

GROUNDWATER MANAGEMENT PLAN
Special Improvement District No. 6
of the
Rio Grande Water Conservation District

The Proponents of Special Improvement District No. 6 of the Rio Grande Water Conservation District (“Subdistrict”) propose to form a subdistrict of the Rio Grande Water Conservation District (“the District”) to recover, conserve and stabilize the water supply and amount of groundwater in storage for existing irrigation uses within the area generally included within the boundaries of the Colorado Division of Water Resources District 25, Division 3. The Proponents anticipate that a Board of Managers will develop and adopt a Groundwater Management Plan governing the proposed Subdistrict. This document sets forth a conceptual Groundwater Management Plan in general terms pursuant to section 37-48-123(2)(g), C.R.S. (2008), and will be circulated with the Petition to form the Subdistrict.

Proponents of the Subdistrict anticipate a wide range of benefits to Subdistrict members and the San Luis Valley as a whole, including mitigating material injury to senior surface water rights that may result from groundwater use, recovery, stabilization, and maintenance of a sustainable groundwater supply, meet all criteria for a compliance plan under the contemplated State of Colorado Division of Water Resources Groundwater Rules for Division 3 and provide an alternative for individual augmentation plans approved by the Water Court as a condition for the continued operation of wells.

I. SUBDISTRICT TERRITORY

Pursuant to C.R.S. § 37-48-123(d), the Subdistrict territory generally includes lands located within the boundaries of the Water District 25, Division 3 that are irrigated in whole or in part by non-exempt wells whose owner(s) signs a petition seeking inclusion of the land in the Subdistrict. Subdistrict lands need not be contiguous. A well is any structure meeting the definitions of 37-90-103, C.R.S. A “Non-exempt wells” refers to wells that do not meet the requirements of Section 37-92-602(1), C.R.S.

A map showing the outer boundary of the Subdistrict and the irrigated parcels of land whose owners have petitioned to be included in the Subdistrict is included as Exhibit A. A property description of Subdistrict lands is included as Exhibit B.

To the extent permitted by law, the Subdistrict may contract with other well owners, water users, mutual ditch or reservoir companies, water user’s associations, Subdistricts, persons or entities to advance the Plan Goal and Overall Objective.

II. OVERALL OBJECTIVE OF THE SUBDISTRICT

The goals of the Subdistrict are to replace or mitigate injurious depletions to senior surface water rights resulting from groundwater use on Subdistrict lands and to recover and maintain a sustainable irrigation water supply in both the confined and unconfined aquifer systems with due regard for the daily, seasonal and long term demands on the aquifers. The Subdistrict shall calculate the expected annual water supply and aquifer storage level to set consumptive use or irrigated acreage curtailment levels necessary to meet the goals of the Subdistrict. To achieve these goals, the Subdistrict shall enter into annual or multi-year Groundwater Management Contracts with individual Subdistrict members to manage overall groundwater consumption. These contracts will set consumptive use or irrigated acreage

curtailment levels to recover and/or maintain both the confined and unconfined aquifers at sustainable levels and make provision for the mitigation of injurious stream depletions arising from the consumption of groundwater. If necessary the Subdistrict will adjust the curtailment level during the irrigation season to account for changes in water supply or aquifer storage levels. The Subdistrict will purchase, rent, or lease replacement water supplies in order to offset injurious stream depletions, to the extent required. If no replacement water supply is available, the Subdistrict will offer monetary or commodity mitigation for damages incurred from injurious stream depletions caused by Subdistrict wells, increase curtailment levels, and/or pursue land fallowing goals to eliminate injurious depletions.

Subdistrict members that divert groundwater from the underlying Confined and Unconfined Aquifer systems for irrigation purposes presently operate pursuant to well permits and/or decrees recognized under Colorado law. If the Subdistrict is unable to achieve its goals as described above, or if any member fails to fulfill their contractual obligations, then the Colorado Division of Water Resources shall curtail the Subdistrict or members' well use through the contemplated Groundwater Rules for Division 3. **Accordingly, the overall objective of this Plan is to provide a water management alternative to state-imposed regulations that curtail the use of wells within the Subdistrict, that is, a system of self-regulation using voluntary contractual obligations backed by the certainty of Division of Water Resources enforcement action that promote responsible groundwater use and management and that calculates and mitigates the injury to senior surface water rights that may result from groundwater use on Subdistrict lands. The operation of this Plan will comply with the requirements of SB 04-222, codified at C.R.S. § 37-92-501(4).**

III. EFFECT OF SUBDISTRICT AND GROUNDWATER MANAGEMENT PLAN

Neither the creation of the Subdistrict nor this Plan shall alter or affect any vested surface or groundwater rights. Nor shall the creation of the Subdistrict, nor the implementation of this Plan allow, approve or benefit any expansion of existing beneficial use or allow a water right to be used illegally or for a beneficial use not contained in a valid Decree or Permit.

Water rights purchased or retired by the Subdistrict will be used to protect and enhance the water supply for the groundwater users within the Subdistrict, and/or to replace injurious depletions resulting from the pumping of wells within the Subdistrict. Purchased and/or retired water rights will not be resold or used for purposes inconsistent with the Groundwater Management Plan. Purchased or retired water rights shall not justify any new or expanded use.

If a farm owner or operator elects to temporarily reduce the amount of land under irrigation with groundwater in order to achieve the goals of this Plan, such reduced irrigation is for conservation purposes and, pursuant to an agreement between the Subdistrict and the Colorado Division of Water Resources, will not be considered to be a period of non-use for purposes of abandonment or reductions in the water right, as provided by law.

Only Subdistrict lands that are irrigated by groundwater will be assessed fees or be required to enter into a Groundwater Management Contract curtailing consumptive use or fallowing irrigated acreage. Lands or groundwater use that is subject to a court approved augmentation plan, a substitute water supply plan pending court approval of an augmentation plan, or operated as a decreed alternate point of diversion (APD) for surface water while that right is in priority will **not** be subject to assessment or curtailment. **Surface water and surface**

water only irrigated lands will not be subject to assessment or curtailment. Well operators with net positive surface water Consumptive Use Credits (CUC) in any year will also not be subject to curtailment in that year. Subdistrict members claiming surface water credit, but not having a decreed augmentation plan may only claim surface water credits arising from surface water rights that include the decreed uses of augmentation and recharge and otherwise meet all the requirements of an augmentation plan to the satisfaction of the Subdistrict Board of Managers, the District, and the Division Engineer.

IV. SUBDISTRICT GOVERNANCE

The Subdistrict is a political subdivision of the Rio Grande Water Conservation District (District). A five member Board of Managers will govern the Subdistrict. The District Board of Directors will appoint the Board of Managers

The District Board will choose members of the Board of Managers from a slate of candidates nominated and approved by majority vote of the Subdistrict members, as defined in Footnote 1 below.¹ The election shall always be by mail-in ballot in which each member shall be mailed a ballot by First Class mail and provided a period of not less than 14 days in which to return the ballot to the designated election official. Elections shall occur on January 15 of each year. Members of the Board of Managers will serve staggered 4-year terms with no limit upon the number of terms an individual manager may serve. Each member of the Board of Managers must own land irrigated by groundwater in the Subdistrict.

The Board of Managers will select from among its members one member to serve as president of the Board.

V. DESCRIPTION OF GROUNDWATER MANAGEMENT PLAN

After the formation of the Subdistrict, the Board of Managers will develop, and submit to the members of the Subdistrict for approval by majority vote conducted in conformity with the election procedures described in Section IV above, a Groundwater Management Plan that will be submitted for consideration and approval by the State Engineer in accordance with section 37-92-501(4)(c). Upon approval by the State Engineer, the Groundwater Management Plan will be presented to the Board of Directors of the District for consideration and adoption as the official plan of the Subdistrict pursuant to the terms of section 37-48-126.

1. The Plan will require that a landowner operating a Subdistrict well(s) consumptively using groundwater enter into a Groundwater Management Contract to reduce the amount of groundwater pumped by a Curtailment Level determined either annually or for a period no greater than three years by the Board of Managers. The baseline pumping amount for each well user's well(s) will be calculated by determining the average pumping amount for the previous three operational years, as reported under the Measurement Rules. The Curtailment Level shall be determined by calculating the forecast available water supply from rim inflows and aquifer storage levels, balancing

¹ Members of the Subdistrict are defined as an owner of ground water irrigated acreage within the boundaries of the Subdistrict or the designated farm operator or farm manager of a landowner with land included within the Subdistrict. Each individual farm operation shall have one vote regardless of its number of owners. Entities having contracted with the Subdistrict to further the goals of the Subdistrict will be considered one member.

projected use versus predicted supply. The Curtailment Level shall apply to all wells within the Subdistrict unless the owner of a well has a court approved augmentation plan, a substitute water supply plan pending court approval of an augmentation plan, is operated as a decreed alternate point of diversion (APD) for surface water while that right is in priority, or has net positive surface water Consumptive Use Credits.

2. Subdistrict well users will also be required to contribute financially to the Subdistrict to insure that continuing use and consumption of groundwater does not render the aquifer systems unsustainable or cause material injury to senior surface water rights.
3. The Groundwater Management Plan and member Groundwater Management Contracts shall be implemented in the first year of Subdistrict operation and every year thereafter. The goal of the Plan will be to generate sufficient revenues to fund the operations of the Subdistrict, including, without limitation, replacing or mitigating any injurious depletions calculated to occur to senior surface water rights as the result of Subdistrict well pumping, and, if necessary, to permit the retirement of sufficient acres within the Subdistrict to achieve a sustainable water supply in the aquifer system with due regard for the daily, seasonal and long term demands on the aquifers.
4. The Plan will consider and comply with the provisions of section 37-92-501(4)(a)(III) C.R.S. to ensure that its operation allows that the artesian pressure in the Confined Aquifer be restored and maintained to the ranges that occurred during the period of 1978 through 2000. Further, the plan will ensure that the water level of the unconfined aquifer be restored and maintained to the ranges that occurred during the period of 1978 through 2000. Maintenance of the aquifers within the above ranges shall be deemed presumptively sustainable. Where sustainability is defined as the consumptive use of a renewable resource that preserves the ability of that resource to be used in perpetuity.

VI. AQUIFER SUSTAINABILITY

In the San Luis Creek Basin the lower the aquifer levels, the greater the stream depletions. Thus, the preferred goal of the Subdistrict will be to maintain aquifer levels that sustain and maximize the flow of surface streams impacted by pumping of Sub-district wells.

The Subdistrict will use the RGDSS to determine the irrigated acreage capable of being sustainably supported by the confined and unconfined aquifers (carrying capacity). If necessary, the Subdistrict shall require a reduction in total irrigated acreage to establish a maximum area of irrigated acreage. Acreage irrigated by fully augmented wells exempted.

When the aquifer levels are greater than or equal to the 1978-2000 mean, wells may withdraw water according to their permits or decrees, without waste.

At aquifer levels below the 1978-2000 mean, but greater than the 1978-2000 minimum, ground water withdrawals shall be curtailed by a percentage determined to balance snowpack, rim inflow, aquifer level, and anticipated consumptive use. The RGDSS will be used to develop a series of default response functions to customize the curtailments to annual conditions.

If at the time of the establishment of the Subdistrict it is determined that aquifer levels are below the 1978-2000 minimum aquifer level, the Subdistrict shall set curtailment levels that return the aquifer to sustainable conditions within 5 years, assuming average rim inflows.

Thereafter, if aquifer levels fall, or remain, below the 1978-2000 minimum level, all aquifer withdrawals shall be entirely curtailed unless fully augmented.

This approach allows the aquifers to be used as storage reservoirs that fluctuate in response to climatic conditions, water supply, and water demands, while maintaining a sustainable water supply with recognition of daily, seasonal, and long-term water demands

VII. FINANCING THE SUBDISTRICT

In order to finance the operation of the Subdistrict and its Groundwater Management Plan, the Subdistrict will assess a Groundwater Management Contract Fee and a Depletions Mitigation Fee that will be evaluated, and if appropriate, adjusted by the Board of Managers annually in response to the demands of the Groundwater Management Plan. Well users consumptively using water above the Curtailment Level will be deemed out of compliance with the Subdistrict Groundwater Management Plan and referred to the Division Engineer for curtailment under the Groundwater Rules for Division 3. The certainty of complete curtailment by the Groundwater Rules ensures that landowners comply with the annual Consumptive Use Curtailment Level specified in the member's Groundwater Management Contract.

The Groundwater Management Contract and Depletions Mitigation Fees, combined as the Subdistrict Annual Fee, will be submitted to the District for approval and the District will in turn submit the Subdistrict Annual Fee to Saguache County for addition to its tax rolls and collection in accordance with Colorado law.

These revenues will be used for Subdistrict improvements including mitigation of material injury to senior surface water rights resulting from Subdistrict well pumping, developing necessary infrastructure improvements, and other Subdistrict purposes.

A. The Groundwater Management Contract Fee

The Subdistrict will assess a Groundwater Management Contract Fee of up to twenty-five dollars (\$25) per contracted Subdistrict acre to provide sufficient revenue to fund the operations of the Subdistrict and to repay the sum agreed upon by the Subdistrict and the District which was incurred during the formation process.

A Subdistrict acre shall be an acre of land irrigated entirely by groundwater. Irrigated lands supplemented by groundwater will be prorated in their assessment by the ratio of groundwater diverted to surface water diverted. Lands permanently removed from irrigation or temporarily fallowed to meet the goals of the subdistrict are exempt from assessment. Lands that have a court approved augmentation plan, a substitute water supply plan pending court approval of an augmentation plan, or are irrigated by a decreed alternate point of diversion (APD) for surface water while that right is in priority, or has net positive Consumptive Use Credits are also exempt from assessment. The cost of Subdistrict operation will be borne proportionally by all Subdistrict acres.

B. The Depletions Mitigation Fee

To address stream depletions the Subdistrict will enter into contractual agreements to purchase, rent, or lease surface water or Consumptive Use Credits produced by qualifying Subdistrict members or Plans of Augmentation to address stream depletions. **If no replacement water supply is available, the Subdistrict will offer monetary or**

commodity mitigation for damages incurred from injurious stream depletions caused by Subdistrict wells. The costs of these contracts will be divided among all Subdistrict well users proportional to the net groundwater withdrawn by each individual operation.

Calculation of the Depletion Mitigation Fee

The Depletions Mitigation Fee will be determined as follows:

1. Determine Total Groundwater Pumping. No later than November 10 of each year, each well user within the Subdistrict shall report the readings from each totalizing flow meter installed on Subdistrict Wells in accordance with the Measurement Rules or, in the absence of a totalizing meter, cooperate with the State Engineer in obtaining the amount of withdrawals from wells without totalizing meters through the use of Power Conversion Coefficients in accordance with the procedures in the Measurement Rules.
2. Calculate Depletions Mitigation Fee:
 - a. The Subdistrict will total all groundwater withdrawn from all Subdistrict Wells allocated to each well owner;
 - b. The Subdistrict will total the costs of all monetary and commodity mitigation payments, purchases, rents, or leases of water used to address stream depletions for the year;
 - c. The Subdistrict will divide the total costs of mitigation to address stream depletions by the Total Groundwater withdrawn from all Subdistrict wells to determine mitigation cost per acre-foot. The cost per acre-foot will then be multiplied by the volume of groundwater pumped for each well user to obtain the total Depletions Mitigation Fee for each Subdistrict well user.
3. Determine Net Surface Consumptive Use Credits. For Subdistrict members claiming surface water Consumptive Use Credits, an augmentation report tabulating the amount of surface water applied to recharge must be submitted to the Subdistrict Board of Managers by November 10 of each year. The volume of water credited as Consumptive Use multiplied by the irrigation system application efficiency will be deducted from the Total Groundwater Pumped to determine the Net Groundwater Pumped. The Net Groundwater Pumped will be used in the calculation for determining the Depletions Mitigation Fee. Any remaining balance will be credited toward the next year's Groundwater Management Contract Fee.

Subdistrict members claiming surface water credit must meet all requirements of an augmentation plan to the satisfaction of the Subdistrict Board of Managers, the District, and the Division Engineer before the commencement of the irrigation season in which they plan to claim surface water Consumptive Use Credits.

VIII. ACTS AND IMPROVEMENTS

In order to further the goals and objectives of the Plan, the Subdistrict intends to implement some, or all, of the following non-exclusive list of acts or improvements:

1. Determine an annual pumping curtailment level or percentage following on either a.) groundwater pumped or b.) groundwater irrigated acreage to balance rim inflow, aquifer sustainability, and injurious stream depletions.
2. Calculate, replace and/or mitigate injurious aquifer and stream depletions.
3. Calculate increases and decreases in groundwater recharge.
4. Calculate increases and decreases in aquifer storage levels.
5. Purchase, rent and/or lease and retirement of irrigated lands and/or purchase, rental and/or lease of water rights and/or reservoir storage, either within or without the exterior boundaries of the Subdistrict.
6. Support and assist surface water owners in obtaining Change of Water Right decrees for recharge and augmentation and Plans of Augmentation where such decrees and Plans of Augmentation include provisions for the transfer of Consumptive Use Credits to the Subdistrict
7. Provide education and fund research into water conservation, water use efficiency, improved water management, and public education on agricultural water use.
8. Act to improve the operation of ditches, headgates, and recharge facilities to make the best use of available water and to improve groundwater recharge.
9. Require all Subdistrict members to develop a soil conservation plan that minimizes soil erosion.
10. Work in cooperation with USDA-NRCS to develop annual water supply forecasts based on SNOTEL and snow course data. Determine historical stream flow volumes based on tree ring reconstruction of streamflow or other methods to correlate precipitation to rim inflows.
11. Negotiate an agreement with the operators of the Closed Basin Project to:
 - i. Ensure that aquifer recovery and increased aquifer storage within Subdistrict boundaries does not lead to salvage operations that would negate the anticipated benefits of the Subdistrict.
 - ii. Maintain a hydraulic divide between the Subdistrict and the salvage well fields of the Closed Basin Project to ensure a disparity in aquifer levels underlying the two entities does not create an aquifer gradient that would deliver water stored for beneficial use of Subdistrict members to the Closed Basin Project for preemptive salvage.
 - iii. Calculate the amount of injurious aquifer and steam depletions caused by operations of the Closed Basin Project.
 - iv. Allow salvage pumping operations only in locations and amounts that do not cause injurious depletions to stream flows or compromise the sustainability of the aquifer systems.

- v. The Subdistrict shall not provide for the replacement of depletions caused by the operation of the Closed Basin Project.

The Plan will operate for an indefinite period to insure that the aquifer systems are in a sustainable condition and to achieve replacement of injurious depletions to senior surface water rights resulting from groundwater withdrawals. At such time as the groundwater supply in the Confined and Unconfined Aquifer within the Subdistrict is sustainable, with due regard to the daily, seasonal and long-term demands on the groundwater supply, and the operation of groundwater wells in the Subdistrict is not causing injurious stream depletions 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.

A. Calculation and Replacement of Injurious Impacts to Senior Surface Water Rights Resulting from Subdistrict Well Pumping

The Subdistrict will utilize the most current version of the Rio Grande Decision Support System (“RGDSS”) groundwater model to calculate injurious depletions resulting from Subdistrict well withdrawals unless and until it is supplanted in the future by adoption of a superior technology. The Subdistrict will similarly utilize the most current version of the RGDSS groundwater model to predict the time, location and amount of replacement water to surface water streams.

The Subdistrict will establish and install a network of stream gauges to directly measure stream depletions and verify RGDSS groundwater model predictions where practicable.

The Subdistrict will contract with willing surface water rights holders to purchase, rent, or lease water for recharge, storage, or other means of augmentation to address stream depletions from the operation of Subdistrict wells. The Subdistrict will also contract with surface water right holders to purchase or lease any available surplus augmentation Consumptive Use Credits from qualifying court approved augmentation plans.

To the extent permitted by law, the Subdistrict may contract with well owners that are not members of the Subdistrict to further the Subdistrict Goal and Objective.

B. Restoration of Groundwater Levels and Groundwater Storage

In order to monitor and measure the recovery and maintenance of the level and pressure in the Unconfined and Confined Aquifer, the Subdistrict will identify a network of Aquifer Monitoring Wells to observe aquifer conditions. These observations will provide a measure of the success of the Subdistrict’s efforts to restore, preserve, and maintain aquifers within the Subdistrict’s boundaries and verify RGDSS groundwater model predictions.

C. Groundwater Use Curtailment Goals

In water years where surface inflows and precipitation are calculated to be insufficient to provide groundwater to fully irrigate Subdistrict lands without causing

injurious aquifer or surface stream depletions, Subdistrict members shall reduce groundwater withdrawals from both confined and unconfined aquifer wells by a percentage determined by the Subdistrict Board of Managers. These reductions in groundwater use will ensure injurious depletions do not occur to senior surface water rights holders or deplete aquifers below either a.) the pressure levels observed between 1978 and 2000 in the confined aquifer or b.) the aquifer level observed between 1978 and 2000 in the unconfined aquifer. The percentage reduction of groundwater use sufficient to prevent stream or aquifer depletions will be determined by use of the RGDSS or other best available technology.

D. Land Fallowing Goals

In water years where surface inflows and precipitation are calculated to be insufficient to provide ground water to fully irrigate Subdistrict lands without causing injurious aquifer or surface stream depletions, Subdistrict members shall fallow all or a portion of their ground water irrigated lands to ensure injurious depletions do not occur to senior surface water rights holders or deplete the confined aquifer below the pressure levels observed between 1978 and 2000 or the unconfined aquifer below the aquifer level observed between 1978 and 2000. The percentage reduction of ground water irrigated acres sufficient to prevent stream or aquifer depletions will be determined by use of the RGDSS or other best available technology.

Lands retired from irrigation under this Groundwater Management Plan must be revegetated with appropriate native grasses to prevent soil erosion or invasion by noxious species. The Subdistrict shall authorize limited irrigation of fallowed lands sufficient to ensure the establishment and maintenance of ground cover. The amount of irrigation needed for the establishment and maintenance of ground cover will be determined by consultation with agronomic and conservation specialists and landowners. Irrigation systems on fallowed lands may not be removed until a stable native community is established.

Lands fallowed for a single season shall be protected by leaving sufficient crop residue to prevent erosion or by planting an appropriate cover crop.

E. Winter Reduction in Confined Aquifer Well Withdrawals

In winter months confined aquifer wells shall be reduced to the minimum flow necessary to preclude frost damage to structures, providing that such reductions in flow do not damage aquifer strata or the structure of the well. Confined aquifer well use must conform to the conditions set forth in the well's decree and regulations and policies promulgated by the Colorado Division of Water Resources.

F. Accounting Mechanism to the State Engineer

The Board of Managers of Special Improvement District No. 6 of the Rio Grande Water Conservation District shall submit to the Division Engineer all information required by the contemplated Rules Governing the Withdrawal of Groundwater in Water Division III, Rule 9B:

G. Other Management Tools:

The Board of Managers will adopt rules, regulations and/or guidelines to facilitate the operation of the Subdistrict. Such rules, regulations and/or guidelines may be overturned by a 2/3rd majority vote of the Subdistrict members.

H. Appeal Procedures:

In order to insure that all Subdistrict landowners receive fair and equal treatment, the Board of Managers will consider appeals by such landowners if the Subdistrict Fees or requests for curtailment action by the Division Engineer are considered inaccurate or in error. The Board of Managers may hear any such appeal or may choose to appoint a hearing officer to hear any such appeal and make a recommendation to the Board. If it is determined that an error was made an adjustment will be made in computing the subsequent year's Subdistrict Fees or refunded. The Board of Managers may adopt regulations to govern any appeal process. In the absence of such regulations the provisions of the Colorado Administrative Procedures act will apply.

I. Allocation of Outside Income

Any funds collected from contracts with non-Subdistrict entities will be applied to advance the Plan Goals and Overall Objective or to offset the Administrative costs of operating the Subdistrict.

IX. CURRENT DATA REGARDING SUBDISTRICT IMPACTS