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 may 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 Groundwater Use Periods and initial Allocation amounts shall be set by the Board for the proceeding growing season no later than December 31st following a Phase Two (2) or Phase Three (3) designation pursuant to Rules [8.3.4](#) and [9.3.1 above](#). However, if a Sub-Area is entering a Phase Two (2) designation for the first time, the Groundwater Use Period and initial Allocation amount shall be set by the Board no later than December 31st of the calendar year following the calendar year in which the Groundwater Quantity Management Sub-Area enters Phase Two (2) in order to allow sufficient time for Flowmeter

installation pursuant to Rule [8.3.2 above](#). Allocation amounts shall not be implemented prior to such time.

14.1.1 The following Allocation amounts shall initially be set in each Sub-Area for one (1) Groundwater Use Period in accordance with these Rules and Regulations:

- 14.1.1.1 Sub-Area Zero (0): Ten (10) Acre-Inches per year
- 14.1.1.2 Sub-Area One (1): Ten (10) Acre-Inches per year
- 14.1.1.3 Sub-Area Two (2): Ten (10) Acre-Inches per year
- 14.1.1.4 Sub-Area Three (3): Ten (10) Acre-Inches per year
- 14.1.1.5 Sub-Area Four (4): Ten (10) Acre-Inches per year
- 14.1.1.6 Sub-Area Five (5): Ten (10) Acre-Inches per year
- 14.1.1.7 Sub-Area Six (6): Ten (10) Acre-Inches per year
- 14.1.1.8 Sub-Area Seven (7): Ten (10) Acre-Inches per year
- 14.1.1.9 Sub-Area Eight (8): Ten (10) Acre-Inches per year
- 14.1.1.10 Sub-Area Nine (9): Seven (7) Acre-Inches per year

14.2 If necessary, a new Phase Two (2) Allocation shall be set by the Board at the end of the current Groundwater Use Period for the subsequent Groundwater Use Period no later than December 31st based on the best available information, including but not limited to Static Water Levels in the Sub-Area, trend lines, and weather conditions.

14.3 When a Sub-Area reaches the Phase Three (3) Trigger Level, the Board shall set the Allocation amount for each Sub-Area no later than December 31st of the calendar year in which the Phase Three (3) Trigger Level is reached based on the best available information including but not limited to Static Water Levels in the Sub-Area, trend lines, and weather conditions. If necessary, a new Phase Three (3) Allocation shall be set at the end of the current Groundwater Use Period for the subsequent Groundwater Use Period no later than December 31st based on the best available information.

14.4 Each Agricultural User shall limit Groundwater withdrawal to the Allocation amount per Certified Groundwater Use Acre specified by the Board as set in Rules [14.1.1](#), [14.2](#), or [14.3](#) for the Groundwater Use Period.

14.4.1 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.

14.4.1.1 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.

- 14.4.2 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.
- 14.5 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.
- 14.6 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: above](#).

CHAPTER 15: ALLOCATION TO MUNICIPAL USERS

- 15.1 When Allocations are set as required by these Rules and Regulations pursuant to Rules [8.3.4](#), and [9.3.1 above](#) all Municipal Users within Phase Two (2) and Phase Three (3) Groundwater Quantity Management Sub-Areas shall limit Groundwater withdrawal to the following Allocation amounts for the first Groundwater Use Period of each Phase designation.
- 15.1.1 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.
- 15.1.2 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.
- 15.2 If necessary, a new Phase Two (2) or Phase Three (3) Allocation shall be set by the Board at the end of the current Groundwater Use Period for the subsequent Groundwater Use Period no later than December 31st based on the best available information.
- 15.3 By January 1st of the calendar year following the calendar year in which these Rules are implemented, 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.
- 15.3.1 The Municipal User shall provide the District documentation of such passed ordinances and/or resolutions.
- 15.4 By January 1st 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.
- 15.5 The most recent population census information available from the United States Bureau of Census shall be used to determine total capita Groundwater use.

- 15.5.1 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.
- 15.6 Groundwater used for fire protection, water and sewage system maintenance, construction and repairs shall not be considered when calculating annual Groundwater withdrawal.
- 15.6.1 The Municipal User shall provide documentation to estimating such uses.
- 15.6.2 The District shall consider other exemptions on a case-by-case basis when requested.
- 15.7 A Municipal User shall report to the District any Other User which is served by its water system.
- 15.7.1 Groundwater delivered to the Other User shall not be considered part of a Municipal User's Allocation.
- 15.8 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.
- 15.9 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.
- 15.9.1 The maximum accumulated carry over shall not exceed one-third ($\frac{1}{3}$) of the Allocation amount for the current Allocation period.
- 15.10 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 Groundwater Use Periods shall be set by the Board no later than December 31st following a Phase Two (2) or Phase Three (3) classification pursuant to Rules [8.3.4](#) and [9.3.1 above](#). However, if the Sub-Area is entering a Phase Two (2) designation for the first time, the Groundwater Use Period shall be set by the Board no later than December 31st of the calendar year following the calendar year the Groundwater Quantity Management Sub-Area enters Phase Two (2) in order to allow sufficient time for flowmeter installation pursuant to [8.3.2 above](#). Allocation amounts shall not be implemented prior to such time.
- 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. Other Users shall report in good faith to the District their groundwater withdrawal for the three (3) year period prior to the first Groundwater Use Period no later than the first day of the Groundwater Use Period. Failure

- to submit such data or the falsification of such data required by this Section shall result in the enforcement of these Rules and Regulations pursuant to [Chapter 4: above](#).
- 16.3 If necessary, new Phase Two (2) or Phase Three (3) Allocation shall be set by the Board at the end of the current Groundwater Use Period for the subsequent Groundwater Use Period no later than December 31st prior to the end of the previous Groundwater Use Period based on the best available information including but not limited to static water levels, trend lines, and weather conditions.
- 16.4 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:
- 16.4.1 The quantity of Groundwater desired annually;
- 16.4.2 The purpose for which the Groundwater is to be used;
- 16.4.3 An explanation of operation methods, including water conservation features, for that type of water use;
- 16.4.4 An estimate of the water use per unit of production, if applicable; and
- 16.4.5 Other information requested by the District.
- 16.5 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.
- 16.5.1 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.
- 16.5.2 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.
- 16.5.3 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.
- 16.6 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.
- 16.7 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: .](#)

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):

$T = K * b$, 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/ft³ 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 |
| Clay and silt: | | | | | | |
| 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 | | |
| Sand and gravel | | | | | | |
| 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 |
| Gravel | | | | | | |
| 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):

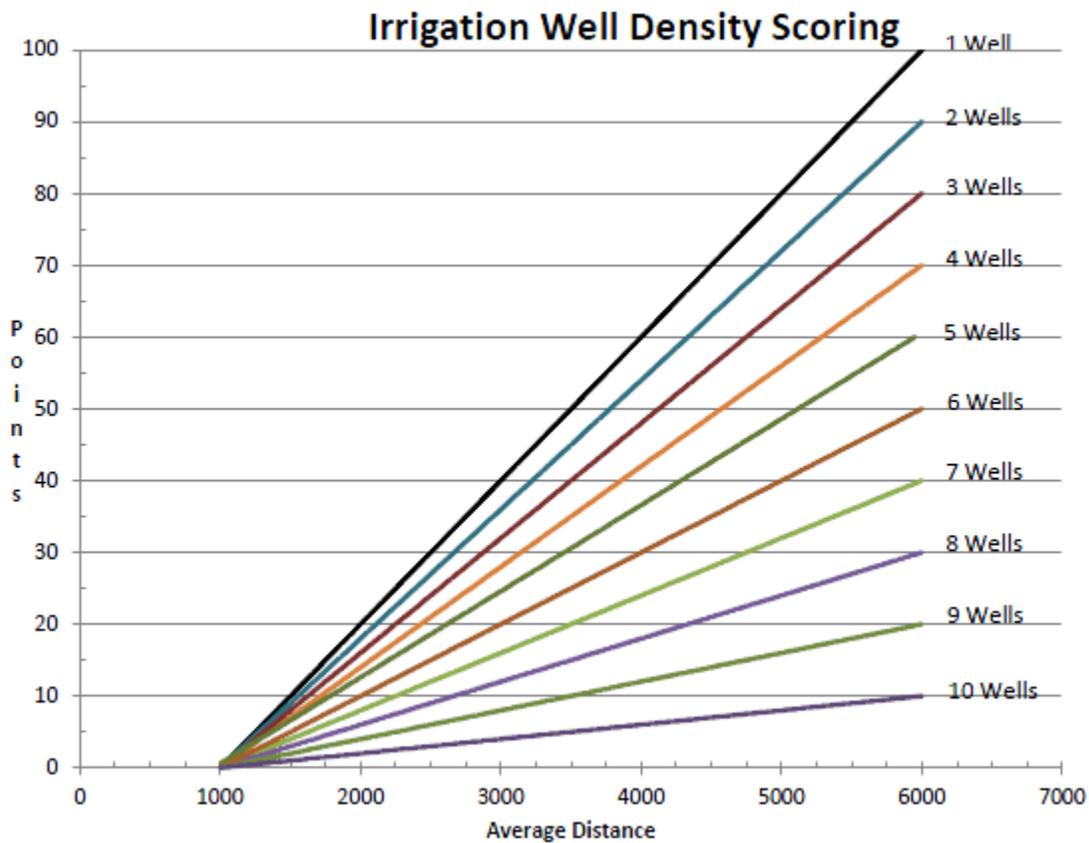
Points = $[(0.02 - [(n - 1) * (0.002)] * d] - (22 - (2 * n))$, in which:

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

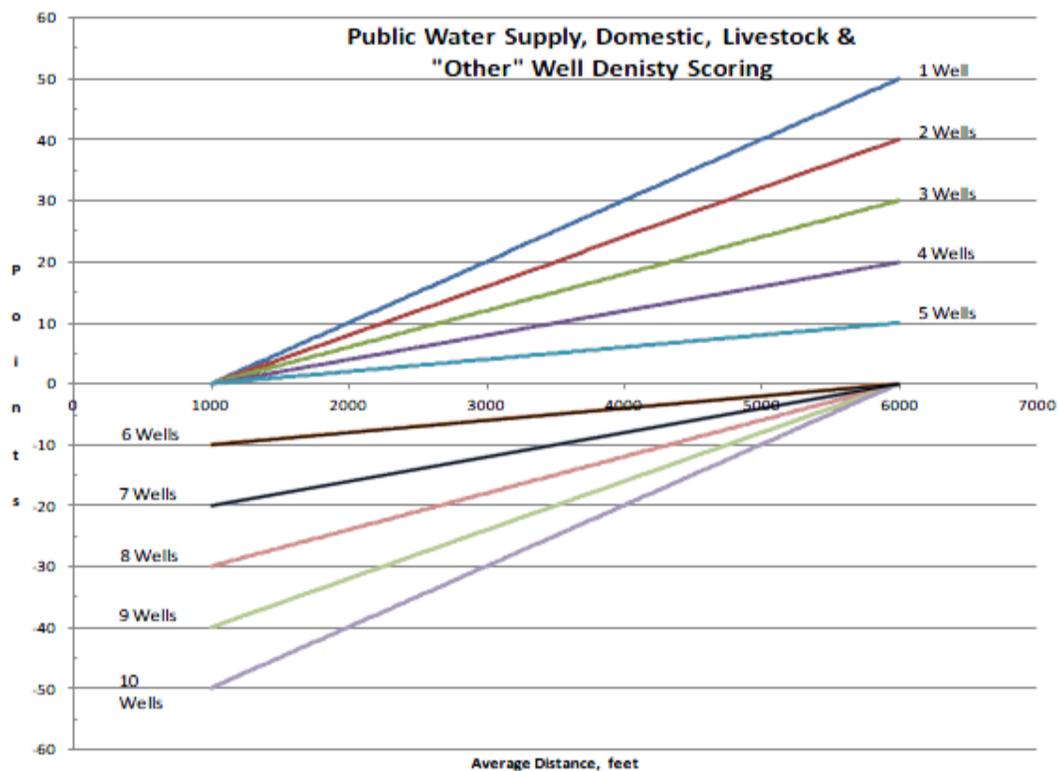
The point value for six (6) or more Public Water Supply Wells located within a six thousand (6,000) foot radius is calculated using the following equation (4):

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

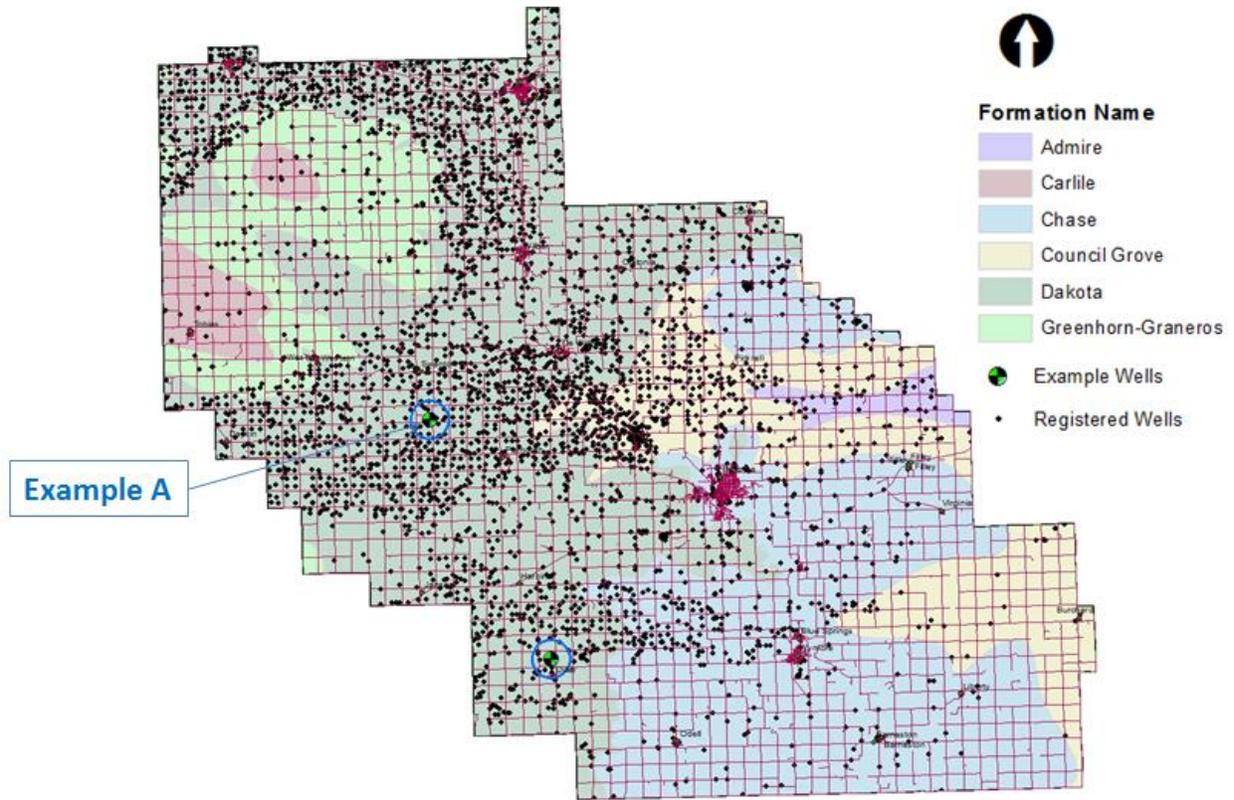
The following points will be awarded if any of the following irrigation management practices will be utilized:

Irrigation Method:

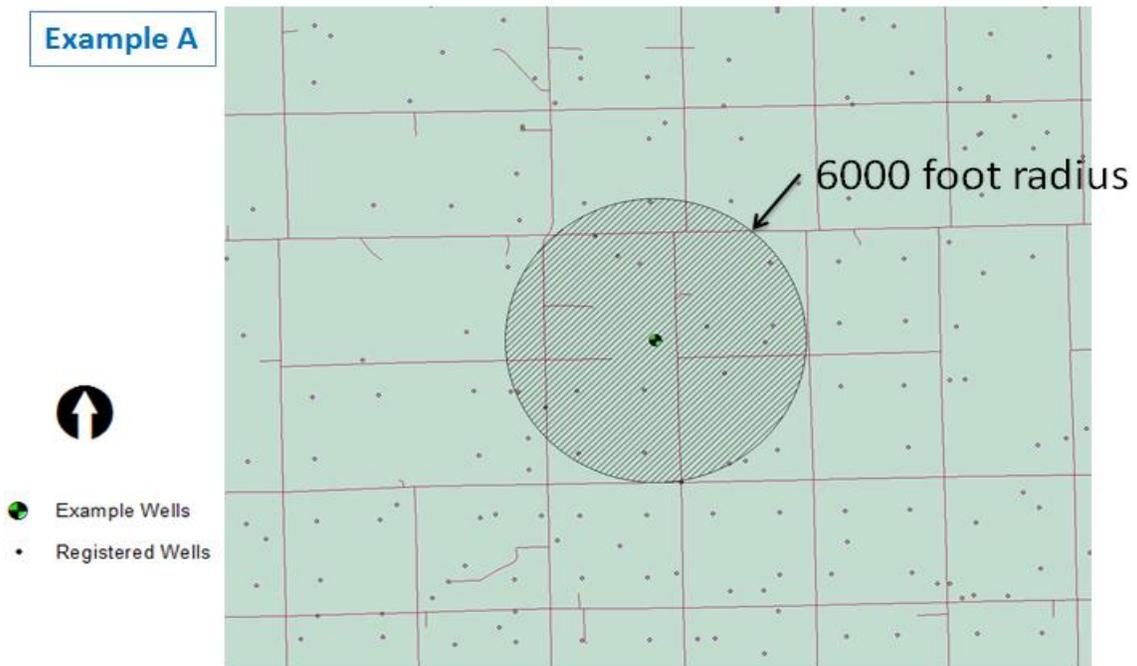
- Gravity irrigation: negative twenty-five (0) points
- Pivot/Sprinkler irrigation: zero (25) points
- Subsurface Drip irrigation: zero (50) points

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

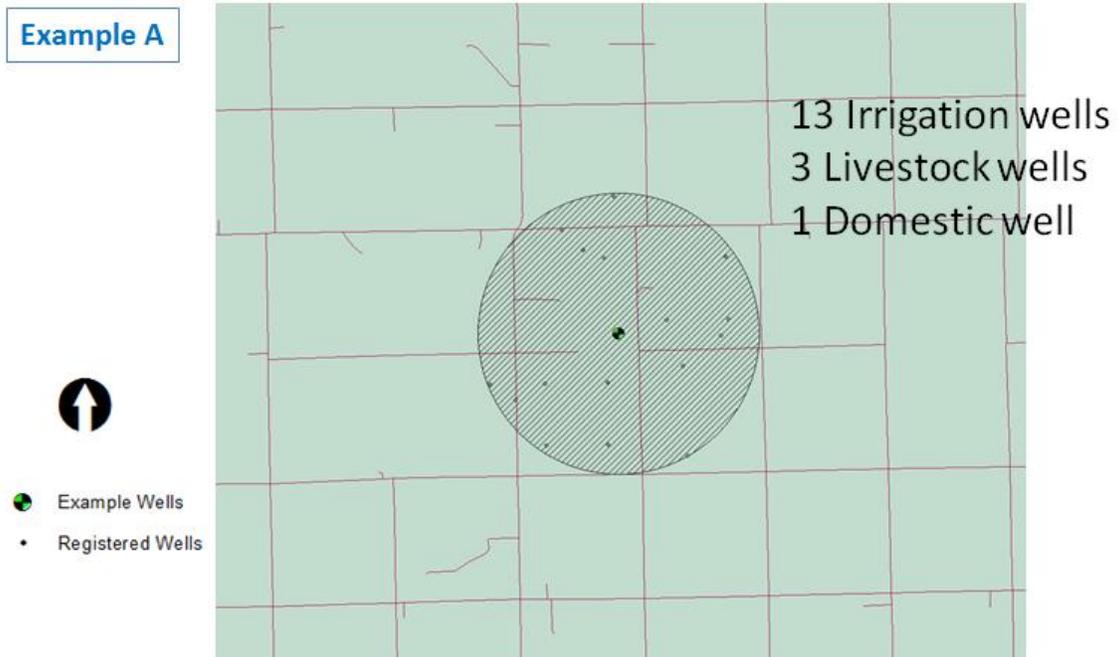
Step 1: Locate the well



Step 2: Draw a 6000 foot radius



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



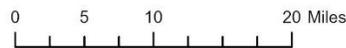
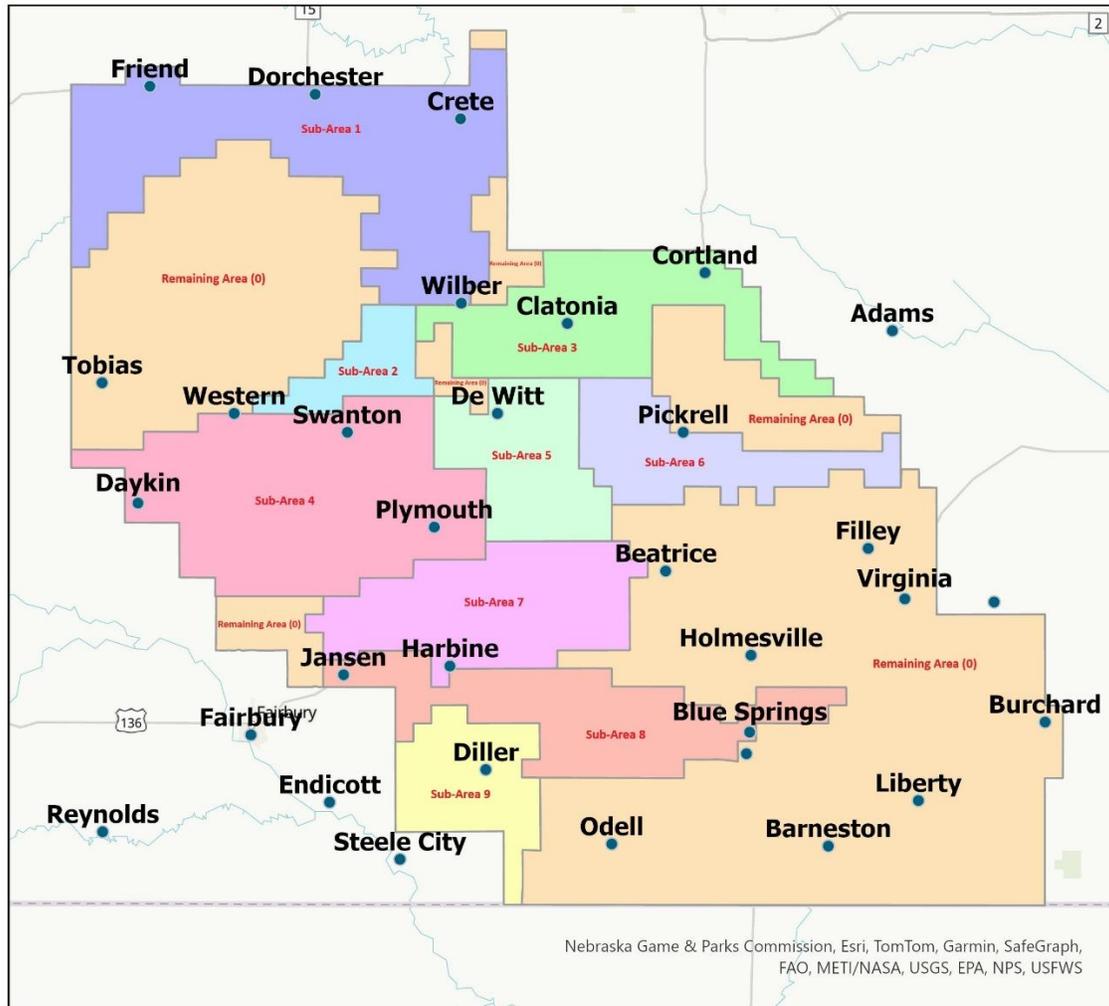
Step 4: Enter Information into the Ranking System Calculator

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 # of wells | 100 |
| 4. Public Water Supply Well Density | 50 | 0 | average distance, feet # of wells | 50 |
| 5. Domestic & Livestock Well Density | 50 | 0 | average distance, feet # 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

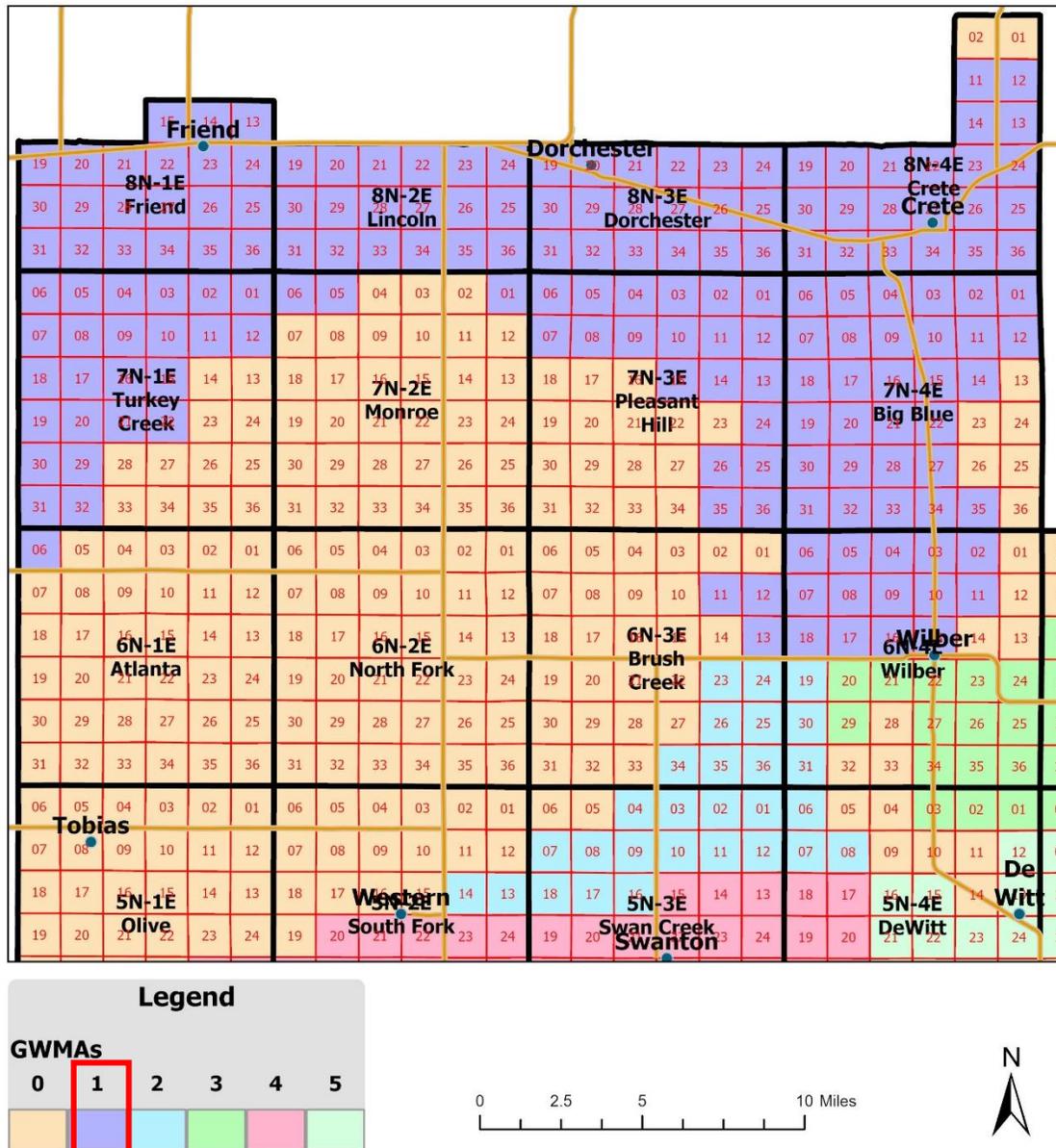


APPENDIX C: GROUNDWATER QUANTITY MANAGEMENT SUB-AREAS DETAILS

SECTION A: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 1

- Northern Saline County
- Alluvial Aquifer of the Big Blue River

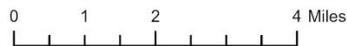
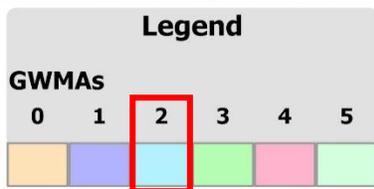
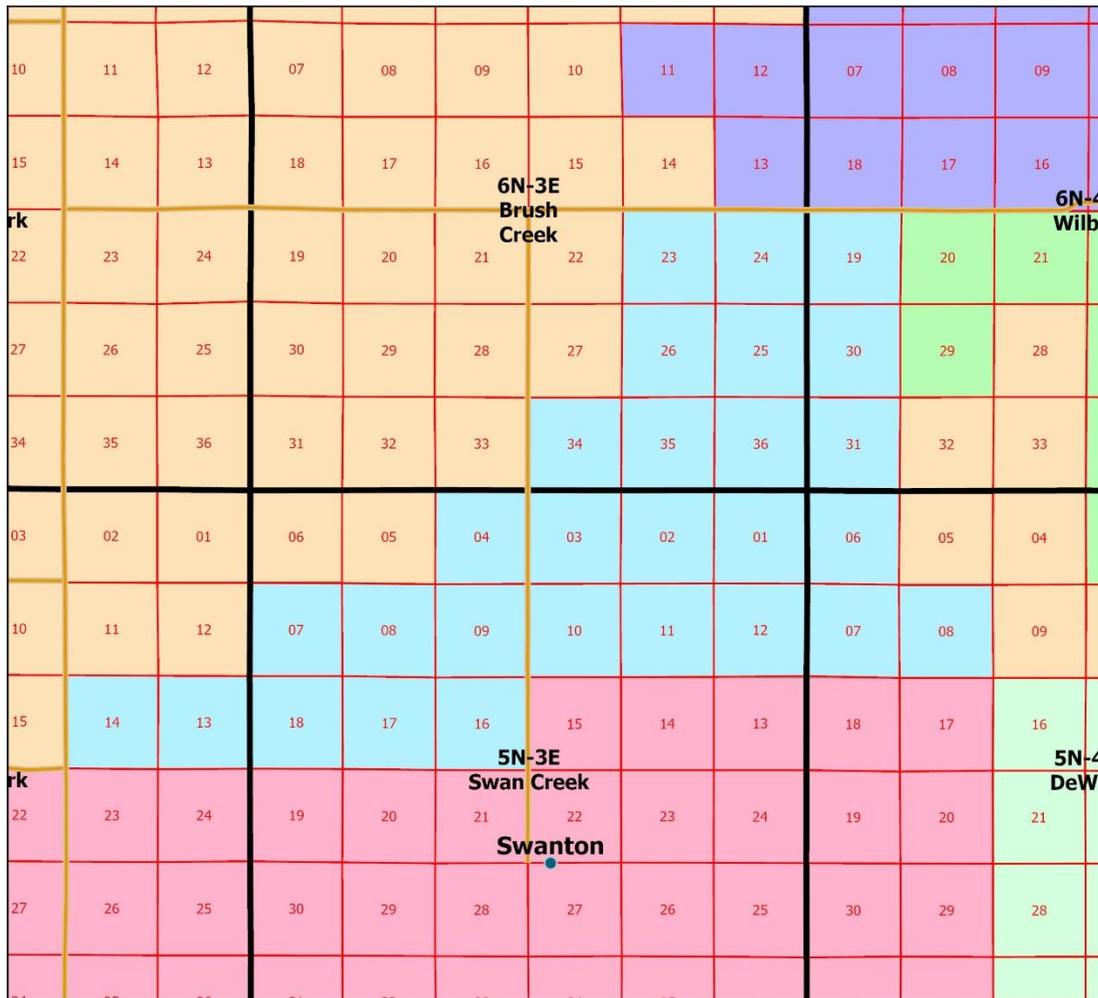
Figure 2: Sub-Area 1



SECTION B: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 2

- Southeastern Saline County
- Portions of Alluvial Aquifer of the Big Blue River and Paleovalley Aquifer

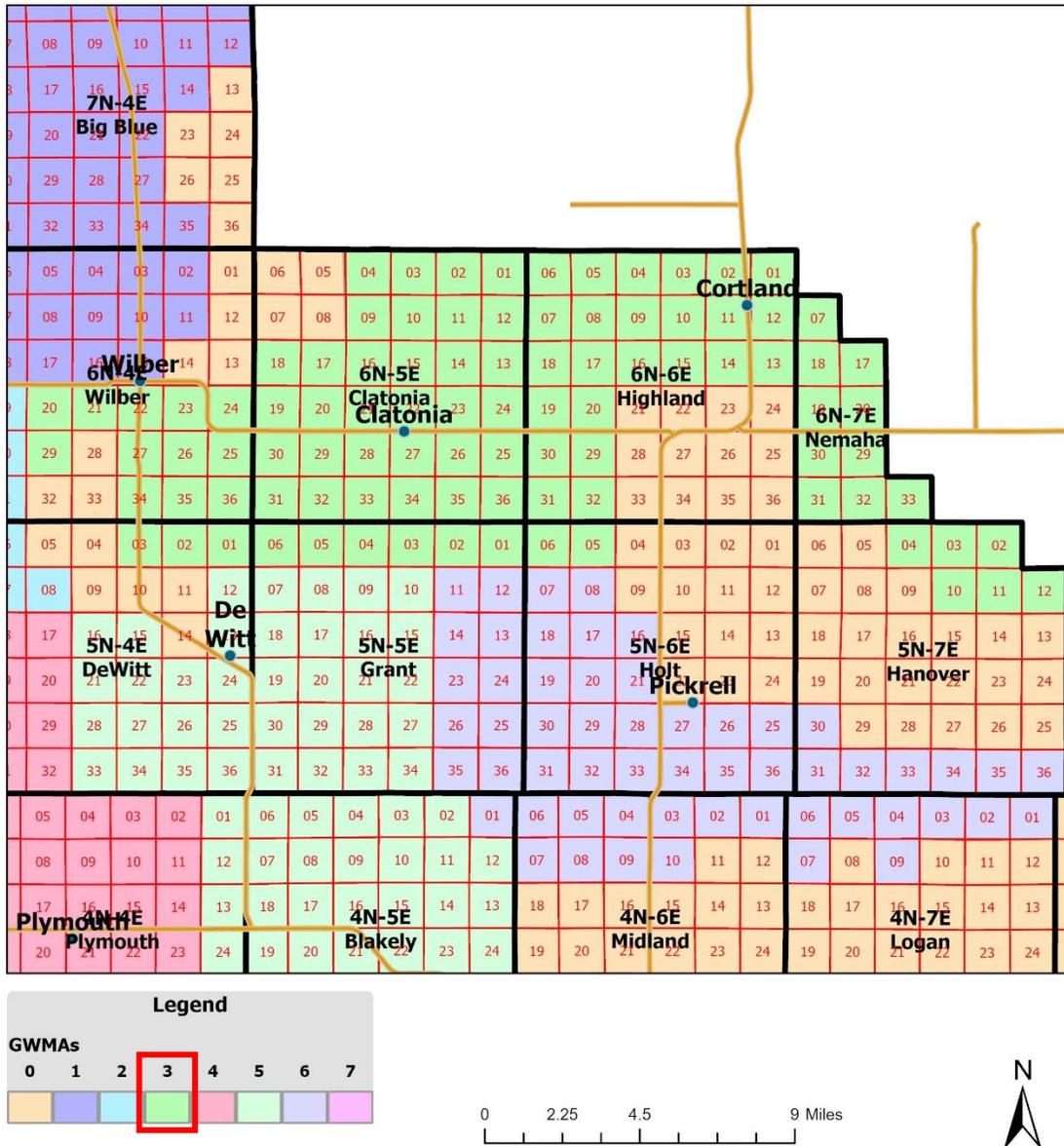
Figure 3: Sub-Area 2



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

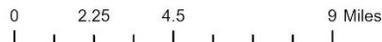
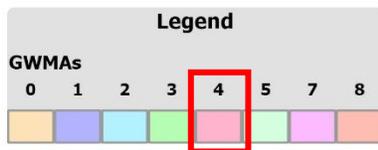
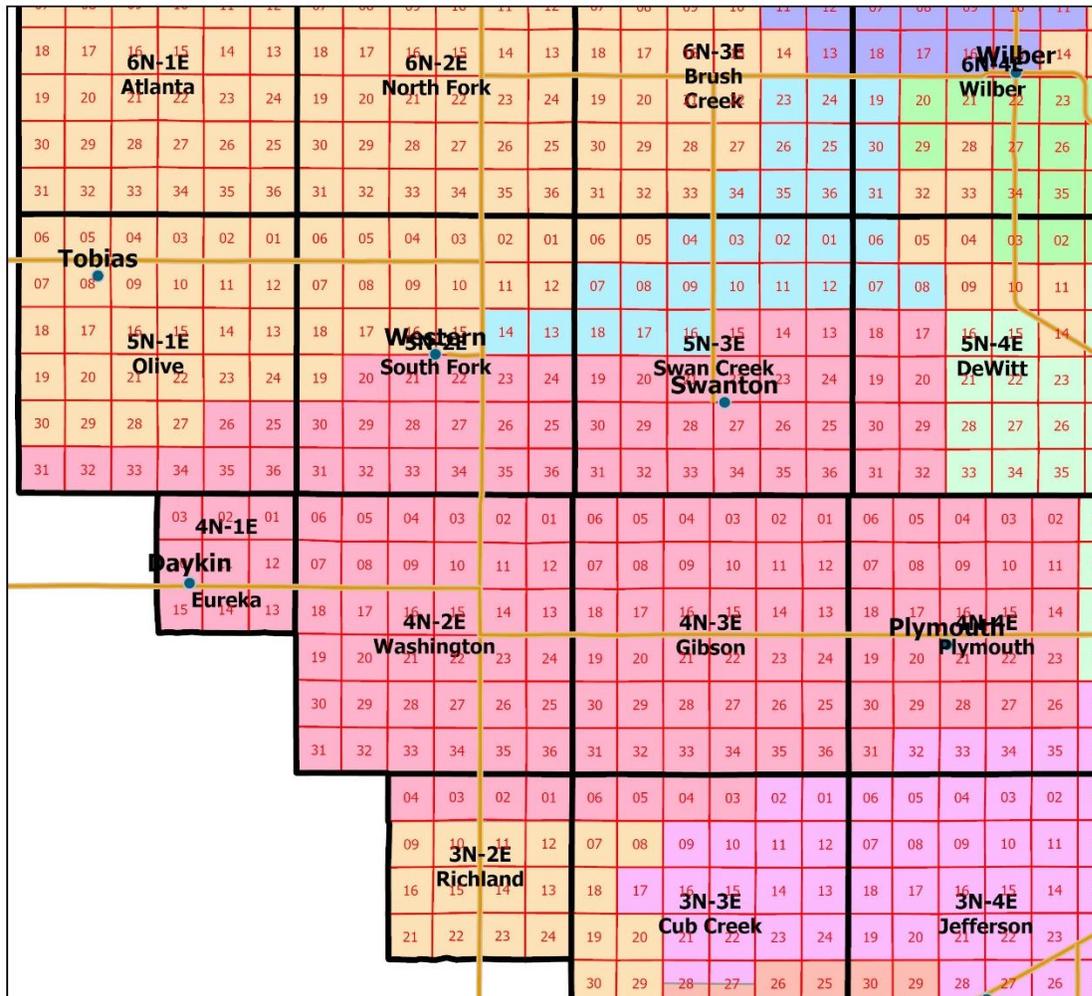
Figure 4: Sub-Area 3



SECTION D: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 4

- Northern Jefferson and Southern Saline Counties
- Major Paleovalley Aquifer

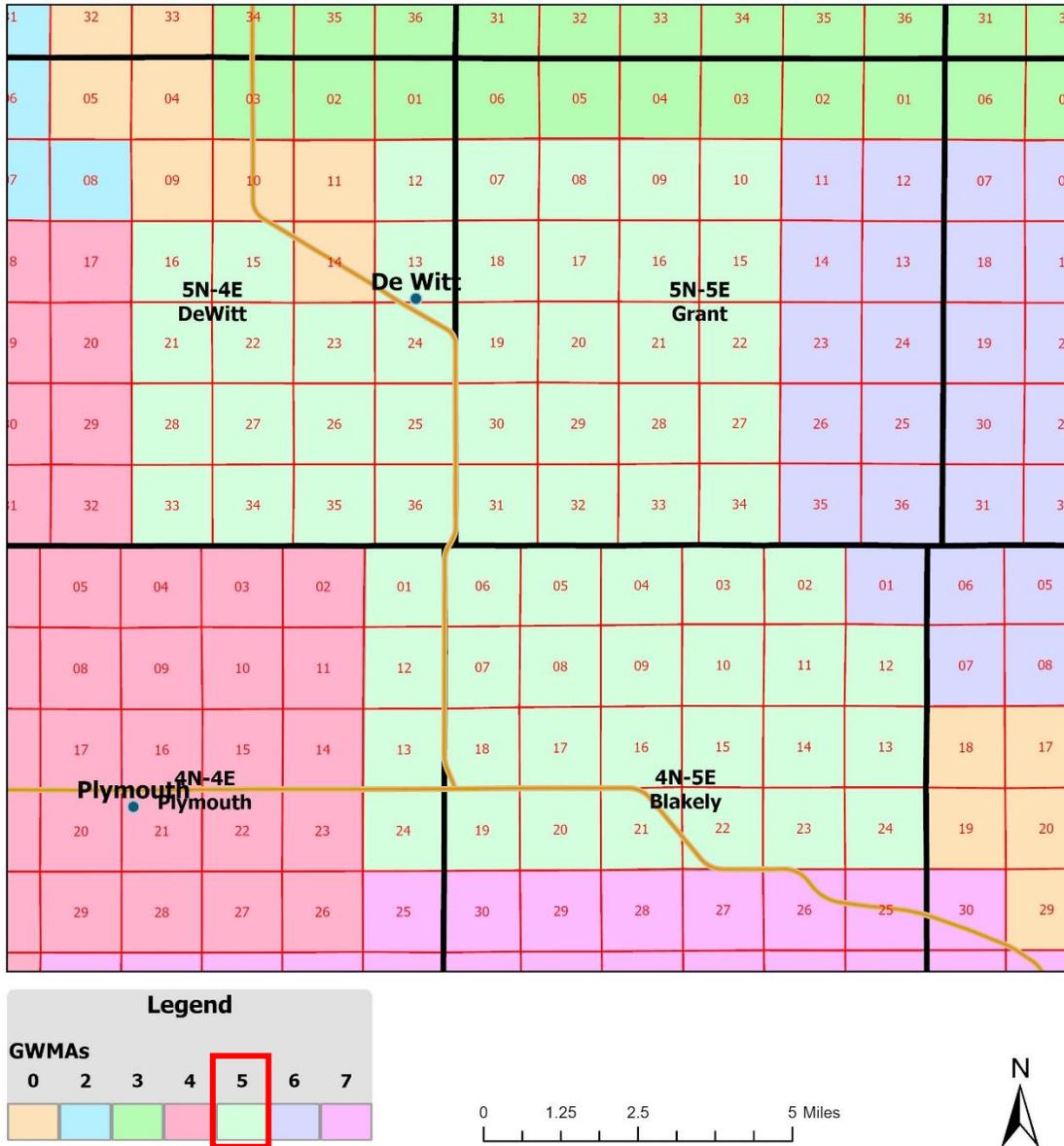
Figure 5: Sub-Area 4



SECTION E: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 5

- DeWitt to Hoag along the Big Blue River
- Major Paleovalley

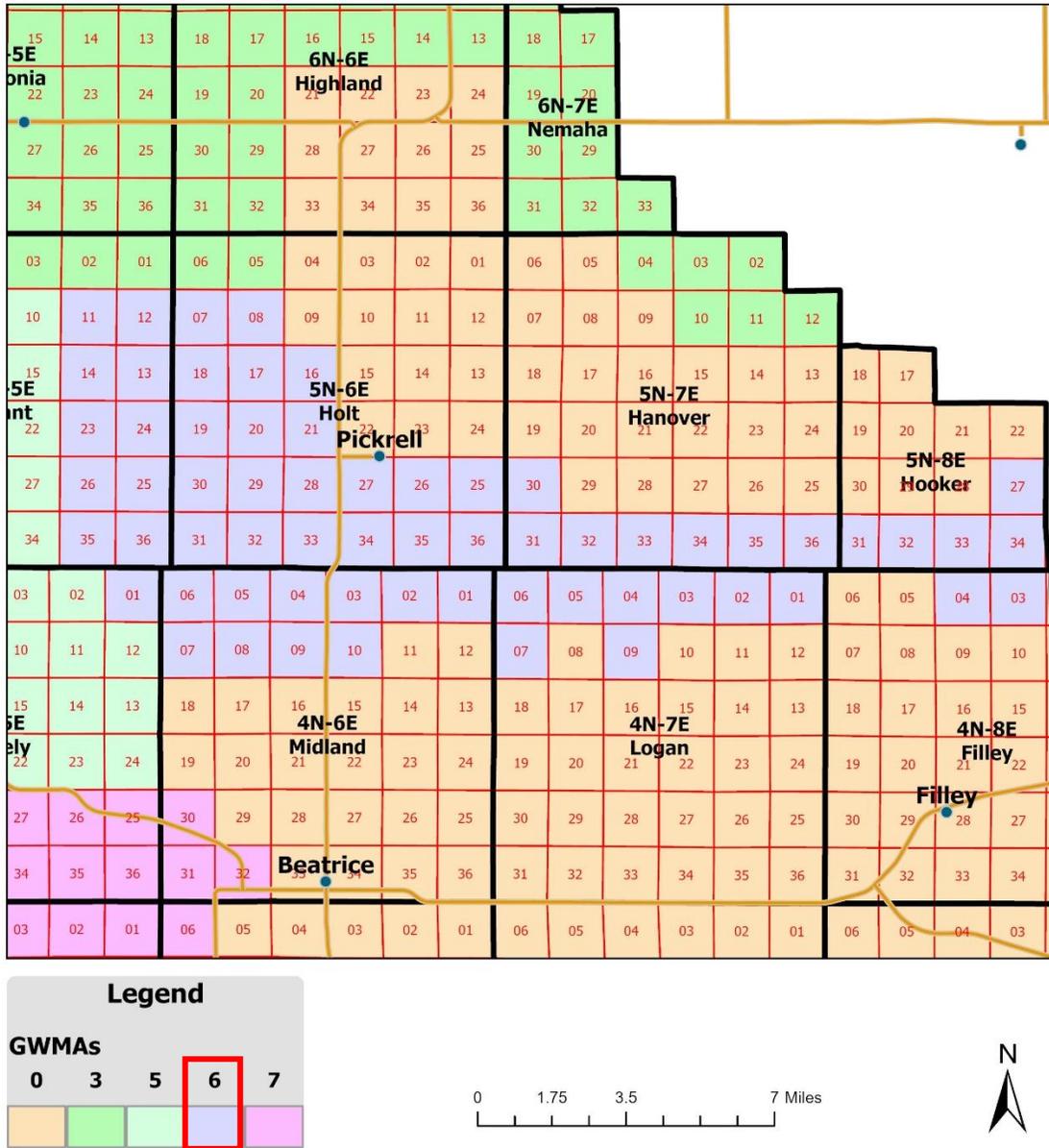
Figure 6: Sub-Area 5



SECTION F: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 6

- North Central Gage County
- Major Paleovalley Aquifer

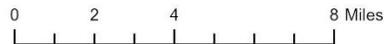
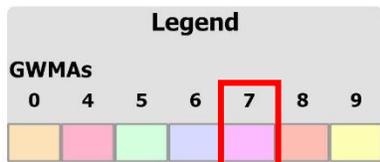
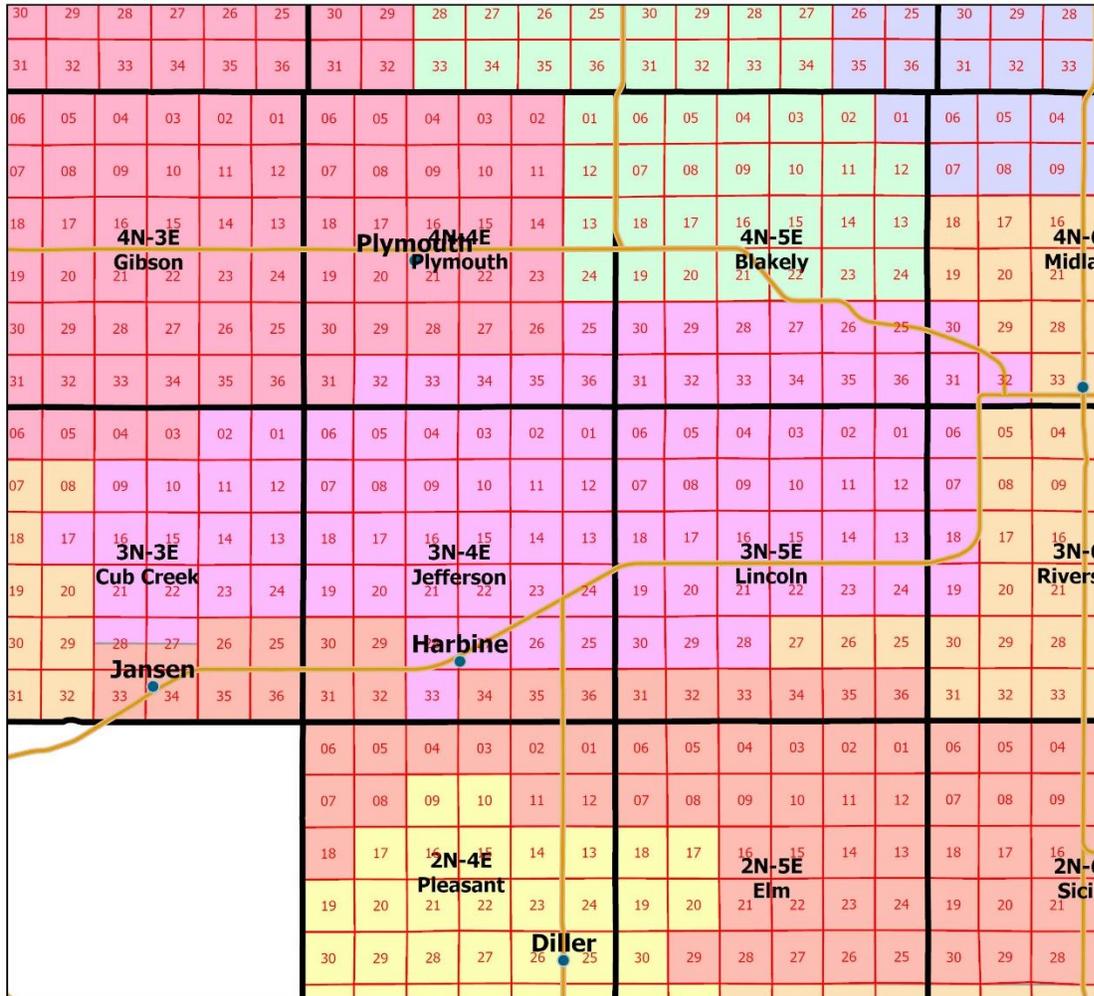
Figure 7: Sub-Area 6



SECTION G: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 7

- North Central Jefferson to Central Gage Counties
- Dakota Bedrock Aquifer

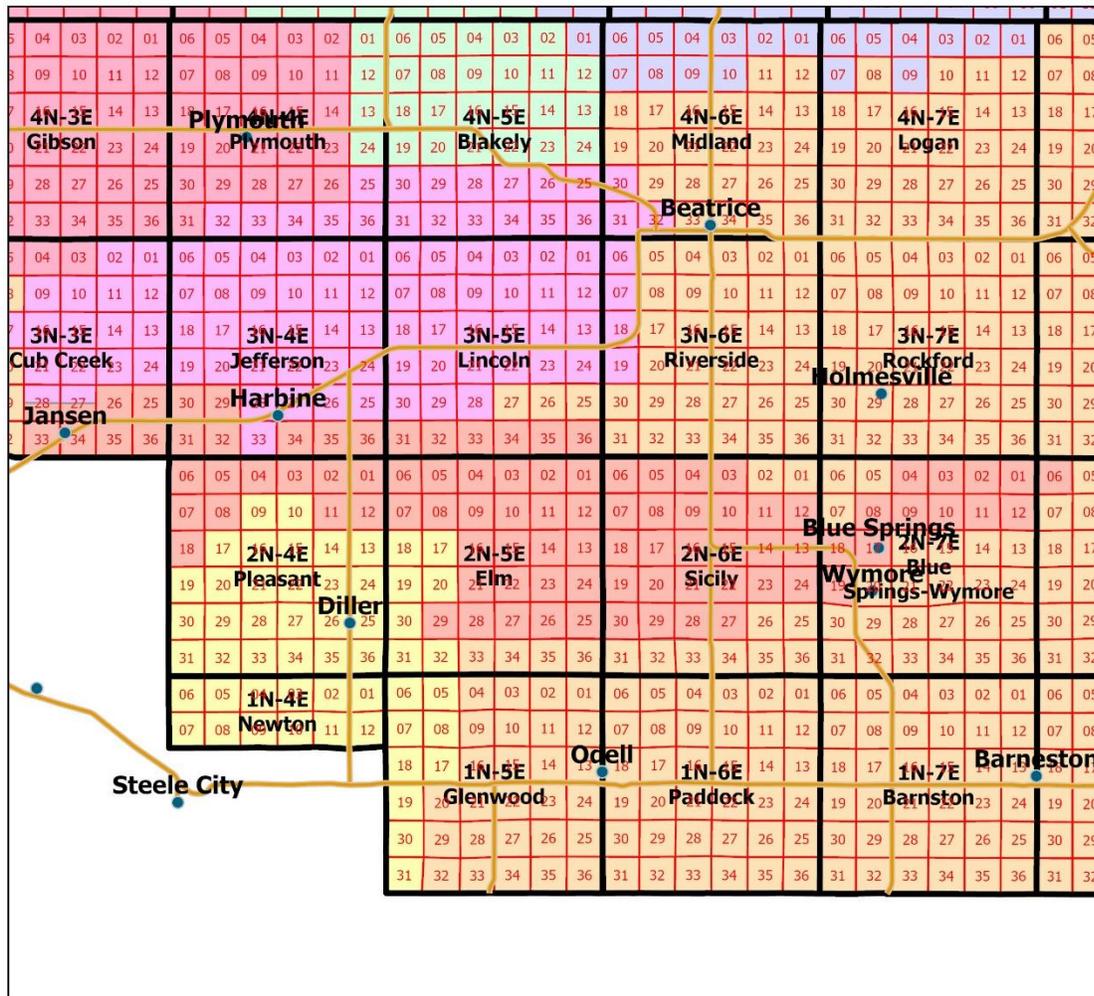
Figure 8: Sub-Area 7



SECTION H: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 8

- Jansen to Blue Springs
- Major Paleovalley Aquifer

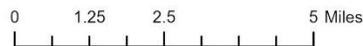
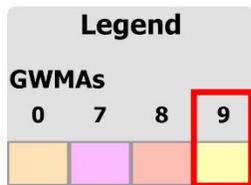
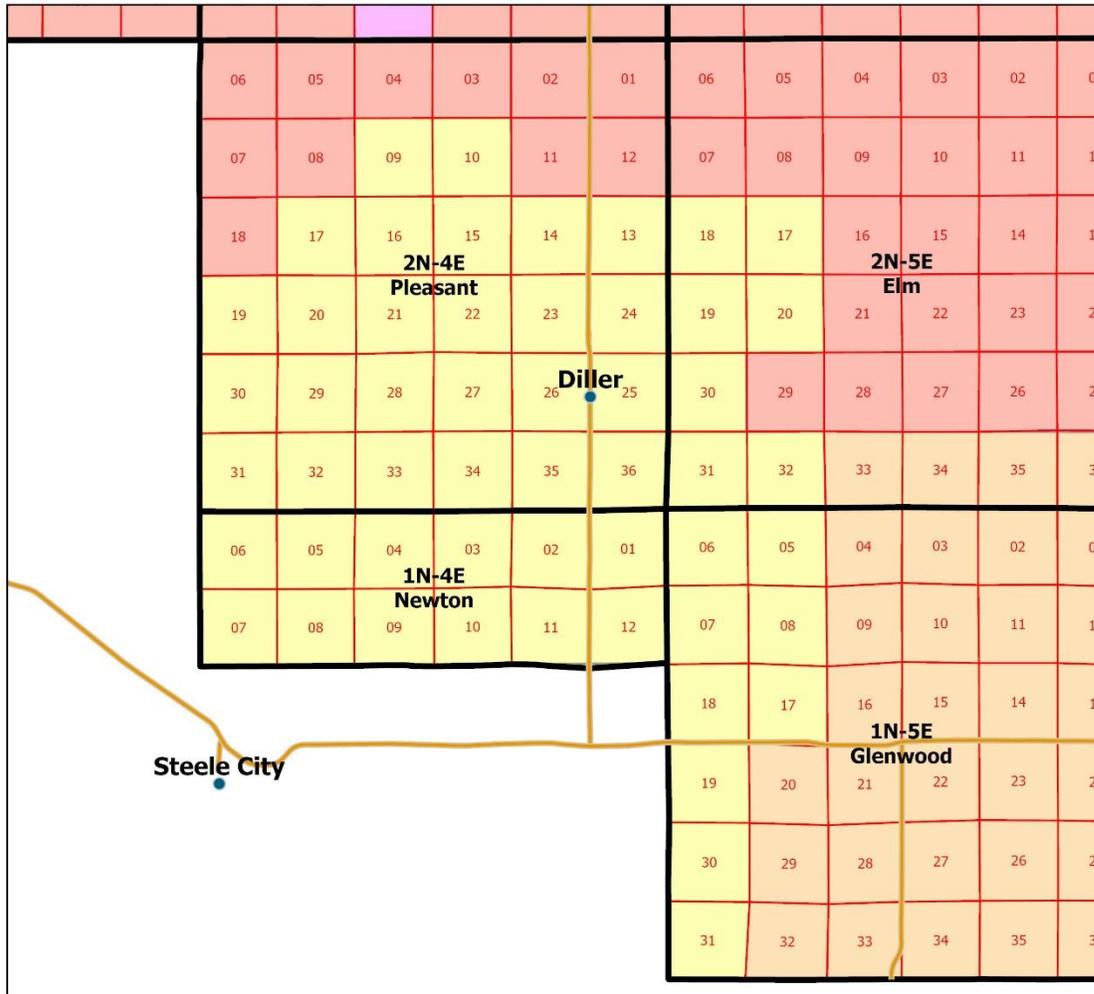
Figure 9: Sub-Area 8



SECTION I: GROUNDWATER QUANTITY MANAGEMENT SUB-AREA 9

- Southern Jefferson and Gage Counties
- Dakota Bedrock Aquifer

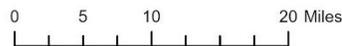
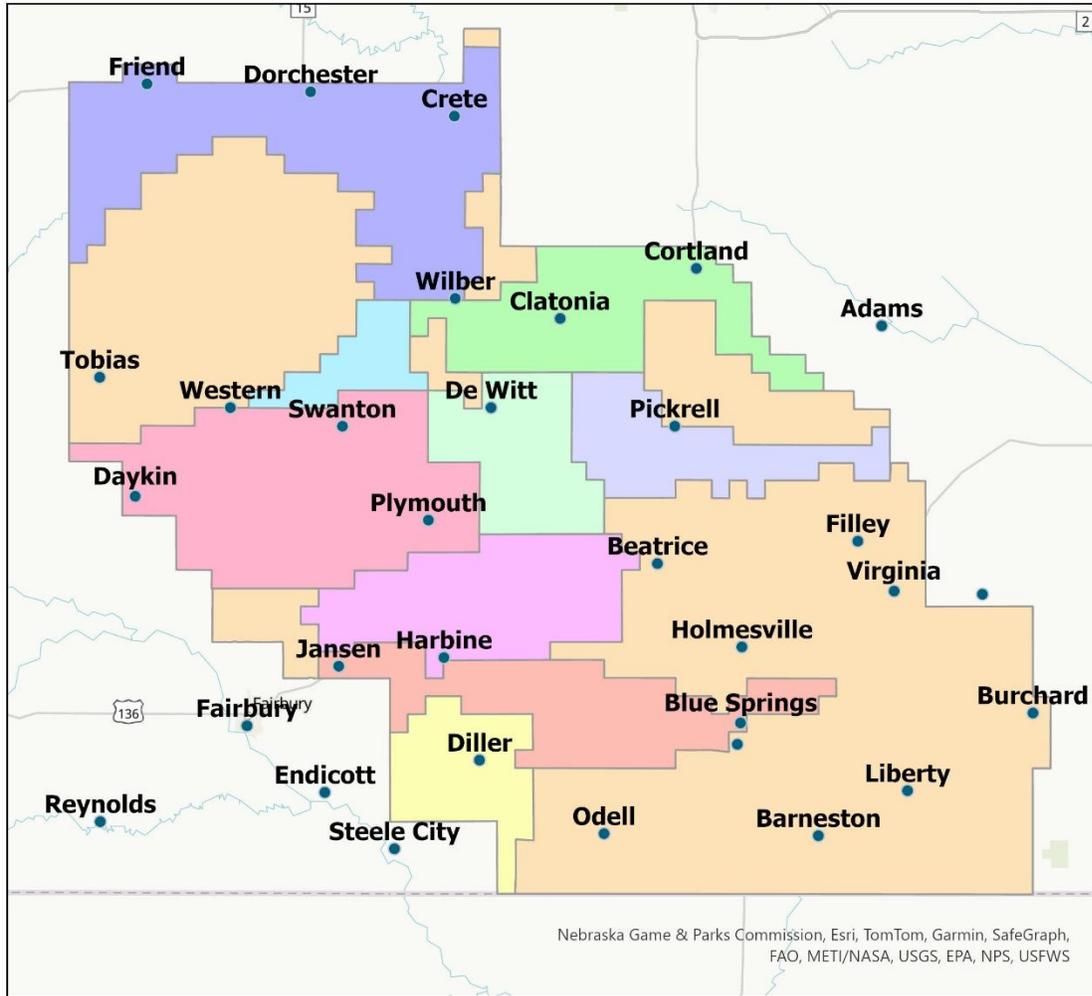
Figure 10: Sub-Area 9



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

- Discontinuous, low productivity aquifer

Figure 11: Remaining Area (0)



APPENDIX D: OBSERVATION WELL MONITORING NETWORK

Figure 12: Observation Well Monitoring Network

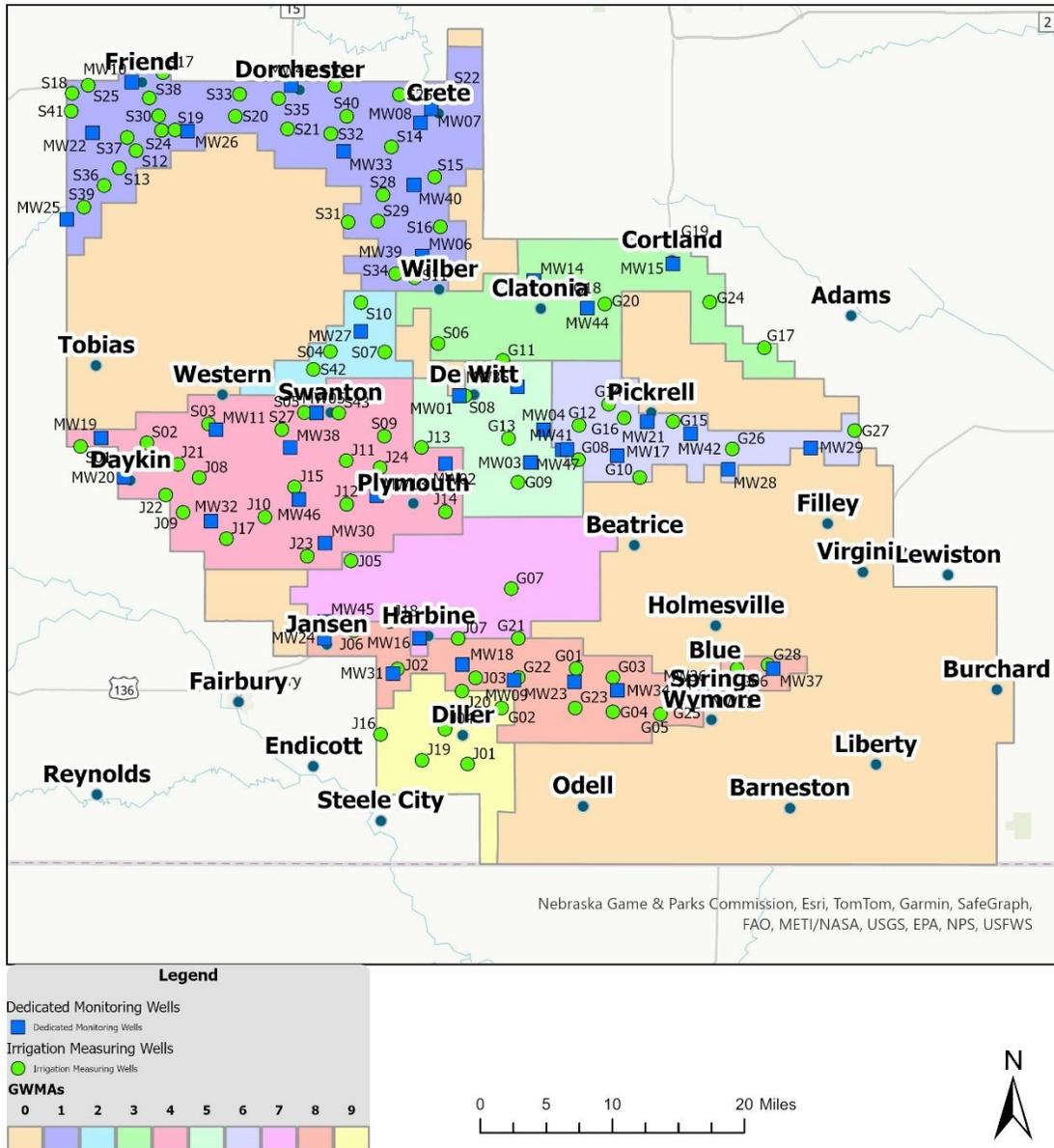


Figure 13: Sub-Area 1 Observation Wells

| 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 |