River Board Meeting Agenda

Pitkin County Courthouse Plaza 1, Aspen, CO

Nov 21, 2013

Time	Description				
4:00 PM	 Board Comment Public Comment Additions – Deletions to Agenda 				
4:05 PM	Approval of Minutes Oct 17, 2013 meeting				
4:10 PM	 Predicted Compact Call Risk as Temperatures Increase Ken Ransford Update from Mesa University Water Conference Grand Junction River Board Attendees 				
4:30 PM	Wild and Scenic Designation of Crystal River Request for Support Dorothea Farris				
4:50 PM	 Overview of Collaborative Effort to Protect Snowmass Creek Flows and Need for Gauging in 2014 Integrated Crystal River Project Proposal Chelsea Brundige – Public Counsel of the Rockies Sharon Clarke – Roaring Fork Conservancy 				
5:30 PM	Financial Committee Update Dave Nixa				
5:45 PM	Discussion of House Resolution 3189 Water Rights Protection Act John Ely				

Future meeting dates 2014:

January 16 February 20

HEALTHY RIVERS AND STREAMS CITIZENS ADVISORY BOARD

Meeting Minutes 530 E. Main St Plaza 1 Aspen, CO 81611 September 19, 2013–4:00 p.m.

River Board members present: Lisa Tasker, Bill Jochems, Andre Wille, Ruthie Brown, Greg Poschman,

Dave Nixa

River Board members absent: Rick Neiley

Others present:

Lisa MacDonald, John Ely, Laura Makar

Board Comment – Chairman Jochems encouraged members to attend the Western Water Conference in Grand Junction on Nov 5th.

Public Comment - None

Additions/Deletions to Agenda - None

<u>Approval of the Minutes</u> – Ms. Brown moved to approve minutes of September 5th work session. Ms. Tasker seconded the motion. The motion passed 6/o.

Ms. Brown moved to approve minutes of September 19^{th} regular meeting. Ms. Tasker seconded the motion. The motion passed 6/o.

Letter of Support Roaring Fork Conservancy - Heather Tattersall

Mr. Poschman moved to authorize the Chairman to sign a letter of support to the Aspen Skiing Company's Environment Foundation for grant funding of Roaring Fork Conservancy's Economic Study of the Fryingpan Valley. Ms. Tasker seconded the motion. The motion passed 6/o.

<u>Funding approval for Coal Basin Restoration work f.k.a. Cow Stomp</u> – Dorothea Farris - CVEPA The Board heard the request from Ms. Farris at its September 19, 2013 meeting.

Mr. Poschman moved to recommend funding for the Coal Basin Restoration Project in the amount of \$10,000. Mr. Wille seconded the motion; the motion failed 2 to 3 with Wille and Poschman in favor and Brown, Nixa and Tasker opposed. Chairman Jochems abstained.

Ms. Brown moved to recommend funding approval for the Coal Basin Restoration Project in the amount of \$5,000. Mr. Nixa seconded the motion. The motion passed 3 to 2 with Brown, Nixa and Tasker in favor and Wille and Poschman opposed. Chairman Jochems abstained.

Budget 2013 and 2014 Formal Recommendations for projects and line items

Ms. Brown moved to approve the 2014 budget recommendations and forward those recommendations to the Board of County Commissioners with the fund balance of \$1.5 million as a reserve. Mr. Jochems seconded the motion. The motion passed 6/0.

Mr. Nixa moved to approve a move of \$300,000 from reserves to the 2013 water projects line item. Ms. Brown seconded the motion. The motion passed 6/0.

A 35	
Au	ourn

Mr. Nixa moved to adjourn the meeting. Ms. Brown seconded the motion. Motion passed 6/o. The meeting adjourned at approximately at 6:15 p.m.

Approved:

Attest:

Bill Jochems – Chairman
Healthy Rivers and Streams Board

Lisa MacDonald

Agenda Item Summary November 21, 2013

TO:

River Board

FROM:

Ken Ransford

SUBJECT: Predicted Compact Call risk as temperatures increase

Information: Mr. Ransford will present his information on what happens if Colorado increases Colorado River diversions and temperatures increase?

Requested Board Action: None – Informational only

Attachments: Lake Powell and Mead Operations reconstructed from 136 BC to 1992

Lake Powell and Mead Operations reconstructed from 136 BC to 1992

What happens if Colorado increases Colorado River diversions and temperatures increase?

Methodology

Reconstruct precipitation from 136 BC to 1992 based on tree ring widths measured in fossil trees in El Malpais National Forest, New Mexico, 65 miles west of Albuquerque.

- Tree rings explain 70% of the variance in river gauge records from 1896-1992.

Assume 14.82 maf flow past Lees Ferry each year on average from 136 BC to 1992.

Subtract annual Upper Basin consumption — 3.914 maf (average from 2001-2010).

Increase Upper Basin consumption by 6.35% to get Colorado out of the 10-year penalty box:

If a Compact Call is made, any Upper Basin state that consumed more than its share must reduce consumption until 10 years' worth of extra consumption is repaid or the call is met.

Subtract evaporation - 4 feet from Lake Powell and 6.5 feet from Lake Mead.

Manage releases from Lake Powell and Lake Mead under the 2007 Interim Agreement.

Increase consumption by additional Colorado diversions and/or reduce river runoff from hotter temperatures.

Colorado River Compact Assumptions

Upper Basin States release 8.23 maf every year from Lake Powell unless the 2007 Interim Guidelines call for a different release.

Thus, the Upper Basin States are obligated to deliver 750,000 af every year for the Mexico Treaty Obligation.

Upper Basin States are charged with Lake Powell evaporation.

Lower Basin States are charged with Lake Mead evaporation.

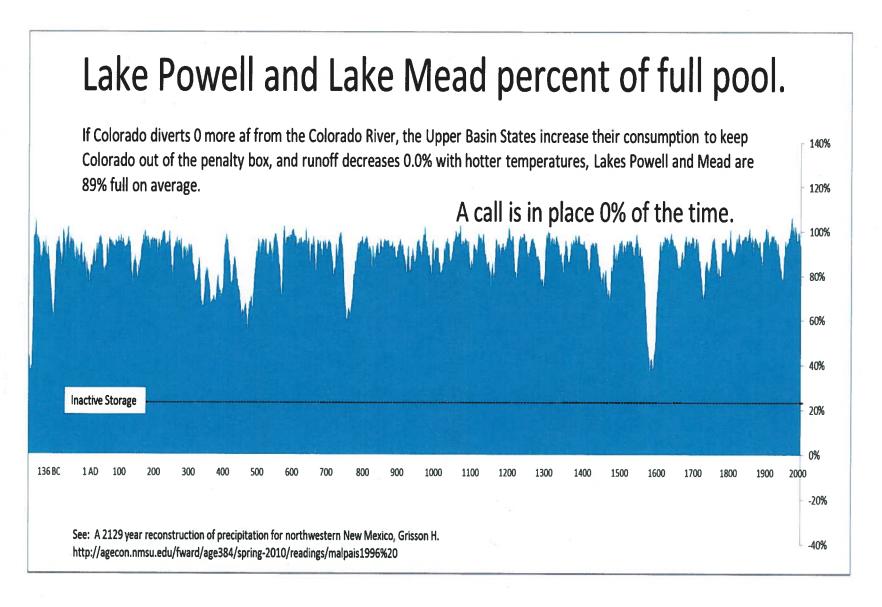
A Compact Call occurs any year in which the prior 10 years' deliveries are under 82,300,000 af.

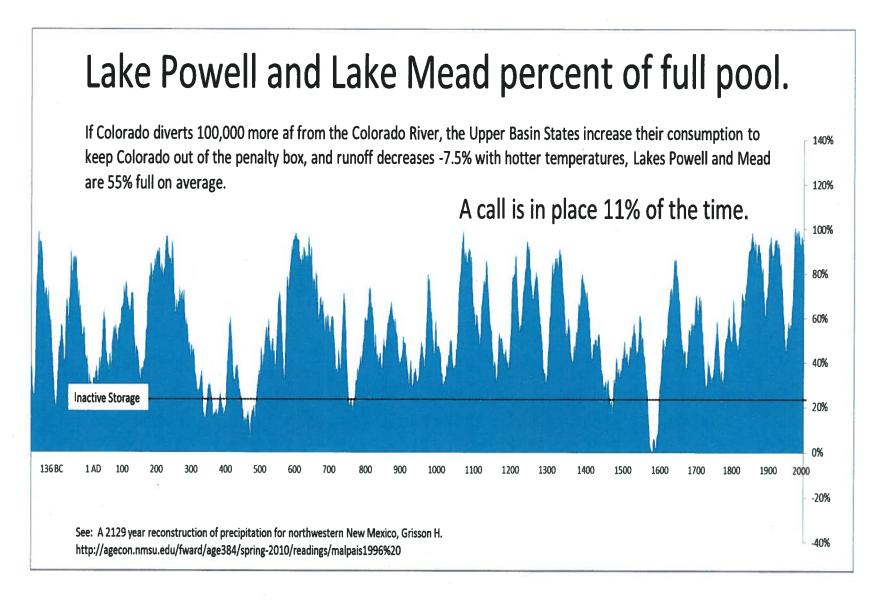
Methodology to create graphs

- 1. Start with annual precipitation 14.57" average from 136 to 1992 BC
- 2. Normalize this so that the average annual flow is 14.82 million acre feet (MAF) over this entire 2,129-year period.
- 3. Reduce average annual flow because of temperature increases:

Temperature increase	1.3°C	2.4°C	3.3°C
Decrease in Colorado River Flow	-7.5%	-10.9%	-12.4%

- 4. Increase consumption by one or more of these assumptions:
 - 1. 265,000 af \uparrow by New Mex, Utah & WY to get Colorado out of 10-yr penalty box
 - 2. 100,000 to 250,000 af ↑ by Colorado for additional transbasin diversions
 - 3. Plus corresponding increase by Upper Basin States to keep Colorado out of 10-year penalty box to match additional Colorado transbasin diversions.
- 5. Release water from Lake Powell and Mead to equalize storage under 2007 Bureau of Reclamation Interim Guidelines.





Bureau of Reclamation **February 2012 Update**

Colorado River Basin Water Supply and Demand Study

Technical Report B – Water Supply Assessment



The Bureau assumes 15 maf is the average flow past Lees Ferry before global warming. Forecasted flows in 2025, 2055, and 2080 are shown below. Pg. B-

TABLE B-3

Summary of Annual and Monthly Streamflow Statistics for the Downscaled GCM Projected Scenario for the 3 Future 30 Year Time Periods: 2011–2040 (2025), 2041-2070 (2055), and 2066-2095 (2080).

Note: the last time period is beyond the Study period, but is shown for informational purposes.

	Statistic	Downscaled GCM Projected 2011-2040 (2025)	Downscaled GCM Projected 2041-2070 (2055)	Downscaled GCM Projected 2066-2095 (2080)
Annual	Average Annual Flow (maf)	(13.9)	13.4	<mark>13.1</mark>
(Water Year)	Percent Change from Long-Term Mean (1906–2007)	<mark>-7.5%</mark>	-10.9%	-12.4%
	Median (maf)	13.8	13.3	13.4
	25th Percentile (maf)	12.8	12.0	11.2
	75th Percentile (maf)	15.1	14.6	14.5
	Minimum Year Flow (maf)	4.4	3.9	3.7
	Maximum Year Flow (maf)	43.8	44.3	44.3
Monthly	Peak Month	June	May	May
	Peak Month Mean Flow (kaf)	3,535	3,388	3,495
	Peak Month Maximum Flow (kaf)	14,693	10,830	12,991
- 180 mg	Month at Which Half of Annual Flow (Water Year) is Exceeded	June	May	Мау

Hotter temperatures decrease river runoff.

When it's hotter:

Plants evapo-transpirate more water.

Less rainfall makes it to the stream because more rainfall evaporates.

Wind picks up and transports more dust to snowfields in the Rockies.

Snow melts earlier and plants start evapo-transpirating sooner and longer.

Each 1° Celsius temperature increase causes runoff to decrease 7%.

Bureau of Reclamation Colorado River Basin Supply and Demand Study, Technical Report B, page B-56:

8.3.2 Summary of Changes in Climate

• Warming is projected to increase across the Basin, with the largest changes in spring and summer and larger changes in the Upper Basin than in the Lower Basin. Annual Basin-wide median temperature increases are projected to be approximately 1.3 °C, 2.4 °C, and 3.3 °C for 2025, 2055, and 2080, respectively, with less warming in winter and higher warming in summer.

How often is a Compact Call in place?

The risk of a Compact Call is high even without any additional Colorado af consumption.

		Decrease in fl	ow past Lees Ferr	y due to warming	temperatures
		0.0%	-7.5%	-10.9%	-12.4%
Increased Colorado acre	0	0%	7%	22%	31%
feet consumption of the Colorado River	100,000	0%	11%	31%	39%
	250,000	1%	22%	42%	53%
	800,000	22%	64%	83%	88%

This is the percent of time from 136 BC to 1992 that 10-year cumulative releases from Lake Powell are less than 82.3 maf. The above risk percents assume that New Mexico, Utah and Wyoming increase their consumption proportionally to keep Colorado out of the penalty box.

Scientists predict each 1 degree Celsius increase in temperature causes river flow to decrease 7%.

Evidence of Global Warming?

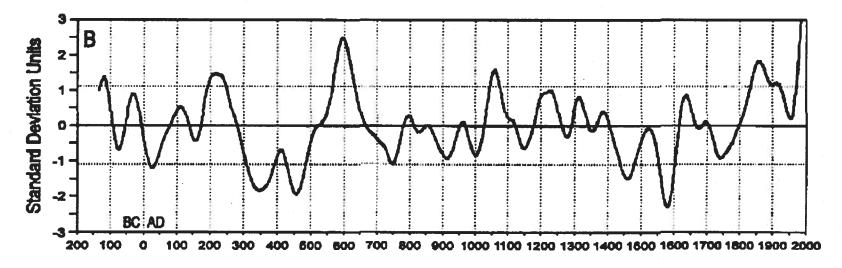
The Lake Mead average monthly evaporation rate as a percent of total acre feet volume is shown below, by decade. The 12-month sum of maximum evaporation rates jumped from 4.31% in 1983-1992 to 5.31% in 2003-2013.

. [1983-1992			1993-2002			2003-2013		
	Average	Min	Max	Average	Min	Max	Average	Min	Max
Jan	0.23%	0.22%	0.24%	0.23%	0.22%	0.24%	0.26%	0.25%	0.29%
Feb	0.21%	0.21%	0.22%	0.21%	0.20%	0.22%	0.24%	0.22%	0.26%
Mar	0.24%	0.23%	0.24%	0.24%	0.23%	0.25%	0.27%	0.25%	0.29%
Apr	0.29%	0.29%	0.30%	0.30%	0.28%	0.31%	0.34%	0.32%	0.36%
May	0.34%	0.33%	0.35%	0.34%	0.33%	0.36%	0.40%	0.37%	0.42%
Jun	0.41%	0.39%	0.43%	0.41%	0.39%	0.44%	0.48%	0.44%	0.53%
Jul	0.51%	0.48%	0.53%	0.52%	0.49%	0.54%	0.60%	0.55%	0.66%
Aug	0.54%	0.52%	0.56%	0.55%	0.52%	0.58%	0.63%	0.59%	0.70%
Sep	0.45%	0.43%	0.46%	0.45%	0.43%	0.47%	0.52%	0.49%	0.59%
Oct	0.33%	0.32%	0.34%	0.33%	0.31%	0.35%	0.38%	0.36%	0.43%
Nov	0.33%	0.32%	0.34%	0.33%	0.31%	0.35%	0.38%	0.36%	0.43%
Dec	0.28%	0.27%	0.29%	0.28%	0.27%	0.30%	0.32%	0.30%	0.36%
12 Mo total	4.15%	4.00%	4.31%	4.17%	3.99%	4.39%	4.82%	4.48%	5.31%

Rainfall variability 136 BC to 1992

Below is a graph of long term climate trends based on El Malpais tree ring data, fit to a 100-year smoothing spline to accentuate trends.

The 1580-1600 drought was so severe that practically no trees living today in the Southwest were living before then.



See: A 2129 year reconstruction of precipitation for northwestern New Mexico, Grisson H. http://agecon.nmsu.edu/fward/age384/spring-2010/readings/malpais1996%20

Colorado is consuming more than its Upper Basin share of Colorado River water.

Upper Basin share:	50,000 af	51.75%	11.25%	23.00%	14.00%	10-Year cumulative Penalty Box
Numbers in 1,000 af	Arizona	Colorado	New Mexico	<u>Utah</u>	Wyoming	<u>Colorado</u>
2001	37.6	2,328.8	402.7	966.5	429.9	-1,153.1
2002	37.4	2,122.6	333.8	811.2	437.9	-1,213.2
2003	36.0	2,079.3	383.8	877.6	436.6	-1,194.3
2004	38.2	1,893.1	407.7	830.0	368.7	-1,202.6
2005	37.1	1,856.1	466.3	853.2	405.1	-1,216.1
2006	36.8	2,152.6	393.4	933.4	320.8	-1,240.3
2007	36.9	2,257.9	414.7	991.5	419.9	-1,279.9
2008	35.9	2,401.9	446.0	904.1	393.3	-1,402.0
2009	36.4	2,325.7	411.9	945.4	398.5	-1,574.5
2010	<u>35.9</u>	2,207.4	398.1	983.0	377.2	-1,372.6
Average 2001-2010 (in 1,000 af)	36.8	2,162.5	405.8	909.6	398.8	
Percent of total		55.78%	10.47%	23.46%	10.29%	
Excess consumption		4.03%	-0.78%	0.46%	-3.71%	

Colorado has been using more than its 51.75% share of Upper Basin water every year since 1972.

If Lower Basin states made a Compact Call in 2010, Colorado would have to reduce consumption by 1,372,600 af before the other Upper Basin states would have to reduce their consumption. This is the 10-year penalty box. See Article IV(b), 1948 Upper Basin Compact.

Source: 1971-2005 consumption - Table 2-4, Annual consumptive Use in the Upper Basin for the Staes of Arizona, Colorado, New Mexico, Utah, and Wyoming, 1971-2008, The Colorado River Documents 2008, Bureau of Reclamation.

Source for 2006-10 consumption: Provisional Upper Colorado Basin Consumptive Uses and Losses Report 2006-10; http://www.usbr.gov/uc/library/envdocs/reports/crs/pdfs/cul2006-2010prov.pdf

Colorado gets out of the penalty box if Utah, New Mexico and Wyoming consume 265,300 af more each year (6.35% increase over average Upper Basin consumption from 2001-2010).

Upper Basin share:	50,000 af	51.75%	11.25%	23.00%	14.00%	100.00%	10-Year cumulative Penalty Box
Numbers in 1,000 af	Arizona	Colorado	New Mexico	<u>Utah</u>	Wyoming	<u>Total</u>	<u>Colorado</u>
2001	37.6	2,328.8	458.8	1,006.7	598.7	4,430.5	-1,016.0
2002	37.4	2,122.6	389.9	851.4	606.7	4,007.9	-938.9
2003	36.0	2,079.3	439.9	917.8	605.4	4,078.3	-782.8
2004	38.2	1,893.1	463.8	870.2	537.5	3,802.7	-654.0
2005	37.1	1,856.1	522.4	893.4	573.9	3,882.8	-530.3
2006	36.8	2,152.6	449.5	973.6	489.6	4,102.0	-417.4
2007	36.9	2,257.9	470.8	1,031.7	588.7	4,385.9	-319.8
2008	35.9	2,401.9	502.1	944.3	562.1	4,446.2	-304.8
2009	36.4	2,325.7	468.0	985.6	567.3	4,382.9	-340.1
2010	35.9	2,207.4	454.2	1,023.2	546.0	4,266.6	-1.0
Average 2001-2010 (in 1,000 af)	36.8	2,162.5	461.9	949.8	567.6	4,178.6	
Percent of total	0.88%	51.75%	11.26%	23.15%	13.84%	100%	100.00%
Increased consumption by state to remove Colorado from penalty box, in 1,000 af			56	40	169	265	

Colorado has been using more than its 51.75% share of Upper Basin water every year since 1972.

If Upper Basin states consume 265,300 more water each year on average, all Upper Basin states must bear a Compact Call. Or, Colorado could reduce its consumption by 284,500 af each year to reduce its consumption to 51.75% of Upper Basin consumption.

What is the average annual deficit experienced by Lower Basin States and Mexico?

		Decrease in flow past Lees Ferry due to warming temperatures				
)	0.0%	-7.5%	-10.9%	-12.4%	
Increased	100,000	595,000	-59,000	-278,000	-360,000	
Colorado acre feet consumption of the Colorado River	250,000	384,000	-187,000	-383,000	-464,000	
	800,000	-161,000	-587,000	-763,000	-829,000	

What is shown is the average annual acre-foot deficit experienced by Lower Basin States and Mexico.

For example, if runoff decreases 10.9%, Colorado consumes 100,000 more acre feet and the Upper Basin states increase their consumption to keep Colorado out of the penalty box, Lake Mead deliveries to Lower Basin States and Mexico *average 278,000 af less* than 8.25 maf each year over the entire 2,129 year study period.

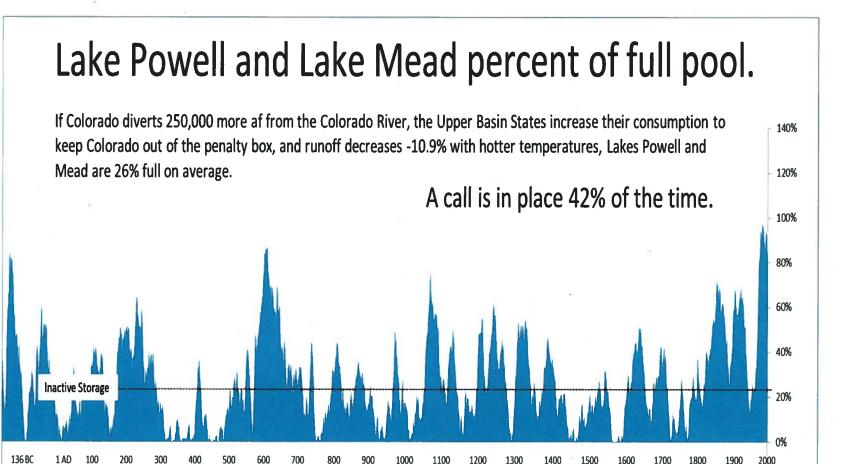
Lake Powell and Mead Operations Reconstructed since 136

What if Upper Basin consumption does not increase?

	Decrease in flow past Lees Ferry due to warming temperatures				
	0.0%	-7.5%	-10.9%	-12.4%	
Average surplus (deficit) experienced by Lower Basin states & Mexico	968,000	139,000	-87,000	-185,000	
Percent of time a Compact Call is in place	: - :	4%	13%	20%	

For example, if runoff decreases 10.9%, a Compact Call would be in place 13% of the time, and Lower Basin States and Mexico would be short 87,000 af each year on average over the entire 2,129 year study period.

Colorado alone bears the risk of a Compact Call as long as it's in the 10-year penalty box.



See: A 2129 year reconstruction of precipitation for northwestern New Mexico, Grisson H. http://agecon.nmsu.edu/fward/age384/spring-2010/readings/malpais1996%20

-20%

Ken Ransford, Esq., CPA, is the Recreation Representative and Secretary of the Colorado Basin Roundtable. He welcomes comments and questions at:

kenransford@comcast.net

Ken Ransford, P.C.

132 Midland Avenue, #3

Basalt, CO 81621

970-927-1200

Agenda Item Summary November 21, 2013

TO:

River Board

FROM:

Dorothea Farris

SUBJECT: Designation of Crystal River as Wild and Scenic

Dorothea Farris will provide a power-point presentation to the Board on the progress of the Crystal River Wild and Scenic designation.

Background Information: In order for a river to earn a National Wild and Scenic designation, it must go through the Wild and Scenic Rivers Act (WSR Act) Study Process. This process includes 3 steps, eligibility, suitability and congressional action. The eligibility step has been completed and identified 49 miles of the river as eligible for designation.

In the fall of 2012, educational forums were held to explore and gauge interest in the next step (suitability) of the designation phase. Beginning in 2013, local groups and interested members of the public held meetings on the suitability process and how to move forward.

A smaller group of three locals with historic knowledge and ties to the valley was tasked with contacting local ranchers, water rights holders and other entities to evaluate enthusiasm for the designation. After successful meetings, it is the opinion of the smaller group that there is great community support for the designation from Marble. Redstone and Carbondale. The group will meet with Pitkin and Gunnison County Commissioners in January 2014 to request support from these local governments as well.

Requested Board Action: Motion to support and recommend to the Board of County Commissioners endorsement of the designation of the Crystal River as Wild and Scenic and to move forward with next steps of the suitability phase through to congressional designation.

Agenda Item Summary November 21, 2013

TO:

River Board

FROM:

Chelsea Brundige – Public Counsel of the Rockies

Sharon Clarke – Roaring Fork Conservancy

SUBJECT: Overview of collaborative effort to protect Snowmass Creek flows and

need for gauging in 2014

Integrated Crystal River Project Proposal

Information: Ms. Brundige and Ms. Clarke will be presenting two items to the Board:

An update on progress by the Snowmass Capitol Creek Caucus, Snowmass Water and Sanitation District and others to reach agreement on measures to protect healthy flows in Snowmass Creek.

The development of a scope of work for the Crystal River Watershed that will integrate the results of several ongoing projects and studies to provide a comprehensive restoration action plan for the watershed.

Requested Board Action: None - Informational only

Attachments: Letter re: Snowmass Creek

Memo re: Integrated Crystal River Project Proposal

November 15, 2013

Pitkin County Healthy Rivers and Streams -River Board Courthouse Plaza 530 E. Main Street, 3rd Floor Aspen, CO 81611

Re: Overview of Collaborative Effort to Protect Snowmass Creek Flows and Need for Gauging in 2014

Ladies & Gentlemen:

As chair of the Water Committee of the Snowmass Capitol Creek Caucus (Caucus), I have requested time on the agenda for your regularly scheduled November 21 meeting to provide an update on progress by the Caucus, Snowmass Water and Sanitation District (SWSD) and others to reach agreement on measures to protect healthy flows in Snowmass Creek. Through this work, the Caucus and partners have identified the need for additional gages on the Creek, a 2014 project that contemplates a funding partnership including the Healthy Rivers and Streams Board of Pitkin County and others. The goal of this effort is to ensure that the current CWCB minimum instream flow is satisfied through the efforts of SWSD and downstream users, and that water rights can be administered. The Caucus appreciates the partnership of Roaring Fork Conservancy and other entities in this gauging effort.

Overview of Snowmass Creek Flow Protection

Snowmass Creek is shared by water users in two basins: the Town of Snowmass Village, the Snowmass Ski Area, and others in the Brush Creek basin, and irrigators and domestic well owners in the Snowmass Creek basin. Over three decades of confrontation as well as collaboration between the Caucus, SWSD, and the Aspen Skiing Company, several significant and unique things were accomplished related to Snowmass Creek:

- 1) Pursuant to a state Supreme Court decision, Snowmass Creek arguably became the most studied creek in Colorado as hydrologists, biologists and others worked to determine flow requirements for the Creek;
- 2) In 1996, the Colorado Water Conservation Board (CWCB) adopted a *tiered* minimum instream flow right for the Creek designed to take into account the type of water year, and at the same time balance human needs and ecosystem needs;
- 3) The Caucus and the SWSD agreed on the need for off-stream storage (Ziegler Reservoir) which could serve the Snowmass Ski Area and Village as well as buffer the Creek from diversions during low flows.

In 2012, the Caucus completed a study of the *Future of Flows in Snowmass Creek*, prepared by Lee Rozaklis of AMEC Environment and Infrastructure to assess the impact of Base Village build-out and other future water demands, climate change, and water management practices in each basin relative to satisfying the CWCB minimum instream flow requirements. Informed by this analysis, in the dry winter of 2012, SWSD's operation of Ziegler Reservoir and investment in water conservation and efficiency ensured that Creek flows did not drop below the CWCB minimum. The SWSD Board is poised to adopt the same operating goal for this

winter. For its part, the Caucus is reaching out to water users along Snowmass Creek and in HOA's to educate them about the need to protect the stream during low flow conditions and seek landowner support of voluntary conservation measures during such periods.

Need for Gauging

The AMEC study documents the ability of SWSD to operate Ziegler Reservoir to meet present and future water demands for municipal water and contracts with the Aspen Skiing Company for water for snowmaking AND still protect and bypass flows in Snowmass Creek. However, SWSD requires a weir and gage at its diversion on East Snowmass Creek to measure diversions and the minimum bypass flows. SWSD is pursuing engineering and planning of this infrastructure and would welcome HRSB as a partner in funding the installation of the gauging equipment.

At the same time, the Caucus is leading an effort to site and install flow gages lower on the Creek. These gages would determine that the CWCB minimum flows are being met at the lower end of the affected reach. The gages could be used for the administration of water rights and downstream "calls" as well as measuring flows and monitoring water quality parameters.

The Caucus is meeting with the CWCB, ColoradoDepartment of Water Resources, the Skiing Company, SWSD and others to determine:

- Gauging locations
- Ownership
- Installation costs
- 0&M Costs
- Data management requirements
- Data dissemination
- Appropriate and sustainable funding partnerships (already being discussed) to ensure that these important gages are operated effectively to support hard won conservation commitments and other flow improvements on the Creek for decades to come.

Significance of the Project

While it is not uncommon for water to be transferred out of one basin and used in another, it is very uncommon for water users who share the resource across 2 basins – in this case agricultural and municipal users - to cooperate in looking for ways to protect instream flows in the shared river or stream. Against the backdrop of decades of controversy, the partners in Snowmass are testing the potential to work across numerous divides, and through the administrative and legal complexities of water rights, to protect a shared creek and the ecosystems it supports. As local governments, conservation groups, water districts, public agencies and water users all over the state look for ways to "move the needle" on stubborn river restoration problems, the progress along Snowmass Creek generating genuine interest and enthusiasm.

Early in 2014, Chelsea Brundige would like to present a specific proposal to HRSB to partner with other entities in funding the installation and/or operation of gages needed to ensure the long-term success of this conservation partnership on Snowmass Creek.





MEMORANDUM

To: Pitkin County Healthy Rivers and Streams Citizen Advisory Board

From: Sharon Clarke and Chelsea Congdon

Date: November 15, 2013

Re: Integrated Crystal River Project Proposal

Roaring Fork Conservancy (RFC) and Public Counsel of the Rockies (PCR) are developing a very compelling scope of work for the Crystal River Watershed that will integrate the results of several ongoing projects and studies to provide a comprehensive restoration action plan for the watershed. Given the Board's interest and substantial funding to date for water resource-related initiatives in the Crystal River Watershed, RFC and PCR want to provide an overview of this exciting project. We plan to give a 10-15 minute PowerPoint presentation describing the project in detail, potential partners, a draft budget, and the intended outcomes next week. At that time, we will seek your feedback on project direction, and gauge the Board's interest in funding the project. RFC and PCR expect to submit a formal funding proposal to the Board in early 2014.

Project Overview

The Roaring Fork Watershed contributes 10% of flows to the Colorado River, although it comprises only .5% of the Colorado River Basin's land area. The Crystal River Watershed, while only 25% of the Roaring Fork Watershed's land area, contributes 50% of the peak flows. The Crystal River Watershed is an important watershed for exploring ways to "move the needle" on Colorado water issues, and perhaps western water issues more generally. The watershed possesses several attributes that make it a valuable case study for other river basins.

The Crystal River, like many rivers in the mountainous west, has been straight-jacketed by roads and railroads, buried in sediments from mining activities on unstable slopes, and dewatered through extensive irrigation and municipal diversions. But the Crystal River has been spared transbasin diversions and water development in its upper reaches. Thus, Crystal River water users (many of whom know each other personally) have a real opportunity to work collaboratively to explore and implement river restoration opportunities. Restoration work in the Crystal River Watershed would, in turn, inform the Colorado River Basin's Implementation Plan for the State of Colorado's Water Plan.

Against this background, RFC, PCR, the Colorado Water Trust, S.K. Mason Environmental, LLC, and resource experts from the U.S. Forest Service White River National Forest and Rocky Mountain Research

Station are currently working on several studies and restoration projects in the Crystal River Watershed. Our intention is to cast a broader net to integrate several of the larger ongoing projects to ensure that they are coordinated and that all of the major issues in the Crystal River Watershed are addressed (using a holistic watershed approach) and implemented in a logical sequence. This will include work with other local, regional, state, and federal entities, as well as landowners and managers, to identify the greatest opportunities to restore and maintain healthy biological and hydrologic functions in the Crystal River Watershed.

To this end, we are planning a Comprehensive Crystal River Forum to bring together resource experts, landowners and resource managers to identify near- and longer term tangible projects and studies. The forum will include discussion of potential funding sources, resources, and partners. The ultimate goal of the Forum is to identify those projects and studies that will definitively address the Crystal River's major water resource issues (sediment, lows flows, and degraded riparian and instream habitat). We anticipate holding the Forum in the spring of 2014.

The Comprehensive Crystal River Forum will build upon and integrate several ongoing and completed projects and initiatives:

- 1) Recent successes working with major water rights holders along the Lower Crystal River. This outreach was initiated following the Board-funded study conducted last fall during the record-setting drought, "A Snapshot Assessment of Two Impaired River Reaches."
- 2) The assessment of sediment sources in the Crystal River Watershed, and pilot study in Coal Basin. The Board provided almost \$50,000 to jump start the Coal Basin/Crystal River project, providing funding for a foundational workshop and report, education and outreach activities, and assessment of existing water quality data. This funding and the resultant workshop served to leverage a large state grant. Additionally, the Board provided funding to match state funding for the pilot project.
- 3) The snapshot assessment of flows in the Lower Crystal River conducted in 2012 and 2013.
- 4) Community Office for Resource Efficiency's and Ruedi Water and Power Authority's recently initiated Roaring Fork Watershed Regional Water Efficiency Plan (which will include Carbondale).
- 5) An innovative fine-scale modeling of flows in the Lower Crystal River to quantify the role of water conservation in improving flows funded by the Colorado Healthy Rivers Fund and the Environment Foundation.
- 6) Various other successes, including the West Divide settlement with Pitkin County that retired conditional storage rights and plans for a reservoir in the Upper Crystal River, and the Wild and Scenic designation initiative for the Upper Crystal River.
- 7) The identification of the planning and project development needed to quantify the relationship between flows and fish habitat in the Crystal River. (Irrigators often state that they would be more willing to bypass water for instream flows if they believed the water would have some direct benefit to the river and its fisheries).

Prior to the Forum, we will convene experts in hydrology and biology, water law and policy, and water resources engineering, as well as water users, to review and evaluate current knowledge, and to vet ideas for improving the river's function. The intention of these pre-Forum meetings will be to synthesize what is known, and identify any areas that need additional research that could be conducted prior to the Forum (making the Forum more substantive and productive). These meetings will also be used to identify projects (with approximate costs and benefits and potential partners) that can be immediately implemented, such as riparian restoration or head gate improvements. These meetings will be held during the winter of 2013-14.

RFC and PCR's project will assimilate all of the good work that has been done on the Crystal River to-date, and will result in an "Action Plan" – with specific restoration projects and studies identified — that will bring about significant and measured sustainable improvements in the health of the Crystal River. It will demonstrate the benefits of a well-researched vision, and a well-directed and strategic public and private partnership.

We are anxious to hear your response to these ideas. This is a very exciting opportunity for the Crystal River, and for all of us in this watershed who continue to work to make a difference in river health and restoration.

We look forward to meeting with you next week.

Sharon Clarke, Watershed Action Director, Roaring Fork Conservancy & Chelsea Congdon, Water Program Director, Public Counsel of the Rockies

Show Clake Classe Brudge

Agenda Item Summary November 21, 2013

TO:

River Board

FROM:

John Ely, Pitkin County Attorney

SUBJECT: Water Rights Protection Act - HR 3189

Discussion of Water Rights Protection Act and desire of Board to express an opinion.

Attachments: House Resolution 3189

Summit County's Memorandum

American Farm Bureau Federation Letter



113TH CONGRESS 1ST SESSION

H. R. 3189

To prohibit the conditioning of any permit, lease, or other use agreement on the transfer, relinquishment, or other impairment of any water right to the United States by the Secretaries of the Interior and Agriculture.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 26, 2013

Mr. Tipton (for himself, Mr. Bishop of Utah, Mr. McClintock, Mr. Amodel, and Mr. Polis) introduced the following bill; which was referred to the Committee on Natural Resources, and in addition to the Committee on Agriculture, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

- To prohibit the conditioning of any permit, lease, or other use agreement on the transfer, relinquishment, or other impairment of any water right to the United States by the Secretaries of the Interior and Agriculture.
 - 1 Be it enacted by the Senate and House of Representa-
 - 2 tives of the United States of America in Congress assembled,
 - 3 SECTION 1. SHORT TITLE.
 - 4 This Act may be cited as the "Water Rights Protec-
 - 5 tion Act".

SEC. 2. TREATMENT OF WATER RIGHTS.

- The Secretary of the Interior and the Secretary of Agriculture—
- 4 (1) shall not condition the issuance, renewal, 5 amendment, or extension of any permit, approval, li-6 cense, lease, allotment, easement, right-of-way, or 7 other land use or occupancy agreement on the trans-8 fer or relinquishment of any water right directly to 9 the United States, in whole or in part, granted 10 under State law, by Federal or State adjudication, 11 decree, or other judgment, or pursuant to any inter-12 state water compact and the Secretary of the Inte-13 rior and the Secretary of Agriculture; and
 - (2) shall not require any water user to apply for a water right in the name of the United States under State law as a condition of the issuance, renewal, amendment, or extension of any permit, approval, license, lease, allotment, easement, right-ofway, or other land use or occupancy agreement.

14

15

16

17

18

19

PETROS & WHITE LLC

ATTORNEYS AT LAW

MEMORANDUM

To:

GARY MARTINEZ

FROM:

CHARLES B. WHITE

DATE:

OCTOBER 14, 2013

RE:

H.R. 3189

This memorandum summarizes the concerns of the Board of County Commissioners of Summit County on H.R. 3189, which is entitled the "Water Rights Protection Act."

H.R. 3189 is ostensibly a response to a Forest Service requirement that title to water rights used in connection with ski areas operating on public land be transferred to the United States as a condition of the issuance or renewal of the ski area permits. In *National Ski Areas Association, Inc. v. United States Forest Service*, Civil Action No. 12-cv-0048-WJM (December 19, 2012), the U.S. District Court for the District of Colorado invalidated on procedural grounds the 2012 Forest Service Directive that would have required such transfers. The Forest Service is in the process of revising that directive.

Summit County has participated in the formulation of the revised Forest Service policy and submitted comments stating, among other things, that there may be viable alternatives to a title transfer that would protect the interests of the Forest Service in water rights used within the ski area boundary. Those comments are attached to this memo.

As introduced, however, H.R. 3189 has a much broader reach than ski area permits issued by the Forest Service. First, it applies to all agencies in the Departments of Agriculture and Interior. In addition to the Forest Service and Bureau of Land Management, that would include agencies such as the National Park Service and U.S. Fish and Wildlife Service that do not issue permits for ski areas, but are involved in managing and protecting water resources and fish and wildlife, including endangered species.

Second, the bill applies generally to any "issuance, renewal, amendment, or extension of any permit, approval, license, lease, allotment, easement, right-of-way, or other land use or occupancy agreement." This would include permits for the use and occupancy of federal land in connection with dams, reservoirs, pipelines, and other water development structures that have no relationship to ski areas.

Third, the bill as introduced prohibits the agencies from requiring a "transfer or relinquishment of any water right directly to the United States, in whole or in part." That language is not limited to a transfer of title, but instead can be interpreted broadly to prohibit any permit requirement that water that might otherwise be diverted or stored be left in the stream for protection of fisheries, the riparian environment, or other values. While the prohibition relates to a transfer or relinquishment "directly to the United States," a bypass flow requirement that is imposed by a federal agency under federal law could be deemed to satisfy that criterion.

The preamble of H.R. 3189 also states that the bill is intended to preclude any "other impairment" of a water right, which supports a broad reading of the legislative intent. At best, the bill is deeply ambiguous and creates a substantial risk that a reviewing court would interpret it to prohibit bypass flow conditions in any land use permit, endangered species or Clean Water Act §404 consultation, or other action by the Departments of Interior or Agriculture.

Subsection 2 of the bill prohibits a requirement that a water user apply for a water right in the name of the United States under State law as a condition of the issuance of a permit or other federal action. While that section is also broadly worded, the historical context of such requirements has been limited to ski area, livestock grazing, and other permits under which the beneficial use of water occurs on the permitted federal land.

The potential effect of the bill on bypass flows that may be required as condition of water projects, and transmountain water projects in particular, prompted Chris Treece to recommend that the River District Board oppose the bill unless it was amended. In an October 2, 2013 memo, Chris wrote that:

I'm concerned this bill has unintended adverse consequences. Had H.R.3189 been law in the 1960s, the bypass conditions on the individual tributary diversions of the Fry-Ark Project would have been impermissible. The River District and the West Slope broadly supported those bypass requirements and both the environment and West Slope water users are the direct beneficiaries of those limiting permit conditions. ... Of perhaps greatest concern, H.R.3189 would not even allow water-related conditions in an existing permit that has been operative for as long as forty years to be included in the renewal, amendment or extension of that same permit post passage of this bill.

Bypass flow requirements on transmountain diversion projects are of critical importance in protecting the environment in the headwater counties. For example, permit conditions on the operation of the Dillon Reservoir/Roberts Tunnel system, the Moffat Tunnel system and Williams Fork Reservoir, and the Homestake Project protect fish habitat and fish populations in the Blue, Fraser, and Eagle Rivers, respectively. Legislation that jeopardizes these restrictions upon the renewal or amendment of existing permits, or the issuance of new permits for other transbasin projects, would radically alter the existing stream conditions. Since the bill also applies to the U.S. Fish and Wildlife Service, it would also cast doubt on programs to protect endangered species, including the Colorado River Endangered Species Recovery Program.

The Federal District Court in Colorado has held that the Forest Service has the statutory authority to impose bypass flows as a condition to the issuance of land use permits for water projects. Trout Unlimited v. U.S. Dep't of Agric., 320 F.Supp.2d 1090, 1105, 1106 (D. Colo. 2004), appeal dismissed at 441 F.3d 1214 (10th Cir. 2006). The court cited, among other cases, County of Okanogan v. Nat'l Marine Fisheries Serv., 347 F.3d 1081, 1085 (9th Cir. 2003 and PUD No. 1 v. Washington Dept. of Ecology, 511 U.S. 700, 114 S.Ct. 1900, 128 L.Ed.2d 716 (1994). The proponents of H.R. 3189 evidently intend the bill to alter that existing law. However, it is not apparent from the press releases accompanying the bill that all of the sponsors appreciate its significance.

We understand that in response to Mr. Treece's objections, the proponents of the bill negotiated a potential amendment that would substitute the words "surrender of possession" for "relinquishment" in the preamble and subsection 1 of the bill. If anything, that amendment would only increase the ambiguity in the legislation and make it more, rather than less, likely that a reviewing court would invalidate a requirement to leave in the stream a portion of the water that would otherwise be divertible under a water right. Since a water right is a usufructuary interest, it is difficult to articulate any other interpretation of this language. A bypass flow condition in a land use permit is essentially a requirement to "surrender possession" of a right to use a portion of a water right.

We also understand that the River District staff has suggested that language be included in a committee report to support an argument that bypass flows would not be prohibited by the bill. While such language might be helpful, it has not been drafted, there is no assurance that it would in fact appear in a report or that contradictory language might not appear elsewhere in the legislative record, and some federal judges are increasingly skeptical of using legislative history as a tool to interpret Congressional legislation.

The attached proposed amendment to H.R. 3189 would resolve the ski areas' dispute about the Forest Service permit policy directly without jeopardizing the broader federal authority to require bypass flows as a condition of land use permits. Alternatively, the sponsors of the bill could hold it in abeyance until the Forest Service issues its revised permit policy, and then revisit the issue to see if there is in fact a need for legislative intervention.

Comments of Summit County Board of Commissioners Concerning the Water Rights Clause in Ski Area Permits To: skiareawaterrights@fs.fed.us

These comments are submitted by the Board of County Commissioners of Summit County, Colorado. Summit County appreciates the opportunity to provide input to the Forest Service on this important issue.

Background

Summit County is the home of four major ski areas that are located in whole or in part on National Forest System lands: Copper Mountain, Breckenridge, Keystone, and Arapahoe Basin. Together, these areas account for approximately 33% of the annual skier visits at all ski areas in Colorado. Downhill skiing and snowboarding and the associated lodging, restaurant, retail, and other related business activity represent a very significant portion of the economic base in the County. Ensuring the long-term viability of Summit County's recreational economy, including the use of public lands for winter sports, is a high priority for the County Government.

Snowmaking is an important element of ski area operations and is likely to become even more critical with increased temperatures and changes in the form and timing of precipitation at high elevations in Colorado. For example, the Bureau of Reclamation's December, 2012 Colorado River Basin Water Supply and Demand Study notes that "[p]rojected changes in climate and hydrologic processes include continued warming across the Basin, a trend towards drying (although precipitation patterns continue to be spatially and temporally complex) increased evapotranspiration and decreased snowpack as a higher percentage of precipitation falls as rain rather than snow and warmer temperatures cause earlier melt." According to the Kottke National End of Season Survey 2011/12 Final Report, the Rocky Mountain resorts reported a decline of 39% in average snowfall in the 2011/2012 season. Rocky Mountain resorts noted an 8.5% decrease in skier visits while Colorado visits fell 9.8%. Summit County's ski resorts have enabled their businesses to withstand dry spells by increasing their snowmaking capability, thereby maintaining a stable base throughout the winter.

In Colorado, snowmaking requires not only a significant capital investment in physical facilities, but also sufficient water rights to enable diversions from rivers and streams in the low-flow seasons of the year. The Summit County ski areas depend on a highly complex combination of water rights that were purchased and/or appropriated under state law, plans for augmentation and exchange to meet the demands of senior downstream water rights, and sophisticated agreements with other water users and governmental agencies, including the U.S. Bureau of Reclamation, State of Colorado, Denver Water Department, Colorado Springs Utilities, Summit County Government, and local jurisdictions within the County. Releases from storage are an important aspect of these operations. In many cases, the storage facilities are located far from the snowmaking facilities, are owned by third parties, and are operated under contractual agreements that have taken years to negotiate and implement. Management and protection of these rights requires diligent and proactive efforts. For example, Clinton Gulch Reservoir, which is central to snowmaking operations in Summit County, is owned by the Clinton Ditch & Reservoir

Company, in which Summit County Government is a shareholder. The affairs of the Company are managed by a board of directors with over twenty years of experience in water rights issues in the Blue River basin.

General Principles

Summit County Government would like the opportunity to participate in the development of a new or revised ski area water rights clause and to comment on proposals that are put forth by the Forest Service, the ski industry, or other entities and individuals. For the purpose of these initial comments, the County requests the Forest Service to consider the following general principles:

- 1. Sufficient water, water rights, storage and diversion facilities, and related intergovernmental and private contractual agreements for snowmaking, domestic, sanitation, and other water uses associated with ski areas operating on public land (collectively, "ski area water rights") are essential to the long-term viability of the ski industry in Colorado.
- 2. Sufficient ski area water rights should continue to be available to both current and future holders of ski area term special use permits in order to protect both the individual business operations and the local recreation economy.
- 3. It would be very difficult, if not impossible, for a new permit holder to replicate the complex legal and contractual arrangements and acquire the ski area water rights on which snowmaking and other water uses at any of the Summit County ski areas currently depend. Acquisition of the existing ski area water rights is the most practical option for a new permittee.
- 4. Ski area water rights are property rights under Colorado State law and are entitled to protection under the United States and Colorado Constitutions.
- 5. The ski industry has historically been able to acquire sufficient ski area water rights, enhance those rights to account for changed conditions, and protect those rights against competing claims for water. The Forest Service should give careful consideration to the consequences of any federal regulations that would create disincentives for private investment in ski area water rights.
- 6. Ski area water rights represent a capital investment in the operations that are permitted by the United States on public land and in many respects are similar to other capital investments that support the operations, such as snowmaking equipment, lifts, and other on-mountain facilities. However, ski area water rights are often located on private or other non-federal land, and there are legal and practical differences between ski area water rights that are located within and outside of the permit area. The Forest Service may wish to consider comparable treatment of physical facilities and ski area water rights that are located within the permit area, while recognizing the separate issues that are presented by off-site water rights.
- 7. Ski area permittees have traditionally negotiated the sale of capital investments, including ski area water rights, to new permit holders as part of the sale of the ongoing business operations

and termination and reissuance of the term special use permit. To the extent that this practice continues in the future, the viability of the ski areas will be maintained as a logical outcome of these market transactions. The Forest Service should give careful consideration to the consequences of creating obstacles to arms-length business transactions that would otherwise result in the transfer of sufficient ski area water rights to the new permittee.

- 8. There are significant differences in the laws governing the acquisition, use, and disposition of ski area water rights among the many jurisdictions in which ski areas on Forest Service lands are located. It may not be possible for the Forest Service to adopt a uniform ski area water rights clause that will be effective in every jurisdiction.
- 9. Ownership of ski area water rights by the Forest Service or other governmental agencies may in some cases be inconsistent with the foregoing principles.
- 10. There is a concern that a ski area permittee might dispose of ski area water rights that are necessary for continued operations, either during the term of the permit or in the event of termination of the permit. The County is not aware of any instances in which this has occurred. During the term of the permit, requirements to continue to operate snowmaking and other facilities in accordance with the approved master plan may be sufficient. The principal risk of an unfavorable outcome may be limited to situations in which an existing permit expires or is terminated and the new permittee (if any) has not acquired sufficient ski area water rights. It is conceivable that the existing permittee could retain or sell water rights that have historically been used at the ski area. This could, for example, become an issue in the case of a single operator that has the ability to allocate water among multiple resorts. An independent determination by the Forest Service of whether the ski area water rights proposed to be acquired by a new permittee are sufficient for future operations may have value as a condition of approval of the new permit.

Summit County is interested in working with the Forest Service and the ski industry to examine the need for new or revised ski area water rights clauses and craft solutions that are consistent with the foregoing principles.

Thomas Davidson, Chairman

Karn Stiegelmeier, Commissioner

Dan Gibbs, Commissioner

113 th CONGRESS H.R
To prohibit the condition of any permit, lease, or other use agreement on
the transfer, surrender of possessionrelinquishment, or other impairment of of title
to any water right to the United States by the Secretaries of the Interior and
Agriculture.
IN THE HOUSE OF REPRESENTATIVES
Mr. Tipton introduced the following fill; which was referred to the
Committee on
A BILL
To prohibit the condition of any permit, lease, or other use agreement on
the transfer, or surrender of possessionrelinquishment, or other impairment of
title to any water right to the United States by the secretaries of the Interior and
Agriculture.
Be it enacted by the Senate and House of Representa-
2 tives of the United States of America in Congress assembled,
3 SECTION 1. SHORT TITLE.
4 This Act may be cited as the "Water Rights Protec-

5

tion Act."

1	SEC. 2. TREATMENT OF WATER RIGHTS
2	The Secretary of the Interior and the Secretary of
3	Agriculture –
4	(1) shall not condition the issuance, renewal,
5	amendment, or extension of any permit, approval,
6	license, lease, allotment, easement, right-of-way, or
7	other land use or occupancy agreement on the transfer
8	or surrender of possession relinquishment of of title to any water right
9	directly to the United States, in whole or in part, granted
10	under Sstate law, by Federal or State adjudication,
11	decree, or other judgment, or pursuant to any inter-
12	state water compact; and the Secretary of the Inte-
13	rior and the Secretary of Agriculture; and
13	(2) and the Secretary of the Interior and the Secretary of
14	Agriculture shall not require any water user to apply for or acquire
15	a water right in the name of the United States
16	under State law as a condition of the issuance,
17	renewal, amendment, or extension of any permit,
18	approval, license, lease, allotment, easement, right-of-
19	way, or other land use or occupancy agreement.

ph. 202.406.3600 f. 202.406.3606 www.fb.org

October 4, 2013

The Honorable Scott Tipton
218 Cannon House Office Building
Washington, DC 20515

The Honorable Jared Polis 1433 Longworth House Office Building Washington, DC 20515

Dear Reps. Tipton and Polis:

On behalf of more than 6 million Farm Bureau member families across the United States, I commend you for your introduction of H.R. 3189, the Water Rights Protection Act. The American Farm Bureau Federation endorses the Tipton-Polis bill, and will work closely with you to broaden bipartisan support for this measure and to gain its swift consideration and approval by the House of Representatives.

H.R. 3189 grants no new rights to any party, nor does it in any way infringe on existing rights of individuals, states or the federal government. This legislation simply reaffirms what has been existing law for generations and which is expressed in numerous places in federal law, including the Mining Act of 1866; the 1897 Organic Act establishing the U.S. Forest Service; the Taylor Grazing Act; and the Federal Land Policy and Management Act of 1976.

There is no provision in federal law authorizing or permitting the Forest Service or the Bureau of Land Management to compel owners of lawfully acquired water rights to surrender those rights or to acquire them in the name of the United States. Thus, H.R. 3189 does nothing more than assure holders of BLM or Forest Service permits that their lawfully acquired rights will not be abridged and that federal agencies may not unlawfully use the permit process to acquire rights they do not currently possess.

We look forward to working with you on this important legislation and again commend you for your leadership in this important area.

Sincerely,

Bob Stallman President