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TYPE OF RECORD:	NON-PERMANENT
CATEGORY OF RECORD:	CONTRACT
NAME OF CONTRACTOR:	BUREAU OF RECLAMATION
SUBJECT/PROJECT:	COLORADO BIG THOMPSON PROJECT
CITY DEPARTMENT:	UTILITIES AND STREETS
YEAR:	2007
EXPIRATION DATE:	12/31/12 (OPTION FOR RENEWAL)
DESTRUCTION DATE:	01/19



IN REPLY REFER TO:

# United States Department of the Interior

## BUREAU OF RECLAMATION

Great Plains Region  
P.O. Box 36900  
Billings, Montana 59107-6900



GP-3100  
WTR 4.03

SEP 20 2007

City of Grand Junction  
Mr. Greg Trainor, Utilities Director  
250 North 5<sup>th</sup> Street  
Grand Junction, CO 81501

Subject: Transmittal of Agreement No. 07XX6C0107, Between the United States and the City of Grand Junction, Town of Palisade, and the City of Fruita – Colorado Big Thompson Project, Colorado

Dear Mr. Trainor:

Enclosed is the fully executed duplicate original Agreement No. 07XX6C0107 for furnishing Historic Users Pool surplus water from Green Mountain Reservoir for non-consumptive municipal recreation uses in and adjacent to the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp.

If you have any questions regarding this contract, please contact me at 406-247-7752.

Sincerely,

Lynnette Smith  
Supervisory Repayment Specialist

Enclosure

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF RECLAMATION  
Colorado-Big Thompson Project**

**MUNICIPAL RECREATION AGREEMENT  
AMONG THE UNITED STATES,  
THE TOWN OF PALISADE,  
THE CITY OF GRAND JUNCTION, and  
THE CITY OF FRUITA**

**THIS MUNICIPAL RECREATION AGREEMENT;** hereinafter referred to as the Agreement, is made this 29<sup>th</sup> day of Aug, 2007, pursuant to the Act of June 17, 1902 (32 Stat. 388; 43 USC § 391), and all Acts amendatory thereof or supplementary thereto, and more particularly pursuant to the Act of August 9, 1937 (50 Stat. 564, 595), which incorporates Senate Document 80, 75th Congress; and Section 9 (c)(1) of the Act of August 4, 1939 (53 Stat. 1187; 43 USC § 485(h)) as amended; among the UNITED STATES OF AMERICA, hereinafter referred to as the “United States,” represented by the Contracting Officer executing this Agreement; and the TOWN OF PALISADE, the CITY OF GRAND JUNCTION, and the CITY OF FRUITA, hereinafter referred to as the “Municipalities”; jointly referred to as the “Parties,” for furnishing Historic Users Pool surplus water from Green Mountain Reservoir for non-consumptive municipal recreation uses in and adjacent to the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp.

WHEREAS, the following statements are made in explanation:

A. WHEREAS, Green Mountain Dam and Reservoir were constructed as a feature of the Colorado-Big Thompson Project as recommended by the Secretary of the Interior and approved by the President on December 21, 1937, pursuant to Section 4 of the Act of June 25, 1910 (36 Stat. 835; 43 USC §§ 400, 413), and Subsection B of Section 4 of the Fact Finders’ Act (Act of December 5, 1924 (43 Stat. 672, 702; 43 USC § 412)). Green Mountain Reservoir is operated and maintained by the United States in accordance with Senate Document 80; the Act of August 9, 1937 (50 Stat. 564, 595), the stipulations and decrees in the Consolidated Cases (Civil Action Nos. 2782, 5016, and 5017, aka. the “Blue River Decrees”), United States District Court for the District of Colorado; the Operating Policy for Green Mountain Reservoir as published in the Federal Register on December 22, 1983, which became effective January 23, 1984, and as amended September 3, 1987, as published in the Federal Register on September 11, 1987, and

the stipulated settlement of the Orchard Mesa Check Case (Case No. 91CW247, District Court, Water Division No. 5, State of Colorado). Green Mountain Reservoir was authorized to provide water for the purposes specified in Senate Document 80; and

B. WHEREAS, pursuant to the Operating Policy for Green Mountain Reservoir, paragraph 8, stored Historic Users Pool (HUP) water in excess (surplus) of the amounts reasonably necessary to meet the objectives of paragraphs 2 and 4 thereof “. . . may be disposed of on a short-term basis by agreement . . .”; and

C. WHEREAS, nothing in this Agreement shall be construed as a consent by the Municipalities to the validity or enforceability of the Operating Policy or a waiver or relinquishment of any claims or defenses regarding the validity or enforceability of the Operating Policy; and

D. WHEREAS, paragraph 5.a. of the Stipulation and Agreement for the Orchard Mesa Check Case states “. . . HUP surplus water contracts will provide that HUP surplus water will be delivered to and through the Grand Valley Power Plant to the extent that there is capacity in the power canal and water is needed to produce power at the Grand Valley Power Plant, and that HUP surplus water contracts may provide for delivery of HUP surplus water to other locations and facilities to the extent that there is not capacity in the power canal or that water is not needed to produce power at the Grand Valley Power Plant”; and

E. WHEREAS, as part of the stipulated settlement for the Orchard Mesa Check Case the Green Mountain Reservoir HUP Operating Criteria (Operating Criteria) was developed. Said Operating Criteria define specific terms and conditions for declaring and managing releases of water surplus to the needs of HUP beneficiaries; and

F. WHEREAS, pursuant to the Operating Criteria Reclamation conducts an Annual HUP public meeting, and regularly scheduled teleconferences with the Managing Entities. Reclamation will inform the Municipalities of these meetings and teleconferences so that they may attend in person, by telephone, or otherwise and provide comment during the discussions; and

G. WHEREAS, HUP surplus water provided pursuant to this Agreement will be determined as specified in the Operating Criteria and made available as provided in this Agreement; and

H. WHEREAS, the Colorado River Recovery Program (Recovery Program) was established and signed in 1988 by Reclamation, Western Area Power Administration, the U.S. Fish and Wildlife Service (Service), and the States of Colorado, Utah and Wyoming for the recovery of four endangered native fish species on the Upper Colorado River; and

I. WHEREAS, Reclamation is a signatory to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (RIP). As a signatory to the RIP, Reclamation agreed within its discretion to assist with recovery of these endangered fish; and

J. WHEREAS, in 1999 the Service issued a Final Programmatic Biological Opinion (PBO) covering the operations and water depletions of existing projects, including Reclamation projects. The PBO also covers funding and implementation of Recovery Program Actions in the Upper Colorado River above the Gunnison River. One of the action items listed in the PBO and in the Recovery Implementation Program Recovery Action Plan (RIPRAP) is the protection and delivery of the HUP Surplus Water to the 15 Mile Reach for the endangered fish by execution of an Agreement; and

K. WHEREAS, the reach of the Colorado River in the Grand Valley from its confluence with the Gunnison River upstream 15 miles to the Grand Valley Irrigation Company diversion dam (15 Mile Reach) has been designated by the RIP as critical habitat for two of the endangered fish covered by the RIP. The Service has established annual target flows under the Colorado River Recovery Program for the 15 Mile Reach of the Colorado River to assist with recovery of the endangered fishes; and

L. WHEREAS, the Municipalities are duly formed municipal entities under the laws of the State of Colorado; and

M. WHEREAS, the Municipalities are working together to improve and planning to further improve the Colorado River between Palisade and Fruita, and the Municipalities are agreeable to entering into this Agreement with Reclamation to enhance recreational uses and indirectly enhance flows for the endangered fish in the Colorado River between the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp; and

N. WHEREAS, the Municipalities understand that, while the enhanced flows are made available for municipal recreational purposes they are also supportive of the mutual benefits to other purposes including Endangered Fish Species Habitat Enhancement; and

O. WHEREAS, the United States recognizes the importance of making water available for Municipal Recreation purposes and the commensurate benefit to endangered fish species from the enhanced flows allowed under this Agreement; and

P. WHEREAS, recreational in-channel diversions, whitewater parks, and other recreational amenities may be designed so as not to impede fish passage and, in fact, may enhance habitat for macro-invertebrates and juvenile fish by creating interstitial spaces; and

Q. WHEREAS, there is support for enhancement of recreational uses in the 15 mile reach of the Colorado River; and

R. WHEREAS, on June 19, 2001, the Parties entered into Municipal Recreation Agreement No. 00XX6C0009 that expired on December 31, 2006; and

S. WHEREAS, the Municipalities desire to renew that Agreement, pursuant to Federal Reclamation laws and the laws of the State of Colorado for delivery of If and When Water from Green Mountain Reservoir to the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp; and

T. WHEREAS, pursuant to Colorado Revised Statutes (C.R.S.), Sections 37-92-301 and 501, the State Engineer and the Division Engineer are responsible for the administration and distribution of the waters of the State. Pursuant to Section 37-92-102(3), the Parties to this Agreement may call upon the Division 5 Engineer, Colorado State Division of Water Resources, to administer the delivery of If and When Water provided through this Agreement from Green Mountain Reservoir for non-consumptive municipal recreation uses in and adjacent to the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam to the Loma Boat Ramp.

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants hereinafter set forth, the Parties hereto agree as follows:

**I. DEFINITIONS**

Where used herein, unless specifically expressed otherwise or obviously inconsistent with the intent herein, the term:

A. Annual HUP Operating Plan shall mean the annual operating plan for the HUP developed pursuant to the paragraph 3.e.(1) of the Operating Criteria.

B. Contracting Officer shall mean the Secretary of the Interior or a duly authorized representative.

C. Division 5 Engineer shall mean the Colorado State Division of Water Resources, Water Division 5, Division Engineer.

D. HUP shall mean the so-called "historic users pool" defined as the up to 66,000 acre-feet of water from the Green Mountain Reservoir power pool, as described in paragraphs 2 and 3 of the Operating Policy.

E. HUP Beneficiaries shall mean those persons or entities for whose benefit releases are made from the HUP pursuant to the Operating Policy.

F. HUP Surplus Water shall mean that amount of the HUP which, in accordance with paragraph 8 of the Operating Policy, is included in that portion of the stored water in the Green Mountain Reservoir in excess of that necessary to meet the objectives of paragraphs 2 and 4 of the Operating Policy, and which is determined pursuant to the procedures in the Operating Criteria to be available for releases for HUP Surplus Water contracts/agreements at any particular time after taking into consideration releases to be made to meet the replacement and direct delivery needs of HUP beneficiaries.

G. If and When Water shall mean HUP Surplus Water provided pursuant to this Agreement on an interruptible basis if and when all of the following criteria are met: (1) if Reclamation, in consultation with the other Managing Entities, determines that there is HUP Surplus Water; (2) if the needs for water for the purpose of generating hydroelectric power at the Grand Valley Power Plant have been satisfied; and (3) when water is needed to attempt to meet the Service's target flows in the 15 Mile Reach as described in "Relationships Between flow and Rare Fish Habitat in the 15 Mile Reach of the Upper Colorado River, Final Report, D.B. Omundson, P. Nelson, K. Fenton, and D.W. Ryden, 1995".

H. Managing Entities shall mean Reclamation, and the following entities with whom Reclamation consults in managing releases of water from the HUP pursuant to the Operating Criteria: the Grand Valley Water Users Association; Orchard Mesa Irrigation District; Grand Valley Irrigation Company; Colorado Division of Water Resources; Colorado Water Conservation Board; and the Service.

I. Operating Criteria shall mean the Green Mountain Operating Criteria (Exhibit D to the Stipulation and Agreement), a copy of which is attached hereto as Exhibit A.

J. Operating Policy shall mean the Operating Policy for the Green Mountain Reservoir; Colorado-Big Thompson Project, Colorado (Volume 48, No. 247, as published in the Federal Register December 22, 1983; as amended in Volume 52, No. 176, Federal Register September 11, 1987).

K. Reservoir shall mean the dam, reservoir and related facilities known as "Green Mountain Reservoir" as constructed and operated on the Blue River, a tributary of the Colorado River, in north-central Colorado, as a feature of the Colorado-Big Thompson Project.

L. Stipulation and Agreement shall mean the Stipulation and Agreement entered into among the Parties in the Orchard Mesa Check Case (Case No. 91 CW247, District Court, Water Division No. 5, State of Colorado), a copy of which is attached hereto as Exhibit B.

Any other terms used within this Agreement which are defined in either the Stipulation and Agreement or the Operating Criteria shall have the meaning ascribed to them in those documents.

**II. TERM OF MUNICIPAL RECREATION AGREEMENT**

A. This Agreement becomes effective on the date executed and shall remain in effect through December 31, 2012, unless terminated sooner in accordance with the provisions of Article VIII. below or amended pursuant to Article VII. below.

B. This Agreement may be renewed for additional terms upon concurrence of the Parties, subject to the requirements of applicable federal laws and policies and state laws in effect at that time.

**III. PROVISION OF WATER AND RELEASE SCHEDULE**

A. Water provided pursuant to this Agreement shall be If and When Water as defined in Article I.G above.

B. The amount of HUP Surplus Water will be determined by Reclamation in consultation with the Managing Entities during the development of an Annual HUP Operating Plan for that year and during subsequent revisions, following the procedures set forth in the Operating Criteria.

C. In accordance with Section 5.a. of the Stipulation and Agreement, HUP Surplus Water will first be delivered to the Grand Valley Power Plant. To the extent there is HUP Surplus Water in excess of the existing capacity and needs of the Grand Valley Power Plant, and there is a need for water to contribute to the Service's 15 Mile Reach target flows, HUP Surplus Water may be released from the Reservoir pursuant to this Agreement.

D. Releases made pursuant to this Agreement shall not result in any water bypassing the Green Mountain Power Plant except that which may be released during periods when the Power Plant is not operating or released by exchange from other reservoirs.

E. Reclamation will inform the Municipalities of scheduled meetings of the Managing Entities so they may attend in person, by telephone, or otherwise and provide comment during the discussions.

**IV. WATER SERVICE CHARGES**

The release of If and When Water pursuant to this Agreement is a mutual benefit to the Parties, derived through cooperatively working with the Service to attempt to meet the Service's target flows for the 15 Mile Reach to assist with the recovery of the endangered fish and the non-consumptive municipal recreational benefits to the Municipalities. The Contracting Officer will not charge the Municipalities for the If and When Water made available pursuant to this Agreement. The If and When Water made available pursuant to this Agreement will provide the



Municipalities with water for municipal recreation purposes. Subject to Article VI., benefits to the Municipalities would result from incremental additional visitations to recreation areas along the River. Each of the Municipalities has or will be developing recreation amenities along the Colorado River.

**V. MEASUREMENT AND DELIVERY**

A. The delivery of If and When Water pursuant to this Agreement will be made into the Blue River at the outlet works of the Reservoir or by exchange with other sources of supply. All such exchanges shall be in accordance with state and Federal laws and regulations including, if required, approval by the Division 5 Engineer.

B. All delivery of If and When Water into the Blue River shall be subject to the limitations of the outlet capacity of the Reservoir. All If and When Water delivered under this Agreement shall be measured at the outlet works of the Reservoir from which it is provided with equipment furnished, operated, and maintained by the United States. The United States shall not be responsible for the control, carriage, use, handling, or distribution of water delivered beyond the outlet works of the Reservoir or other point of release. This Agreement provides If and When Water, and in no event shall any liability accrue against the United States or any of its officers, agents or employees for any damage, direct or indirect, arising from shortage of water service on account of operation, drought, or any other causes.

C. It is understood that all If and When Water released by Reclamation pursuant to this Agreement, less transit losses, as measured at the Palisade Gauge, is to be delivered and protected by the Division 5 Engineer to and through the reach of the Colorado River extending from the existing locations of the Grand Valley Irrigation Company Diversion Dam (located in the NE1/4 of the NE 1/4 of Section 3, T1S, R2E, Ute Principal Meridian) to the Loma Boat Ramp (located in the SW 1/4 of the NW 1/4 of Section 10, T1N, R3W, Ute Principal Meridian).

**VI. USE OF WATER**

A. If and When Water made available pursuant to this Agreement shall be used by the Municipalities for non-consumptive municipal recreation purposes.

B. If and When Water made available pursuant to this Agreement shall not be diverted by the Municipalities from the Colorado River.

C. Water made available pursuant to this Agreement does not constitute a firm supply, but rather an if and when supply. It is explicitly recognized that there will be times when If and When Water is not available due to hydrologic or other conditions as determined by Reclamation, in consultation with the Managing Entities. Reclamation will coordinate the timing and amount of releases with the Service.

D. The Municipalities agree that the provision of this water is if and when and shall not be used to obtain direct economic benefits from the release and delivery of this water for municipal recreation purposes.

E. No lease, sale, donation, transfer, exchange, or other disposition of any of the water provided pursuant to this Agreement may be made.

**VII. AMENDMENT**

This Agreement may be amended only by a fully executed written agreement by the Parties. Any request to amend this Agreement shall be given in the same manner as provided in Article IX. below.

**VIII. TERMINATION**

A. The Contracting Officer may terminate this Agreement at any time upon providing 60 calendar days notice.

B. The Municipalities collectively may terminate this Agreement at any time upon providing 60 calendar days notice.

C. Any one of the municipalities may individually withdraw from this Agreement at any time upon providing 60 calendar days notice. Upon such 60 day notice by a municipality, the Agreement between the United States and such municipality shall terminate as to that municipality. Such termination shall not be considered an amendment of the Agreement under Article VII. If one or two of the municipalities so withdraw, this Agreement shall remain in full force and effect as to those Municipalities remaining.

**IX. NOTICES**

A. Any notice, demand, or request authorized or required by this Agreement shall be deemed to have been given, on behalf of the Municipalities when mailed, certified, postage prepaid, or delivered to the Regional Director, Bureau of Reclamation, Great Plains Region, P.O. Box 36900, Billings, Montana 59107-6900; and on behalf of the Contracting Officer, when mailed, certified, postage prepaid or delivered to each of the municipalities listed below:

Town of Palisade, P.O. Box 128, Palisade, CO 81526-0128

City of Grand Junction, Attn: Utilities Director, 250 N. Fifth St., Grand Junction, CO 81501

City of Fruita, 325 E. Aspen, Fruita, CO 81521

B. The designation of the addressees or the addresses may be changed by notice given in the same manner as provided in this Article.

C. All notices, demands, or other requests given pursuant to this Article IX. shall be effective on the date of mailing when sent to all Parties by certified mail, return receipt requested or upon receipt (if personally delivered).

**X. ASSIGNMENT OF THE AGREEMENT - FULL FORCE AND EFFECT**

A. The provisions of this Agreement shall apply to and bind the successors and assigns of the Parties hereto, but no assignment or transfer of this Agreement or any right or interest therein shall be valid until approved in writing by the Contracting Officer.

B. This Agreement shall be in full force and effect upon signature by the United States and at least one of the other Parties.

**XI. STANDARD ARTICLES**

The standard articles applicable to this Agreement are listed below. The full text of these standard articles is attached as Exhibit C and is hereby made a part of this Agreement by this reference.

1. Contingent on Appropriation or Allotment of Funds
2. Officials Not to Benefit
3. Books, Records, and Reports
4. Rules, Regulations, and Determinations
5. Equal Employment Opportunity
6. Compliance with Civil Rights Laws and Regulations

Agreement No. O7XX6C0107

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

THE UNITED STATES OF AMERICA

By Donald E. Moorman

Regional Director  
Bureau of Reclamation  
Great Plains Region

**For**



TOWN OF PALISADE

By [Signature]  
Title Mayor

STATE OF COLORADO

COUNTY OF Monte

On August 22, 2007, before me, David R. Walker (Mayor)  
appeared

The person(s) whose name(s) (is)(are) subscribed to the within instrument and known to me to have executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year in this acknowledgment first above written.

(SEAL)

Lila Drake  
Notary Public



My commission expires: 09/01/07

(CORPORATE SEAL)

CITY OF GRAND JUNCTION

By   
Title City Manager

STATE OF COLORADO

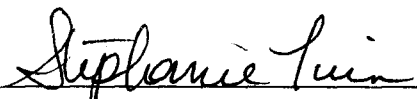
COUNTY OF Mesa

On August 22, 2007, before me, Laurie M. Kadrich  
appeared

The person(s) whose name(s) (is)(are) subscribed to the within instrument and known to me to have executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year in this acknowledgment first above written.

(SEAL)

  
Notary Public

My commission expires: 10-10-10

(CORPORATE SEAL)

CITY OF FRUITA

By *E. James Adams*  
Title Mayer

STATE OF COLORADO

COUNTY OF *Wes*

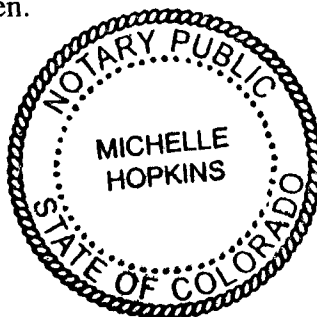
On *September 4*, 2007, before me, *E. James Adams*  
appeared

The person(s) whose name(s) (is)(are) subscribed to the within instrument and known to me to have executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year in this acknowledgment first above written.

(SEAL)

*Michelle Hopkins*  
Notary Public



My commission expires: *10-23-2008*

EXHIBIT D

## Stipulation and Agreement

Case No. 91CW247

## GREEN MOUNTAIN RESERVOIR HISTORIC USER POOL

## OPERATING CRITERIA

1. DEFINITIONS. The definitions set forth in paragraph 1 of the forgoing Stipulation and Agreement are incorporated herein. For purposes of these Operating Criteria and the Stipulation and Agreement, "HUP surplus water" shall mean that amount of the HUP which, in accordance with paragraph 8 of the Operating Policy is included in that portion of the stored water in Green Mountain Reservoir in excess of that necessary to meet the objectives of paragraphs 2 and 4 of the Operating Policy, and which is determined under these Operating Criteria to be available for releases for HUP surplus water contracts at any particular time after taking into consideration releases to be made to meet the replacement and direct delivery needs of HUP beneficiaries.

2. PURPOSES AND OBJECTIVES. The purposes and objectives of these Operating Criteria are to:

2.a. Ensure that a sufficient quantity of water is retained in the HUP for release to meet the replacement needs of HUP beneficiaries throughout the irrigation season.

2.b. Ensure that a sufficient quantity of water is retained in the HUP for release to meet the direct delivery needs of the Grand Valley Water Users Association, Orchard Mesa Irrigation District, Grand Valley Irrigation Company, Mesa County Irrigation District and Palisade Irrigation District throughout the irrigation season.



2.c. Ensure that a sufficient quantity of water is retained in the HUP at the end of the irrigation season for release to meet the winter needs of HUP beneficiaries.

2.d. Define the terms and conditions under which water in the HUP is surplus to the needs of HUP beneficiaries, and therefore available for delivery to beneficial uses in Western Colorado, in accordance with paragraph 8 of the Operating Policy, under contract(s) to be developed, and indirectly to the 15-Mile Reach to augment flows for the recovery of endangered Colorado River fish species.

3. HUP Operating Criteria. Figure 1, attached to these Operating Criteria, depicts the estimated "Upstream HUP Replacement Allocation," estimated "Winter HUP Allocation," and estimated "Total HUP Draw Down Band".

3.a. The Upstream HUP Replacement Allocation represents the maximum volume required to fully meet the irrigation, domestic and municipal replacement needs of HUP beneficiaries upstream of Shoshone (a.k.a. the Glenwood Power Canal) for the remainder of the irrigation season. The total volume of water estimated for this purpose is 14,685 acre-feet at the beginning of the irrigation season. This volume diminishes throughout the irrigation season as depicted in Figure 1. Attachment A to these Operating Criteria documents the data and technical analyses used to estimate this volume.

3.b. The Winter HUP Allocation represents the maximum volume required to fully meet the domestic and municipal replacement needs of HUP beneficiaries during the winter or non-irrigation season. The total volume of water estimated for this

purpose is 500 acre-feet. Attachment A to these Operating Criteria documents the data and technical analyses used to estimate this volume.

3.c. The Total HUP Draw Down Band represents the estimated range of storage volumes that will serve as a guideline for managing HUP releases in dry years similar to those analyzed in Attachment A to these Operating Criteria to accomplish the purposes of Section 2 as more fully described in Section 3.d and 3.e of these Operating Criteria. Attachment A to these Operating Criteria documents the data and technical analyses used to estimate this range of volumes.

3.d. In order to meet the purposes and objectives of Section 2, above, the Bureau of Reclamation, after direct consultation with the Grand Valley Water Users Association, Orchard Mesa Irrigation District, Grand Valley Irrigation Company, Colorado Division of Water Resources, Colorado Water Conservation Board and Fish and Wildlife Service (the Bureau of Reclamation and the above mentioned entities with whom the Bureau of Reclamation shall consult in managing releases of water from the HUP are hereafter collectively referred to as the "managing entities"), will attempt to manage the release of water from the HUP to maintain actual storage conditions within the range of storage volumes as represented by the Total HUP Draw Down Band and will attempt to manage the release of water from the HUP so that the entire HUP, except the Winter HUP Allocation, will be released by the end of the irrigation season unless the managing entities determine that the release of such water is not necessary to meet the purposes and objectives of Section 2, above, considering hydrologic, demand and operational conditions. However, it is expressly recognized that in some years release of

the entire HUP by the end of the irrigation season may not be necessary or possible. Grand Valley Water Users Association, Orchard Mesa Irrigation District and Grand Valley Irrigation Company retain exclusive control of determining their irrigation demands, subject to the otherwise applicable administrative powers of the Colorado Division of Water Resources and the provisions of the Stipulation and Agreement. It is recognized that actual storage conditions may deviate from the indicated range due to hydrologic, demand and operational conditions; however, the managing entities will take all reasonable actions to maintain actual HUP storage conditions within the indicated range. The obligation of the managing entities to take reasonable actions to maintain actual HUP storage conditions within the indicated range shall be limited to operation of the Orchard Mesa Check and such other actions as to which the managing entities agree. At any particular time during the irrigation season, the actual HUP storage volume shall not fall below the volume indicated by the sum of the Upstream HUP Replacement Allocation at that time and Winter HUP Allocation, as depicted in Figure 1, unless required by Acts of God or emergency situations beyond the control of the managing entities, or unless modified as provided for in paragraph 5 of the Stipulation and Agreement.

3.e. To accomplish management of the HUP as described in Section 3.d, the managing entities agree to participate in the following process.

3.e.(1) On or before June 30 of each year, the Bureau of Reclamation will conduct a meeting, involving the managing entities, to review HUP storage conditions, projected runoff forecasts, climatological conditions, projected irrigation

demands and 15-Mile Reach flow needs, and other operational conditions to determine an annual operational plan for the Green Mountain Reservoir HUP, the Orchard Mesa Check and the Grand Valley Power Plant ("Annual HUP Operating Plan"). The Annual HUP Operating Plan will cover water operations for the July through October irrigation season. Water in the HUP shall not be deemed to be surplus to the needs of HUP beneficiaries prior to the determination that there is at least 66,000 acre feet of water available for releases for the benefit of HUP beneficiaries when Green Mountain Reservoir ceases to be in priority for its initial fill under the Blue River Decrees, as provided by paragraph 3.b.(2) of the Stipulation and Agreement.

3.e.(2) The managing entities agree to participate in subsequent meetings during the irrigation season to reexamine HUP storage conditions, projected runoff forecasts, climatological conditions, projected irrigation demands and 15-Mile Reach flow needs, and other operational conditions on an as-needed basis to modify the Annual HUP Operating Plan. Any of the managing entities may call for a meeting, and all of the managing entities agree to participate to reexamine changing conditions and to modify the Annual HUP Operating Plan. All such meetings will be open to the public.

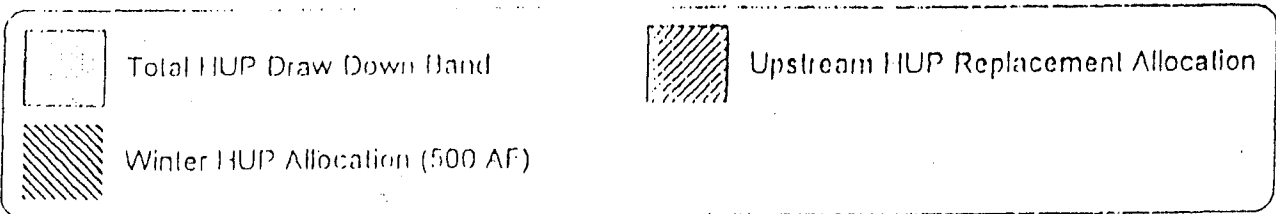
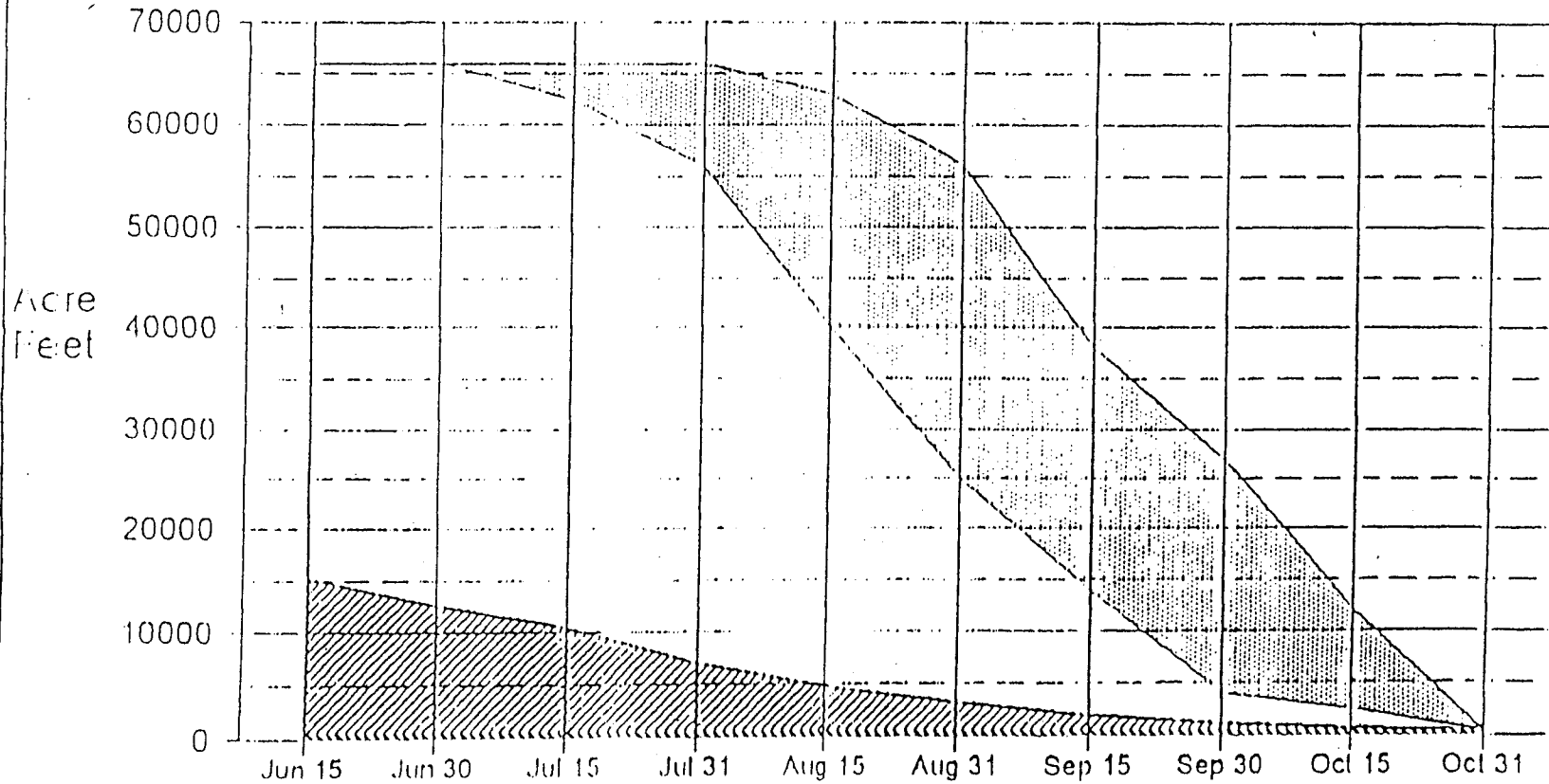
3.e.(3) The managing entities agree to make good faith efforts to develop an Annual HUP Operating Plan that is unanimously supported by the managing entities. If however, an Annual HUP Operating Plan cannot be developed that is unanimously agreed to, the Bureau of Reclamation reserves the right to establish a release schedule from the HUP for the irrigation season in question consistent with the Total HUP Draw Down Band and the State water right priority system. The Bureau of

Reclamation's establishment of a release schedule pursuant to the preceding sentence shall not prevent any other of the managing entities from requesting a subsequent meeting to reexamine changing conditions and to develop the Annual HUP Operating Plan.

4. Nothing contained in these Operating Criteria shall diminish or limit the statutory authority and responsibility of the Colorado Division of Water Resources or be deemed to alter the duties and responsibilities of the Bureau of Reclamation under the Operating Policy, Senate Document 80 and the Blue River Decrees.

Figure 1

# Green Mountain Reservoir HUP Operating Criteria - Dry Years



March 28, 1996

# Attachment A

## HUP Operating Criteria Technical Analysis Summary

Technical analyses were conducted to determine the maximum Green Mountain Reservoir storage volumes required to meet the needs of HUP beneficiaries. Storage volumes were quantified for the three components described in Section 3 and Figure 1 of the Operating Criteria: 1) the Upstream HUP Replacement Allocation; 2) the Winter HUP Allocation; and 3) the Total HUP Draw Down Band. The technical analyses, data sources, definitions, and assumptions used to quantify these storage volumes are summarized below.

### A. Upstream HUP Replacement Allocation

One purpose of the Operating Criteria is to ensure that a sufficient quantity of storage water is retained in the HUP to meet the replacement needs of HUP beneficiaries throughout the irrigation season. The Upstream HUP Replacement Allocation was designed to meet this need.

In this analysis, upstream was defined as water rights located upstream from the Shoshone Power Plant, and junior to the Shoshone Power Plant 1250 cfs water right. The Upstream HUP Replacement Allocation was further defined as those upstream junior rights that are HUP beneficiaries. These junior water rights could be called out by the Shoshone water right; water rights senior to Shoshone or located downstream from Shoshone are not subject to the Shoshone call. Under the terms of the Stipulation and Agreement, neither the junior nor senior rights would be subject to the Cameo call. The Cameo call as used in this document is composed of the irrigation and power rights owned by the Grand Valley Water Users Association (GVWUA), the Grand Valley Irrigation Company (GVIC), the Orchard Mesa Irrigation District (OMID), and the United States of America.

The total volume of the Upstream HUP Replacement Allocation was determined by quantifying historical replacement needs for the following groups of upstream junior HUP beneficiaries:

1. Irrigation consumptive use
  - a) Water rights in use for irrigation during the study period 1989 to 1994
  - b) Adjustment for irrigation water rights not in use during the study period.
2. Municipal and Domestic consumptive use during the 1994 irrigation season

An explanation of the analysis procedure follows for each of these groups of water rights.

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## A.1. Irrigation Consumptive Use

Daily diversion records and water rights records compiled by the State of Colorado, Division of Water Resources, Water Division 5 served as the base data for the analysis. Consumptive use calculations were made using the modified Blaney-Criddle method, as described in Technical Release Number 21 (TR21), *Irrigation Water Requirements*, published by the U.S. Department of Agriculture, Soil Conservation Service. The Blaney-Criddle method was originally developed for estimating *seasonal* consumptive use; it was found that the seasonal crop coefficients were not constant for short time periods (30 days or less). Two modifications to improve the accuracy of the Blaney-Criddle method when estimating short-period consumptive use are described in TR21; these relate to use of climatic and crop growth stage coefficients.

Computer programs and databases supporting the modified Blaney-Criddle consumptive use calculations had previously been developed by the State. The State's Water Division 5 provided the Bureau of Reclamation with copies of the programs and data, and assisted with installing and testing the programs on Reclamation's computers.

Reclamation made the following modifications to the State's programs and data:

1. Added November data to the data tables for air temperature, crop coefficients, and daylight hours. This was necessary to calculate consumptive use after October 14.
2. Added program logic to support multiple-day program runs: approximately 200 single-day program runs were required for the analysis.

### A.1.a. Data Sources and Assumptions

#### Diversion Records

Databases containing daily diversion records were provided by the State for the eleven water districts in Water Division 5. Data for the six water districts located upstream from the Shoshone Power Plant (districts 36, 37, 50, 51, 52, and 53) was used in this analysis.

#### HUP Beneficiaries and Junior Water Rights

Data tables listing the water rights and HUP beneficiaries for each water district were provided by the State. HUP beneficiaries junior to Shoshone were defined in the State's data tables as:

1. Water rights perfected and in use prior to January 23, 1984 (date the Green Mountain Reservoir Operating Policy was published in the Federal Register); and
2. Junior to the Shoshone 1250 cfs water right (administration number 20427.18999).

The HUP beneficiary tables were used to limit the daily diversion databases to only those diversions made by water rights eligible for Green Mountain replacement releases. The water rights tables provided the means for the consumptive use program to classify diversions as senior or junior to the Shoshone right.

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March 28, 1996

### Study Period

Consumptive use calculations were made on a once-weekly time step for the period July 1 through November 1 for the past six years (1989 through 1994). Calculations on a daily time step were made for 1993 (discussed in the Analysis Results section below).

### Acreage

The acreage irrigated by HUP beneficiaries senior *and* junior to Shoshone was calculated by the consumptive use program for each district, for each day. Additional effort would be required to tabulate total acreage and compute the acreage irrigated by *juniors*.

### Crop Coefficients

Monthly crop growth stage coefficient curve values for pasture grasses were obtained from TR21, Curve No. 17. The primary crop grown on the irrigated lands upstream from Shoshone is pasture grasses. Data on actual crop type for each irrigated parcel is not available, therefore consumptive use was calculated using only the pasture grass coefficients.

### Daylight Hours

The monthly percentage of daytime hours of the year for latitudes 39°, 40°, and 41° north of the equator were obtained from TR21, Table 1. Daylight hours for the actual latitude of each district were interpolated from the daylight hours table (e.g., value for District 36 at latitude 39.6° would be computed from the table values for latitudes 39° and 40°).

### Air Temperature

Mean monthly air temperature for a location central to each district was obtained from temperature summaries prepared by the Colorado Climate Center, Department of Atmospheric Science, Colorado State University. Period of record for the temperature summaries was 40 years for all locations except Dillon (District 36), which had a 79-year record.

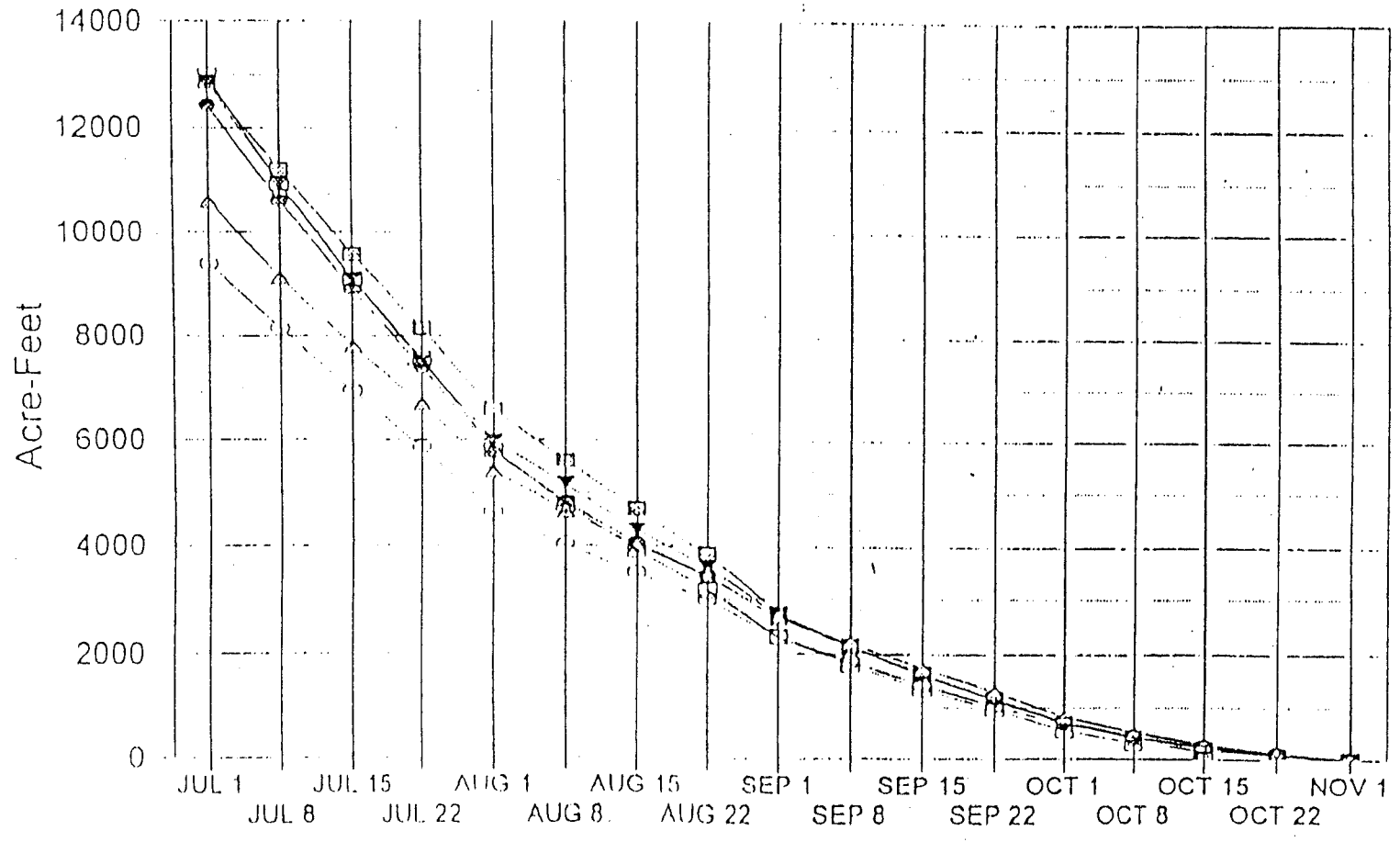
### Consumptive Use Calculations

Consumptive use rate was calculated for the 15th day of the selected month, using values for mean monthly air temperature, crop growth stage coefficient, and daylight hours from the data tables. Consumptive use rate for the previous or subsequent month was also calculated, depending on the date selected for analysis. Linear interpolation was then used to calculate the consumptive use rate for the selected date and applied to the diversion records for that date. The calculations limited irrigation efficiency to a maximum of 50% (e.g., consumptive use volume could not exceed 50% of the total volume diverted).

Several factors that can influence consumptive use rates were not evaluated in this analysis. These include effective precipitation, soil moisture holding capacity, carryover soil moisture from winter precipitation, ground water contribution, and field application efficiencies (evaporation, deep percolation, and surface runoff). Applying additional factors to the computations would require data collection and programming effort with no certainty of a substantial effect on the analysis results.

Figure A-2

### Green Mountain Reservoir HUP Volumes for Irrigation C.U. Junior to Shoshone

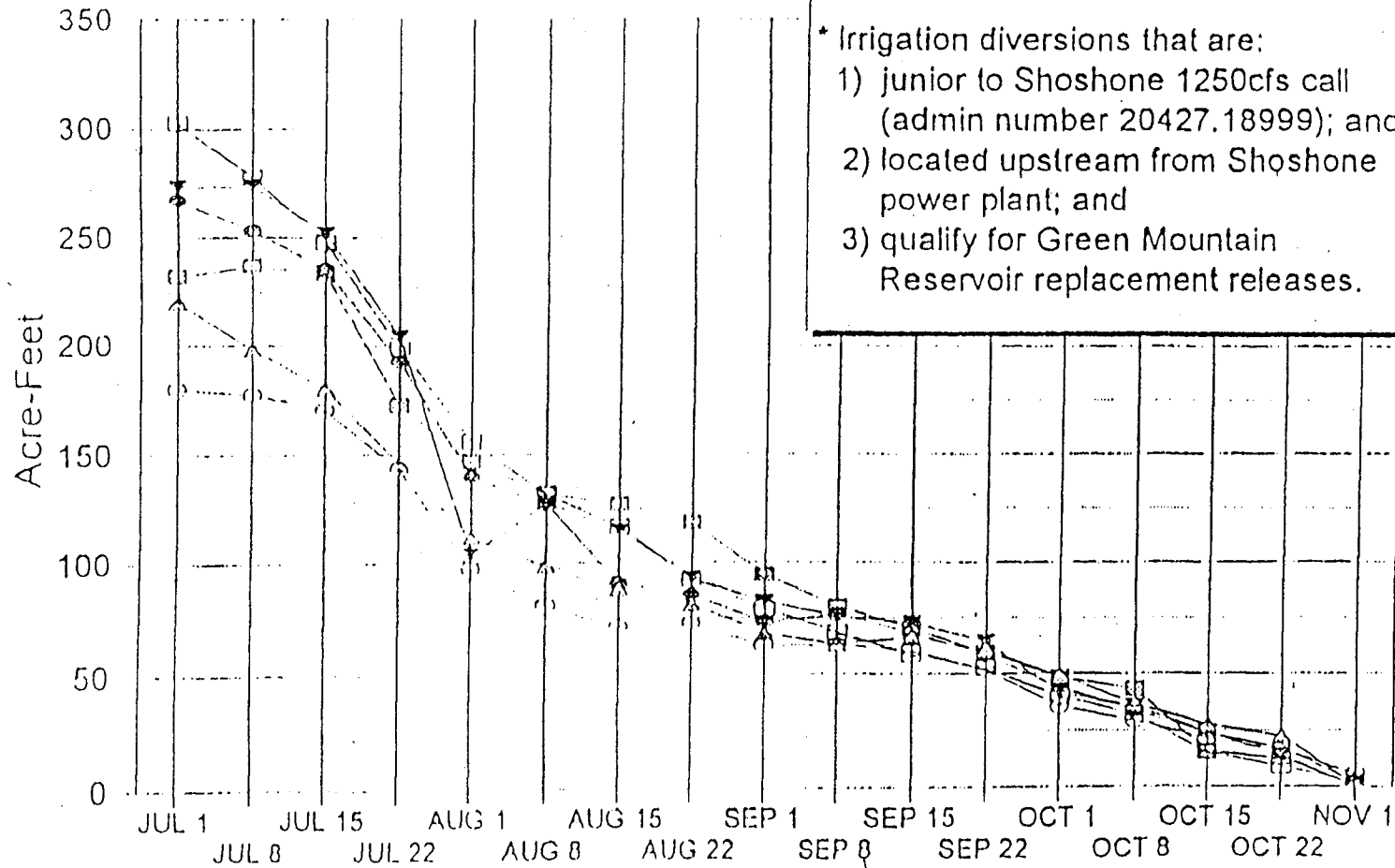


(○) 1989    ● 1990    ▼ 1991    ▲ 1992    -□- 1993    -○- 1994

(Figure A-1)

# Irrigation Consumptive Use by Juniors\*

## Colorado River above Shoshone



□ 1989    ● 1990    ▼ 1991    ▲ 1992    □ 1993    ○ 1994

### A.1.b. Program Output

Output from a single-day run of the consumptive use program consists of six tables (one for each water district). The tables list each structure which diverted irrigation water on that date, with columns for diversions senior to and diversions junior to the Shoshone call, acres irrigated (by both senior and junior rights), total consumptive use (by both senior and junior rights), and consumptive use junior to Shoshone. The six district totals for consumptive use junior to Shoshone were then summed to obtain the total volume for that date.

Program runs to calculate daily consumptive use volume by district were made for the 1st, 8th, 15th, and 22nd of each month, approximating a weekly time step. "Weekly" consumptive use volume was calculated from the daily totals, using the following formula:

$$\text{Weekly Volume} = (\text{Day1} + \text{Day2}) / 2 * \text{Ndays}$$

Where: Day1 is the beginning day of the period being calculated  
Day2 is the beginning day of the NEXT period  
Ndays is the number of days in the period (Ndays=Day2 - Day1)

For example, the "week" from August 22 to August 31 has 10 days. "Day1" in the formula above would be August 22; "Day2" would be September 1. Volume for the period was calculated as the average of the August 22 and September 1 volumes multiplied by 10 days. This technique results in the last period beginning and ending on November 1; therefore the volume for the "week" beginning November 1 equals the daily volume for November 1.

### A.1.c. Analysis Results

Figure A-1 shows the estimated consumptive use results in acre feet. The period July 1 through November 1 is plotted for each of the six years analyzed; the data tables for the six years are shown in Tables A-1 through A-6. The values shown for each district in the data tables were computed by the consumptive use program. The column labeled "Daily Total (AF)" is the sum of the six districts and is plotted in Figure A-1. For example, the estimated consumptive use on July 1, 1993 was 302.6 acre feet. The column labeled "Weekly Volume (AF)" was calculated from the daily totals using the equation described above.

Figure A-2 shows the estimated HUP volumes necessary to meet irrigation replacement needs during each of the six irrigation seasons analyzed. As shown in Figure A-2 and the yearly data tables, the total estimated volume ranges from a low of 9,397 acre feet in 1994 to a high of 12,982 acre feet in 1993. The average volume for the six years analyzed was 11,851 acre feet, shown in Table A-7.

To verify accuracy of the weekly volume computations, consumptive use program runs were made for each day of the 1993 analysis (July 1 through November 1). Total volume from the daily 1993 runs was 13,193 acre feet—a difference of 211 acre feet, or about a 1.63% increase over the 12,982 volume calculated from the once-weekly runs.

The results from the 1993 daily analysis were used as the basis for the irrigation component of the Upstream HUP Replacement Allocation, which provides an allocation based on the largest volume from the six-year study period.

#### A.1.d. Adjustment Factor

The irrigation consumptive use analysis was based on actual irrigation water diversions during the six-year study period. Potential depletions by water rights not in production during the study period were therefore not accounted for. For example, research conducted by representatives of the Vail Valley Consolidated Water District indicates that the district has approximately 900 acre feet of agricultural consumptive use credits for municipal use. In 1994, the district's municipal depletions totaled 333 acre feet, leaving nearly 600 acre feet of potential depletions. If these water rights were fully developed in the future, a portion of the 600 acre feet would come from augmentation provided by the HUP pool.

Research was conducted by the State's Water Division Five staff to quantify the volume of potential depletions requiring augmentation from the HUP pool. Augmentation plans and diversions for District 51 (Grand County area) water rights junior to the Shoshone right were reviewed for the 1989 to 1994 study period in order to identify agricultural water rights that have been converted to municipal use, but are not yet in production. Five out-of-production water rights were found, with a total of 90.2 acre feet of municipal consumptive use credits. Normally, only a portion of this 90.2 acre feet total would come from augmentation provided by the HUP pool. In the event the Shoshone call was on for the entire irrigation season, all of the 90.2 acre feet would come from the HUP.

The research done to quantify potential depletions in the Vail Valley and District 51 is representative of what could be expected in other areas of Division Five. An adjustment factor of 10% was applied to the irrigation consumptive use volume to account for out-of-production water rights. This results in an increase of 1.319 acre feet to the 13.193 acre feet already identified in the 1993 irrigation consumptive use study. As provided for in paragraph 6.5. of the Stipulation and Agreement, this adjustment factor could be modified in the future if additional research is done to quantify the replacement needs for water rights not currently in use.

#### A.2. Municipal and Domestic Consumptive Use

As explained earlier, the total volume for the Upstream HUP Replacement Allocation was developed by quantifying replacement needs for: 1) irrigation consumptive use, and 2) municipal and domestic consumptive use during the irrigation season. Municipal and domestic consumptive use during the winter, or non-irrigation season, is discussed separately in Section B.

An analysis of historical municipal and domestic consumptive use was conducted by the State's Water Division 5 staff. The diversion records for 1994 were analyzed to quantify replacement needs for domestic and municipal diversions augmented by the HUP. The 1994 diversions

reported by the Water Commissioners represent the best data available; analyzing records prior to 1994 would likely show *lower* replacement needs. The effect of future population growth on municipal and domestic water use was not evaluated in the analysis; any increases in municipal and domestic water use are expected to be offset by decreases in irrigation water use. Also, an adjustment factor was already applied to account for potential depletions from out-of-production agricultural water rights converted to municipal use (see Section A.1.d., Adjustment Factor).

The municipal and domestic diversion records were selected according to similar criteria as in the irrigation consumptive use study discussed earlier. In summary:

1. HUP beneficiaries (water rights perfected and in use prior to January 23, 1984);
2. Located upstream from the Shoshone Power Plant (districts 36, 37, 50, 51, 52, and 53);
3. Junior to the Shoshone 1250 cfs water right.

For this analysis, municipal and domestic depletions during the May through October irrigation season were computed at a flat 30% consumptive use rate.

Results from the analysis, shown in Table B-8, indicate that approximately 172 acre feet of municipal and domestic depletions occurred during the 1994 irrigation season.

## B. Winter HUP Allocation

The Winter HUP Allocation represents the HUP volume needed to meet the replacement needs of municipal and domestic water rights during the winter or non-irrigation season. This volume was quantified using the same criteria and methods described in Section A.2. above, with the following differences:

1. The period November 1993 through April 1994 was analyzed.
2. Municipal and domestic diversions upstream from Cameo and junior to the Cameo rights (as opposed to upstream from Shoshone and junior to Shoshone) were included in the analysis. However, since the Cameo call was not on during the winter months, no replacements were needed for water rights below Shoshone.
3. A wintertime consumptive use rate of 10% was applied, which is the accepted rate for septic systems (the 5% rate for central sewer systems was not used).

The results of the analysis, shown in Table A-9, indicated that the wintertime municipal and domestic consumptive use total was approximately 90 acre feet, which was less than earlier estimates. Although the earlier estimates were not based upon actual diversion records, there was concern that the 90 acre feet figure was not conservative enough. A Winter HUP Allocation volume of 500 acre feet was subsequently agreed upon by representatives of the Co-applicants and Objectors at their Technical Committee meeting on October 25, 1995.

### C. Total HUP Draw Down Band

The band of HUP draw down patterns shown in Figure 1 of the Operating Criteria is based on rule curves used in spreadsheet model simulations of HUP operation as proposed under the terms of the Stipulation and Agreement. HUP pool operations were modeled to meet a Cameo flow of 1310 cfs plus historic GVIC diversions. Releases were based on the HUP volume as compared with a rule curve. Releases to meet 1310 cfs plus GVIC diversions were made as long as pool volume was equal to or exceeded the rule curve. If pool volume dropped below the rule curve, releases were reduced to meet the lesser of 1700 cfs or 1310 cfs plus GVIC diversions.

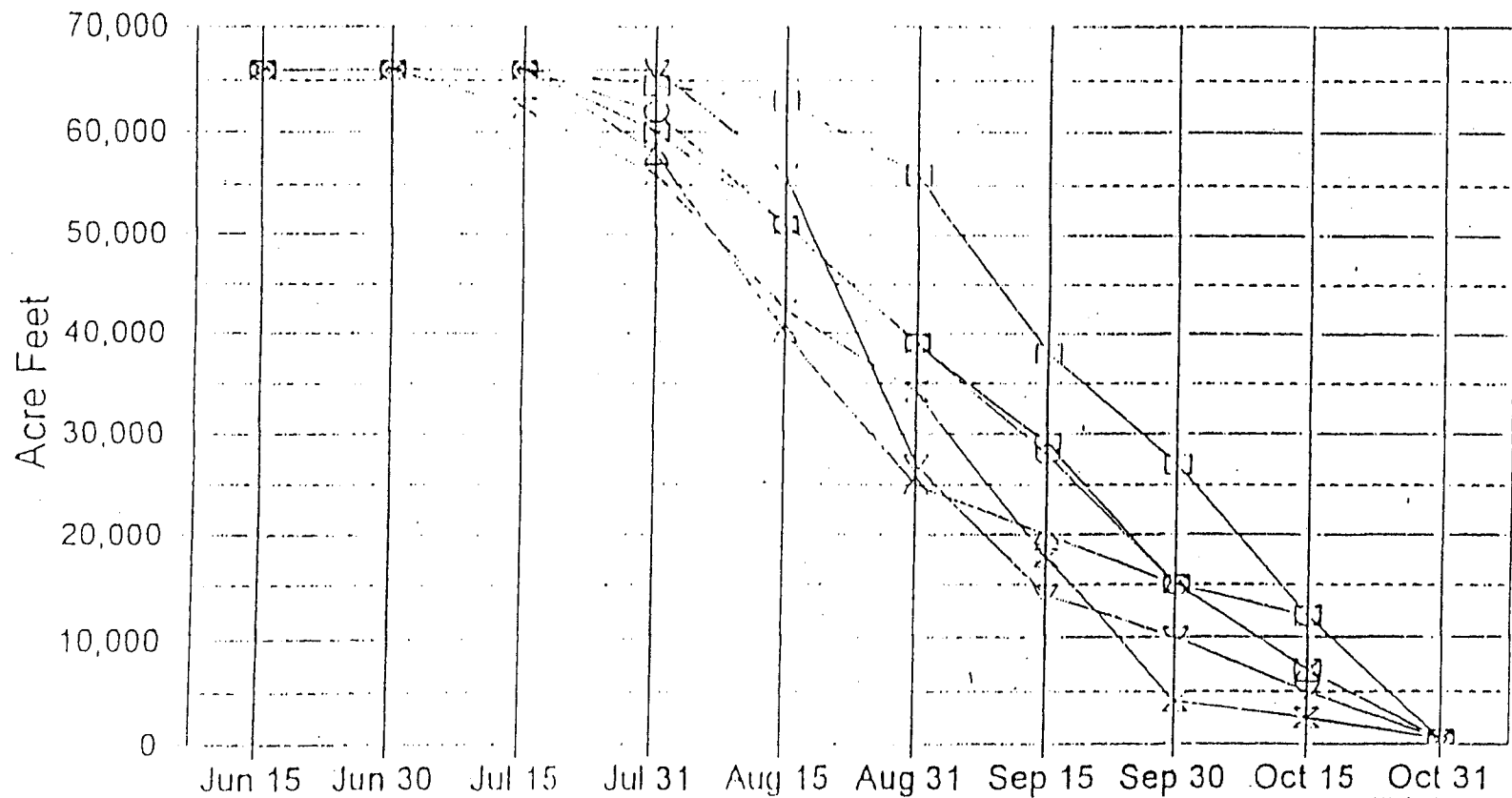
A surplus was considered to exist when pool volume was above the rule curve. Surplus supply was released as a power delivery to the Orchard Mesa Power Canal. The amount of release was limited to the minimum of available surplus volume or the remaining available capacity in the Government Highline and Orchard Mesa Power Canals.

Spreadsheet simulations were done for years 1977, 1981, 1988, 1989, 1990, and 1991. Rule curves used in these simulations were developed using an iterative process. Adjustments were made upon inspection of the effectiveness of resulting HUP releases in meeting the delivery needs of GVWUA, OMID, and GVIC. Utilization of the pool for delivery of surplus water to the Orchard Mesa Power Canal, and indirectly to the 15-Mile Reach, was also considered. The rule curves for the six years analyzed are shown in Figure B-3. The HUP Draw Down Band in Figure 1 was derived from the maximum and minimum values of these curves.

The spreadsheet simulation model is in a review and revision process. As such, the HUP Draw Down Band shown in Figure 1 should be considered preliminary in nature, and is presented for illustrative purposes. With review and revision, modifications to these rule curves may occur. Simulations of additional years may alter the range of the band as presently shown in Figure 1.

Figure A-3

# Rule Curves - Green Mountain Reservoir Historic User's Pool



---x--- 1977    ---△--- 1981    ---□--- 1988    ---|--- 1989    ---▽--- 1990    ---⊠--- 1991

Volume on Oct 31  
is 500 acre feet



Table A-1. 1989 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	"Weekly" Volume (AF)
	36	37	50	51	52	53			
JUL 1	31.613	38.654	36.049	63.815	4.986	57.062	232.179	117.057	1,641.577
JUL 8	33.393	39.076	38.712	64.434	4.658	56.570	236.843	119.408	1,644.944
JUL 15	34.323	40.167	39.096	61.304	4.883	53.368	233.141	117.542	1,418.575
JUL 22	23.417	36.724	30.098	49.506	1.026	31.395	172.166	86.800	1,592.370
AUG 1	19.774	31.762	26.693	40.764	0.633	26.682	146.308	73.764	973.301
AUG 8	16.197	26.664	34.005	28.149	0.610	26.153	131.778	66.438	905.429
AUG 15	12.347	23.708	34.410	29.966	0.588	25.897	126.916	63.987	858.155
AUG 22	10.472	21.987	35.778	24.848	0.537	24.649	118.271	59.628	1,062.935
SEP 1	7.278	18.055	20.880	24.757	0.468	22.878	94.316	47.551	610.309
SEP 8	2.746	15.863	13.456	26.096	0.417	21.480	80.058	40.363	525.529
SEP 15	1.949	12.342	11.735	23.767	0.367	19.933	70.093	35.339	452.613
SEP 22	1.373	11.167	6.478	21.429	0.321	18.457	59.225	29.859	483.165
OCT 1	1.471	10.227	5.314	15.952	0.000	15.171	48.145	24.273	319.535
OCT 8	1.194	8.659	6.453	13.580	0.000	13.265	43.151	21.755	205.576
OCT 15	1.454	0.000	2.248	7.319	0.000	4.564	15.565	7.857	98.284
OCT 22	0.615	0.000	1.587	6.028	0.000	4.266	12.496	6.300	64.085
NOV 1	0.000	0.000	0.000	0.321	0.000	0.000	0.321	0.162	0.321
Total									12,856.702

Table A-2. 1990 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	"Weekly" Volume (AF)
	36	37	50	51	52	53			
JUL 1	35.379	61.627	44.118	75.456	1.867	48.648	267.097	134.661	1,820.767
JUL 8	37.333	62.319	28.526	81.041	1.649	42.254	253.122	127.616	1,708.679
JUL 15	30.369	63.466	26.294	70.886	1.681	42.431	235.129	118.544	1,495.809
JUL 22	27.751	38.538	24.122	58.771	1.658	41.405	192.245	96.924	1,657.595
AUG 1	18.159	32.993	15.019	37.727	1.625	33.751	139.274	70.217	930.472
AUG 8	15.769	32.094	13.243	30.599	1.602	33.268	126.575	63.815	760.312
AUG 15	2.495	25.578	10.490	19.209	1.580	31.205	90.657	45.705	615.811
AUG 22	1.595	23.900	10.265	20.688	1.529	27.312	85.289	43.000	791.590
SEP 1	0.405	20.749	2.845	23.932	1.460	23.638	73.029	36.819	521.448
SEP 8	0.361	19.261	3.811	29.146	1.409	21.968	75.956	38.295	504.756
SEP 15	0.317	17.363	4.064	25.735	0.367	20.414	68.260	34.414	442.449
SEP 22	0.275	13.711	3.423	22.953	0.321	17.461	58.154	29.319	459.900
OCT 1	1.549	11.161	1.163	18.307	0.000	11.856	44.046	22.207	270.760
OCT 8	1.260	7.309	0.956	13.249	0.000	10.540	33.314	16.796	200.141
OCT 15	0.956	7.309	4.791	9.075	0.000	2.726	23.869	12.034	143.630
OCT 22	0.785	5.999	3.956	5.022	0.000	1.404	17.168	8.656	95.490
NOV 1	0.000	0.041	0.000	1.889	0.000	0.000	1.930	0.973	1.930
Total									12,421.736

Table A-3. 1991 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	"Weekly" Volume (AF)
	36	37	50	51	52	53			
JUL 1	33.901	46.964	59.351	80.091	1.617	51.486	273.410	137.844	1,915.760
JUL 8	35.332	46.320	64.402	76.200	1.649	50.047	273.950	138.117	1,839.933
JUL 15	32.589	46.588	52.357	69.901	1.681	48.629	251.745	126.922	1,595.577
JUL 22	26.629	42.433	38.483	53.260	1.658	41.671	204.134	102.918	1,537.420
AUG 1	16.630	30.216	10.733	27.821	1.625	32.955	103.350	52.106	808.511
AUG 8	11.691	28.874	17.208	36.190	1.602	32.088	127.653	64.358	847.508
AUG 15	7.676	27.631	14.961	33.219	1.580	29.425	114.492	57.723	725.113
AUG 22	5.598	25.263	1.785	30.644	1.529	27.864	92.683	46.728	874.790
SEP 1	4.290	20.740	5.255	24.314	1.460	26.216	82.275	41.480	552.094
SEP 8	2.624	19.148	4.710	23.129	1.409	24.446	75.466	38.047	517.839
SEP 15	0.875	16.587	5.693	26.495	0.367	22.471	72.488	36.546	477.554
SEP 22	0.380	15.081	3.447	24.446	0.321	20.281	63.956	32.245	474.143
OCT 1	1.532	11.591	0.992	16.799	0.260	10.235	41.409	20.877	269.283
OCT 8	1.245	9.851	1.289	13.808	0.215	9.121	35.529	17.913	209.178
OCT 15	0.757	7.045	0.774	10.515	0.169	4.976	24.236	12.219	132.402
OCT 22	0.597	5.863	0.681	5.260	0.140	1.052	13.593	6.853	71.215
NOV 1	0.059	0.041	0.000	0.550	0.000	0.000	0.650	0.328	0.650
Total									12,848.966

Table A-4. 1992 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	"Weekly" Volume (AF)
	36	37	50	51	52	53			
JUL 1	26.396	37.348	47.634	57.640	0.099	41.271	220.390	111.113	1,464.992
JUL 8	28.533	36.566	32.579	59.514	0.099	40.888	198.179	99.915	1,323.228
JUL 15	26.565	35.988	22.047	55.056	0.099	39.131	179.886	90.623	1,140.311
JUL 22	17.242	35.628	17.674	41.046	0.099	34.228	145.917	73.567	1,286.595
AUG 1	17.867	30.814	9.513	32.070	0.099	21.039	111.402	56.165	734.542
AUG 8	10.298	29.925	7.749	30.608	0.099	19.788	98.467	49.644	652.435
AUG 15	6.525	27.786	6.167	28.138	0.099	19.226	87.943	44.338	591.269
AUG 22	5.367	23.956	5.586	29.597	0.099	16.386	80.991	40.833	744.255
SEP 1	3.423	21.092	4.044	26.725	0.000	12.576	67.860	34.213	458.836
SEP 8	3.768	15.297	9.357	23.063	0.000	11.751	63.236	31.882	452.386
SEP 15	2.570	12.909	8.626	29.530	0.000	12.382	65.017	33.284	442.953
SEP 22	1.163	11.402	11.112	25.289	0.000	11.555	60.541	30.523	493.317
OCT 1	2.159	9.284	9.145	18.259	0.000	10.238	49.085	24.747	299.964
OCT 8	1.740	5.662	5.239	14.277	0.000	6.701	36.619	18.462	224.679
OCT 15	0.708	4.295	5.054	10.320	0.000	7.188	27.575	13.902	175.077
OCT 22	0.393	3.614	3.523	8.396	0.000	6.521	22.447	11.317	117.045
NOV 1	0.000	0.000	0.000	0.962	0.000	0.000	0.962	0.485	0.962
Total									10,601.862

Table A-5. 1993 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	Weekly Volume (AF)
	36	37	50	51	52	53			
JUL 1	28.042	31.351	64.709	124.462	4.101	49.980	302.645	152.584	2,031.421
JUL 8	27.583	33.151	72.518	90.082	3.300	51.127	277.761	140.038	1,839.443
JUL 15	27.145	33.896	44.240	89.854	3.345	49.314	247.794	124.930	1,562.411
JUL 22	22.959	29.877	25.861	70.777	3.312	45.823	198.609	100.132	1,770.005
AUG 1	15.334	36.104	20.126	37.486	3.266	43.076	155.392	78.344	1,004.602
AUG 8	9.224	32.521	18.236	27.430	3.234	40.992	131.637	66.367	867.706
AUG 15	4.881	31.491	19.189	24.983	0.588	35.147	116.279	58.624	731.213
AUG 22	3.357	27.950	12.174	26.991	0.537	21.630	92.639	46.706	857.075
SEP 1	2.824	24.406	12.631	23.353	0.468	15.094	78.776	39.716	514.269
SEP 8	2.178	20.520	15.219	17.674	0.000	12.567	68.158	34.363	443.905
SEP 15	1.912	16.169	17.396	11.196	0.000	11.999	58.672	29.580	387.352
SEP 22	3.881	10.323	16.848	10.131	0.000	10.817	52.000	26.217	414.140
OCT 1	3.011	8.662	13.073	6.644	0.000	8.641	40.031	20.182	253.435
OCT 8	1.491	7.327	12.615	5.296	0.000	5.650	32.379	16.324	166.334
OCT 15	1.148	4.149	2.923	2.918	0.000	4.007	15.145	7.636	84.395
OCT 22	0.820	3.472	2.588	1.989	0.000	0.099	8.968	4.521	52.555
NOV 1	0.006	0.030	1.184	0.323	0.000	0.000	1.543	0.778	1.543
Total									12,981.803

Table A-6. 1994 Irrigation Consumptive Use

Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	District						Daily Total (AF)	Daily Total (CFS)	Weekly Volume (AF)
	36	37	50	51	52	53			
JUL 1	25.273	35.822	23.631	64.698	2.286	28.067	179.777	90.638	1,249.822
JUL 8	22.689	36.450	26.309	60.541	2.396	26.928	177.315	89.396	1,216.975
JUL 15	23.006	34.106	25.580	62.830	2.510	22.350	170.392	85.906	1,097.954
JUL 22	18.788	33.571	13.993	52.389	2.430	22.138	143.309	72.252	1,200.815
AUG 1	9.563	32.585	6.485	24.930	2.315	20.976	96.854	48.831	621.114
AUG 8	7.107	31.695	5.159	17.447	2.235	16.954	80.607	40.639	530.100
AUG 15	4.859	30.748	3.965	14.340	2.156	14.782	70.850	35.720	500.920
AUG 22	4.585	28.224	10.536	12.666	1.879	14.380	72.270	36.436	673.370
SEP 1	3.330	23.402	6.147	14.782	1.638	13.105	62.404	31.462	438.512
SEP 8	2.785	21.195	9.804	16.187	0.834	12.080	62.885	31.705	432.194
SEP 15	2.348	18.555	9.156	18.528	0.734	11.278	60.599	30.552	391.654
SEP 22	2.076	11.289	9.131	17.850	0.642	10.314	51.302	25.865	391.419
OCT 1	2.720	9.508	4.878	9.528	0.520	8.526	35.680	17.989	227.647
OCT 8	2.003	8.014	4.134	7.746	0.430	7.035	29.362	14.803	177.230
OCT 15	1.399	5.219	3.389	5.722	0.338	5.208	21.275	10.725	131.957
OCT 22	0.598	4.196	2.897	4.132	0.280	4.324	16.427	8.282	109.465
NOV 1	0.006	0.030	4.342	1.088	0.000	0.000	5.466	2.756	5.466
Total									9,396.611

Table A-7. Irrigation Consumptive Use - Summary of all Years Analyzed

Weekly Volume (AF) - Irrigators junior to the Shoshone 1250 call, upstream from Shoshone

	Average	1989	1990	1991	1992	1993	1994
	All Years						
JUL 1	1,687.390	1,641.577	1,820.767	1,915.760	1,464.992	2,031.421	1,249.822
JUL 8	1,595.567	1,644.944	1,708.879	1,839.933	1,323.228	1,839.443	1,216.975
JUL 15	1,385.106	1,418.575	1,495.809	1,595.577	1,140.311	1,562.411	1,097.954
JUL 22	1,507.467	1,592.370	1,657.595	1,537.420	1,286.595	1,770.005	1,200.815
AUG 1	845.423	973.301	930.472	808.511	734.542	1,004.602	621.114
AUG 8	760.582	905.429	760.312	847.508	652.435	867.706	530.100
AUG 15	670.413	858.155	615.811	725.113	591.269	731.213	500.920
AUG 22	834.003	1,062.935	791.590	874.790	744.255	857.075	673.370
SEP 1	515.911	610.309	521.448	552.094	458.836	514.269	438.512
SEP 8	479.435	525.529	504.756	517.839	452.386	443.905	432.194
SEP 15	432.429	452.613	442.449	477.554	442.953	387.352	391.654
SEP 22	452.681	483.165	459.900	474.143	493.317	414.140	391.419
OCT 1	273.438	319.536	270.760	269.283	299.964	253.435	227.647
OCT 8	197.189	205.576	200.141	209.178	224.679	166.334	177.230
OCT 15	127.624	98.284	143.630	132.402	175.077	84.396	131.957
OCT 22	84.976	64.085	95.490	71.215	117.045	52.555	109.465
NOV 1	1.812	0.321	1.930	0.650	0.962	1.543	5.466
TOTAL	11,851.443	12,856.702	12,421.736	12,848.966	10,602.844	12,981.803	9,395.611

Table A-8. Municipal/Domestic component of Upstream HUP Replacement Allocation

**1994 Irrigation Season**  
**Municipal/Domestic Diversions Augmented by Green Mountain HUP**  
 (water rights junior to the Shoshone 1250 call, upstream from Shoshone)  
 Consumptive Use Rate of 30%

District	MAY	JUN	JUL	AUG	SEP	OCT	Total AF All Months
36	0.0	0.0	28.3	23.2	24.5	22.3	98.3
37	0.0	0.0	0.2	2.0	2.8	2.7	7.7
50	0.0	0.0	22.4	26.0	23.0	21.4	92.8
51	0.0	0.0	83.1	66.0	53.5	35.5	238.1
52	0.0	0.0	5.0	5.0	5.0	5.0	20.0
53	0.0	0.0	29.0	29.0	29.0	29.0	116.0
Total AF	0.0	0.0	168.0	151.2	137.8	115.9	572.9
30 % CU	0	0	50.4	45.36	41.34	34.77	171.87

Table A-9. Winter HUP Allocation

**1993/1994 Winter Season**  
**Municipal/Domestic Diversions Augmented by Green Mountain HUP**  
 (water rights junior to the Cameo call, upstream from Cameo)  
 Consumptive Use Rate of 10%

District	NOV	DEC	JAN	FEB	MAR	APR	Total AF All Months
36	21.2	20.8	0	0	0	0	42.0
37	34.9	38	0	0	0	0	72.9
50	23.9	23.9	0	0	0	0	47.8
51	61	66.5	0	0	0	0	127.5
52	5	5	0	0	0	0	10.0
53	23	23	0	0	0	0	46.0
38	0	0	0	0	0	0	0.0
39	0	0	0	0	0	0	0.0
45	0	0	0	0	0	0	0.0
70	0	0	0	0	0	0	0.0
72	0	0	0	0	0	0	0.0
Total AF	169	177.2	N/A *	N/A *	N/A *	0	346.2
10% CU	16.9	17.72	17.72	17.72	17.72	0	87.78

\* Consumptive use amounts estimated for Jan, Feb, and Mar, when no calls existed in 1994.

DISTRICT COURT, WATER DIVISION NO. 5, STATE OF COLORADO

Case No. 91CW247

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STIPULATION AND AGREEMENT

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CONCERNING THE APPLICATION FOR WATER RIGHTS OF THE GRAND VALLEY WATER USERS ASSOCIATION, ORCHARD MESA IRRIGATION DISTRICT, AND THE UNITED STATES OF AMERICA, IN MESA COUNTY, COLORADO

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This Stipulation and Agreement, dated as of September 4, 1996, is made between the Co-Applicants, the Grand Valley Water Users Association, the Orchard Mesa Irrigation District ("OMID"), the United States of America ("United States"), and the following parties who are collectively referred to herein as the "Objectors":

Aurora, City of  
Basalt, Town of  
Basalt Water Conservancy District  
Carbondale, Town of  
Colorado Division of Wildlife  
Colorado River Water Conservation District  
Colorado Springs, City of  
Colorado State Engineer  
Colorado Water Conservation Board  
Copper Mountain, Inc.  
Copper Mountain Consolidated Metropolitan District (successor-in-interest to  
Copper Mountain Water and Sanitation District)  
Cyprus Climax Metals Company  
DeBeque, Town of  
Division Engineer, Water Division No. 5  
Eagle, Town of  
Exxon Company, U.S.A.  
Frisco, Town of  
Glenwood Springs, City of  
Grand County Water & Sanitation District No. 1  
Grand Valley Irrigation Company  
Middle Park Water Conservancy District  
Mid Valley Metropolitan District  
Mobil Mining & Minerals Company

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New Castle, Town of  
North Barton Creek Ltd. Liability Company  
Palisade, Town of  
Parachute, Town of  
Pueblo, Board of Water Works of  
Public Service Company of Colorado  
Ralston Resorts, Inc. (successor-in-interest to Keystone Resorts Management, Inc., and Breckenridge Ski Corporation)  
Rifle, City of  
Rifle Land Associates, Ltd.  
Silverthorne, Town of  
Spruce Valley Ranch Foundation  
Summit County Commissioners, Board of  
Union Oil Company of California  
Upper Eagle Regional Water Authority  
Vail Associates, Inc.  
Vail Valley Consolidated Water District

In consideration of the mutual agreements contained herein, Co-Applicants and Objectors agree as follows:

1. Definitions. Unless otherwise indicated, the following terms shall have the following definitions in this Stipulation and Agreement and in any decree which may be subsequently entered in this case:

- "15-Mile Reach" shall mean the reach of the Colorado River which extends, from the point at which the tailrace common to the Grand Valley Power Plant and the OMID pumping plant returns to the Colorado River below the Grand Valley Irrigation Company ("GVIC") diversion dam, downstream to the confluence of the Colorado River and Gunnison River.

- "Blue River Decrees" shall mean the stipulations, judgments, orders and decrees entered in consolidated Civil Action Nos. 2782, 5016 and 5017, United States District Court, District of Colorado, including without limitation the decrees dated October 12, 1955, and April 16, 1964.

- "HUP" shall mean the so-called "historic users pool" defined as water to be released from the Green Mountain Reservoir power pool as described in paragraphs 2 and 3 of the Operating Policy.

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- "HUP beneficiaries" shall mean those persons or entities for whose benefit releases are made from the HUP pursuant to the Operating Policy.

- "OMID Right" shall mean the 450 c.f.s. decreed as Priority No. 197 as renumbered to the OMID System of Canals and Ditches by decree of the Mesa County District Court entered on July 25, 1941, in Case No. 5812.

- "Operating Policy" shall mean the Operating Policy for Green Mountain Reservoir, Colorado-Big Thompson Project, Colorado (Volume 48, No. 247 Federal Register 12/22/83; as amended in Volume 52, No. 176 Federal Register 9/11/87).

- "Orchard Mesa Check" shall mean the three mechanically operated radial gates and the bypass channel by which the water level in the common afterbay of the Grand Valley Power Plant and the OMID pumping plant can be raised to a level which causes water to flow through the bypass channel and return to the Colorado River immediately upstream of the GVIC diversion dam, and shall include any replacement structure in the same location which performs that same function.

- "Parties" shall mean each of the parties to this Stipulation and Agreement as identified in the first unnumbered paragraph, above. A "party" shall mean one of the parties.

- "Power Right" shall mean the 800 c.f.s., 400 c.f.s. during the irrigation season, decreed to the United States for the Grand Valley Project by decree of the Mesa County District Court entered July 25, 1941, in Case No. 5812.

- "Shoshone Rights" shall mean the water rights decreed for and associated with the Shoshone Power Plant (a.k.a. the Glenwood Power Canal), adjudicated for 1,250 c.f.s. on December 9, 1907, with an appropriation date of January 7, 1902, and adjudicated for 158 c.f.s. on February 7, 1956, with an appropriation date of May 15, 1929.

2. Application. The Co-Applicants filed an application on December 30, 1991, which application was amended on May 24, 1993, for approval of an exchange of water based upon the discharge of water from the common afterbay of the Grand Valley Power Plant and the OMID pumping plant into the Colorado River upstream from the GVIC diversion dam by means of the Orchard Mesa Check. The Co-Applicants have claimed an absolute right for an existing exchange of water with a 1926 priority date. Attached hereto as Exhibit A and incorporated herein by this reference is a list of all of the decreed water



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rights of the Co-Applicants (the "Co-Applicants' Water Rights"), Mesa County Irrigation District and Palisade Irrigation District which are legally divertible at the headgate of the Government Highline Canal (commonly referred to as the "Roller Dam"). Attached hereto as Exhibit B and incorporated herein by this reference is a list of all the decreed water rights of the GVIC (the "GVIC Water Rights") which are legally divertible at the GVIC diversion dam.

3. Decree Provisions. The parties agree to the entry of a decree in Case No. 91CW247, in the form of the proposed decree attached hereto as Exhibit C, granting the application as amended and incorporating the terms of this Stipulation and Agreement.

3.a. Except as provided in paragraphs 3.a.(1), (2) and (3), below, the United States agrees not to exercise the Power Right from April 1 through October 31 of each year so as to place an administrative call which results in the curtailment of diversions by upstream water rights.

3.a.(1) During the months April through October, at any time diversions at the Roller Dam under the irrigation rights listed on Exhibit A are less than 1,310 c.f.s., the Power Right may be exercised so as to maintain a total call of 1,310 c.f.s. at the Roller Dam by the water rights listed on Exhibit A.

3.a.(2) In addition, at any time during the months April through October that diversions by the GVIC Water Rights are less than 400 c.f.s., the Power Right may be exercised for up to the amount that diversions by such GVIC rights are less than 400 c.f.s.; provided, however, that if GVIC gives written notice to the parties pursuant to paragraphs 3.e.(1) or (2) that the GVIC Water Rights shall no longer be subject to the terms of paragraph 3.b., then, at any time during the months April through October, the Power Right may be exercised for up to the amount that GVIC's diversions are less than the amount of GVIC's then existing decreed water rights or less than 400 c.f.s., whichever is less.

3.a.(3) If the Orchard Mesa Check is physically inoperable due to an Act of God or an emergency situation beyond the control of the Co-Applicants, the United States may exercise the Power Right to the full decreed amount for a period not to exceed a total of 14 days during the April 1 through October 31 period in any given year or until the Orchard Mesa Check becomes operable, whichever occurs first. For purposes of this provision, an emergency situation shall not be deemed to occur if the Orchard Mesa Check is inoperable due to a lack of funding or the non-performance of ordinary maintenance.

3.a.(4) Any calls of the Power Right pursuant to paragraphs 3.a.(1), (2) and (3), above, may be made only when and to the extent the Power Right is in priority, there is capacity in the power canal, and all water called thereunder is delivered to and through the Grand Valley Power Plant.

3.a.(5) For purposes of paragraph 3 of this Stipulation and Agreement, the priority date of the Power Right shall be considered to be August 3, 1934. So long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended, the United States agrees not to seek administration under a more senior priority, which the United States asserts is decreed as February 27, 1908. By agreeing not to assert a 1908 priority for the Power Right while paragraph 3 of this Stipulation and Agreement is not suspended, the United States does not waive and shall not be estopped from asserting the right to seek administration under a 1908 priority, nor shall Objectors be estopped from challenging a 1908 priority, in the event any of the provisions of paragraph 3 of this Stipulation and Agreement shall be suspended, as addressed in paragraphs 3.b.(6), 5.c. and 5.d., below. The parties agree that the time for raising claims and defenses concerning the priority of the Power Right is tolled so long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended.

3.a.(6) No provision of this Stipulation and Agreement shall be considered to affect in any way the right of the United States to call for the 800 c.f.s. power right from November 1 through March 31.

3.b. During the period April 1 through October 31 of any year that the conditions set forth in paragraphs 3.b.(1), (2) and (3), below, are met, diversions by HUP beneficiaries (except the HUP beneficiaries who own and/or operate the water rights listed in Exhibits A and B) shall not be curtailed by any administrative call by the water rights listed in Exhibits A and B:

3.b.(1) the Orchard Mesa Check is physically operable. For purposes of this provision, the Orchard Mesa Check shall be considered to be physically operable unless it is rendered inoperable due to an Act of God or an emergency situation beyond the control of the Co-Applicants. An emergency situation shall not be deemed to occur if the Orchard Mesa Check is inoperable due to a lack of funding or the non-performance of ordinary maintenance. If the Orchard Mesa Check is rendered inoperable, Co-Applicants shall make best efforts to bring the facility back into operation as soon as possible.

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3.b.(2) there is at least 66,000 acre feet of water available for releases for the benefit of HUP beneficiaries when Green Mountain Reservoir ceases to be in-priority for its initial fill under the Blue River Decrees. Nothing in this Stipulation and Agreement shall be construed to limit or diminish the ability of the United States to exercise its full right to fill Green Mountain Reservoir as provided by the Blue River Decrees.

3.b.(3) the Shoshone Rights continue to be exercised in a manner substantially consistent with their historical operations for hydropower production at their currently decreed point of diversion.

3.b.(4) As provided in paragraph 3.c., below, this paragraph 3.b. shall not cause increased curtailment of diversions by non-HUP beneficiaries.

3.b.(5) If any of the three conditions set forth in paragraphs 3.b.(1), (2) or (3), above, is not met, Co-Applicants and GVIC (based on concurrence of any three out of four of those entities) may give written notice to the parties that the Operating Criteria developed pursuant to paragraph 5, below, and the non-curtailment provisions of this paragraph 3.b. shall be inoperative until each of said three conditions is being met (if paragraph 3.b. is rendered inoperative under this provision, it shall not be considered to be suspended for the purposes of this Stipulation and Agreement). During any period that the Operating Criteria are inoperative, no water in the HUP shall be deemed to be surplus to the needs of the HUP beneficiaries, and releases from the HUP shall only be made to replace out-of-priority depletions by HUP beneficiaries and to make direct deliveries to HUP beneficiaries. To the extent that such releases are less than the out-of-priority depletions of HUP beneficiaries, the water rights listed in Exhibits A and B may place an administrative call and seek curtailment of diversions by HUP beneficiaries, provided, however, that nothing herein shall diminish or limit the statutory authority and responsibility of the Division 5 Engineer.

3.b.(6) If any of the three conditions set forth in paragraphs 3.b.(1), (2) or (3), above, is not met, Co-Applicants and GVIC (based on concurrence of any three out of four of those entities) may give written notice to the parties that the terms of paragraph 3.a. of this Stipulation and Agreement are suspended until each of said three conditions is being met. During any period that the terms of paragraph 3.a. are suspended, the United States may fully exercise the Power Right, and the parties may raise the matters addressed in paragraphs 3.a.(5), 3.e., 3.f. and 3.g. of this Stipulation and Agreement. If an action raising any such matter is commenced during any period of

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suspension of paragraph 3.a., the parties to such action shall be free to continue to prosecute and defend such action to its conclusion, notwithstanding that the conditions set forth in paragraphs 3.b.(1), (2) and (3) become fully satisfied and paragraph 3.a. goes back in effect after commencement of such action.

3.c. The parties recognize that under the terms of paragraph 3.b. of this Stipulation and Agreement, there may be instances when the actual releases from the HUP will be less than the out-of-priority depletions of the HUP beneficiaries. In such instances, the Division Engineer shall not curtail the water right(s) of any entity not entitled to benefits of the HUP to the extent that entity's water right(s) would otherwise have been in priority to divert if the out-of-priority depletions of HUP beneficiaries would have been fully replaced in the absence of the execution of this Stipulation and Agreement and the decree based thereon.

3.d. The provisions of paragraphs 3.a. and 3.b. of this Stipulation and Agreement shall not be considered to intend, evidence, or represent abandonment in whole or in part of any of the Co-Applicants' Water Rights, the GVIC Water Rights or other water rights listed on Exhibit A and Exhibit B, including, but not limited to, the Power Right.

3.e. Issues concerning waste and reasonable efficiency in the exercise of the water rights, diversion, carriage and delivery systems of the Co-Applicants, GVIC and other owners of the water rights listed on Exhibits A and B, are not determined in this proceeding and all claims and defenses regarding those issues are dismissed without prejudice and shall not be raised by any of the parties in any proceeding before the Division 5 Engineer or the State Engineer or in any judicial proceeding so long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended. The parties agree that the time for raising claims and defenses concerning these issues is tolled so long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended. Nothing herein shall diminish or limit the statutory authority and responsibility of the Division 5 Engineer. Nothing herein shall affect the rights of the parties regarding the disposition of water saved through implementation of conservation measures. Nor shall anything herein affect the rights of the parties regarding issues relating to administration of water rights, except those issues which the parties have agreed not to raise pursuant to paragraphs 3.a(5), 3.e., 3.f. and 3.g.

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3.e.(1) If, during any period of suspension of paragraph 3.a., an action is brought by any party to this Stipulation and Agreement raising issues concerning waste or reasonable efficiency in the exercise of the GVIC Water Rights, GVIC may then give written notice to the parties that the GVIC Water Rights shall no longer be subject to the terms of paragraph 3.b.

3.e.(2) In the event that any person or entity not a party to this Stipulation and Agreement brings an action raising issues concerning waste or reasonable efficiency in the exercise of the GVIC Water Rights, GVIC may give written notice to the parties that the GVIC Water Rights shall no longer be subject to the terms of paragraph 3.b. If GVIC elects to give such notice, the parties to this Stipulation and Agreement may then join in any such action or bring a separate action concerning issues of waste or reasonable efficiency in the exercise of the GVIC Water Rights.

3.f. Issues concerning the historical administration of Co-Applicants' Water Rights and GVIC's Water Rights and operation of the Orchard Mesa Check as a precondition to exercise of a call by such water rights and as a term and condition of the decree adjudicating the exchange herein are not determined in this proceeding, and all claims and defenses regarding those issues are dismissed without prejudice and shall not be raised so long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended. The parties agree that the time for raising claims and defenses concerning the historical administration and operation of the Orchard Mesa Check is tolled as long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended.

3.g. Certain Objectors moved the Court for partial summary judgment on the issue of whether OMID is precluded by the terms of the decrees heretofore awarded it from pumping more than 125 c.f.s. for actual irrigation usage. On June 22, 1995, the Court entered an order denying the motion based on the Court's conclusion that "it cannot be said as a matter of law that OMID is limited to an irrigation right of 125 c.f.s." The Court's Order did not preclude the parties from raising and litigating at trial issues concerning whether or not the OMID Right should be limited to 125 c.f.s., nor did it preclude the parties from raising these issues in a separate action. These issues are not determined in this proceeding and all claims and defenses regarding those issues are dismissed without prejudice and shall not be raised so long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended. The parties agree that the time for raising claims and defenses concerning such issues is tolled as long as none of the provisions of paragraph 3 of this Stipulation and Agreement are suspended.

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4. Operating Policy.

4.a. Nothing contained in this Stipulation and Agreement shall in any manner be construed or intended to limit the availability of water from Green Mountain Reservoir for contract pursuant to paragraphs 4 through 7 of the Operating Policy, subject to the terms and conditions of such contracts, or otherwise adversely affect any Green Mountain Reservoir water service contract.

4.b. Nothing in this Stipulation and Agreement or in the Operating Criteria attached hereto as Exhibit D shall be construed as a consent to the validity or enforceability of the Operating Policy or a waiver or relinquishment of any claims or defenses regarding the validity or enforceability of the Operating Policy.

5. Green Mountain Reservoir Historic User Pool Operating Criteria.

5.a. Co-Applicants and Objectors have jointly developed the Green Mountain Reservoir Historic User Pool Operating Criteria, attached hereto and incorporated herein as Exhibit D ("Operating Criteria"), in order to meet the purposes set forth therein, including defining the terms and conditions under which water in the HUP is surplus to the needs of HUP beneficiaries ("HUP surplus water"). HUP surplus water shall be available for delivery to beneficial uses in Western Colorado under contracts ("HUP surplus water contracts") to be developed by the Bureau of Reclamation. The parties agree that HUP surplus water contracts will provide that HUP surplus water will be delivered to and through the Grand Valley Power Plant to the extent that there is capacity in the power canal and water is needed to produce power at the Grand Valley Power Plant, and that HUP surplus water contracts may provide for delivery of HUP surplus water to other locations and facilities to the extent that there is not capacity in the power canal or that water is not needed to produce power at the Grand Valley Power Plant. Any HUP surplus water contract, entered into pursuant to this Stipulation and Agreement, for delivery of HUP surplus water upstream of the 15-Mile Reach shall be for non-consumptive use only. HUP surplus water contracts shall provide that return flows from delivery of HUP surplus water to and through the Grand Valley Power Plant shall be returned to the river through the tailrace common to the Grand Valley Power Plant and the OMID pumping plant, and that deliveries or return flows of HUP surplus water delivered to other locations and facilities shall flow through the 15-Mile Reach or be returned or delivered to the Colorado River as near as practicable to the upstream point of the 15-Mile Reach, thereby augmenting flows for the recovery of endangered Colorado River fish species.

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5.b. The Operating Criteria shall be binding upon and observed by the parties; provided, however, that the Operating Criteria may be amended by mutual agreement of the parties or otherwise modified as provided in this paragraph 5 and paragraph 6 of this Stipulation and Agreement. The parties agree to implement the Operating Criteria and, if necessary, to use good faith efforts to modify such criteria to promote the purposes set forth in paragraph 2 of the Operating Criteria.

5.c. If any party desires to request a modification to the Operating Criteria, based upon an allegation that use of one or more of the party's water rights in existence as of May 31, 1996 have been injured by the Operating Criteria and/or this Stipulation and Agreement, whether such injury be in water quantity, water quality or any injury which occurs as a result of a significant expansion of the amount of water required to offset or satisfy the demands of HUP beneficiaries, as a result of amendment or modification of the Operating Policy, or as a result of a substantial change in the manner in which the Shoshone Rights are exercised, the parties shall follow the procedures set forth below.

5.c.(1) Notice of the asserted injury shall be mailed to all parties to this Stipulation and Agreement. A party's failure to assert a particular type of injury during a given water year shall not limit that party's right to assert such an injury in subsequent water years unless the conditions upon which the claimed injury are based have existed during any five years out of any seven year period following execution of this Stipulation and Agreement.

5.c.(2) The parties shall each have the opportunity to designate a representative to serve on a committee which will review the injury claim and make an initial determination as to whether the alleged injury exists and, if so, whether it was caused by operation of the Operating Criteria and/or the provisions of this Stipulation and Agreement. Any party choosing not to designate a representative shall be deemed to accept the finding of the committee.

5.c.(2)(A) In the event the committee unanimously determines that no injury has occurred or that the injury alleged was not caused in whole or part by operation of the Operating Criteria and/or this Stipulation and Agreement, then the Operating Criteria and all provisions of this Stipulation and Agreement shall remain in full force and effect. If the committee cannot unanimously agree, then the party claiming injury may submit the issue to arbitration in accordance with paragraph 5.c.(3), below.

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Case No. 91CW247, Water Division No. 5

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5.c.(2)(B) If the committee unanimously determines that injury has been caused in whole or in part by the operation of the Operating Criteria and/or this Stipulation and Agreement, then the committee shall attempt to reach agreement as to how to modify the Operating Criteria and/or this Stipulation and Agreement to alleviate such injury to the satisfaction of the parties. If such an agreement is reached, the Operating Criteria and/or this Stipulation and Agreement shall be modified in accordance with that agreement and a stipulated motion to modify this Stipulation and Agreement shall be filed with the Court and any modifications to appropriate documents shall be made.

5.c.(2)(C) In the event the committee unanimously determines that injury has occurred and that it was caused in whole or in part by operation of the Operating Criteria and/or this Stipulation and Agreement, but cannot determine how to alleviate the injury to the satisfaction of the parties, the Operating Criteria and the provisions of paragraph 3 of this Stipulation and Agreement shall be suspended. In that event, any participating party may file a motion in this case or a separate action for determination of such issue and for appropriate relief. The Operating Criteria and the provisions of paragraph 3 of this Stipulation and Agreement shall remain suspended unless and until the Court determines otherwise.

5.c.(2)(D) The committee shall have a maximum period of one year from the date notice of the asserted injury is sent to the parties in which to make its determination of injury and, if injury is found, to reach agreement concerning how to alleviate the injury. During this period, the Operating Criteria and all provisions of this Stipulation and Agreement shall remain in full force and effect.

5.c.(3) Upon written notification from the committee organized under paragraph 5.c.(2), above, notifying all parties that the committee has been unable to agree upon a determination of injury or noninjury, or upon expiration of the one year period to make such determination, any party claiming injury may submit the issue of whether injury has occurred by operation of the Operating Criteria and/or this Stipulation and Agreement to arbitration.

5.c.(3)(A) Arbitration shall be governed by the rules of the American Arbitration Association (or, if it no longer exists, a similar organization). A panel of three arbitrators shall be selected as follows: (i) One person shall be selected by Co-Applicants and GVIC; (ii) One person shall be selected by Objectors; and, (iii) The two



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selected arbitrators shall select a third. The arbitrators shall be engineers, hydrologists, geologists, or practicing or retired water lawyers familiar with Colorado water law. None of the arbitrators shall have had any previous association with this case, absent the express consent of the parties.

5.c.(3)(B) Any party to the Stipulation and Agreement may participate as a party in the arbitration. All participating parties shall share in the costs of arbitration equally. Participating parties shall cooperate to conclude the arbitration expeditiously.

5.c.(3)(C) The arbitrators shall issue a written determination within 60 days following the conclusion of the taking of evidence. The arbitrators are only authorized to make determinations as to whether injury has occurred and, if so, whether it was caused by the Operating Criteria and/or this Stipulation and Agreement.

5.c.(3)(C)(i) If the arbitrators determine that injury has occurred and that it was caused by operation of the Operating Criteria and/or this Stipulation and Agreement, the Operating Criteria and the provisions of paragraph 3 of this Stipulation and Agreement shall be suspended. The parties shall then re-convene the committee organized under paragraph 5.c.(2), above, and the committee shall attempt to reach agreement as to how to alleviate such injury to the satisfaction of the parties. If such an agreement is reached, the Operating Criteria and/or this Stipulation and Agreement shall be modified in accordance with that agreement and a stipulated motion to modify this Stipulation and Agreement shall be filed with the Court and any modifications to appropriate documents shall be made. The committee shall have a maximum of six months from the date the arbitrators' determination is sent to the parties in which to reach agreement concerning how to alleviate the injury. Upon written notification from the committee notifying all parties that the committee has been unable to agree as to how to alleviate the injury, or upon expiration of the six month period for the committee to reach agreement, any participating party may proceed as provided in paragraph 5.c.(2)(C), above. The Operating Criteria and the provisions of paragraph 3 of this Stipulation and Agreement shall remain suspended unless and until the committee is able to unanimously agree on necessary modifications to the Operating Criteria and/or this Stipulation and Agreement, or unless and until the Court determines otherwise.

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Case No. 91CW247, Water Division No. 5

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5.c.(3)(C)(ii) If the arbitrators determine that no injury has occurred, or that injury has occurred but was not caused by operation of the Operating Criteria and/or this Stipulation and Agreement, the Operating Criteria and all provisions of this Stipulation and Agreement shall remain in full force and effect.

5.c.(3)(D) Any party to the arbitration who disagrees with the arbitrators' decision may file a motion in this case or a separate action for de novo review of the issue of injury and its causation and any issues related thereto, including whether the Operating Criteria and/or whether any provisions of this Stipulation and Agreement should be suspended, reinstated, or modified.

5.d. In the event the Operating Criteria are suspended, no water in the HUP shall be deemed to be surplus to the needs of the HUP beneficiaries, and releases from the HUP shall only be made to replace out-of-priority depletions by HUP beneficiaries and to make direct deliveries to HUP beneficiaries. In the event the Operating Criteria are suspended, the provisions of paragraph 3 of this Stipulation and Agreement shall also be suspended, and the Power Right may be fully exercised and the water rights listed in Exhibits A and B may place an administrative call and seek curtailment of diversions by HUP beneficiaries to the extent that HUP releases are less than the out-of-priority depletions of HUP beneficiaries.

5.e. In the event the Operating Criteria or HUP surplus water contracts are determined to be invalid or unenforceable by a court of competent jurisdiction, then the Operating Criteria shall be deemed suspended under paragraph 5.d., and paragraph 5.d. shall apply.

6. Entry of Decree. The parties agree that the decree attached hereto as Exhibit C shall be entered by the Court and that the Court shall retain jurisdiction for the purposes of considering any motion filed pursuant to paragraph 5 of this Stipulation and Agreement. In the event the Operating Criteria and the provisions of paragraph 3 of this Stipulation and Agreement are suspended, the parties shall then be free to raise any and all claims, whether in this case or in a separate action, including but not limited to, the matters addressed in paragraphs 3.a.(5), 3.e., 3.f. and 3.g. of this Stipulation and Agreement, except that the priority date and rate of the exchange shall not be relitigated. The parties agree that the Court shall not use the entry of the decree adjudicating the exchange and the priority thereof in a manner prejudicial to the positions or claims of either Co-Applicants or Objectors in any such subsequently filed motion or action. Any and all claims and defenses

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asserted in this proceeding, including issues as to the relevancy of various matters to this application, may be asserted by the parties and shall not be deemed waived.

7. Binding Effect. Upon the execution of this Stipulation and Agreement by all of the parties hereto, which execution must take place on or before September 4, 1996, and upon the Court's approval of this Stipulation and Agreement, this Stipulation and Agreement shall become effective and the rights and obligations created hereby shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns; provided, however, that the Operating Criteria and the limitations set forth in paragraphs 3.a. and 3.b. shall not take effect until the beginning of the 1997 irrigation season, i.e., April 1, 1997. The parties to this Stipulation and Agreement may consist of less than all the parties to Case No. 91CW247 only if the parties to this Stipulation and Agreement consent in writing to the full effectiveness hereof notwithstanding the failure of other parties to Case No. 91CW247 to execute the same.

8. Authority of Counsel to Bind Parties. Counsel executing this Stipulation and Agreement represent that they are authorized by their client(s) to do so.

9. Notice. All notices required or permitted under this Stipulation and Agreement shall be effective when sent to a party by certified United States mail, return receipt requested, to the address shown for that party on the attached Exhibit E, or to any new address of any party or any party's successor-in-interest, provided that notice of any such new address has been sent to all parties in accordance with this paragraph.

Stipulation and Agreement

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Bruce D. Bernard, #12166

Stephen G. Bartell

U.S. Department of Justice

Environment and Natural Resources Division

General Litigation Section

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ATTORNEYS FOR THE  
UNITED STATES OF AMERICA

Stipulation and Agreement

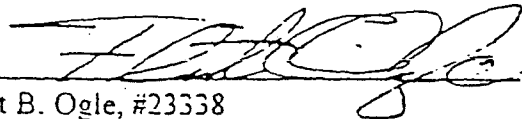
Case No. 91CW247, Water Division No. 5

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Mark Hermundstad  
Mark Hermundstad, #10527  
Anthony Williams, #1587  
Williams, Turner & Holmes, P.C.  
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ATTORNEYS FOR GRAND VALLEY WATER USERS ASSOCIATION

Stipulation and Agreement  
Case No. 91CW247, Water Division No. 5  
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ATTORNEYS FOR ORCHARD MESA IRRIGATION DISTRICT

Stipulation and Agreement

Case No. 91CW247, Water Division No. 5

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A handwritten signature in black ink, appearing to read "John M. Dingess", is written over a horizontal line.

John M. Dingess, #12239

Duncan, Ostrander & Dingess, P.C.

7800 East Union Avenue, #200

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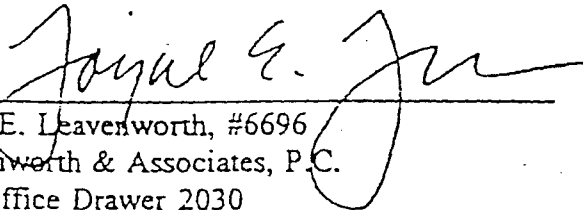
Telephone: 303/779-0200

ATTORNEY FOR CITY OF AURORA, COLORADO, ACTING BY AND THROUGH ITS  
UTILITY ENTERPRISE

Stipulation and Agreement

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Loyal E. Leavenworth, #6696  
Leavenworth & Associates, P.C.  
Post Office Drawer 2030  
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Telephone: 970/945-2261

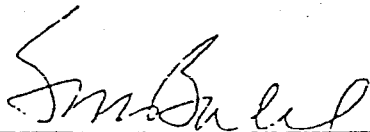
ATTORNEY FOR TOWN OF BASALT; MID VALLEY METROPOLITAN DISTRICT;  
CITY OF RIFLE; TOWN OF NEW CASTLE



Stipulation and Agreement

Case No. 91CW247, Water Division No. 5

Page 20



---

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ATTORNEYS FOR COPPER MOUNTAIN, INC.; BASALT WATER CONSERVANCY  
DISTRICT; COPPER MOUNTAIN CONSOLIDATED METROPOLITAN DISTRICT;  
MOBIL MINING & MINERALS COMPANY

Stipulation and Agreement

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Sherry A. Caloia

Sherry A. Caloia, #11947

Caloia, Haupt & Light, P.C.

1204 Grand Avenue

Glenwood Springs, CO 81601

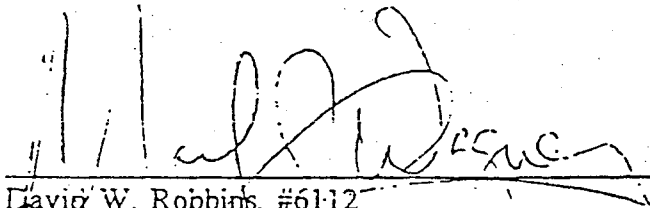
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ATTORNEY FOR TOWN OF EAGLE; TOWN OF DEBEQUE; TOWN OF PALISADE;  
TOWN OF CARBONDALE

Stipulation and Agreement

Case No. 91CW247, Water Division No. 5

Page 22

A handwritten signature in black ink, appearing to read "Mark J. Wagner", is written over a horizontal line.

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ATTORNEYS FOR TOWN OF FRISCO; TOWN OF SILVERTHORNE; TOWN OF  
PARACHUTE; CITY OF GLENWOOD SPRINGS; NORTH BARTON CREEK, LLC;  
SPRUCE VALLEY RANCH FOUNDATION AND RIFLE LAND ASSOCIATES, LTD.

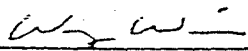
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Page 23

Gale A. Norton  
Attorney General

Stephen K. Erkenbrack  
Chief Deputy Attorney General

Timothy M. Tymkovich  
Solicitor General

Jennifer L. Gimbel  
Deputy Attorney General

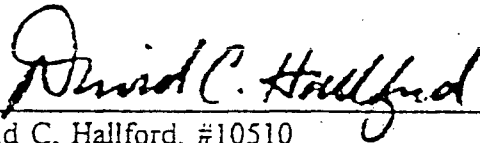
  

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Wendy Weiss, #7254  
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ATTORNEY FOR THE STATE AND DIVISION ENGINEERS; COLORADO DIVISION  
OF WILDLIFE; COLORADO WATER CONSERVATION BOARD

Stipulation and Agreement  
Case No. 91CW247, Water Division No. 5  
Page 24

A handwritten signature in cursive script that reads "David C. Hallford". The signature is written in black ink and is positioned above a horizontal line.

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David C. Hallford, #10510  
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ATTORNEY FOR COLORADO RIVER WATER CONSERVATION DISTRICT

Stipulation and Agreement

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Mark T. Pifer, #12629

Anderson, Johnson & Gianunzio

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Colorado Springs, CO 80901

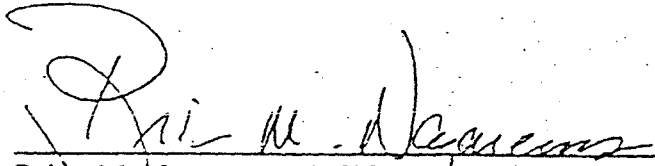
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ATTORNEY FOR CITY OF COLORADO SPRINGS

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Brian M. Nazareus, #16984

Gorsuch Kirgis, L.L.C.

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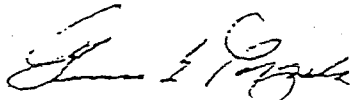
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ATTORNEY FOR CYPRUS CLIMAX METALS COMPANY.

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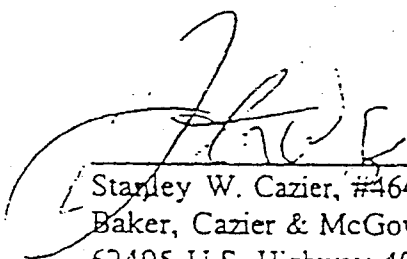
ATTORNEYS FOR VAIL ASSOCIATES, INC.; EXXON COMPANY, U.S.A.; VAIL  
VALLEY CONSOLIDATED WATER DISTRICT; BOARD OF COUNTY  
COMMISSIONERS OF SUMMIT COUNTY, COLORADO; UPPER EAGLE REGIONAL  
WATER AUTHORITY



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ATTORNEY FOR GRAND COUNTY WATER AND SANITATION DISTRICT NO. 1;  
MIDDLE PARK WATER CONSERVANCY DISTRICT

Stipulation and Agreement  
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Page 29

A handwritten signature in black ink, appearing to be the initials 'F.G. Aldrich' followed by 'J.T. Howe', written over a horizontal line.

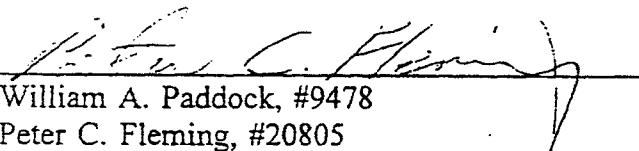
Frederick G. Aldrich, #428  
John T. Howe, #18845  
Hoskin, Farina, Aldrich & Kampf, P.C.  
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ATTORNEYS FOR GRAND VALLEY IRRIGATION COMPANY

Stipulation and Agreement

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Peter C. Fleming, #20805

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William F. Mattoon, #2004

Peterson, Fonda, Farley, Mattoon,

Crockenberg & Garcia, P.C.

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Pueblo, CO 81002

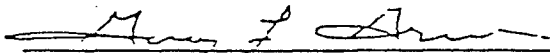
Telephone: 719/545-9330

ATTORNEYS FOR BOARD OF WATER WORKS OF PUEBLO, COLORADO

Stipulation and Agreement

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Page 32



Gary L. Greer, #4482

Sherman & Howard, L.L.C.

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Denver, CO 80202

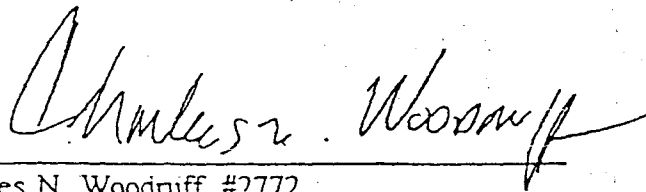
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ATTORNEY FOR RALSTON RESORTS, INC.

Stipulation and Agreement

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James R. Montgomery, #10989

Moses, Wittemyer, Harrison & Woodruff, P.C.

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ATTORNEYS FOR UNOCAL

EXHIBIT A

Stipulation and Agreement  
Case No. 91CW247, Water Division No. 5

CO-APPLICANTS' WATER RIGHTS

<u>Owner</u>	<u>Amount/cfs</u>	<u>Adjudication Date</u>	<u>Appropriation Date</u>	<u>Source</u>
Irrigation use:				
Orchard Mesa Irrigation District	450	07/22/1912	10/25/1907	Colorado R.
Orchard Mesa Irrigation District	10.2	07/22/1912	10/01/1900	Colorado R.
Grand Valley Water Users Association/United States	730	07/22/1912	02/27/1908	Colorado R.
Palisade Irrigation District	80	07/22/1912	10/01/1889	Colorado R.
Palisade Irrigation District	23.5	07/25/1941	06/01/1918	Colorado R.
Mesa County Irrigation District	40	07/22/1912	07/06/1903	Colorado R.
Power:				
Grand Valley Water Users Association/United States 1/	400/800	07/25/1941	02/27/1908	Colorado R.

1/ 400 during irrigation season & 800 during non-irrigation season.

EXHIBIT B

Stipulation and Agreement  
Case No. 91CW247, Water Division No. 5

GVIC WATER RIGHTS

Owner

Amount/cfs Adjudication Date

Appropriation Date Source

Grand Valley Irrigation  
Company

520.81

07/22/1912

08/22/1882

Colorado River

Grand Valley Irrigation  
Company

119.47

07/25/1941

04/26/1914

.. Colorado River

EXHIBIT C  
Stipulation and Agreement  
Case No. 91CW247, Water Division No. 5

DISTRICT COURT, WATER DIVISION NO. 5, COLORADO

Case No. 91CW247

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FINDINGS OF FACT, CONCLUSIONS OF LAW, JUDGMENT AND DECREE

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CONCERNING THE APPLICATION FOR WATER RIGHTS OF THE GRAND VALLEY  
WATER USERS ASSOCIATION, ORCHARD MESA IRRIGATION DISTRICT, AND THE  
UNITED STATES OF AMERICA, IN MESA COUNTY, COLORADO

---

FINDINGS OF FACT

1. Filing of Application. This matter was commenced on December 30, 1991 by the filing of an Application to Confirm and Approve Appropriative Right of Exchange which application was amended by leave of Court on May 24, 1993.

2. Co-Applicants. The application and amendment were filed by the United States of America (the "United States"), the Grand Valley Water Users Association, a corporation (the "Association"), and the Orchard Mesa Irrigation District, a corporation ("OMID"). The United States, the Association and OMID are referred to herein as the "Co-Applicants."

3. Objectors.

3.1 Statements of Opposition Opposing Application. The following parties filed timely Statements of Opposition opposing the application or seeking protective terms and conditions:

Basalt, Town of  
Basalt Water Conservancy District  
Carbondale, Town of  
Collbran, Town of  
Colorado Division of Wildlife  
Colorado Springs, City of  
Copper Mountain, Inc.  
Copper Mountain Consolidated Metropolitan District (successor-in-interest to  
Copper Mountain Water & Sanitation District)



DeBeque, Town of  
Eagle, Town of  
Glenwood Springs, City of  
Grand County Water & Sanitation District No. 1  
Middle Park Water Conservancy District  
Mid Valley Metropolitan District  
Mobil Mining and Minerals Company  
Natec Resources, Inc.  
New Castle, Town of  
North Barton Creek Ltd. Liability Company  
Palisade, Town of  
Parachute, Town of  
Pueblo, Board of Water Works of  
Public Service Company of Colorado  
Ralston Resorts, Inc. (successor-in-interest to Keystone Resorts Management,  
Inc. and Breckenridge Ski Corporation)  
Rifle, City of  
Rifle Land Associates, Ltd.  
Silverthorne, Town of  
Spruce Valley Ranch Foundation  
Summit County Commissioners, Board of  
Union Oil Company of California  
Upper Eagle Regional Water Authority

3.2 Statements of Opposition in Support of Application. The following parties filed timely Statements of Opposition in support of the application:

Colorado River Water Conservation District  
Colorado State Engineer  
Division Engineer, Water Division No. 5  
Grand Valley Irrigation Company

3.3 Intervenors. The following parties did not file timely Statements of Opposition, but were granted leave to intervene as Objectors:

Aurora, City of  
Colorado Water Conservation Board  
Cyprus Climax Metals Company  
Exxon Company, U.S.A.  
Englewood, City of  
Frisco, Town of

Vail Associates, Inc.  
Vail Valley Consolidated Water District

3.4 Withdrawals. The following parties subsequently withdrew their Statements of Opposition:

Collbran, Town of (by Order dated January 29, 1996)  
Englewood, City of (by Withdrawal dated March 8, 1996)  
Natec Resources, Inc. (by Order dated January 29, 1996)

4. Stipulation. On or about September \_\_, 1996, the parties filed the Stipulation and Agreement attached hereto as Attachment 1. The Stipulation and Agreement has been executed by the Co-Applicants and by all the Objectors who remain parties to the case and provides that the parties to the Stipulation and Agreement agree to the entry of a decree herein granting the application as amended and incorporating the terms of the Stipulation and Agreement.

5. Jurisdiction. Timely and adequate notice of the filing and contents of the application and amendment to the application herein was given in the manner required by law. The time for filing Statements of Opposition and for seeking leave to intervene has expired. The Court has jurisdiction over the subject matter of this proceeding and over all persons and owners of property affected hereby, irrespective of whether or not those persons and owners of property have appeared.

6. Relief Requested by Application. The application requests confirmation of an appropriate right of substitution and exchange for an existing exchange on the Colorado River which is based on the operation of a structure commonly referred to as the Orchard Mesa Check. Co-Applicants request adjudication of an absolute right for this existing exchange, in the amount of 640 c.f.s., with a priority of April 1, 1926.

7. Description of Exchange Facilities. In order to describe the exchange, it is helpful to describe the facilities by which the exchange is operated. These facilities are described as follows:

7.1 Point of Diversion. The point of diversion for the exchange and the upstream point of the exchange is the headgate on the right (West) side of the Grand Valley Project diversion dam on the Colorado River (commonly referred to as the "Roller Dam") located in the Northwest Quarter of Section 13, Township 10 South, Range 98 West, 6th P.M., in Mesa County, Colorado, on the right (West) bank of the Colorado River at a point whence the Southwest Corner of said Section 13 bears South 16°41' West 4,023 feet (the "Upstream Point of Exchange").

7.2 Point of Delivery of Substitute Supply. The water diverted by exchange is returned to the Colorado River immediately upstream from the Grand Valley Irrigation Company ("GVIC") diversion dam, which is located at a point on the right (West) bank of the Colorado River from whence the Northeast Corner of Section 3, Township 1 South, Range 2 East, of the Ute Meridian, in Mesa County, Colorado, bears North 13°18' East 1,800 feet (the "Downstream Point of Exchange").

7.3 Delivery Facilities. The water diverted by exchange at the Upstream Point of Exchange is delivered for a distance of approximately 4.6 miles through the Highline Canal located on the right (West) bank of the Colorado River, at which point it is diverted under the Colorado River by means of a siphon into the Orchard Mesa Power Canal located on the left (East) bank of the Colorado River. The Orchard Mesa Power Canal delivers the water diverted by exchange for a distance of approximately 3.8 miles to the Grand Valley Power Plant and the OMID Pumping Plant.

7.4 Grand Valley Power Plant. The Grand Valley Power Plant is owned by the United States and leased to the Association, OMID and the Public Service Company of Colorado. A portion of the water diverted by exchange is diverted into the Grand Valley Power Plant for power generation purposes.

7.5 OMID Pumping Plant. The remainder of the water diverted by exchange is diverted into the OMID Pumping Plant to operate hydraulic pumps which lift irrigation water into OMID irrigation canals.

7.6 Afterbay. All the water used for non-consumptive power generation purposes at the Grand Valley Power Plant and non-consumptive operation of hydraulic pumps at the OMID Pumping Plant passes into a common afterbay located below the Grand Valley Power Plant and the OMID Pumping Plant (the "Afterbay"). If the water in the Afterbay is allowed to flow in its natural course, it reenters the Colorado River at a point below the GVIC diversion dam.

7.7 Orchard Mesa Check. The Orchard Mesa Check (the "Check") is a structure which can be operated to alter the point at which water in the Afterbay reenters the Colorado River. The Check is located at or near the downstream end of the Afterbay, across the channel through which water from the Afterbay flows back to the Colorado River. The Check consists of three mechanically operated radial gates and a bypass channel which parallels the Colorado River to a point immediately above the GVIC diversion dam. The Check is operated by lowering one or more of the three radial gates. The lowered gate or gates block the flow in the channel leading from the Afterbay to the Colorado River, thus raising the level of the water in the Afterbay by up to eight feet, more or less. Raising the level of the water in the Afterbay causes water in the Afterbay to flow through the Check's

bypass channel. The water flowing in this bypass channel returns to the Colorado River immediately above the GVIC diversion dam. Thus, the operation of the Check alters the point at which water in the Afterbay is returned to the Colorado River. When the Check is not being operated, water flowing into the Afterbay is returned to the Colorado River at a point below the GVIC diversion dam. When the Check is being operated, some or all of the water flowing into the Afterbay is returned to the Colorado River above the GVIC diversion dam, where it can then be diverted by GVIC which owns water rights senior in priority to the water rights owned by Co-Applicants. The Check may be operated in varying degrees to return more or less water in the Afterbay to the Colorado River above the GVIC diversion dam depending upon the demands of GVIC and the Co-Applicants and the amount of water available at the Roller Dam.

8. Description of Orchard Mesa Check Exchange. The operation of the Check constitutes an appropriate right of substitution and exchange. This existing exchange has been operated as described below.

8.1 Point of Diversion/Upstream Point of Exchange. The point of diversion for the exchange, which is also referred to herein as the Upstream Point of Exchange, is the Roller Dam on the Colorado River, the location of which is set forth in paragraph 7.1, above.

8.2 Point of Delivery of Substitute Supply/Downstream Point of Exchange. The point of delivery of the substitute supply, which is also referred to herein as the Downstream Point of Exchange, is a point at which water diverted into the Check bypass channel returns to the Colorado River immediately above the GVIC diversion dam, the location of which is set forth in paragraph 7.2, above.

8.3 Exchange Reach. The reach of the Colorado River over which the exchange depletes river flows (the "Exchange Reach") extends from the Upstream Point of Exchange described in paragraph 7.1, above, to the Downstream Point of Exchange described in paragraph 7.2, above, and is approximately 8.4 miles in length.

8.4 Source. The source of the water diverted by exchange is the Colorado River.

8.5 Description of Operation of Exchange. The exchange operates by the diversion of water out of the Colorado River at the Upstream Point of Exchange, delivery of that water through the Highline Canal and the Power Canal to the Grand Valley Power Plant and the OMID Pumping Plant for non-consumptive power generation and hydraulic pumping purposes, and the return of the same amount of water to the Colorado River at the Downstream Point of Exchange through operation of the Check. The water returned to the Colorado River at the Downstream Point of Exchange by diversion through the Check bypass

channel can then be diverted by GVIC which owns water rights senior in priority to the water rights owned by Co-Applicants.

8.6 Amount. The maximum flow rate of the exchange is 640 c.f.s., absolute.

8.7 Use. The water diverted by exchange is used for non-consumptive power generation and hydraulic pumping purposes at the Grand Valley Power Plant and the OMID Pumping Plant.

8.8 Priority. The date of initiation of the appropriation is April 1, 1926, the date of completion of construction of the Check and the Check bypass channel. The appropriation was completed with reasonable diligence by the operation of the exchange up to its maximum rate of flow and beneficial use of water diverted by exchange for the uses described above. Co-Applicants have complied with the requirements of Rule 89, C.R.C.P., the exchange has been administered in a manner consistent with recognition of the original priority date of the exchange, and, pursuant to § 37-92-305(10), C.R.S., Co-Applicants are entitled to recognition of the original priority date of April 1, 1926 for this existing exchange, without postponement under § 37-92-306, C.R.S.

9. Terms and Conditions. The terms and conditions set forth below will prevent injury to the vested water rights and conditional water rights of others and will ensure that the substitute supply made available under the exchange will be of a quality, quantity and continuity adequate to meet the requirements of the uses to which the water of senior appropriators has normally been put.

9.1 Quality of substitute supply. The same water which is diverted by exchange out of the Colorado River at the Upstream Point of Exchange shall be returned to the Colorado River at the Downstream Point of Exchange. The return of the same water, after its use in non-contaminating power generating and hydraulic pumping facilities, will ensure that the water returned to the river, i.e., the substitute supply, is of a quality to meet the requirements of the uses to which senior appropriators have normally put such water.

9.2 Quantity of substitute supply. The amount of water returned to the Colorado River above the GVIC diversion dam at the Downstream Point of Exchange by operation of the Check (the "substitute supply") shall equal or exceed the amount of water diverted by exchange out of the Colorado River by means of the Roller Dam at the Upstream Point of Exchange.

9.3 Continuity of substitute supply. The water diverted by exchange out of the Colorado River at the Upstream Point of Exchange shall be returned to the Colorado River at the Downstream Point of Exchange in approximately the same time as it would take that water to flow in the Colorado River from the Upstream Point of Exchange to the Downstream Point of Exchange if the water were left in the river.

9.4 Intervening Seniors. All water rights located between the Upstream Point of Exchange and the Downstream Point of Exchange, i.e., within the Exchange Reach, which are senior to the date of appropriation of the exchange, shall be fully satisfied by the remaining flows subject to their call.

9.5 Terms of Stipulation Incorporated. The terms and conditions of the Stipulation and Agreement attached hereto as Attachment 1 are incorporated herein.

10. Decree Administrable. The Court notes that, by way of the Stipulation and Agreement attached hereto as Attachment 1, the State and Division Engineer for Water Division No. 5 stipulated to the entry of this decree. The Court finds that this decree is administrable by the Division Engineer for Water Division No. 5.

### CONCLUSIONS OF LAW

11. Incorporation of Findings of Fact. The Court incorporates the foregoing Findings of Fact to the extent that these may constitute conclusions of law.

12. Jurisdiction. Timely and adequate notice of the filing and contents of the application and the amendment to the application herein was given in the manner required by law. The time for filing Statements of Opposition and for seeking leave to intervene has expired. The Court has jurisdiction over all persons and owners of property affected hereby, irrespective of whether or not those persons and owners of property have appeared.

13. Subject Matter Jurisdiction. The Court has jurisdiction over the subject matter of this proceeding. The application herein is one contemplated by law, and adjudication of the exchange described in this decree is authorized by law and is within the jurisdiction of this Court. §§ 37-80-120, 37-92-101, *et seq.*, C.R.S. The right of substitution and exchange decreed herein is an appropriative water right, with a priority date and, like other appropriative water rights, must be exercised within the priority system and in accordance with applicable state law. §§ 37-80-120(4), 37-92-101, *et seq.*, C.R.S.

14. Appropriative Right of Exchange. The appropriative right of exchange confirmed herein was initiated on April 1, 1926, was diligently prosecuted thereafter, and was completed with reasonable diligence by the diversion of water by exchange and the application of such water to the beneficial uses described herein. §§ 37-92-305(1), 37-92-305(9)(a) C.R.S.

15. Non-Injury. Subject to the terms and conditions of the Stipulation and Agreement, the exchange may be operated under terms and conditions which prevent injury to the vested water rights and conditional water rights of others, including the requirement that the substitute supply made available under the exchange will be of a quality, quantity and continuity adequate to meet the requirements of the uses to which the water of senior appropriators has normally been put. §§ 37-80-120(2), (3) & (4), 37-92-305(3) & (5), C.R.S.

16. Entitlement to Original Priority Without Postponement. Pursuant to § 37-92-305(10), C.R.S., Co-Applicants are entitled to recognition of the original priority date of April 1, 1926 for the exchange described herein, without postponement under § 37-92-306, C.R.S.

#### JUDGMENT AND DECREE

Based on the foregoing Findings of Fact and Conclusions of Law, it is hereby adjudged, ordered and decreed that:

17. Incorporation of Findings of Fact and Conclusions of Law. The foregoing Findings of Fact and Conclusions of Law are incorporated herein as if set out verbatim.

18. Confirmation of Orchard Mesa Check Exchange. Subject to the terms and conditions set forth herein, the Court hereby confirms and approves the Orchard Mesa Check Exchange which is more specifically described in the Findings of Fact, above, in the amount of 640 c.f.s., absolute, with a priority date of April 1, 1926, without postponement under § 37-92-306, C.R.S.

19. Terms and Conditions. The terms and conditions set forth in the Stipulation and Agreement, as well as paragraph 9, above, will prevent injury to the vested water rights and conditional water rights of others and will ensure that the substitute supply made available under the exchange will be of a quality, quantity and continuity adequate to meet the requirements of the uses to which the water of senior appropriators has normally been put.

20. Approval and Incorporation of Stipulation and Agreement. The parties have executed the Stipulation and Agreement attached hereto as Attachment 1. The Court, having reviewed the Stipulation and Agreement and being otherwise fully advised in the premises,

hereby approves the Stipulation and Agreement and incorporates it into this decree as though it were restated here in full.

21. Retained Jurisdiction. The Court shall retain permanent jurisdiction over the subject matter of this case and parties hereto for all purposes set forth in the Stipulation and Agreement; provided, however, that the priority date and amount of the exchange are finally determined hereby and will not be further considered under the Court's retained jurisdiction.

22. Filing of Decree with State and Division Engineers. A copy of these Findings of Fact, Conclusions of Law, Judgment and Decree shall be filed with the State Engineer and the Division Engineer for Water Division No. 5.

Dated at Glenwood Springs, Colorado, this \_\_\_\_ day of \_\_\_\_\_,  
1996.

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THOMAS W. OSSOLA  
Water Judge  
Water Division No. 5



**Exhibit C**

**STANDARD CONTRACT ARTICLES**

**CONTINGENT ON APPROPRIATION OR ALLOTMENT OF FUNDS**

1. The expenditure or advance of any money or the performance of any obligation by the United States under this Agreement shall be contingent upon appropriation or allotment of funds. Absence of appropriation or allotment of funds shall not relieve the Parties from any obligations under this Agreement. No liability shall accrue to the United States, in case funds are not appropriated or allotted.

**OFFICIALS NOT TO BENEFIT**

2. No member of, or Delegate to Congress, Resident Commissioner, or official of the Parties shall benefit from this Agreement other than as a water user or landowner in the same manner as other water users or landowners.

**BOOKS, RECORDS, AND REPORTS**

3. Subject to applicable Federal laws and regulations, each Party to this Agreement shall have the right during office hours to examine and make copies of the other Party's books and records relating to matters covered by this Agreement.

**RULES, REGULATIONS, AND DETERMINATIONS**

4. a. The Parties agree that the delivery of water or the use of Federal facilities pursuant to this Agreement is subject to Reclamation law, as amended and supplemented, and the rules and regulations promulgated by the Secretary of the Interior under Reclamation law.

b. Reclamation shall have the right to make determinations necessary to administer this Agreement that are consistent with the expressed and implied provisions of this Agreement, the laws of the United States and the State of Colorado, and the rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Parties to this Agreement.

**EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this Agreement, the Contractor agrees as follows:

5. a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, disability, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the United States setting forth the provisions of this nondiscrimination clause.

b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, disability, or national origin.

c. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the United States, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Contracting Agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965 or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

g. The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

### **COMPLIANCE WITH CIVIL RIGHTS LAWS AND REGULATIONS**

6. a. The Contractor shall comply with Title VI of the Civil Rights Act of 1964 (42 USC §2000d), Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, as amended), the Age Discrimination Act of 1975 (42 USC §6101, *et seq.*), Title III of the Americans with Disabilities Act of 1990, and any other applicable civil rights laws, as well as with their respective implementing regulations and guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.

b. These statutes require that no person in the United States shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation on the grounds of race, color, national origin, disability, or age. By executing this Agreement, the Contractor agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents.

c. The Contractor makes this Agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts, or other Federal financial assistance extended after the date hereof to the Contractor by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Contractor recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this article and that the United States reserves the right to seek judicial enforcement thereof.

d. Complaints of discrimination against the Contractor shall be investigated by the United States' Office of Civil Rights.