



# SPRUCE VALLEY RANCH RECHARGE FACILITY OPERATION MANUAL CASE NO. 98CW297



**Martin and Wood**  
**Water Consultants, Inc.**

602 Park Point Drive  
Suite 275  
Golden, CO 80401

Phone: (303) 526-2600  
Fax: (303) 526-2624  
[www.martinandwood.com](http://www.martinandwood.com)

**PREPARED FOR:**  
Spruce Valley Ranch  
PO Box 1582  
Breckenridge, Colorado 80424

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## **I. INTRODUCTION**

This operational manual provides a general description of the augmentation plan, the procedure for operating the Spruce Valley Ranch Recharge Facility (“Recharge Facility”), a summary of reporting requirements per Spruce Valley Ranch’s decree in Case No. 98CW27, and a contact list. A copy of the decree in Case No. 98CW297 is included in Appendix A of this manual.

### **A. Description of Augmentation Plan**

Spruce Valley Ranch obtained a decree for its well augmentation plan in Case No. 98CW297. The augmentation plan allowed for additional irrigation of 6.2207 acres within the Spruce Valley Ranch Subdivision by using its changed water rights in the Carwood Ditch. The pumping of 49 wells for the 6.2207 acres of additional irrigation within the Spruce Valley Ranch Subdivision will cause depletions to the Blue River that average about 9 acre-feet per year.

The Carwood Ditch historically diverted from Miners Creek, which is a tributary of the Blue River. As part of the exchange decreed in Case No. 98CW297, Spruce Valley Ranch can divert up to 10 acre-feet of its Carwood Ditch water right at the Spruce Valley Ranch Augmentation Pump (“Augmentation Pump”) on Indiana Creek at a maximum exchange rate of 0.714 cubic feet per second (conditional), and with an appropriation date of April 17, 1998. The water is then delivered into the Recharge Facility during the historical irrigation season of May through August. The water diverted into the Recharge Facility will accrue to Indiana Creek on a year-round basis to replace the depletions from the additional irrigation uses.

Spruce Valley Ranch has other decreed augmentation plans in Case Nos. W-3662, 89CW102, and 94CW19, which will all be consolidated with the accounting in the augmentation plan in Case No. 98CW297. A description of the other augmentation

plans can be found in the decree in Case No. 98CW297; a copy of which is included in Appendix A.

## **B. Description of Recharge Facility**

The Recharge Facility consists of one augmentation pump and nine injection wells. The augmentation pump is used to divert water from Indiana Creek and deliver it via pipeline, up slope to the nine injection wells. The injection wells inject water to the ground water system at a depth of approximately 40-50 feet which eventually accrues back to Indiana Creek. The location of the augmentation pump as well as each of the injection wells as they are numbered is presented in Figure 1. A separate operational manual for the augmentation pump will be provided by Applegate Group.

## **C. Monitoring Wells**

There are six monitoring wells associated with the Recharge Facility that are used to measure the ground water table down slope of the injection wells. The monitoring wells can be used to measure the ground water table near and down slope of the injection wells if there is ever any concern of water daylighting. However, as a general practice it is not necessary to regularly check the water levels in the monitoring wells. The location of each monitoring well as they are numbered is presented in Figure 1.

## **II. OPERATION OF RECHARGE FACILITY**

According to the decree in Case No. 98CW297, the Recharge Facility is generally to be operated from May through August. If for some reason, Spruce Valley Ranch is unable to inject the necessary volumes of water into the Recharge Facility during the May through August period, they may divert the additional water in September provided that there are no calling water rights on the Blue River between its confluence with Miner's Creek and its confluence with Indiana Creek or on Indiana Creek itself, and as long as water is legally and physically available at the original point of diversion for the Carwood Ditch. One of the calling rights that may affect the Spruce Valley Ranch's exchange is CWCB's minimum instream flow rights on the Blue River and Indiana Creek. The District 36 Water Commissioner can be contacted to determine if there are any calls that would prevent the Carwood Ditch water rights from being diverted by exchange, if such a diversion requirement becomes necessary.

The recharge rates will vary every year until the maximum irrigated area within Spruce Valley Ranch is reached or approached, and then the recharge rates will operate at the proposed maximum rates as outlined in the decree. The following procedures should be followed to begin operating the Recharge Facility in May of each year.

### **A. Obtain Target Flow Rates for the Year**

Prior to April 1<sup>st</sup> of each year, call Michelle Johnson at Martin and Wood Water Consultants, Inc., to verify the flow rates for that year. The flow rates for the year 2008 are attached in Appendix B.

### **B. Email the District 36 Water Commissioner**

Email the District 36 Water Commissioner to let him/her know that you are planning to operate the Recharge Facility and exchange per the decree in Case No. 98CW297 for the current year and request that he/she notify you if there is a call on the river

that would affect the exchange or if there is any reason why the exchange cannot be operated. It is important to document and retain all email communications with the Water Commissioner.

### **C. Take Static Water Level Measurements and Record Totalizing Flow Meter**

There may be some maintenance procedures that are required on the augmentation pump prior to operating the Recharge Facility. Any required augmentation pump maintenance should be performed prior to the following procedures. Please refer to the separate augmentation pump manual provided by Applegate Group for further information. Prior to turning the augmentation pump on to operate the Recharge Facility, record the following data on the Recharge Facility accounting forms found in Appendix C.

1. Take the static water level measurements in each of the injection wells using the water level meter and note the totalizing flow meter reading for each of the injection wells from the meters located in each of the valve boxes. (Note that the valve boxes may have sediment that obscures the meters in some cases and must be carefully cleaned out, as required.)
  
2. Check the total depth of each of the injection wells to make sure that the wells have not filled up with sediment. This can be accomplished by running the water level meter down the injection well until the bottom of the well is felt. Each injection well was drilled to a depth of approximately 50 feet and is completed with 10-feet of screened openings at the bottom of the wells (40-50 foot depth) that need to be essentially clear of sediment for the injection wells to function properly. If the total depth of any of the injection wells is less 48 feet, then those injection well(s) may need to be cleaned out via pumping. Please contact Michelle Johnson at Martin and Wood Water Consultants, Inc; if this is the case.



3. Leave all of the well casing lids open in case there is overflow when the augmentation pump is first turned on.
  
4. Before starting the augmentation pump to begin operating the Recharge Facility, open the valve located in the green valve boxes for each of the injection wells. Injection well Nos. 1-4 will tend to get more of the flow so you may want to open these less than injection well Nos. 5-9.

#### **D. Start Spruce Valley Ranch Augmentation Pump**

Please follow the manual prepared by Applegate Group for the procedures for starting the augmentation pump. The augmentation pump should be initially set at a rate 5 to 10 gallons per minutes higher than the target flow rate, as the flow rate in the pump will tend to decrease once the pump has been operating for some time. Record the totalizing flow meter reading on the Recharge Facility accounting forms presented in Appendix C after any routine pump maintenance is performed, but prior to operating the Recharge Facility.

The flow rate at the augmentation pump should be checked for the first few days of operation to confirm that the flow rate does not drop below the target flow rate and to make any adjustments if necessary.

#### **E. Injection Well Set Up**

Once the target flow rate is set at the augmentation pump, adjust the valve for each injection well so that the water is not coming out of the top of any of the injection wells. The flow into each injection well should be set such that the water level remains relatively stable in each injection well. This may require letting the augmentation pump run for a period of time to let the water levels in the injection wells stabilize as well as to allow the augmentation pump flow rates and injection well flow rates to stabilize. Note that the valves on each of the injection wells are



very sensitive and may need to be feathered to make small adjustments. After the flow rates have stabilized in the augmentation pump and each of the injection wells, record the flow rates for the augmentation pump and each of the injection wells, as well as the water level in each of the injection wells on the Recharge Facility accounting forms found in Appendix C. The flow rates in gallons per minute can be measured by monitoring the number of gallons recorded through the flow meter that is located in each valve box over one minute.

Due to the difference in the soils and the initial static water level, some of the injection wells may be able to accept more water than others. For example, during the initial injection well test performed in June 2008, injection well No. 4 could only take a flow rate of about 1.5 gallons per minute without having water come out of the top of the injection well casing while injection well Nos. 1 and 2 could take a flow rate of around 7 gallons per minute. The water levels in each injection well should also be stabilized at a depth of greater than two feet below the top of the casing to allow for fluctuations. For instance, if some of the injection wells are starting out with a static water level of 11 feet below the surface and other injection wells have static water levels of 20+ feet, then you will want to open up the valves more for the injection wells with the lower (20+) static water level. The water levels in each injection well will stabilize but will still experience small fluctuations so we do not want to have the water levels near the top of the casing. Once the water levels and flow rates have stabilized and all the necessary data has been recorded on the Recharge Facility accounting sheets, the well casing lids can be closed and locked until the flow rates are changed the next month.

## **F. Check Injection Wells**

Check the injection wells for the first few days after starting up the Recharge Facility to make sure that the water levels are remaining stable, that there is no water coming out of the top of any of the injection wells, or that water is not daylighting out of the side of the slope. This can be accomplished by taking a water level measurement in

each injection well or by visual inspection. If daylighting is suspected, the water level can be measured in the monitoring wells to determine if the ground water table has risen to ground level. If the water levels in the monitoring wells are not at the surface, the water seen at the surface is not due to high ground water levels and may be seepage from surface runoff.

### **G. End of Month Steps**

At the end of each month, and prior to changing the target flow rates for the next month, record the totalizing flow meter readings for the augmentation pump and each of the injection wells on the Recharge Facility accounting forms in Appendix C. The target flow rate at the augmentation pump can then be set for the next month and Steps D through F should be repeated. If at the end of the month, the total amount of water recharged during that month is not equal to or greater than the total target recharge for that month, the flow rate for the following month should be increased beyond the target flow rate for that month to cover the deficiency from the previous month. This should be noted on the Recharge Facility accounting sheet.

### **III. REPORTING REQUIREMENTS**

All the necessary contact information for reporting requirements is found in Section IV of this manual.

#### **A. Diversions**

All diversions from the augmentation pump to the injection wells must be measured by means of a totalizing flow meter. The monthly total volumes from the augmentation pump as well as each injection well can be calculated on the Recharge Facility accounting sheets found in Appendix C using the beginning of the month and end of the month totalizing flow meter readings.

#### **B. Projections**

On or before March 31<sup>st</sup> of each year, a tabulation of projected consumptive uses of water pursuant to the decree shall be projected on a monthly basis for the upcoming year (April 1 through March 31) and submitted to the Division Engineer. The projection can be accomplished by filling out the consolidated accounting sheet in Appendix D with estimated values based on the previous year of operation.

#### **C. Accounting**

The Recharge Facility accounting and consolidated decree accounting shall be completed monthly and furnished to the Division Engineer and the Water Commissioner by November 15<sup>th</sup> of each year. The accounting sheets can be submitted to both the Division Engineer and the Water Commissioner via email. The consolidated decree accounting sheet, presented in Appendix D, requires input of the meter reading for each individual lot under the meter readings sheet. Under Part I of the accounting, the number of guest houses occupied and the occupancy rate as a percentage of that month needs to be filled out. Under Part II of the accounting, if any outside restrooms are ever

constructed, that number will need to be entered for each month. Under Part III of the accounting, the number of horses being boarded at the stable needs to be entered for each month. Under Part IV of the accounting the current number of acres being irrigated, the lagged depletions, and the amount of water pumped to recharge will need to be entered every month but this data will be obtained from Martin and Wood Water Consultants, Inc. Part V does not require any entry of data.

#### **D. Irrigation Survey**

At least every three years, Martin and Wood Water Consultants, Inc., will conduct an inspection and calculation of the irrigated areas for each lot within Spruce Valley Ranch. Spruce Valley Ranch will be required to notify every lot owner that the irrigation survey will be conducted and to obtain permission from the lot owner to access their property. Martin and Wood will provide the Division Engineer with a certificate of the area and location of irrigation based on the field inspection.

#### **E. Annual Report**

Along with the accounting, Spruce Valley Ranch shall file an annual report with the Division Engineer by November 15<sup>th</sup> of each year summarizing diversions and replacements made under the augmentation plan. The completed Recharge Facility accounting sheets in Appendix C should be sufficient for this purpose.

#### **F. Notification of Lot Owners**

On or before March 1<sup>st</sup> of each year, Spruce Valley Ranch shall notify each well owner within Spruce Valley Ranch of the area that can be irrigated for each well owner for the upcoming irrigation season such that the combined total irrigated area for all wells within Spruce Valley Ranch does not exceed 9.4146 acres. A copy of the tabulation of the irrigated area allocated for each lot shall be submitted to the Division Engineer on or

before March 31<sup>st</sup> of each year. The irrigation survey that is conducted by Martin and Wood Water Consultants, Inc., can be used for this purpose. However, if at some point, the total irrigated area within the Spruce Valley Ranch Subdivision begins to approach or exceed the maximum irrigated area, Spruce Valley Ranch will need to reduce the total irrigated acreage within the Subdivision through its covenants.

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## **IV. CONTACTS**

### **A. Reporting Contacts**

#### **Division Engineer**

Colorado Division of Water Resources

Water Division 5

Alan Martellaro, Division Engineer

PO Box 396

Glenwood Springs, Colorado 81601

(970) 945-5665 Ext 5014

[Alan.Martellaro@state.co.us](mailto:Alan.Martellaro@state.co.us)

#### **Water District 36 Water Commissioner**

Scott Hummer

(970) 468-2442

[Scott.Hummer@state.co.us](mailto:Scott.Hummer@state.co.us)

#### **Martin and Wood Water Consultants, Inc.**

Michelle Cunico Johnson

602 Park Point Drive Suite 275

Golden, Colorado 80401

(303) 526-2600 Ext 569

[mjohnson@martinandwood.com](mailto:mjohnson@martinandwood.com)

#### **Applegate Group**

Michael Peel

1499 West 120<sup>th</sup> Ave, Suite 200

Denver, Colorado 80234

(303) 452-6611

[MichaelPeel@applegategroup.com](mailto:MichaelPeel@applegategroup.com)

**Spruce Valley Ranch Attorney**

Mark Wagner

Hill & Robbins, P.C.

1441 18<sup>th</sup> Street, Suite 100

Denver, Colorado 80202

(303) 296-8100 Ext 115

[markwagner@hillandrobbsins.com](mailto:markwagner@hillandrobbsins.com)

**B. Spruce Valley Ranch Contacts**

**Ranch Manager for Spruce Valley Ranch**

Scott Ferguson

(415) 412-2228

[paramitahealth@yahoo.com](mailto:paramitahealth@yahoo.com)

**Accounting Manager for Spruce Valley Ranch**

Sasche Ferguson

(415) 412-2227

**Board Member Contact**

Larry Anderson

PO Box 1582

Breckenridge, Colorado 80424

(970) 459-7496

[gonefishin80424@yahoo.com](mailto:gonefishin80424@yahoo.com)



**APPENDIX A**  
**DECREE IN CASE NO. 98CW297**

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DISTRICT COURT, WATER DIVISION 5 COLORADO  109 Eighth Street Room 104 Glenwood Springs, CO 81601	▲ Court Use Only ▲
CONCERNING THE APPLICATION FOR WATER RIGHTS OF THE SPRUCE VALLEY RANCH FOUNDATION , IN SUMMIT COUNTY	
Case No. 98CW297	
<b>DECREE OF THE WATER JUDGE</b>	

THIS MATTER was filed with the Water Clerk, Water Division No. 5 on December 31, 1998 and subsequently amended on February 26, 1999, and on March 30, 2000. The case was re-referred to the Water Judge on the motion of the Applicant filed on April 4, 2006. As originally filed, the Spruce Valley Ranch Foundation ("Spruce Valley") and Brownell M. Bailey were co-applicants in this case. Mr. Bailey no longer has any remaining interest in the water rights at issue in this case and was allowed to withdraw as a co-applicant in this case by Order of the Court dated November 16, 2005. Timely statements of opposition to the application were filed by: the City and County of Denver acting by and through its Board of Water Commissioners ("Denver"), the City of Colorado Springs, the State and Division Engineers, the Colorado Water Conservation Board, and the Town of Breckenridge. No other statements of opposition have been filed in this case, and the period for filing such statements has expired.

The Court, having reviewed the pleadings and evidence presented in this case and being fully advised in the premises, enters the following Findings of Fact, Conclusions of Law, Judgment, and Decree:

**I. FINDINGS OF FACT**

**1. Name and mailing address of Applicant:**

Spruce Valley Ranch Foundation  
 P.O. Box 1582  
 Breckenridge, CO 80424

**CHANGE OF WATER RIGHTS AND EXCHANGE**

**2. Subject Water Rights:** Applicant owns an undivided 10/28ths interest in the water

rights decreed to the Carwood Ditch described below:

- A. Priority No. 78 decreed for 2.0 cfs absolute for irrigation use in Civil Action No. 1277 in former Water District No. 36 on March 2, 1910, with an appropriation date of April 23, 1891;
- B. Priority No. 71 decreed for 1.0 cfs absolute for domestic use in Civil Action No. 1709 in former Water District No. 36 on October 26, 1937, with an appropriation date of April 25, 1891; and
- C. Priority No. 225 decreed for 5.0 cfs absolute for irrigation use in Civil Action No. 1709 in former Water District No. 36 on October 26, 1937, with an appropriation date of December 31, 1911.

The originally decreed location of the headgate of the Carwood Ditch is a point on the west side of Miners Creek, a/k/a Jug Creek, in the SE/4 SW/4 of Section 35, Township 5 South, Range 78 West, 6th P.M., Summit County, Colorado. The decree in Civil Action No. 1709 describes the point of diversion for the Carwood Ditch as being located on the west side of Miners Creek, a/k/a Jug Creek, at a point where the south quarter corner of Section 35, Township 5 South, Range 78 West, 6th P.M. bears north 76°46' west a distance of 1,456 feet.

As originally filed, this proceeding sought a change of up to 18/28ths interest in the Carwood Ditch water rights. However, because of prior conveyances, this proceeding now only concerns 10/28ths interest in the said Carwood Ditch water rights. The remaining 7.5/28ths interest previously owned by former Co-Applicant Brownell Bailey is not changed in this case; but may be changed in a future application.

**3. Prior Change Decrees:** By decrees entered by the District Court, Water Division 5 in Case No. 87CW254 on June 28, 1989, and in Case No. 87CW391 on March 2, 1990, this Court determined that the water rights decreed to the Carwood Ditch were historically used for domestic purposes and to irrigate hay meadows and horse pasture on "Bill's Ranch", which was located along the southeast boundaries of the Town of Frisco, near the present Dillon Reservoir. The Court further found that (1) while it was possible at times to place to beneficial use water diverted under all three of the Carwood Ditch priorities, there was sufficient water available under the most senior priority, Priority No. 78, to satisfy all of the irrigation needs and that all of the irrigation consumptive use should be attributed to water diverted under Priority No. 78; (2) Priority No. 78 irrigated approximately 25 acres of hay and pasture grass and that this acreage received an adequate irrigation supply in every year, even in dry years; and (3) the total consumptive use attributable to Priority No. 78 was 28 acre-feet per year and that water was available for diversion under Priority No. 78 from May 1 through September 30 of each year, with average diversions of 69 acre-feet per year. The applicants in the above-described cases sought and obtained judicial approval to use an undivided 25% interest in the Carwood Ditch water rights for augmentation and other uses as described in those decrees.

In Case No. 98CW112 on February 1, 1999, this Court entered a decree reiterating the above findings regarding the Carwood Ditch water rights, and approved an augmentation plan and exchange using an undivided 3/28ths interest in the Carwood Ditch water rights purchased from Mr. Bailey as the augmentation and exchange water source.

This proceeding deals with the 10/28ths of the Carwood Ditch water right that was obtained from Mr. Bailey and is now owned by Spruce Valley.

**4. Description of Changes of Water Rights and Exchange:** Applicant seeks the right to use 10 acre-feet per year of the consumptive use portion of the subject water rights for augmentation purposes to offset otherwise out-of-priority depletions resulting from the uses of water at the Spruce Valley Ranch Subdivision located in Sections 7, 8, 17, and 18, Township 7 South, Range 77 West, 6th P.M. Such use shall be made by an appropriative right of exchange of 10 acre-feet from its historic point of diversion and place of use on Bill's Ranch to the Spruce Valley Ranch Subdivision. The reach of the exchange is the confluence of Miner's Creek and the Blue River up the Blue River to its confluence with Indiana Creek and then up Indiana Creek to the Spruce Valley Augmentation Pump located as follows: Commencing at the SE corner of Section 8 Township 7 South, Range 77 West and bearing S72°W a distance of 2,153 feet to location of the Spruce Valley Augmentation Pump. The maximum rate of exchange is 0.714 cfs, conditional, with an annual volumetric limitation of 10 acre-feet; provided that Applicant may only exchange water pursuant to this Decree to the extent that water is legally and physically available at the original point of diversion for the Carwood Ditch. The date of appropriation of the said exchange is April 17, 1998. Such use for augmentation purposes may be made instantaneously if needed to replace depletions occurring at the time of the exchange, or the water so exchanged may be pumped into the Spruce Valley Recharge Facility, described below.

#### **PLAN FOR AUGMENTATION**

**5. Overview of Plan for Augmentation:** This plan for augmentation is for uses of water at Spruce Valley Ranch, an existing residential development in Summit County ("Spruce Valley Ranch"). Spruce Valley Ranch is located approximately two (2) miles south of the Town of Breckenridge. Spruce Valley Ranch comprises an area of approximately 250 acres in Sections 7, 8, 17, and 18, Township 7 South, Range 77 West, 6th P.M. and is depicted on the map attached hereto as **Exhibit A**. The primary water supply for Spruce Valley Ranch is currently derived pursuant to the Decree of this Court in Case No. W-3662. Subsequent plans for augmentation were decreed in Case Nos. 89CW102 and 94CW191, on August 6, 1990 and May 3, 1999, respectively, for additional water uses within Spruce Valley Ranch. The plan for augmentation decreed in this case will provide replacement water to cover depletions from irrigation of up to 6.2207 acres in Spruce Valley Ranch. The applicant in the plans for augmentation decreed in Case Nos. W-3662 and 89CW102, was Spruce Valley Ranch Associates. On August 23, 1988, Spruce Valley Ranch Foundation took assignment of the water rights and operational control of the plan for augmentation decreed in Case No. W-3662. It is contemplated that Spruce Valley Ranch Foundation will also be taking assignment of ownership of the water rights and operational control

of the plan for augmentation decreed in Case No 89CW102. Accounting for all of these plans for augmentation will be integrated as described in paragraph 9, below. The annual depletions covered by this plan for augmentation are estimated at 9.0 acre-feet per year with approximately 3.5 acre-feet of depletions occurring during the wintertime (October through April). At this time, Applicant is proposing to divert 10 acre-feet per year of the historical consumptive use attributable to the Carwood Ditch water right by exchange from the Spruce Valley Augmentation Pump on Indiana Creek, as described in paragraph 4., above, for delivery via pipeline into the Spruce Valley Recharge Facility, the approximate center point of which is located as follows: Commencing at the SE corner of Section 8 Township 7 South, Range 77 West and bearing S85°W a distance of 1,644 feet to a point described as the approximate center of the Spruce Valley Recharge Facility. The Spruce Valley Augmentation Pump and the Spruce Valley Recharge Facility are depicted on the map attached hereto as **Exhibit A**. A well permit must be approved for the Spruce Valley Augmentation Pump pursuant to applicable provisions of C.R.S. §37-90-137 prior to construction thereof. The Spruce Valley Augmentation Pump must be constructed to produce water from the stream alluvium within 100 feet of the stream. All diversions from the Spruce Valley Augmentation Pump to the Spruce Valley Recharge Facility shall be measured by means of a totalizing flow meter. Carwood Ditch consumptive use water will be delivered into the Spruce Valley Recharge Facility during the historical irrigation season (May through September). The Spruce Valley Recharge Facility is located at a distance from Indiana Creek so that, based on the soil transmissivity and specific yield, the consumptive use water delivered into the recharge facility will percolate underground back to the flow of Indiana Creek in time and amount sufficient to replace the calculated monthly depletions. The Recharge Facility will consist of injection wells that will inject water delivered to the Recharge Facility into the ground water table at a depth of at least 12 feet below the root zone. A schematic diagram of the Recharge Facility is attached as **Exhibit B**. The Applicant shall be responsible for maintenance of the Spruce Valley Augmentation Pump and the Recharge Facility.

**6. Name of structures to be augmented:** Wells constructed within the Spruce Valley Ranch pursuant to the decree in Case No. W-3662.

**7. Description of water rights to be used for augmentation:** 10 acre-feet per year of the consumptive use attributable to the historical use of the Carwood Ditch water right described in paragraph 4., above.

**8. Statement of plan for augmentation:**

A. Pursuant to this plan for augmentation, water may be pumped from the tributary wells constructed pursuant to the decree in Case No. W-3662 within the Spruce Valley Ranch in order to irrigate up to 6.2207 acres within the Spruce Valley Ranch. Monthly and annual depletions to Indiana Creek attributable to such irrigation have been determined as follows:

<b>Lagged Depletions to Indiana Creek (Acre-feet)</b>	
April	0.30

May	0.55
June	1.05
July	1.28
August	1.36
September	1.26
October	0.93
November	0.66
December	0.51
January	0.42
February	0.37
March	0.33
<b>Total</b>	<b>9.02</b>

The amount and timing of depletions were determined using the Glover Stream Depletion Model utilizing an aquifer transmissivity of 500 gpd/ft<sup>2</sup> and a specific yield of 0.01, and an annual irrigation consumptive use rate of 1.45 acre-feet per acre. In order to replace these depletions in amount and time, the Applicant's interest in the Carwood Ditch water right changed herein will, to the extent possible, be diverted by exchange from the Spruce Valley Augmentation Pump at a maximum rate of 0.714 cfs from Indiana Creek and delivered into the Spruce Valley Recharge Facility at the following monthly rates:

<b>Delivery Targets to Recharge Facility(Acre-feet)</b>	
May	2.76
June	3.22
July	1.72
August	2.30
<b>Total</b>	<b>10.00</b>

Based on the Glover Stream Depletion Model and utilizing the same transmissivity and specific yield values used to calculate well depletions, i.e., an aquifer transmissivity of 500 gpd/ft<sup>2</sup> and a specific yield of 0.01, the above-described deliveries to the Spruce Valley Recharge Facility will produce the following monthly and annual accretions to the flows of Indiana Creek:

<b>Recharge Accretions to Indiana Creek (Acre-feet)</b>	
April	0.33
May	0.56
June	1.22
July	1.55
August	1.50
September	1.39
October	0.94
November	0.70
December	0.56
January	0.47
February	0.41
March	0.37
<b>Total</b>	<b>10.00</b>

This monthly pattern of accretions will replace depletions attributable to the irrigation of up to 6.2207 acres described above in time, amount, and location, and will thus prevent injury to other water rights. In the event that Applicant is unable to deliver water to the Recharge Facility at the specified monthly rates, Applicant shall calculate recharge accretions to Indiana Creek based on the amount of water actually delivered to the Recharge Facility on a monthly basis by means of the Glover Stream Depletion Model and, if needed to ensure that stream accretions from the Recharge Facility equal or exceed stream depletions on a monthly basis, Applicant shall implement a pumping reduction plan for wells within the subdivision and /or increase deliveries to the Recharge Facility in subsequent months as needed to prevent injury to other water rights. Any such pumping reduction plan and/or plan to increase deliveries to the Recharge Facility in subsequent months shall be subject to the approval of the Division Engineer.

**9. Operation and Interface with Previous Plans for Augmentation; Well**

**Permits:** This plan for augmentation will provide an additional but separate water supply from that provided as described in the decrees in Case Nos. W-3662 and 94CW191. The decree in Case No. W-3662 allowed irrigation within Spruce Valley Ranch of 49,000 square feet (1.1249 acres). The decree in Case No. 94CW191 allowed an additional maximum of 90,126 square feet (2.0690 acres) to be irrigated within Spruce Valley Ranch. This plan for augmentation will replace depletions attributable to the irrigation of up to 6.2207 additional acres within Spruce Valley Ranch. Operation of these plans for augmentation will be as follows: All in-house water requirements within the subdivision will be met first by operation of the decree in Case No. W-



3662. To the extent that the water supply available under the decree in W-3662 is insufficient to meet the said in-house demands, the consumptive use requirements attributable to the remaining in-house demands and other non-irrigation uses within the subdivision will be met by operation of the decree in Case No. 94CW191, except that it is contemplated that the consumptive use attributable to horse watering uses may be met by operation of the decree entered in Case No. 89CW102. Finally, the depletions attributable to irrigation of up to 6.2207 acres described above will be replaced pursuant to operation of this plan for augmentation. Integrated accounting in the form depicted in **Exhibit C**, or as modified by agreement of the parties, or as deemed necessary by the Division Engineer, shall be submitted by Applicant to the Division Engineer as required by paragraph 19, below, and shall be the controlling accounting for all three plans for augmentation described above. Upon proper application, the State Engineer shall issue new well permits for any homeowner within the subdivision that will operate subject to the terms and conditions of this decree and the decrees in Case Nos. W-3662 and 94CW191 and applicable provisions of C.R.S. §37-90-137. To the extent that well permits were previously issued to homeowners within Spruce Valley pursuant to the decrees in Case Nos. W-3662 and/or 94CW191, Applicant shall require all such homeowners to submit new well permit applications to the State Engineer's office within six months after entry of this decree that will operate subject to the terms and conditions of this decree and the decrees in Case Nos. W-3662 and 94CW191 and each well permit shall include a term and condition stating that the well, in combination with all other wells within the subdivision, shall not be used to irrigate more than a combined total of 9.4146 acres and that the maximum area that can be irrigated by the well may vary from year to year and will be set by Spruce Valley prior to the beginning of each irrigation season as required by paragraph 19 of this decree. Upon issuance of new well permits by the State Engineer pursuant to such applications, the previously issued well permits shall be terminated. Applicant shall apply for and obtain monitoring well permits for the injection wells described in this decree prior to construction thereof.

**10. No injury.** By the modes of augmentation described above, and the terms and conditions described above for the change of the Spruce Valley Ranch Foundation's Carwood Ditch water rights and for the appropriative right of exchange of the subject Carwood Ditch water, no injury will result to other vested water rights.

**11. Accounting and Record Keeping.** Applicant will, in cooperation with the Division Engineer, develop such accounting forms and implement such record keeping practices as are acceptable to the Division Engineer for administration of this plan.

## II. CONCLUSIONS OF LAW

**12. Jurisdiction:** This Court has jurisdiction of the subject matter of this case and all persons who could have appeared herein, whether they have appeared or not, pursuant to C.R.S. §§37-92-203(1), 37-92-302 and 37-92-304.

**13. Notice:** Full and adequate notice of the claims adjudicated herein has been given in the manner required by law.

**14. Non-Injury to Other Water Rights:** The change of water right, exchange, and plan for augmentation decreed herein are of the type contemplated by law and, if properly implemented, will allow Applicant to make out-of-priority diversions and provide replacement of depletions caused by such out-of-priority diversions to the extent necessary to prevent material injury to owners of or persons entitled to use water pursuant to any vested water right or decreed conditional water right.

### III. JUDGMENT AND DECREE

**15.** The foregoing Findings of Fact and Conclusions of Law are incorporated herein as if set out in full.

**16.** The change of water right described in paragraph 3, above is hereby approved. The Applicant's ownership of 10/28ths interest in the Carwood Ditch water rights is determined to equal 10 acre-feet per year of consumptive use. Accordingly, 0.714 cfs of Priority No. 78 (10/28ths of 2 cfs) is changed to augmentation purposes and found to yield 10 acre-feet per year of transferable consumptive use; and 0.3571 cfs (10/28ths of 1 cfs) of Priority No. 71 is abandoned to the stream and 1.786 cfs (10/28ths of 5 cfs) of Priority No. 225 is abandoned to the stream. Applicant's appropriate right of exchange described in paragraph 4, above, is hereby confirmed; subject to the requirement that the exchange decreed herein shall be limited to times when the Carwood Ditch Priority No. 78 is in priority and when water is physically available at the originally decreed point of diversion for the Carwood Ditch. Applicant's appropriate right of exchange described in paragraph 4, above has a priority date of December 31, 1998 and a date of appropriation of April 17, 1998 and, as such, shall be administered as junior in priority to all water rights having 1997 or earlier priority dates and those 1998 priority water rights having earlier dates of appropriation, including, but not limited to, the Town of Breckenridge's existing decreed rights to fill Goose Pasture Tarn directly or by exchange, and the Town of Breckenridge's exchanges decreed in Case Nos. 80CW444, 81CW107, 81CW487, 81CW488, 83CW51, 85CW567, 87CW243, and 92CW299. Applicant's plan for augmentation as set forth herein is hereby approved, subject to compliance with proper administration of the terms and conditions set forth in this Decree.

**17.** Pursuant to C.R.S. §37-92-305(8), this plan for augmentation is sufficient to permit the continuation of diversions when curtailment would otherwise be required to meet a valid senior call for water, to the extent that this Decree requires the Applicant to provide replacement water necessary to meet the lawful requirements of a senior diverter at the time and location and to the extent the senior would be deprived of his or her lawful entitlement by the Applicant's diversion. The state engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.

**18.** On or before March 31 of each year, Applicant shall submit to the Division Engineer a tabulation of projected consumptive uses of water pursuant to this Decree on a monthly basis for the year (April 1 through March 31). In no event shall such tabulation project a total annual consumptive use greater than 10 acre-feet. Accounting records shall be completed monthly

and furnished to the Division Engineer by November 15 of each year on a form, acceptable to the Division Engineer, showing the information necessary to evaluate compliance with the plan for augmentation as decreed herein, and the plans for augmentation decreed in Case Nos. W-3662, 89CW102 and 94CW191. In addition, at least every three years, Applicant's engineer shall provide the Division Engineer with a certificate of the area and location of irrigation based on a field inspection within Spruce Valley Ranch. Such certificate shall also allocate the irrigated area to each of Spruce Valley's plans for augmentation as described in paragraph 9., above. A copy of the said certificate shall be provided to the Division Engineer and to the Objectors in this case. A copy of a proposed accounting form is attached hereto as **Exhibit C**. Applicant may propose use of a different accounting form only after providing it to objectors for their review and comment, prior to proposing it to the Division Engineer. The Division Engineer may require such modifications to the accounting form, as he may deem necessary.

**19.** Applicant shall install and maintain such measuring devices, provide accounting, and supply calculations regarding the timing of depletions as required by the Division Engineer as required by this plan. Applicant shall also file an annual report with the Division Engineer by November 15 of each year summarizing diversions and replacements made under this plan and the plans for augmentation described in Case Nos. W-3662, 89CW102, and 94CW191 and accounting that shows that the operation of the Recharge Facility as decreed herein will result in the recharge accretions that equal or exceed well out-of-priority depletions pursuant to this decree to replace such depletions. Because the replacement water provided under this plan for augmentation will be injected into the underground aquifer below the root zone, there will be no evaporation loss of the replacement water because of the design of the Recharge Facility. The Court finds that well metering is required to accurately account for ground water withdrawals within Spruce Valley and that all wells shall be equipped with totalizing flow meters within six (6) years of the date of this Decree or sooner if required by the State Engineer pursuant to a well permit. On or before March 1 of each year Applicant shall notify each well owner within the subdivision of the area that can be irrigated using that owner's well for the upcoming irrigation season such that the combined total irrigation for all wells within the subdivision does not exceed 9.4146 acres. A copy of a tabulation of the irrigated acreage allocated for each well within the subdivision shall be submitted to the Division Engineer on or before March 31 of each year.

**20. Colorado Springs Stipulation:** Applicant acknowledges that Colorado Springs has decreed water rights in the Blue River Basin which were decreed prior to the filing of the application in this case and which are senior to the rights being sought herein, described as follows:

A. East Hoosier Ditch (40 cfs), East Hoosier Ditch (20 cfs), West Hoosier Ditch (17 cfs), date of adjudication: October 26, 1937;

B. Blue River Ditch (40 cfs), Crystal Ditch (40 cfs), Spruce Ditch (60 cfs), McCullough Ditch (60 cfs), East Hoosier Ditch (50 cfs), Hoosier Ditch (40 cfs), Hoosier Ditch (20 cfs), Hoosier Tunnel (20 cfs.), Blue River, Crystal, Spruce, McCullough, East Hoosier and Hoosier Ditches (50 cfs), date of adjudication: March 10, 1952;

C. Upper Blue Lake Reservoir (2,140 acre-feet), Lower Blue Lake Reservoir (1,006 acre-feet), Spruce Lake Reservoir (1,542 acre-feet), Mayflower Reservoir (618 acre-feet), adjudication date: March 10, 1952.

Applicant, in operating its diversion and plan for augmentation, shall not cause or precipitate a call or curtailment on the existing decreed conditional or absolute rights of Colorado Springs on the Blue River or its tributaries, directly or indirectly, as described above.

**21. CWCB Stipulation:**

A. Applicant acknowledges that the CWCB has instream flow water rights decreed in Case Nos. 86CW204, 86CW217, and 89CW233, which were decreed prior to the filing of the application in this case and which are senior to the exchange being sought herein.

B. In connection with the use of the 10 acre-feet of consumptive use per year for augmentation purposes, the Applicant will not operate the 1998 appropriative right of exchange decreed herein, at times when the instream flows of the Blue River or Indiana Creek as decreed to the CWCB in Case Nos. 86CW204, 86CW217, and 89CW233 are not satisfied.

C. In operating the plan for augmentation sought in this case, Applicant shall curtail all out-of-priority diversions occurring under this plan unless:

(1) the above-described CWCB instream flow water rights are being satisfied on the Blue River and Indiana Creek; or

(2) the Applicant replaces depletions attributable to such diversions, in time and amount, upstream of where those depletions impact the river system.

D. So as to assure the operation of this plan for augmentation and exchange, Applicant shall install and maintain such water measuring devices on its structures, implement such accounting procedures, and provide such calculations as may be reasonably required by the State or Division Engineer to administer the terms of this decree. The CWCB shall have access to any such measuring devices at reasonable times.

**22. The exchange described herein shall be subject to the following conditions:**

A. Water must be physically available for diversion or release at the points of exchange;

B. The amount of water diverted at the "exchange to" point is not greater than the amount of water measured at the headgate of the Carwood Ditch, i.e., the "exchange from" point, or is not greater than the amount of water legally and physically available to the exchanged water rights priorities owned by the Applicant at the headgate of the Carwood Ditch, i.e., the "exchange from point;

C. All priorities having a point of diversion or which exist between the "exchange to" point and the "exchange from" point senior to the proposed exchange decreed herein, including but not limited to those described in paragraph 21. B, are satisfied either with the remaining flows, subject to their call, or from another source of water supplied by the Applicant; and

D. A live stream exists between the points of exchange; provided, however, that the Division Engineer or his designated representative may, on a case-by-case basis, authorize exchanges which command the entire flow of the stream if all of the foregoing conditions of this subparagraph are met and he finds that there will be no injury to any other water rights.

F. The Applicant shall obtain approval of the Division Engineer or his designated representative prior to operating any exchange decreed herein and shall notify the Division Engineer or his designated representative upon completion of operation of any exchange pursuant to this decree.

**23. Miscellaneous Terms and Conditions.**

A. No person shall construct a well on property owned by another unless the right to construct such a well is obtained by consent of the landowner.

B. Within sixty (60) days of construction of any well pursuant to a well permit the Applicant shall notify the Water Court and the Division of Water Resources of the precise location of the well(s).

C. In its application to make any conditional ground water rights absolute for any wells constructed pursuant to this Decree, the well owner shall identify the specific point(s) of diversion and the terms and conditions necessary to avoid injury to other water rights from well pumping at that location. This may result in changes to the terms and conditions of the decree that are specific to the ultimate location of the well(s).

24. The conditional right of exchange awarded herein is hereby continued in full force and effect until     MAY    , 2012. If Applicant desires to maintain such conditional right, Applicant shall file an application for a finding of reasonable diligence on or before the last day of     MAY    , 2012, or make a showing before such date that the conditional right has been made absolute by reason of the completion of the appropriation.

25. The priority for the conditional right of exchange determined herein was based on an application filed with the Court in 1998 and shall be administered as having been filed in that year; and shall be junior to all priorities filed in previous years. As between all rights filed in the same calendar year, priority shall be determined by historical dates of appropriation, and not affected by date of entry of the Ruling or Decree.

26. The Court shall retain jurisdiction of this matter on the question of injury to the water rights of any person for a period of five (5) years from the date that the Spruce Valley Ranch Foundation gives notice to the Court and all parties that the replacement requirement under this

Decree  
Case No. 98CW297  
Page 12

decree has reached 7.5 acre-feet per year of the consumptive use attributable to the Carwood Ditch water right owned by the Applicant. The retained jurisdiction of this Court may be invoked by any party to this proceeding or by the State Engineer or the Division Engineer by filing a petition with this Court setting forth the substance of the relief sought, the basis for that relief with service of said petition on all other parties hereto.

27. A copy of this Decree shall be filed with the Division Engineer for Water Division No. 5 and with the State Engineer.

DATED: \_\_\_\_\_

*5/8/06*

BY THE COURT:

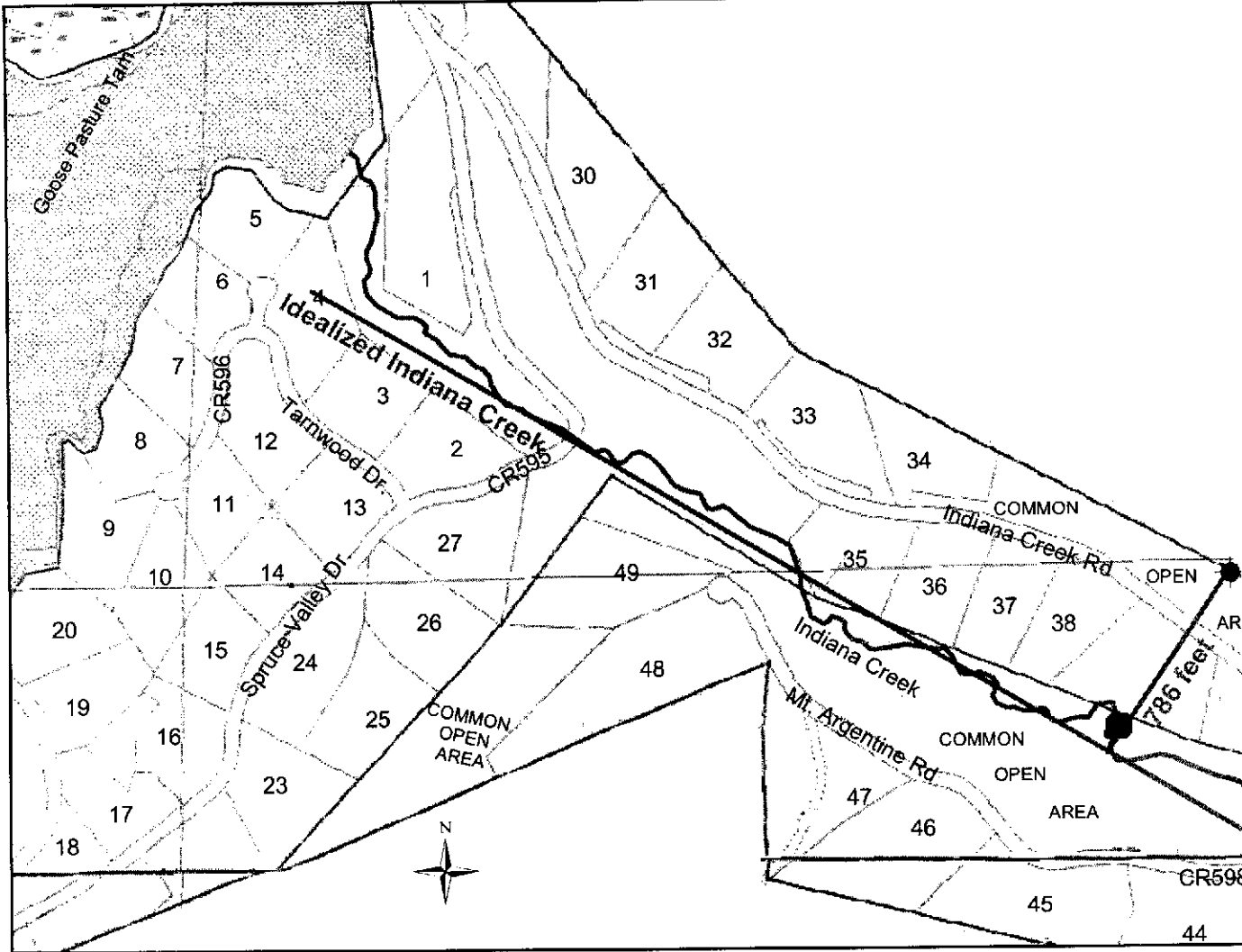


PETER CRAVEN

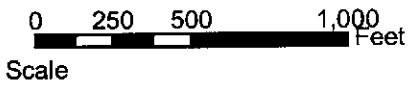
Water Judge  
Water Division 5  
State of Colorado

EXHIBIT A

R77W

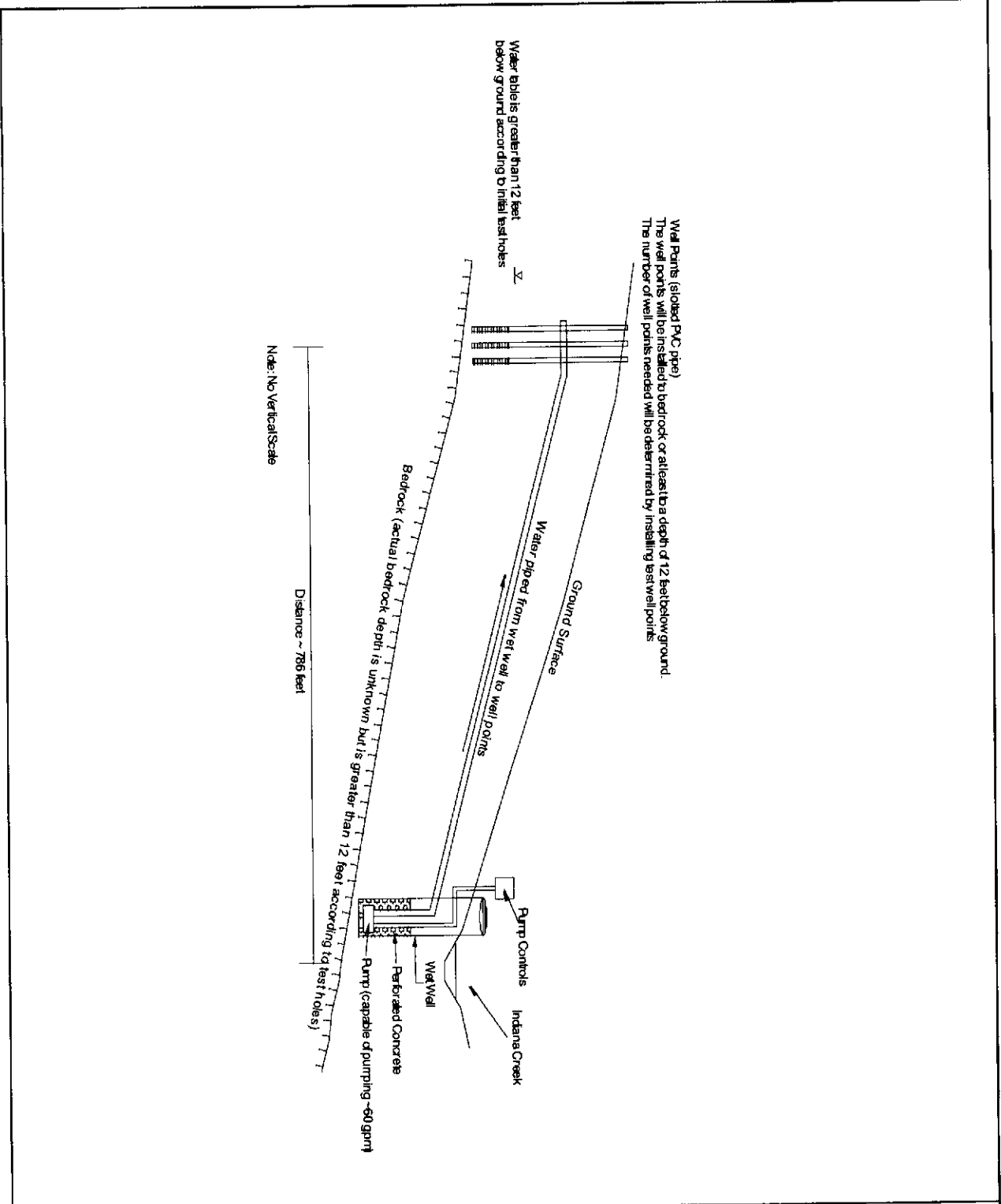


- Location of Diversion Structure
- ◆ Location of Recharge Site (Well Points)





**EXHIBIT B**



Job No.: 203.5  
 Date: 12/14/05  
 Drawn: MCJ  
 Checked: PLM

Spruce Valley Ranch

**Conceptual Diagram of Recharge Structure**



602 Park Point Dr. Suite 275  
 Golden, CO 80401  
 Phone: (303) 526-2600  
 Fax: (303) 526-2624  
 mwi@martinandwood.com





**EXHIBIT C**  
**(CONT'D)**

CONSOLIDATED ACCOUNTING DATA FOR SERVICES WHICH INCLUDE TRADES REPRESENTATION  
Page 3 of 4

YEAR \_\_\_\_\_

NUMBER OF LOTS PLANNED 1 AND 4)  
NUMBER OF LOTS PLANNED 2 AND 3)  
NUMBER OF LOTS PLANNED 3 AND 4)  
NUMBER OF LOTS PLANNED 3 AND 4)  
NUMBER OF LOTS PLANNED 3 AND 4)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
MONTH	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)	NUMBER OF LOTS PLANNED 1 AND 4) NUMBER OF LOTS PLANNED 2 AND 3) NUMBER OF LOTS PLANNED 3 AND 4) NUMBER OF LOTS PLANNED 3 AND 4)
JAN	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
FEB	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
MAR	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
APR	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
MAY	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
JUN	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
JUL	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
AUG	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
SEP	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
OCT	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
NOV	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
DEC	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
TOTAL	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000

NOTE: ALL VALUES ARE IN MILLIONS OF DOLLARS

**EXHIBIT C  
(CONT'D)**

CONSOLIDATED ACCOUNTING COAL FISH SOURCE WALTER TRIMMER P, AS FOR ALUMINUMION  
Page 4 of 4

YEAR \_\_\_\_\_

PART II - CALL NO. MEMBERS  
LANDING DISTRIBUTION BASED ON # OF REPORTED ACRES

(1)	(2)	(3)	(4)	(5)	(6)	(7)
MONTH	DETERMINED TO BE A FISHING MONTH	REPORTED TO THE STATE	REPORTED TO THE STATE	REPORTED TO THE STATE	REPORTED TO THE STATE	REPORTED TO THE STATE
	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES
JAN	0.4	0.0	0.0	0.4	0.0	0.0
FEB	0.3	0.0	0.0	0.3	0.0	0.0
MAR	0.3	0.0	0.0	0.3	0.0	0.0
APR	0.3	0.0	0.0	0.3	0.0	0.0
MAY	0.5	0.0	0.0	0.5	0.0	0.0
JUN	1.0	0.0	0.0	1.0	0.0	0.0
JUL	1.0	0.0	0.0	1.0	0.0	0.0
AUG	1.0	0.0	0.0	1.0	0.0	0.0
SEP	1.0	0.0	0.0	1.0	0.0	0.0
OCT	1.0	0.0	0.0	1.0	0.0	0.0
NOV	0.0	0.0	0.0	0.0	0.0	0.0
DEC	0.0	0.0	0.0	0.0	0.0	0.0
TOTALS	8.2	0.0	0.0	8.2	0.0	0.0

**APPENDIX B**  
**SPRUCE VALLEY RANCH**  
**SUMMARY OF REVISED**  
**DEPLETIONS AND RECHARGE**  
**SCHEDULES**

SUMMARY OF REVISED DEPLETIONS AND RECHARGE SCHEDULE IN CASE NO. 98CW297  
2008

BASED ON 2.0 ACRES OF IRRIGATION WITH SVR SUBDIVISION TO BE COVERED UNDER THE AUGMENTATION PLAN IN CASE NO. 98CW297													
Using Recharge Water from May to August to Meet Lagged Depletions from Well Pumping (49 Wells) for the Entire Year													
STEADY STATE STREAM DEPLETIONS FROM ALL 49 SPRUCE VALLEY WELLS													
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
DEPLETIONS FROM WELL PUMPING (AF)	0.13	0.12	0.10	0.09	0.18	0.34	0.42	0.44	0.41	0.30	0.21	0.16	2.90
RECHARGE SITE @ 786' FROM RIVER: TRANSMISSIVITY = 500 GPD/FT, STORATIVITY = 0.01													
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<sup>1</sup> RECHARGE (AF)	0.00	0.00	0.00	0.00	0.88	1.03	0.53	0.71	0.00	0.00	0.00	0.00	3.16
<sup>1</sup> RECHARGE (GPM)	0.00	0.00	0.00	0.00	6.45	7.77	4.02	5.37	0.00	0.00	0.00	0.00	-
RECHARGE ACCRETIONS TO INDIANA CREEK (AF)	0.15	0.13	0.12	0.10	0.18	0.39	0.49	0.47	0.44	0.30	0.22	0.18	3.17
<sup>2</sup> DIFFERENCE (AF)	0.02	0.01	0.02	0.01	0.00	0.05	0.07	0.03	0.03	0.00	0.01	0.02	0.27
<sup>1</sup> RECHARGE WATER PUMPED FROM INDIANA CREEK ALLUVIUM TO RECHARGE STRUCTURE													
<sup>2</sup> RECHARGE ACCRETIONS TO INDIANA CREEK MINUS DEPLETIONS FROM WELL PUMPING													

Contact: Scott Ferguson  
(415) 412-2228  
Submit to: Division Engineer by March 31st of each year

**APPENDIX C**  
**SPRUCE VALLEY RANCH**  
**RECHARGE FACILITY**  
**MONTHLY ACCOUNTING**  
**FORMS**



SPRUCE VALLEY RANCH RECHARGE FACILITY ACCOUNTING

BLANK FORM

Month:   
 Year:

<sup>1</sup>Total Target Flow Rate:   
 Total Target Recharge (acre-feet):

Date of Measurements							
Time of Measurement							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Recharge Structures</b>	Total depth of well (below top of pvc) feet	Static water level (below top of pvc) feet	Totalizing flow meter reading at the beginning of month (gallons)	Water level after start of pump (below top of pvc)	Flow rate after reaching equilibrium (gpm)	Totalizing flow meter reading at the end of month (gallons)	<sup>2</sup> Amount of water to recharge (acre-feet)
Augmentation Pump	-	-		-	-		0
Injection Well #1							0
Injection Well #2							0
Injection Well #3							0
Injection Well #4							0
Injection Well #5							0
Injection Well #6							0
Injection Well #7							0
Injection Well #8							0
Injection Well #9							0
<b>Total for Injection Wells</b>	-	-	0.0	-	0.0	0.0	0.0

NOTE: Collection of Monitoring Well Data is Optional

Date of Measurements						
Time of Measurement						
<b>Monitoring Wells</b>	static water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet
Monitoring Well #1						
Monitoring Well #2						
Monitoring Well #3						
Monitoring Well #4						
Monitoring Well #5						
Monitoring Well #6						

Notes:

Fill out data in yellow cells

<sup>1</sup> Total Target Flow Rate is obtained from Martin and Wood Water Consultants

<sup>2</sup> Amount of Water to Recharge (acre-feet) = (col (6) - col (3))/325851

SPRUCE VALLEY RANCH RECHARGE FACILITY ACCOUNTING

2008

Month: **May**  
 Year: **2008**

<sup>1</sup>Total Target Flow Rate (gpm): **6.45**  
 Total Target Recharge (acre-feet): **0.884**

Date of Measurements							
Time of Measurement							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Recharge Structures</b>	Total depth of well (below top of pvc) feet	Static water level (below top of pvc) feet	Totalizing flow meter reading at the beginning of month (gallons)	Water level after start of pump (below top of pvc)	Flow rate after reaching equilibrium (gpm)	Totalizing flow meter reading at the end of month (gallons)	Amount of water to recharge (acre-feet)
Augmentation Pump	-	-		-	-		0
Injection Well #1							0
Injection Well #2							0
Injection Well #3							0
Injection Well #4							0
Injection Well #5							0
Injection Well #6							0
Injection Well #7							0
Injection Well #8							0
Injection Well #9							0
<b>Total</b>	-	-	0.0	-	0.0	0.0	0.0

NOTE: Collection of Monitoring Well Data is Optional

Date of Measurements						
Time of Measurement						
<b>Monitoring Wells</b>	static water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet
Monitoring Well #1						
Monitoring Well #2						
Monitoring Well #3						
Monitoring Well #4						
Monitoring Well #5						
Monitoring Well #6						

Notes:

Fill out data in yellow cells

<sup>1</sup> Total Target Flow Rate is obtained from Martin and Wood Water Consultants

<sup>2</sup> Amount of Water to Recharge (acre-feet) = (col (6) - col (3))/325851

Recharge structure did not begin to operate until June due to inclement weather - June recharge was increased to account for May

Contact: Scott Ferguson  
 (415) 412-2228

Submit to: Division Engineer and District 36 Water Commissioner by November 15th of each year

SPRUCE VALLEY RANCH RECHARGE FACILITY ACCOUNTING

2008

Month: **June**  
 Year: **2008**

<sup>1</sup>Total Target Flow Rate (gpm): **14.22** note: 7.77 gpm for June and 6.45 gpm for May  
 Total Target Recharge (acre-feet): **1.885**

Date of Measurements							
Time of Measurement	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Recharge Structures</b>	Total depth of well (below top of pvc) feet	Static water level (below top of pvc) feet	Totalizing flow meter reading at the beginning of month (gallons)	Water level after start of pump (below top of pvc)	Flow rate after reaching equilibrium (gpm)	Totalizing flow meter reading at the end of month (gallons)	Amount of water to recharge (acre-feet)
<b>Augmentation Pump</b>	-	-		-			0
Injection Well #1	50.2	22.85	0.00	11.50	3.60		0
Injection Well #2	50.26	22.73	0.00	18.80	3.40		0
Injection Well #3	48.04	23.83	0.00	18.30	4.00		0
Injection Well #4	49.82	29.02	0.00	21.80	0.90		0
Injection Well #5	50.46	31.20	0.00	25.70	2.40		0
Injection Well #6	50.16	12.00	0.00	2.95	1.40		0
Injection Well #7	49.81	7.40	0.00	2.50	1.50		0
Injection Well #8	50.41	8.40	0.00	6.90	0.00		0
Injection Well #9	49.8	7.47	0.00	6.80	0.00		0
Total	-	-	0.0	-	17.2	0.0	0.0

NOTE: Collection of Monitoring Well Data is Optional

Date of Measurements	6/3/2008	6/3/2008	6/5/2008	6/6/2008	6/7/2008	6/8/2008
Time of Measurement	9:45 AM	4:15 PM	2:25 PM	6:45 PM	6:45 PM	2:45 PM
<b>Monitoring Wells</b>	static water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet
Monitoring Well #1	23.48	21.4	21	17.7	17.5	18
Monitoring Well #2	19.25	17.3	17.2	17.5	17.5	17.8
Monitoring Well #3	17.22	17	17	16.5	16.8	17
Monitoring Well #4	dry	dry	dry	dry	dry	dry
Monitoring Well #5	10.5	10.5	10.3	9.5	9.8	10
Monitoring Well #6	16.1	16.1	16	16	16	16

Notes:

Fill out data in yellow cells

<sup>1</sup> Total Target Flow Rate is obtained from Martin and Wood Water Consultants

<sup>2</sup> Amount of Water to Recharge (acre-feet) = (col (6) - col (3))/325851

Recharge structure did not begin to operate until June due to inclement weather - June recharge was increased to account for May

Contact: Scott Ferguson  
 (415) 412-2228

Submit to: Division Engineer and District 36 Water Commissioner by November 15th of each year

SPRUCE VALLEY RANCH RECHARGE FACILITY ACCOUNTING

2008

Month: **July**  
 Year: **2008**

<sup>1</sup>Total Target Flow Rate (gpm): **4.02**  
 Total Target Recharge (acre-feet): **0.551**

Date of Measurements							
Time of Measurement							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Recharge Structures</b>	Total depth of well (below top of pvc) feet	Static water level (below top of pvc) feet	Totalizing flow meter reading at the beginning of month (gallons)	Water level after start of pump (below top of pvc)	Flow rate after reaching equilibrium (gpm)	Totalizing flow meter reading at the end of month (gallons)	Amount of water to recharge (acre-feet)
<b>Augmentation Pump</b>	-	-		-	-		0
Injection Well #1							
Injection Well #2							
Injection Well #3							
Injection Well #4							
Injection Well #5							
Injection Well #6							
Injection Well #7							
Injection Well #8							
Injection Well #9							
<b>Total</b>	-	-	0.0	-	0.0	0.0	0.0

NOTE: Collection of Monitoring Well Data is Optional

Date of Measurements						
Time of Measurement						
<b>Monitoring Wells</b>	static water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet
Monitoring Well #1						
Monitoring Well #2						
Monitoring Well #3						
Monitoring Well #4						
Monitoring Well #5						
Monitoring Well #6						

Notes:

Fill out data in yellow cells

<sup>1</sup> Total Target Flow Rate is obtained from Martin and Wood Water Consultants

<sup>2</sup> Amount of Water to Recharge (acre-feet) = (col (6) - col (3))/325851

Contact: Scott Ferguson  
 (415) 412-2228

Submit to: Division Engineer and District 36 Water Commissioner by November 15th of each year

SPRUCE VALLEY RANCH RECHARGE FACILITY ACCOUNTING

2008

Month: August  
Year: 2008

<sup>1</sup>Total Target Flow Rate (gpm): 5.37  
Total Target Recharge (acre-feet): 0.736

Date of Measurements							
Time of Measurement							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Recharge Structures</b>	Total depth of well (below top of pvc) feet	Static water level (below top of pvc) feet	Totalizing flow meter reading at the beginning of month (gallons)	Water level after start of pump (below top of pvc)	Flow rate after reaching equilibrium (gpm)	Totalizing flow meter reading at the end of month (gallons)	Amount of water to recharge (acre-feet)
<b>Augmentation Pump</b>	-	-		-	-		0
Injection Well #1							
Injection Well #2							
Injection Well #3							
Injection Well #4							
Injection Well #5							
Injection Well #6							
Injection Well #7							
Injection Well #8							
Injection Well #9							
<b>Total</b>	-	-	0.0	-	0.0	0.0	0.0

NOTE: Collection of Monitoring Well Data is Optional

Date of Measurements						
Time of Measurement						
	static water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet	water level (below top of pvc) feet
Monitoring Well #1						
Monitoring Well #2						
Monitoring Well #3						
Monitoring Well #4						
Monitoring Well #5						
Monitoring Well #6						

Notes:

Fill out data in yellow cells

<sup>1</sup> Total Target Flow Rate is obtained from Martin and Wood Water Consultants

<sup>2</sup> Amount of Water to Recharge (acre-feet) = (col (6) - col (3))/325851

Contact: Scott Ferguson  
(415) 412-2228

Submit to: Division Engineer and District 36 Water Commissioner by November 15th of each year

**APPENDIX D**  
**SPRUCE VALLEY RANCH**  
**CONSOLIDATED DECREE**  
**ACCOUNTING FORMS**

YEAR

**PART I - CASE NO. W-3662**

IRRIGATED AREA IN SQUARE FEET (W-3662)	49,000
IRRIGATED AREA IN ACRES (W-3662)	1.1249

**GROSS WATER USE UNDER AND IN EXCESS OF W-3662, PARAGRAPH 11, PAGE :**

(1) MONTH	(2) TOTAL METERED USE FROM METER READINGS GALLONS	(3) TOTAL METERED USE ACRE-FEET	(4) GUEST HOUSES (AUGMENTED UNDER 94CW191)			(7) INDOOR GUEST HOUSE GROSS USE ACRE-FEET	(8) ADJUSTED METER USE ACRE-FEET	(9) IRRIGATION USE AS PART OF ADJUSTED METER USE			(12) INDOOR USE AS PART OF ADJUSTED METER USE ACRE-FEET	(14) USE ALLOCATED TO W-3662 DECREE			(16) TOTAL EXCESS INDOOR USE UNDER W-3662 ACRE-FEET	(17) TOTAL EXCESS IRRIGATION USE UNDER W-3662 ACRE-FEET	(18) TOTAL EXCESS USE UNDER W-3662 ACRE-FEET
			(5) # GUEST HOUSES (AUGMENTED UNDER 94CW191)	(6) GUEST HOUSE OCCUPANCY RATE %	(7) # HOUSE DAYS OCCUPANCY			(9) IRRIGATED AREA ACRES	(10) IRRIGATION GROSS APPLICATION FEET	(11) IRRIGATION GROSS USE ACRE-FEET		(13) INDOOR USE UNDER W-3662 ACRE-FEET	(14) IRRIGATION USE UNDER W-3662 ACRE-FEET	(15) TOTAL USE UNDER W-3662 ACRE-FEET			
APR	0	0.0000			0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MAY	0	0.0000			0	0.0000	0.0000	1.1249	0.325	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JUN	0	0.0000			0	0.0000	0.0000	1.1249	0.650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JULY	0	0.0000			0	0.0000	0.0000	1.1249	0.550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AUG	0	0.0000			0	0.0000	0.0000	1.1249	0.550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SEP	0	0.0000			0	0.0000	0.0000	1.1249	0.350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
OCT	0	0.0000			0	0.0000	0.0000	1.1249	0.075	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NOV	0	0.0000			0	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DEC	0	0.0000			0	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
JAN	0	0.0000			0	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FEB	0	0.0000			0	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MAR	0	0.0000			0	0.0000	0.0000	0.0000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TOTALS	0	0.0000			0	0.0000	0.0000	-	2.5000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

NOTES:  
 COL (2) TOTAL METERED USE IN GALLONS = FROM METER READINGS SPREADSHEET  
 COL (3) TOTAL METERED USE IN ACRE-FEET = COL (2) / 325,851  
 COL (4) # GUEST HOUSES OCCUPIED  
 COL (5) GUEST HOUSE OCCUPANCY RATE AS A PERCENTAGE  
 COL (6) # HOUSE DAYS OCCUPANCY = COL (4) X COL (5) X # DAYS IN MONTH  
 COL (7) INDOOR GUEST HOUSE GROSS USE = COL (6) X 0.00086  
 COL (8) ADJUSTED METER USE = COL (3) - COL (7)  
 COL (9) BASED ON 49,000 SQFT OF IRRIGATED LAND COVERED UNDER THIS W-3662  
 COL (10) IRRIGATION GROSS APPLICATION  
 COL (11) IRRIGATION GROSS USE = COL (9) X COL (10)  
 COL (12) INDOOR USE AS PART OF ADJUSTED METER USE = COL (8) - COL (11)  
 COL (13) ALLOCATED INDOOR USE COVERED UNDER W-3662 = COL (12) - COL (16)  
 COL (14) ALLOCATED IRRIGATION USE COVERED UNDER W-3662 = COL (11) - COL (17)  
 COL (15) TOTAL USE UNDER W-3662 = COL (13) + COL (14)  
 COL (16) TOTAL EXCESS INDOOR USE UNDER W-3662 = IF (sum col (15) > 13.2182, col (12), (IF (sum, col (8) > 13.2182, col (12) / col (8) x (sum col (8) - sum col (18) - 13.2182), 0)  
 COL (17) TOTAL EXCESS IRRIGATION USE UNDER W-3662 = IF (sum col (15) > 13.2182, col (11), (IF (sum, col (8) > 13.2182, col (11) / col (8) x (sum col (8) - sum col (18) - 13.2182), 0)  
 COL (18) TOTAL EXCESS USE UNDER W-3662 = COL (16) + COL (17)

**PART II - CASE NO. 94CW191**

EXCESS IRRIGATED AREA FROM PART I (ACRES)	0.0000
IRRIGATED AREA - ACRES (94CW191)	2.0690

NOTE: IRRIGATED AREA COVERED UNDER 94CW191 NOT INCLUDING THE EXCESS FROM PART I

(1) MONTH	(2) EXCESS FROM W-3662 TO BE AUGMENTED UNDER 94CW191		(4) TOTAL EXCESS CONSUMPTIVE USE ACRE-FEET	(5) GUEST HOUSE CONSUMPTIVE USE ACRE-FEET	(6) IRRIGATION USE UNDER 94CW191			(9) OUTSIDE RESTROOMS		(11) TOTAL CONSUMPTIVE USE ACRE-FEET
	(2) INDOOR EXCESS CONSUMPTIVE USE @ 10% OF GROSS USE ACRE-FEET	(3) IRRIGATION EXCESS CONSUMPTIVE USE @ 1.45 AF/AC/YR ACRE-FEET			(6) IRRIGATED AREA ACRES	(7) IRRIGATION CONSUMPTIVE USE RATE FEET	(8) IRRIGATION CONSUMPTIVE USE ACRE-FEET	(9) # OUTSIDE RESTROOMS	(10) CONSUMPTIVE USE ACRE-FEET	
APR	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
MAY	0.0000	0.0000	0.0000	0.0000	2.0690	0.19	0.3931	0	0.0000	0.3931
JUN	0.0000	0.0000	0.0000	0.0000	2.0690	0.38	0.7862	0	0.0000	0.7862
JULY	0.0000	0.0000	0.0000	0.0000	2.0690	0.32	0.6621	0	0.0000	0.6621
AUG	0.0000	0.0000	0.0000	0.0000	2.0690	0.32	0.6621	0	0.0000	0.6621
SEP	0.0000	0.0000	0.0000	0.0000	2.0690	0.20	0.4138	0	0.0000	0.4138
OCT	0.0000	0.0000	0.0000	0.0000	2.0690	0.04	0.0828	0	0.0000	0.0828
NOV	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
DEC	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
JAN	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
FEB	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
MAR	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0	0.0000	0.0000
TOTALS	0.0000	0.0000	0.0000	0.0000	-	1.45	3.0000	-	0.0000	3.0000

NOTES:  
 COL (2) COL (14) FROM PART 1 X 0.10  
 COL (3) EXCESS IRRIGATED AREA FROM PART 1 (ACRES) X COL (7)  
 COL (4) TOTAL EXCESS CONSUMPTIVE USE = COL (2) + COL (3)  
 COL (5) GUEST HOUSE CONSUMPTIVE USE = COL (7) FROM PART 1 X 0.000086  
 COL (6) IRRIGATED AREA COVERED UNDER 94CW191 AFTER OTHER USES ARE ACCOUNTED FOR (EXCESS FROM W-3662, GUEST HOUSES, OUTSIDE RESTROOMS, AND STOCK WATERING) = IRRIGATED AREA HEADING IN PART II  
 COL (7) IRRIGATION CONSUMPTIVE USE RATE  
 COL (8) IRRIGATION CONSUMPTIVE USE = COL (6) X COL (7)  
 COL (9) # OUTSIDE RESTROOMS = TO BE ENTERED  
 COL (10) CONSUMPTIVE USE OF RESTROOMS = COL (9) X 0.00057 AF/RESTROOM/MONTH  
 COL (11) TOTAL CONSUMPTIVE USE = COL (4) + COL (5) + COL (8) + COL (10) (NOT TO EXCEED 3.0 ACRE-FEET TOTAL PER YEAR)

YEAR 0

**PART III - CASE NO. 89CW102**

NUMBER OF LOTS (FILING 3 AND 4)	0.00
HOUSE OCCUPANCY RATE (89CW102)	0.00
IRRIGATED AREA IN SQUARE FEET (FILING 3 AND 4)	0.00
IRRIGATED AREA IN ACRES (FILING 3 AND 4)	0.00

(1) MONTH	(2) INDOOR USE		(5) IRRIGATION USE			(7) STOCK WATERING OF HORSES		(9) TOTAL CONSUMPTIVE USE
	# HOUSE DAYS OF OCCUPANCY	INDOOR CONSUMPTIVE USE ACRE-FEET	IRRIGATED AREA ACRES	IRRIGATION CONSUMPTIVE USE RATE FEET	IRRIGATION CONSUMPTIVE USE ACRE-FEET	# OF HORSES	CONSUMPTIVE USE ACRE-FEET	
APR	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
MAY	0	0.0000	0.00	0.19	0.0000	0	0.0000	0.0000
JUN	0	0.0000	0.00	0.38	0.0000	0	0.0000	0.0000
JULY	0	0.0000	0.00	0.32	0.0000	0	0.0000	0.0000
AUG	0	0.0000	0.00	0.32	0.0000	0	0.0000	0.0000
SEP	0	0.0000	0.00	0.20	0.0000	0	0.0000	0.0000
OCT	0	0.0000	0.00	0.04	0.0000	0	0.0000	0.0000
NOV	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
DEC	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
JAN	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
FEB	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
MAR	0	0.0000	0.00	0.00	0.0000	0	0.0000	0.0000
TOTALS	0	0.0000	-	1.45	0.0000	-	0.0000	0.0000

NOTES:  
 COL (2) # HOUSE DAYS OF OCCUPANCY = NUMBER OF LOTS (FILING 3 & 4) FROM COLUMN HEADING X (HOUSE OCCUPANCY RATE FROM COLUMN HEADING/100)  
 COL (3) INDOOR CONSUMPTIVE USE = COL (2) X 0.000086 AF/DAY  
 COL (4) IRRIGATED AREA IN ACRES FROM COLUMN HEADING  
 COL (5) IRRIGATION CONSUMPTIVE USE RATE  
 COL (6) IRRIGATION CONSUMPTIVE USE = COL (4) X COL (5)  
 COL (7) # OF HORSES TO BE ENTERED  
 COL (8) CONSUMPTIVE USE OF WATERING OF HORSES = COL (7) X 0.000031 AF/DAY  
 COL (9) TOTAL CONSUMPTIVE USE = COL (3) + COL (6) + COL (8)

**PART IV - CASE NO. 98CW297**

LAGGED DEPLETIONS BASED ON # OF IRRIGATED ACRES	2.00	ACRES
(MAXIMUM NUMBER OF IRRIGATED ACRES BASED ON DECREE)		

(1) MONTH	(2) LAGGED DEPLETIONS TO INDIANA CREEK ACRE-FEET	(3) AMOUNT OF WATER PUMPED TO RECHARGE GPM	(4) AMOUNT OF WATER PUMPED TO RECHARGE ACRE-FEET	(5) LAGGED ACCRETIONS TO INDIANA CREEK ACRE-FEET	(6) AUGMENTATION BALANCE (+) SURPLUS, (-) DEFICIT ACRE-FEET
APR	0.09	0.00	0.00	0.1	0.01
MAY	0.18	6.45	0.88	0.18	0.00
JUN	0.34	7.77	1.03	0.39	0.05
JULY	0.42	4.02	0.55	0.49	0.07
AUG	0.44	5.37	0.74	0.48	0.04
SEP	0.41	0.00	0.00	0.44	0.03
OCT	0.30	0.00	0.00	0.3	0.00
NOV	0.21	0.00	0.00	0.22	0.01
DEC	0.16	0.00	0.00	0.18	0.02
JAN	0.13	0.00	0.00	0.15	0.02
FEB	0.12	0.00	0.00	0.13	0.01
MAR	0.10	0.00	0.00	0.12	0.02
TOTALS	2.90	-	3.20	3.18	0.28

<sup>1</sup> Irrigated area covered under this decree will be determined from the irrigation survey updated every three years

**PART V - SUMMARY OF IRRIGATED AREA**

(1) DECREE	(2) ACTUAL IRRIGATED AREA UNDER EACH DECREE ACRES	(3) ALLOWABLE IRRIGATED AREA UNDER EACH DECREE ACRES	(4) EXCESS ALLOWABLE IRRIGATED AREA UNDER EACH DECREE ACRES
W-3662	1.1249	1.1249	0.0000
94CW191	2.0690	2.0690	0.0000
89CW102	0.0000	0.2137	0.2137
98CW297	0.2726	2.0000	1.7274
<b>TOTALS</b>	<b>3.4665</b>	<b>5.4076</b>	<b>1.9411</b>
(INCLUDING IRRIGATED AREA UNDER 89CW102)			
<b>TOTALS</b>	<b>3.4665</b>	<b>5.1939</b>	<b>1.7274</b>
(EXCLUDING IRRIGATED AREA UNDER 89CW102 - IRRIGATED ACREAGE FOR SPRUCE VALLEY RANCH SUBDIVISION ONLY)			



