RULES GOVERNING THE WITHDRAWAL OF GROUNDWATER IN WATER DIVISION NO. 3 (THE RIO GRANDE BASIN) AND ESTABLISHING CRITERIA FOR THE BEGINNING AND END OF THE IRRIGATION SEASON IN WATER DIVISION NO. 3 FOR ALL IRRIGATION WATER RIGHTS

ORDER OF THE STATE ENGINEER

BY THIS ORDER the State Engineer adopts the following rules governing the withdrawal of groundwater in Water Division No. 3 (the Rio Grande Basin) and establishing criteria for the beginning and end of the irrigation season in Water Division No. 3 for all irrigation water rights.

1. **Title.** The title of these Rules is "Rules Governing the Withdrawal of Groundwater in Water Division No. 3 (the Rio Grande Basin) and Establishing Criteria for the Beginning and End of the Irrigation Season in Water Division No. 3 for all Irrigation Water Rights." The short title for these Rules is "Groundwater and Irrigation Season Rules for Water Division No. 3," and they may be referred to herein collectively as the "Rules" or individually as "Rule."

2. **Authority.** These Rules are promulgated pursuant to the authority of the State Engineer under sections 37-80-104 and 37-92-501, C.R.S.

3. **Scope and Purpose.**

3.1. These Rules apply to all withdrawals of groundwater within Water Division No. 3, unless such withdrawals are specifically exempted herein.

3.2. These Rules do not apply to the following withdrawals of groundwater:

3.2.1. Wells whose rate of diversion and type of use meet the requirements of sections 37-92-602(1) through (5), C.R.S.

3.2.2. Wells that divert nontributary groundwater as defined in section 37-90-103(10.5), C.R.S. All Wells in Water Division No. 3 are presumed to divert tributary groundwater. For purpose of the application of these Rules, this presumption can be rebutted by a showing, satisfactory to the State Engineer, that the groundwater withdrawals meet the requirements of section 37-90-103(10.5), C.R.S. The State Engineer must provide notice in accordance with Rule 22 before determining whether a Well owner has successfully

rebutted the presumption that the Well diverts tributary groundwater, and the State Engineer must provide the determination to interested Persons if requested. The State Engineer is bound by any court decree adjudicating the groundwater right. Unless the decree specifically determines that the groundwater is nontributary, then the decree will be presumed to mean the groundwater is tributary.

3.2.3. Wells that divert nontributary groundwater within the scope of and subject to both section 37-90-137(7), C.R.S. and the State Engineer's "Rules and Regulations for the Determination of the Nontributary Nature of Ground Water Produced through Wells in Conjunction with the Mining of Minerals, 2 CCR 402-17" promulgated pursuant to section 37-90-137(7), C.R.S.

3.2.4. Any other groundwater withdrawal granted a variance pursuant to Rule 15.

3.2.5. Groundwater withdrawals by a Well that is decreed as an alternate point of diversion for a surface water right, but only during the time the surface water right is in priority and only to the extent that surface water is physically available at the decreed point of surface diversion. However, unless inconsistent with the terms of a decree entered prior to the Effective Date of these Rules, any resulting lagged Injurious Stream Depletions that occur due to groundwater withdrawals when the surface water right is not in priority and/or surface water is not physically available at the original point of surface diversion must be replaced or Remedied in accordance with these Rules.

3.2.6. Groundwater withdrawals by a Well, made in compliance with the terms of a decree entered prior to the Effective Date of these Rules, which decree determines that the source of groundwater for the Well is water that would otherwise be lost to surface evaporation or evapotranspiration.

3.3. These Rules have as their objective the optimum use of water consistent with preservation of the priority system of water rights.

3.4. These Rules also have as their objective the regulation of the use of the Confined and Unconfined Aquifers so as to maintain a Sustainable Water Supply in each aquifer system, with due regard for the daily, seasonal, and long-term demand for underground water.

3.5. These Rules recognize that Unconfined Aquifers serve as valuable underground water storage reservoirs with water levels that fluctuate in response to climatic conditions, water supply, and water demands and these Rules will allow such fluctuations to continue.

3.6. These Rules also have as their objective allowing fluctuations in the Artesian Pressures in the Confined Aquifer System within the ranges that occurred during the period of 1978 through 2000, and allowing Artesian Pressures to increase in periods of greater water supply and to decline in periods of lower water supply in much the same manner and within the same ranges of fluctuations as occurred during the period 1978 through 2000, while maintaining average Artesian Pressure levels similar to those that occurred in 1978 through 2000, subject to the further provisions of Rule 8.1.

3.7. These Rules do not: (a) relieve Wells of the obligation to replace or otherwise Remedy Injurious Stream Depletions; (b) allow an expanded use of water; or (c) relieve Wells of the obligation to comply with the terms of any applicable permits, rules, and decrees.

3.8. These Rules do not allow the withdrawal of groundwater that will unreasonably interfere with the state's ability to fulfill its obligations under the Rio Grande Compact, with due regard for the right to accrue credits and debits under the Compact.

3.9. These Rules establish the criteria for the beginning and end of the Irrigation Season in Water Division 3 for all irrigation water rights.

4. **Definitions.** Any term used in these Rules that is defined in sections 37-90-103 or 37-92-103, C.R.S. has the same meaning given therein unless the context requires otherwise.

4.1. "Annual Replacement Plan" or "ARP" refers to a compilation of data, calculation of Stream Depletions, and projected operations to replace or Remedy Injurious Stream Depletions that a Subdistrict with an approved Subdistrict Groundwater Management Plan must submit to the State and Division Engineer by April 15th of each year, containing the information required by Rule 11.

4.2. "Annual Replacement Plan Notification List" or "ARP List" means the list of interested Persons established by the State Engineer for the purposes of notifying interested Persons of the submission of Subdistrict Annual Replacement Plans, approval or disapproval of those plans by the State and Division Engineers, and requests for variances under these Rules. After the Effective Date of these Rules, interested Persons must notify the State Engineer's Office in writing to request that their name and contact information be placed on the ARP List. The State Engineer must submit an invitation to be included on the ARP List to the Water Court for publication in each January Water Resume for Water Division No. 3. The State Engineer must provide Persons on the ARP List notification by electronic mail, or if the Person so requests, by first-class mail.

4.3. "Artesian Pressure" means the hydrostatic pressure that would cause the water level in a Confined Aquifer Well to rise above the top of a Confined Aquifer.

4.4. "Composite Water Head" means an area-weighted composite of water levels or Artesian Pressures of the Confined Aquifer System within a specified area. The Composite Water Head is derived from annual measurements, collected outside of the Irrigation Season, from multiple wells within specified areas.

4.5. "Confined Aquifer" means a formation, groups of formations, or parts of formations underlying portions of Water Division No. 3, consisting in part of unconsolidated clays, silts, sands, gravels, or interbedded volcanic rock and containing saturated permeable materials that yield water under Artesian Pressure that is or may be extracted and applied to a beneficial use. The Confined Aquifer includes any formation, group of formations, or part of a formation containing saturated permeable material that yielded water under Artesian Pressure during the period 1978 through 2000, whether or not the water level in the formation, group of formations, or part of a formation is under Artesian Pressure conditions at any time after the Effective Date of these Rules.

4.6. "Confined Aquifer New Use Rules" means "State Engineer's Rules Governing New Withdrawals of Ground Water in Water Division No. 3 Affecting the Rate or Direction of Movement of Water in the Confined Aquifer System," and any subsequent amendments to these Rules. See also *Simpson v. Cotton Creek Circles, LLC*, 118 P.3d 252 (Colo. 2008).

4.7. "Confined Aquifer System" means the Confined Aquifer and those areas in Water Division 3 not overlying a confining layer, but which provide inflow to the Confined Aquifer.

4.8. "Divert," "diversion," and "withdrawal" mean removing water from its natural course or location, or controlling water in its natural course or location, by means of a control structure, ditch, canal, flume, reservoir, bypass, pipeline, conduit, well, pump, or other structure or device.

4.9. "Division Engineer' means the Division Engineer for Water Division No. 3.

4.10. "Effective Date" means the date on which these Rules take effect pursuant to Rule 23.

4.11. "Groundwater Management Plan" means a plan adopted by a Subdistrict that meets the requirements of sections 37-92-501(4)(a) and (b), C.R.S.

4.12. "Groundwater Model" means a mathematical model that simulates groundwater flow by means of a governing equation thought to represent the physical processes that occur in the hydrogeologic system, together with equations that describe heads or flows along the boundaries of the model.

4.13. "Injurious Stream Depletions" means Stream Depletions that deprive senior surface water rights in Water Division No. 3 of water that would have been physically and legally available for diversion in the absence of the Stream Depletions and that must be replaced or Remedied to prevent material injury to senior surface water rights; it also means Stream Depletions that unreasonably interfere with the State's ability to fulfill its obligations under the Rio Grande Compact, with due regard for the right to accrue credits and debits under the Compact.

4.14. "Irrigation Season" means the time during the year when water rights decreed for irrigation can be used in accordance with Rule 14.

4.15. "Measurement Rules" means "The Rules Governing the Measurement of Ground Water Diversions Located in Water Division No. 3, the Rio Grande Basin," approved by the District Court in and for Water Division No. 3, in case number 2005CW12 (August 1, 2006) and any subsequent amendments to the Measurement Rules.

4.16. "Net Groundwater Consumptive Use" means the groundwater consumed by the operations of one or more Wells, and represents the difference between groundwater withdrawals less any groundwater that returns to the surface or groundwater system within Water Division No. 3.

4.17. "Person" means an individual, a partnership, an association, a corporation, a municipality, the State of Colorado, the United States, or any other legal entity, public or private.

4.18. "Plan for Augmentation," means a plan as defined in section 37-92-103(9), C.R.S. that has been approved by a decree of District Court in and for Water Division No. 3 in accordance with the procedures of section 37-92-101, *et seq.*, C.R.S.

4.19. "Remedy" or "Remedied" means a contractual agreement or other arrangement pursuant to which injury to senior surface water rights resulting from the use of groundwater is remedied by means other than providing water to replace Injurious Stream Depletions, as contemplated by section 37-92-501(4)(b)(I)(B).

4.20. "Response Area" refers to a specific geographic area and vertical interval within the RGDSS Model Domain where Response Functions are used.

4.21. "Response Functions" means a simplified representation of the cause and effect relationship between groundwater withdrawal and net depletions to one or more surface streams within Water Division No. 3. The Response Functions used under these Rules are derived from the RGDSS Groundwater Model and are used to quantify the amount, timing, and location of Stream Depletions caused by groundwater withdrawals within a Response Area.

4.22. "RGDSS" means the Rio Grande Decision Support System, including the RGDSS Groundwater Model, developed by the Colorado Water Conservation Board and the Colorado Division of Water Resources.

4.23. "RGDSS Groundwater Model" or "RGDSS Model" means the finite difference model (commonly known as "MODFLOW"), developed by the U.S. Geological Survey to simulate, among other things, the flow of groundwater, its pre- and post-processors, and its associated modular computer programs, as adapted and applied by the Office of the State Engineer to simulate Unconfined Aquifers and the Confined Aquifer System. The RGDSS Groundwater Model means the model as it currently exists and as it may be revised under Rule 24.

4.24. "RGDSS Model Domain" means the physical area within Water Division No. 3 where the RGDSS Groundwater Model makes flow computations. The greatest areal extent of the RGDSS Model Domain as of the Effective Date of these Rules is shown on the attached Exhibit A.

4.25. "Rio Grande Compact" or "Compact" means the interstate compact between the states of Colorado, New Mexico, and Texas apportioning the waters of the Rio Grande and codified at section 37-66-101, C.R.S.

4.26. "Stream Depletions" means depletions to streams caused by the Net Groundwater Consumptive Use of tributary groundwater in Water Division No. 3.

4.27. "Subdistrict" in Water Division No. 3 means an entity created pursuant to sections 37-48-123 or 37-45-120, C.R.S.

4.28. "Subdistrict Well" means a Well that is included in a Groundwater Management Plan, a Well included in a Plan for Augmentation decreed for a Subdistrict, a Well included in a Substitute Water Supply Plan approved for a Subdistrict, or a Well operated under a contract or other agreement with a Subdistrict.

4.29. "Sustainable Water Supply" means a supply of groundwater that is being managed in accordance with sections 37-92-501(4)(a)(I) through (III), C.R.S.

4.30. "Unconfined Aquifer" means a geologic formation, groups of formations, or parts of formations underlying portions of Water Division No. 3 consisting in part of unconsolidated clays, silts, sands, gravels, interbedded volcanic rock, or other materials and containing saturated permeable materials that yields water under water table conditions that is or may be extracted and applied to beneficial use.

4.31. "Underground water", "groundwater", and "ground water" are used interchangeably in these Rules and have the same meaning as that in sections 37-90-103(19) and 37-92-103(11), C.R.S.

4.32. "Water Court" means the District Court for Water Division No. 3.

4.33. "Water Administration Year" means the period from November 1st to October 31st.

4.34. "Well" means a structure as defined in section 37-90-103(21), C.R.S.

4.35. "Well User" means a Person withdrawing groundwater in Water Division No. 3.

5. Principles and Findings.

5.1. In addition to the provisions of Rule 3, in adopting these Rules, the State Engineer has been guided by the recognition that the Rio Grande Basin is a separate entity from other water basins; that aquifers are geologic entities and that different aquifers possess different hydraulic characteristics even though such aquifers may underlie the same river in the same water division; that there exists shallow Unconfined Aquifers and a Confined Aquifer System underlying portions of Water Division No. 3, that rules applicable to one type of aquifer need not apply to another type, and that the hydrology and geology of shallow Unconfined Aquifers and the Confined Aquifer System and their relationship to surface streams in Water Division No. 3 are unique and among the most complex in the state.

5.2. In adopting these Rules, the State Engineer has considered the particular qualities and conditions of Unconfined Aquifers and the Confined Aquifer System and has considered the relative priorities and quantities of all water rights and the anticipated times of year when demands will be made by the owners of such rights for waters to supply the same. The State Engineer has also considered Colorado's obligations under the Rio Grande Compact and the manner of administration of water rights necessary for Colorado to comply with its obligations under the Rio Grande Compact.

5.3. In adopting these Rules, the State Engineer has considered the conjunctive use of surface and groundwater in Water Division No. 3, and his wide discretion to permit the continued use of groundwater consistent with the prevention of material injury to senior surface water rights.

5.4. In adopting these Rules, the State Engineer has recognized that the reduction of groundwater usage under these Rules will be the minimum necessary to meet the standards of section 37-92-501(4), C.R.S.

5.5. In adopting these Rules, the State Engineer has recognized that the Rio Grande and its tributaries, and the Conejos River and its tributaries, have separate delivery schedules and separate delivery obligations under the Rio Grande Compact as set forth in *Alamosa-La Jara Water Users Protection Ass'n v. Gould*, 674 P.2d 914 (Colo. 1989).

5.6. The Confined Aquifer is a multi-layered aquifer. Different formations, group of formations, or parts of a formation in the Confined Aquifer have different hydraulic properties that affect the rate and direction of movement of water in the Confined Aquifer System and the Artesian Pressures at various depths in the Confined Aquifer.

5.7. In adopting these Rules, the State Engineer has recognized that fluctuations in the Artesian Pressure in the Confined Aquifer System have occurred and will continue to occur in response to variable climatic conditions, water supply, and water demands, and that such pressure fluctuations shall be allowed within the ranges that occurred during the period of 1978 through 2000. Artesian Pressures shall be allowed to increase in periods of greater water supply and shall be allowed to decline in periods of lower water supply in much the same manner and within the same ranges of fluctuation as occurred during the period 1978 through 2000, while maintaining average pressure levels similar to those that occurred in 1978 through 2000, subject to the further provisions of Rule 8.1.

5.8. The Rio Grande Basin in the State of Colorado, including Unconfined Aquifers and the Confined Aquifer System, is over-appropriated. Withdrawals of groundwater from aquifers can affect the rate and direction of movement of water in other aquifers and flow in natural streams. Injurious Stream Depletions, that are not replaced or Remedied, materially injure vested water rights and can increase the burden of Colorado's scheduled deliveries under the Rio Grande Compact.

5.9. Within the RGDSS Model Domain a Groundwater Model is presumed to be necessary to consider all the particular qualities and conditions of Unconfined Aquifers and the Confined Aquifer System and to determine whether withdrawals of groundwater affect the rate or direction of movement of water in either of these aquifers or flow in natural streams. A Groundwater Model is presumed necessary for determining Stream Depletions within the RGDSS Model Domain. Within the RGDSS Model Domain, the RGDSS Model is presumed to be the most reliable Groundwater Model currently available for these purposes.

5.10. Outside the RGDSS Model Domain an alternate numerical or analytical model or alternative methodology is presumed to be necessary for determining Stream Depletions to surface streams resulting from groundwater withdrawals.

5.11. In adopting these Rules, the State Engineer recognizes that within Response Areas all Well Users withdrawing groundwater pursuant to Rules 6.1.1-6.1.3 bear proportionally the obligation to replace or Remedy Injurious Stream Depletions and for achieving and maintaining a Sustainable Water Supply. The proportional division of the responsibility for achieving and maintaining a Sustainable Water Supply will be based upon each Well's past, present and future use, unless an approved Rule 6.1 Plan provides, or the Well Users agree among themselves on, another method of allocation of such responsibility.

5.12. In adopting these Rules, the State Engineer shall recognize contractual agreements pursuant to which: water is added to a stream system to assist in meeting the Rio Grande Compact delivery schedules; water is added to a stream system to replace Injurious Stream Depletions to stream flows resulting from groundwater use; or injury to senior surface water rights resulting from the use of groundwater is Remedied by means other than providing water to replace Injurious Stream Depletions.

5.13. The State and Division Engineers shall administer, distribute, and regulate groundwater within the scope of these Rules in accordance with the provisions of the Rio Grande Compact, the constitution of the State of Colorado and other applicable laws, and written instructions and orders of the State Engineer, including these Rules. No other official, board, commission, department, or agency of the State of Colorado, except as provided in article 92, of title 37, C.R.S. and article 8 of title 25, C.R.S., has jurisdiction and authority with respect to said administration, distribution, and regulation. The State and Division Engineers shall curtail all diversions of groundwater within the scope of these Rules, when the Injurious Stream Depletions from such diversions are not replaced or Remedied so as to: prevent injury to senior water rights; and prevent unreasonable interference with the State of Colorado's ability to fulfill its obligations under the Rio Grande Compact, with due regard for the right to accrue credits and debits under the Compact. The State and Division Engineers shall also curtail diversions of groundwater so as to maintain a Sustainable Water Supply for each aquifer system, with due regard for the daily, seasonal, and long-term demand for underground water.

5.14. Unless otherwise stated herein, these Rules establish requirements for all Wells and Well Users subject to these Rules.

5.15. References to statutes or rules herein include their subsequent amendments.

6. Requirements for Withdrawals of Groundwater in Water Division 3.

6.1. Except as provided in Rule 21.2, groundwater withdrawals within the scope of these Rules can only occur if they are made pursuant to one of the following:

6.1.1. A Groundwater Management Plan for a Subdistrict that has been approved by the State Engineer under section 37-92-501(4)(c) C.R.S. for which no judicial review is sought, or as approved by the Water Court after judicial review.

6.1.2. A Plan for Augmentation, the decree for which was entered after the Effective Date of these Rules, that meets the applicable requirements of these Rules and the Confined Aquifer New Use Rules. Any such decree must contain a term and condition making it subject to future reopening and amendment to comply with changes to these Rules, including further proceedings under Rule 8.

6.1.3. A Substitute Water Supply Plan authorized by section 37-92-308, C.R.S. that meets the applicable requirements of these Rules and the Confined Aquifer New Use Rules.

6.1.4. A Plan for Augmentation, the decree for which was entered prior to the Effective Date of these Rules, except as limited by Rule 10.1, that meets the requirements of Rule 8. Any Well used as a source of replacement water in a Plan for Augmentation is subject to these Rules.

6.2. For Wells included in an approved Rule 6.1.1 through 6.1.3 Plan, the Plan is only required to replace or Remedy Injurious Stream Depletions, not all Stream Depletions.

6.3. For Wells included in an approved Rule 6.1.1 through 6.1.3 Plan, the Plan must replace or Remedy ongoing Injurious Stream Depletions resulting from all past groundwater withdrawals from any of the Plan's Wells.

6.4. For Wells included in an approved Rule 6.1.1 through 6.1.3 Plan, the Plan must replace or Remedy Injurious Stream Depletions caused by the Plan's Wells' groundwater withdrawals based upon the Plan's Wells' proportionate Net Groundwater Consumptive Use in relation to the total Net Groundwater Consumptive Use of all Wells in the Response Area or Areas in which the Plan's Wells are located.

7. Standards for Determinations of Stream Depletions.

7.1. Except as provided in Rule 7.5, the RGDSS Model must be used as the basis for predicting changes in the rate and direction of flow of groundwater, and determining

Stream Depletions resulting from groundwater withdrawals within the RGDSS Model Domain.

7.2. The State Engineer must establish a lower limit of reliability of the RGDSS Model, expressed in acre-feet per year in accordance with this Rule 7.2.

7.2.1. The lower limit of reliability of the RGDSS Model reflects the level below which the State Engineer does not have confidence that Stream Depletions predicted by the RGDSS Model on a given stream actually occur.

7.2.2. The lower limit of reliability of the RGDSS Model applies to the net depletions to the stream reaches actually used in RGDSS Model calibration regardless of how the stream is divided for purposes of administration of replacements or Remedies for Injurious Stream Depletions.

7.2.3. The lower limit of reliability of the RGDSS Model applies to the average annual predicted Stream Depletions to a stream from all Wells in a Response Area, based upon the most recent 10 years simulated in the RGDSS Model.

7.2.4. If the RGDSS Model for groundwater withdrawals by all Wells within a Response Area for the most recent 10 years simulated predicts average annual Stream Depletions on a given stream and each of the stream's calibrated stream reaches that are less than the lower limit of reliability of the RGDSS Model, then no Response Functions will be developed for and applied to that stream and there will be no Injurious Stream Depletions that must be replaced or otherwise Remedied.

7.2.5. If the RGDSS Model, for groundwater withdrawals by all Wells within a Response Area, predicts average annual Stream Depletions, for the most recent 10 years simulated, on a given stream or any of the stream's calibrated reaches that are greater than the lower limit of reliability of the RGDSS Model, then Response Functions will be developed for and applied to that stream and the Injurious Stream Depletions must be replaced or otherwise Remedied.

7.2.6. For a stream where a Response Function is developed and where if there is a calibrated stream reach for which the average annual stream depletions are predicted to be less than the lower limit of reliability of the RGDSS Model, then Stream Depletions for that reach will be quantified and the Injurious Stream Depletions replaced or otherwise Remedied in an adjacent reach of the same stream for which the combined predicted average annual Stream Depletions are greater than the lower limit of reliability of the RGDSS Model.

7.2.7. The State Engineer's revision of the lower limit of reliability of the RGDSS Model will be governed by Rule 24. The State Engineer must notify interested Persons, in accordance with Rule 22 of any proposed revision to the lower limit of reliability of the RGDSS Model.

7.3. The State Engineer must develop and make available to Well Users the Response Functions for each Response Area. Except as provided in Rule 7.5, the Response Functions for a Response Area must be used to determine the amount and timing of Stream Depletions to defined reaches of affected streams caused by diversions of tributary groundwater by Wells within the Response Area.

7.4. There is a rebuttable presumption that the Stream Depletions predicted by use of the Response Functions correctly quantify the amount, time, and location of Stream Depletions, and that the streams for which the Response Functions quantify Stream Depletions are the only streams to which Stream Depletions occur.

7.5. Any Well User wishing to use an alternative to the RGDSS Model to determine Stream Depletions for a specific Well or Wells within the RGDSS Model Domain must demonstrate that the alternative to the RGDSS Model determines Stream Depletions resulting from groundwater withdrawals within the RGDSS Model Domain at least as reliably as the Stream Depletions calculated by use of the RGDSS Model.

7.6. For areas outside of the RGDSS Model Domain, the best practical and reliable methodology for determining Stream Depletions must be used. There is a rebuttable presumption that aquifers outside of the RGDSS Model Domain within Water Division No. 3 act as alluvial aquifers.

8. Standards and Monitoring Methods for Achieving and Maintaining a Sustainable Water Supply.

8.1. Except as provided in Rule 8.6, Plans specified in Rule 6.1 that include Wells located in one or more of the Confined Aquifer Response Areas depicted in Exhibit B must contain terms for achieving and maintaining a Sustainable Water Supply in accordance with this Rule 8.1.

8.1.1. A proposed monitoring network of wells for the Confined Aquifer System is identified in Exhibit C. The State Engineer must coordinate with Well Users to implement a measuring program to collect water levels at the wells included in the monitoring network on at least an annual basis. The purpose of this monitoring network is to supplement the limited amount of water level and Artesian Pressure data currently available for the Confined Aquifer System. This network may be modified as needed by the State Engineer when additional

hydrogeologic information becomes available. The State Engineer must notify interested Persons of such modifications in accordance with Rule 22.

8.1.2. The State Engineer, in coordination with the Rio Grande Water Conservation District, water conservancy districts, Subdistricts, and water users will collect additional data and investigate inflows and outflows from the Confined Aquifer System and the relationship between climatic conditions, hydrologic and geologic conditions, unconfined aquifer and Confined Aquifer System groundwater withdrawals and the water levels and Artesian Pressures of the Confined Aquifer System. The purpose of this additional data collection and investigation is to provide the State Engineer with the information needed to (a) more fully understand and model inflows to and outflows from the Confined Aquifer System, (b) better estimate the 1978 through 2000 water levels and Artesian Pressures in the Confined Aquifer System, and (c) further investigate the relationship between groundwater withdrawals, climatic conditions, movement of water through the system and the water levels and Artesian Pressures in the Confined Aquifer System.

8.1.3. No later than 10 years from the Effective Date of these Rules, the State Engineer must prepare a report concerning the results of the investigations specified in Rules 8.1.1 and 8.1.2. The State Engineer must notify interested Persons of this report in accordance with Rule 22. Based upon the results of the investigations, the State Engineer must determine the preferred methodologies to maintain a Sustainable Water Supply in the Confined Aquifer System and manage Artesian Pressures and thereafter propose any reasonable amendments to these Rules needed to further implement sections 37-92-501(4)(a))(I)-(III), C.R.S.

8.1.4. No later than October 1, 2015, the State Engineer must use measurements collected during February and March 2015 (outside the Irrigation Season) from the network of monitoring wells to develop a Composite Water Head in each of the Response Areas subject to this Rule 8.1 for the areas depicted in Exhibit C. No later than July 1 of each year after 2015, the State Engineer must update the Composite Water Head for each of the Response Areas subject to this Rule 8.1 for the areas depicted in Exhibit C to reflect the most recent annual water level measurements collected during February and March (outside of the Irrigation Season) and display the update in graph form. The State Engineer must notify interested Persons of this annual update in accordance with Rule 22.

8.1.5. For each Response Area subject to this Rule 8.1, no later than October 1, 2015, and no later than July 1 each year thereafter, the State Engineer must assemble the metered total annual withdrawals for the previous five Water Administration Years and compute the average of the metered total annual withdrawals for the previous five Water Administration Years. The metered data is data collected pursuant to the Rules Governing Measurement of Ground Water Diversions

Located in Water Division 3, the Rio Grande Basin. The State Engineer must notify interested Persons of this annual update in accordance with Rule 22.

8.1.6. For each Response Area subject to this Rule 8.1, no later than October 1, 2015, the State Engineer must provide the average annual groundwater withdrawals for the period 1978 through 2000, as determined from the most current version of the RGDSS and any other pertinent information. Thereafter, the State Engineer will provide any update in the average annual withdrawals for such Response Areas for the period 1978 through 2000, as determined from revisions to the RGDSS and any other pertinent information. Such distribution must occur by July 1 of any year and will not take effect until May 1 of the following year. The State Engineer must notify interested Persons of this update in accordance with Rule 22.

8.1.7. The Plans specified in Rule 6.1 must include provisions and benchmarks addressing how its proportionate share of groundwater withdrawals will be incrementally reduced so as to achieve the average annual withdrawal for the Response Area as provided by Rule 8.1.6. Such plans must include provisions requiring the reduction of groundwater withdrawals through reduction of pumping or offsetting of groundwater withdrawals by recharge to the Confined Aquifer, or both, so that by the tenth year after the approval of the first Annual Replacement Plan or Plan for Augmentation, five year running average groundwater withdrawals, after accounting for recharge, do not exceed the average annual withdrawals for the Response Area as provided by Rule 8.1.6. In each year thereafter, subject to Rule 8.1.8, for the Response Area the metered total withdrawals on a five year running average must not exceed the average annual withdrawals for the period 1978 through 2000 as provided by Rule 8.1.6. Each Plan in the Response Area must include terms addressing how the Plan will meet its proportional responsibility for ensuring that this five-year running average withdrawal limit is not exceeded.

8.1.8. If, after completing the report specified in Rule 8.1.3, the State Engineer determines that the then-existing pressure levels in a Confined Aquifer Response Area depicted in Exhibit B exceed the ranges of pressure fluctuations that occurred in the period of 1978 through 2000, then the State Engineer will have the discretion to allow groundwater withdrawals in that Confined Aquifer Response Area that are greater than the volumes allowed by Rule 8.1.7.

8.2. Except as provided in Rule 8.6, plans specified in Rule 6.1 that include Wells located in the Response Area No. 1 depicted in Exhibit D must achieve and maintain a Sustainable Water Supply in accordance with the Groundwater Management Plan of Subdistrict No. 1 approved by the Water Division 3 Water Court in Case No. 07CW52 and upheld by the Colorado Supreme Court in *In re Office of the State*

Engineer's Approval of the Plan of Water Mgmt. v. Special Improvement Dist. No. 1 of the Rio Grande Water Conservation Dist., 270 P.3d 927 (Colo. 2011), including any future amendments to or replacements of that plan approved in the manner required by law.

8.3. Except as provided in Rule 8.6, plans specified in Rule 6.1 that include Wells located in the Trinchera Response Area depicted in Exhibit E must achieve and maintain a Sustainable Water Supply in accordance with this Rule 8.3. Each plan must contain terms that provide for achieving and maintaining a Sustainable Water Supply within 20 years of its effective date.

8.4. In the Rio Grande Alluvium Response Area, depicted in Exhibit F, the alluvial aquifer is directly drained by the Rio Grande and therefore retains insufficient storage from season to season to sustain large groundwater production. Therefore, there is no Sustainable Water Supply required of the Wells in this Response Area that withdraw water from the alluvium of the Rio Grande.

8.5. Plans specified in Rule 6.1 that include Wells located outside of areas depicted in Exhibits B, D, E, and F must include a Rule 8.6 "Alternate Plan to achieve a Sustainable Water Supply" for those Wells. There is a rebuttable presumption that aquifers outside of the RGDSS Model Domain act as alluvial aquifers and have little or no storage capacity available for use of the aquifer as a reservoir.

8.6. Any Well User or Subdistrict may propose an Alternate Plan that includes a method or standard for determining, achieving, and maintaining a Sustainable Water Supply. The proponent of any such Alternate Plan must demonstrate that an Alternate Plan reliably determines the Sustainable Water Supply and is sufficient to achieve and maintain a Sustainable Water Supply. Regardless of whether an Alternate Plan relies on replacement of groundwater withdrawals by recharge or injection such that the groundwater withdrawals do not have an effect on the Sustainable Water Supply, the Alternate Plan must contain terms that account for the effect of groundwater withdrawals made before the effective date of the Plan on the achievement and maintenance of a Sustainable Water Supply. If an Alternate Plan is used to determine, achieve, and maintain a Sustainable Water Supply, Wells subject to that Alternate Plan will be curtailed at times the provisions of the Alternate Plan are not met.

8.7. All Plans specified in Rule 6.1 that are required by this Rule 8 to achieve and maintain a Sustainable Water Supply must provide for the proportional division of the responsibility for achieving and maintaining a Sustainable Water Supply as between all Well Users in each of the Response Areas in which the Wells included in the Plan are located. The proportional division of the responsibility for achieving and maintaining a Sustainable Water Supply will be based upon each Well's past, present and future groundwater withdrawals, unless the Plan's participants agree among

themselves on another method of allocation of responsibility of the Plan's participants.

9. Subdistrict's Proposed Groundwater Management Plan.

9.1. A Subdistrict's application to the State Engineer for approval of a Proposed Groundwater Management Plan must meet the following requirements:

9.1.1. A Subdistrict will submit information required to be included in a Groundwater Management Plan to the State Engineer for approval pursuant to section 37-92-501, C.R.S. This information will be provided to the State Engineer in hard copy and/or electronic format, at the reasonable discretion of the State Engineer. This information includes, but is not limited to:

9.1.1.1. A map showing the Subdistrict boundaries;

9.1.1.2. Copies of any reports, data, maps, or other materials referenced in the proposed Groundwater Management Plan;

9.1.1.3. A list of all Wells currently included within the Subdistrict's Groundwater Management Plan in a form approved by the State Engineer;

9.1.1.4. The projected budget and accounting for the plan;

9.1.1.5. Any other data or materials the Subdistrict believes will assist the State Engineer in reviewing the proposed Groundwater Management Plan;

9.1.1.6. An operational timeline specifically listing the dates, data, and other necessary information that will be supplied to the State and Division Engineers for evaluation of each Annual Replacement Plan; and

9.1.1.7. Any other information or data requested by the Division or State Engineer that is reasonably necessary for evaluation of the proposed Groundwater Management Plan.

9.1.2. If a Subdistrict proposes to use a methodology other than the RGDSS Model Response Functions to determine Stream Depletions, then the Subdistrict will submit that methodology to the Division and State Engineer:

9.1.2.1. The explanation of any alternate proposed methodology must be sufficiently detailed to allow the State Engineer to examine both the proposed data to be used and the method to determine Stream Depletions;

9.1.2.2. The Subdistrict must submit an example of how any alternate proposed methodology will be applied and the results of that alternate proposed methodology using the most recent 20-year historical period of record; and

9.1.2.3. Any alternate proposed methodology will include a list of projected current and lagged Stream Depletions from Subdistrict Wells, in time, location, and amount. The projected Stream Depletions must be based upon the most recent 20-year historical period, using the methodology proposed to be used in an ARP.

9.1.3. The Subdistrict will submit its proposed methodology to meet the applicable requirements of Rule 8.

9.1.3.1. A Groundwater Management Plan must include a measurable, ten-year benchmark for showing progress toward compliance with Rule 8. If not met, then the State Engineer may approve an ARP submitted by the Subdistrict pursuant to Rule 11 only if the Subdistrict:

9.1.3.1.1. Adjusts its program of fees and charges within the economic means of its Well Users in order to provide funding to obtain a further reduction in groundwater consumption during the subsequent years; or

9.1.3.1.2. Takes other steps to achieve a Sustainable Water Supply within the period required by these Rules.

10. Plans for Augmentation.

10.1. This Rule 10 applies to Plans for Augmentation decreed on or after the Effective Date of these Rules and any amendment to a Plan for Augmentation that is made on or after the Effective Date of these Rules, other than an amendment to (a) correct a clerical error pursuant to section 37-92-304(10), C.R.S.; or (b) apply for a simple change in surface point of diversion pursuant to section 37-92-305(3.5), C.R.S.; or (c) to correct an established but erroneously described point of diversion pursuant to section 37-92-305(3.6), C.R.S.

10.2. A Plan for Augmentation must determine Stream Depletions in accordance with Rule 7.

10.3. Plans for Augmentation that determine Stream Depletions by using Response Functions as described in Rule 7.3 must contain terms for providing the following information to the State Engineer by April 15th of each year:

10.3.1. A list of Wells to be covered by the Plan for Augmentation including:

10.3.1.1. The structure identification number (WDID) assigned to each Well;

10.3.1.2. The projected annual net groundwater consumptive use from the Wells withdrawing groundwater; and

10.3.1.3. The calculations used to derive the projected annual net groundwater consumptive use.

10.4. A Plan for Augmentation must contain terms for achieving and maintaining a Sustainable Water Supply in accordance with Rule 8.

10.5. A Plan for Augmentation must contain provisions to supply sufficient information to the Division Engineer through annual accounting to allow the Division Engineer to determine if the Plan was operated in compliance with its decree and these Rules for the previous year and whether the Plan will be in compliance with its decree for the upcoming year. Such information may include:

10.5.1. For review of the upcoming Plan year's projected operation under the Plan for Augmentation:

10.5.1.1. The structure identification number (WDID) assigned to each Well or other identifying information for each Well that operates under the Plan for Augmentation.

10.5.1.2. The projected total Net Groundwater Consumptive Use for all Wells in the Plan for Augmentation and the basis for this projection.

10.5.1.3. The projected Stream Depletions in time, location and amount for the duration of the lagged Stream Depletions.

10.5.1.4. The source, sufficiency, availability and amounts of replacement water available to replace Injurious Stream Depletions for the lifetime of the lagged Stream Depletions from Wells operating under the Plan for Augmentation.

10.5.1.5. A list and copies of any voluntary contractual arrangements among the Wells operating under the Plan for Augmentation and water users, water user associations, water conservancy districts, Subdistricts, and/or the Rio Grande Water Conservation District pursuant to which:

10.5.1.5.1. Water is added to the stream system to assist in meeting the Rio Grande Compact delivery schedules, or

10.5.1.5.2. Water is added to the stream system to replace or Remedy Injurious Stream Depletions resulting from the use of underground water, or

10.5.1.5.3. Subject to section 37-92-501(4)(a)(I)-(III), C.R.S., injury to senior surface water rights resulting from the use of underground water is Remedied by means other than by providing water to replace Injurious Stream Depletions.

10.5.1.6. Information to document compliance with the terms and conditions of the Plan for Augmentation as to progress towards achieving and maintaining a Sustainable Water Supply for the upcoming year and compliance with any restrictions on the quantity of groundwater withdrawals pursuant to Rule 8.

10.5.2. For review of the sufficiency of the operation of Plan for Augmentation for the previous Plan year:

10.5.2.1. The following information will be provided to document the Stream Depletion analysis:

10.5.2.1.1. Actual groundwater withdrawals by Wells operating under the Plan for Augmentation, including the source of the data, if not from the data reported to the Division Engineer pursuant to the Measurement Rules;

10.5.2.1.2. Any actual offsets to groundwater withdrawals;

10.5.2.1.3. The recalculated Stream Depletions based on the Rule 10.5.2.1.1 actual groundwater withdrawals and the Rule 10.5.2.1.2 actual offsets to groundwater withdrawals.

10.5.2.2. If an alternative method to determine Stream Depletions has been approved pursuant to Rule 7.5, information used to recalculate the Stream Depletions; and

10.5.2.3. The following information will be provided by stream reach to quantify the replacements or Remedies for Injurious Stream Depletions under the Plan for Augmentation:

10.5.2.3.1. A list of any augmentation, offsets, or releases of water pursuant to the Plan for Augmentation;

10.5.2.3.2. The operations under agreements to Remedy Injurious Stream Depletions;

10.5.2.3.3. Any monthly over delivery or under delivery of replacement water; and

10.5.2.4. Information to document compliance with the terms and conditions of the Plan for Augmentation as to progress towards achieving and maintaining a Sustainable Water Supply during the previous year and compliance with any restrictions on the quantity of groundwater withdrawals pursuant to Rule 8.

11. Subdistrict's Proposed ARP.

11.1. By April 15th of each year, a Subdistrict with an approved Groundwater Management Plan must submit to the State and Division Engineers a proposed ARP that includes the following:

11.1.1. A database of all Wells to be covered by the ARP, which will be updated annually**.** The database of Subdistrict Wells will be provided in hard copy or electronic format, at the reasonable discretion of the State and Division Engineers and will include:

11.1.1.1. The structure identification number (WDID) assigned to Subdistrict Wells by the Division of Water Resources:

11.1.1.2. If no structure identification number has been assigned to a Subdistrict Well, the Subdistrict will furnish the following information:

11.1.1.2.1. The permit or registration number for Subdistrict Wells;

11.1.1.2.2. The appropriation date and adjudication date of each water right diverted through Subdistrict Wells;

11.1.1.2.3. The court case number of the proceeding in which each water right diverted through Subdistrict Wells was decreed;

11.1.1.2.4. The decreed or permitted location of Subdistrict Wells;

11.1.1.2.5. The decreed or permitted use of the groundwater diverted from Subdistrict Wells;

11.1.1.2.6. The perforated intervals of the well casing for Subdistrict Wells if available from existing records; and

11.1.1.2.7. If perforated interval data is not available from existing records, the aquifer or aquifers from which the Subdistrict Well diverts.

11.1.1.3. A separate list of Subdistrict Wells with Plans for Augmentation;

11.1.1.4. The total combined projected annual diversion for all Subdistrict Wells;

11.1.1.5. The expected method(s) of irrigation, the combined projected number of acres irrigated by Wells included in the ARP, and the total projected acreage by each irrigation method;

11.1.1.6. For non-irrigation Subdistrict Wells, a calculation of all projected withdrawals and projected Net Groundwater Consumptive Use;

11.1.1.7. Any other data the Subdistrict deems necessary to support its projected Stream Depletions; and

11.1.1.8. Any other information required by the State and Division Engineers and reasonably necessary to evaluate the proposed ARP.

11.1.2. The Subdistrict will submit projected Stream Depletions from the Wells covered by an ARP, in time, location, and amount based on the applicable Response Functions under Rule 7.3, along with the Response Functions or approved alternative methodology that complies with Rules 7.5 and 7.6.

11.1.3. The Subdistrict will submit a detailed description of how Injurious Stream Depletions from groundwater withdrawals by Wells included in the ARP will be replaced or Remedied, including:

11.1.3.1. The source, sufficiency, availability, and amounts of replacement water the Subdistrict will use to replace Injurious Stream Depletions during the term of the ARP and the Subdistrict's plan to replace or Remedy Injurious Stream Depletions occurring after the term of the ARP.

11.1.4. The Subdistrict will also list and provide copies of any voluntary contractual arrangements among water users, water user associations, water conservancy districts, Subdistricts, and/or the Rio Grande Water Conservation District pursuant to which:

11.1.4.1. Water is added to the stream system to assist in meeting the Rio Grande Compact delivery schedules, or

11.1.4.2. Water is added to the stream system to replace or Remedy Injurious Stream Depletions resulting from the use of underground water, or

11.1.4.3. Subject to section 37-92-501(4)(a)(I)-(III), C.R.S., injury to senior surface water rights resulting from the use of underground water is Remedied by means other than by providing water to replace Injurious Stream Depletions.

11.1.5. Information to document progress towards achieving and maintaining a Sustainable Water Supply, including:

11.1.5.1. Water levels, pressure levels, and/or groundwater withdrawals as appropriate;

11.1.5.2. A listing of any irrigated acres proposed to be fallowed, whether those acres are temporarily or permanently fallowed, and the water rights associated with those proposed fallowed irrigated acres;

11.1.5.3. A listing of water rights proposed to be temporarily or permanently retired and historical operations of each water right; and

11.1.5.4. Other proposed actions to be taken as applicable.

11.2. The State Engineer will consider any letters, comments, or other objections submitted by water users regarding the adequacy of the ARP within seven days of the Subdistrict's submitting a proposed ARP to the State and Division Engineers. The State Engineer may, but is not required to, hold a public hearing regarding the adequacy of the ARP.

11.3. The State Engineer will approve an ARP for a Subdistrict if it has presented sufficient evidence and engineering analysis to predict where and when Stream Depletions will occur and how the Subdistrict will replace or Remedy Injurious Stream Depletions to avoid injury to senior surface water rights. The State Engineer must notify the Water Court in Water Division No. 3 by filing a notice in the applicable water court proceeding, notify the sponsoring district, and the Subdistrict of the State Engineer's approval or disapproval and any terms imposed with regard to an ARP, and serve the parties to the Water Court proceeding. The State Engineer must also notify interested Persons in accordance with Rule 22.

12. Subdistrict's Annual Review of its ARP.

12.1. Before March 1st of each year, a Subdistrict will prepare a preliminary water report that will analyze how their ARP operated in the Plan year to date. The Division of

Water Resources will provide best available data to each Subdistrict setting forth the preliminary stream gauge records, diversion records and groundwater meter data for the previous Water Administration year on or before February 15th of each year. The following information will be provided to document the preliminary water report:

12.1.1. Actual groundwater withdrawals by Subdistrict Wells included in the ARP, including the source of the data, if not from the data reported to the Division Engineer pursuant to the Measurement Rules;

12.1.2. Any actual offsets to groundwater withdrawals;

12.1.3. The recalculated Stream Depletions based on the Rule 12.1.1 actual groundwater withdrawals and the Rule 12.1.2 actual offsets to groundwater withdrawals.

12.1.4. If an alternative method to determine Stream Depletions has been approved pursuant to Rule 9.1.2, information used to recalculate the Stream Depletions; and

12.1.5. Any other data the Subdistrict deems necessary to provide to support their recalculated Stream Depletions.

12.1.6. A summary table showing the replacement or other Remedy of Injurious Stream Depletions to date by location and amount, including any over or under delivery based on the recalculated Stream Depletions required by Rule 12.1.3.

12.2. Before July 1st of each year, a Subdistrict will prepare an analysis of how their ARP operated throughout the previous Plan year, including a report of the calculation of Stream Depletions, the replacement or other Remedy of Injurious Stream Depletions, and the status of the Sustainable Water Supply. A Subdistrict will provide copies of this analysis and supporting documentation to the State and Division Engineers. The Subdistrict's sponsoring district must post the analysis on its website.

12.3. The following information will be provided to document the Stream Depletion analysis:

12.3.1. Actual groundwater withdrawals by Subdistrict Wells included in the ARP, including the source of the data, if not from the data reported to the Division Engineer pursuant to the Measurement Rules;

12.3.2. Any actual offsets to groundwater withdrawals;

12.3.3. The recalculated Stream Depletions based on the Rule 12.3.1 actual groundwater withdrawals and the Rule 12.3.2 actual offsets to groundwater withdrawals.

12.3.4. If an alternative method to determine Stream Depletions has been approved pursuant to Rule 9.1.2, information used to recalculate the Stream Depletions; and

12.3.5. Any other data the Subdistrict deems necessary to provide to support their recalculated Stream Depletions.

12.4. The following information will be provided by stream reach to quantify the replacements or Remedies for Injurious Stream Depletions for the ARP:

12.4.1. A list of any augmentation, offsets, or releases of water pursuant to the ARP;

12.4.2. The operations under agreements to Remedy Injurious Stream Depletions;

12.4.3. Any over delivery or under delivery of replacement water monthly.

12.5. The following information will be provided to document the progress to achieve and maintain a Sustainable Water Supply under Rule 8:

12.5.1. Water levels and/or Artesian Pressures as appropriate;

12.5.2. A listing of any irrigated acres fallowed, whether those acres are temporarily or permanently fallowed, and the water rights associated with those formerly irrigated acres;

12.5.3. A listing of water rights temporarily or permanently retired; and

12.5.4. Other actions taken to achieve and maintain a Sustainable Water Supply.

13. Geographic Scope.

13.1. These Rules apply to the entirety of Water Division No. 3.

13.2. The State Engineer determines that the groundwater supply in the region known as the Costilla Plain and shown on the attached Exhibit G is fully appropriated and there is no unappropriated groundwater available for appropriation without injury. The State Engineer does not have sufficient knowledge or information to conclude that lawful groundwater withdrawals existing on the Effective Date of these Rules, from the area shown on Exhibit G, are causing Injurious Stream Depletions to senior surface water rights or unreasonably interfering with the State's ability to fulfill its

obligations under the Rio Grande Compact, with due regard for the right to accrue credits and debits under the Compact. Therefore, Rules 6-12 do not apply to such existing lawful groundwater withdrawals from Wells in the area shown on Exhibit G. Should the State Engineer subsequently have sufficient information to determine that groundwater withdrawals from Wells in the area shown on Exhibit G are causing Injurious Stream Depletions, then by amendment to these Rules or by separate Rules the State Engineer may regulate such groundwater withdrawals.

14. Irrigation Season.

14.1. The Irrigation Season in Water Division No. 3 is presumptively set to mirror the season during which water users irrigate growing crops. The word "crops" is intended to include wetlands vegetation. Irrigating growing crops includes lawful historical practices such as, but not limited to: flushing ditches with water, initiating diversions, germinating volunteer seed, and building soil moisture prior to planting and after harvest. The Irrigation Season presumptively begins April 1 and ends November 1 of any given year. It is within the Division Engineer's discretion to modify these presumptive dates to make the Irrigation Season longer or shorter.

14.2. In making the determination for the beginning and end of the Irrigation Season the Division Engineer or a member of his/her staff must, if requested in writing by a water user group, meet with the water user group to discuss the setting of the dates for the beginning and end of the Irrigation Season.

14.3. The Division Engineer must provide notice of the date of the beginning and end of the Irrigation Season for each area to subscribers on an electronic mailing list kept by the State Engineer for this purpose. The Division Engineer must publish notice of the date of the beginning and end of the Irrigation Season once in a newspaper or other news format of general circulation within Water Division No. 3. If requested in writing by a water user group, the Division Engineer or a member of his staff must meet with the water user group to discuss the reasons for the dates selected by the Division Engineer for the beginning and end of the Irrigation Season.

14.4. Any water user may appeal decisions of the Division Engineer setting dates for the beginning and end of the Irrigation Season. The appeal must be submitted to the State Engineer in writing and must provide a statement as to why the decision of the Division Engineer was incorrect and a basis for the Irrigation Season beginning or ending on a different date than the Division Engineer selected. The State Engineer must act upon such an appeal within two working days.

15. Variances.

15.1. When the strict application of any provisions of these Rules would cause unusual hardship, the State Engineer may grant a variance. No variance will waive the requirement to comply with the Scope and Purpose of these Rules or any substantive standards set by these Rules. If the State Engineer finds that the request is justifiable, the State Engineer will issue a written order granting the variance and setting forth the terms and conditions on which the variance is granted and notice to an electronic mailing list, such as the ARP List.

15.2. Any requested variance must be served in writing to the State Engineer and must contain the following:

15.2.1. The Rule or Rules from which a variance is sought;

15.2.2. A description of the proposed variance;

15.2.3. The reason for requesting the variance; and

15.2.4. Any other information the Well User believes is relevant to the evaluation of the variance.

15.3. The Well User must provide notice of any such request for a variance from any requirement of these Rules to interested Persons via an electronic mailing list, such as the ARP List and in a newspaper or other news format of general circulation within Water Division No. 3.

15.4. The State Engineer will review and rule upon the request in accord with the procedures in 2 CCR 402-5. If a provision of these Rules conflicts with 2 CCR 402-5, then the provision of these Rules will control.

15.5. Any interested Person may seek to obtain party status in the adjudicatory hearing by filing an application to be made a party with the State Engineer and the applicant within 35 days of the notice as required in this Rule 15.

15.6. The Well User requesting a variance has the burden of proof to show by a preponderance of the evidence that the requested relief is necessary and the Well User will still comply with the substantive requirements of the Rules including replacing or Remedying Injurious Stream Depletions, achieving and maintaining a Sustainable Water Supply and not unreasonably interfering with the State's ability to fulfill its obligations under the Rio Grande Compact, with due regard for the right to accrue credits and debits under the Compact.

15.7. The State Engineer will not recognize *de minimus* impact on streams for a Well or group of Wells as a basis for granting a variance.

16. Average Annual Volumetric Groundwater Withdrawal Limits of Nonexempt Wells.

16.1. A Well's average annual volumetric groundwater withdrawal limit is the average annual volumetric limit specified in the applicable Well permit or decree.

16.2. Where the applicable Well permit file or decree specifies an average annual volumetric groundwater withdrawal limit, but does not establish the period of time for determining the average annual volumetric groundwater withdrawal limit, the Well's average annual volumetric groundwater withdrawal limit will be based on a five-year running average.

16.3. If the State and Division Engineers determine that a Well is subject to Rule 16.2, the Division Engineer must notify the Well User by letter. The Division Engineer must consider written comments submitted by the Well User to the Division Engineer that are received no later than thirty-five (35) days after the Division Engineer notifies the Well User by letter.

16.4. The first year of the first five-year period used to determine an average annual volumetric groundwater withdrawal limit under Rule 16.2 is the year in which the Effective Date of these Rules occurs.

17. Effect of Rules. Withdrawal of groundwater in accordance with these Rules does not exempt such withdrawals from the requirements of any other laws or rules governing the use of groundwater in Water Division No. 3, whether now existing or hereafter adopted.

18. Orders, Costs, and Attorney's Fees. If a water user diverts in violation of these Rules, or the terms of a Plan for Augmentation approved by the Water Court, an ARP approved by the State Engineer pursuant to these Rules, or an approved Substitute Water Supply Plan, then the water user will be subject to an order by the State or Division Engineer issued pursuant to section 37-92-502, C.R.S., and may be subject to court proceedings and the State's costs, including reasonable attorney fees, and any fine or other remedy authorized by law.

19. Severability. If any Rule or part thereof is found to be invalid by a court of law, the remaining rules will remain in full force and effect, including any part thereof not found to be invalid.

20. Process to Appeal a Decision under These Rules.

20.1. Except as provided by other provisions of Rule 15 in these Rules, any challenge to the administrative review of decisions by the State and Division Engineers not subject to the jurisdiction of the Water Division No. 3 Water Court will be considered under Rule 20 and will be available if timely requested as provided below. Such review will be conducted in accordance with the adjudicatory procedures and reconsideration procedures of the State Engineer's Procedural Regulations (2 CCR 402-5).

20.2. The Person adversely affected or aggrieved by the State Engineer's or Division Engineer's decision may file a request for an adjudicatory hearing under 2 CCR 402-5 provided the request is filed by the end of the month following the month in which the State Engineer gave notice of the decision to the Person. The State Engineer may refer the matter to a hearing officer.

20.3. The intent of this Rule is to provide a Person adversely affected or aggrieved by a decision of the State Engineer or Division Engineer with a hearing before the State Engineer. Nothing in this Rule is intended to preclude judicial review of a decision by the State Engineer or Division Engineer under these Rules. Nothing herein is intended to preclude the Water Court for Water Division No. 3's exercise of its retained jurisdiction.

21. Benchmarks/Phase-In.

21.1. In order to allow Well Users the time necessary to come into compliance with these Rules, Well Users are not in violation of Rule 6 if they meet the following criteria:

21.1.1. The Well User has filed an application for a Plan for Augmentation for the Well that meets the requirement of these Rules, and the Well User is operating the Well under an approved Substitute Water Supply Plan that meets the requirements of these Rules, within two years of the Effective Date of these Rules, and is diligently prosecuting the Plan for Augmentation; or

21.1.2. If all or a portion of the land served by the Well User's Well is included in the territory or proposed territory of a Subdistrict and the Subdistrict meets the following requirements:

21.1.2.1. A petition for establishment of a Subdistrict has been filed with the District Court before one year after the Effective Date of these Rules;

21.1.2.2. A Subdistrict's Groundwater Management Plan is approved by the State Engineer within one year of the judicial approval of the petition for establishment of the Subdistrict or, if the State Engineer disapproves the

Groundwater Management Plan, the Groundwater Management Plan is under judicial review; provided, however, if a Subdistrict has been established before the Effective Date of these Rules, the Subdistrict's Groundwater Management Plan is approved by the State Engineer within one year of the Effective Date of the Rules or, if the State Engineer disapproves the Groundwater Management Plan, the Groundwater Management Plan is under judicial review; and

21.1.2.3. A Subdistrict's first ARP is approved by the State Engineer within one year of the State Engineer's approval of a Subdistrict's Groundwater Management Plan or, if the State Engineer disapproves the ARP, is under Judicial review; or

21.1.3. The Well User's Wells are operated under a contract or other agreement with a Subdistrict that meets the requirements of Rules 21.1.2.1-21.1.2.3.

21.2. Government Entities.

21.2.1. In order to allow government entities the time necessary to come into compliance with these Rules, a Well User that is a government entity is not in violation of Rule 6 if they meet the following criteria:

21.2.1.1. The Well User is not legally able to petition to include in a Subdistrict certain Wells as Subdistrict Wells in the Petition to Create a Subdistrict.

21.2.1.2. Within 35 days of the Effective Date of these Rules, a Well User certifies in writing to the State Engineer that it intends to comply with Rule 6 by including its Wells in a Subdistrict's Groundwater Management Plan and Annual Replacement Plans by contract or other agreement.

21.2.1.3. A Well User's Wells are included in the first ARP that the Subdistrict submits to the State Engineer.

21.2.2. Nothing in this Rule 21.2 precludes any Well User from complying with Rule 6 by operating under the plans specified in Rules 6.1.2 or 6.1.3.

21.3. Upon a showing of good cause the State Engineer may extend the compliance deadlines of Rules 21.1 and 21.2 for one or more periods of time not exceeding one year each and may impose such terms and conditions as part of such extension as the State Engineer deems reasonably necessary to ensure compliance with the requirements of the Rules. Good cause requires that the applicant demonstrate that it has been diligent in its efforts to comply with the requirements of these Rules, has

made substantial progress in complying with the requirements of these Rules, and despite its diligent and good faith efforts has been unable to fully comply with the requirements of these Rules. The Applicant must also provide an estimate of the amount of additional time required for it to fully comply with the Rules and such other information as the State Engineer may reasonably require in order to evaluate a request for an extension of time. The State Engineer must notify interested Persons of a request for an extension in accordance with Rule 22.

22. **Notice.** When mandated by these Rules to provide notice in accordance with this Rule 22, the State Engineer must provide notice to interested Persons through an electronic mailing list, such as the ARP Notification List, and the Division of Water Resources website. If requested the State Engineer must make available electronic copies of documentation of the subject of the notice and if applicable any underlying RGDSS Model datasets. The State Engineer must allow 35 days after providing notice in accordance with Rule 22 for comments before using or implementing the subject of the notice for purposes of these Rules.

23. **Effective Date**. These Rules will take effect sixty days after publication in accordance with section 37-92-501, C.R.S., and will thereafter remain in effect until amended as provided by law. In the event that protests are filed with respect to these Rules pursuant to section 37-92-501, C.R.S., the Effective Date of these Rules is the date on which all protests have been resolved.

24. RGDSS Model, Lower Limit of Reliability, and Response Functions

24.1. There is a rebuttable presumption that the RGDSS Model reliably determines changes in rate and direction of flow of groundwater and the amount, time, and location of Stream Depletions resulting from groundwater withdrawals within the RGDSS Model Domain, and quantifies the 1978 through 2000 average annual groundwater withdrawals for purposes of Rule 8.1.6.

24.2. The RGDSS Model is suitable only for the uses for which it has been designed. Where the State Engineer determines that a proposed use of the RGDSS Model is not a use for which it has been designed, then the State Engineer is not required to make such use of the RGDSS Model and may oppose the use of the RGDSS Model for purposes for which it is not designed.

24.3. The RGDSS Model may be revised from time to time to incorporate new or updated data and/or information, and to incorporate new components, or new or updated versions of various components including the MODFLOW code. Any such revision will be based on sufficient and reliable engineering and/or scientific information.

24.3.1. The State Engineer must timely incorporate new or updated data and/or information into the RGDSS Model if the new or updated data and/or information better represents the hydrogeologic system simulated by the RGDSS Model.

24.3.2. The State Engineer must timely incorporate a new component or a new or updated version of a component of the RGDSS Model if doing so would cause the RGDSS Model to more reliably simulate the hydrogeologic system. The RGDSS Model is highly complex and incorporating a new component or a new or updated version of one of its components does not necessarily cause the RGDSS Model to more reliably simulate the hydrogeologic system.

24.4. The State Engineer must notify interested Persons, in accordance with Rule 22 of any revision to the RGDSS Model that will cause Response Functions to predict Stream Depletions that are significantly different from those predicted by the Response Functions then in use.

24.5. The State Engineer must review the lower limits of reliability of the RGDSS Model, and all Response Functions at least every five years. The State Engineer must update Response Functions if updates would predict Stream Depletions that are significantly different from those predicted by the Response Functions then in use. The State Engineer must also update the RGDSS Model lower limit of reliability and all Response Functions when the RGDSS Model is revised pursuant to Rule 24.3 and provide notice thereof in accordance with Rule 22.

24.5.1. If Response Functions and/or the RGDSS Model lower limit of reliability are updated, the State Engineer must provide them to Well Users withdrawing groundwater pursuant to plans specified in Rule 6.1 at least ten months before the first day of the next Plan year for the Well User's plan.

24.5.2. Except as provided in Rule 7.5, an updated RGDSS Model lower limit of reliability and/or set of Response Functions apply to any Plan for Augmentation approved after the Effective Date of these Rules that rely upon Response Functions to determine Stream Depletions.

24.6. If the State Engineer proposes to substitute new technology for the RGDSS Model for the purposes of these Rules, then the State Engineer must institute a rulemaking procedure to amend these Rules pursuant to section 37-92-501(g), C.R.S. or the then applicable statutes. This Rule does not apply to determinations by the State Engineer pursuant to Rule 24.2 and Rule 24.3.

IT IS FURTHER ORDERED that any person who wishes to protest these proposed Rules may do so by filing a protest in writing with the Division 3 Water Clerk in Alamosa,

Colorado, in the same manner as for the protest of a ruling of the referee. Any such protest must be filed by the end of the month following the month in which these Rules are published.

Dated this 23rd day of September, 2015.

Dick Wolfe
State Engineer/Director of Colorado
Division of Water Resources

Exhibit A
Water Division No. 3 - Rio Grande Basin

Legend

- Groundwater Model Boundary (Active Cells)
- Active Model Cells
- Response Areas

Ownership

- National Forest Service
- National Park Service
- Bureau of Land Management
- US Fish and Wildlife Service
- Colorado Parks and Wildlife
- State
- Private

COLORADO
Division of Water Resources
Department of Natural Resources

0 5 10 20 Miles

Saguache County
Hinsdale County
Mineral County
Rio Grande County
Alamosa County
Conejos County
Costilla County
Archuleta County

Villa Grove
Saguache
Moffat
Crestone
Center
Mosca
Monte Vista
Alamosa
Blanca
Fort Garland
La Jara
Manassa
San Luis
Creede
Del Norte
South Fork
Antonito

San Luis Creek
Saguache Creek
Crestone Creek
Carnero Creek
La Garita Creek
Rio Grande
South Fork of the Rio Grande
Alamosa River
La Jara Creek
Conejos River
Rio San Antonio
Culebra Creek
Trinchera Creek

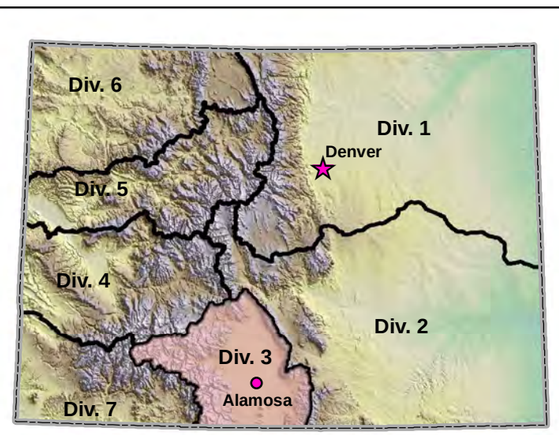
Continental Res.
Santa Maria Res.
Rio Grande Res.
Beaver Res.
Terrace Res.
Platoro Res.
La Jara Res.
Smith Res.
Mountain Home Res.
Sanchez Res.
Head Lake
San Luis Lake

Saguache
Response Area No. 1
Rio Grande Alluvium
Alamosa/La Jara for Confined Wells
Alamosa/La Jara
Conejos
Trinchera
Costilla Plain

Baca NWR
Great Sand Dunes National Park and Preserve
Blanca WHA
Monte Vista NWR
Alamosa NWR

RIO GRANDE NEAR DEL NORTE (RIODELCO)
CONEJOS RIVER NEAR LA SAUSES (CONLASCO)
CONEJOS RIVER NEAR MOGOTE (CONMOGCO)
RIO GRANDE NEAR LOBATOS (RIOLOBCO)
SAN ANTONIO RIVER AT ORTIZ (SANORTCO)
LOS PINOS RIVER NEAR ORTIZ (LOSORTCO)

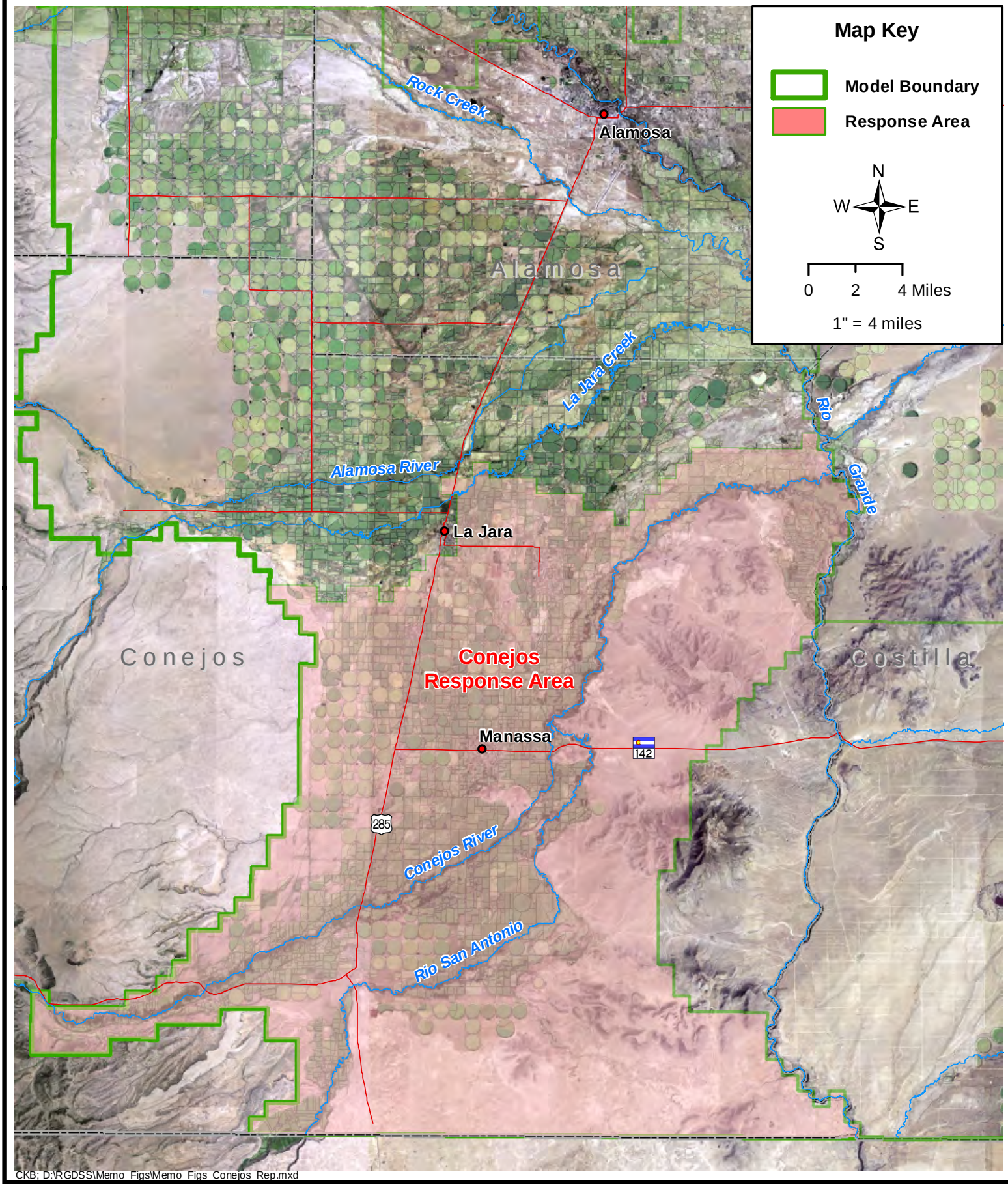
114 149 285 17 160 159



State of Colorado

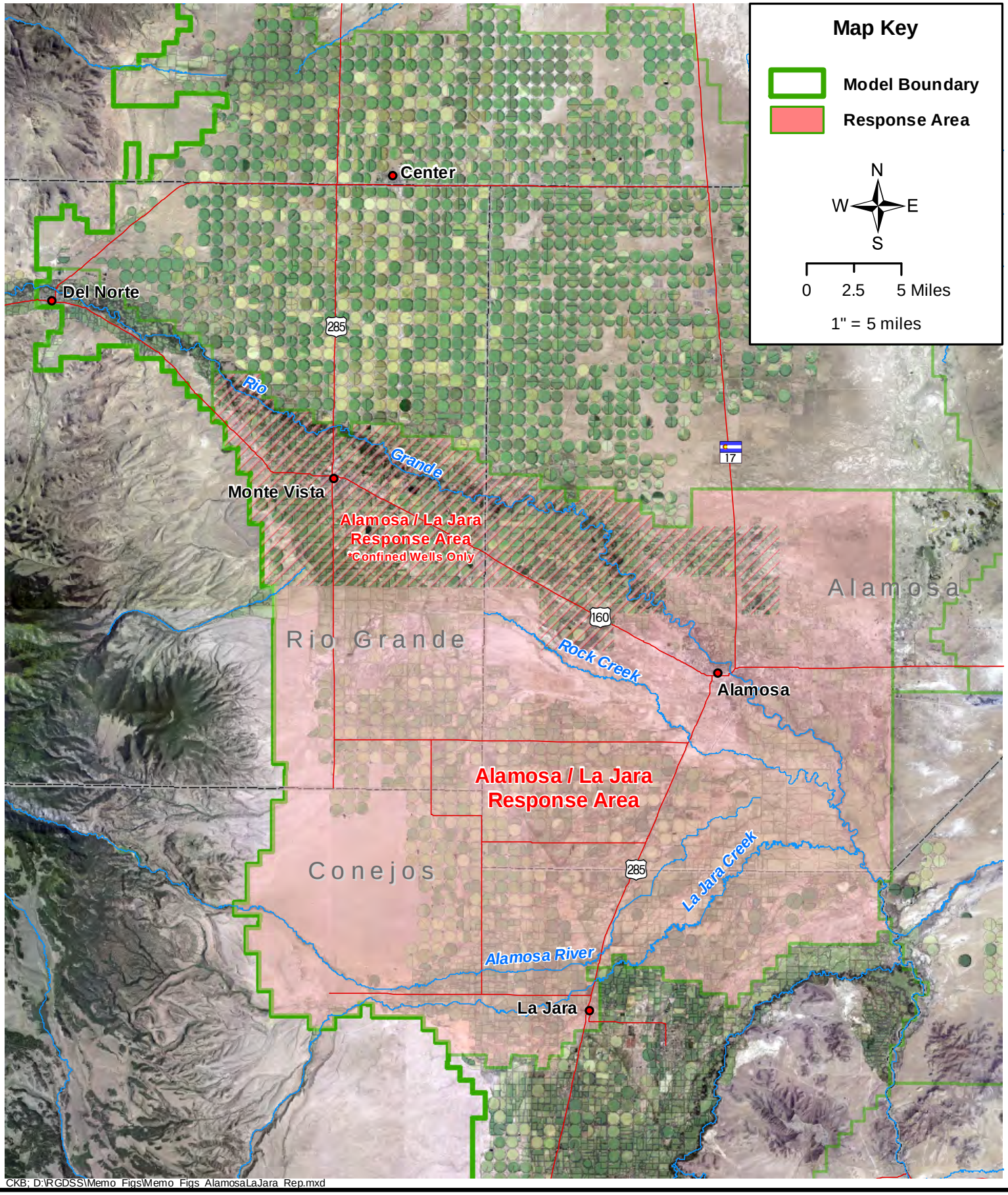
Legend

- Water Division Boundaries



COLORADO
Division of Water Resources
Department of Natural Resources

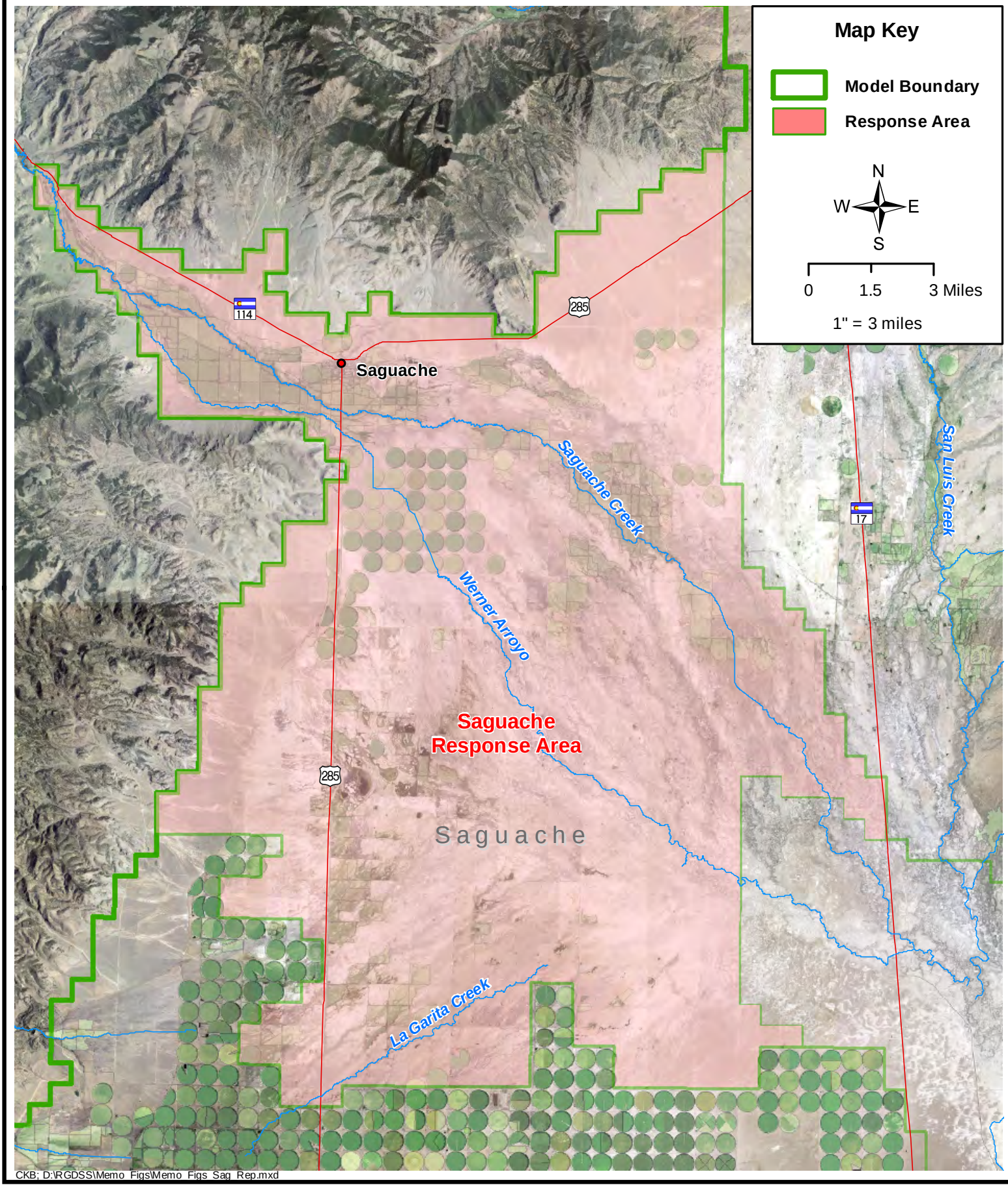
Exhibit B1
Conejos Response Area



CKB; D:\RGDSS\Memo_Figs\Memo_Figs_AlamosaLaJara_Rep.mxd

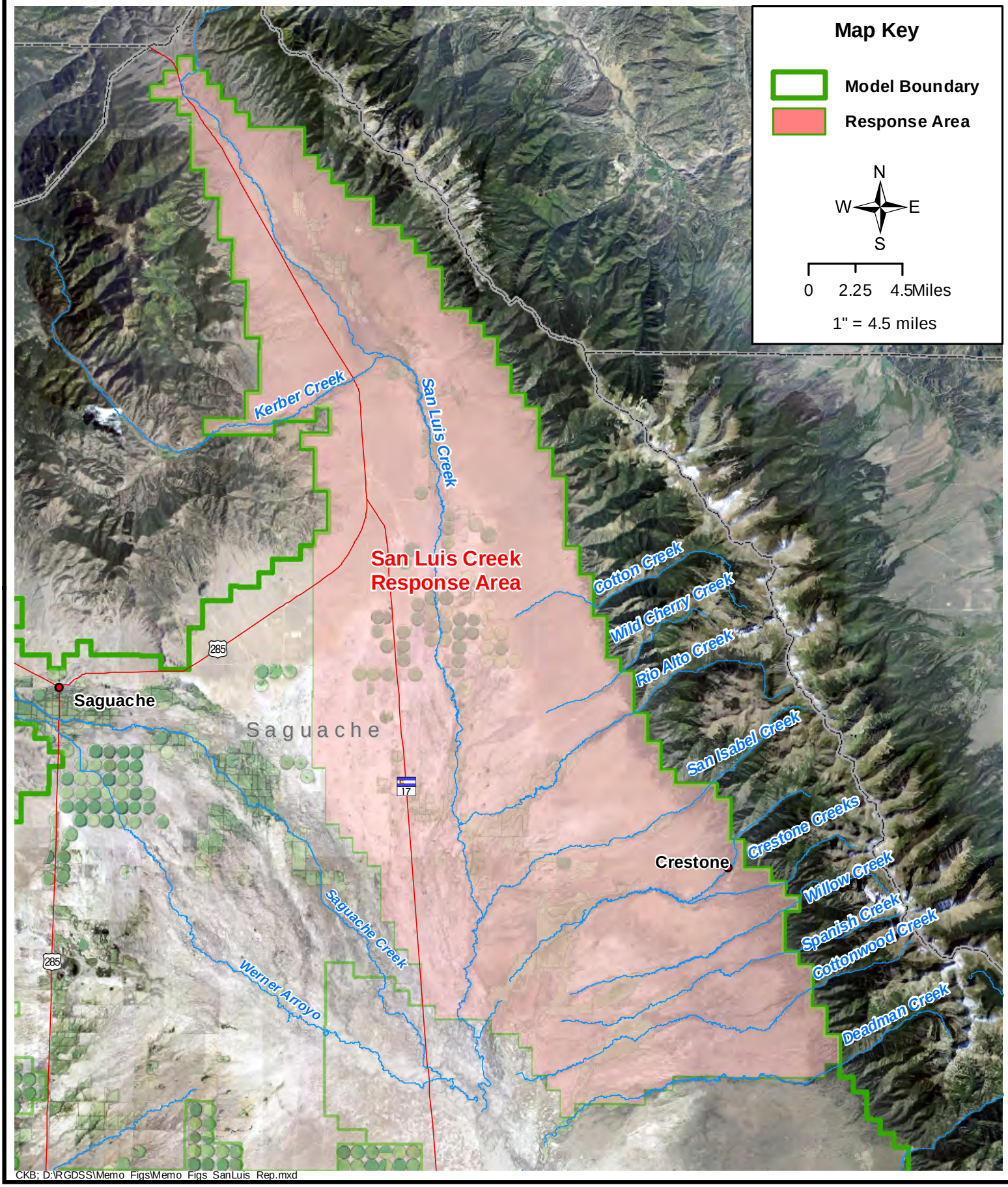
COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit B2
Alamosa/La Jara Response Area



COLORADO
Division of Water Resources
Department of Natural Resources

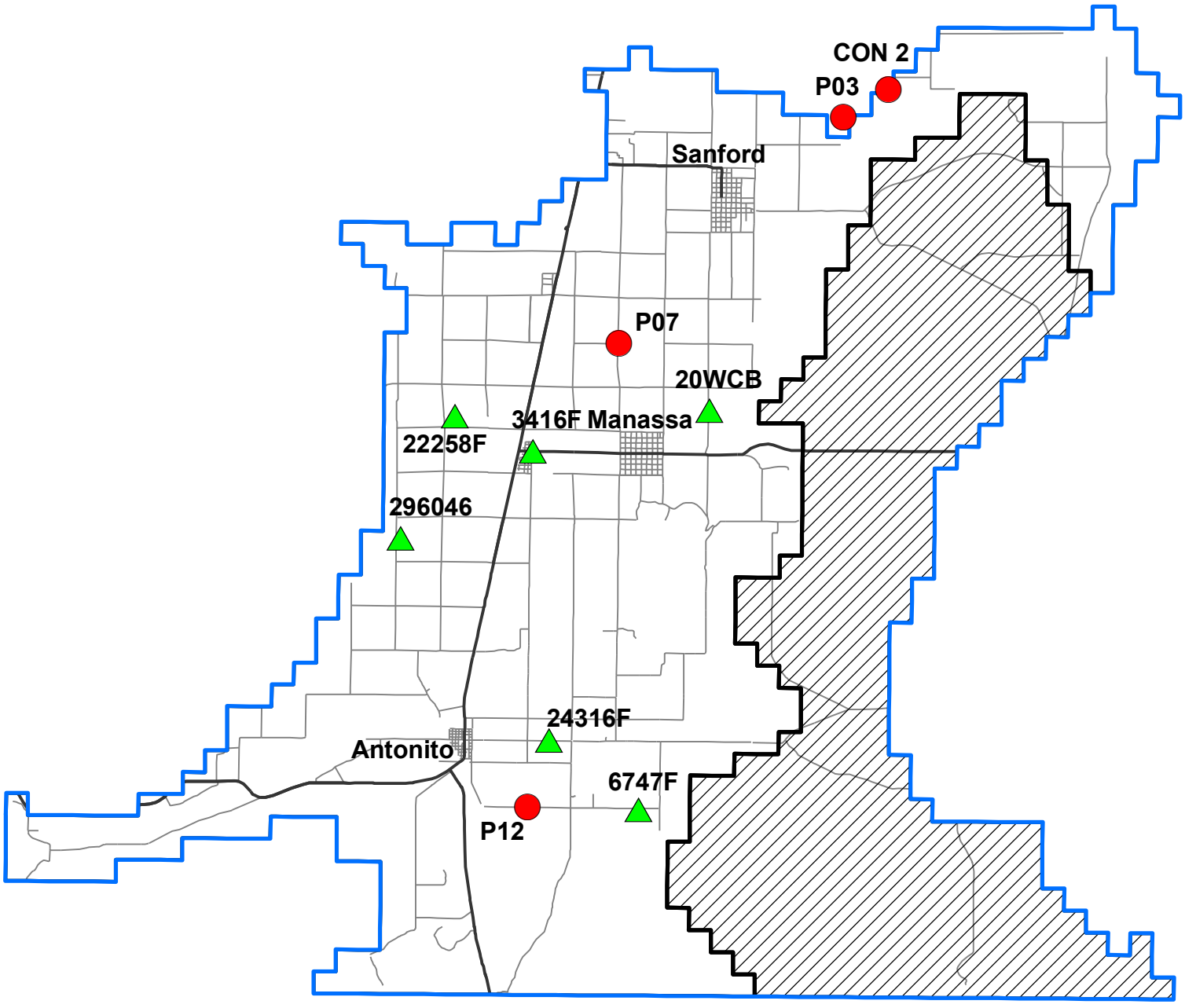
Exhibit B3
Saguache Response Area



COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit B4
San Luis Creek Response Area

Exhibit C.1 Conejos Response Area
Proposed Monitoring Network

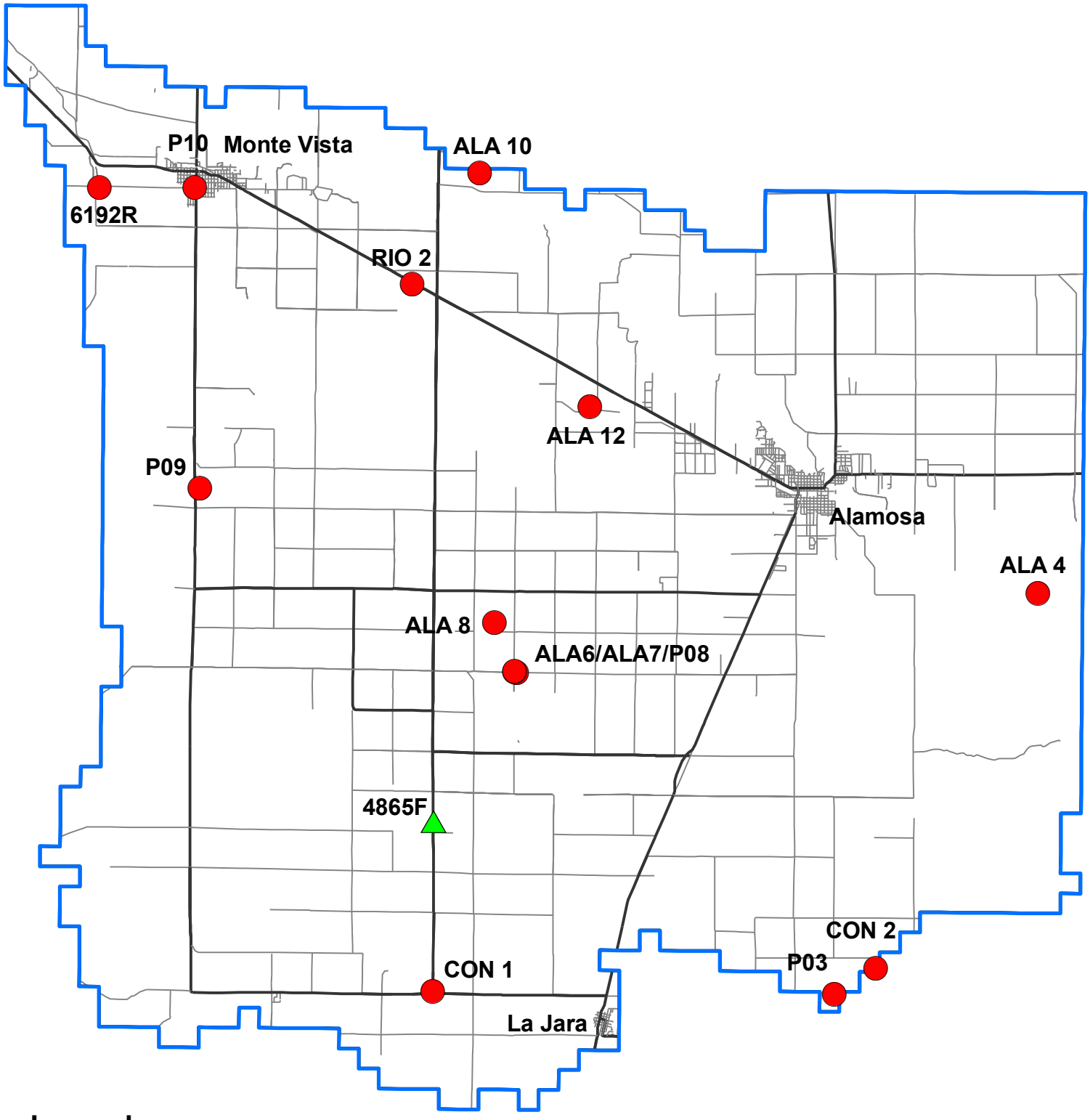


Legend

- Currently Monitored Well
- Proposed Additional Monitoring Wells
- Response Area Boundary
- Area Excluded from Composite Water Head

COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit C.2 Alamosa La Jara Response Area
Proposed Monitoring Network

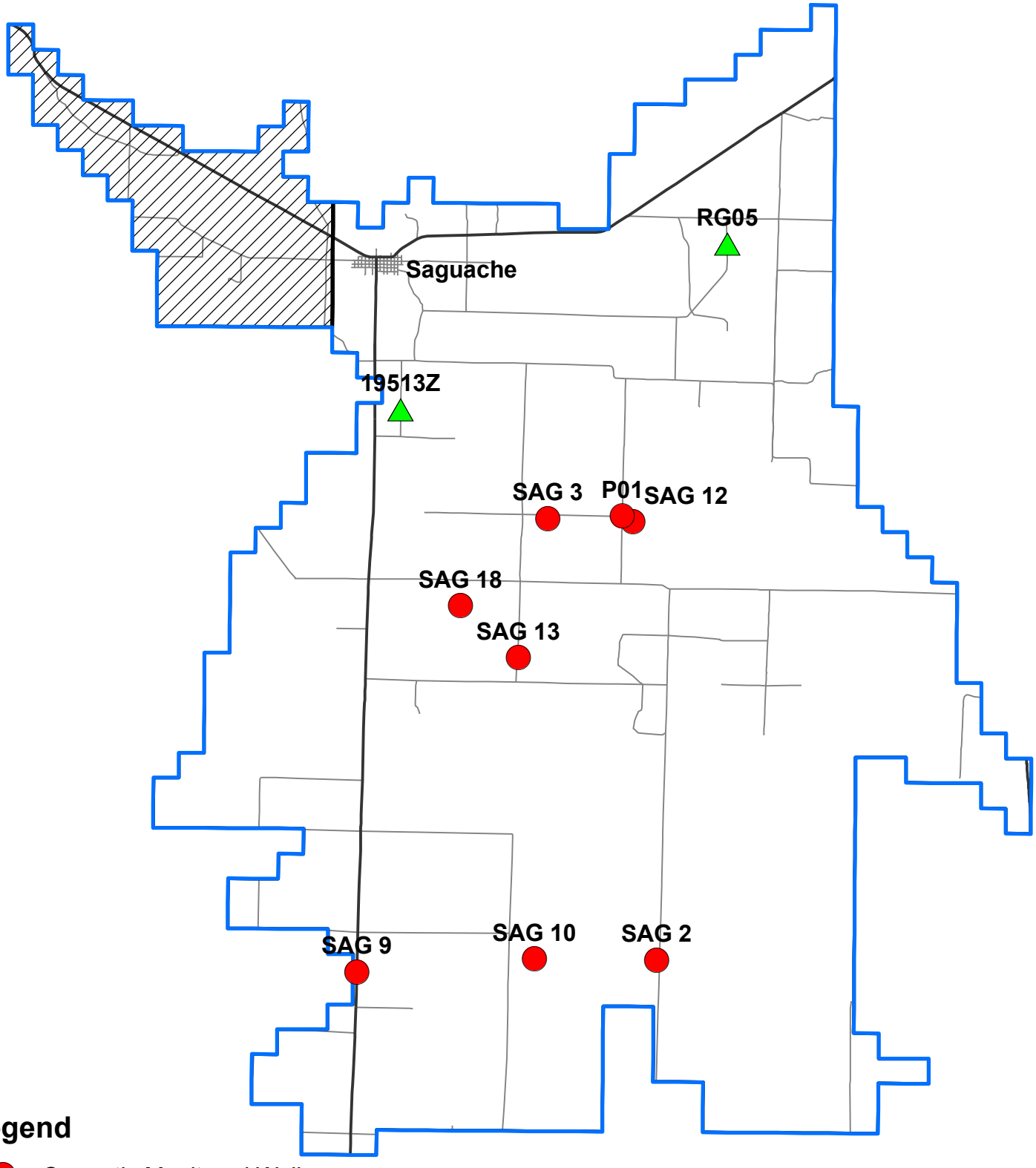


Legend

- Currently Monitored Well
- Proposed Additional Monitoring Wells
- Response Area Boundary

COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit C.3 Saguache Response Area
Proposed Monitoring Network

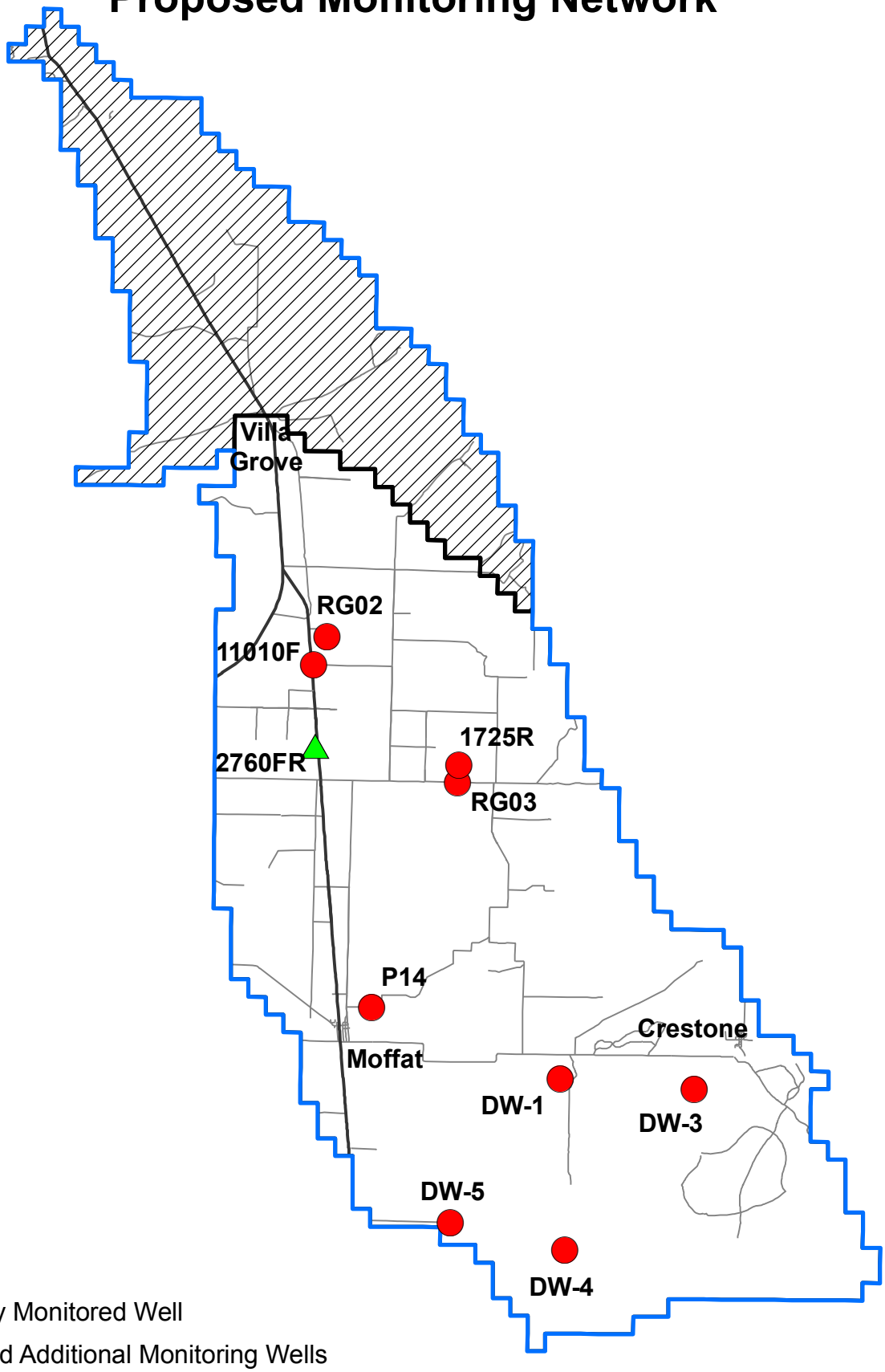


Legend

- Currently Monitored Well
- Proposed Additional Monitoring Wells
- Response Area Boundary
- Area Excluded from Composite Water Head

COLORADO
Division of Water Resources
Department of Natural Resources

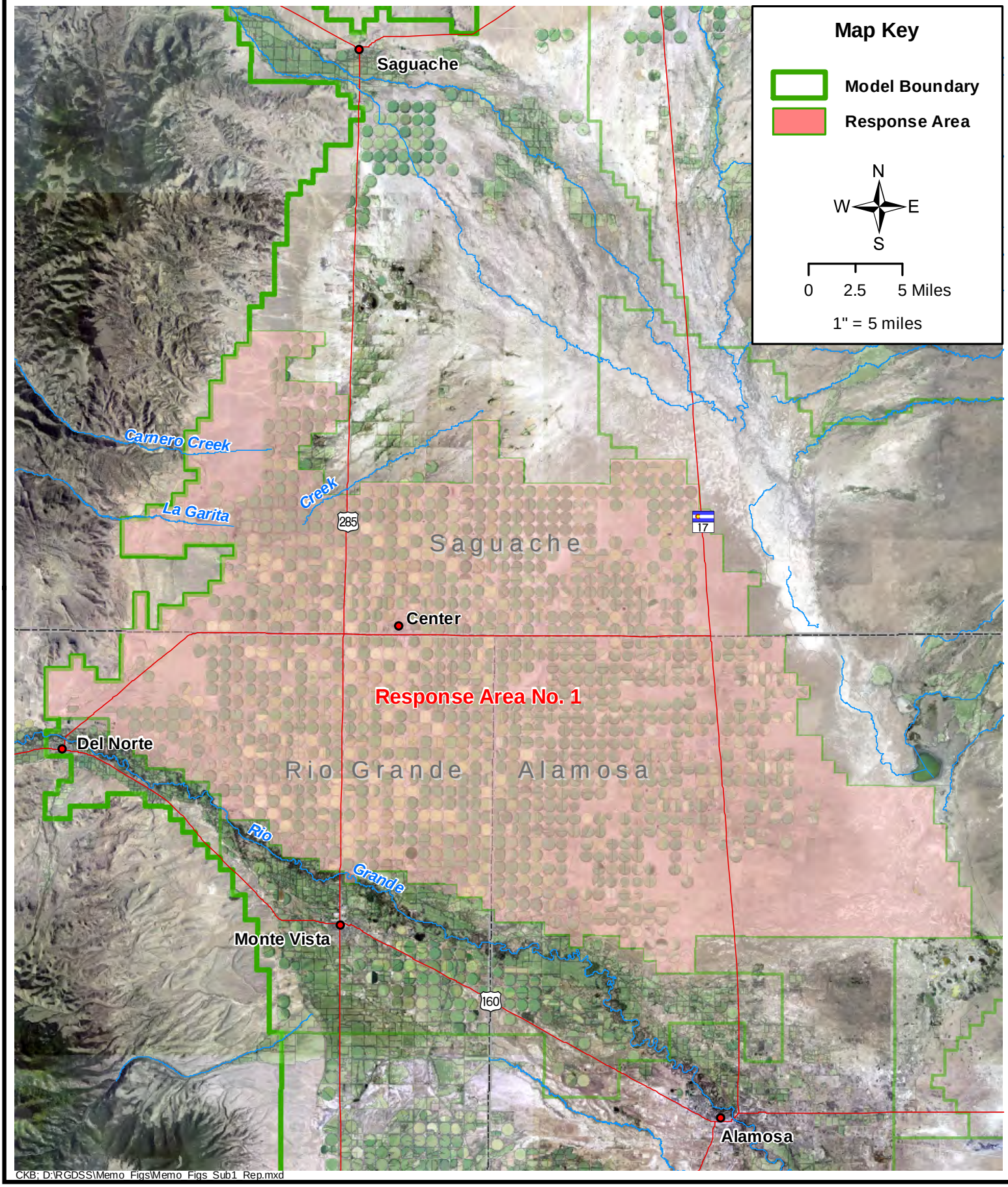
Exhibit C.4 San Luis Creek Response Area
Proposed Monitoring Network



Legend

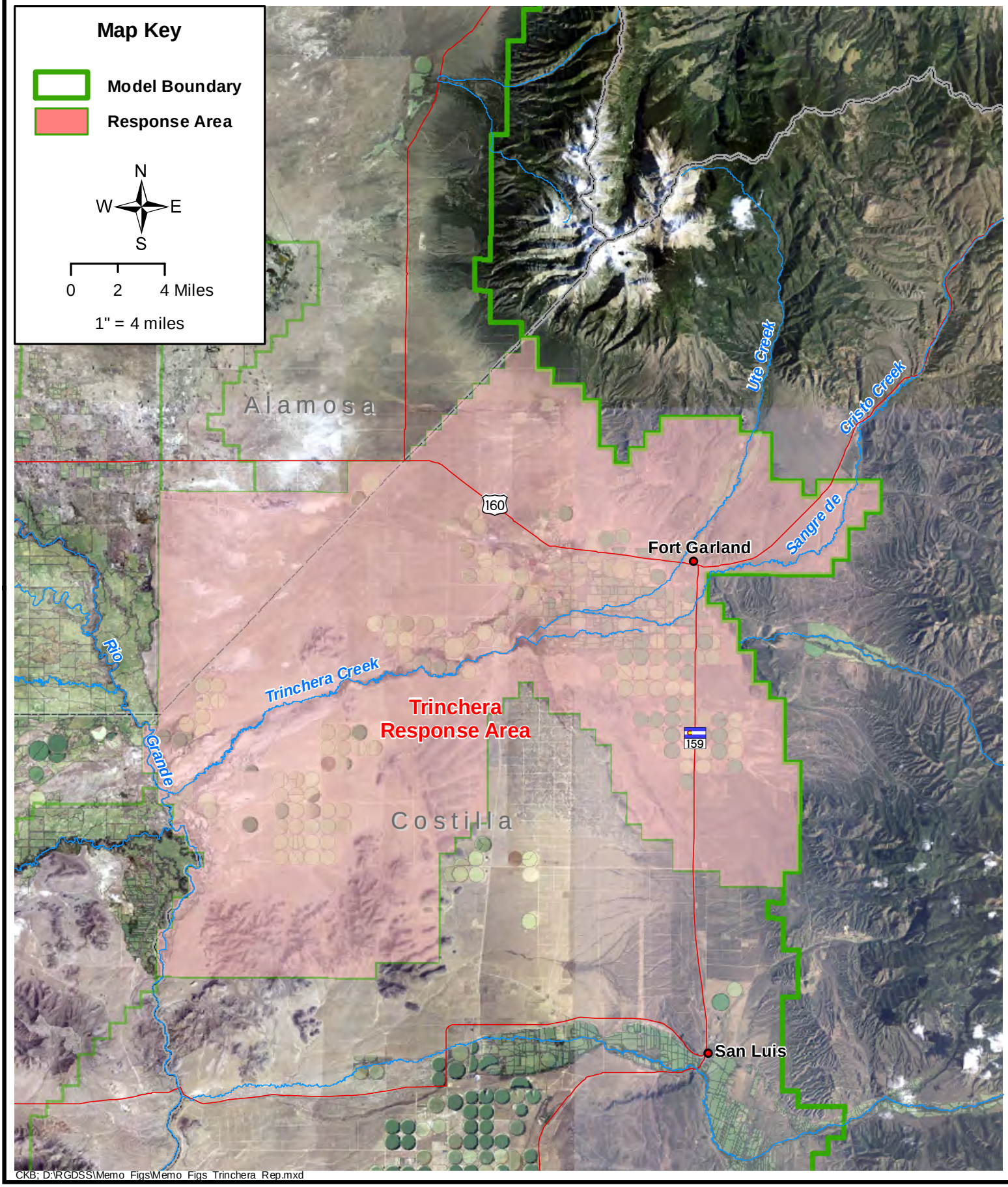
- Currently Monitored Well
- Proposed Additional Monitoring Wells
- Response Area Boundary
- Area Excluded from Composite Water Head

COLORADO
Division of Water Resources
Department of Natural Resources



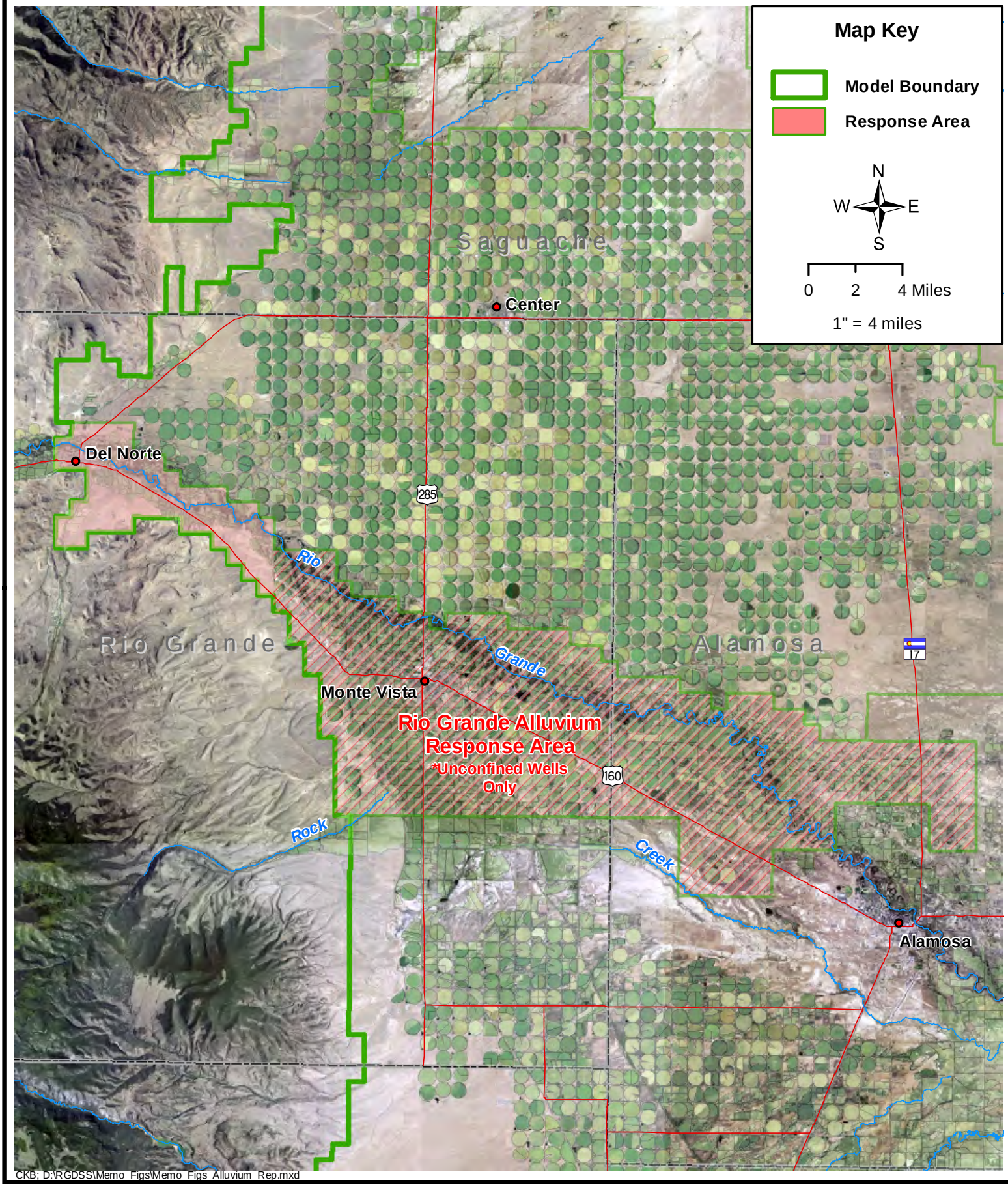
COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit D
Response Area No. 1



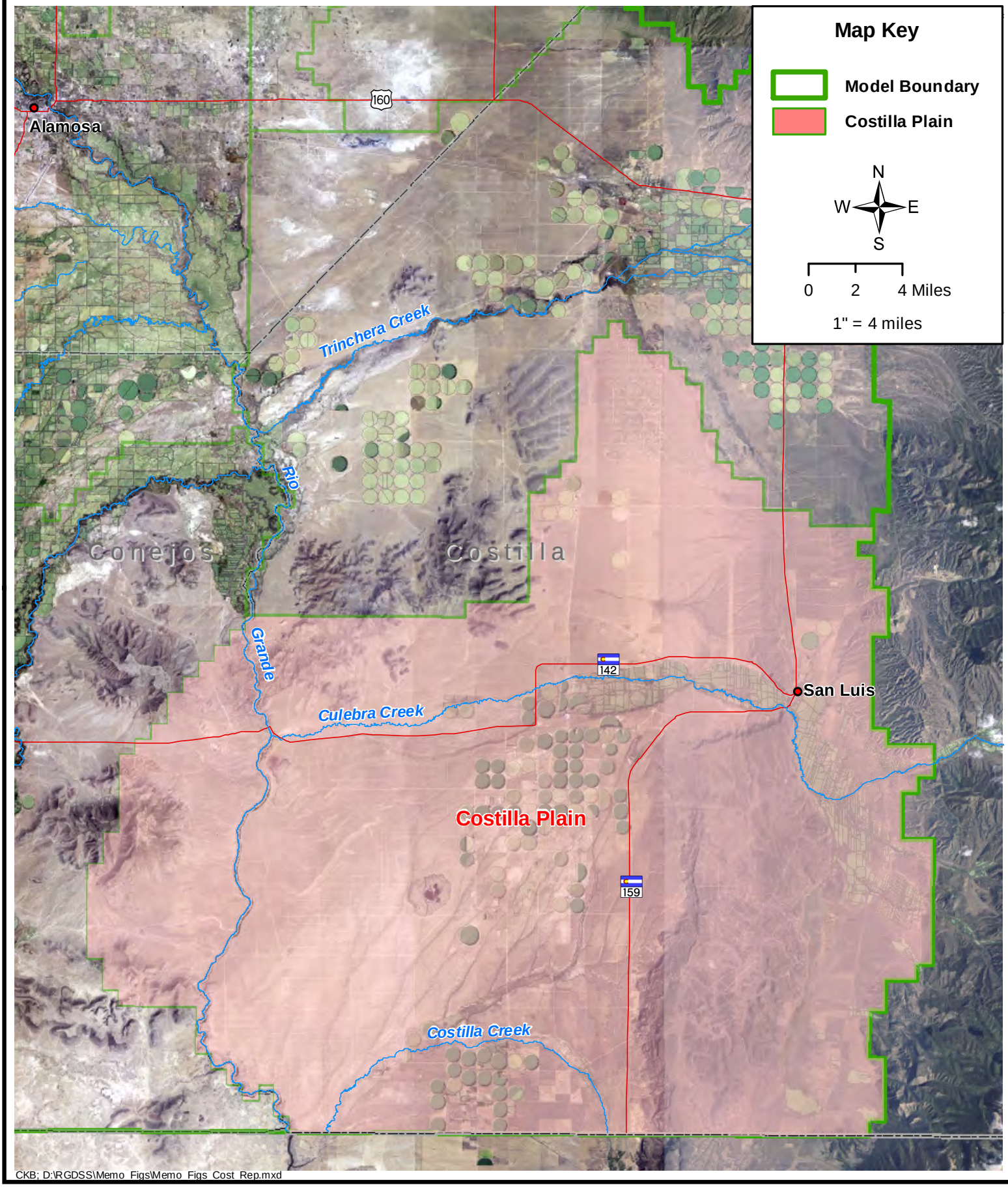
COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit E
Trinchera Response Area



COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit F
Rio Grande Alluvium Response Area



COLORADO
Division of Water Resources
Department of Natural Resources

Exhibit G
Costilla Plain