BEFORE THE COLORADO WATER CONSERVATION BOARD

STATE OF COLORADO

Rebuttal Statement of Sheep Mountain Alliance

IN THE MATTER OF STAFF'S RECOMMENDATIONS FOR AN INSTREAM FLOW APPROPRIATION ON THE DOLORES RIVER BELOW (CONFLUENCE SAN MIGUEL RIVER TO CONFLUENCE WEST CREEK), WATER DIVISION 4

Pursuant to Rule 5n of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program ("ISF Rules") and the First Prehearing Order dated June 5, 2015, Sheep Mountain Alliance ("SMA") hereby submits its rebuttal statement in support of the CWCB staff ISF recommendation for the Dolores River and to rebut claims by Southwestern Water Conservation District ("Southwestern") and the Colorado River District (the "River District") in their prehearing statements. Jointly, Southwestern and the River District are referred to herein as the "Districts".

The Districts claim, without evidentiary support, that because the proposed ISF is located below population centers, it will prevent or negatively impact upstream future development. To avoid this "problem", the Districts urge this Board to adopt a "carve-out", a water right with a priority that pre-dates the ISF for unidentified users and unspecified uses at an undetermined location. Southwestern claims that the carve-out would be for "municipal or industrial uses"; the River District is concerned about "small-scale water users that currently do not have to replace all of their depletions as against an existing senior right." Neither of the Districts identifies exactly who these water users are.

The proposed carve-outs are speculative and illegal. Moreover, the Districts have provided absolutely no evidentiary basis to support either the problem they claim will be created by the ISF or the "solution" they are proposing.

In its Prehearing Statement, SMA argued that carve-outs violate state law. In this rebuttal, SMA demonstrates why, even if carve-outs were legal, there is no need for one on the Dolores River, and why a proposed carve-out would be contrary to the State Water Plan and the Southwest Basins' Basin Implementation Plan.

I. The Districts' Claim that the Proposed Dolores ISF Will Prevent Future Upstream Development Is Without Merit.

The proposed ISF can have no meaningful impact on future development on either the Dolores River or the San Miguel River upstream of the ISF. On the mainstem Dolores, the water rights of Montezuma Valley Irrigation Company ("MVIC") and the water rights for McPhee Reservoir are the controlling rights on the river; on the San Miguel River, the controlling water rights are decreed to the CC Ditch (the Highline Canal). Moreover, the Dolores River below McPhee

Reservoir and above the proposed ISF is very remote with virtually no existing or potential future development. On the San Miguel River, there are large conditional water rights decreed in both San Miguel and Montrose Counties that are senior to both the lower San Miguel ISF and the proposed Dolores ISF, which will provide more than adequate water for future development in the San Miguel River Basin.

In addition, municipalities, water providers and others have had at least two years' notice to file for any potential future water needs they may have. Any water user with legitimate, nonspeculative water needs already has filed for rights that will pre-date the ISF.

A. The Proposed ISF Will Not Prevent Development on the Dolores River.

On the Dolores River, the major impact on development is McPhee Reservoir and the senior Montezuma Valley Irrigation Company ("MVIC") water rights. These large water rights control the river above the reservoir; and MVIC has the largest direct-flow water right in the basin. Except for water diverted to MVIC customers (which are released above the dam), McPhee Reservoir stores the flow of the Upper Dolores River and releases only minimal flows for fisheries below the dam in most years. The live capacity of reservoir is 381,000 acre-feet.

Below the McPhee Reservoir dam, the Dolores River is extremely remote and runs through mostly federal land. There is very little current development along or near this section of the river, and it is unlikely that there can ever be significant additional development.

Due to the geography of the Dolores River Canyon below McPhee Reservoir, the area is virtually devoid of settlement, apart from handful of small homes, farms and ranches. The river canyon between the dam and Slick Rock is as much as 2500 feet deep and two miles wide, running through primarily U.S. Forest Service and Bureau of Land Management land. From Slick Rock, the river continues through BLM land with some small inholdings to Bedrock, which is a small collection of homes and a tiny general store. After Bedrock, the river passes a heron rookery and a handful of small ranches before plunging into the next canyon to the confluence with the San Miguel River. After the confluence, the canyon deepens, and then opens briefly before dropping into yet more canyons. Here, the river runs parallel to Highway 141, with only a couple of adjacent homes and bounded by sheer canyon walls, until it reaches Gateway and the Gateway Canyons Resort, where the road crosses the river. From there, the river heads through more open lands to the Utah border.

To give the Board an idea of how remote the Dolores River is, attached to this rebuttal statement are a watershed map and representative photographs of the mainstem Dolores River below the McPhee Reservoir dam to Gateway, and one photograph of the San Miguel River just above the confluence with the Dolores River and the upper terminus of the proposed ISF.[1] These photographs and the watershed map demonstrate that Southwestern's claim that "new direct diversions and tributary wells located upstream of or within the instream flow reach" will be negatively impacted by the ISF fails utterly to consider the geography of the Dolores River.[2]

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[1] Exhibit A, attached hereto.

[2] To the extent new tributary wells are developed in this unpopulated area, they likely would qualify as exempt wells pursuant to C.R.S. §37-92-602.

There is not going to be any significant additional development along the Dolores River below McPhee Reservoir and above the proposed ISF, nor can there be. And any future development in the basin will be subject to the senior water rights of McPhee Reservoir and MVIC. Those rights, not the ISF, will continue to control development in the basin.

B. The Proposed ISF Also Will Not Prevent Development on the San Miguel River.

Similarly, the proposed ISF on the Dolores River below its confluence with the San Miguel will not prevent development in the San Miguel River Basin for several reasons.

The controlling water right on the San Miguel River is the CC ("Colorado Cooperative Company") Ditch, a large historic water right that diverts water above the Town of Naturita. The CC Ditch diversion and its return flows are located above the proposed ISF and have the greatest impact on new upstream development. It is the CC Ditch water rights, not the proposed ISF or the lower San Miguel ISF (which also is located below the CC Ditch diversion), that create the need for augmentation and storage for future development in the San Miguel River Basin.

Moreover, water users in both Montrose County and San Miguel County have extensive decreed conditional water rights available for future uses that will not be impacted by the proposed ISF.

Montrose County recently obtained a large water right for numerous reservoirs in the lower San Miguel River Basin above the proposed ISF in the area of Norwood, Nucla and Naturita. The decreed reservoirs, which have a 2010 priority date, are senior to both the lower San Miguel River ISF and the proposed Dolores River ISF. These water rights will provide up to 12,200 a.f., of additional water to western Montrose County, which is more than enough water for all conceivable municipal, rural *and* industrial development in the lower basin for the foreseeable future and beyond.[3]

San Miguel County has over 115,000 acre-feet of existing senior conditional water rights available for future uses, including a 380 c.f.s. senior direct-flow diversion from the San Miguel River.[4] There also were a number of conditional water rights, in addition to Montrose County's, filed in 2010 ahead of the San Miguel River ISF.

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[3] There are three towns in Montrose County on the San Miguel River: Naturita (population 546); Nucla (population 711); and Redvale (population: 236). The unincorporated parts of the West End are widely dispersed with very small populations and little commercial or industrial development. (Population estimates are from the 2010 census: City of Montrose, Our Community, Demographics, http://montrose.org/index.aspx?nid=220; for Redvale statistics: http://censusviewer.com/city/CO/Redvale). In a study prepared for Montrose County, Economic & Planning Systems, Inc. calculated similar population estimates. Economic & Planning Systems, Inc., Montrose County Population Forecast 2010–2060, 48, Table B21 (2011).

[4] *See* Engineering Report to Evaluate the Affect *[sic]* of a CWCB Instream Flow Appropriation and Develop a Future Use Allocation in the San Miguel River Basin, Prepared for the Southwestern Water Conservation District by Steve Harris, Harris Water Engineering, Inc. A copy of the report is attached hereto as Exhibit B and the relevant section is bookmarked and highlighted. The report is a draft, but it does not appear that a final report

Most of the development in the San Miguel River Basin is located in western San Miguel County, in and around the Towns of Telluride and Mountain Village, as well as the Telluride Ski Resort. These municipal water providers have water rights portfolios adequate for future development and have raised no objection to the proposed ISF. Most importantly, San Miguel County strongly supports the ISF because it does not view the ISF as preventing future development in the county and recognizes that the biggest threat to development is an endangered species listing of the threatened fish.

II. A Carve-Out Violates the State Water Plan and the Southwest Basins' Basin Implementation Plan.

The Governor and this Board have been clear that the State Water Plan does not place human needs above the needs of the environment, recognizing that a strong and vibrant economy depends in large part upon a healthy and functioning environment. The carve-out pushed by the Districts would upend the balance outlined in the State Water Plan.

Chapter 10 of the Water Plan states, "Colorado's Water Plan values a strong environment that includes healthy watersheds, rivers, streams and wildlife….Colorado is home to endangered and imperiled species along with exemplary pristine ecosystems. *It is import to protect and restore Colorado's natural environment with the most effective tools available. A resilient natural environment is the long-term goal of the critical actions which address this value."*[5]

Section 10.3(V) of the Water Plan states that a strategic goal and action of the Water Plan is to:

> Support and participate in collaborative approaches to Endangered Species Act issues to prevent listings, promote the sustainability of endangered, threatened and imperiled aquatic and riparian-dependent species and communities (e.g., recovery programs, cooperative agreements, and other efforts).
>
> (Emphasis added.)

In keeping with this goal of the Critical Action Plan, the Dolores ISF is intended to implement the five-state conservation agreement regarding the management of these species (also known as the "Three Species Agreement").

The Districts' carve-out proposal also conflicts with the Southwest Basins' Basin Implementation Plan (Southwestern is a leading member of the Southwest Basins Roundtable). One of the goals of the BIP is to meet environmental water needs. A defined goal of the BIP is to "encourage and support restoration, recovery and sustainability of endangered, threatened, and imperiled aquatic and riparian dependent species and plant communities," and "to support native species and functional habitat in the long term".[6] Defined measurable outcomes include implementing IPPs to restore, recover or sustain endangered, threatened and sensitive species

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was issued.

5 Colorado's Water Plan, Chapter 10 (second draft), §10.1(3). (Emphasis added.)

6 Southwest Basins' Basin Implementation Plan, relevant sections attached hereto as Exhibit C.

and IPPs to benefit the condition of fisheries. These IPPs specifically include the proposed Dolores ISF.[7]

Southwestern's support for a carve-out conflicts with its own statement supporting the Water Plan and the BIP. In a separate statement that became Appendix D to the BIP, Southwestern states that the Water Plan (which includes the BIP) should be used "as a guiding document to assist with the development of consumptive, nonconsumptive, and multi-purpose projects." Southwestern also stated that the portion of the State Plan for the Southwest Basins "should identify specific and unique projects that are important to maintaining the quality of life in this region and should accommodate … environmental needs." The statement also said that Southwestern agrees that *all* uses are important to the future of our region, and it commits to the inclusion of the BIP in the Water Plan to address future needs in Southwestern Colorado.[8] Southwestern's position in these proceedings directly contradicts its own statement and previous commitments to the BIP and Water Plan.

CONCLUSION

SMA respectfully requests that the Board approve the Staff's recommendation for an ISF on the Dolores River and reject the carve-out proposed by the Districts.

EXHIBITS AND WITNESSES

SMA does not intend to call witnesses at the hearing, although its Executive Director and members may speak at the Public Comment portion of the hearing. SMA will submit a petition and letters of support for the ISF by September 2, 2015.

Respectfully submitted this 17th day of August, 2015.

RUSSELL & PIETERSE, LLC

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[7] *Id.* at Appendix A.
[8] *Id.* at Appendix D.

CERTIFICATE OF SERVICE

I hereby certify that I have duly served the copies of the foregoing REBUTTAL STATEMENT OF SHEEP MOUNTAIN ALLIANCE upon all parties herein by email this 17th day of August, 2015, addressed as follows:

Colorado Water Conservation Board Staff Linda Bassi linda.bassi@state.co.us	Colorado Water Conservation Board Susan Schneider First Assistant Attorney General Susan.schneider@state.co.us
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Colorado River Water Conservation District Peter Fleming pfleming@crwcd.org	Conservation Colorado Education Fund San Juan Citizens Alliance Western Resource Advocates Robert Harris Bart Miller rob.harris@westernresources.org bart.miller@westernresources.org
Dolores Water Conservancy District Southwestern Water Conservation District John B. Spear bspear@mbssllp.com	John S. Hendricks Western Sky Investments, LLC Mark E. Hamilton William H. Caile mehamilton@hollandhart.com whcaile@hollandhart.com
San Miguel County Board of County Commissioners Steven J. Zwick stevez@sanmiguelcounty.org	

Jennifer Russell

EXHIBIT A
DOLORES WATERSHED MAP

EXHIBIT A
UPPER DOLORES BELOW MCPHEE

EXHIBIT A
DOLORES RIVER ABOVE SLICK ROCK

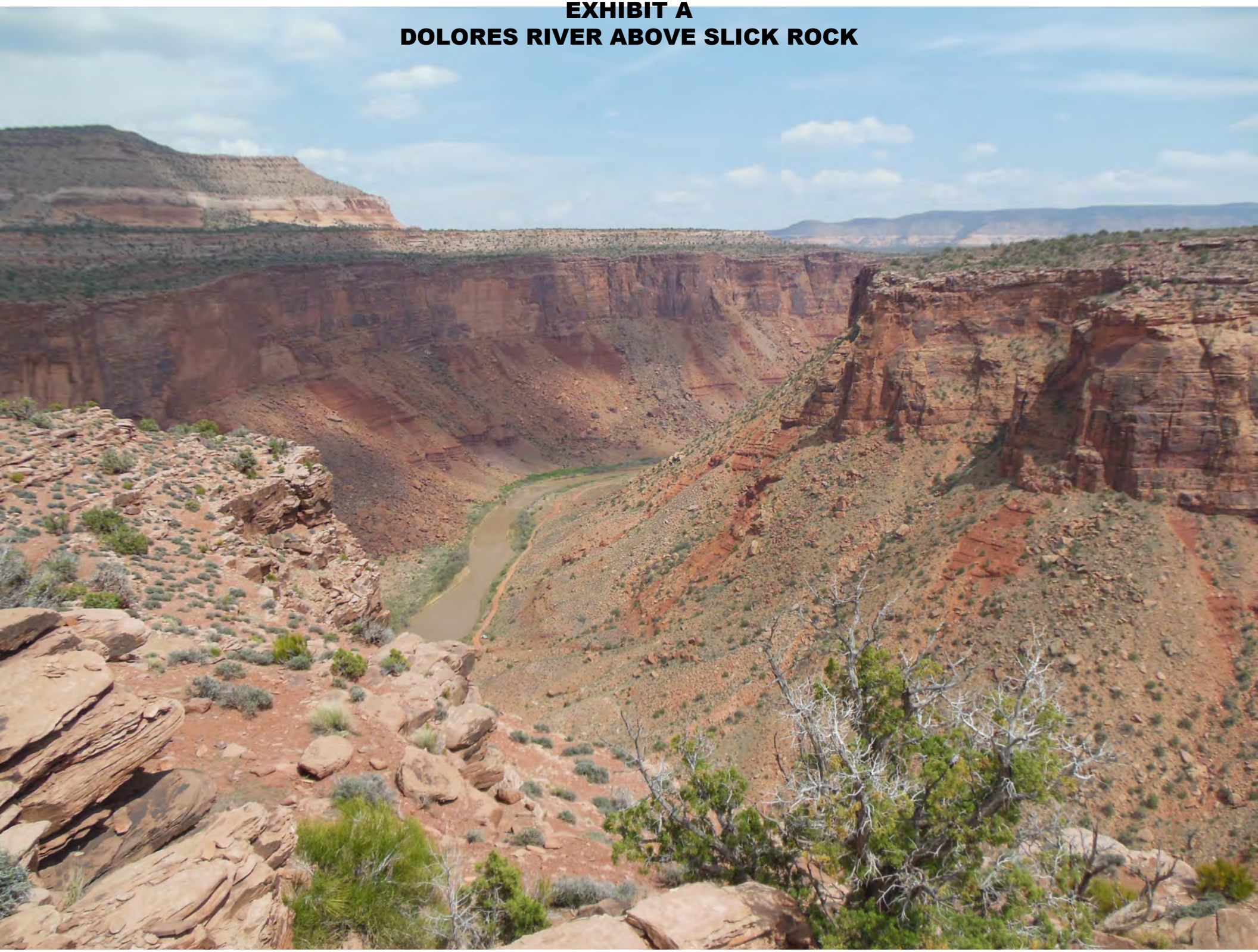


EXHIBIT A
NEAR SLICK ROCK

EXHIBIT A
DOLORES RIVER NEAR PARADOX

SAN MIGUEL RIVER
JUST ABOVE CONFLUENCE

DOLORES RIVER
AT GATEWAY NEAR STATELINE

Exhibit B

ENGINEERING REPORT TO EVALUATE THE AFFECT OF A CWCB INSTREAM FLOW APPROPRIATION AND DEVELOP A FUTURE USE ALLOCATION IN THE SAN MIGUEL RIVER BASIN WATER DIVISION 4

PREPARED FOR THE:
SOUTHWESTERN WATER CONSERVATION DISTRICT

IN COOPERATION WITH:
MONTROSE COUNTY AND
SAN MIGUEL COUNTY

BY:
Steven C Harris, PE
HARRIS WATER ENGINEERING, INC.
954 East Second Avenue, #202
Durango, Colorado 81301
970-259-5322

AUGUST 24, 2010

DRAFT REPORT – THE CONTENTS AND AMOUNTS ARE SUBJECT TO CHANGE BASED ON COMMENTS RECEIVED BY OCTOBER 1, 2010.

Exhibit B

EXECUTIVE SUMMARY

The Southwestern Water Conservation District (SWCD) has been monitoring the proposal by CWCB to apply for an instream flow water right on the lower San Miguel River (SMISF) for the past several years. The SMISF is based on field studies conducted by Division of Wildlife and Bureau of Land Management for native fish. Based on the best information available the CWCB is committed to filing for a SMISF. SWCD has determined that the SMISF will proceed and the best response is to develop a future use allocation to mitigate the potential impact on future water users rather than collecting data to attempt to reduce or stop the SMISF.

SWCD has offered assistance to San Miguel basin water users, through its engineers and lawyers, to develop a future use allocation which will mitigate most of the impacts to existing and future water users from the SMISF. SWCD filed for and obtained a water right for a similar future use allocation on the Animas River to respond to the Recreation In Channel Diversion (RICD) water right held by the City of Durango. The RICD water right by Durango and CWCB instream flow water right on the lower San Miguel River, have very similar impacts on current and future water uses. The water right obtained by SWCD on the Animas River has operated for three years to allow water development senior to the RICD and a similar arrangement is expected to work on the San Miguel River.

The critical component of the future use allocation is that it be senior to the SMISF. This Engineering Report was developed to provide the background for and quantify the amount of water needed for the future use allocation and includes analysis such as:

- Review previous studies and analysis of water needs
- Review conditional water rights and estimate which can provide for future uses
- Estimate the water diversion and associated depletion for future uses
- Determine future use depletion for each County

The existing conditional water rights were reviewed and with the finding that conditional water rights in eastern San Miguel County will be the primary source of future uses; conditional water rights in western San Miguel County will provide water for the Norwood Water Commission and irrigation but very little water for other future uses; and conditional water rights in Montrose County will only provide water to the Horsefly Creek basin.

The current estimate (August 24, 2010) of annual depletion needed to be senior to the San Miguel River instream flow is 3,775 AF for San Miguel County and 12,611 AF for Montrose County (These amounts are subject to change before being finalized later in 2010.).

Based on SWCD experience on the Animas River, a future use allocation that makes the above depletions senior to the instream flow water right will allow future water uses to be developed similar to the current situation.

1.0 INTRODUCTION

The Southwestern Water Conservation District (SWCD) encompasses all of southwest Colorado, including the San Miguel River basin. The SWCD charter is to "protect, conserve, use and develop the water resources of the Southwestern basin for the welfare of the District, and to safeguard for Colorado all waters of the basin to which the state is entitled." SWCD provides legal and technical support to local communities within its boundaries to assist in meeting its charter. SWCD retains the law firm of Maynes, Bradford, Shipps, and Sheftel and the engineering firm of Harris Water Engineering, Inc. to provide support as appropriate.

This Engineering Report is prepared by Harris Water Engineering for SWCD, in cooperation with San Miguel and Montrose County Commissioners. The purpose of this Report is to provide a technical evaluation of the possible impacts of the proposed CWCB lower San Miguel River instream flow on existing and future water users and recommend measures to mitigate the possible affects.

The preparation of this Report involved coordination with:

San Miguel County Commissioners and Staff
San Miguel County Water Task Force (includes nearly all water users in the County)
Montrose County Commissioners, Staff, and engineering consultant Deere and Ault
Town of Telluride
Town of Mountain Village (through its consultant Bikis Water Consultants)
Telluride Ski Area (through its consultant Bikis Water Consultants)
Norwood Water Commission
San Miguel Water Conservancy District
Farmers Water Development Company
Cone Reservoir and Ditch Company
Lilylands Ditch and Reservoir Company
Town of Naturita
Town of Nucla
Colorado Cooperative Canal Company
Mustang Water Authority
CWCB
Division of Water Resources
Numerous local water users and their representatives

Numerous meetings and conference calls were held with the above groups jointly and individually. The major meetings and conference calls include the following:

- December 21, 2009 – conference call with San Miguel County Water Task Force
  - Entities represented: CWCB, SWCD, San Miguel County Commissioner, San Miguel County, DWR, Sheep Mountain Alliance, Mountain Village, Telski, Farmers Water, and Norwood Water Commission.
- January 25, 2010 – Call with Jenny Russell to discuss overall water needs in San Miguel County

- February 2, 2010 – Conference call with Montrose County Commissioners, staff, and Farmers Water Development Company
- February 3, 2010 – Meeting with Bob Hurford, Division 4 Engineer
- February 24, 2010 – Meeting with Farmers Development Company and Norwood Water Commission representatives
- March 9, 2010 – Meeting in Nucla with representatives of: Town of Naturita, Mustang Water, Town of Nucla, and CC Ditch.
- March 17, 2010 – Call with George Glasier President of Energy Fuels, Inc.
- March 24, 2010 – Meeting with representatives of Lilylands Reservoir and Ditch Company, Hughes Ditch, San Miguel Water Conservancy District
- April 29 and August 5, 2010 – Bill Haffner with Tri-State Generation and Transmission Association
- June 22, 2010 – Meeting with representatives of Norwood Town Board and Norwood Water Commission
- June 25, 2010 – Meeting in with San Miguel County Water Task Force, County Commissioner and County staff
- July 1, 2010 – Harris Water Engineering meeting with Telluride County Planner
- July 26, 2010 – Meeting with Montrose County Commissioners and staff
- July 28, 2010 – Conference call with BLM, DOW, CWCB

This Report is the second iteration of the estimate of the future uses. The first iteration was distributed on May 28, 2010 to all of the parties listed above and only included the derivation of the future use allocation shown in Sections 6.2, 6.3, and 6.4.

Based on the comments from the first iteration, the future use depletion has been adjusted and the total future use depletion in each San Miguel and Montrose County is somewhat different as shown in Section 6.2, 6.3, and 6.4 below. This iteration of the Engineering Report is to provide a more complete description of the future use analysis for review and comment by interested parties and individuals. Comments are requested to be provided by Friday October 1, 2010.

The final Engineering Report is planned to be completed by December 1, 2010 in order to provide the basis for preparation of an application to Division 4 Water Court by December 31, 2010 for the future use water right. The water right application will only include the total future use depletion for each County derived in Section 6.2, 6.3, and 6.4.

THE FINDINGS AND CONTENT OF THIS REPORT IS SUBJECT TO MODIFICATION, POSSIBLY SIGNIFICANTLY, BASED UPON COMMENTS RECEIVED.

2.0 HISTORY OF SAN MIGUEL INSTREAM FLOW APPROPRIATION

2.1 Biological Studies In Lower San Miguel River

In the early 2000's the Colorado Water Conservation Board (CWCB) in cooperation with Colorado Division of Wildlife (CDOW) and the Bureau of Land Management (BLM) initiated fish habitat studies in the lower San Miguel River near the confluence with the Dolores River. These studies showed the need to protect habitat for native fish to a reasonable degree in the lower San Miguel River. During the early 2000's the CDOW and BLM conducted field studies and developed a recommendation to the CWCB for an instream flow water right appropriation.

2.2 Proposed Lower San Miguel River Instream Flow Water Right

The instream flow water right being considered by the CWCB for the lower San Miguel River (SMISF) is a 17.24 mile segment beginning at the mouth of the San Miguel River and extending upstream to Calamity Draw. The SMISF amounts being considered are:

325 cfs April 15 to June 14
170 cfs June 15 to July 31
115 cfs August 1 to August 31
80 cfs September 1 to February 29
115 cfs March 1 to April 14

There is a US Geological Survey (USGS) stream flow gage at Uravan located towards the downstream end of the SMISF segment. The historic record shows the average annual flow to be approximately 260,000 AF which reflects upstream depletions primarily from irrigation but also a small amount of domestic and pond evaporation. Figure 2.1 shows average annual flow at Uravan from 1955 through 2009. The annual volume of water the SMISF could call for is up to 75,000 AF, approximately 35% to 40% of the current annual flow at Uravan. Figure 2.2 shows the SMISF amounts relative to the average daily flow at Uravan. Figure 2.3 shows the SMISF amounts relative to the average daily flow during the dry year of 2002, during which the river flow is seldom larger than the SMISF amounts.

In January of 2010, e SMISF but agreed to delay the appropriation one year until January of 2011 at the request of the Southwestern Water Conservation District (SWCD), San Miguel County Commissioners, Montrose County Commissioners, and other water users in the basin. The reason for the requested delay was to assess the impact of the proposed SMISF on the two Counties ability to provide for their future water needs. Through the process and coordination with local water users described in this Engineering Report, the SMISF was determined to impact future water users and a future water use allocation senior in priority to the SMISF is recommended to address the impact. The future uses are separated by Montrose and San Miguel County's.

Exhibit B

Figure 2.1 - San Miguel River
USGS Gage @ Uravan (1955 - 2009)
Average 260,989 AF/yr

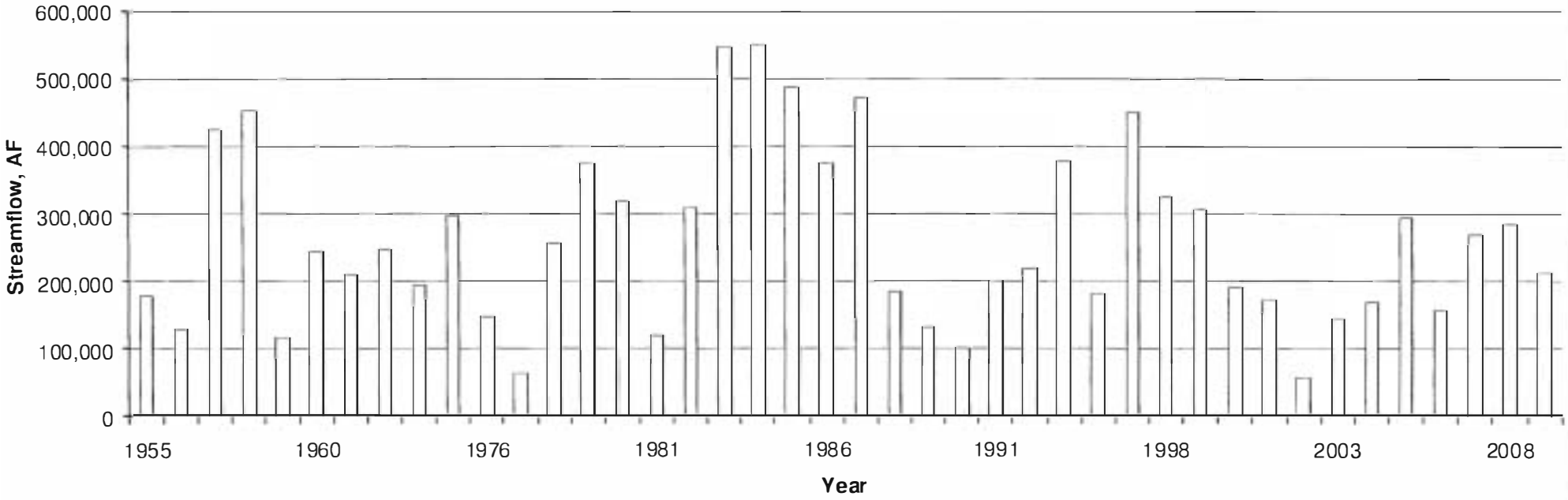


Figure 2.2 - San Miguel River

USGS Gage @ Uravan (1955 - 2009)

Mean of daily means

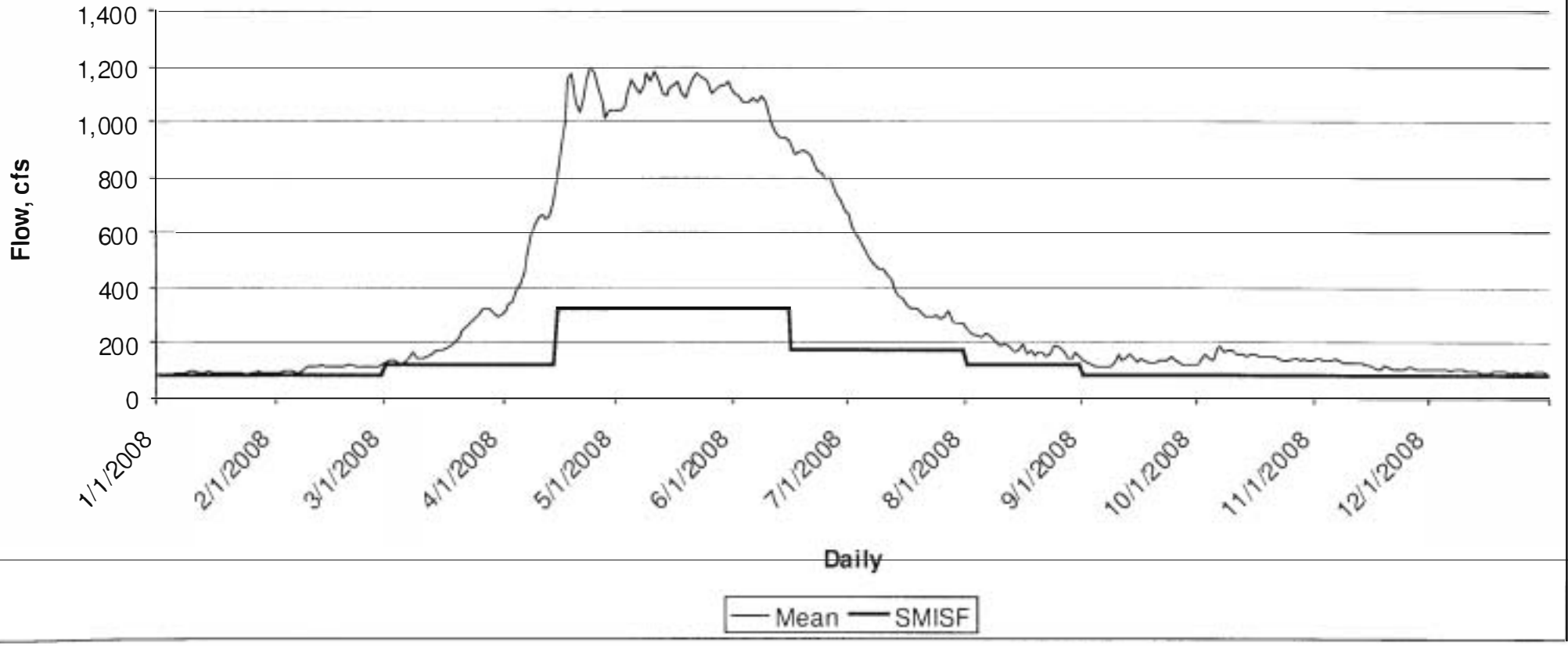
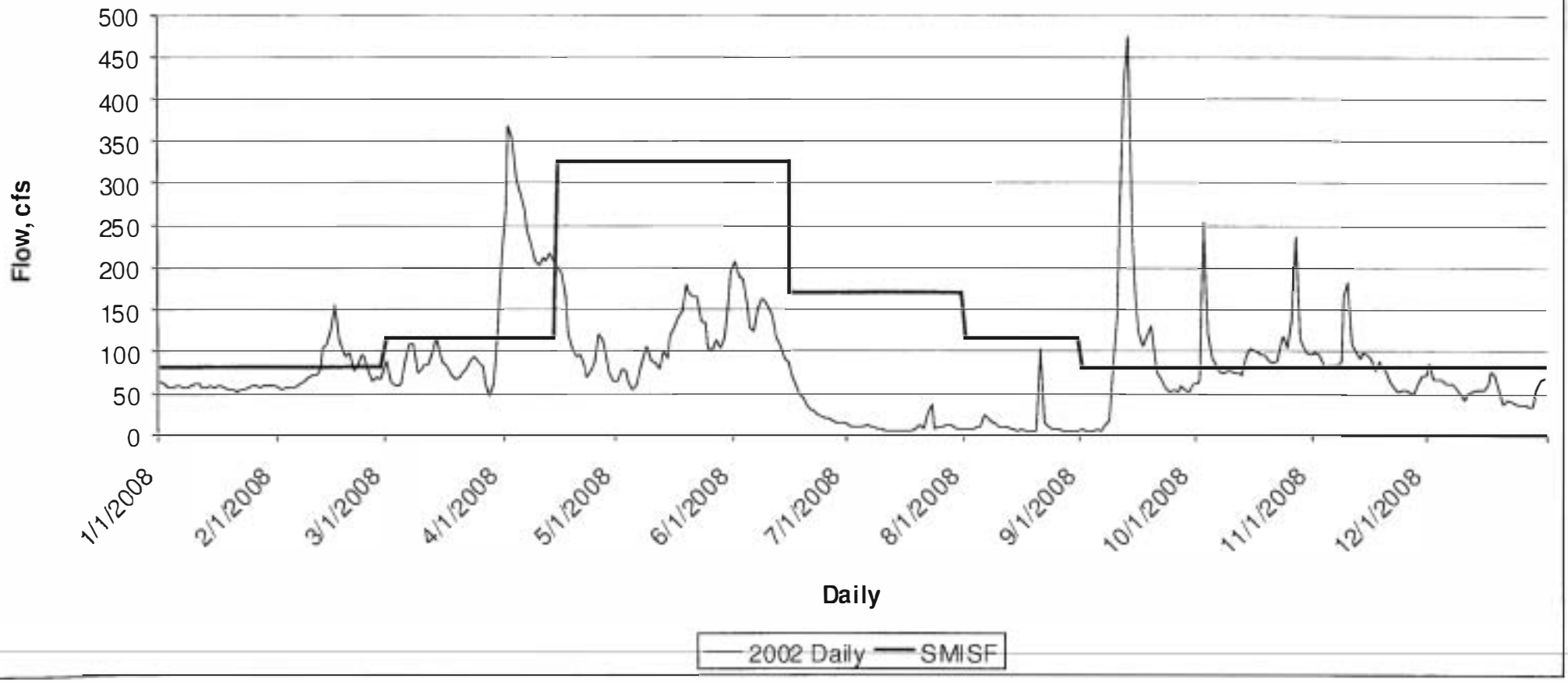


Exhibit B

Figure 2.3 - San Miguel River

USGS Gage @ Uravan (1955 - 2009)
Daily flow for 2002



3.0 EXISTING WATER USE AND ADMINISTRATION

This section provides an overview of the existing water uses, water rights, and administration of the San Miguel River upstream of the SMISF addressed herein.

The San Miguel River basin is approximately 1,500 square miles and includes nearly all of San Miguel County and about 10% to 15% of Montrose County. The USGS Uravan stream gage is located near the downstream end of the SMISF segment. The average annual flow at Uravan is approximately 260,000 AF as shown on Figure 2.1. There are significant existing diversions and water uses upstream of the SMISF that reduce the natural river flow.

The San Miguel Basin has been separated into three general areas for water use and water rights evaluations:

a) East San Miguel County – East San Miguel County is the portion of the basin from Horsefly Creek upsteam which already has a CWCB instream flow water right on nearly every tributary and a large filing on the San Miguel River between Horsefly and Falls Creek. The CC Ditch diversion is also just downstream from Horsefly and places a call on the river every year. These instream flow filings and CC Ditch make it difficult for junior water rights to divert water in priority, especially in less than average flow years. Therefore, the primary sources of new water in this area are conditional water rights senior to the existing instream flow water rights; however, plans of augmentation are required for new uses junior to the senior CC Ditch. This area of the basin is largely federal land and the future uses are small. There are a large number of conditional water rights in this area of the basin. Nearly all of this area is in San Miguel County.

b) West San Miguel County – This is the western portion of San Miguel County that is tributary to the San Miguel River downstream of Horsefly Creek and includes Wrights Mesa (a portion in San Miguel County and portion in Montrose County), Lilylands and Dry Creek Basin. Most of this area does not presently have a water right call and there are very few CWCB instream flow water rights. Future uses in this area are potentially larger because the topography is conducive to development.

c) Montrose County – This is the entire portion of Montrose County within the San Miguel Basin. Most of this area does not presently have a water right call and there are very few CWCB instream flow water rights. This area has the most potential future uses from energy development and population growth.

This Report evaluates the potential future water uses in each area of the San Miguel Basin, estimates what amount can be met with existing conditional water rights and what amount should be included in a future water use allocation.

3.1 Large Existing Absolute Water Rights and Diversions

There are several large existing water users in the San Miguel basin that include:

CC Ditch (aka Highline Ditch) – diverts up to about 80 cfs directly from the San Miguel River downstream of Horsefly Creek. The CC Ditch places a senior call on the San Miguel River nearly every year.

Farmers Water Development Company – collects up to 600 cfs from the base of Lone Cone and Little Cone at the headwaters of Beaver Creek which is used to fill Gurley Reservoir and for irrigation on Wrights Mesa. Because this water right diverts from the headwaters of Beaver Creek, it is not in a location to place a call on the San Miguel River.

Cone Reservoir and Ditch Company – collects up to 100 cfs from the base of Lone Cone that is conveyed to fill Cone Reservoir and for irrigation on Wrights Mesa. This water right also is not in a location to place a call on the San Miguel River.

Lilylands Reservoir and Ditch Company – collects up to 50 cfs from the base of Lone Cone that is conveyed to Lilylands Reservoir to irrigate the Lilylands area south of Naturita Canyon and a small area of land in Dry Creek Basin. This water right also is not in a location to place a call on the San Miguel River.

J. M. Hughes Ditch – collects up to 200 cfs to irrigate land on Hughes Mesa on the east side of Beaver Canyon. This water right is not in a location to place a call on the San Miguel River.

CWCB Instream Flow Water Rights – The CWCB has instream flow water rights on nearly every tributary and the San Miguel River upstream of Horsefly Creek including a water right on the lower portion of Horsefly Creek. The largest of the instream flow water rights is on the San Miguel River between Horsefly and Falls Creeks with a decreed flow of 93 cfs from May 1 to October 14, and 61 cfs from October 15 to April 30. Though the CWCB has not placed a call for these water rights, the Division of Water Resources administers the streams as if there may be a call; the main result is that new water uses (e.g. non-exempt wells, ponds) require augmentation plans.

There are hundreds of small ditches, springs, wells, augmentation plans and other water uses presently diverting in the basin.

3.2 Conditional Water Rights in the San Miguel Basin

The following is a summary of the conditional water rights in each of the three areas of the basin.

3.2.1 Eastern San Miguel County conditional water rights.

Trout and Hope Lakes – The existing Trout and Hope Lakes owned by Public Service Company of Colorado have over 1,800 AF of conditional water rights to provide other purposes, in addition to approximately 6,200 AF of existing absolute capacity for hydropower production.

There are between 200 and 250 existing conditional water rights in addition to the larger rights described above, many of which are enlargements to existing absolute water rights. The individual direct diversions are generally less than 1 cfs and the storage amounts are less than 10 AF. The amount of depletion needed for future uses in eastern San Miguel County is very small with most of the future uses having to be met by the existing conditional water rights due to the multiple existing instream flow water rights. A tabulation of the conditional water rights in eastern San Miguel County, without evaluation of the availability to meet future uses, is included in Appendix A.

3.2.2 Western San Miguel County conditional water rights.

San Miguel Project – The San Miguel Water Conservancy District holds the water rights for the San Miguel Project which includes a 72,600 AF reservoir on the San Miguel River near Saltado Creek, a 380 cfs direct diversion from the San Miguel River, 9,200 AF Naturita Reservoir on Naturita Creek (a tributary of the San Miguel River), and 25,600 AF Radium Reservoir on Dry Creek (also a tributary of the San Miguel River with the confluence near the Town of Naturita). The project would have irrigated land on Wrights Mesa, Lilylands, and Dry Creek Basin as well as provided municipal and industrial water. This project is unlikely to be constructed as previously conceived but the water rights are still valid. Theoretically there is potential for changing portions of the water rights to other locations but there will be limitations in order not to injure other water rights.

In addition to the Radium Reservoir decreed for the San Miguel Project, there is also a conditional decree for 86,800 AF for storage of salt brine.

Lilylands Reservoir – The reservoir has 742 AF absolute and 1,700 AF conditional for an enlargement. The decree is for irrigation, fire, domestic, and stock. Currently the entire use is for irrigation. The firm supply from the absolute and conditional water rights has not been evaluated but is much less than the capacity. Theoretically, the reservoir could be used to supply domestic water but the area of use is not defined and whether that could be restricted in future evaluations is unknown. Also the existing land irrigated from Lilylands does not have a full supply and any enlargement is assumed to be used for irrigation.

Straw Dam – A 6,000 AF conditional for a new reservoir immediately downstream of Gurley Reservoir. The decree is for irrigation, domestic, and stock. This reservoir is likely to be largely for domestic use on Wrights Mesa, for the Norwood Water Commission (NWC). The firm supply has not been evaluated but is much less than the available capacity.

The NWC has a 5 cfs decree (Case 94CW244) from the San Miguel River upstream of Horsefly Creek. The water right is limited to less than 5 cfs when the flow of the San Miguel River is less than 85 cfs as described in the decree. The NWC also has conditional "NWC Ponds 1, 2, 3, and 4" which would be filled from the 5 cfs. These water rights are assumed to be used in conjunction with Straw Reservoir to provide the future needs within the NWC service area.

The decree for each conditional water right in western San Miguel County was reviewed to evaluate if the water right could provide a portion of the future uses identified in this Report. There are six available conditional direct diversions restricted to one home each or a guest ranch. Except for the facilities described above, there are essentially no existing conditional water rights to provide for future uses. The tabulation of the conditional water rights in western San Miguel County and a note describing the availability of each is included in Appendix A.

3.2.3 Montrose County Conditional Water Rights

Finch Reservoir – The Finch Reservoir is a conditional water right for 21,900 AF for irrigation, domestic, piscatorial, and recreation purposes in the upper reaches of Horsefly Creek. There is also a 31 cfs feeder ditch decree for irrigation, commercial, industrial, domestic, storage, and other uses. The water rights are privately held and it is unknown whether the owner (and future owners) have the wherewithal to maintain diligence. This water right is upstream of the CC Ditch and is restricted by the physical and legal availability of water. These water rights are considered available to meet future uses in the Horsefly Creek drainage but not outside of the Horsefly Creek drainage because the decree does not specifically allow an unrestricted area.

Nucla Power Plant - The Nucla Power Plant has a 40 cfs and 30.8 AF storage conditional decree for the existing and expanded power plant. This is downstream of the CC. The Nucla Power Plant is assumed to have adequate water rights for its current and future needs.

Coal Mine – The Peabody Coal mine supplies coal to the Nucla Power Plant and has several conditional water rights to operate the mine. The coal mine is assumed to have adequate water rights for its current and future needs.

Towns of Naturita and Nucla – Neither Town has any conditional water rights shown on the tabulation to meet future water needs. The water rights held by the Towns and treated by the Mustang Water Authority, are assumed to be adequate for the existing service area of the two Towns but not future growth outside of the Towns.

UMETCO Johnson Ditch Water Rights – The Johnson Ditch absolute water rights will no longer be needed at Uravan. Theoretically, the consumptive use of the water rights could be transferred upstream for use to provide water for future uses. However, there are several restrictions including: (1) the maximum historic consumptive use was estimated a few years ago by a CWCB funded study to only be a few hundred acre-feet and decreasing each year of non-use; (2) the transfer must be completed prior to the SMISF to avoid injury; (3) assuming the transfer could be accomplished prior to the SMISF, there are other water rights that could be impacted and the net amount of water transferred could be reduced significantly. These water rights are not assumed to meet the future uses.

The decree for each conditional water right in Montrose County was reviewed to evaluate if the water right could provide a portion of the future uses identified in this Report. Even though there appears to be many conditional rights, there are very few that can provide future uses or the amount is extremely restricted due to the water right decree. There are conditional rights for approximately 25 homes and several guest ranches/lodges and cabins. For purposes of meeting future uses, this small amount is not considered in the evaluation. A tabulation of the conditional water rights in Montrose County is included in Appendix A with a note of the availability of each water right for future uses.

3.3 Summary of Conditional Water Rights

The existing conditional water rights that theoretically could provide for some of the future uses are: San Miguel Project, Finch Reservoir, Lilylands enlargement, and Straw Dam. The other water rights are very small and will essentially have no ability to meet future water uses. The four reservoirs have been under consideration for years, if not decades, and each would require some type of water right modification to be used to meet future water uses. Another obstacle to the availability of existing conditional water rights to meet future uses is the requirement for diligence proceedings every six years which becomes more difficult with each cycle.

For purposes of this Report, the following assumptions are made regarding the four reservoirs: (1) San Miguel Project water rights would be used to provide for a large amount of new irrigation within Wrights Mesa, Lilylands, and Dry Creek Basin; (2) Finch Reservoir will provide the future water uses in the upper Horesfly Creek area either as presently decreed or as may be modified; (3) Lilylands enlargment would be used for irrigation; and (4) Straw Dam would be used by Norwood Water Commission.

3.4 Evaluation of SMISF Affect in Eastern San Miguel County

The CWCB presently has instream flow water rights on nearly every tributary upstream of Horsefly Creek including: Beaver Creek, Saltado Creek, Specie Creek, Fall Creek, Big Bear Creek, Bilk Creek, South Fork of San Miguel, Howard Fork, Leopard Creek, Deep Creek, Elder Creek, Butcher Creek, Rover Creek, and Bear Creek. These instream flow water rights were decreed with priority dates of 1984.

In addition, there are instream flow water rights on the entire San Miguel River from the headwaters downstream to the confluence with Horsefly Creek. There are two instream flow water rights between Horsefly Creek and Falls Creek, a small water right decreed in 1984 and a very large water right decreed in 2005. The 2005 instream flow is a large water right between Falls Creek and Horsefly Creek (Falls/Horsefly ISF).

As noted above, the affect of the SMISF is much more pronounced upstream of Horsefly Creek, than downstream. This section attempts to evaluate whether the existing Falls/Horsefly ISF affects the availability of water in eastern San Miguel County more or less than the SMISF.

The Placerville USGS gage is within the Falls/Horsefly ISF and indicates the available flow within the instream flow segment. The flow at Placerville is 66% of the flow at Uravan (based on the annual average flow). The USGS gage at Uravan is at the lower end of the SMISF segment and indicates the flow within the SMISF. The Placerville gage average annual flow is compared to the Uravan gage average annual flow to estimate the affect of the SMISF compared to the existing Falls/Horsefly ISF.

Table 3.1 was developed to attempt to determine the extent the SMISF would control future water use compared to the existing Falls/Horsefly ISF. The columns in Table 3.1 are:

- Column 1 is the time periods for each of the instream flows.
- Column 2 is the Falls/Horsefly ISF amounts. The drainage area size and mean annual flow is at the bottom of the column.
- Column 3 is the SMISF amounts. The drainage area size and mean annual flow is at the bottom of the column.
- Column 4 is the SMISF amounts (column 3) times 66% (171,500/261,200).

In summary, if the flow in column 4 is greater than column 2, then for each time period the SMISF is assumed to control the availability of water in eastern San Miguel County. On the other hand, if column 4 is less than column 2 then Falls/Horsefly ISF is expected to control.

TABLE 3.1
COMPARISON OF EXISTING FALLS/HORSEFLY ISF AND SMISF

Month	Falls/Horsefly ISF	Proposed SMISF	SMISF Flow Proportion to Falls/Horsefly ISF (66%)
(1)	(2)	(3)	(4)
January	61 cfs	80 cfs	53 cfs
February	61	80	53
March	61	115	76
April 1 – 14	61	115	76
April 15 – 30	61	325	214
May	93	325	214
June 1 – 14	93	325	214
June 15 – 30	93	170	112
July	93	170	112
August	93	115	76
September	93	80	53
October 1 - 14	93	80	53
October 15 – 31	61	80	53
November	61	80	53
December	61	80	53
	Gage @ Placerville	Gage @ Uravan	
Drainage Area	310 sq mi	1,500 sq mi	
Average Flow	171,500 AF	261,200 Af	

This data indicates the following:

- The existing Falls/Horsefly ISF is likely to control the eastern San Miguel County future uses from August 1 through February 28 because the Falls/Horsefly ISF amount is larger than column 4.

- From March 1 through July 31, the SMISF is more likely to control future uses in eastern San Miguel County because the Falls/Horsefly ISF amount is smaller than column 4.

- Therefore, in approximately 5 months of the year the SMISF will affect the future water uses in eastern San Miguel County. Therefore, 5 months/12 months (5/12's) of the year the SMISF will control future use in eastern San Miguel County and future uses in eastern San Miguel County should be multiplied by 5/12's to reflect the impact of the SMISF.

4.0 PREVIOUS REPORTS AND STUDIES

The San Miguel River basin has been the subject of numerous studies over the past decades that are summarized below.

4.1 Bureau of Reclamation Studies

The primary studies have involved the US Bureau of Reclamation's San Miguel Project (SMP) which included a large reservoir on the San Miguel River, conveyance of water to Wrights Mesa, Lilylands, and Dry Creek Basin for irrigation and water for M&I (municipal and industrial purposes). The SMP would supplement existing irrigation systems (Gurley, Cone, Lilylands) and irrigate additional land. The SMP was authorized by Congress in 1968 as a participating project in the Colorado River Storage Project (CRSP). Water rights were obtained for SMP and currently held by the San Miguel Water Conservancy District for uses within the District. The Town of Naturita is within the District but the Town of Nucla and Nucla Power Plant and associated mine are not within the District.

Reclamation conducted studies in the 1970's and early 1980's which showed significant irrigation and M&I water demand but were unable to formulate a feasible project. Reclamation issued a "Planning Report on the San Miguel Project" in May, 1982 describing the findings.

4.2 CWCB Studies

The CWCB funded several studies in the late 1980's and early 1990's in an attempt to identify facilities to increase the water supply for the Gurley, Cone, and Lilylands irrigation systems and the M&I water supply in the lower San Miguel basin.

1) The first was the "Interim Report for the San Miguel Project Feasibility Study" February, 1988. This report evaluated the irrigation and M&I water demand and formulated several alternatives to meet the demand. The facilities included improvement of the water collection system around Cone and Little Cone Peaks to convey more water to existing irrigation reservoirs, enlargement of Cone and Lilylands Reservoirs, and construction of a new reservoir at the Marie Scott site. This study concluded that the Gurley, Cone and Lilylands irrigation systems provided an average of about 29,000 AF but the annual irrigation demand is 48,600 AF resulting in a new irrigation demand of an additional 20,000 AF. The moderate industrial demand was estimated to be 180 AF for a food processing plant which is included in the future use estimate.

2) In June of 1989 the CWCB issued another report entitled "San Miguel Project Water Supply Study Phase 1 – Final Report" and Technical Appendices. This was a major comprehensive report that evaluated and considered all studies through that date in an attempt to develop a set of facilities to meet the irrigation and M&I demands of the area. The report evaluated the alternatives in the 1988 report in more detail and included additional alternatives. The report included detailed "line charts" of the water rights in the basin. There was a reservoir inventory of a dozen sites that have been investigated in the past and as part of the study.

   The demand estimates in this study concluded that an additional approximately 21,900 AF was needed to provide full irrigation to the Norwood-Redvale, Lilyland, and Dry

Creek Basin areas. The report evaluated enlargement of the Cone Reservoir from 1,800 AF to 5,800 AF and the Lilylands from 500 AF to either 1,400 AF or 6,500 AF; construction of a new reservoir was also thoroughly investigated. In order to fill the reservoirs, the enlargement or improvement of the collection systems was evaluated.

3) In June of 1990, the CWCB issued another report entitled "San Miguel Project Water Supply Study Summary Report Demand Based System Operations". This report was an evaluation of how the Gurley and Cone water systems might better manage their facilities to improve the water supply. The improvements included sprinkler irrigation and greater interconnection of the two systems.

4) In July of 2008, the CWCB and SWCD jointly sponsored the "Lower San Miguel Water Resources Planning Study" that evaluated the water rights associated with the UMETCO mine clean up project. The study evaluated options on what to do with the water rights when no longer required for the mine.

These reports indicate that approximately 20,000 AF of additional irrigation supply would be required to provide an adequate water supply to 13,900 acres of land in the Norwood/Redvale, Lilylands and Dry Creek Basin areas. The CWCB reports did not evaluate the irrigation water demand in other parts of the basin. The studies also identified 180 AF of industrial demand for a food processing plant.

5.0 EVALUATION OF FULL UTILIZATION OF COMPACT ENTITLEMENT

The CWCB has a foundation goal to develop waters of the State in order to "fully utilize State compact entitlements". Utilization of water within the San Miguel River basin is a component of fully utilizing the State's compact entitlement under the Colorado River Compact. This section evaluates the amount of future use water supply needed in order to not inhibit compact entitlements.

In 1995, the CWCB used a workgroup process to prepare a report entitled "Colorado River Compact Water Development Projections" (1995 Report). SWCD participated in the process. The 1995 Report includes future depletion estimates for the Dolores River basin which includes the San Miguel River as a tributary; these estimates are used to provide an indication of future uses in order to fully utilize the State's compact entitlement.

The 1995 Report estimated a range of future depletions in the Dolores River basin to be 35,187 AF to 225,213 AF. Compact development should not be constrained if the allowance for future uses, derived in this Report, is within the range.

The allowance range for the San Miguel River basin within the Dolores River basin was not determined, but can be estimated using the 1995 Report methodology of determining the percentage of the San Miguel River flow at Uravan compared to the Dolores River flow at Gateway. The average annual natural flow available for future use in the Dolores River basin in Colorado is approximately 843,500 AF. The flow at the mouth of the San Miguel River (Uravan gage) is approximately 260,000 AF. The percentage of water available at the SMISF is approximately 31% (260,000/843,500) of the Dolores River basin which results in a range for the San Miguel River basin future depletion of approximately 11,000 AF (31% x 35,187 AF) to 70,000 AF (31% x 225,213 AF). Therefore, based on the 1995 Report, the minimum depletion necessary for future uses in the San Miguel River basin in order to fully utilize the State's share of the Colorado River Compact is 11,000 AF of depletion.

This same analysis was performed to support the SWCD future use water right on the Animas River in Division 7 Water Court Case No. 06CW127.

6.0 FUTURE USE ALLOCATION ESTIMATE

The SMISF will result in a very large water right at the mouth of the river that will forever affect water uses in the basin. In order to allow for compact utilization the future use allocation should provide water needs through "build out" of the basin. Given the small amount of private land relative to public land and the large amount of existing water development, the future use allocation will be relatively small compared to the average annual existing flow of the San Miguel River at Uravan of 260,000.

The following sub-sections evaluate and estimate the quantity of the future use allocation for eastern and western San Miguel County and Montrose County.

6.1 Categories of Future Uses

The following are the major categories of potential future uses. Quantification of the future use water needs for each of categories will be prepared in the following sub-sections of this section. The future water uses are evaluated through "build out" as best that can be estimated because the SMISF will be in affect essentially forever and the future use allocation must be able to provide water for compact utilization as long as the SMISF is in affect. The State Water Supply Initiative Phase 2 (SWSI 2) is also evaluated and incorporated in the analysis where appropriate.

6.1.A. Existing Non-Exempt Residential Wells – These are existing undecreed non-exempt residential wells that could potentially be called out by the SMISF.

6.1.B. Existing Commercial Wells – These include existing commercial wells that may be called out by the SMISF.

6.1.C. Future Population Growth – This includes the water supply for future population growth not already included within an existing municipal water supply and excluding land with conservation easements. The water may be provided by non-exempt domestic wells (e.g. on less than 35 acres), expansion of existing central water systems to new areas, or new central water systems. Future commercial and municipal water needs are assumed to be included in this category.

The depletion associated with future population growth is based on the number of build out lots using an average amount of 350 gallons per day per home on each lot. The depletion associated with the 350 gallons per day per home is estimated based on 175 gallons per day (2.5 people per home using 70 gallons per person per day) with a depletion of 15% (standard depletion rate for leach fields in augmentation plans in southwest Colorado). An average of 175 gallons per day per home would be used for outside lawn and garden with a depletion of 75%. The weighted average depletion rate would be 45% of the 350 gallons per day per home.

The State Water Supply Initiative 2 Study (SWSI 2) was also used to estimate future population growth. SWSI 2 provides diversion estimates for each County based on per capita usage factors for each County that are larger than the 350 gallons per home. The same 45% depletion factor was applied to the SWSI 2 diversion amounts to estimate the depletion.

6.1.D. Industrial Water – The industrial needs could include such uses as mineral processing plants, power plant cooling, mining, gas wells, etc.

6.1.E. Golf Courses and Misc. Small Irrigation – This category includes irrigation of golf courses and other small irrigation developments such as gardens, intense agriculture (e.g. medical marijuana hahaha), hydroponics, greenhouses, etc.

6.1.F. Irrigation – New commercial irrigation on suitable lands.

6.1.G. Ponds – Many landowners construct small non-jurisdictional ponds on their property. The average pond is estimated to have a surface area of 0.5 acres and annual evaporation of 3.5 feet which would be an average depletion of 1.75 AF per pond.

6.1.H. New and Enlarged Reservoirs – Additional storage is needed in the San Miguel basin to firm up existing water supplies, provide for future needs, and provide supplemental flows for the SMISF. Reservoirs will have primarily positive affects by: (1) providing water to meet the future use allocation; (2) increasing the flow in non-runoff times through return flow from reservoir releases; and (3) supplementing the river flow through direct releases for the SMISF. Typically reservoirs will be storing when the flow in the San Miguel River is greater then the SMISF amounts.

The volume of reservoir storage is derived from the diversions associated with the above future uses (exclusive of ponds) and the 2002/2003 drought. A reservoir constructed using the future use allocation is assumed to be full in May of 2001 and will not be full again until May of 2004, a 3 year period. Therefore, in order for the reservoir to provide water for future uses the storage needs to be 3 times the diversion requirement. For example, if the diversion requirement is 1,000 AF, then 3,000 AF of storage is needed.

The depletion associated with reservoirs is based on the depletion from water surface evaporation, estimated to be 3.5 feet. The depletion associated with releases from the reservoirs is included in the above categories. No depletion is associated with storage of water.

The water surface area associated with a certain capacity reservoir is highly variable within a reasonable range of 1% to 2% of the storage, with 1.5% recommended herein. For example, a 3,000 AF reservoir could have an estimated surface area of 45 acres.

6.1.I. Unknown Future Depletions – Water uses and depletion calculations are not static, both are constantly changing and being updated as new information is obtained. There are likely to be new categories of depletions presently not known and included herein. Also, the calculation of depletion is not constant and has been shown to change over time; for example, high elevation crop consumptive use is now larger than estimated 10 years ago. In order to account for these unknown future depletions, the known depletions are increased by 10%.

6.2 EASTERN SAN MIGUEL COUNTY

The future uses in the eastern portion of San Miguel County are described for each of the categories in section 6.1 and quantified in Table 6.2. This portion of the basin is mostly federal land with high elevation and rugged topography. The development opportunities are, therefore, limited. More importantly, the future water uses are already limited most of the year by existing instream flow water rights as described in section 3.2.4.

6.2.A. Existing Non-Exempt Residential Wells – No such existing wells were identified and no future water use is necessary.

6.2.B. Existing Commercial Wells – No such existing wells were identified and no future water use is necessary.

6.2.C. Future Population Growth – The future population growth could not be separated into eastern and western San Miguel County because the actual distribution of future subdivisions could not be predicted. Also the SWSI 2 estimates are for the entire county. The analysis in this section is for the entire County based on four scenarios. In each scenario, the plans for the Towns of Telluride, Sawpit, Norwood, and Ophir were removed as well as conservation easements. Commercial and municipal usage is included in the future use depletion for this category. The following future use scenarios and the derivation process are described in detail in Appendix B.

(1) In the first iteration of the San Miguel County population growth, the County planning maps were used to estimate the minimum number of new lots that could be subdivided to be up to 12,235 lots in the western portion of the County. Using 350 gallons per day per lot results in a diversion of 4,800 AF. However, the San Miguel County planner was concerned that even though the County land use code would allow that many lots, it was not likely to happen. Therefore, this evaluation is not factored into the estimate in this version of the Engineering Report.

(2) Discussions with the San Miguel County planner indicates that the land use plan does not reflect a reasonable amount of build out lots and the number should be much less than in scenario 1. A detailed evaluation of the potential for development of additional lots was conducted as explained in Appendix B, and would allow up to 8,861 lots. Using 350 gallons per day per lot results in a diversion of 3,474 AF.

(3) A third analysis of potential future lots was made based on 35 acre tracts as allowed by Colorado law. This estimate results in 7,482 possible lots diverting 2,933 AF.

(4) The SWSI 2 report estimated the 2050 water usage for San Miguel County to be 4,000 AF for the medium estimate and 6,000 AF for the high estimate; both amounts are after subtracting the current usage. The medium usage of 4,000 AF of diversion is used here in for the entire County but this total is through 2050, not build out.

(5) The Town of Mountain Village is currently preparing a revision to its master plan which will revise the future water uses. At the time of this draft Report, the revised future use was not available. For purposes as a place holder a future use diversion of 250 AF for Mountain Village, to be added to the amounts in scenarios 2, and 3 (not the SWSI 2 estimate) is included but this amount will be updated in the final report.

The average of the two land use scenarios (2, and 3 above) is 3,700 AF plus 250 AF for Mountain Village is a total of 3,950 AF of diversion. The SWSI 2 medium estimate is 4,000 AF. The land use estimate and the SWSI 2 estimate are very similar and the SWSI 2 estimate of 4,000 AF is recommended. The location of the population growth could not be separated into eastern and western portions of the County.

The 45 % depletion rate derived in 6.1.C is applied to the 4,000 AF results in a San Miguel County depletion of 1,800 AF for future population growth.

6.2.D. Industrial Water – Snow making is the only industrial use identified. Typically, water is used for snow making in October (if temperatures are adequate), November, December, and January. The Telluride Ski Area is re-evaluating its future snow making requirements but was not able to provide revised amounts for this draft report. An amount of 200 AF is included for this draft but will be modified for the final report. The 5/12's factor is applied to the 200 AF, resulting in 83 AF.

6.2.E. Golf Courses and Misc. Small Irrigation – No new golf course is included for eastern San Miguel County.

6.2.F. Irrigation – No new commercial irrigation opportunities were identified.

6.2.G. Ponds – Ponds subject to administration are commonly being constructed for various purposes, including: fish, aesthetics, stock, augmentation, etc.; therefore, a small amount of future use storage is recommended. Currently approximately 2 to 5 ponds are built per year (as per phone converstation with pond construction consultant), three ponds per year are assumed for 50 years. The average pond is estimated to have a surface area of 0.5 acres and annual evaporation of 3.5 feet which would be an average depletion of 1.75 AF per pond. The total annual depletion for 150 ponds would be 263 AF. The 5/12's factor is applied to the 263 AF, resulting in 110 AF.

6.2.H. New and Enlarged Reservoirs – Additional storage is needed in the eastern San Miguel basin to firm up existing water supplies and provide for future water needs. An inventory of reservoir sites was conducted to indicate the potential for additional reservoirs. The inventory found storage sites with a capacity range of 850 AF to 978,000 AF none of which have existing storage decrees. Given the topographic difficulty of locating reservoirs in eastern San Miguel County the possibility of a large reservoir is not realistic but one or more smaller reservoirs (e.g. lined gravel pits) is possible as water becomes more difficult to obtain physically and legally.

The reservoir content is estimated based on the amount of diversion needed for the other future uses multiplied by three, as described in section 6.1.H. The diversion amount for eastern San Miguel County is the snowmaking/industrial water of 200 AF plus 250 AF for Mountain Village for a total of 450 AF multiplied by three for reservoir content which is 1,350 AF. The estimated water surface area for the 1,350 AF reservoir is 20 acres. The evaporation is estimated to be 3.5 feet per year, with a total of 70 AF. The 5/12's factor is not applied because the storage will likely occur during the period when the SMISF may control as described in Section 3.2.4.

6.3 West San Miguel County

The future uses in the western portion of San Miguel County is described for each of the categories in section 6.1 and quantified in Table 6.2. The western portion of the County is very different than the east. Due to topography the land is much more conducive to irrigation and other development. Also most of this area is not water critical and the factor derived in section 3.2.4 does not apply to any of these future uses.

6.3.A. Existing Non-Exempt Residential Wells – There are 4 constructed and 2 permits for existing non-exempt residential wells in this area. A review of the 4 constructed wells indicates allowed diversions of 20.7 AF. The average consumption is estimated to be 8 AF.

6.3.B. Existing Commercial Wells – Similar to non-exempt residential wells, there is 1 constructed well allowed 0.33 AF diversion and 1 permited well with an allowed use of 10 AF. The average consumption is estimated to be 4 AF.

6.3.C. Future Population Growth - Refer to the future population estimate for eastern San Miguel County in Section 6.2.C.

6.3.D. Industrial Water – The San Miguel Project Water Supply Study Phase 1 (June, 1989) identified 180 AF for a processing plant (page 33). The diversion and depletion has been included as a necessary future water use.

6.3.E. Golf Courses and Misc. Small Irrigation – Golf courses are a typical type of use in the San Miguel basin. Golf courses can range from 110 to 200 acres in irrigated area; 200 acres is used herein. Based on StateCU for bluegrass and the Norwood weather station, the estimated average annual consumptive use is 1.75 AF/acre. The annual consumptive use is estimated to be 349 AF with a diversion amount of 500 AF assuming 70% efficiency. One new golf course is assumed for San Miguel County. Misc. small irrigation such as green houses and hydroponic gardens are assumed to be included in the golf course total.

6.3.F. Irrigation – The San Miguel Project Water Supply Study Phase 1 (June, 1989) identified the need for 49,330 AF to irrigate 13,900 acres (page 30), of which an additional 21,900 AF (page 42) is needed for a full supply. The additional irrigation supply was to be provided by the San Miguel Project water rights, which are also assumed herein.

The San Miguel Project water rights should be maintained until such a time that the project can be developed and provisions should be included in the SMISF decree to allow the project water rights to be moved so long as the contemplated depletion is not increased.

6.3.G. Ponds – New ponds will be subject to a call by the SMISF. A small amount of future use storage is recommended. The demand for ponds in this area is assumed to be less than eastern San Miguel County with an estimated one pond built per year over 50 years. The average pond is estimated to have a surface area of 0.5 acres and annual evaporation of 3.5 feet which would be an average depletion of 1.75 AF per pond. The total annual depletion for 50 ponds would be 88 AF.

6.3.H. New and Enlarged Reservoirs – Additional storage is needed in the western San Miguel basin to firm up existing water supplies, provide for future augmentation needs, and improve the flow at the SMISF. The impact on the SMISF will be estimated when constructed based on the amount of depletion associated with the uses from the reservoir and water surface evaporation. An inventory of reservoir sites shows there is significant potential storage sites with a range of 1,400 AF (small reservoir site) to 96,000 AF (sum of numerous sites). None of these sites currently have storage decrees.

The sites in the western portion of the County have greater potential for development because they are primarily in non-water critical areas and there is more undeveloped private land. The potential storage capacity based on three times the future uses is approximately 14,000 AF (250 AF Mountain Village, 200 AF snowmaking – 450 AF times 3) with a surface area of 210 acres (14,000 AF times 0.015). The evaporation is estimated to be 3.5 feet per year, with a total of 740 AF .

6.3.I. Unknown future depletions are included for San Miguel County as described in Section 6.1.I.

6.3.J. The San Miguel County future use estimate is summarized in the following Table 6.3.

Exhibit B

TABLE 6.3
SAN MIGUEL COUNTY FUTURE USE ESTIMATE

	East San Miguel			West San Miguel			Total San Miguel
		Estimated Diversion	Estimated Depletion		Estimated Diversion	Estimated Depletion	
Type of Future Use	**(#)**	**(AF)**	**(AF)**	**(#)**	**(AF)**	**(AF)**	**(AF)**
6.2.A. Existing Non-Exempt Residential Wells	n/a	0	0	4	20.7	8	8
6.2.B. Existing Commercial Wells	n/a	0	0	2	10.33	4	4
6.2.C.Future Population Growth	combined in west San Miguel County				4000	1,800	1,800
6.2.D. Industrial Water	0	N/a	83		180	180	263
6.2.E. Golf Courses and Misc. Small Irrigation	0	0	0		499	349	349
6.2.F. Irrigation	0	0	0	0	0	0	0
6.2.G. Ponds	150	N/a	110	50	n/a	88	198
6.2.H. New and Enlarged Reservoirs		1,350	70		14,000	740	810
6.2.I Unknown Future Depletions	10%		26	10%		317	343
			289			3,486	
TOTAL FUTURE USE ESTIMATE FOR SAN MIGUEL COUNTY							**3,775**

6.4 Montrose County

The future uses in Montrose County are described for each of the categories in section 6.1 and quantified in Table 6.3. Montrose County topography and development is similar to western San Miguel County. The county line just about equally splits the Wrights Mesa irrigated lands. Montrose County has significant mineral resource development both currently and future potential. Horsefly and Leopard Creeks are upstream of the CC Ditch and already are water critical but essentially all of the County downstream of CC Ditch is not water critical.

6.4.A. Existing Non-Exempt Residential Wells – There are approximately 14 existing non-exempt residential well permits issued in this area; however, 9 were constructed and then abandoned and the remaining 5 wells were permitted but have not been constructed yet. The 5 well permits issued allow a total diverson of 500 AF. The depletion is estimated at 45% for a total of 225 AF.

6.4.B. Existing Commercial Wells – Similar to non-exempt residential wells, there is one existing commercial/industrial well permit issued but not constructed. The well permit allows 3 AF of pumping. Since this is an industrial well permit, it is assumed to be 100% consumed.

6.4.C. Future Population Growth – The future population growth was estimated based upon two methods: (1) the 2050 future water demand estimate in the draft SWSI 2 report and (2) the county land use plan density allowed for areas outside of existing. Refer to Appendix B for a detailed description of the two methods.

The SWSI 2050 estimate assumes that only 10% of the County population growth will be in the western portion of the County. The medium SWSI 2 estimate reduced for current water use and 10% for western Montrose County is 900 AF. In discussions with Montrose County officials, the SWSI 2 amount was not acceptable because it did not accurately reflect what they believed might occur through build out.

The County land use code was evaluated to estimate the number of new lots that could be subdivided on private land to be 34,203 with a water demand of 13,409 AF (350 gallons per lot per day). Population growth within the Horsefly Creek drainage was assumed to be provided by the conditional water right for Finch Reservoir.

Rather than use either the SWSI 2 or the land use code, the two estimates were averaged and resulted in a future population use estimate of 7,154 AF. The depletion is estimated to be 45% of the diversion amount or 3,219 AF.

6.4.D. Industrial Water – There is significant mineral resources in Montrose County including coal and uranium as described below.

Coal Fired Power Plant: There is an existing coal mine and coal fired power plant, the Nucla Station currently operating that uses 1,853 AF of water per year. The SWSI 2 study identified 2050 medium projections to be 4,816 AF which is all consumed. The net future use is 2,963 AF.

Uranium Processing Mill: A uranium-processing mill is proposed for the Nucla – Naturita region. Initially, the mill plans to produce 500 tons per day (182,500 tons per year) of ore using 150 gallons per minute of water (242 AF per year). The current processing goal is to produce 1,000 tons of ore per day which use 484 AF per year. The mill is expected to employ 85 people at the mill and 300 people at the mine and trucking. The timeline for the mill is to be in operation for 50 years which would use approximately 20 million tons. The US Department of Energy estimates approximately 125,000,000 tons of ore (conversation with George Glazier, Energy Fuels, Inc.) that could be mined. The resources would supply approximately 6 mills the size of the mill currently planned. The estimated build-out water supply is based on 3 total mills, (the current mill plus two additional), requiring a yearly water supply of 1,450 AF which is all consumed.

The total industrial water diversion in western Montrose County is 4,413 AF which is all depleted.

6.4.E. Golf Courses and Misc. Small Irrigation – One golf course is included for Montrose County. Golf courses can range from 110 to 200 acres in irrigated area; 200 acres is used herein for typical course. Based on StateCU for bluegrass and the Norwood weather station, the estimated average annual consumptive use is 1.75 AF/acre. The annual consumptive use is estimated to be 349 AF with a diversion amount of 499 AF assuming 70% efficiency. One new golf course is assumed for eastern San Miguel County. Misc. small irrigation such as green houses and hydroponic gardens are assumed to be included in the golf course total.

6.4.F. Irrigation – No additional water for large scale irrigation is included.

6.4.G. Ponds – Ponds subject to administration are commonly being constructed for various purposes, including: fish, aesthetics, stock, augmentation, etc.; therefore, a small amount of future use storage is included. The number of ponds currently being constructed in Montrose County could not be documented even though the DWR "Notice of Intent to Constructed a Non-Jurisdictional Pond" were reviewed. The documented information did not provide the basis for an estimate. Observations by people in the area and the water commissioner indicates there are a significant number of existing ponds and more are constructed regularly. An average of 3 new ponds per year is assumed herein over a 50 year period for a total of 150 new ponds. This number is likely conservative, based on the existing number of ponds and the observations with local people. The average pond is estimated to have a surface area of 0.5 acres and annual evaporation of 3.5 feet which would be an average depletion of 1.75 AF per pond. The total annual depletion for 150 ponds would be 263 AF.

6.4.H. New and Enlarged Reservoirs – Additional storage is needed in Montrose County to firm up existing water supplies, provide for future augmentation needs, and improve the flow at the SMISF. As described above, the only reservoir conditional water right in Montrose County of any significance is the Finch Reservoir in upper Horsefly Creek. In order to meet the future uses additional storage will be necessary.

The amount of future use depletion to be reserved for new reservoirs is based on the water surface evaporation from the reservoirs. An inventory of reservoir sites shows there are significant potential storage sites with a range of 13,000 AF (small reservoir site) to 200,000 AF (sum of numerous sites) which do not have storage decrees. Also, the sites in this portion of the County have greater potential for development because they are primarily in non-water critical areas and there is more private land. In order to provide the sum of the future uses (7154 + 4413 + 499 = 12,000 AF x 3), approximately 36,000 AF of storage capacity would be required.

In addition, new storage might include releases to the river for instream flow, either to maintain or enhance the natural environment. A reasonable amount would be to increase the instream flow an average of 10 cfs for the year which would require approximately 7,000 AF per year and 21,000 AF of storage capacity. The CWCB is the only entity that can hold a reservoir water right for instream flow. The concept is to develop multiple use reservoir(s) to provide for future uses and instream flow and adequate evaporation future use is included to allow such a partnership.

Approximately 57,000 AF of storage capacity may be required to meet the future uses and provide water for instream flow. Based on the evaluation in Section 6.1.H., that 1.5% of the capacity provides an estimate of the surface area, indicates approximately 855 acres of water surface. The average annual evaporation of 3.5 feet results in 2,992 AF of annual depletion from evaporation.

6.4.I. Unknown future depletions are included for Montrose County as described in Section 6.1.I.

6.4.J. The Montrose County future use estimate is summarized in the following Table 6.4.

Exhibit B

TABLE 6.4
MONTROSE COUNTY WATER USES

Type of Future Use	Number (#)	Estimated Diversion (AF)	Estimated Depletion (AF)
6.2.A. Existing Non-Exempt Residential Wells	5	500	225
6.2.B. Existing Commercial Wells	1	3	3
6.2.C.Future Population Growth	0	7,154	3,219
6.2.D. Industrial Water		4,413	4,413
6.2.E. Golf Courses and Misc. Small Irrigation		499	349
6.2.F. Irrigation	0	0	0
6.2.G. Ponds	150	n/a	263
6.2.H. New and Enlarged Reservoirs	Capacity is	57,000	2,992
6.2.I Unknown Future Depletions	10%		1,146
			=======
	Total Future Use Depletion in Montrose County		12,611
TOTAL FUTURE USE ESTIMATE FOR MONTROSE COUNTY			**12,611**

6.5 Total San Miguel River Basin Future Use Estimate
The sum of the San Miguel and Montrose County future use estimates is 16,386 AF.

7.0 EVALUATION OF SMISF AMOUNTS AND SEGMENT LENGTH

7.1 SMISF Amounts

The proposed flow amounts for the SMISF are shown in section 2.2. The CDOW and BLM developed stream habitat data to support the flow amounts. Those flow amounts have not been evaluated in this Report. The application and subsequent decree for a future use water right alleviates concerns regarding the flow amounts.

However, for informational purposes, a report was prepared by Bikis Water Consultants, LLC entitled "Evaluation of Technical Basis for Lower San Miguel River CWCB Instream Flow Recommendation" which presented an alternative analysis of the flows.

7.2 SMISF Segment Length

The segment length was reviewed in relation to the studies prepared to support the SMISF. The CWCB staff analysis states: "The transect data was collected at a site approximately 1.5 miles upstream from the confluence of the San Miguel River with Tabeguache Creek." This was apparently the only location for transect data. The hydrology analysis was based on the USGS streamflow gage at Uravan. The transect data and the hydrologic analysis are based on data between the mouth of the San Miguel River and Coal Creek; however, the segment extends upstream to Calamity Draw.

Calamity Draw and Coal Creek have significant return flow from the CC Ditch irrigation. The river segment from Coal Creek to Calamity Draw was included in the SMISF segment even though biological and hydrologic data used to determine the SMISF amounts was not collected in this 5 to 6 mile length. The flow in this section is less than downstream of Coal Creek due to irrigation return flow and there are existing irrigation water rights within the segment that divert and have return flow.

Due to the lack of data collected between Coal Creek and Calamity Draw and the SMISF amounts are not reflective of the flows in this section, the upper terminus of the SMISF segment is recommended to end immediately below the confluence with Coal Creek.

8.0 RECOMMENDATIONS AND CONCLUSIONS

8.1 SMISF Recommendations and Conclusions

The SMISF amounts developed by the CWCB, below, are recommended with the provision that the future uses described in this Report are provided.

325 cfs April 15 to June 14
170 cfs June 15 to July 31
115 cfs August 1 to August 31
80 cfs September 1 to February 29
115 cfs March 1 to April 14

The SMISF segment is recommended to extend up the San Miguel River from the confluence with the Dolores River to just below the confluence with Coal Creek.

8.2 Future Use Allocation

In order to provide for future water uses in the San Miguel River basin that will allow the utilization of the State of Colorado's Colorado River Compact entitlement, an allocation of at least 11,000 AF of depletion is necessary in conjunction with the SMISF appropriation. The proposed future use estimate of 16,386 AF for both Counties meets that criteria.

This Report evaluates the future uses based on the best available information for population growth, industrial demand, and other uses. Reservoir(s) will be necessary to meet the existing and future water demand in the basin. The depletion for the future uses is the appropriate measure of the use because depletion reflects the actual impact on the SMISF.

The future use allocation shall be a lump sum volume of depletion for each County. The categories shown in Section 6.0 are only for developing the total volume of depletion and shall not be individually included in the future use allocation. The "River Remaining" portion of the chart is water that is only available during the runoff period.

Figure 8.1 shows a chart of the 1955 to 2009 San Miguel at Uravan average annual flow in relation to the future use allocation and SMISF to provide an indication of the relative amount of water going to each purpose.

8.3 Example of Similar Water Right in Southwest Colorado on the Animas River

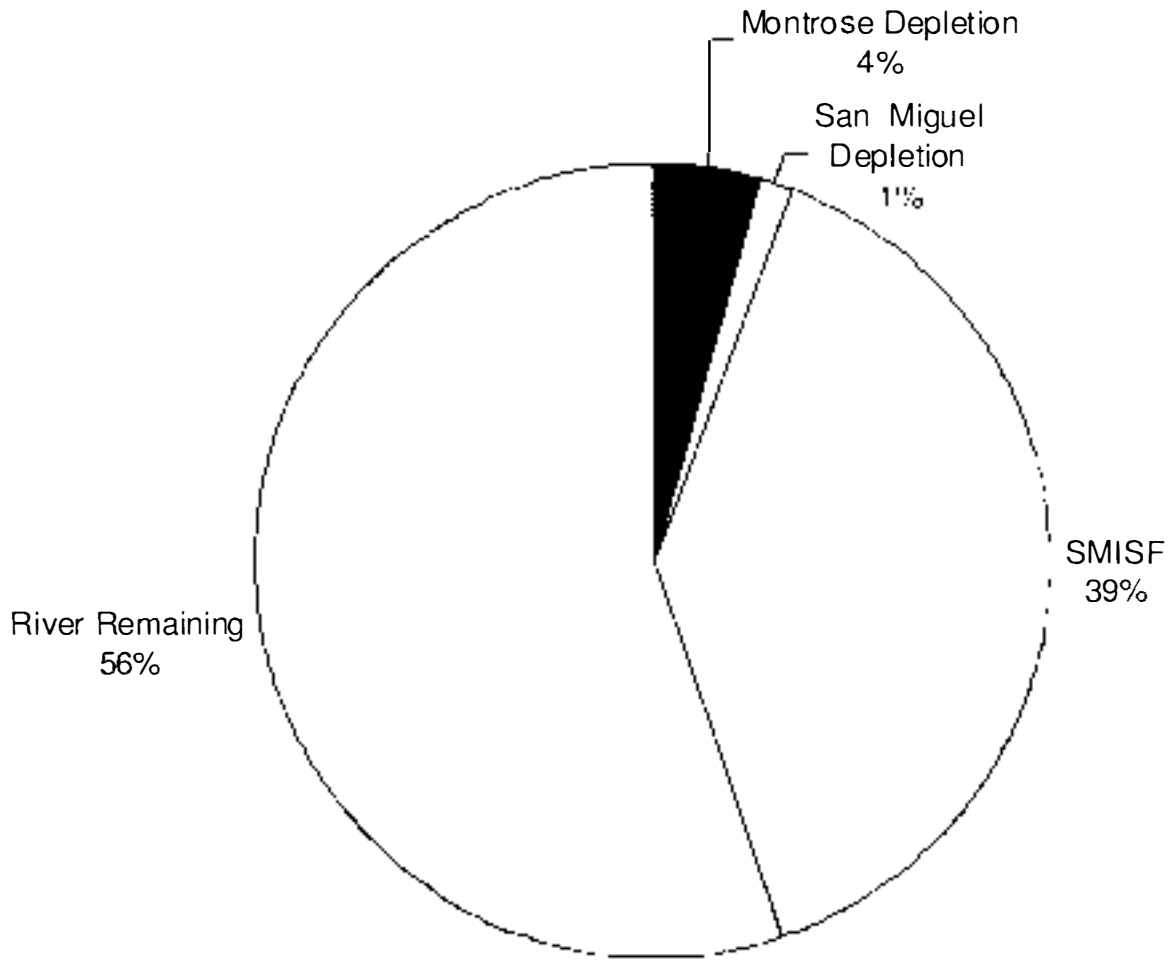
There is precedent in southwest Colorado for the future use allocation proposed in this Report. SWCD is the joint owner of a water right (e.g. future use allocation) in Division 7 Water Court Case No. 06CW127 which was developed in response to the City of Durango's Recreation In Channel Diversion (RICD) water right (located in the City of Durango) in Division 7 Water Court Case No. 06CW9. The RICD would have affected future uses in the Animas River basin upstream of Durango. SWCD negotiated with all parties, including potential upstream water users that would have been affected by the RICD, in order to develop an Animas River future use allocation, decreed in Case No. 06CW127.

The future use allocation herein would be accounted in a similar manner as established in 06CW127. This water right has been in effect since 2007 without problem. The accounting could be performed by SWCD, San Miguel County, and Montrose County or any combination of the three entities.

Exhibit B

Figure 8.1 - San Miguel River

USGS Gage @ Uravan (1955 - 2009)
Average 260,989 AF/yr



Depletion based on 8.24.10 Second Draft of Future Uses

9.0 RECOMMENDED FUTURE USE ALLOCATION PROVISIONS

In order to secure the availability of water to meet future uses to provide for utilization of Colorado River Compact water by the residents of the State of Colorado, a future use allocation is required that is senior to the proposed SMISF.

The future use allocation could be decreed in a separate water right or within the decree for the SMISF. SWCD firmly believes that the future use allocation and the SMISF must be packaged together; if the future use allocation is not finalized then the SMISF is not finalized and vice versa. Therefore, it is recommended that the future use allocation be included in the SMISF decree for which there is precedence.

Location: At a point upstream from the mouth of the San Miguel River. (Aquamap will be used to describe this point in the application.) A provision must be included to allow pieces of the future use allocation to be transferred upstream through the instream flow reach without injury.

Source: Surface and groundwater in the San Miguel River and its tributaries upstream of the location described above.

Appropriation date: Senior to the SMISF

Amount: There shall be two future use allocations, one for each County in the San Miguel Basin based on annual depletion:

1) San Miguel County shall be entitled to an annual depletion amount of 3,775 AF.

2) Montrose County shall be entitled to a maximum annual depletion amount of 12,611 AF.

Depletion Determination:

1) Annual depletion is the measure of the future use allocation.

2) Direct diversion depletion shall be based on the estimated annual water diversion minus return flows.

3) Depletions associated with reservoirs shall be determined based on: (1) the average annual releases from the reservoir and the average annual depletion associated with each purpose; and (2) the average annual water surface evaporation. A depletion to the SMISF shall not be associated with the storage of water.

4) For snowmaking, if the diversion and runoff are in the same water year, only net difference between the diversion amount and runoff amount shall be a depletion requiring a portion of the future use water right.

Perfection of the future use allocation shall occur as increments of the depletions are transferred to upstream water uses and made absolute. Priority within the future use allocation shall be based on the date increments of the allocation are transferred.

Each application for a portion of the future use allocation shall include an analysis of the net amount of depletion needed from the future use allocation right in relation to other calling water rights. Future Uses already within water critical areas shall be evaluated to determine the net depletion relative to the SMISF after factoring in the affect of other senior water rights; the preliminary analysis in section 3.2.4 is an example.

The CWCB shall not require conditions, other than those in the original San Miguel Project water rights decree, to be imposed in any court proceeding to change the San Miguel Project water rights, so long as the impact on the SMISF is no greater than that which would have occurred from the utilization of the rights under the original decree.

The CWCB shall not object should the Norwood Water Commission seek to change the point of diversion of its 5 c.f.s. water right decreed in Case No. 94CW0244 from its location on the mainstem of the San Miguel River, near the confluence with Beaver Creek, to within one-quarter mile upstream or downstream of the confluence of the San Miguel River and Beaver Creek.

The CWCB shall not require conditions to be imposed in a water right change case, whether, absolute or conditional, if the change results in no greater impact to the SMISF than existed at the time the SMISF was decreed for absolute water rights or was contemplated for conditional water rights.

EXHIBIT C

4/17/2015

Basin Implementation Plan

Southwest Basin Roundtable

Ann Oliver and Carrie Lile
HARRIS WATER ENGINEERING, INC.

TABLE 1. CONTINUED…

E. MEET ENVIRONMENTAL WATER NEEDS		
ID	Goals	Measurable Outcomes (by 2050)
E1	Encourage and support restoration, recovery, and sustainability of endangered, threatened, and imperiled aquatic and riparian dependent species and plant communities. *(See list of such species in the Southwest Basin)***	1. Implement 15* IPPs to directly restore, recover or sustain endangered, threatened, and sensitive aquatic and riparian dependent species and plant communities. 2. At least 95% of the areas with federally listed water dependent species have existing or planned IPPs that secure the species in these reaches as much as they can be secured within the existing legal and water management context. 3. At least 90% of areas with identified sensitive species (other than ESA species) have existing or planned IPPs that provide direct protection to these values. Based on the map of environmental attributes generated for SWSI 2010 (Figure 1) 90% for individual species equates to approximately 169 miles for Colorado River cutthroat trout, 483 miles for roundtail chub, 794 miles for bluehead sucker, 700 miles for flannelmouth sucker, 724 miles for river otter, 122 miles for northern leopard frog, 921 miles for active bald eagle nesting areas and 229 miles for rare plants. 4. Implement 26* IPPs to benefit the condition of fisheries and riparian/wetland habitat. 5. At least 80% of areas with environmental values have existing or planned IPPs that provide direct protection to these values.
E2	Protect, maintain, monitor and improve the condition and natural function of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries, and to support native species and functional habitat in the long term, and adapt to changing conditions.	

*Note that several of these outcomes, indicated by an asterisk, pertain directly to supporting implementation of the projects and processes, either planned or in progress, that are currently on the Southwest Basin's IPP list. They will be periodically reviewed and updated in the future.

Federally Listed**

Southwest Willow Flycatcher (Endangered)

Sensitive Species**

Colorado River Cutthroat Trout	Roundtail Chub	Bluehead Sucker	Flannelmouth Sucker	River Ottter	Northern Leopard Frog	Active Bald Eagle Nests

Federally Listed Species not included in SWSI 2010 Needs Assessment**

New Mexico Meadow Jumping Mouse (Endangered)	Yellow-billed Cuckoo (Threatened)	Gunnison Sage Grouse (Threatened)

channel stability. These include the Cat Creek Watershed Project, San Juan River Bank Stability Project, the Navajo River Restoration, Spring Creek Restoration, San Juan River Village MD River Restoration, and the Lower Piedra from Hwy 160 to Navajo Lake Projects. Two projects aim to enhance or create wetlands: Crowley Ranch Reserve Wetland Enhancement and the Sambrito Project. Two projects focus on working with private landowners to improve habitat for CRCT Conservation Populations. These are on Himes Creek and Headache Creek.

In the Pine River basin, the River Ranch Pine River Habitat Improvement Project plans to restore aquatic and riparian habitat and channel stability. The Vallecito Reservoir Instream Flow Project aims to allow donation of an instream flow to the CWCB to enhance fish habitat.

In the Animas River basin IPPs aim to improve stream habitat, CRCT habitat and water quality. Four projects focus on improving riparian habitat, aquatic habitat, and/or water quality, including the Salmonid Habitat Improvement Animas above Howardsville, Animas River Vegetation Management, Florida River Water Quality Initiative, El Rancho Florida Florida River Riparian and Aquatic Habitat Improvement, and the Florida River Habitat and Water Quality Improvement Projects. Two projects focus on native fish. The Hermosa Creek CRCT Metapopulation Project works to create and sustain habitat for CRCT, while the Florida River Habitat Assessment hopes to work with private landowners to assess habitat for native warm water fish.

In the La Plata River basin two projects aim to control invasive species: the Southern Ute Indian Tribe Management of Invasive Riparian Species and Long Hollow Reservoir Non-Native Fish Control.

In the Mancos River basin, three projects aim to improve aquatic habitat for native warm water and non-native trout, and/or riparian habitat. These include the Mancos Fishing Habitat Improvements, Mancos River Habitat and Diversion Project - Phase II, the Ute Mountain Ute Tribe's Mancos River Restoration (riparian and aquatic natives). The Habitat Assessment of the Mancos River is focused on assessing the quality of the lower Mancos for native warm water fish.

In the Dolores and McElmo river basins three IPPs have the potential to help address flow needs for native warm water fish while meeting other needs. These include the Dolores Water Conservancy District Optimization Study, the Upper Plateau Storage Reservoir, and the Proposed ISF on the Dolores River. The Dolores River Restoration Partnership and the Dolores Project McPhee Reservoir Aquatic Nuisance Species Protection aim to maintain and improve riparian and aquatic habitat respectively by controlling non-native species. The Upper Dolores River Assessment will evaluate riparian and aquatic habitat quality. The Redburn Ranch will improve aquatic habitat connectivity for the non-native trout fishery. The Future River Stewards project will engage in water quality sampling and river stewardship education to benefit all uses.

In the San Miguel river basin four IPPs address maintenance of flows for environmental values. These include the Naturita Creek Proposed ISF, Flow Protection for Area of Critical Environmental Concern, San Miguel ISF, and Suitability - Wild and Scenic Rivers Act. Three

Dolores and McElmo River Basins Draft IPP List Continued…

PROPOSED IPPs

ID	Date	Sub Basin	NC/C/B	Description	County	Status	Remaining Steps	Need Addressed	IPP Contact Information: Sponsors	IPP Contact Information: Lead contact & Source of Info.	Project vs. Process	Project ready for implementation NOW?	Does the need exist today?	Already received some WSRA funding?
10-DM	Jul-13	Dolores	NC	Proposed Instream Flow on the Dolores River . BLM is beginning to collect preliminary data for an instream flow water right downstream of the San Miguel River, within the Uncompahgre Field Office to protect habitat for 3 sensitive fish species. Section discussed during Wild and Scenic Process and stakeholders identified it as eligible.	Montrose, Mesa	Ongoing		Habitat for 3 sensitive fish species	BLM, CWCB, CPW	Source: Roy Smith; Linda Bassi	Process	Yes	Yes	No
11-DM	SWSI 2010	Dolores	B	Paradox Valley Salinity Control. BOR Desalination Plant intercepts and collects saline water flowing toward Dolores River within the Paradox Valley and stores that water in deep wells. Losses to the Dolores surface flows are mitigated with 700 AF/year out of McPhee Reservoir. Managed as part of the downstream fishery water, and does not share shortages.	Dolores	Ongoing		Water quality	BOR, DWCD, CPW		Project	Yes	Yes	No
12-DM	SWSI 2010	McElmo	C	Totten Reservoir. The existing 3,300 AF reservoir was acquired by DWCD. With no new facilities the reservoir can be used for direct service and augmentation in the McElmo Creek basin. With a pump and pipeline to Towaoc-Highline Canal can provide additional water for use within Dolores Project area. There are several potential water sources. The yield is variable based on type of use (M&I or irrigation) and sources.	Montezuma	Not Complete		Municipal water supply, Agricultural water supply	DWCD	Lead and Source: DWCD	Project	Yes	Yes	Yes?
13-DM	Jul-13	McElmo	C	McElmo Irrigators. Completed pilot phase of project. Pilot phase was to initiate a 1 time lease of water from Totten to McElmo irrigators during the early irrigations season. Improvements will need to be made to Totten before this can become a permanent lease.	Montezuma	Not Complete	Improvements to Totten	Agricultural water supply	DWCD	Lead and Source: DWCD	Project	Ongoing	Yes	No
14-DM	Jan-14	Dolores	B	Optimization Study. A study to review the available water supplies to evaluate whether the water is being used as effectively as possible using the existing facilities. Then determined if there are additional management methods and/or facilities that may improve the effectiveness.	Montezuma, Dolores	Not Complete	Develop a RFP; hire a consultant; conduct work	All needs within the basin could be possible addressed	DWCD	Lead and Source: DWCD	Process	Yes	Yes	No
15-DM	Jan-14	Dolores	C	DWCD Water Management and Conservation Plan. The 2002 Plan will be updated through 2013 with new data and candidate programs and measures. The programs and measures range from water management, water supply, budget, infrastructure, and conservation. The Plan describes actions for each program and measure with priorities of implementation of measures by the Board.	Montezuma, Dolores	Not Complete	Drafting a WMCP	Agricultural water supply, Municipal water supply	DWCD, MVIC, UMUT, CPW, CSU Extensions, USBR, Full Service Farmers, DCD, other stakeholders	Lead and Source: DWCD	Process & Project	Yes	Yes	No
16-DM	Jan-14	McElmo	B	Rehabilitation of the McElmo Creek Flume. The McElmo Flume was designated one of Colorado's Most Endangered Places in 2011. Its is a most fitting recognition for reasons beyond just being endangered. The Flume represents the heritage of the culture that developed with the advent of water being trans-basin diversion from the Dolores during the mid-1880s. This is a water education project that will provide a new opportunity for the public to learn about the water history of the Montezuma Valley.	Montezuma	Not Complete	Construct highway access point, rehabilitate flume	Public Education	Montezuma County	Lead: James Dietrich	Project	Yes	Yes	No
17-DM	Mar-14	Dolores	NC	Upper Dolores River Recreation Access. The Upper Dolores lacks safe, adequate and appropriate access for recreational opportunities including boating and fishing. The San Juan Skyway runs along the Dolores River and offers highway accessibility, but an official access site has not been established, resulting in user created access and riparian damage. An established site with day use accessibility would be ideal for enabling recreation in a manner that is safe and appropriate.	Dolores	Not Complete		Public Education, Recreation access	Dolores River Boating Advocates, Forest Service	Lead & Source: Lee-Ann Hill	Project	Yes	Yes	No
18-DM	Mar-14	Dolores	B	Future River Stewards. Program to involve local youth in water quality sampling at Bradford Bridge, river stewardship and mindful use.	Dolores	Not Complete		Public Education, Water quality	Dolores River Boating Advocates, local schools, Riverwatch Program	Lead & Source: Lee-Ann Hill	Project	Yes	Yes	No
19-DM	Mar-14	Dolores, McElmo	B	Dolores Project McPhee Reservoir Aquatic Nuisance Species (ANS) Protection. With the recent infestation of Lake Powell by invasive mussels, McPhee remains vulnerable to traveling ANS from other waters open to boating. The impacts of an infestation would destroy biological, recreational, ecological and consumptive uses provided by the Dolores Project. An infestation would damage the fishery and hurt boating and fishing opportunities. Infrastructure impacts would increase costs and hinder operations at McPhee with unknown impacts extending beyond the reservoir. Prevention remains the only successful strategy to prevent these negative impacts. DWCD is working with CPW and USFS to bolster the current efforts led by CPW to prevent an infestation of Zebra and Quagga mussels to the Dolores Project.	Montezuma	Ongoing		Municipal supply, Agricultural supply, Boating, Aquatic habitat	DWCD, CPW, USFS	Lead & Sources: Ken Curtis & Jim White	Project	Yes	Yes	No

EXHIBIT C

APPENDIX D

- **COLORADO WATER PLAN - SWCD STATEMENT OF IMPORTANCE JANUARY 2014**
- **WATER RIGHTS ANALYSIS**
- **FINAL WSRA ANNUAL REPORT OCTOBER 2014**

EXHIBIT C
Colorado Water Plan

Southwest Colorado Statement of Importance

January 2014

Background:

Last spring, Governor Hickenlooper issued an Executive Order requesting that all state water interests work together in the development of the Colorado Water Plan and address the identified M&I "Gap". The CWCB is coordinating the efforts with input from the IBCC and Basin Round Tables (BRT), and a draft of the plan is to be ready by December of 2014, and final plan by December 2015. Various positions have been expressed by multiple groups and entities on either the plan itself or the New Supply aspect (4 legs of stool). These groups include; the South Platte and Arkansas BRT's, Front Range entities (FRWC), the West Slope Basin Round Table (new supply), and municipal providers in the Grand Junction area led by Ute Water. The southwest portion corner of Colorado is in a somewhat unique position, since historically it has not been the source of Colorado River supplies for the Front Range needs. Even so, it does have a major federal trans-mountain diversion Project that deliveries supplies to New Mexico interests in the Rio Grande basin. The San Juan-Chama Project diverts around 100,000 af per year out of tributaries to the San Juan River in Colorado. Southwest Colorado is also home to two Indian Reservations and sovereign nations dating back to 1868. The Ute Mountain Ute Tribe and Southern Ute Indian Tribe have built partnerships with the local communities and are partners with non-tribal interests in a number of major water projects in the region. The Southwest BRT is also somewhat different than other West Slope roundtables, since the Southwest roundtable geographic area is all within the Southwestern Water Conservation District boundaries, which encompass nine separate and unique sub-basins. The remaining three Western Slope Roundtables are within the Colorado River District which includes the Gunnison, Yampa/White, and Colorado mainstem. Consumptive and Non-Consumptive interests have worked well on collaborative processes in the southwestern portion of the state, and it is important that we maintain these partnerships and focus on the issues that are the most relevant to this region. Below is a list of core principles that have been discussed and adopted by the board members and staff from the Southwestern Water Conservation District, and by the Southwest Basin Roundtable:

Statement:

On May 14, 2013, Governor Hickenlooper issued Executive Order D 2013-005, which directed the Colorado Water Conservation Board (CWCB) to commence work on the Colorado Water Plan (the Plan). Every major river basin in the State has been enlisted to assist in the development of the Plan to be finalized by December 10, 2015. Although the Plan is intended to address several statewide issues of importance its primary function is to address the gap between water supply and water demand. The Southwestern Water Conservation District (SWCD) and the Southwest Basin Roundtable (SWBRT) share the same geographic boundary that include nine separate and unique sub-basins that flow independently across statelines into New Mexico and Utah. The SWCD and SWBRT also share the same values, and commit to assist in the development of Colorado's Water Plan based on the following principles:

- Colorado's Water Plan (the Plan) should be used as a guiding document to assist with the development of consumptive, non-consumptive, and multi-purpose projects.
- The portion of the Plan for southwest Colorado should identify specific and unique projects that are important to maintaining the quality of life in this region and should accommodate the development of domestic supplies, environmental needs, agriculture, recreation, and commercial/industrial needs to provide for further economic development.
- The Plan will be used as a guiding document for the full development of Colorado's entitlement under the Colorado River Compact and Law of the River.
- Development of the Compact Entitlement should attempt to limit the risk of Compact administration in the future.
- The SWCD and SWBRT agree that all uses are important to the future of this region, and the development of multi-purpose projects (including the creative management of existing facility and the development of new storage as needed) within the southwest basin should be pursued.
- The Colorado Plan should recognize the downstream challenges faced by water users in southwest Colorado due to continued development and pressures from users in the State of New Mexico. The State of Colorado should utilize its resources to protect the interests in southwest Colorado, while complying with existing Compact obligations. The entitlement to Colorado River flows for New Mexico will be based on deliveries from southwest Colorado.
- The Plan should recognize the unique settlement of tribal reserved water rights claims in the 1988 Tribal Water Rights Settlement and the 1991 Consent Decree.
- The Southwest Basin supports the implementation of conservation strategies and the full development of existing supplies within the Front Range basins that will reduce the demands in the Colorado River Basin.
- The Southwest Basin recognizes a common interest with other Western Slope Roundtables and supports coordination with the Colorado River District and other West Slope Roundtables to minimize the risk of overdevelopment of the Colorado River supplies.
- The Southwest Basin supports the concurrent development of all four legs of the stool that have been identified by the IBCC, and discussed by the Southwest Basin Roundtable.
- The SWCD and SWBRT support the concept of a Water Bank, which may be used to prevent or minimize the risk of Compact administration.
- The SWBRT and SWCD believe Colorado's Water Plan should be a "living document" that can be revisited and updated as necessary to provide for adaptive management in meeting the future demands of the State.
- The SWCD and the SWBRT commit to full productive participation in the development of Colorado's Water Plan, and will stress the importance of inclusion of the components of the Basin Implementation Plan (BIP) to address future needs in the southwest part of Colorado.