

<p>DISTRICT COURT, WATER DIVISION NO. 3, STATE OF COLORADO</p> <p>Court Address: Alamosa County Courthouse 702 4th Street Alamosa, CO 81101 719-589-9107</p>	<p style="text-align: center;">▲ COURT USE ONLY ▲</p> <hr/> <p style="text-align: center;">Case No. 2007CW52 and 2006CV64</p>
<p>CONCERNING THE OFFICE OF THE STATE ENGINEER'S APPROVAL OF THE PLAN OF WATER MANAGEMENT FOR SPECIAL IMPROVEMENT DISTRICT NO. 1 OF THE RIO GRANDE WATER CONSERVATION DISTRICT</p> <p>IN THE MATTER OF THE RIO GRANDE WATER CONSERVATION DISTRICT, IN ALAMOSA COUNTY, COLORADO</p>	
<p>FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER</p>	

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I. Parties and Pretrial Proceedings

1. This action involves two separate, but related, cases regarding the Plan of Water Management ("Plan") prepared by the Special Improvement District No. 1 of the Rio Grande Water Conservation District ("Subdistrict") and adopted as the "official plan" of the Subdistrict by the Rio Grande Water Conservation District ("District" or "RGWCD") board of directors pursuant to C.R.S. § 37-48-126 (2007). Case No. 06CV64 involves objections to the Plan as the official plan of the Subdistrict approved by the District board of directors pursuant to section 37-48-126(2), C.R.S. Case No. 07CW52 involves objections to the State Engineer's approval of the Plan as a groundwater management plan pursuant to section 37-92-501(4)(c), C.R.S.

2. In Case No. 06CV64, the following parties timely filed objections to the Plan in accordance with section 37-48-126(3)(b), C.R.S.: V.W. Ellithorpe, represented by Timothy R. Buchanan; Farming Technology Corporation, represented by William A. Hillhouse II; Estate of Francis McCormick, Edward and Sharilyn Harmon, Mountain Coast Enterprises, LLC, Ernest, Freda, Virginia and Warren Myers, Nevitt Farms, Sam Investments, Inc., Skyview Cooling Company, Inc., and Wijaya Colorado, LLC, represented by John McClure. The Estate of Francis McCormick withdrew its objections to Case No. 06CV64 on June 24, 2007.

3. In Case No. 07CW52, the following parties filed timely objections to the State Engineer's approval of the groundwater management plan included in the Plan: Farming Technology Corporation, represented by William A. Hillhouse II; Mountain Coast Enterprises, LLC, Ernest, Freda, Virginia and Warren Myers, Nevitt Farms, Sam Investments, Inc., the Estate of Francis McCormick, Skyview Cooling Company, Inc. and Wijaya Colorado LLC, represented by John McClure; the San Antonio, Los Pinos and Conejos River Acequia Preservation Association, Laurie McClung, Janis N. Slade, Norman W. Slade, Mario Bassi, Robert Adkins, Obbie Dickey, V.W. Ellithorpe, represented by Timothy R. Buchanan; Richard Ramstetter, represented by Stephane Atencio; the Costilla Ditch Company, represented by Erich Schwiesow; and Perry Alspaugh, *pro se*. The Rio Grande Water Conservation District, represented by David W. Robbins and Ingrid C. Barrier, and the Conejos Water Conservancy District, represented by Richard J. Mehren, both filed a Statement in Support of the State Engineer's Approval of the Plan of Water Management. On November 27, 2007, the Rio Grande Water Users Association, represented by William A. Paddock and Beth Ann J. Parsons, filed a Motion to Intervene, and a Statement in Support of the State Engineer's Approval of the Plan of Water Management. On December 18, 2007, the Court granted the Rio Grande Water Users Association's Motion to Intervene.

4. In Case No. 07CW52, the State Engineer filed notice of approval of the Plan of Water Management on September 20, 2007, and notice of the approval was published in local newspapers but not in the water court resume. The Court held a status conference in this case on December 18, 2007. At that time, the Court ordered notice of the State Engineer's approval of the groundwater management plan to be published in the water court resume for Water Division No. 3. The notice was published in the resume of applications filed during the month of December 2007. Following that notice, statements of opposition were filed by Kelly Sowards, Martin Shellabarger, and David W. Bradley, *pro se*; C.R. Tomlin, Kari King, and Cristi Lewis, represented by Timothy R. Buchanan; Ed Nielson, represented by Timothy R. Buchanan; and Timothy N. Lovato and Lori S. Lovato, represented by Timothy R. Buchanan. The Estate of Francis McCormick withdrew its objections to Case No. 07CW52 on June 24, 2008.

5. For clarity of reference the Court refers to the parties who appeared in support of the Plan of Water Management and the State Engineer's approval of that plan, including the State and Division engineers, as the "Supporters"; the objectors represented by Mr. Buchanan are referred to as the "Acequia Objectors"; and Objectors Richard Ramstetter, the Costilla Ditch Company, and Perry Alspaugh are referred to by their names. A reference to "Objectors" refers to all objectors.

6. The Court, sitting as the District Judge in the original case establishing the Subdistrict, has jurisdiction to hear objections to the District's adoption of a plan of water management as the official plan of a subdistrict. § 37-48-126(3)(b), C.R.S. The Court may "adopt, reject, or refer back the plan to the board of directors." *Id.* "If the court should reject the plan, the board or the board of managers, as the case may be, shall proceed as in the first instance under this section to prepare another plan. If the court should refer the plan back to the board for amendment, the court shall continue the hearing to a day certain without publication of notice. If the court approves the plan as the official plan of the district, a certified copy of the order of the court approving the plan shall be filed with the secretary of the district and incorporated into the records of the district." § 37-48-126(4), C.R.S.

7. Any party who objects to the State Engineer's approval of a groundwater management plan may do so in the same manner as provided for in section 37-92-304 for the protest of a ruling of a referee. §§ 37-92-501(4)(c) and 37-92-501(3)(a), C.R.S. Sitting as the Water Judge for Water Division No. 3, this Court is designated to hear and dispose of all protests as promptly as possible. *Id.*

8. Based upon the District's unopposed motion to consolidate the hearing on objections in both cases in accordance with section 37-48-126(3)(b), and on the basis of judicial economy, the Court consolidated for trial, but did not merge, the two cases. See *Order Granting Unopposed Motion to Consolidate 06CV64 and 07CW52 for Joint Hearing* (December 18, 2007). The parties submitted briefs setting forth their position on how the consolidated cases should proceed; and, after considering those briefs, the

Court ruled on the standard of review, burden of proof, and order of presentation of evidence at the trial. See *Order Re Standard of Review, Burden of Proof and Order of Presentation at Trial* (April 8, 2008).

9. The objections filed in both cases by Farming Technology Corporation, Edward and Sharilyn Harmon, Mountain Coast Enterprises, LLC, Ernest, Freda, Virginia and Warren Myers, Nevitt Farms, Sam Investments, Inc., Skyview Cooling Company, Inc., and Wijaya Colorado, LLC, were resolved by a stipulation between those parties and the District. That stipulation was approved by the Court in advance of trial, with the limitation that the stipulation "is not and cannot be part of or a modification of the Water Management Plan." *Order Re Objection to Stipulation* (October 22, 2008). Of course, the terms of this stipulation may well be incorporated in an Amended Plan.

10. Prior to trial, various parties filed motions for summary judgment. See *Constitutional Motion*, (July 23, 2008), by Perry Alspaugh in Case No. 07CW52; *Motion for Summary Judgment and Brief in Support of Motion for Summary Judgment*, (July 25, 2008) by Timothy Buchanan, on behalf of his clients in both Case No. 07CW52 and Case No. 06CV64; *Pre-Trial Motion for Remand*, (September 5, 2008) by Perry Alspaugh in Case No. 07CW52. The Court denied the Motion for Summary Judgment and Motion for Remand and deferred ruling on the Constitutional Motion until after trial. See *Order Denying Motion for Summary Judgment, Motion to Remand, and Deferring Ruling on Alspaugh Constitutional Challenge*, (October 14, 2008).

11. Prior to trial, the Acequia Objectors filed a Motion *in Limine* to Exclude Evidence Beyond the Express Terms of the Plan of Water Management, seeking to exclude any evidence regarding future administration or operation of the Plan. See *Motion in Limine to Exclude Evidence Beyond the Express Terms of the Plan of Water Management, Including Legal Authority* (September 12, 2008). The Court denied the Motion *in Limine* holding that the Court :

must address the validity of the proposed Plan, its compliance with controlling statutes, whether the Plan is impermissibly vague and, ultimately, the legal effect of the Plan's written terms. Accordingly, the Court should not exclude otherwise admissible evidence proposed by the Subdistrict, the District or State Engineer because it addresses future administration or operation of the Plan.

Order Denying Motion in Limine to Exclude Evidence Beyond Express Terms of the Plan of Water Management (October 14, 2008), at 5.

12. The Court held a trial on objections to the Plan and the groundwater management plan beginning on Monday, October 27, 2008, and continuing for seven full or partial trial days until the close of evidence on November 4, 2008. At trial, the Supporters presented a joint case in support of the Plan and the groundwater

management plan that conformed with the Court's *Order Re Standard of Review, Burden of Proof and Order of Presentation at Trial*, followed by the Objectors' presentation of evidence opposing the Plan. Counsel requested time to submit proposed orders to the Court. The Court received the proposed orders from the parties on November 24, 2008. Closing arguments were held on December 16, 2008.

13. At trial, the State Engineer was represented by First Assistant Attorney General Peter J. Ampe, and Assistant Attorney General Mari Deminski; the Rio Grande Water Conservation District was represented by David W. Robbins and Ingrid C. Barrier of Hill & Robbins, P.C.; the Rio Grande Water Users Association was represented by William A. Paddock of Carlson, Hammond & Paddock, LLC; the Conejos Water Conservancy District was represented by Richard J. Mehren of Moses, Wittemyer, Harrison & Woodruff, PC. Timothy R. Buchanan, of Buchanan & Sperling, P.C., participated on behalf of the Acequia Objectors; Stephane W. Atencio participated on behalf of objector Richard Ramstetter, and Erich Schwiesow, of Lester, Sigmond, Rooney & Schwiesow, participated on behalf of the Costilla Ditch Company. Perry Alspaugh attended the trial and testified on his own behalf.

14. During their case-in-chief, Supporters presented testimony from two lay witnesses and five expert witnesses. The Supporters' lay witnesses were Mr. Lynn Kopfman and Mr. Steven E. Vandiver. The Supporters' expert witnesses were: John Allen Calvert Davey, P.E., William W. Tyner, P.E., Kenneth W. Knox, Ph.D., P.E., Michael J. Sullivan, P.E., and Dick Wolfe, P.E. The Acequia Objectors presented testimony from expert witness Scott Mefford, and lay witnesses Kelly Sowards, Robert Adkins, and V.W. Ellithorpe. Richard Ramstetter testified on his own behalf, and Perry Alspaugh, *pro se*, also testified. The Costilla Ditch Company presented no witnesses.

15. The Administrative Record constitutes the entire record for review in Case No. 06CV64 and was admitted into evidence. Prior to the trial, the Subdistrict provided to all parties and electronically filed the administrative record in Case No. 2006CV64. The Subdistrict further provided a listing of the administrative record and designated each item or group of items by the reference "AR" followed by a number. During the course of the trial, the parties and witnesses referred to the administrative record by the AR number. The Court admitted the entire administrative record in Case No. 2007CW52 as well as exhibits 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20, 27, 28, 29, 30, 32, 33, 34, 36, 38, 39, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 55, 59, and 60 offered by the Supporters, and exhibits S-2, S-3, S-10, S-27, S-28, S-29, S-30 and S-31 offered by the Acequia Objectors.

16. During the course of the trial, the Court took judicial notice pursuant to C.R.E. 201 of the following decrees entered by this Court and other District Courts of the State of Colorado:

- a. Exhibit 46 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 86CW46, Concerning the Application for Water Rights of American Water Development, Inc.
- b. Exhibit 47 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 91CW29, Concerning the Application for Water Rights of Tres Rios Ranch.
- c. Exhibit 48 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 79CW91, Concerning the Application for Water Rights of the Rio Grande Water Users Association.
- d. Exhibit 49 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. W-3979, Concerning the Application for Water Rights of the Rio Grande Canal Water Users Association.
- e. Exhibit 50 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. W-3980, Concerning the Application for Water Rights of the San Luis Valley Irrigation District.
- f. Exhibit 51 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 96CW45, Concerning the Application for Water Rights of the Prairie Ditch Company.
- g. Exhibit 52 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 96CW46, Concerning the Application for Water Rights of the San Luis Valley Canal Company.
- h. Exhibit 53 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 90CW45, Concerning the Application for Water Rights of the Rio Grande Water Users Association.
- i. Exhibit 54 - Findings of Fact Conclusions of Law, Judgment and Decree, Case No. 08CW1 (02CW04; 94CW59; 88CW16; 84CW28 and W-3038), Concerning the Application for a Finding of Reasonable Diligence on the Rio Grande Water Conservation District (Closed Basin Project).

- j. Exhibit 55 - Order Concerning Petition for Judicial Examination and Confirmation of an Act, Proceeding or Contract of the Rio Grande Water Conservation District, Case No. 95CV51 (Alamosa District Court Approving 60/40 Allocation).
- k. Exhibit 56 - Findings of Fact, Conclusions of Law, Judgment and Decree, Case No. 04CW24, Concerning the Matter of the 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.
- l. Exhibit 57 - Order Approving Rules Governing the Measurement of Groundwater Diversions Located in Water Division No. 3, the Rio Grande Basin, Case No. 05CW12, Concerning the Rules Governing the Measurement of Groundwater Diversions Located in Water Division No. 3, the Rio Grande Basin.
- m. Exhibit S-15 - Decree entered on October 22, 1883, by the District Court in and for Conejos County, Colorado.
- n. Exhibit S-16 - Decree entered on July 11, 1888, by the District Court in and for Conejos County, Colorado.
- o. Exhibit S-17 - Decree entered on October 3, 1890, by the District Court in and for Conejos County, Colorado.
- p. Exhibit S-18 - Decree entered on May 1, 1896, by the District Court in and for Costilla County, Colorado.
- q. Exhibit S-19 - Decree entered on January 14, 1914, by the District Court in and for Conejos County, Colorado in Case No. CA741.
- r. Exhibit S-20 - Decree entered on September 13, 1916, by the District Court in and for Costilla County, Colorado.
- s. Exhibit S-21 - Decree entered on December 19, 1931, by the District Court in and for Conejos County, Colorado.
- t. The Court also took judicial notice of decrees

entered by the District Court for Water Division No. 3, in 90CW47, 90CW29, CA1056 (Rocky Hill Seepage).

II. Summary of Ruling

17. The Court specifically finds the current Plan is conceptually compatible with SB 04-222 and the constitutional principles governing Colorado water law, but the Court also concludes that this Plan should be referred back to the board of managers of the Subdistrict and the board of directors of the District for further consideration and amendment because it lacks detail, grants discretion with no guidance, fails to acknowledge the replacement of injurious depletions as a priority, and simply is not a "comprehensive and detailed plan" §37-48-126(2), C.R.S. As the Court is referring the Plan back, the majority of the issues in 07CW52 are held in abeyance for further proceedings in light of the amendment. It would be premature to address the issues raised in 07CW52 except to the extent the objections would preclude any plan at all for this Subdistrict because, if those objections were valid, it would make remand of the Plan pointless. For example, it would make little sense to remand the Plan if, in the context of the review of the State Engineer approval, the Court were persuaded that the entire Plan failed because it did not completely address and satisfy the requirements of sections 37-92-501(4)(a) and (b). Therefore, the Court will address this and similar objections in this ruling.

18. The Court tentatively sets further hearings to begin July 13, 2009, to address the issues in both 2006CV64 and 2007CW52 in light of the amendments. The Court concludes that an Amended Plan should include: (1) the timeframe and the methodology to be used to determine the depletions "calculated" to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells; (2) a procedural timeframe for disclosure of the methodology for replacement of the depletions to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells; (3) a timeframe for annual review and calculations regarding the past irrigation season and procedures for addressing under or over-delivery; (4) a "template" for the annual operating plan which should contain the specific information concerning the operation of the plan in a coming year; and (5) provisions for review of the operation of the plan at the end of the year.

III. Findings of Fact

A. Procedural History of the Development and Approval of the Plan as the Official Plan of the Subdistrict.

19. Section 37-48-108 authorizes the Rio Grande Water Conservation District to form subdistricts under the provisions of sections 37-48-123 through 37-48-193.

Subdistricts may adopt and implement plans of water management. § 37-48-126, C.R.S. The statute defines a plan of water management as:

a cooperative plan for the utilization of water and water diversion, storage, and use facilities in any lawful manner, so as to assure the protection of existing water rights and promote the optimum and sustainable beneficial use of the water resources available for use within the district or a subdistrict, and may include development and implementation of plans of augmentation and exchanges of water and ground water management plans under section 37-92-501(4)(c).

§ 37-48-108(4), C.R.S.

20. On May 12, 2006, the RGWCD filed a Petition for Establishment of a Special Improvement District No. 1 of the Rio Grande Water Conservation District in Case Number 06CV64. On July 19, 2006, the Alamosa County District Court approved the Petition seeking formation of the Subdistrict. *See Order Establishing Special Improvement District No. 1* (July 19, 2006). Pursuant to section 37-48-124(2), upon approval of the Petition the Alamosa County District Court "shall thereafter, for all purposes of this article, except as otherwise provided in this article, maintain and have original and exclusive jurisdiction, coextensive with the boundaries of said subdistrict, of lands and other property proposed to be included in said subdistrict or affected by said subdistrict, without regard to the usual limits of its jurisdiction." The Court anticipated that the Subdistrict would prepare a Plan of Water Management in accordance with § 37-48-126, C.R.S.

21. In conformance with the terms of the petition seeking formation of the Subdistrict, in September of 2006, the District's board of directors appointed an eleven-member board of managers as the governing body for the Subdistrict from a slate of candidates provided by the representative ditch companies and groundwater users. *See AR 17*. The board of managers was charged with preparing a plan of water management, pursuant to section 37-48-126, and did so in a series of public meetings. *See AR 1; 27 - 45; 169 - 195*.

22. C.R.S. § 37-48-126 provides that if a plan of water management is adopted by the Board of Directors of the RGWCD following public hearing, persons who object to the plan may file objections to the plan within ten days following the adoption of the plan in the case creating the Subdistrict, i.e. in Case No. 06CV64.

23. On April 23, 2007, the board of managers unanimously approved a plan of water management for the Subdistrict (the "Plan") and forwarded the Plan to the District's board of directors for its consideration and approval. *See AR 36*. On May 17, 2007, the District board of directors unanimously approved the Plan and set a public

hearing on June 26, 2007, to hear objections to the Plan. See AR 24; § 37-48-126(2) and (3)(a), C.R.S. Written notice of the time and location of the hearing on the Plan was published in Saguache, Mineral, Conejos, Rio Grande, and Alamosa Counties in compliance with section 37-48-126(3)(a). The published notice also stated that the Plan was available for review at the office of the District, that written comments needed to be filed before the hearing, and described the procedures for oral comment at the hearing. See AR 205; § 37-48-126(3)(a).

24. On May 29, 2007, counsel for the District sent the Plan to the Office of the State Engineer for its consideration and approval and requested that the State Engineer attend the public meeting scheduled for June 26, 2007. See AR 52.

25. There is a single "Plan" adopted by the District's board of directors submitted to the State Engineer and now before this Court which contains a ground water management plan. The Plan meets all the statutory requirements for an "official plan," a "plan of water management" and contains a "ground water management plan." See § 37-48-126(1),(2) and (3)(a), C.R.S.

26. On May 25, 2007, after the June 26, 2007 hearing had been scheduled, Senate Bill 04-220 was signed by the governor. That bill, which was effective immediately, revised section 37-48-126(2) to require that the board of directors of the District shall obtain the State Engineer's approval of the official plan of a subdistrict that contains a groundwater management plan before holding the public hearing required by section 37-48-126(3)(a). On June 25, 2007, Farming Technology Corporation requested that the District vacate the public hearing scheduled for June 26, 2007, based on this legislative change. See AR 123.

27. Because the public hearing on the Plan had been scheduled and notice had been published, the District decided to hold the hearing as planned and, at the conclusion of the hearing, continued it until a later date, pending action on the Plan by the State Engineer. The June 26, 2007 hearing was transcribed by a certified court reporter. See AR 207. The District's decision to continue the hearing until after the State Engineer's review and approval of the Plan was explained to the attendees at the June of 2007 meeting. See *id.* at 12 – 13. The Court's review of the transcript of the hearing supports its conclusion that all individuals who wished to make public comment regarding the Plan were afforded ample opportunity to do so. Further, all persons attending the hearing were encouraged to submit additional written comments to the District and Subdistrict. See *id.*

28. The District and Subdistrict received numerous written comments regarding the Plan during its development. Copies of all of the written comments received by the District and Subdistrict are contained in the Administrative Record at AR 105 – 168.

29. By letter dated August 13, 2007, Deputy State Engineer Dr. Kenneth Knox, acting on behalf of the Office of the State Engineer, informed the District that he could not approve the Plan as submitted. However, Dr. Knox supplied terms and conditions that, if included, he believed would allow the Office of the State Engineer to approve the Plan in accordance with section 37-92-501(4). See AR 54. On August 30, 2007, the board of managers and District board of directors held a joint meeting and approved certain changes to the Plan based on Dr. Knox's letter of August 13, 2007. See AR 19; 37; 174. The only change recommended by Dr. Knox that the Subdistrict's board of managers and the District board of directors did not make was to remove the term "unreasonable" from the phrase "not unreasonably interfere with the state's ability to fulfill its obligations under the Rio Grande Compact." They concluded that the language in the Plan appropriately mirrors the language of section 37-92-501(4)(a)(V). See Plan, at 12. The District board of directors and the Subdistrict board of managers then approved the Plan as amended and re-submitted it to the Office of the State Engineer. See AR 51.

30. On September 14, 2007, Dr. Knox, acting with explicit authority from the Executive Director of the Division of Natural Resources to review and act upon groundwater management plans submitted pursuant to section 37-92-501(4)(c), approved the Plan on behalf of the State Engineer as a groundwater management plan that meets the requirements of section 37-92-501(4)(a) and (b). See AR 53.

31. In compliance with section 37-48-126(3)(a), the District then published written notice of a public hearing on objections to the Plan for October 24, 2007. Notice of the time and location of the hearing was published in Saguache, Mineral, Conejos, Rio Grande, and Alamosa Counties in accordance with section 37-48-126(3)(a). This published notice also stated that the Plan was available for review at the office of the District, that written comments needed to be filed with the District before the hearing, and described the procedures for oral comment at the hearing. See AR 205; § 37-48-126(3)(a).

32. The District held the public hearing on October 24, 2007. See AR 206. The hearing was transcribed by a certified court reporter and the transcript is included in the Administrative Record. See AR 206. Based on the Court's review of this transcript, the Court finds that all individuals who wished to comment on the Plan were given a fair opportunity to do so. *Id.*

33. At the conclusion of the October 24, 2007 hearing, and after consulting with the board of managers, the District board of directors adopted the Plan as the official plan of the Subdistrict pursuant to section 37-48-126(3)(a). See AR 26; 45.

B. The Plan

1. Statutory Framework.

34. Section 37-92-501(4)(c) provides that the State Engineer shall not curtail underground water withdrawals “from aquifers in Division No. 3 that are included in a ground water management subdistrict created pursuant to section 37-45-120 or 37-48-108 if the withdrawals are made pursuant to a groundwater management plan adopted by the subdistrict that meets the requirements of paragraphs (a) and (b) of this subsection (4).” It is undisputed that the Subdistrict was created pursuant to section 37-48-108 *et seq.*

35. A subdistrict is governed by its official plan that is:

a comprehensive detailed plan, setting forth any plan of water management for the subdistrict, any improvement or works, including all canals, reservoirs, and ditches whether within or without the district to be constructed or used for the subdistrict, and the manner of utilization of the same in any plan of augmentation or plan of water management, together with the estimated costs of each principal part of said plan or plans, system, or works and the estimated cost of maintenance and operation thereof.

§ 37-48-126(1) (emphasis added).

36. When, as in Case No. 06CV64, the petition and decree establishing a subdistrict authorizes a board of managers, that board of managers is charged with preparing the official plan of the subdistrict in accordance with section 37-48-126(2) that provides:

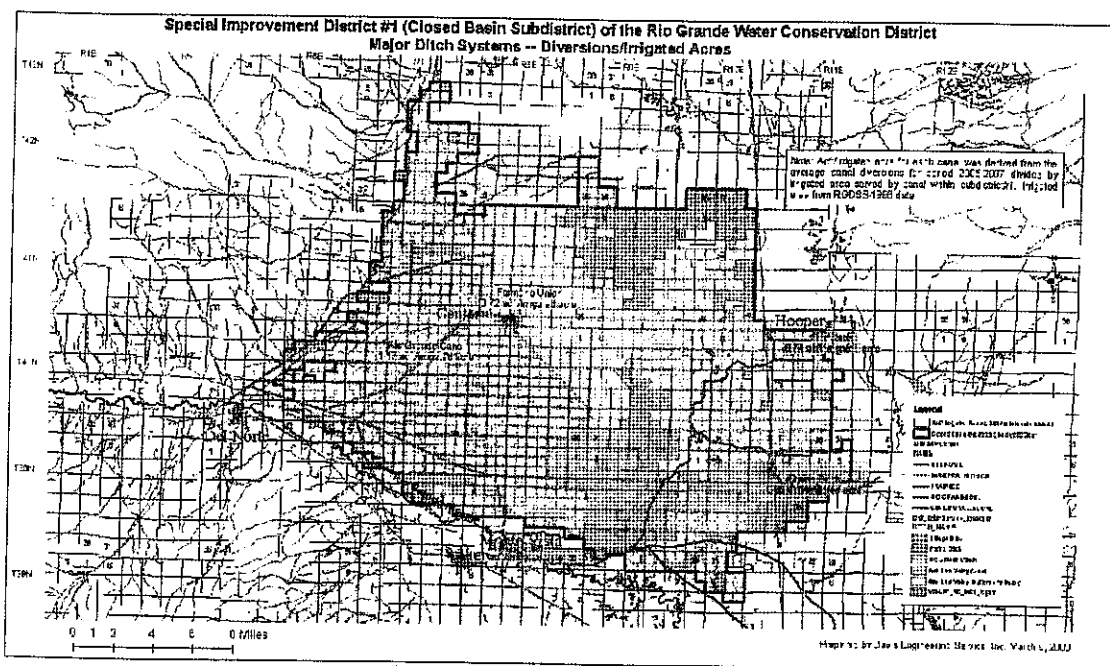
Where a board of managers for the subdistrict is authorized by the petition and decree establishing the subdistrict, the preparation of the official plans for the subdistrict shall be carried out by the board of managers. Such official plans shall be submitted to and approved by the board of directors of the district before the holding of the public hearing thereon required by subsection (3) of this section. If the official plan approved by the board of directors includes a ground water management plan within the meaning of section 37-92-501(4)(c), the board of directors shall obtain the state engineer’s approval of the ground water management plan in accordance with section 37-92-501(4)(c) before holding the public hearing required by subsection (3) of this section.

37. In considering objections to the Plan, the Court must determine first whether the Plan is a comprehensive and detailed plan that includes the manner of utilization of any improvements or works in any plan of augmentation or plan of water

management as required by section 37-48-126(1). If so, the Court must next determine whether the State Engineer's approval of the Plan complies with the provisions of section 37-92-501(4)(a) and (b).

2. Goals and Objectives of this Plan

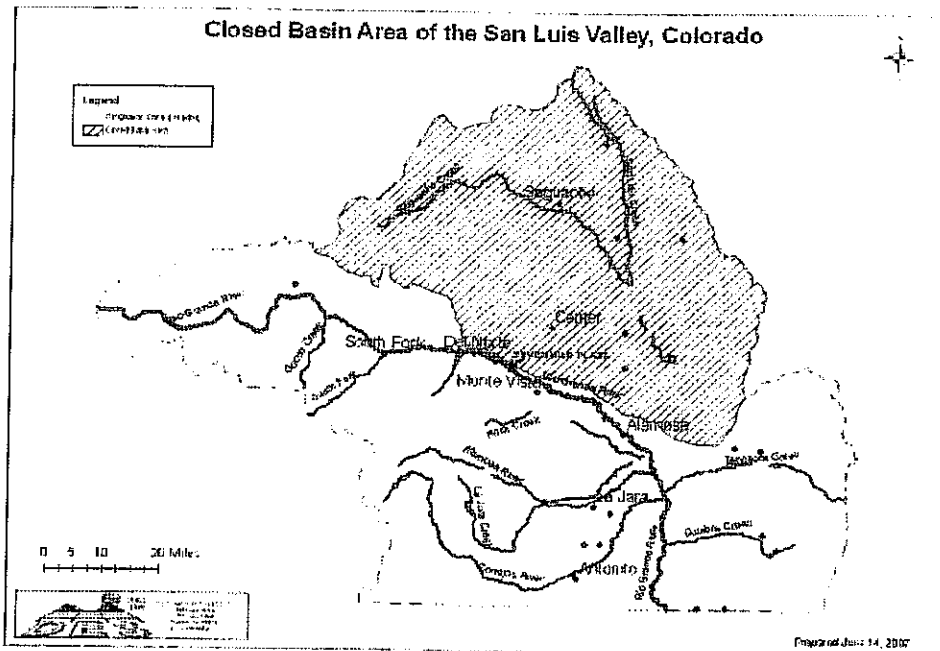
38. The legal description of the land included within the boundaries of the Subdistrict is listed in the Court's *Order Establishing Special Improvement District No. 1* in Case No. 06CV64. The Subdistrict is generally located in the heavily irrigated area north of the Rio Grande within the Closed Basin¹ of the San Luis Valley and is depicted in Exhibit 9.



¹ The Closed Basin is defined in Article I of the Rio Grande Compact as that part of the Rio Grande basin in Colorado where the streams drain into the San Luis Lakes and adjacent territory, and do not normally contribute to the flow of the Rio Grande. See § 37-66-101, C.R.S. This is the meaning of Closed Basin as used by the court in this Order.

39. The Subdistrict contains some 174,000 acres of irrigated farm land. See generally AR 88. There are approximately 3,000 irrigation wells in the Subdistrict, some 300 of which withdraw water from the Confined Aquifer system, and the balance of which withdraw water from the Unconfined Aquifer. Subdistrict lands are primarily served by five major ditches or canals: the Rio Grande Canal, the Billings Ditch, the Farmers Union Canal, the Prairie Ditch, and the San Luis Valley Canal. Exhibit 9 reflects the primary ditch service areas, canals, and major laterals of these five ditches within the Subdistrict, as well as geographical features such as section lines, towns and roads. Further, Exhibit 9 contains estimates of the acre-feet of water per irrigated acre within each ditch's service area available from the Rio Grande, based on historical diversion records for each ditch or canal. This estimate gives the "map reader an indication of the relative amount of water that each of the canals bring into the Subdistrict." See *Davey testimony, October 29, 2008*. The Subdistrict also includes land that is served by ditches or canals that are not shown on Exhibit 9. The Subdistrict investigated smaller ditches that might have ditch service areas within the Subdistrict or that bring smaller amounts of water into the Subdistrict utilizing the Rio Grande Decision Support System data. *Id. Davey testimony; see also AR 63*. Exhibit 9 also shows lands within the Subdistrict without surface water rights. Finally, Exhibit 9 includes the locations of center pivot sprinklers within the Subdistrict.

40. The Closed Basin Area is illustrated in Figure 2.1 of Exhibit 2 in the Hydraulic Divide Study dated October 2007.



41. The Plan approved by the board of managers of the Subdistrict and the District's board of directors is contained as Exhibit 1 and AR 173. The Plan's stated objective is to:

provide a water management alternative to state-imposed regulations that limits the use of irrigation wells within the Subdistrict, that is, a system of self-regulation using economic-based incentives that promote responsible irrigation water use and management and insure the protection of senior surface water rights. The operation of this Plan will comply with the requirements of SB 04-222, codified at C.R.S. § 37-92-501(4).

Plan, at 7. The goals of the Plan are :

to cause ground water levels in the Unconfined Aquifer of the Closed Basin to recover, and then to maintain a sustainable irrigation water supply in the Unconfined Aquifer with due regard for the daily, seasonal and longer term demands on the aquifer and to protect senior surface water rights and to avoid interference with Colorado's obligations under the Rio Grande Compact. To achieve these goals, reducing and managing overall ground water consumption is essential.

Id.

42. The acts and improvements that the Subdistrict declares it will implement to achieve the goals of the Plan include:

- A. A program of temporary fallowing, potentially in cooperation with federal programs, to remove sufficient acreage from production, on an on-going basis, to achieve reduction in water consumption necessary to achieve the goals of the plan.
- B. Economic incentives for the permanent removal of lands from irrigation, potentially in cooperation with federal programs.
- C. Replacement of stream depletions and/or increases in groundwater recharge.
- D. Infrastructure improvements to maximize the diversion and recharge of water available to Colorado under its compact allocation.
- E. Purchase and retirement of irrigated lands and/or water rights, either within or without the exterior boundaries of the Subdistrict.
- F. Education and research into water conservation, water use efficiency, improved water management, and public education on agricultural water use.
- G. Improvement and operation of ditches, headgates, and recharge facilities to make the best use of available water and to improve groundwater recharge.

43. As described within the Plan and presented in the testimony of various witnesses, the Subdistrict intends to use a combination of these acts and improvements concurrently, or as they become economically viable and physically possible, to achieve the goals of the Plan of Water Management. Because there are considerable uncertainties surrounding the Plan and the "acts" described above, the Plan states it will operate for an indefinite period to insure that a sufficient reduction in consumption continues to occur such that the total consumption within the Subdistrict matches the total inflows from natural sources and from importations by canals. If there should come a time when the groundwater supply in the Unconfined Aquifer within the Subdistrict is sustainable, with due regard to the daily, seasonal and long-term demands on the groundwater supply, the operation of the Unconfined Aquifer wells in the Subdistrict is not causing injurious stream depletions or unreasonably interfering with the state's ability to fulfill its obligations under the Rio Grande Compact, and all other purposes for which the Subdistrict has been organized

are permanently accomplished and all obligations of the Subdistrict have been satisfied, the Subdistrict can be dissolved.

Id. at 10-12.

44. The Plan contains the following important definitions:

"Subdistrict Territory" - Pursuant to C.R.S. § 37-48-123(d), the Subdistrict territory includes all lands within the exterior boundaries of the Subdistrict that were classified as irrigated by the applicable county Treasurers and Assessors as of May 12, 2006.

"Subdistrict Wells" - wells and irrigation systems used by each Subdistrict landowner.

"Non-Benefitted Subdistrict Land" - land that is irrigated only with surface water without an irrigation well in the parcel and/or without the physical ability to receive delivery of water pumped from a well on another parcel. In addition, it shall include land irrigated with groundwater pursuant to, and in compliance with, the provisions of a validly decreed plan for augmentation. Non-benefitted lands will not be assessed by the Subdistrict or subject to service and user fees.

"Annual Service and User Fee" – total yearly fee assessed upon subdistrict acres consisting of the sum of the Administrative Fee, the CREP Fee, and the Variable Fee.

"Variable Fee" – annual measurement of the Net Groundwater Pumped multiplied by the Water Value.

"Water Value" – charge per acre foot of Net Groundwater Pumped not to exceed seventy-five dollars (\$75) per year. May be adjusted annually by the Board of Managers.

"Recharge Credit" – surface water brought into the Subdistrict that is not consumed through irrigation practices or other beneficial uses and returns to or is introduced into the unconfined aquifer. Such Recharge Credit is separate and distinct from any aquifer recharge credit under Recharge Decrees adjudicated by the Division No. 3 Water Court.

"Hydraulic Divide" - a hydrologic separation between the Unconfined Aquifer underlying Subdistrict lands and the Unconfined Aquifer tributary to the Rio Grande, and defined by the line labeled "Drainage Divide" that appears on Plate 1 of Colorado Water Resources Circular 18, Water in the San Luis Valley, South-Central Colorado (attached as Exhibit 1). Verification of the Hydraulic Divide, in

terms of its existence, location, and extent shall be based upon written acceptance by the State Engineer.

"Unconfined Aquifer" means the aquifer composed of sand, gravel, clay and other materials, and not under artesian pressure, located within the Subdistrict.

"Unconfined Storage Level" – five-year running average of the average annual storage level in Unconfined Aquifer calculated on a monthly basis.

"Unconfined Aquifer Storage" – as calculated for Rio Grande Water Conservation District by Davis Engineering Service, Inc. and titled "Change in Unconfined Aquifer Storage, West Central San Luis Valley."

"CREP" – Conservation Reserve Enhancement Program as defined and administered by the United States Department of Agriculture – Farm Service Agency (USDA-FSA) through the authority of the 2002 Farm Bill (Conservation Title). In general, the CREP allows the USDA, in cooperation with a local sponsoring entity, to offer an annual rental payment for a term of fifteen years to producers willing to fallow a parcel(s) of land and forego the use of the associated water right or well during that time. The Program aims to foster land and water conservation through this process.

"Sustainable Aquifer" generally refers to a condition where withdrawals from the aquifer match recharge to the aquifer so that mining of the aquifer is not occurring.

"Confined Aquifer" – means groundwater confined under pressure between relatively impermeable or significantly less permeable material as defined in Ground-Water Hydraulics, S.W. Lohman, Geological Survey Professional Paper 708, Dept. of Interior, 1972.

Id. at 1 – 4.

45. The Plan imposes fees on landowners within the exterior boundaries of the Subdistrict who rely on wells for all or part of their irrigation water supply. Persons subject to the Plan are landowners within the "Subdistrict Territory" excluding "Non-benefitted Subdistrict Lands," who rely on wells for all or part of their irrigation water supply. *Id.* at 4. Only landowners within the Subdistrict who utilize groundwater for all or some part of their irrigation water supply and who do not have a validly decreed plan of augmentation that meets the requirements of section 37-92-501(4)(a) and (b), will be subject to Subdistrict fees. *Id.* at 1.

46. The Plan is primarily intended to address the Unconfined Aquifer wells within the Subdistrict territory.

47. The Plan requires that any injurious depletions from irrigation groundwater withdrawals within the Subdistrict be calculated and replaced. *Id.* at 9, 12. The Plan does not detail the methodology or timetable for calculating the injurious depletions or how they will be replaced.

48. Irrigation wells in the Confined Aquifer within the Subdistrict are subject to the Plan and its requirement that injurious depletions from irrigation well pumping within the Subdistrict be replaced. *Id.* at 24. And, “to the extent permitted by law, the Subdistrict may contract with other well owners within the Subdistrict exterior boundaries to advance the Plan Goal and Overall Objective.” *Id.* at 6

49. The general hydrogeology of the Rio Grande Basin is not in dispute including the general descriptions of the “Unconfined Aquifer” and “Confined Aquifer” described in the Plan at pages 3-4.

50. Objectors agree that there has been increased groundwater consumption during the last two decades which has, in part, resulted in a decline of the water level in the Unconfined Aquifer. They also agree with other premises of the Plan including that:

a. Current water levels in the Unconfined Aquifer within the Subdistrict have declined significantly. Plan, at. 4.

b. The consumption of groundwater from the Unconfined Aquifer within the Subdistrict has increased over time, and under current conditions significantly exceeds the total amount of recharge from natural sources and from diversions from the Rio Grande that is necessary to maintain a sustainable water supply in the Unconfined Aquifer. This overdevelopment has adversely affected Subdistrict lands, resulting in declining water tables, loss of well productivity, and other problems for irrigated agriculture. Unless the total consumption of groundwater in the Subdistrict is reduced, these problems will continue and worsen. Plan, at 5.

c. The current situation of the Unconfined Aquifer is the direct result of both (1) increased groundwater consumption by Subdistrict members or their predecessors during the last two decades, and (2) reduced water supply caused by sustained drought. Groundwater consumption has increased, due in part to some or all of the following irrigation practices:

1. Changing cropping patterns from less water-consumptive to more water-consumptive crops;
2. Changing type and frequency of irrigation;
3. Increasing the number of acres under irrigation; and

4. Connecting sprinklers to wells that were formerly used sporadically as supplemental supplies for flood irrigation and thereafter relying on the wells as primary irrigation sources. Plan, at 4.

d. The reduced native water supply is the result of the onset of a serious and prolonged drought that has greatly reduced inflows and surface water diversions into the Subdistrict lands. Plan, at 6.

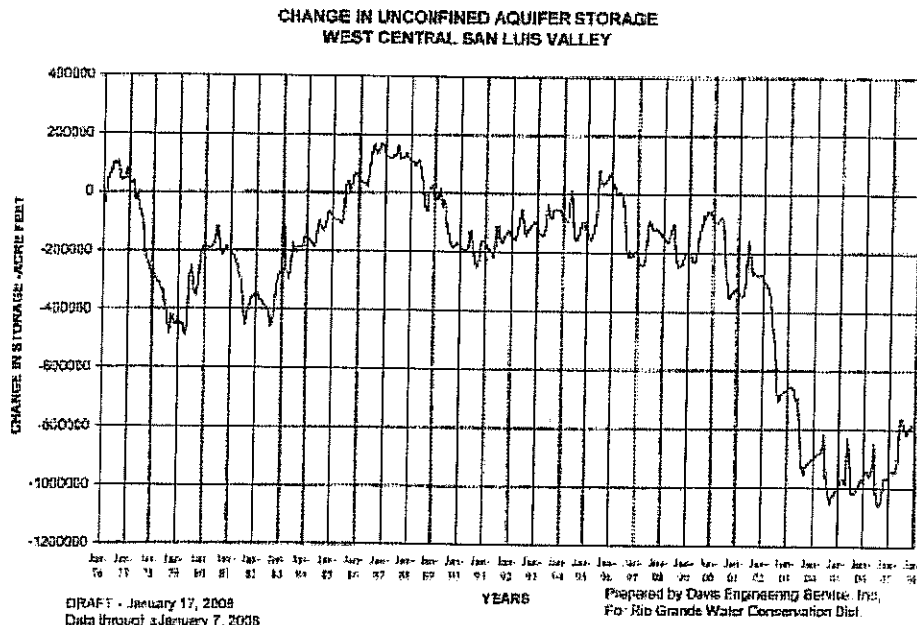
3. Managed and Sustainable Utilization of the Unconfined Aquifer for Storage

51. An objective of the Plan is to reduce the number of acres irrigated in the Subdistrict to achieve sustainable aquifer levels in the Unconfined Aquifer. The Subdistrict determined that the Unconfined Aquifer would be sustainable at a storage level of 200,000 to 400,000 acre-feet below the 1976 aquifer storage level. Hence, the Plan addresses sustainability of the Unconfined Aquifer as follows:

In order to insure that there is recovery and maintenance of groundwater storage in the Unconfined Aquifer at a historically sustainable level and to assist in the effort to permanently maintain the Hydraulic Divide, the objective of this part of the plan is to reduce the number of acres irrigated in the Subdistrict by 40,000. Specifically, the program objective is to achieve the recovery of sustainable aquifer levels measured by Unconfined Aquifer storage at levels between 200,000 and 400,000 acre-feet below the storage level that existed on January 1, 1976 within 20 years after judicial acceptance of this plan.

Plan, at 13 – 14.

52. The graph on the second page of Exhibit 28 illustrates both the historical variation in aquifer storage during the last quarter century and the drastic reduction in storage since 2002. The chart begins in 1976 because that is the first year in which there was sufficient well monitoring data to perform the analysis of the quantity of water in storage. *Id. Davey testimony.*



53. The Plan estimates that approximately 40,000 acres of the total number of acres irrigated in calendar year 2000 will need to be removed from irrigation to “achieve sufficient reduction of well withdrawals to accomplish the Unconfined Aquifer storage goal.” *Id.* at 14. The Plan sets out a time frame for designating land for dry-up in order to meet its Unconfined Aquifer storage goals and requires that up to 40,000 acres within the Subdistrict be designated for retirement within five years of the Court’s approval of the Plan. *Id.* at 15. The Subdistrict intends to accomplish the reduction of irrigated acreage with financial incentives to farmers to voluntarily retire lands from irrigation with groundwater. *Id.*

54. If, after five years during which approximately 40,000 acres are removed from irrigation, no incremental storage improvements to the unconfined aquifer level are made, the Plan further requires that the board of managers of the Subdistrict shall “adjust the program of fees and charges within the economic means of the irrigators in order to provide funding to obtain a further reduction in groundwater consumption during the subsequent years or to take such other steps that may be required to make measureable progress toward the goal(s).” *Id.*

55. In accordance with the provisions of the Plan, the Subdistrict will utilize Davis Engineering's Change in Unconfined Aquifer Storage Study to measure the recovery of the Unconfined Aquifer as a result of the operation of the Plan. The Change in Unconfined Aquifer Storage Study is an analysis of Unconfined Aquifer monitoring well data from approximately 27 wells located generally within the Subdistrict in the Closed Basin. See *Davey testimony, October 29, 2008*. Personnel from the Rio Grande Water Conservation District make a monthly measurement of the depth to water in each monitoring well. *Id. Davey testimony*. Exhibit 28 includes a map of the study area showing the monitoring well locations, and contains a description of the methodology utilized to calculate the change in Unconfined Aquifer storage. The chart begins in 1976 because that is the first year in which there was sufficient well monitoring data to perform the analysis of the quantity of water in storage. *Id. Davey testimony*.

56. Mr. Davey explained the methodology of this study:

...on a monthly basis, I calculate the change in storage by taking the difference between a previous month measurement from one of the wells and the current month; and then in order to convert this to a reasonable estimation of the volume of the aquifer, I multiply that measurement by a 20-percent specific yield which represents the amount of water actually in the aquifer. I multiply that times the area that I've designated or calculated that's the area of influence for that well to come up with the change in volume for that month. And then I total that for all of the wells in the study area, and then that derives a change in storage that's represented on this chart for each individual month.

Id. Davey Testimony, October 29, 2008.

57. The Plan states that all measurements used to gauge success in reaching Unconfined Aquifer Storage goals will be based on a five-year running average of annual storage levels derived from the average of monthly levels. Plan, at 16. The Plan defines "Unconfined Storage Level" as the "five year running average of the average annual storage level in Unconfined Aquifer calculated on a monthly basis." *Id.*

58. Data collected from the monitoring wells included in the Unconfined Aquifer Storage Study is provided to the United States Geological Survey and is also incorporated into the State of Colorado's RGDSS Groundwater Model. *Id. Davey testimony*. The Court concludes that the data used and the method of analysis employed in Davis Engineering's Unconfined Aquifer Storage Study is an adequate tool for measuring the changes in the Unconfined Aquifer storage and may be utilized by the Subdistrict in determining its compliance with the sustainability standard for the Unconfined Aquifer as set forth in the Plan.

59. The emphasis on restoration of the storage in the Unconfined Aquifer is a reasonable and prudent focus for a subdistrict plan for the Closed Basin area. The restoration of storage provides a reservoir to tap in drought years and Allen Davey's testimony suggested that it will contribute to the restoration of the Hydraulic Divide and reduce the injurious depletions to the Rio Grande resulting from pumping within the Subdistrict.

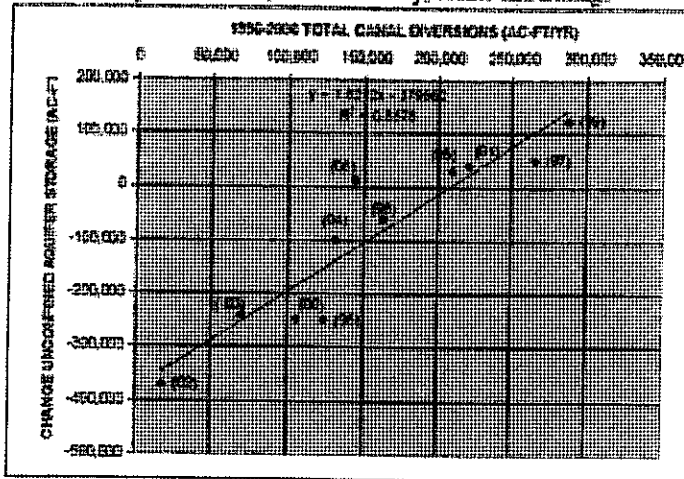
60. The Administrative Record shows that considerable time and effort was spent trying to determine how to achieve sustainable levels in the Unconfined Aquifer and, in particular, trying to determine how many acres should be removed from production. The estimate of 40,000 acres may not prove to be accurate over time and may require adjustment, but there can be no dispute that the proposal in the Plan to reduce irrigated acreage is a reasonable step in the right direction. There are many uncertainties in estimating how many acres will need to be removed from production in order to accomplish this goal. Allen Davey summarized how he reached these numbers and illustrated his calculations with Exhibit 30. See Diagram on next page.

Attachment C
Derivation of Reduction in Irrigated Area To
Stabilize Unconfined Aquifer Storage

PLOTTED DATA

Last 2-digits of Year shown near point irrigation Year	Vertical Axis Change in Storage (ac-ft)	Horiz. Axis Total Canal Diversions* (ac-ft)
1996	-297,821	125,178
1997	48,842	284,455
1998	-58,208	185,812
1999	124,858	287,488
2000	-247,496	188,431
2001	38,836	220,746
2002	-371,181	17,838
2003	-236,893	88,389
2004	-85,787	131,883
2005	29,628	200,248
2006	12,477	145,188
2007	188,914	233,181

* Includes total canal diversions to Study Area from Rio Grande, San Luis Valley Irrigation District, San Luis Valley, Prairie and Billings



From chart-Canal Diversions equal to zero change in aquifer storage	201,280	(Ac-ft/yr)
Total Canal Diversions (Ave 1996-2006)	158,241	(Ac-ft/yr)
Difference	43,039	(Ac-ft/yr)

Acres to be dried up = 43,039 ac-ft/yr / 2 ft/yr C.U. = 21,520 acres

61. The Court heard considerable criticism of the methodology used by Allen Davey in determining the number of acres necessary to accomplish the restoration of the unconfined aquifer. Since the CREP program is not yet established and since there is no active process for recruiting participants, there is considerable question about how well this will work. That said, the Plan presents a reasoned approach. The skepticism Objectors presented concerning the ability of the Subdistrict to accomplish this goal is understandable, but the Administrative Record and the testimony before the Court show that the Plan is not arbitrary and is a reasoned approach reached after deliberation and that this aspect of the Plan is reasonably related to legitimate goals of SB 04-222.

4. Surface Rights and the Hydraulic Divide

62. The Plan addresses the protection of senior surface water rights and the State's obligation to fulfill the Rio Grande Compact as follows:

In order to insure the protection of senior surface water rights and avoid interference with Colorado's obligations under the Rio Grande Compact, the Subdistrict will utilize a portion of its revenues in efforts to maintain a Hydraulic Divide between the Unconfined Aquifer underlying Subdistrict lands and the Unconfined Aquifer tributary to the Rio Grande and to replace any depletions calculated to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict wells.

Plan, at 12. The Hydraulic Divide is a "mound" of groundwater that can occur as a result of surface water diversions north of the Rio Grande. When such a mound exists north of the river channel, it can significantly decrease or buffer the depletions to the Rio Grande caused by groundwater pumping north of the Hydraulic Divide. See *Davey testimony, October 29, 2008; Sullivan testimony, November 3, 2008; Mefford testimony, November 3, 2008. See also Ex. 2, Figure 2.2.*

63. The Plan proposes efforts to re-establish and maintain the Hydraulic Divide to help reduce or eliminate depletions to the Rio Grande resulting from irrigation well pumping in the Subdistrict. The Plan sets forth activities the Subdistrict may undertake to attempt to maintain the Hydraulic Divide including: reducing groundwater use in the Subdistrict's southwest corner; working with canal companies to develop a plan to run water in selected canals and laterals to maintain a groundwater mound that will prevent flow of water from the Rio Grande to the north and east (into the Closed Basin); developing and funding new infrastructure, including recharge facilities; and leasing or purchasing sufficient surface water rights to permit a recharge program along the Hydraulic Divide to operate successfully. Plan, at 12 – 13. To monitor the existence, location and extent of the Hydraulic Divide, the Subdistrict may establish and maintain a network of observation wells. *Id.* at 12. The Plan mandates that verification

of the existence, location and extent of the Hydraulic Divide be based upon written acceptance from the State Engineer. *Id.* at 3.

64. If, during the operation of the Plan, the Hydraulic Divide is not restored and/or to the extent it does not prevent losses to the Rio Grande or its tributaries resulting from pumping of Subdistrict wells, the Subdistrict will "purchase or obtain existing surface water rights and/or storage rights to be used as replacement water for any surface water right determined to have been deprived of water, in priority." Plan, at 13.

65. Objectors presented many concerns about this aspect of the Plan. In the context of both cases, it was argued that the Plan gives "lip service" to protection of senior surface rights but there is no detail as to the means by which this is going to be accomplished. Similarly, it was argued that there is no priority for addressing the rights of senior surface rights. The Court concurs in these objections as discussed in detail below.

66. Additionally, the Objectors complain about the focus upon the Hydraulic Divide and point out that the work of the District's own expert shows that it does not currently exist. This focus is discussed in the next section of this opinion.

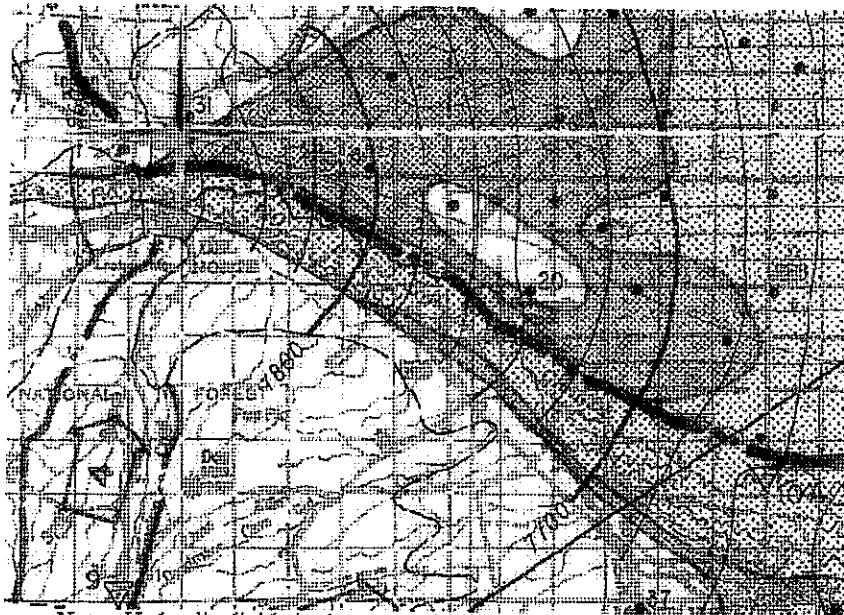
67. Shortly before the Plan was approved as the official plan of the Subdistrict, Allen Davey of Davis Engineering Inc., completed a study of the Hydraulic Divide, titled "Engineering Report on San Luis Valley Groundwater Level Study" ("Hydraulic Divide Study"). See Ex. 2. The Hydraulic Divide Study was based on measurements of groundwater levels in Unconfined Aquifer irrigation and monitoring wells located between Del Norte and Alamosa and between two to five miles north of the Rio Grande. Ex. 2 at 10. The Hydraulic Divide Study did not find a clearly defined Hydraulic Divide north of the Rio Grande and concluded that Unconfined Aquifer well pumping within the Closed Basin is causing depletions to the Rio Grande. Ex. 2 at 13. Mr. Davey testified and Exhibit 2 confirms that "[i]n the upper portion of the study area along the north channel of the Rio Grande below Del Norte, the groundwater gradient slopes generally northeast to east from the river with no evidence of a hydraulic divide," and "[t]he groundwater contours from Del Norte to near Monte Vista do not indicate the existence of a groundwater divide northerly of the Rio Grande." Exhibit 2, at 11-12. Mr. Davey further testified and Exhibit 2 confirms that within the study area north of the Rio Grande from near Monte Vista to Alamosa, "[n]o clearly defined hydraulic divide is evident in this reach." Exhibit 2, pg. 12. The Acequia Objector's expert, Mr. Mefford, agreed that the purported Hydraulic Divide does not currently exist north of the Rio Grande River.

68. The Hydraulic Divide Study also concluded, however, that a reduction in such well pumping in the Closed Basin and recovery of the aquifer to the sustainable levels stated in the Plan would likely result in restoring the Hydraulic Divide and

significantly reducing depletions to the Rio Grande from unconfined aquifer well pumping in the Subdistrict. *Id.* at 14.

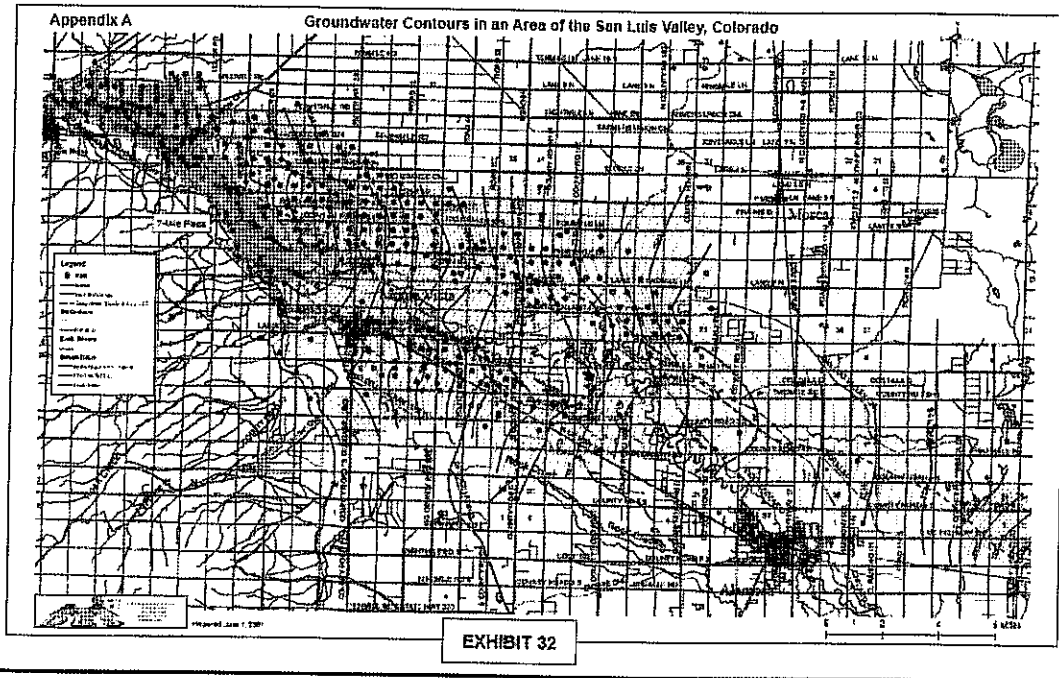
69. The prior existence of a Hydraulic Divide north of the channel of the Rio Grande between Del Norte and Alamosa has been the subject of several studies and has been acknowledged by the Court in past decisions. Central to the belief that there has existed a Hydraulic Divide north of the channel is the work of Phillip Emery. Exhibit 2 contained a copy of a portion of Plate 1 from Emery (1973), which is referenced in the definition of Hydraulic Divide contained in the Plan. A copy of the portion of Plate 1 from Exhibit 2 follows. The solid lines divided by two dots contained on Plate 1 represent the location of the purported Hydraulic Divide as determined by Emery.

Figure 2.2
Section of Plate 1 from Emery, 1973
Showing Groundwater Divide and Southern Boundary of Closed Basin



Note: Hydraulic divide is shown as wide blue-green line consisting of solid lines divided by two dots. Location of north channel of Rio Grande is highlighted in red. Groundwater contour lines are sketched with dark black lines with elevation of major lines labeled. The shading on the map immediately northeast of the north channel indicates depth to groundwater was 6 to 12 feet. The area without shading indicates depth to groundwater was greater than 12 feet.

70. Exhibit 32 illustrates Allen Davey's calculation of the groundwater contours confirming the easterly flow of water north of the river into the Closed Basin. The dotted line represents the location of the Hydraulic Divide as charted by Emery. The exhibit illustrates that the groundwater contours do not indicate the existence of a groundwater divide north of the river channel during the current study period.



71. The Plan's emphasis on the Hydraulic Divide is based upon the premise that when or if the Hydraulic Divide is north of the river between Del Norte and Alamosa, it reduces the injurious depletions to senior surface rights because it reduces leakage from the Rio Grande into the Closed Basin. There was no specific testimony or evidence regarding the amount or location of the reduction in depletions to the Rio Grande River and its tributaries associated with the purported Hydraulic Divide, but it was not contested that if the Hydraulic Divide were to be consistently maintained north of the river, it would reduce the injury.

72. SB 04-222 specifically allows Subdistricts to make judgments about how best to manage their water in accordance with the governing principles of Colorado water law. The detailed study of Allen Davey, Exhibit 2, shows that the Hydraulic Divide does not currently exist or function in the manner described by Emery. The Plan

therefore includes an intention to try and restore it, and the Court heard testimony concerning how the Subdistrict would try to do so. This included preferences for withdrawing from production land in the areas most sensitive to the Hydraulic Divide and using surface water to recharge areas where the historic divide has existed.

73. The Plan asserts that it will “replace any depletions calculated to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells.” Exhibit 1, page 12. Six strategies to accomplish this are identified in the Plan and several have already been described. Five have as their objective the restoration of the Hydraulic Divide. Plan at 12-13.

74. The utilization of Subdistrict resources in this manner may or may not prove to be a wise use of these resources or fruitful in accomplishing the proposed restoration of the Hydraulic Divide. This will become evident over time. At this point, these efforts are not contrary to law or inconsistent with the overall purposes of SB 04-222 so long as the Subdistrict prioritizes the replacement of injurious depletions regardless of the state of the Hydraulic Divide.

5. Replacement of Depletions and Senior Surface Water Rights

75. To the extent that the efforts to restore and maintain the Hydraulic Divide are unsuccessful or inadequate to eliminate or reduce injurious depletions to senior surface water rights on the Rio Grande and its tributaries from pumping of Subdistrict wells for irrigation, the Subdistrict asserts it will “purchase or obtain existing surface rights and/or storage rights to be used as replacement water for any surface water right determined to have been deprived of water, in priority...” Plan at 13. The Plan does not suggest, let alone detail, how the Subdistrict will go about determining the time, location and amount of the depletions or the method for replacing them. Testimony before the Court made clear that the present intention is to utilize the RGDSS groundwater model and that test runs have in fact been performed which identify injurious depletions to the Rio Grande and some of its tributaries.

76. The RGWCD and State Engineer argued that the intent is to use the best available technology, and so it was thought that it was better not to tie the viability of the Plan to a particular groundwater model since the best model today will undoubtedly be replaced by a superior model at some future time. The Court agrees completely that the State Engineer should adopt more accurate forecasting tools as they become available. However, this does not prevent identifying what the current best model is and that it will be used until a superior model has been developed and publicly vetted. This is easy to remedy in an Amended Plan.

77. Objectors have little trust in the good intentions set out in the Plan or in the State Engineer’s oversight of the Plan. They demand a “comprehensive and detailed

plan” demonstrating a valid means of calculating depletions for a coming year and demonstrating the ability to replace the depletions, before the Plan is approved.

78. The Court agrees the Plan fails to give priority to the constitutional and statutory obligations that are a condition that must be met in order to qualify the Plan for exemption from general regulation under forthcoming rules and regulations. This is a fundamental flaw and is discussed at length in the Mixed Findings of Fact and Conclusions of Law section of this opinion.

79. The Plan, if approved, will allow the Subdistrict to raise considerable money. However, the Plan has ambitious goals and none are without cost. Consequently, there may well need to be choices between these strategies. The Plan does not give any priority to any particular strategy. As discussed below, the wide discretion given to the State Engineer by section 37-92-501(4)(a), and the self-regulation promoted for subdistricts in section 37-48-126, *et seq.*, are limited by the condition that continued use of underground water is “consistent with preventing material injury to senior surface water rights.”

6. Funding by Assessment of Fees

80. The Subdistrict will be funded by the Annual Fee as described in Section IV of the Plan. The Annual Fee consists of an Administrative Fee, a CREP fee, and a variable fee. The dollar amount of the three components of the Annual Fee, as described in the Plan, will be submitted by the Subdistrict to the District for approval and, when approved, submitted to the appropriate county officers for each county in the Subdistrict for addition to its tax rolls and collection in accordance with Colorado law. Plan, at 22, *see* § 37-48-110(2), C.R.S. The three components of the Annual Fee will be evaluated annually and may be adjusted annually by the board of managers for the Subdistrict, subject to the specified dollar ranges set out in the Plan. Plan, at 17.

81. Both the Administrative Fee and the CREP fee are assessed per Subdistrict acre. A Subdistrict acre is land that was “classified as irrigated by the applicable county Treasurers and Assessors as of May 12, 2006.” *Id.* at 1. The Plan also provides that, to the extent land classifications change within the Subdistrict, “the County Treasurer and/or Assessor will be requested to add or delete land, as appropriate.” *Id.* at 6. The Variable Fee is assessed on a Farm or Farm Unit as it is defined by the Plan. A Farm Unit consists of “all irrigated lands under the control and management of a farm operator.” *Id.* at 2. A Farm Operator is defined as “an individual or entity actually managing and farming land owned by more than one farm owner.” *Id.* Assessing the Variable Fee against a Farm Unit allows the Farm Operator to balance, in the aggregate, all of the Surface Water Credit allocated to the Farm Unit against the Farm Unit’s total groundwater pumping. *See Kopfman testimony October 27, 2008, and Davey testimony, October 29, 2008.*

82. In order to accurately assess Subdistrict fees, the Subdistrict must collect data regarding county land use classification, irrigation practices, location and ownership of Subdistrict acres. *See Davey testimony, October 29, 2008; AR 46 – 47.* This data must be updated annually to account for changes that may affect Subdistrict fees, such as changes in ownership, land classification, and irrigation practices.

83. The Subdistrict must also collect data pertinent to each Farm Unit. This data includes: the parcels of land making up each Farm Unit, including land ownership, location and county land use classification; irrigation water supply sources, including information about surface water ownership and allocations, well locations, well identification numbers, decrees and permits; and cropping patterns for consumptive use calculations. *See Vandiver testimony, October 28, 2008.* Farm Unit data must be annually updated to account for changes in any of these items. *Id. Vandiver testimony.* The Subdistrict is actively engaged in collecting Farm Unit data from Subdistrict landowners. *Id. Vandiver testimony.*

84. The Administrative Record and other evidence presented revealed the choices and compromises involved in settling upon the range of fees which the Subdistrict may charge. The Objectors questioned the choices made in a variety of ways but the Court finds that the fees are not arbitrary or unreasonable. It is more difficult to judge if they are adequate to carry out the Plan but that will become evident over time.

7. Additional Data Collection by the Subdistrict

85. The Plan includes a commitment to continue to monitor wells which will provide the RGDSS groundwater model with data that will ensure the model can calculate injurious depletions to senior surface water users whatever the condition of the Hydraulic Divide. The acts and improvements the Plan contemplates require the Subdistrict to gather a wide range of data regarding land and water use within the Subdistrict. This data gathering takes place in the context of the ongoing work of the RGWCD and the State Engineer and others involved with the RGDSS. Exhibit 13 reflects where Confined Aquifer monitoring wells are currently located. Exhibit 11 shows all Unconfined Aquifer wells monitored by RGWCD. Twenty-seven of these wells were included in Allen Davey's study of change in the Unconfined Aquifer. Exhibit 28 shows the study area. All this information is vital to a better understanding of the aquifers which, in turn, will enable accurate predictions of injurious depletions to senior surface water rights and Rio Grande Compact compliance.

86. The Court has already described the detailed collection of data related to the Hydraulic Divide, the Unconfined Aquifer Storage Study and the calculation of fees. In addition to this data collection, the Subdistrict will collect the following additional data.

a. Well Pumping Data

87. Annually, the Subdistrict must identify the irrigation wells and irrigation systems used by each Subdistrict landowner on benefitted Subdistrict land. Plan, at 19. The amount of water pumped annually from each such irrigation well will be obtained from the well-use measurements made in accordance with the "Rules Governing the Measurement of Ground Water Diversions Located in Water Division No. 3, the Rio Grande Basin" (the "Measurement Rules"). *Id.* The Measurement Rules were adopted by the State Engineer on June 30, 2005, and approved by the Water Court in Case No. 05CW12 on August 1, 2006. The Plan provides that the Subdistrict must obtain this data before October 31st of each calendar year. *Id.* The October 31st date is necessary in order for the Subdistrict to be able to calculate its annual fee assessments and file the same with the county treasurers and/or assessors by early December of each year to ensure their collection the following year. *See Vandiver testimony, October 28, 2008.* Any well pumping that occurs in any calendar year after the Subdistrict obtains the well pumping measurements will necessarily be included in the well pumping measurements for the following calendar year. *Id., Vandiver testimony.* This use of the well pumping data is distinct from use of seasonal well pumping data in calculation of the injurious depletions.

88. The Plan includes all "subdistrict wells" used for irrigation, without reference to the pumping capacity of the well. The definitions of "Subdistrict Wells" may be overbroad and facially includes wells exempt from regulation. At trial, Richard Ramstetter raised, for the first time, a challenge that the Plan did not include irrigation wells of 50 gallons per minute or less and failed to account for the depletions from these irrigation wells. Any wells used for irrigation and meeting the exemptions contained in section 37-92-602(1)(e) are exempt from administration and from regulation under section 37-92-501. *See § 37-92-602(e); Sullivan testimony, November 3, 2008.* To the extent that any wells used for irrigation within the Subdistrict do not meet the exemptions in section 37-92-602, injurious depletions from their irrigation use is to be accounted for and replaced by the Subdistrict. *See Vandiver testimony, October 28, 2008.*

89. The Court finds that well pumping data collected for the "Subdistrict Wells" in accordance with the Measurement Rules will accurately measure groundwater withdrawals in the Subdistrict. The Court notes that the Measurement Rules do not apply to "non-exempt" wells that are permitted and/or decreed for not more than 50 g.p.m. unless otherwise required by permit or decree. The evidence indicates that there are very few irrigation wells that fall into this category. Nevertheless, to the extent that these wells are "Subdistrict wells" and are to be afforded the protections provided by section 37-92-501(4)(c), the Subdistrict will have to determine their number and location, and work with the State and Division Engineers to establish a reasonable basis to measure their withdrawals.

90. The Plan did not include an inventory of the wells in either aquifer nor was a detailed list of the wells presented in the testimony to the Court. Presumably this was because of the short period between when the Plan was approved by the board and when the Court hearing took place. By the time this comes back to the Court such information is likely to be organized in anticipation of the assessment deadline in 2009 and such information should be included in the amended plan.

b. Surface Water Data

91. Similarly, by October 31 of each calendar year, the Subdistrict must determine the amount of surface water that is diverted into the Subdistrict by various ditches and canals. Plan, at 20 – 21. The Subdistrict will be responsible for determining the amount of surface water that is allocated to each Farm or Farm Unit (as defined by the Plan) based on a five-year running average that includes the current water year and the four previous years. *Id.* at 20; See *Davey testimony, October 29, 2008*. The Subdistrict must calculate on an annual basis the amount of surface water that each Farm or Farm Unit applies directly to irrigation or other beneficial use and that is not used directly for recharge. This consumptive use share of the annual surface water will be deducted from the five-year running average of total surface water supply allocated to the Farm or Farm Unit to determine each Farm or Farm Unit's Recharge Credit, also known as "Surface Water Credit." Plan, at 21.

92. Ditch diversion data is maintained by the various ditches and by the Division Engineer and will be available to, and used by, the Subdistrict to determine the amount of water that is diverted into the Subdistrict. This information is central to the task of determining the balance between surface water diverted into the Subdistrict and groundwater withdrawals by Subdistrict wells and is used to assess the overall water balance. Exhibit 9 (found above at page 13) illustrates the location of land irrigated by the major ditch systems serving lands in the Subdistrict.²

93. The Subdistrict's calculation of how much Surface Water Credit is allocable to each Farm or Farm Unit based on the number of ditch or reservoir company shares, or land within an irrigation district, is a separate inquiry that is related to the assessment of Subdistrict fees; but that is not related to the determination of the water balance. The Plan states that the "Board of Managers will adopt rules, regulations and/or guidelines to facilitate the application and use of the full credit for all surface water annually delivered from the river in a manner consistent with articles and bylaws of the respective ditch companies." Plan, at 22. These forthcoming rules and regulations are intended to address uncertainties regarding the calculation of the

² Objectors point out that some lands served from these ditch systems are not within the boundaries of the Subdistrict. The Plan does not attempt to take credit for waters not delivered to lands within the Subdistrict. To the extent that it is alleged the boundaries should have included all lands, this complaint is without merit and is addressed below.

Variable Fee, including what quantity of water the Subdistrict will subtract from headgate diversions to determine the amount of Surface Water Credit allocated to a Farm or Farm Unit. *See Davey testimony, October 29, 2008.* The purpose of these rules and regulations is to allow the Subdistrict to fairly and equitably allocate the Surface Water Credit to each Farm or Farm Unit that brings surface water into the Subdistrict. *Id. Davey testimony.* Since the Court is remanding the Plan to the board of managers, there should be time to enact the internal Subdistrict rules and regulations clarifying for those affected the process and methodology for setting and modifying the Variable Fee.

8. Operation of the Plan

94. The Plan contemplates extensive cooperation and coordination with the State and Division Engineers in gathering data needed for the Subdistrict Fee assessment, the water levels of the Unconfined Aquifer and Confined Aquifer, the existence, location and extent of the Hydraulic Divide, and the location, time and quantity of injurious stream depletions. The Plan provides that the

Board of Managers of Special Improvement District No. 1 of the Rio Grande Water Conservation District shall provide an annual accounting and reporting structure that includes data and information relevant to Plan operations in content, format and scheduling deemed acceptable to the Division III Engineer prior to operation of the Plan of Water Management.

Plan, at 16. While the Plan contemplates the extensive sharing of data on the daily and annual operation of the Plan, the Plan itself does not state how “depletions calculated to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells” will be determined or remedied.

95. The evidence at trial was that the Subdistrict intends to work closely with the State and Division Engineers to use the RGDSS groundwater model, or the best available technology available to them in the future, to calculate injurious stream depletions resulting from well pumping from wells in the Subdistrict, and to replace those depletions in the time, at the location, and in the amount needed to prevent injury.

96. Mr. Michael Sullivan, formerly the Division Engineer for Water Division No. 3 and now the Deputy State Engineer, described in his expert report and in his testimony at trial, how injurious depletions will be remedied:

If the subdistrict chooses to remedy injurious depletions by adding water to the stream, I will use the following procedures in order to determine what amount of replacement is necessary to remedy injurious depletions: Before April 15 of each year, Subdistrict No. 1 shall provide a Plan of

Operation for that irrigation year. This Plan of Operation must provide estimated pumping amounts and locations for that year, and predict the injurious depletions that will occur that year in time (in a monthly time step), location and quantity. The Plan of Operation must then detail how those injurious depletions for that year will be remedied in time, location and quantity. The plan may allow offsets of a positive impact in one month against a negative impact in an adjoining month in the first year. I will review this plan using the best available technology at the time to assure the best possible accuracy of the Plan of Operation for that year and either approve, disapprove or approve with conditions the Plan of Operation for that Year.

By December 31, Subdistrict No. 1 shall Report the actual data from well meters, showing location and quantity pumped, as well as irrigated crop and irrigation practice. They must also provide their best estimate of actual injurious depletions caused by that year's actually [sic] pumping in time, location and amount for the entire period such depletions occur. I will then review this report and use the best available technology at that time to determine the accuracy of the Report. Subdistrict No. 1 will then have to remedy the lagged injurious depletions in time (on a monthly time step), location and quantity.

In each subsequent year, the Subdistrict shall have to remedy the injurious depletions predicted to occur that year, as well as all lagged depletions occurring that year, in time (on a monthly timestep) location and amount. If the Subdistrict is unable to do so, I will not allow the members of the Subdistrict to withdraw groundwater per properly promulgated rules and regulations regarding administration of wells in the Rio Grande basin.

Ex. 39 at 7.

97. Dr. Knox and Mr. Wolfe also testified that the State Engineer will require submission of a "plan of operation" which would be annually approved by the State Engineer. The suggested "plan of operation" is generally described by Dr. Knox much as Mr. Sullivan described it above:

Before April 15 of each year, Subdistrict No. 1 shall provide a Plan of Operation for that irrigation year. This Plan of Operation must provide estimated pumping amounts and locations for that year, and predict the injurious depletions that will occur that year in time (in a monthly time step), location and quantity. The Plan of Operation must then detail how those injurious depletions for that year will be remedied in time, location and quantity. The plan may allow offsets of a positive impact in one month

against a negative impact in an adjoining month in the first year. I will review this plan using the best available technology at the time to assure the best possible accuracy of the Plan of Operation for that year and either approve, disapprove or approve with conditions the Plan of Operation for that Year.

Exhibit 36 - Rule 26(a)(2) Expert Disclosures of Kenneth Knox, Ph.D., P.E. (June 16, 2008). Although Dr. Knox provided comments on the Plan on several occasions, Exhibits S-29, AR-50, AR-53, and AR-54; Dr. Knox did not request inclusion of the foregoing provision as a term and condition of the Plan

98. The specific actions that Mr. Sullivan, Mr. Wolf and Dr. Knox contemplate will occur are not set out in detail in the Plan itself nor are they required by current rules and regulations of the State Engineer.

IV. MIXED FINDINGS OF FACT AND CONCLUSIONS OF LAW

99. The Court combined two proceedings into a single hearing pursuant to statutory direction. This was economical but did cause some degree of confusion. The Court must determine first whether the Plan is a comprehensive and detailed plan that includes the manner of utilization of any improvement or works in any plan of augmentation or plan of water management as required by section 37-48-126(2). Only if the Plan is approved in 06CV64, does the Court need to address the issues presented in 07CW52. Since the Court is remanding the Plan to the board of managers of the Subdistrict and board of directors of the RGWCD for amendment, the issues in 07CW52 are held in abeyance for further proceedings in light of the probable amendment except as explicitly addressed herein. It is premature to address all of the issues raised in 07CW52 except to the extent the objections would preclude any plan at all for this Subdistrict and make remand of the Plan pointless.

100. The District Court's review of the objections to the Plan adopted by the District board of directors as the official plan of the Subdistrict pursuant to section 37-48-126(2) and (3) in Case Number 06CV64 is controlled by section 37-48-126(3)(b). That section provides as follows:

If any person objects to the official plan adopted pursuant to paragraph (a) of this subsection (3), such person, may, within ten days after the adoption of said official plan, file in the office of the clerk of the court in the original case establishing the district his or her objections in writing, specifying the features of the plan to which objection is made, and thereupon, the court shall fix a day for the hearing thereof before the court, at which time the court shall hear such objections and adopt, reject, or refer back the plan to the board of directors.

Section 37-48-126(4) further provides:

If the court should reject the plan, the board or the board of managers, as the case may be, shall proceed as in the first instance under this section to prepare another plan. If the court should refer the plan back to the board for amendment, the court shall continue the hearing to a day certain without publication of notice. If the court approves the plan as the official plan of the district, a certified copy of the order of the court approving the plan shall be filed with the secretary of the district and incorporated into the records of the district. The official plan may be altered in detail as necessary from time to time but may not be altered in substance without notice and hearing as required in subsection (3) of this section..."

101. Pursuant to the *Order re Standard of Review, Burden of Proof and Order of Presentation at Trial* dated April 8, 2008, this Court explained the standard of review in 06CV64:

In summary, the Court concludes the standard of review for quasi-legislative actions as established in the case law is generally one of "reasonableness." The Court will review the quasi-legislative Plan to ensure it is "not unreasonable and arbitrary" and bears a rational relationship to the legitimate state objectives set forth in the statutory framework before the Court. The Plan is presumed valid, and the challengers have the burden to demonstrate its invalidity. *Cf. Eagle Peak Farms*, 919 P.2d at 217. Moreover, the Court will not substitute its judgment for that of RGWCD. Rather, the Court will determine whether, in enacting the Plan, RGWCD: 1) violated constitutional or statutory law; 2) exceeded its authority; or 3) lacked a basis in the record for its provisions. *Id.* Page 17.

A. Legal Framework for Review of the Plan of Water Management

102. The General Assembly has specified standards and conditions that must be included in plans of water management. After organization of the Subdistrict, "the board of directors of said district, acting as the board of directors of said subdistrict, is authorized and required to prepare and adopt as the official plans for said subdistrict a comprehensive detailed plan, setting forth any plan of water management for the subdistrict, any improvements or works, including all canals, reservoirs, and ditches whether within or without the district to be constructed or used for the subdistrict, and the manner of utilization of the same in any plan of augmentation or plan of water management, together with the estimated cost of each principal part of said plan or plans, system, or works and the estimated cost of maintenance and operation thereof." § 37-48-126(1), C.R.S. A "plan of water management" as used in C.R.S. § 37-48-126(1), is defined as follows:

a cooperative plan for the utilization of water and water diversion, storage, and use facilities in any lawful manner, so as to assure the protection of existing water rights and promote the optimum and sustainable beneficial use of the water resources available for use within the district or a subdistrict, and may include development and implementation of plans of augmentation and exchanges of water and ground water management plans under section 37-92-501(4)(c).

C.R.S. § 37-48-108(4).

103. Both Proponents and Objectors in these cases understand that the surface streams and the aquifers in the San Luis Valley of Colorado are overappropriated. *See, Alamosa-La Jara Water Users Protection Association v. Gould*, 674 P.2d 914, 918 (Colo. 1983). ["The first appropriation from streams in the valley began in the 1850's on the Conejos River. The first appropriation on the Rio Grande mainstem was in 1866, and the most extensive development for irrigation purposes on both rivers was between 1880 and 1890. By 1900, the natural flow on all surface

streams in the valley was over-appropriated.”] See, also Exhibit 56 - *Findings of Fact, Conclusions of Law, Judgment and Decree* dated November 9, 2006, in Case No. 2004CW24, Concerning the Matter of the 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. pg. 19, *affirmed Simpson v. Cotton Creek Circles, LLC*, 181 P.3d 252 (Colo. 2008).

104. The parties also understand that depletions resulting from out-of-priority diversions of tributary groundwater in an overappropriated stream system will cause material injury to senior surface water rights. Groundwater withdrawals by wells tributary to the Rio Grande and its tributaries are presumed to cause injury to senior surface water rights. *Alamosa-La Jara Water Users Protection Association v. Gould*, 674 P.2d 914, 928 (Colo. 1983). *Simpson v. Cotton Creek Circles, LLC*, 181 P.3d 252, 256 (Colo. 2008); *Alamosa-La Jara Water Users Protection Association v. Gould*, 674 P.2d 914, 931 (Colo. 1983).

105. Measurement of injurious depletions in a complex basin is a significant challenge. “While it is clear that unreplaced groundwater depletions eventually reduce the surface flows of the river, when and by how much this reduction actually occurs depends upon a multitude of factors, including: (a) the distance of the well from the stream, (b) transmissibility of the aquifer, (c) depth of the well, (d) time and volume of pumping, and (e) return flow characteristics.” *Simpson v. Bijou Irrigation Co.*, 63 P.3d 50, 70 (Colo. 2003).

106. The Unconfined Aquifer, Confined Aquifer and the Basin’s surface streams are hydraulically connected to varying degrees. *Simpson v. Cotton Creek Circles, LLC*, 181 P.3d 252, 255 (Colo. 2008); *American Water Development, Inc. v. City of Alamosa*, 874 P.2d 352, 367-368 (Colo. 1994).

107. Finally, the water users understand the restraints on water use resulting from the interstate apportionment of water among the States of Colorado, New Mexico and Texas in the Rio Grande Compact. §37-66-101, et seq., C.R.S. *Alamosa-La Jara Water Users Protection Association v. Gould*, 674 P.2d 914, 928 (Colo. 1983). See also, *Findings of Fact, Conclusions of Law, Judgment and Decree, Tres Rios 91CW29* and *Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24*, pp 24-28.

108. The Court incorporates by reference the entire Part XIII C of the opinion in *Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24*, at pp. 155-163, which expands on the physical condition of the basin and the legal framework for water issues in Water Division No. 3. As this Court explained in Case No. 04CW24:

452. There is no doubt in the Court’s mind that all the Proponents and the General Assembly are mindful of the fact that the Colorado Constitution provides that the “water of every natural stream” is subject to

the prior appropriation doctrine and that priority of appropriation for beneficial use is the foundation upon which water rights depend. Colo. Const. Art. XVI, section 6 states plainly that "The right to divert the unappropriated water of any natural stream to beneficial use shall never be denied." The Rules proposed related to the confined aquifer of the Rio Grande Basin, and there is no dispute that the confined aquifer of the San Luis Valley is tributary water. *American Water Development, Inc. v. City of Alamosa*, 874 P.2d 352, 366, 372 (Colo. 1994) so held, and the evidence in this case is undisputed that this is so.

453. The Court has already reaffirmed the longstanding conclusion that the surface streams and the aquifers in the San Luis Valley of Colorado are overappropriated. See, *Alamosa-La Jara Water Users*, 674 P.2d at 918 ("By 1900, the natural flow of all surface streams in the [San Luis] valley was over-appropriated."); see also *State Eng'r v. Bradley*, 53 P.3d 1165, 1167 (Colo. 2002)(upholding State Engineer's denial of application to construct a well because an enlargement of the applicant's right in the overappropriated Closed Basin and Rio Grande system of the San Luis Valley "would necessarily be injurious to other vested rights."); *High Plains A&M, LLC v. Southeastern Colorado Water Conservancy District*, 120 P.3d 710 (Colo. 2005) at 722 ("In view of the overappropriated status of three of its {Colorado} four major rivers....")

454. Where surface water is overappropriated, Colorado law presumes the depletions resulting from out-of-priority diversions of tributary groundwater in an overappropriated stream system will cause material injury to senior surface water rights. *City of Aurora v. State Eng'r*, 105 P.3d at 607, ("Where surface water is overappropriated, Colorado law presumes that groundwater depletions through well-pumping result in injury to senior appropriators absent a showing to the contrary."); *Simpson v. Bijou Irrigation Co.*, 69 P.2d 50, 59 n.7 (Colo. 2003); *Alamosa-La Jara Water Users Prot. Ass'n v. Gould*, 674 P.2d 914, 931 (Colo. 1983).

(Footnotes omitted).

456. These Rules are proposed as part of the response to these conditions and in accordance with the mandate to integrate the use and administration of tributary groundwater with surface water rights set forth in the Water Right Determination and Administration Act of 1969. The General Assembly declared in the 1969 Act its intent to "integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water, in such a way as to maximize the beneficial use of all of the water of this state." In *Empire Lodge Homeowner's Ass'n v. Moyer*, 39 P.3d 1139, 1148 (Colo. 2001), the Supreme Court describes the water crisis on the Arkansas and Platte Rivers caused by wells depleting tributary groundwater and the dilemma this created as follows:

Strict application of the priority doctrine to overappropriated basins would restrict new water uses to changes of water rights. How to protect prior appropriation rights while also allowing new uses required a governmental response.

457. In 1968, the Supreme Court took one step to address this issue with its opinion in *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968). The Court's famous declaration that "the curtain is opening upon the new drama of *maximum utilization* and how constitutionally that doctrine can be integrated into the law of *vested rights*" reflects the long-held concern that management of the scarce water resources requires flexibility and creativity to promote multiple-use of a finite resource. *High Plains A&M, LLC v. Southeastern Colorado Water Conservancy District*, 120 P.3d 710 (Colo. 2005); *Bd. Of County Comm'rs v. Park County Sportsmen's Ranch, LLP*, 45 P.3d 693, 706 (Colo. 2002).

(Footnotes omitted).

459. The General Assembly responded to the invitation extended by *Fellhauer* with the enactment of the Water Right Determination and Administration Act of 1969. The Supreme Court characterizes the Act as follows:

The purpose of the Act was "to integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water, in such a way as to maximize the beneficial use of all of the water of this state." *Id.*, § 148-21-2(1) at 1200 (currently codified at § 37-92-102(1)(a), 10 C.R.S. (2002)). The Act ushered in a host of changes to the state water law administrative scheme. It established the current system of water divisions and courts, *Id.* section 148-21-8 through 148-21-11 at 1202-05 (currently codified at sections 37-92-201 through 37-92-204, 10 C.R.S. (2002)), and set forth detailed administrative duties of the State and Division Engineers, particularly with regard to the integration of groundwater into the water law system. *Id.* § 148-21-17 through 148-21-45 at 1205-19 (currently codified at §§ 37-92-301 through 37-92-504, 10 C.R.S. (2002)).

As a result of the Act's stated policy of conjunctive use, wells were required to be integrated into the priority system, although unadjudicated wells in existence prior to 1969 were allowed to continue. See *Id.* § 148-21-2(2)(a) at 1200-01 ("Water rights and uses heretofore vested in any person by virtue of previous or existing laws, *including an appropriation from a well*, shall be protected subject to the provisions of

this article.”)(emphasis added)(currently codified at § 37-92-102(2)(a), 10 C.R.S. (2002) in slightly modified form). The Act, nevertheless, encouraged the adjudication of existing wells by allowing well owners who filed an application by July 1, 1971, to receive a water decree with a priority dating back to their original appropriation date. *Id.* § 148-21-22 at 1212.

(Footnotes omitted).

461. Our Supreme Court has characterized the legislative response to *Fellhauer* as follows:

As administration of water approaches its second century, the General Assembly chose to implement a policy of maximum flexibility that also protected the constitutional doctrine of prior appropriation. Through the 1969 Act, the General Assembly created a new statutory authorization for water uses that, when decreed, are not subject to curtailment by priority administration. This statutory authorization is for out-of-priority diversions for beneficial use that operate under the terms of decreed augmentation plans. See Act of June 7, 1969, ch. 373, § 148-21-3(12) at 1202; § 148-21-18(1) at 1207; § 148-21-20(6) at 1210; § 148-21-21(3) & (5) at 1211; § 148-21-23 at 1212, 1969 Colo. Sess. Laws. Plans for augmentation “were a creation of the 1969 Act.” David F. Jankowski, et al., 1969. *The Act’s Contributions of Local Governmental Water Suppliers*, 3 U. Denv. Water L.Rev. 20, 29 (1999).

462. In 1971, the General Assembly amended the 1969 Act to provide additional guidance to the State Engineer for the administration of groundwater rights and in adoption of rules and regulations. See 1971 Colo. Sess. Laws 1330, 1331-32 (now section 37-92-501(1)-(3)).

(Footnotes omitted).

463. The 1969 Act and 1971 amendment did not resolve the issues raised by *Fellhauer*, but the General Assembly established a framework for further legislation and judicial decisions. The Supreme Court has emphasized the common goals of its decision in *Fellhauer* and the General Assembly’s goal in the 1969 Act as follows:

Both responses centered on: (1) reinforcing the adjudication and administration of decreed water rights in order of their priority; and (2) maximizing the use of Colorado’s limited water supply for as many decreed uses as possible

consistent with meeting the state's interstate delivery obligations under United States Supreme Court equitable apportionment decrees and congressionally approved interstate compacts.

People ex rel. Simpson v. Highland Irrigation Co., 917 P.2d 1242, 1248, 1252-53 (Colo. 1996).

(Footnotes omitted).

470. Twenty-three years later, the stated desire to integrate surface and tributary groundwater has proven to be a formidable task in every water basin and particularly so in Water Division No. 3. The legislation and Rules before the Court here represent a continued effort by the State Engineer and the General Assembly to formulate a "sound and flexible integrated use of all waters of the state." Since the decision in *Alamosa-La Jara*, the water users and the State Engineer have taken many steps to manage the waters of this overappropriated basin, as detailed in Part IV of this opinion. But as the evidence in this case indisputably shows, the steps taken have not been adequate to protect senior surface rights and well owners and meet the Rio Grande Compact obligation. The evidence shows the continuing decline in surface flows and underground storage and that the recent drought, especially during the year 2002, brought the Basin to a turning point.

471. The 1998 amendments to the 1969 Act in HB 98-1011 focused attention on the need to develop the RGDSS and a groundwater model as the foundation for new rules in Water Division No. 3. The 2004 amendments to the 1969 Act in SB 04-222 directly addressed some of the most problematic aspects of the Basin.

Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p. 156-163. (Footnotes omitted).

109. Objectors are generally senior surface water right owners. They have emphasized the absence of regulation of wells in Water Division No. 3 and the provision of the Colorado Constitution that the "water of every natural stream" is subject to the prior appropriation doctrine and that priority of appropriation for beneficial use is the foundation upon which water rights depend. Colo. Const. Art. XVI, Sections 3, 5, and 6.

110. Well owners and those who own both surface and well rights and engage in conjunctive use practices point to the efficiencies of using groundwater and cite *Fellhauer's* language on the need to optimize the utilization of water. At the same time, the recent drought has made clear to them that the aquifers cannot be sustained with current withdrawals.

111. As noted in the earlier quotations from *Simpson v. Bijou Irrigation Co*, 69 P.3d 50, at 60 (Colo. 2003) found in Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p.158, "The purpose of the *Water Right Determination Act* of 1969 was 'to integrate the appropriation, use and administration of underground water tributary to a stream with the use of surface water, in such a way as to maximize the beneficial use of all of the waters of this state.' *Id.*, § 148-21-2(1) at 1200 (currently codified at § 37-92-102(1)(a), 10 C.R.S. (2002))." A plan of water management is a tool by which to accomplish these constitutional and statutory goals.

112. As of the date of the trial herein, the State Engineer had not promulgated rules and regulations to regulate existing well pumping of the aquifers tributary to the Rio Grande and its tributaries. *Alamosa-La Jara Water Users Protection Association v. Gould*, 674 P.2d 914, 928 (Colo. 1983); *Simpson v. Cotton Creek Circles, LLC*, 181 P.3d 252, 257 (Colo. 2008). However, the State Engineer has adopted 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 (Case 2004CW24) and Rules Governing the Measurement of Groundwater Diversions in Division No. 3 (Case 2005CW12).

113. The State Engineer testified in this trial that he is proceeding expeditiously to adopt rules and regulations to regulate existing well pumping of aquifers tributary to the Rio Grande and its tributaries in 2009. After the trial ended, he announced the formation of an advisory group on this matter.

B. Sustainability, Reduction in Water Use and Utilization of the Unconfined Aquifer as a Reservoir

114. The Plan submitted by Subdistrict represents the first effort by the water users to utilize the authority for active management of the aquifers granted in SB 04-222 to go beyond the limitations of augmentation plans to achieve the "maximum flexibility" mentioned in *Fellhauer* while protecting the constitutional doctrine of prior appropriation.

115. The Plan regulates the use of the Unconfined Aquifer so as to maintain a sustainable water supply in the Subdistrict, taking into consideration daily, seasonal, and long-term demand for underground water, as required by section 37-92-501(4)(a)(I) by establishing a range of sustainability at minus 200,000 to minus 400,000 acre feet of storage as compared to the storage level in 1976, as referenced in Exhibit 28. See *Knox testimony*, October 30, 2008, and *Davey testimony*, October 29, 2008. The evidence supports the contention that a significant step towards aquifer sustainability can be achieved by the fallowing of previously irrigated land, and that it is estimated that fallowing up to 40,000 acres would result in both stabilizing and recovering the Unconfined Aquifer within the Subdistrict. See *Knox testimony*, October 30, 2008, and *Davey testimony*, October 29, 2008.

116. An aquifer may be sustained at various levels. If the water levels in the Unconfined Aquifer are too high, adverse impacts on the overlying lands can occur such as farm fields becoming too wet to permit farming or the accumulation of salts in the soil. On the other hand, if the aquifer is sustained at too low a level, as water levels in the aquifer decrease, pumping costs for groundwater withdrawals increase, some wells are deprived of water, and upward leakage from the Confined Aquifer increases reducing hydrostatic pressure in the Confined Aquifer. Here, the Plan requires the Subdistrict to restore the Unconfined Aquifer storage levels in the Subdistrict from their current levels to the higher levels of 200,000 to 400,000 acre feet below the 1976 level. *See Davey testimony, October 28, 2008.* Sustaining the Unconfined Aquifer within these parameters will result in an aquifer that is hydrologically sustainable, and beneficial for the agricultural practices within the Closed Basin. Utilizing the Unconfined Aquifer as a reservoir is efficient and an important way to ensure an adequate water supply in dry years. The use of the Unconfined Aquifer as a reservoir is statutorily acknowledged as a principle for management in Water Division No. 3. §37-92-501(4)(a)(II). The evidence is convincing that the levels specified in the Plan are reasonable and the Plan requires the Subdistrict to sustain the Unconfined Aquifer within that range.

117. The Plan seeks to achieve recovery and sustainability of the Unconfined Aquifer by reducing the number of acres irrigated within the Subdistrict. Mr. Davey performed a regression analysis to determine the number of acres that needed to be retired to have average inflow match average outflow (withdrawals) and thereby bring the demand on the Unconfined Aquifer into balance with the supply. *See generally Davey testimony, October 29, 2008.* Mr. Davey then increased the number of acres to be retired in order to have average inflows to the Unconfined Aquifer exceed average outflows (withdrawals) and thereby cause the aquifer to recover to the range of levels specified in the Plan. *Id.* Davey testimony. Mr. Davey based his analysis on historical data, his considerable experience, and his professional judgment regarding the hydrology of the Unconfined Aquifer. The Court finds Mr. Davey's analysis to be persuasive and further finds that there is no evidence before the Court to contradict this analysis. Although Objectors questioned Mr. Davey's methods and analysis, they presented no evidence or expert testimony that contradicts Mr. Davey's conclusions.

118. The Plan requires up to 40,000 acres to be retired within five years. Plan, at 15. The Court finds this timeframe to be reasonable. Further, the Plan allows up to 20 years for the Unconfined Aquifer to recover to the prescribed levels of storage. *Id.* at 14. The Court also finds this timeframe reasonable and finds no evidence in the record to the contrary. Obviously, nature will determine the hydrologic conditions which will affect the pace at which this may be accomplished.

119. In this Court's prior ruling in Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at 135, the Court stated: "The mandate for sustainability in SB 04-222 sets the framework for evaluation of existing as well as any new withdrawals as these issues are addressed."

120. Section 37-92-501(2)(e), C.R.S., states: "All rules and regulations shall have as their objective the optimum use of the water consistent with preservation of the priority system of water rights." The General Assembly determined that the circumstances in Water Division No. 3 required additional statutory direction.

...In regulating an aquifer or system of aquifers in Division No. 3, the state engineer shall apply the following principles:

- (I) Use of the confined and unconfined aquifers shall be regulated 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; Section 37-92-501(4)(a)(I), C.R.S.

121. Dr. Knox testified as to his understanding of SB-222 and its mandate of sustainability in 04CW24 as follows:

I'd define 'sustainability' as a prospective water management of natural resources, particularly in regard to groundwater aquifers, as a protection and management of the benefits enjoyed by current users, as well as exercising a form of stewardship to protect those benefits and uses for future generations.

122. In 04CW24, Dr. Knox unequivocally stated that in order to achieve sustainability, there will have to be a reduction in water use. Whatever validity there may be in some of the criticisms of the Plan, no one can ignore the fact that it has as a principle the reduction in actual water use and it seeks to achieve this reduction by way of a management plan intended to provide water users the tools to flexibly respond to varying conditions of the basin.

123. The need to act to manage the Unconfined Aquifer was conclusively demonstrated in 04CW24. For example, see State's Exhibit 11, Figure 1 in Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p. 143, illustrating the predicted long term state of the Unconfined Aquifer in the Closed Basin.

124. As this Court said in 04CW24, "If *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968), opened the curtain on 'the new drama of *maximum utilization* and how constitutionally that doctrine can be integrated into the law of *vested rights*,' the 1969 Water Rights and Determination Act would represent the 'second act' of administration and creative augmentation. SB 04-222 begins the 'third act' with a guiding principle that an optimum or maximum use must be sustainable."

125. Section 37-92-501(4)(a) and (b) provide the State Engineer with rather specific objectives and methods for management of the aquifers in the Rio Grande Basin including sustainability, utilization of the Unconfined Aquifer in the Closed Basin as a reservoir, assuring Rio Grande Compact Compliance and protection of senior surface water rights. Ending a worrisome question left from the first rules trial in Division No. 3, section 37-92-501(4)(b)(IV) also guarantees that owners of surface rights will not be required to use groundwater to fulfill their appropriation so long as they have a "reasonable means of surface diversion."

126. The Plan submitted by Subdistrict No. 1 is neither intended to be, nor could it be, a complete solution to the problems caused by mining the Confined and Unconfined Aquifers of the basin. Rather, the Plan is intended to be a management tool for the majority of the Unconfined Aquifer in the Closed Basin. The very concept of a subdistrict as described in section 37-48-108, C.R.S., is that a plan for management can be formulated for a discrete portion of the lands within the Rio Grande Water Conservation District based upon common problems and a solution tailored to the specific circumstances of that discrete portion. See Section 37-48-126 This is a logical step and part of a complete set of tools and solutions necessary to comply with the mandates of SB 04-222 "to integrate the appropriation, use, and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the use of all waters of the state." Section 37-92-102(1)(a), C.R.S. This step-by-step approach was specifically approved in *Simpson v. Cotton Creek Circles, LLC*, 181 P.3d 252, 263 (Colo. 2008). It is also reasonable, rational, and clearly related to the overall goal of sustainable aquifers in the basin. See Section 37-92-501(4)(a)(I).

127. To the extent that the Plan fails to adequately detail how it will act to protect the senior surface water rights, it fails on both statutory and constitutional grounds. But there should be no misunderstanding the fact that this kind of Plan is exactly what the legislature intended to authorize and that the statutory framework for such plans is entirely consistent with both the constitution and with the *Water Right Determination and Administration Act of 1969*, C.R.S. § 37-92-101, *et seq.*

C. The Requirements of Section 37-92-501(4)(a) and (b)

128. By the express provisions of section 37-92-501(4)(c), if a plan of water management is approved for the Subdistrict, the State Engineer does not have the authority to regulate or curtail well pumping for wells included within the Plan. If a plan of water management does not support the principles specified by the General Assembly, the plan of water management must be denied and the provisions of the 1969 Act will apply to use of tributary surface water rights and groundwater rights. Given the impending promulgation of rules and regulations for existing groundwater withdrawals, there is significant benefit to participation in a subdistrict.

129. Senior surface water rights are wary of the proposed subdistrict precisely because the wells in the subdistrict are removed from general administration under the forthcoming rules and regulations.

130. As already noted, pursuant to the provisions of C.R.S. § 37-92-501(4)(c), the Plan must meet the requirements of C.R.S. § 37-92-501(4)(a) which provide as follows:

(a) In addition to the provisions of subsection (2) of this section, when adopting rules governing the use of underground water in Division No. 3, and in recognition of the unique geologic and hydrologic conditions and the conjunctive use practices prevailing in Division No. 3, the state engineer shall have wide discretion to permit the continued use of underground water consistent with preventing material injury to senior surface water rights. Any reduction in underground water usage required by such rules shall be the minimum necessary to meet the standards of this subsection (4). In regulating an aquifer or system of aquifers in Division No. 3, the state engineer shall apply the following principles:

(I) Use of the confined and unconfined aquifers shall be regulated 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;

(II) 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 such fluctuations shall be allowed to continue;

(III) Fluctuations in the artesian pressure in the confined aquifer system have occurred and will continue to occur in response to climatic conditions, water supply, and water demands. Subject to subparagraph (IV) of this paragraph (a), such pressure fluctuations shall be allowed with 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 of 1978 through 2000, while maintaining average levels similar to those that occurred in 1978 through 2000.

(IV) Nothing in subparagraph (I) or (II) of this paragraph (a) shall be construed either to relieve wells from the obligation to replace injurious stream depletions in accordance with the rules adopted by the state engineer or to permit the expanded use of underground

water; and

(V) Underground water use shall not unreasonably interfere with the state's ability to fulfill its obligations under the Rio Grande compact, codified in article 66 of this title, with due regard for the right to accrue credits and debits under the compact.

(b) In adopting rules pursuant to paragraph (a) of this subsection (4), the state engineer shall:

(I) Recognize contractual arrangements among water users, water user associations, water conservancy districts, ground water management subdistricts, and the Rio Grande water conservation district, pursuant to which:

(A) Water is added to the stream system to assist in meeting the Rio Grande compact delivery schedules or to replace depletions to stream flows resulting from the use of underground water; or

(B) Subject to subparagraphs (I), (II), and (III) of paragraph (a) of this subsection (4), injury to senior surface water rights resulting from the use of underground water is remedied by means other than providing water to replace stream depletions.

(II) Establish criteria for the beginning and end of the Division No. 3 irrigation season for all irrigation water rights;

(III) Not recognize the reduction of water consumption by phreatophytes as a source of replacement water for new water uses or to replace existing depletions, or as a means to prevent injury from new water uses; and

(IV) Not require senior surface water right holders with reasonable means of surface diversions to rely on underground water to satisfy their appropriative water right.

131. Section 37-92-501(4)(a) and (b) provide specific direction to the State Engineer in the adoption of rules and regulations, and the incorporation of C.R.S. § 37-92-501(4)(a) and (b) in C.R.S. § 37-92-501(4)(c) requires the Plan of Water Management adopted by the Subdistrict and approved by the State Engineer to be consistent with C.R.S. § 37-92-501(4)(a) and (b).

132. What it means to "meet the requirements of paragraphs (a) and (b) of subsection (4)" was the subject of considerable discussion during the trial. The Court

does not agree with Objectors that the Plan of Water Management must fully satisfy all the principles set out in C.R.S. § 37-92-501(4)(a) and (b). To begin with, these sections specify what the State Engineer must do and the principles he/she must apply. The fact that the State Engineer has not adopted rules which establish criteria for the beginning and end of the irrigation season in Water Division No. 3 is not a basis to reject this Plan and it is not appropriate for the Subdistrict to address this or similar duties of the State Engineer. The Plan must "meet the requirements" of the statutes. In enacting rules and regulations and in preparation to do so, "the State Engineer shall have wide discretion to permit the continued use of underground water consistent with preventing material injury to senior surface water rights." There would be no point in allowing the formation of several regional and aquifer oriented subdistricts and in authorizing them to develop plans of water management if no plan could be approved unless in a single plan all the goals of the statute and all duties of the State Engineer are satisfied.

133. Section (4)(a) sets forth principles for the State Engineer to apply in regulating the aquifers in Water Division No. 3. For example, (4)(a)(I) requires the State Engineer to regulate the aquifers of the basin "so as to maintain a sustainable water supply in each aquifer system." A subdistrict focused on the Unconfined Aquifer of the Closed Basin encompasses only a portion of the basin and the Plan for Subdistrict 1 cannot and is not designed to regulate the entire basin or even the Confined Aquifer. This does not mean the Plan fails to meet the statutory requirement. The Plan is consistent with the maintenance of a sustainable water supply in each aquifer system, and the proposal of the Plan to reduce water consumption and recharge the Unconfined Aquifer to a level 200,000 to 400,000 acre-feet below 1976 levels is clearly a step toward achieving the principle set out in (4)(a)(I) and most specifically the principle in (4)(a)(II) which states the unconfined aquifers "serve as valuable underground reservoirs."

134. Similar objections were made to the State Engineer proposing rules governing new withdrawals from the Confined Aquifer without simultaneously enacting rules governing existing withdrawals from the Confined and Unconfined aquifers. The Supreme Court approved this Court's conclusion that SB 04-222 allows the State Engineer to proceed in steps to regulate the aquifers. The interrelationship of section 37-48-126 and section 37-92-501 would make no sense if a single unified and complete plan for both aquifers on a basin-wide basis was required to satisfy the statutory language. As the Supreme Court said:

The rules at issue regulate only *new* withdrawals from the confined aquifer. Opponent argues that by failing to regulate existing wells, the state engineer is abdicating his responsibility. To the extent that Opponent argues that the rules must fail because they regulate only new withdrawals, and fail to also regulate existing users, we reject their argument.

Opponent does not cite any statutory provisions that could be construed as requiring the rules to regulate both existing and new water

users of the confined aquifer. Indeed, SB 04-222 gives the state engineer “wide discretion to permit the continued use of underground water consistent with preventing material injury to senior surface water rights.” § 37-92-501(4)(a). In addition, we note that nothing in the rules precludes further regulation of existing wells. Thus, we find that the rules do not violate statutory authority by regulating only new water uses.

Simpson v. Cotton Creek Circles, LLC, 181 P.3d 252, 263 (Colo. 2008)

135. Section 37-92-501(4)(a) also references section 37-92-501(2) and states that the provisions of said subsection (2) of this section must also be considered and applied to the plan of water management. Section 37-92-501(2), C.R.S., provides as follows:

(2) In the adoption of such rules and regulations the state engineer shall be guided by the principles set forth in section 37-92-502(2) and by the following:

(a) Recognition that each water basin is a separate entity, that aquifers are geologic entities and different aquifers possess different hydraulic characteristics even though such aquifers be on the same river in the same division, and that rules applicable to one type of aquifer need not apply to another type. All other factors being the same, aquifers of the same type in the same water division shall be governed by the same rules regardless of where situate.

(b) Consideration of all the particular qualities and conditions of the aquifer;

(c) Consideration of 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;

(d) Recognition that one owner may own both surface and subsurface water rights;

(e) That all rules and regulations shall have as their objective the optimum use of water consistent with preservation of the priority system of water rights;

(f) That rules and regulations may be amended or changed from time to time within the same aquifer dependent upon the then existing and forecast conditions, facts and conditions as then known, and as knowledge of the aquifer is enlarged by operating experience;

(g) That time being of the essence, rules and regulations and changes thereof proposed for an aquifer shall be published once in the county or counties where such aquifer exists not less than sixty days prior to the proposed adoption of such rules and regulations, and copies shall be mailed by the water clerk of the division to all persons who are on the mailing list of such division. Copies of such proposed regulations shall be available without charge to any owner of a water right at the office of the water clerk.

136. The Court finds the Plan treats the Unconfined Aquifer as a valuable underground water storage reservoir and, while seeking to recover the water levels in the Unconfined Aquifer, allows water levels to fluctuate in the future in response to climatic conditions, water supply and water demand. *See Knox testimony, October 30, 2008.* These aims of the Plan are consistent with and flow from the “wide discretion of the State Engineer when adopting rules governing use of the underground water in Division No. 3” §37-92-501(4)(a), C.R.S.

137. Costilla Ditch suggested that the fee structure did not accomplish a reduction of pumping in drought years.³ This argument, however, ignores section 37-92-501(4)(a)(II) which specifically recognizes that the Unconfined Aquifer(s) serve as valuable storage reservoirs with water levels that fluctuate in response to climate conditions, water supply, and water demands, and that such fluctuations shall be allowed to continue. The statute mandates the use of the aquifer as an underground reservoir. The point of a management plan is to manage so that water use is optimized and to ensure water when it is needed. Agricultural water users are especially dependent upon underground water during a drought. Thus, in a drought the legislature seeks to ensure both water for the senior surface rights and to allow wells to pump to optimize water use. Managing the unconfined aquifer as a reservoir is a means to accomplish this and the Plan is clear in its intent to do so. This is consistent with and meets the requirements of Section 37-92-501(2).

138. The Plan is also consistent with the requirement for rules and regulations promulgated by the State Engineer “(t)hat all rules and regulations shall have as their objective the optimum use of water consistent with preservation of the priority system of water rights.” Section 37-92-501(2)(e).

139. The evidence shows the Plan recognizes the unique geologic and hydrologic conditions and the conjunctive use practices in Water Division No. 3 and is conceptually compatible with the “wide discretion” of the State Engineer to permit the continued use of underground water consistent with preventing material injury to senior surface rights as required by 37-92-501(4)(a). *See Knox testimony, October 30, 2008.*

³Since Costilla is not a party to 06CV64, the Court need not consider its concerns about the District’s fee structure. The Court, however, will address the argument.

140. Objectors criticize the Plan for failing to address maintenance of the artesian pressure in the Confined Aquifer as required by (4)(a)(III). The Plan, however, is aimed at the Unconfined Aquifer in the Closed Basin and the provisions of the Plan are not inconsistent with the principle governing maintenance of the Confined Aquifer pressure. Furthermore, it was clear in the testimony that a separate subdistrict for Confined Aquifer wells or rules and regulations governing these wells will be necessary to manage the Confined Aquifer. As noted above, it would be unreasonable to require a Plan for this Subdistrict to regulate the Confined Aquifer.

141. The decision to form a subdistrict for the Unconfined Aquifer primarily in the Closed Basin is certainly reasonable and bears a rational relationship to the legitimate state objectives set forth in the statutory framework before the Court. The Unconfined Aquifer underlying the Subdistrict is primarily in the Closed Basin and is clearly different than other parts of the Unconfined Aquifer in the San Luis Valley given that the ground water in the Unconfined Aquifer of the Closed Basin flows to the sump area near San Luis Lakes rather than flowing to the Rio Grande. Ample evidence was presented to the Court to support this conclusion.

142. As noted above, the statute allowing subdistricts would make no sense if it required a subdistrict to try and fully address all the principles in (4)(a). That is why the principles are directed to the State Engineer. What a subdistrict plan must do is support those principles and not be inconsistent with them. Because of the unique nature of the water use and conjunctive use practices in the Unconfined Aquifer underlying the Subdistrict, "all other factors" as referenced in section 37-92-501(2)(a) are not the same, and it is absolutely appropriate to subject this part of the Unconfined Aquifer to a plan of water management that may be different from that in another part of the Unconfined Aquifer in the Closed Basin, or any other aquifers in the San Luis Valley.

143. An increase in storage in the Unconfined Aquifer in the Closed Basin is beneficial to the artesian pressure in the Confined Aquifer because there will be less upward leakage into the Unconfined Aquifer as that aquifer fills. While this leakage is relatively small on a unit basis, "on a regional basis this leakage constitutes a large volume of water." See Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p. 65.

144. The Administrative Record shows that the water users debated whether or not to allow Confined Aquifer wells to be included in the Subdistrict Plan. Ultimately, they are included but with an option to get out. In the absence of rules and regulations for existing wells in the Confined Aquifer and/or a subdistrict for Confined Aquifer wells, this inclusion is consistent with the provisions of (4)(a). An Amended Plan, however, should require that if a subdistrict is created for all Confined Aquifer wells, confined aquifer wells participating in Subdistrict 1 should change their participation to the Confined Aquifer subdistrict or comply with any rules and regulations enacted for such wells. The Legislature has made maintenance of artesian pressure in the Confined Aquifer within the range that occurred during the period 1978 through 2000 a central

principle of a sustainable aquifer system in Water Division No. 3. §37-92-501(4)(a)(III), C.R.S. Allowing confined wells to participate in this and other subdistricts in the absence of rules and regulations or a subdistrict focused on the Confined Aquifer serves the statutory purposes imperfectly. Once there is a specialized subdistrict for existing confined wells, continued participation in a subdistrict focused on the Unconfined Aquifer in the Closed Basin would be inconsistent with the need to strive for optimal use.⁴

145. This Court sees the interrelationship of this proposed Plan, likely proposals for plans from other subdistricts, the Rules Governing New Withdrawals from the Confined Aquifer, Rules Governing the Measurement of Ground Water Diversions, the other aspects of SB 04-222, and other steps taken and yet to be taken by the State Engineer, as directly intended to “integrate the appropriation, use, and administration of underground water tributary to a stream with the use of surface water in such a way as to maximize the beneficial use of all the waters of the state.” Section 37-92-102(1)(a), C.R.S. See Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p. 189.

146. Nothing in the Plan relieves wells from the obligation to remedy injurious depletions, and the administration of the Plan requires that injurious depletions from pumping by Subdistrict wells be replaced in time, amount and location. *Id. Knox testimony*. The evidence established that the proposed reduction in groundwater use is the minimum amount necessary to satisfy section 37-92-501(4). *Id. Knox testimony* (referring to the Plan at Part III (C)(6)).

147. The failure to detail in the Plan the constitutional priority of replacing the injurious depletions to senior surface rights and the absence in the Plan of any reference to how the calculations will be made are addressed below. But the Court concludes that conceptually the Plan is reasonable and meets the requirements of the governing statutes.

D. The Sufficiency of the Administrative Record

148. The District and the Subdistrict prepared and provided to all parties in these consolidated cases an Administrative Record containing all non-privileged documents relating to the preparation and approval of the Plan which are in the custody of the District or Subdistrict, including a privilege log describing any privileged material withheld. The Administrative Record is reflected in Exhibits AR 1 – AR 207. Further, the District and Subdistrict compiled and disclosed to all parties all non-privileged documents in the custody of the District or Subdistrict that related to the operation of the Subdistrict but that were not contained in the Administrative Record as they did not

⁴ The Administrative Record shows concerns by water users who believe their wells draw from both the Confined Aquifer and the Unconfined Aquifers or whose source is unclear. The State Engineer may wish to address this issue in his rulemaking.

pertain specifically to the preparation and approval of the Plan, including e-mail correspondence. See *Vandiver testimony, October 28, 2008*.

149. The Court has reviewed the Administrative Record and finds that it constitutes a comprehensive record of the material maintained by the District and Subdistrict pertaining to the development of the Plan and the operation of the Subdistrict. It further contains a complete record of the material that the board of managers and District board of directors considered in preparing and adopting the Plan. Finally, this Administrative Record is adequate to review the basis underlying the actions of the Subdistrict's board of managers and the District's board of directors in preparing and adopting the Plan in Case No. 06CV64.

E. Objections in Case No. 06CV64

150. At the time of trial, the only remaining objector to the Plan as the official plan of the Subdistrict was V.W. Ellithorpe. His objections are subject to the standard of review governing Case No. 06CV64 as set forth above. However, aspects of the challenges to the approval of the Plan by the State Engineer overlap with the questions before the Court in 06CV64. The Court now turns to the specific objection to the Plan posed in 2006CV64 other than lack of sufficient detail and failure to address constitutional priority.

151. Mr. Ellithorpe's objections can be summarized as follows: 1) that the Plan's provisions burden water users and owners with rules that are contrary to state law; 2) that the fee structure set forth in the Plan is arbitrary and not equitable; 3) that the operation of the Subdistrict's Plan will burden senior water rights owners with additional fees and expenses; 4) that the Subdistrict fails to include a senior water rights owner on the board of managers and that the District denied such membership; 5) that the Subdistrict fails to address water taken from the aquifer without augmentation water; 6) that the Subdistrict failed to properly notify interested parties of the October 24, 2007 public meeting and failed to explain the nature of the proposed Plan of Water Management; and, 7) that the Subdistrict and District boards unfairly took advantage of senior surface water rights owners by developing and implementing this Plan.

152. The objection that the Plan burdens water users and owners "with rules contrary to existing laws of the State Statutes" is understood by the Court as an assertion that the operation of the Plan impermissibly circumvents the prior appropriation system in Colorado. This concern is paramount in the minds of other objectors regarding the State Engineer's approval of the Plan in Case No. 07CW52. It is addressed in Section F of this opinion related to the lack of detail and priority in the Plan.

a. Subdistrict Fundraising Mechanisms and the Imposition of Subdistrict Fees

153. Mr. Ellithorpe objected that the fee structure as set forth in the Plan is arbitrary and unreasonable. Objectors in 07CW52 also protested that the fees were insufficient to induce farmers to remove land from production. The Administrative Record shows that numerous others thought the fee was too high and punitive against well owners. The Plan states that the Subdistrict intends to raise revenue to:

generate sufficient revenues to fund the operations of the Subdistrict and to permit the retirement of sufficient acres within the Subdistrict to achieve a sustainable water supply in the Unconfined Aquifer with due regard for the daily, seasonal and longer term demands on the aquifer and to protect senior surface water rights and avoid interference with Colorado's obligations under the Rio Grande Compact.

Plan, at 9. Revenues will be generated through the imposition of an Annual Fee paid by landowners within the Subdistrict who utilize groundwater for all or part of their irrigation water supply. *Id.* at 4. The three components of the Annual Fee will be evaluated and may be adjusted on an annual basis by the board of managers for the Subdistrict within the specified dollar ranges set out in the Plan. *Id.* at 17.

154. When the District filed a petition seeking formation of the Subdistrict in conformance with section 37-48-123, the petition set forth a general description of the methods proposed to finance its proposed plan. *See Order Establishing Special Improvement District No. 1*, at 2. ("The testimony showed that the 'proposed plan' fairly represented the potential actions the district will be empowered to take, and a range of financial cost to the included property.") Section 37-48-123(2)(e)(D) permits a Subdistrict to be funded through "the imposition of reasonable service charges or user fees by the district for the conferring by the subdistrict of any benefits upon or providing any service to any person or property." Section 37-48-126(1) mandates that a plan of water management must include the "estimated cost of each principal part of such plan."

155. The three components of the Annual Fee have a rational relationship to legitimate state objectives and are not unreasonable. The Subdistrict's determination of the fee structure contemplated by the Annual Fee as described in the Plan is not arbitrary. The Annual Fee does not violate constitutional or statutory law, and the Subdistrict did not exceed its authority in setting the parameters of these fees.

156. It is also evident from the Administrative Record that the Subdistrict exhaustively considered the amount of revenue that it might need to generate in order to operate the Plan. *See AR 90*. In setting the fee structure, the board of managers considered detailed spreadsheets prepared by Allen Davey, the consulting engineer for the Subdistrict, in order to analyze the amount of revenue that the Subdistrict, as a whole, could raise in assessing its Annual Fee. *AR 55 – 57; 95 – 96; See also Davey testimony, October 29, 2008*. Moreover, the board of managers analyzed an individual

producer's Farm Unit to determine the impact of imposing the Subdistrict's Annual Fee. AR 60, 61; *Davey testimony, October 29, 2008*. In its consideration of public comments regarding the Plan, the board of managers reviewed objections from individuals who challenged the sufficiency of the dollar values set forth in the Annual Fee. See e.g. AR 109. The board of manager's development of the fee structure is evidenced in the successive versions of the Plan of Water Management. AR 169 – 195. Even at its earliest meetings, the board of managers considered the amount of revenue that operating the Subdistrict on an annual basis would require and considered preliminary operational budget numbers. AR 76; AR 32. The Court holds that an adequate basis exists in the Administrative Record for the structure and parameters of the Subdistrict fees, that the Annual Fee is rationally related to legitimate state objectives, and that there is no evidence in the Administrative Record to show the Board of Managers acted arbitrarily or unreasonably in setting the fee structure and parameters.

157. Assessing these fees against landowners who use groundwater for all or part of their irrigation water supply has a rational relationship to the goals and objectives of the Plan and the mandates of the statutory framework before the Court. Further, the statutes give a properly formed subdistrict authority to raise revenue to finance its plans. See § 37-48-108-123(2)(e). The Court will not substitute its judgment for that of the Subdistrict or District in setting the parameters of these fees absent clear evidence that the action taken by the Subdistrict was unreasonable or arbitrary. See *Order Re Standard of Review, Burden of Proof and Order of Presentation at Trial*, at 16; *Colorado Ground Water Comm'n v. Eagle Peak Farms, Ltd.*, 919 P.2d 212, 217 (Colo. 1996) (finding that courts are not permitted to substitute their judgment for that of the agency). There is no evidence before the Court supporting such a conclusion, and consequently, the Court rejects the objection that the fee structure set forth in the Plan is arbitrary or inequitable. See also *Colorado Land Use Comm'n v. Board of County Comm'rs*, 199 Colo. 7, 13, 604 P.2d 32, 35 (1979) ("in reviewing a board of county commissioner's budgeting and taxing actions, which are clearly legislative, a trial court 'should give great deference to the board's discretionary acts and should apply an abuse of discretion standard.'") (internal citations omitted).

b. Membership of Board of Managers

158. Mr. Ellithorpe also objects to the Plan on the basis that the District denied a "senior water rights owner" a place on the board of managers of the Subdistrict. Section 37-48-123 addresses the procedure by which a subdistrict is established, and subsection (2)(g) of that statute provides that:

[w]here a board of managers is requested, the petition shall set forth in detail the qualifications, manner of selection, and terms of office of board members and may also define, in terms consistent with the requirements of this article, the scope of the responsibility of the board of managers and the functional relationship between such board and the board of directors of the district.

159. The statute does not specify what the qualifications of board members must be. Accordingly, the composition of the board of managers is left to the discretion of the District in crafting its petition. In this case, the petition seeking formation of this Subdistrict set forth the qualifications, manner of selection, and terms of office for members of the board of managers. The Court approved that petition. The Administrative Record establishes that the District board of directors appointed individuals to the board of managers in compliance with the procedures and requirements set forth in the petition seeking formation of the Subdistrict and approved by this Court. Specifically, the District board of directors nominated the board of managers from a slate of candidates provided by the representative ditch companies, irrigation districts and groundwater users. The record of the appointments and nominations is contained in AR 17. Further, the testimony at trial established that the representatives on the board of managers represented the four major canal companies and one irrigation district that import water into the Subdistrict and, therefore, represent senior surface water right owners in the Closed Basin. See *Kopfman testimony, October 28, 2008*.

160. Ultimately, the Court's approval of the petition seeking formation of the Subdistrict is a binding order that "finally and conclusively establish(es) the regular organization of said subdistrict against all persons." § 37-48-125(5). Accordingly, any objection raised to the qualifications of the members of the Subdistrict's board of managers is not properly raised in this proceeding because it seeks to challenge a previous final and conclusive decision of this Court, e.g. *Pomeroy v. Waitkus*, 517 P.2d 396, 399 (Colo. 1973) (The doctrine of *res judicata* "bars relitigation not only of all issues actually decided, but of all issues that might have been decided."); *City and County of Denver v. Block 173 Assoc.*, 814 P.2d 824, 830 (Colo. 1991). In any event, the Court concludes that selecting the board of managers from a slate of candidates provided by the representative ditch companies was not unreasonable to represent the interest of senior surface water rights owners. Finally, to the extent that Mr. Ellithorpe objects to the Plan on the basis that the Subdistrict's board of managers should have an individual who does not own any groundwater rights in the Subdistrict, this objection is also not properly raise in this proceeding. There is no evidence before the Court that would mandate such a landowner's inclusion on the board of managers. Accordingly, the Court finds the makeup of the board of managers does not violate statutory or constitutional principles and is not arbitrary or capricious.

c. Challenge to Subdistrict Boundaries

161. Mr. Ellithorpe objects to the Plan because the "Subdistrict does not include thousands of acre feet of water taken from aquifer that does not have augmentation water as required by State law and nailed by the Supreme Court." The court interprets this to be a challenge to the boundaries of the Subdistrict and its alleged failure to include all lands in the Closed Basin with wells that do not have plans for augmentation. Similar concerns about the boundaries of the Subdistrict were raised in the 07CW52 case. The suggestion that a subdistrict of less than the entire basin and both aquifers cannot be consistent with the provisions of section 37-92-501(4) is discussed and rejected in an earlier section of this opinion. Sections 37-48-123 to 126

clearly anticipate that within the Rio Grande Water Conservation District, which is less than all of the Rio Grande Basin, there will be several, if not many, subdistricts which focus on the common needs of a specific area within the RGWCD. Wells not participating in a subdistrict will be subject to the forthcoming rules and regulations which will surely require those wells to obtain court approval of an augmentation plan in order to continue pumping.

162. In the context of 06CV64, this is a challenge that could have and should have been raised in the initial proceedings for approval of the formation of the Subdistrict. Having failed to raise it at that time, it is now barred and cannot be relitigated here, *e.g. Pomeroy v. Waitkus, supra; City and County of Denver v. Block 173 Assoc., supra*. In any event, as previously discussed, the goals and objectives of this subdistrict are rationally related to the purposes of the statutes and constitutional principles previously described.

d. Challenge to Notice

163. Mr. Ellithorpe objects to the Plan on the basis that the Subdistrict failed to properly notify water rights owners and interested parties about the nature of the Plan and failed to notify water users of its October 24, 2007, public meeting.

164. The Administrative Record and the evidence introduced at trial in this case conclusively establishes that the board of managers complied with the statutory requirements to notify the public about the preparation of the Plan. Every meeting of the board of managers was publicly noticed and open to the public. See AR 103 – 104. At every meeting of the board of managers, public comment was invited and encouraged. See AR 1; AR 27 – 45. Lynn Kopfman testified that members of the board of managers also sought public input from their neighbors in their development of the Plan. See *Kopfman testimony, October 27, 2008*. Further, during the development of the Plan, the board of managers scheduled a public meeting for April 3, 2007, in a conference room at a local hotel in order to present and discuss with all interested parties a draft plan of water management. *Id. Kopfman testimony*. In order to publicize this meeting, the board of managers issued a press release to local media outlining the purpose of the meeting. See AR 201. An article appeared in the Valley Courier newspaper describing this public meeting. See AR 200. Copies of the draft plan that the board of managers intended to discuss at this meeting were widely available throughout the Valley. See *id.*

165. Beyond the actions taken by the board of managers to give notice to the public and to invite community participation in the development of the Plan described above, the board of managers held the required public meetings in conformance with section 37-48-126(3)(a). That section requires that:

Upon the completion of such official plan, the board of directors shall cause notice thereof to be given by publication in each county in which

said district may be located, in whole or in part, and shall permit the inspection thereof at the office of the district by all persons interested. Said notice shall fix the time and place for the hearing of all objections to said plan not less than twenty days or more than thirty days after the last publication of such notice. All objections to said plan shall be in writing and filed with the manager or secretary of the district and its office prior to the date established for the hearing.

166. In this case, the Subdistrict held two public hearings regarding the Plan pursuant to section 37-48-126(3)(a). The first public hearing took place on June 26, 2007, between twenty and thirty days after the last day of publication of the notice. See AR 205. Written notice of the time and location of the hearing was made in publications in Saguache County, Mineral County, Conejos County, Rio Grande County and Alamosa County. *Id.* This published notice also stated that the Plan was available for review at the office of the District, that written comments needed to be filed before the hearing, and set out parameters for oral comment at the hearing. *Id.*

167. The second public hearing on the District's approval of the Plan occurred after Deputy State Engineer Dr. Kenneth Knox, acting on behalf of the Office of the State Engineer, and with explicit authority from the Executive Director of the Department of Natural Resources, approved the Plan on September 14, 2007. See AR 53. After receiving this approval, and in conformance with the provisions of section 37-48-126(2) and (3), the District published notice of its continued public hearing on objections to the Plan to be held on October 24, 2007. As with the June 26, 2007 hearing, written notice of the hearing's time, location, procedure for filing written comments with the District and procedures for the hearing was published in newspapers in Saguache County, Mineral County, Conejos County, Rio Grande County and Alamosa County. The hearing took place between twenty and thirty days after the date of the last publication. See AR 205. The Court therefore concludes that there is no merit to Mr. Ellithorpe's objection that the public was not notified of the October 24, 2007 public meeting.

168. In reviewing the transcripts of these public hearings, contained in AR 206 and 207, the Court finds that the hearings were conducted in a fair, open and public manner, with opportunity for all parties to make public comments about the Plan. The evidence in the Administrative Record supports the Court's ruling that the District complied with the provisions of section 37-48-126 in scheduling, providing public notice of, and conducting these public hearings. Further, the testimony of Mr. Lynn Kopfman and Mr. Steve Vandiver detailing the commendable efforts that the Subdistrict made in order to notify interested people of these two public hearings and of the progress of the Subdistrict evidences the Subdistrict's consistent and dedicated efforts to keep interested parties and landowners involved. See *e.g. Kopfman testimony, October 27, 2008*, and *Vandiver testimony, October 28, 2008*. Accordingly, the Court rejects Mr. Ellithorpe's assertion that the Subdistrict or the District failed to adequately notify interested parties and landowners about the nature of the Plan and the statutorily required public hearings.

e. Claim that the Subdistrict Disadvantages Senior Surface Water Rights

169. There is no evidence of any malicious or discriminatory intent, in action or result, by the board of managers or the District's board of directors in developing and approving the Plan as the official plan of the Subdistrict. To the contrary, the board of managers and the District board of directors solicited and considered input from water users across the Valley. See AR 105 – 168. The board of managers dedicated more than two years of volunteer time to educate themselves about a complicated problem, a complicated hydrologic system and a complicated method of financing and accounting to develop a comprehensive Plan that is before this Court. The Court rejects wholeheartedly the notion that either the board of managers or the District's board of directors developed and approved this Plan with any malevolent intent to take advantage of senior water rights owners, elderly or otherwise.

F. INADEQUACY OF THE PLAN UNDER SECTION 37-48-126(2)

170. The board of managers and their predecessors, all of whom are volunteers, worked very hard to develop a plan which directly confronts the problems resulting from overappropriation and drought in this basin and, in particular, for water users in the Closed Basin. Their job was made more difficult because they embarked on the first effort to implement a new statute and did so without the benefit of any prior interpretation or application of this unique statute. They worked out a complex financial plan to reduce groundwater use and retire irrigated lands. As discussed in an earlier section, this aspect of the Plan materially promotes the sustainability of the Unconfined Aquifer in the Subdistrict.

171. The Court previously deferred ruling on constitutional objections until the close of evidence. *See Amended Order Denying Motion for Summary Judgment, Motion to Remand, and Deferring Ruling on Alspaugh Constitutional Challenge* (October 14, 2008). Given the decision to refer the Plan back to the Subdistrict board of managers, the Court cannot and should not attempt to address all the constitutional challenges to the Plan raised by Objectors since the amended plan may address some or all of those objections and the parties will undoubtedly file various amended pleadings in 07CW52 as well as 06CV64.

172. While the Court has found the Plan conceptually compatible with SB 04-222 and with the constitutional principles governing Colorado water law, the Court also concludes that this Plan should be referred back to the board of managers for further consideration and amendment because it lacks detail, grants discretion with no guidance, fails to acknowledge the replacement of injurious depletions as a priority and simply is not a "comprehensive and detailed plan" §37-48-126(2), C.R.S.

a. Absence of Constitutional Priority

173. As already discussed, the Plan states clearly that it will meet the requirements of sections 37-92-502(2), 37-92-501(4)(a)(IV) and the Colorado Constitution that require the replacement of injurious depletions to senior surface water rights. The intent of the Plan is that the proposed reduction in groundwater use is the minimum amount necessary to manage the Unconfined Aquifer in a sustainable way and satisfy all aspects of section 37-92-501(4) including remedy of injurious depletions. Plan at Part III (C)(6). Nothing contained in the Plan purports to relieve well owners from the obligation to remedy injurious depletions. However, how it will accomplish this is not contained in the Plan.

174. This Court has previously found that SB 04-222 explores and clarifies the "policy of maximum flexibility that also protected the constitutional doctrine of prior appropriation," quoting *Empire Lodge Homeowners' Ass'n v. Moyer*, 39 P.3d 1139, 1150 (Colo. 2001). "SB 04-222 allows the State Engineer and water users to seek creative solutions to the problems of overappropriation in order to protect senior surface and groundwater rights and the Rio Grande Compact obligation." "SB 04-222 seeks to

protect senior rights and allow the full economic development of the water resources in the Rio Grande Basin in a way that is sustainable for future generations." Findings of Fact, Conclusion of Law, Judgment and Decree, Case No. 04CW24, at p. 165.

175. The Subdistrict Plan has as its objective the optimum use of water consistent with the preservation of the priority system of water rights, as required by section 37-92-501(2)(e). The Plan promises to replace injurious stream depletions from groundwater withdrawals by Subdistrict wells. These aims are entirely consistent with statutory and constitutional law in this state.

176. Nevertheless, the Acequia Objectors suggest that "depriving senior water right owners on the pretext that the Subdistrict or the State Engineer will arbitrarily determine appropriate protections, violates due process in Colorado." *Brief in Support of Motion for Summary Judgment*, at 34.

177. Moreover, all Objectors assert that the Plan is vague and does not contain sufficient detail to assure compliance with the statutory requirements, and that the Plan purports to vest in the Subdistrict and the State Engineer the discretion to define terms and conditions, if any, for operation of the Plan. For example, the Plan does not inventory or reference an inventory of the number or location of the Subdistrict Wells.

178. The State and Division Engineers attempted to address these concerns by asserting that if the Subdistrict fails to replace injurious depletions caused by Subdistrict well pumping, they will invoke the retained jurisdiction of the Court to cancel the Plan and eliminate the Subdistrict members' relief from compliance with rules and regulations. *Trial Testimony (Wolfe) and (Sullivan)*. Deputy State Engineer Mike Sullivan testified that the Division Engineer will require the Subdistrict to remedy the injurious depletions. (Mr. Sullivan was appointed Deputy State Engineer on September 30, 2008.)

179. If the Court were to cancel a subdistrict plan, Mr. Wolfe testified, "...I would have to evaluate my authority at that time based on existing laws and authority given to me at that time about what the next steps would be." *Transcript (Wolfe) October 31, 2008*. At present there are no rules and regulations for the existing wells in the unconfined and confined aquifers. The State Engineer believes, and has testified before this Court on several occasions, that he may not curtail pumping which causes injurious depletions to senior water rights without rules and regulations. See, *Fellhauer v. People*, 167 Colo. 320, 447 P.2d 986 (1968). *Transcript (Sullivan) November 3, 2008*: see also *Findings of Fact, Conclusions of Law, Judgment and Decree*, Case No. 04CW24, ¶ 534.

180. Mr. Wolfe's testimony indicated a reticence to predict future action by the State Engineer without a clear understanding of the actual dispute. This was not reassuring to Objectors present; but in the context of the ongoing process to adopt rules and regulations, the Court did not and does not question the intent of the State Engineer

to assure compliance with the duty to replace injurious depletions to the senior surface water rights.

181. Mr. Wolfe, testified he anticipates promulgating rules and regulations for Water Division No. 3 well administration in 2009 and that those rules would require curtailment of wells within the Subdistrict in the absence of an approved groundwater management plan under section 37-92-501(IV)(c) . If there are no rules and regulations to address injurious depletions, even a court order cancelling the Plan as failed would not provide any remedy to the senior water rights since they would be back in the same position they are today.

182. This circumstance is not the fault of the Subdistrict or the RGWCD, but it does mean that the Plan must be carefully scrutinized to ensure the Plan contains within itself procedural and substantive provisions which give meaning to the promise to remedy injurious depletions.

183. The Objectors expressed an additional concern over the treatment of lagged depletions in the Plan. However, Dr. Knox specifically testified lagged depletions do occur, and that the RGDSS groundwater model "include[s] those past depletions in its computation" of depletions. *Transcript (Knox) October 30, 2008*. We live in an imperfect world and the calculation of the model and the engineers will over- and/or under-predict at times, requiring adjustments during an irrigation season and at times in the subsequent year. In a basin this large and complex, understanding and addressing lagged depletions is important to management of the aquifers in a sustainable way.

184. The testimony of Dr. Knox and Mr. Sullivan expressed quite clearly that the State Engineer agrees that lagged depletions must be remedied:

In each subsequent year, the Subdistrict shall have to remedy the injurious depletions predicted to occur that year, **as well as all lagged depletions occurring that year**, in time (on a monthly timestep) location and amount. If the Subdistrict is unable to do so, I will not allow the members of the Subdistrict to withdraw ground water per properly promulgated rules.

Exhibit 37.

185. The Plan is consistent with this as it promises "to replace any depletions calculated to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells."

Plan, pg. 12 [Bold emphasis added].

186. The Plan asserts that the various activities proposed by the Plan “may” be undertaken. There is no assurance that any particular term proposed by the Plan will actually be implemented. Important among the activities the Subdistrict may undertake is to “purchase or obtain existing surface water rights and/or storage rights to be used as replacement water for any surface water right determined to have been deprived of water, in priority.” Plan, at 13.

187. The problems with the Plan are not its goals or proposed activities. The problems lie in the complete lack of details for implementation and administration of the replacement of injurious depletions and lack of recognition that the replacement of injurious depletions is a priority. The Plan ambitiously sets foot in new territory. Flexibility in undertaking the approaches outlined is important and necessary. The funding stream will become clearer over time, and so some caution in commitment is understandable. At the same time, the reference to economic viability, as determined by the Subdistrict⁵, makes the senior water right owners question whether actions or inaction of the Subdistrict will deny the seniors the replacement of injurious depletions promised and constitutionally required.

188. The requirement of complete replacement of injurious depletions to senior surface water rights is a prerequisite for court approval and continued viability of any plan of water management that seeks the benefits of exemption from regulation, and the Plan fails to recognize this obligation in unambiguous terms.

189. Any Amended Plan must be clear that whatever financial circumstances may ensue, unless there is replacement of injurious depletions as found by the RGDSS groundwater model, the Plan fails and participants in the Plan cannot expect to claim the benefit of exemption from curtailment by the State Engineer pursuant to section 37-92-501(4)(c).

b. Lack of “Comprehensive Detailed Plan”

190. Although the Plan does not contain detail about the operation of the Subdistrict, the Supporters testified how they envisioned the Plan would operate. They also indicated that the Subdistrict would enact its own regulations to govern the daily operation of the Subdistrict. The provisions of section 37-48-112(2) grant the board of managers authority to adopt “operational” rules and regulations with the sole requirement that any such rules and regulations be approved by the District’s board of directors.⁶ However, this ability to enact operational rules does not mean that the Plan can be devoid of detail. After all, the statute speaks of a “comprehensive detailed plan.”

⁵ Plan, p.11

⁶ A challenge to such operational rules and regulations may be heard by the District Court under its original and exclusive jurisdiction over lands and property included or affected by the Subdistrict under section 37-48-124(2) or under the Water Court’s retained jurisdiction “over the water management plan for the purpose of ensuring the plan is operated, and injury is prevented, in conformity with the terms of the court’s decree approving the water management plan.” § 37-92-501(4)(c).

191. Supporters argued that they cannot provide details of the operation of the Plan itself because until the Plan is approved and the Subdistrict has a stream of revenue, it will not be able to identify the sources of substitute supply available to replace injurious depletions or the contractual arrangements which will compensate water rights owners by other means.

192. For the Plan to operate, the Subdistrict must raise money to implement its provisions. The Subdistrict has chosen to raise funds by assessing fees in the manner described in the Plan. Such fees are lawful under sections 37-48-105(n) and 37-48-123(2)(c)(I)(O), and are collected by the county treasurers in the manner described in section 37-48-148. For the Subdistrict to be able to assess and collect its Annual Fee, the Court must "approve the plan as the official plan of the subdistrict" pursuant to section 37-48-126(4). The Subdistrict can execute its official plan only after it is approved by the Court. See § 37-48-127, C.R.S. Ultimately, until the Plan of Water Management is approved as the official plan of the Subdistrict in Case No. 06CV64, the Subdistrict does not have the source of funds it needs to implement the Plan. The revenue generated by the Annual Fee is needed to advance many purposes under the Plan including: payment of administrative costs to operate the Plan, funds to buy or lease water rights to replace stream depletions, and the provision of matching funds for cost-sharing for land and water conservation programs such as CREP.

193. While the Court understands the dilemma the Subdistrict faces, the Court also believes that either the Plan or rules and regulations of the State Engineer must contain sufficient detail to allow the Court to find that both procedurally and substantively the Plan will operate as intended to prevent injury to senior water users, to prevent injury to Compact administration and to provide procedural protections for all affected parties.

194. In the absence of either rules or detail in the Plan itself, even the testimony of the Supporters revealed substantial uncertainty regarding actions to be taken by the Subdistrict and the State Engineer under the terms of the Plan.

195. Mr. Sowards, Mr. Ellithorpe, Mr. Adkins and Mr. Ramstetter testified that they could not determine from the Plan the terms and conditions on which the Plan will operate. Mr. Kopfman testified that the terms and conditions for operation of the Plan would be determined by the board of managers and the State Engineer in the future.

196. The Plan does not specify, and no rules and regulations control: (1) a procedural timeframe and the methodology to be used to determine the depletions "calculated" to occur to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells; (2) a procedural timeframe or the methodology to actually replace the depletions to the Rio Grande and its tributaries resulting from the operation of Subdistrict Wells; or (3) a timeframe for annual review and calculations regarding the past irrigation season and procedures for addressing under- or over-delivery.⁷

⁷ The Plan does provide in general terms for an annual accounting as follows:

197. The Court has already suggested that rules and regulations by the State Engineer providing a framework for all subdistricts would be desirable. Such rules could set out the timelines for compiling information, the specifics of the information which must be compiled, the methods of public disclosure of that information, the calculation of predicted injurious depletions and the methods of remedying any injurious depletions predicted in time, location and amount. Such rules could also establish a process for presenting to the State Engineer comments, concerns and objections to the proposed remedy. There could be a requirement for specific end-of-the-year statistics, and calculations of any over- or under-delivery of the replacement waters.⁸ In the absence of such rules these kinds of provisions must be in the Plan.

198. Mr. Davey and Dr. Knox testified the Subdistrict and State Engineer would use the "best available technology" to calculate the depletions and, at present that would be the Rio Grande Decision Support System Groundwater Model ("RGDSS groundwater model").⁹

199. The Acequia Objectors' water expert, Scott Mefford, concurred that for Water Division No. 3, a properly constructed three dimensional finite-difference groundwater model, like Modflow, is the best technical approach to identify and quantify injurious depletions.

200. The Court concurs that the best available technology for calculating the depletions to a stream or river from groundwater pumping in Division No. 3 at this time is the Rio Grande Decision Support System groundwater model ("RGDSS").

201. The Division No. 3 Engineer can utilize the RGDSS groundwater model to calculate depletions to the stream system from Subdistrict well pumping with sufficient accuracy to determine the time, amount and location of injurious depletions that must be

Board of Managers of Special Improvement District No. 1 of the Rio Grande Water Conservation District shall provide an annual accounting and reporting structure that includes data and information relevant to Plan operations in content, format and scheduling deemed acceptable to the Division III Engineer prior to operation of the Plan of Water Management.

Plan, at 16

⁸ The Court wants to be clear that the General Assembly has delegated rulemaking authority to the State Engineer, not the courts; and the Court is not and cannot substitute its judgment for that of the agency in this regard. *Colorado Ground Water Com'n v. Eagle Peak Farms*, 919 P.2d 212, 217 (Colo. 1996), citing *Citizens for Free Enterprise v. Dept. of Revenue*, 649 P.2d 1054, 1065 (Colo. 1982).

⁹ The RGDSS groundwater model, based upon Modflow, a three dimensional finite-difference groundwater flow model, was approved by this Court both in the form presented in the trial in 04CW24 and with the understanding that it will be updated as new data about the basin is obtained and inputted and by additional packages and improvements to the core Modflow components. The decision to replace the RGDSS groundwater model, or to add a second complimentary model for localized calculations, will occur at some point as undoubtedly superior modeling programs will be developed, but the decision to adopt a new model will not occur without lengthy and potentially contentious vetting.

remedied. In the absence of rules and regulations controlling the methodology for calculating depletions which this or other subdistricts must replace, the Plan should specify that the calculation of injurious depletions will be made using the RGDSS groundwater model unless and until it is supplanted in the future by adoption of a superior technology.

202. The Subdistrict, District, and the State testified they will collaborate in compiling the well pumping data, the well locations, the surface water diversion data, and the groundwater level measurements necessary to calculate and remedy depletions and monitor the progress of the Plan. The Rio Grande Decision Support System provides an ongoing framework for all of this work and includes an existing network of monitoring wells in both the Unconfined and Confined Aquifers established in collaboration with the United States Geological Survey. The Hydraulic Divide Study and the Unconfined Aquifer Storage Study offer data specific to the management of the Unconfined Aquifer in the Closed Basin.

203. The Supporters offered testimony and evidence of terms and conditions regarding operation of the Plan which are not included in the specific terms of the Plan. For example, Mr. Davey testified that the State Engineer will determine the amount, timing and location of depletions to the Rio Grande River and its tributaries associated with pumping by the Subdistrict Wells. In addition, Dr. Knox, Mr. Wolfe, and Mr. Sullivan testified that the State Engineer will require submission of a "plan of operation" which would be annually approved by the State Engineer. The suggested "plan of operation" is described in the exhibits from these witnesses set forth on pages 35-37 in this opinion.

204. It is clear that the Subdistrict, the RGWCD and the State Engineer have the data and the modeling tools to craft annual operating plans under the conceptual principles set out in the Plan to replace injurious depletions in time, location and amount. What is necessary then, is to include in the Amended Plan the methodology and timetables in a "comprehensive and detailed" manner. Since rules and regulations do not exist, the Plan must contain this detail in itself or in an incorporated working document. In addition, it would be helpful to attach to the amended plan a model template for the operational plan contemplated by Dr. Knox and Mr. Sullivan.

205. The Court found instructive the testimony of Mr. Tyner regarding the *Amended Rules and Regulations Governing The Diversion And Use Of Tributary Ground Water In The Arkansas River Basin, Colorado*, ("Arkansas River Rules"). Exhibit S-31.

206. The Arkansas River Rules require every approved yearly plan of operation to contain considerable detail regarding each well in the plan in that basin, as well as the methodology associated with determining and calculating the depletions to the

surface stream, the source of water to be used to replace depletions to the surface stream, and the method to determine how out-of-priority depletions to senior water rights and Compact obligations will be replaced under such plan. In fact, none of the information required by Rules 13 and 14 of the Arkansas River Rules is included within the Plan before this Court.

207. Supporters suggested the operating plans the State Engineer would require will provide information similar to that required by the Arkansas River Rules as outlined in the testimony of Dr. Knox and Mr. Sullivan. Objectors introduced the complete Arkansas River Use Rules, Exhibit 31, observing these rules illustrate what is missing in terms of detail in the proposed Plan. The Court agrees that the Arkansas River Rules are a useful reference in the design of both an Amended Plan and for any proposed rules and regulations affecting the operation of water management plans. That does not mean additional detail should be identical to the Arkansas River Rules. The detail should be suited to the unique circumstances of Division No. 3 and tailored to the focus of the Plan. In this regard, the basin is fortunate to have the RGDSS groundwater model to utilize.

208. Administration of the Plan will change on an annual basis depending upon the hydrologic conditions and the amount of injurious depletions calculated to occur to surface water streams as the result of Subdistrict well pumping. *Transcript (Sullivan) November 3, 2008*. The Plan's operation must be calibrated annually to reflect actual operating conditions. The Court recognizes that the Subdistrict is not currently able to identify the specific sources of replacement water that will be used to replace injurious depletions in varying conditions. The Court does not believe this is an insurmountable obstacle to approval of the Plan and this lack of information will not, in and of itself, render an Amended Plan void for vagueness. In construing a statute, the Court must presume that the General Assembly intended a result that is feasible of execution. Section 2-4-201(1)(d), C.R.S. Thus, the Court should not construe the statutes to require the Subdistrict to identify the precise water supplies to be used to replace injurious depletions because such a requirement would make it impossible to obtain approval of almost any plan of water management, defeating the legislative purpose of SB 04-222.

209. The Objectors argue that nothing short of the level of detail contained in a judicially decreed plan for augmentation is sufficient to comply with Colorado law and the Colorado Constitution. The definition of a plan of water management in section 37-92-501(4)(c) clearly distinguishes the two and provides a plan of water management may include a plan of augmentation but they are not the same. The Court notes that even augmentation plans "may provide procedures to allow additional or alternative sources of replacement water, including water leased on a yearly or less frequent basis, to be used in the plan after the initial decree is entered if the use of said additional or alternative sources is part of a substitute water supply plan approved pursuant to section 37-92-308 or if such sources are decreed for such use." § 37-92-305(8), C.R.S. Thus, knowing with precision the source of replacement water to be used from year to

year is not a bar to approval of an augmentation plan, and by analogy, not a bar to approval of a plan for water management that includes replacement of injurious stream depletions. Rather, what is required is a means to ensure that the water supply that is to be used may be lawfully used for that purpose and will, in fact, prevent injury and replace out-of-priority diversions in time, location and amount.

210. As already noted, any Amended Plan should detail the methodology and timetables of the Amended Plan's proposed operation and include a detailed outline of the content of an operating plan. Over time, the source of replacement water for particular depletions may change, which would change the operating plan for a given year, yet such change would be made within the methodology and procedural timetable of the plan itself. For example, the Subdistrict may well conclude at some point that a plan of augmentation is the best way to address a particular circumstance on a tributary, but that leases and utilization of water owned by the major ditches in the Subdistrict give more flexibility for the circumstances on the mainstem Rio Grande. The Court approves this kind of flexibility so long as it is tied to accurate, timely, transparent calculation of injurious depletions and prevention of the injury by replacement in time, location and amount. In addition, different hydrologic conditions of the aquifer and snowpack and predictions for moisture in the summer may well require changes in the operational plan from year to year to ensure complete replacement of injurious depletions.

211. Either the Amended Plan of water management, or an appendix to it, should identify each well that is intended to be included in the Plan and describe it with the kind of detail used in the State Engineer's Hydrobase described below. An Amended Plan must include each Unconfined Aquifer well within the Subdistrict that would be subject to regulation under rules and regulations unless the well has an augmentation plan. Confined Aquifer wells can be included, but need not be for reasons already stated, until such time as a Confined Aquifer subdistrict is created. Once such a subdistrict exists, continued inclusion of Confined Aquifer wells in this subdistrict would be inconsistent with section 37-92-501(4)(a) and (c).

c. Suggestions

212. The Court intends the discussions above to give some guidance to the Board and Subdistrict. It should be evident that there are certain procedural steps and substantive content that are essential for any Amended Plan. The Court will now try to set out some additional suggestions. These steps should be viewed as a starting point for internal discussion and frank exchange of ideas with Objectors given the myriad ways in which their economic interests are tied to one another. The Court suggests:

First, upon receipt of this order, the Court assumes that the board of managers will conduct such additional public meetings as it deems necessary to prepare an amended plan to submit to the Board of Directors of the RGWCD. The Court recognizes that section 37-48-126(4) distinguishes between a plan that has been rejected and one referred back for amendment; and it can be argued that, in the latter case, additional hearings are not required. Even if that is so, the better practice would be to follow the open and transparent process that brought the Plan before this Court the first time. The

changes suggested and required are substantive. This is the first effort to apply this important statute and continuation of the process used to date is appropriate.

Second, upon amendment of the Plan, the Court also assumes the Amended Plan will be resubmitted to the State Engineer for approval pursuant to section 37-48-126(2) and in accordance with section 37-92-501(4)(c), C.R.S., prior to its submission to the Board of Directors of the RGWCD for hearing and approval under section 37-48-126(3)(a).

Third, the State Engineer's timeline for adoption of rules and regulations governing existing withdrawals from the Confined and Unconfined Aquifers is not clear. It is likely such rules may be proposed but not finalized by the time this matter is again before the Court. It is also unclear whether the State Engineer will propose rules and regulations relating to the supervision and administration of subdistrict plans. Consequently, in the Amended Plan, the Subdistrict should agree to comply with existing and future rules and regulations in Division No. 3 as they are adopted. To the extent a provision of the Amended Plan is less stringent than the rules, or conflicts with adopted rules and regulations, the Amended Plan should state the Subdistrict will meet the requirements of the rules and regulations.

Fourth, in the event rules and regulations are not adopted by the State Engineer with regard to existing withdrawals from the Unconfined and Confined Aquifers prior to adoption of an Amended Plan, the Subdistrict Amended Plan must include the kind of detail previously outlined, so the Court, the State Engineer and water users will fully understand the process by which the Subdistrict will address injurious depletions each year. The Court has approved the flexibility in the Plan to utilize a variety of remedies for injurious depletions. This is consistent with the legislative directives and the goal of optimizing utilization of the aquifers, but it also means that there must be clear timetables for the disclosures each year and an opportunity for those whose rights are affected to comment and present objections to the board of managers and the State Engineer.

Fifth, the Amended Plan should attach an inventory which identifies the set of all "Subdistrict Wells." The definition for "Subdistrict Wells" in the Plan as submitted does not limit Subdistrict Wells to wells which will be subject to regulation pursuant to rules and regulations. If the intent was to exclude wells exempt from regulation pursuant to section 37-92-602 and non-exempt wells of not more than 50 gpm as described in Rule 1, Rules Governing the Measurement of Ground Water Diversions approved by this Court in 05CW12, the definitions should be clarified. There may be a sub-set of wells which have augmentation plans, and these wells should be identified. This inventory should include the standard identifications used in the State Engineer's Hydrobase, such as well permit number or State Engineer receipt, adjudication case(s), Aquamap/GPS and legal descriptions of location, depth, aquifer(s) from which it draws, decreed amount, date of priority, use, irrigated acreage, crop patterns, irrigation

practices and such other specific identification data as the subdistrict and State Engineer believe appropriate. (See, for example, Arkansas River Use Rule 13). The Court understands that the operating plan for each year will likely identify a subset of the Subdistrict wells which will not be pumped at all in a given year where a well is tied to a parcel involved in the CREP program or is otherwise going to be fallow, where a well has collapsed and a replacement will not be completed, where a well is abandoned, or where a well is not needed due to abundant snowpack and the availability of surface water.

Sixth, the Amended Plan of Water Management must clearly provide a description of the methodology and the timetable to be used for the yearly calculation of injurious depletions to senior surface rights which must be replaced. The Amended Plan should include a detailed description of:

(1) the information the Subdistrict will collect and procedure it will follow each year to calculate estimated injurious depletions to senior surface rights using the RGDSS groundwater model (unless and until it is superseded).

(2) the procedure and timeline the Subdistrict will follow to replace depletions, including a description of the information to be provided to identify the sources of water to be used as replacement supplies, to allow additional or alternative sources of water to be used for this purpose and to evaluate the adequacy of the replacement water supplies for this purpose;

(3) the type of information the Subdistrict will collect and submit to the Division Engineer to demonstrate its actual ability to replace injurious depletions and timeline for doing so;

(4) the types of information the Subdistrict will submit to the Division Engineer to demonstrate that the replacement occurred and that it prevented injurious depletions and the timeline for doing so;

(5) the procedure to be used, including the information to be collected and reported to the Division Engineer, concerning the existence/non-existence and condition of the Hydraulic Divide;

(6) the timeline for disclosure and method of disclosure of what lands will be participating in the CREP program each year;

(7) the timetable for an end-of-the-year report of actual data from the totalizing flow meters detailing the time, location and actual amount pumped and the calculation of actual injurious depletions to senior surface rights caused by the actual pumping as calculated by the RGDSS groundwater model (unless and until it is superseded).

(8) the methodology and timeframe for addressing any lagged injurious depletions as set out in an end-of-year report which will then be remedied in a monthly time step; and

(9) such other information as the Subdistrict believes will be necessary for the Court and the parties to evaluate the adequacy of the procedures to be followed in implementation of the Amended Plan.

Seventh, the Amended Plan should attach or include the "template" for the annual Plan of Operation. At a minimum the template for the annual Plan of Operation should include:

- a) The calculations of expected pumping amounts and locations based upon current river and snowpack conditions.
- b) Predicted injurious depletions to the Rio Grande and its tributaries as calculated by the RGDSS groundwater model, or by other technology the State Engineer believes to be more accurate (best available technology.)
- c) Specific calculations, methodology and means for remedy of the injurious depletions to senior surface rights by tributary and time, location and amount using monthly time steps. (See Rule 14(d) and (f), Arkansas River Use Rules).
- d) A process of Review of the proposed annual Plan of Operation by the State Engineer who will approve, disapprove, or approve with conditions the proposed Plan of Operation. (Ideally, the State Engineer will propose rules regarding his involvement, public input and recourse to the Court's retained jurisdiction.)
- e) An end-of-the-year report template as required by the Amended Plan of Water Management containing the actual data from the totalizing flow meters detailing the time, location and actual amount pumped. The report shall further set out the calculation of actual injurious depletions to senior surface rights caused by the actual pumping as calculated by the best available technology, presumably the RGDSS groundwater model. Any lagged injurious depletions will then be remedied in monthly time step. The report should also document the current state of the Hydraulic Divide, and the state of the Unconfined Aquifer and Confined Aquifers.
- f) Such other information as the Subdistrict, District or State Engineer

believes will be useful for annual and cumulative evaluation of the success of the Amended Plan including success in replacing injurious depletions.

ORDER

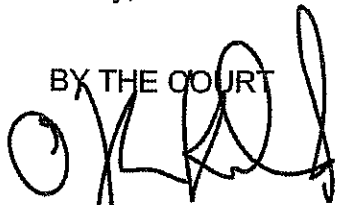
For the reasons stated, the Court hereby refers the Plan back to the Subdistrict pursuant to section 37-48-126(4). The hearing in this case is continued until July 13, 2009. The hearing in Case No. 07CW52 is continued until that same date to conclude Case No. 06CV64 and Case No. 07CW52.

The Subdistrict shall have 120 days from the date of this order within which to prepare and adopt an Amended Plan. Upon completion of an Amended Plan, it shall be resubmitted to the State Engineer and if approved by the State Engineer and the board of directors of the RGWCD as provided for in section 37-48-126(3), the Amended Plan shall be filed with the Court and served on the parties.

A status conference regarding both cases is set for April 6, 2009, at 1:30 p.m. Counsel and parties may either appear in person or call 719-589-7600, and then dial 6 when asked for a conference room. Counsel should confer regarding any supplemental pleadings and proceedings which may be necessary in each case and discuss a supplemental case management order, if appropriate.

DATED this 18th day of February, 2009.

BY THE COURT



Hon. O. John Kuenhold,
Chief District Court Judge
Water Division No. 3