

# Upper Colorado River Endangered Fish Recovery Program

Dated: July 12, 2013

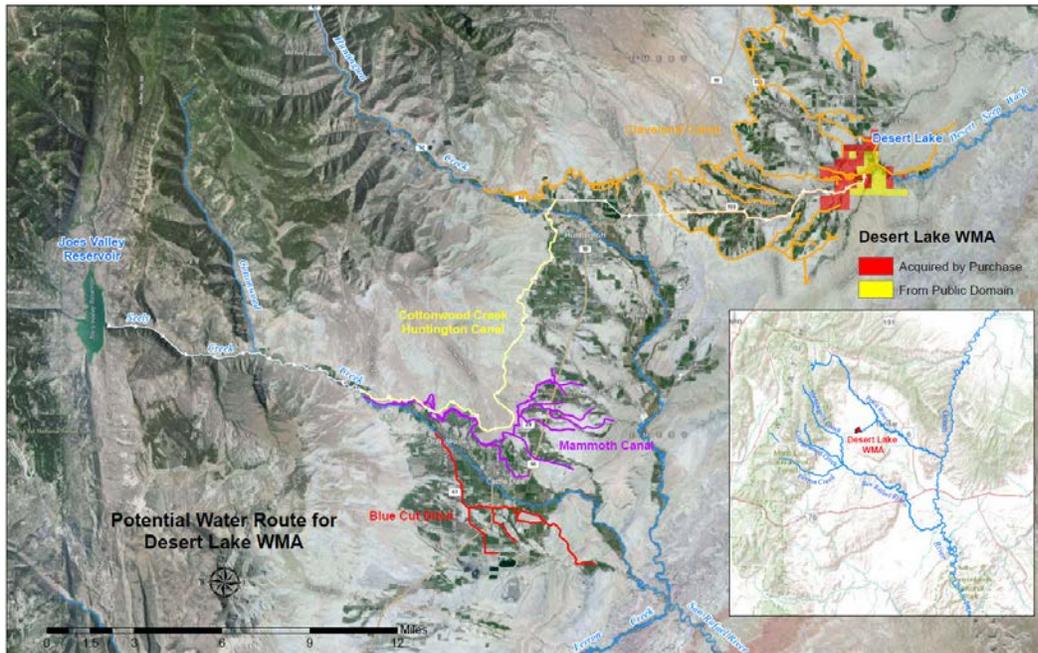
## July 11, 2013 Water Acquisition Committee Meeting Summary

Participants: Kevin McAbee, James Greer, Melissa Trammell, Michelle Garrison, Tom Pitts, Dan Luecke, Tom Chart, Brent Uilenberg, Gene Shawcroft, Laura Belanger, Jana Mohrman, Angela Kantola, Justin Record, Jonathan Jones, Jeff Hearty, Wayne Pullan.

Assignments are indicated in the document in bold, preceded by a “>”.

### **CONVENE 9:00 a.m.**

1. Review 2/28/13 meeting summary – The summary was approved as written.
2. **Water for the San Rafael River (3cfs)** – Background of pending draft Blue Cut EA regarding the San Rafael River – Justin Record and Wayne Pullan of Reclamation provided an update on this project. The Mammoth and Blue Cut canals in Emery County are going to be piped, States can use Basin MOA funds for O&M of CRSP components. Reclamation had concerns about potential impacts to this Emery County project if U.S. Fish and Wildlife Service were able to exercise its long-dormant 1880’s water right. To remove this uncertainty, a two-part agreement has been proposed. 1) In exchange for the Service foregoing use of its dormant water right, Reclamation would: a) provide 3 cfs in the San Rafael River delivered from Cottonwood Creek year round; and b) operate the gage at Desert Lake to be sure Desert Lake gets its full complement of water. 2) Reclamation will acquire the 3 cfs and deliver it at Mill Ck diversion to provide to the San Rafael. There are no major diversions below the Ferron Creek confluence, so Utah believes the UDWR water right will protect the flows in the lower river where they are working on an instream flow.



Under the proposed agreement:

- The uncertainties about the Service water right and Desert Lake water would be removed;

- Blue Cut and Mammoth canals would be piped;
- “Wet” water would be provided to the San Rafael;
- Water from Desert Lake might be available to augment flows in the Price River in the future; and
- Upper reaches of the San Rafael also would benefit.

The Recovery Program is not party to the agreement, but as it is of interest to the Program, Reclamation and Utah wanted to keep the Water Acquisition Committee informed.

3. **Final draft of the Duchesne River Workgroup** Water Management Report – Kevin McAbee reviewed the 2004-2011 Water Management Report from the Duchesne River Working Group. The report is a history of the Working Group and how they’ve been managing flows toward meeting the requirements of the 2005 Duchesne Biological Opinion. The Group has worked to meet the following priorities (average annual needs), focusing primarily on the first three for baseflows to maintain biological productivity in the river:

Priority 1 (50 cfs target from July 1 through October 31): 1,337 acre-feet

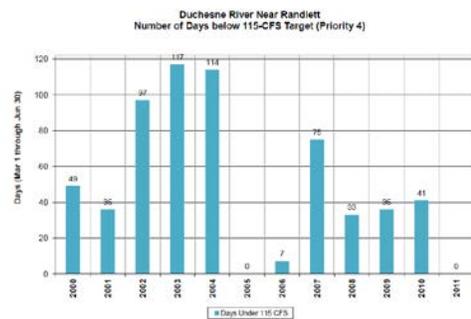
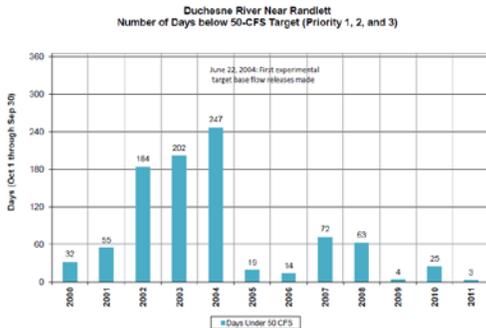
Priority 2 (50 cfs target from March 1 through June 30): 853 acre-feet

Priority 3 (50 cfs target from November 1 through February 28): 187 acre-feet

Priority 4 (115 cfs target from March 1 through June 30): 5,893 acre-feet\*

\*This value includes the 853 acre-feet required to meet the Priority 2, 50-cfs target.

Considerable improvement has been made over time in meeting the first three priorities for base flows. Performance in meeting the fourth priority for spring flows deep enough to allow movement of a large-bodied predator (Colorado pikeminnow), has not been as impressive, as the Group has focused on saving water for low flows.



The progress in meeting targeted base flow recommendations has been made due to the cooperation of the DRWG membership. The voluntary cooperation exhibited by water right holders along the Duchesne River, that has allowed flow releases to bypass their diversions, has been key in meeting the recommendations. Coordinated efforts need to continue to acquire, as possible, and deliver water to meet target base flow recommendations. Through the work and cooperation of all parties of the DRWG, progress will continue to be made. Kevin believes the efforts to date are in compliance with the BO and will continue to improve.

Tom Pitts asked about endangered fish response in the Duchesne; Tom Chart said we haven’t received reports from the Ute Tribe in the past couple of years and the nonnative fish/fish community monitoring may not have occurred in 2012, but he’s hopeful it will resume as the new Tribal Business Committee becomes familiar with this and related work.

#### **4. Draft White River Management Plan Scope of Work – PDO seeks WAC approval**

Study Goal: Develop a management plan that: 1) identifies depletion scenario; 2) uses (and refines) the Recovery Program’s draft endangered fish flow recommendations and current hydrology to identify the effects of past and future water development on endangered fish habitat; 3) develops flow recommendations for the White River and 4) identifies recovery actions needed to offset depletion effects. A federal-state cooperative or other agreement to implement the resultant management plan will constitute the federal action (likely via USFWS participation) that serves as the basis for a Section 7 consultation and development of a White River PBO.

End Products: A final White River Management Plan with flow recommendations and NEPA compliance, implemented via a signed cooperative or other agreement.

The Colorado state legislature approved the entire amount requested (\$250K), contingent upon sufficient incoming tax revenue. >Michelle Garrison will keep the Committee informed as to whether revenues are sufficient to make the full amount available.

Tom Pitts asked if the Ute Tribe will be part of the cooperative agreement and suggested they should be a part of the work plan development. Tom Chart agreed we’ll need to provide the Tribe every opportunity to be involved. James Greer noted that almost all of the potential water use is the Tribe’s potential water right. James asked about schedule where talks about stakeholder meetings in 2013; the group agreed we’re still identifying stakeholders (and should add that as a task) and also revise the schedule to fall 2013 for public meetings. >James will provide some names and contacts to Jana and Jana also will include folks that participated in earlier conference calls. For Colorado, the Yampa/White Roundtable will be key for contacting stakeholders.

Likely CWCB will hire the consultant, but >Michelle will explore other entities, as well (e.g., NFWF).

Water Acquisition Committee approved the scope with Tom Pitts’ revisions and the schedule/task change above; it now goes to the Management Committee for approval. >Jana will make changes and send it to Management Committee with copy to Water Acquisition Committee.

#### **6. Basin Updates: Grand Valley Project** the new General Manager is Mark Harris, replacing Dick Proctor.

#### **7. Green River Flow protection**

Utah has refined and completed their water rights model for the Green River from Flaming Gorge to the confluence of the Colorado River based on historical data (1970-2005).

Additional runs are still pending from Reclamation. Reclamation has incorporated some of the Basin Study model into the Flaming Gorge Operations model and can’t provide the information until it’s thoroughly vetted and the model is peer-reviewed (slated for July). James said they received some datasets this week, but they are not yet fully peer-reviewed (another couple of weeks).

A subset of the GRUWAT team will convene again to discuss how to incorporate the new data provided Reclamation and how best to analyze and provide the final report.

Future: Meeting of the technical GRUWAT to talk about how to run the analysis.

Utah Water Rights will try to:

- 1) Incorporate the data from Heather into the Utah's water rights model
- 2) Run the New Scenarios
- 3) Provide the new results.

Next discuss how the data is analyzed. Laura Belanger (WRA) will do a similar analysis on these results, like she presented at the last GRUWAT meeting.

Although the modeling has taken longer than anticipated, James said he thinks we're going to have a really good product in the end.

Tom Pitts asked if idea to protect releases from Flaming Gorge to St. George pipeline is still an option; James said it's still being considered. Tom asked if the work plan schedule has been updated; James said the schedule is about a year behind, but the schedule hasn't been officially updated. Tom Pitts suggested >revising the schedule in the work plan and in the RIPRAP, as appropriate.

8. **Geomorphology Committee established** – the goal of this group is to test, evaluate, and revise the flow recommendations as necessary in order to defend them. To delist the endangered fish the U.S. Fish and Wildlife Service and the Program has agreed that fish flows need to be legally protected, per the species recovery plans. The group needs to ensure that we are asking the correct questions regarding our flow recommendations, gathering the right information to answer those questions and revise the recommendations - as expeditiously as possible. Committee members include: Kirk LaGory Chairman (Argonne Labs), Tom Chart (PDO), Dan Luecke (WRA), Tom Pitts (Water Users), Jana Mohrman (FWS), John Pitlick (CU), John Schmidt (USGS), Justin "Toby" Minear (USGS), Paul Grams (USGS), Bob Mussetter (Tetrattech), Cory Williams (USGS), David Lytle (USGS), David Topping (USGS).

Status from the second Geomorphology Committee meeting:

The group familiarized themselves with a range of methodologies for geomorphic research.

John Pitlick, CU professor who published geomorphology studies that Gunnison and Colorado River flow recommendations were based on, strongly recommended gathering bed load measurements in the Gunnison River as a first priority to validate those flow recommendations.

The group recognized biological considerations should direct future sediment transport investigations (e.g., there are known and historical pikeminnow spawning areas on the Gunnison and Colorado mainstem; pikeminnow nursery areas on the Colorado and Green Rivers).

Kirk LaGory (Argonne) and Tom Pitts suggested the group focus on in-channel processes, and prioritize the important reaches.

NEXT STEP> Narrow discussions to important reaches, Kirk LaGory offered to review the

Recovery Program's 'Priorities for Geomorphology' document (LaGory et al. 2003) to help the July 29<sup>th</sup> discussion focus on the most important reaches.

## **9. Review the draft FY14-15 work plan (Angela 30 min)**

The budget table emailed by Angela (June 21<sup>st</sup>) has notes on SOW's that do not appear below, but are Water Acquisition Committee-related. The SOWs are found at <http://www.coloradoriverrecovery.org/documents-publications/work-plan-documents/project-scopes-of-work.html>

WAC #8 Recovery Program Gage O&M (budget includes #8a) – Jana said a real-time temperature gauge might be more useful at Palisade than Cameo, and is discussing this with USGS.

WAC/BC # 19 Hydrology Support - *Tom Pitts: For Task 2, add references to support for Gunnison PBO.*

WAC # 70 Colorado Instream Flow Protection – >Michelle will submit the SOW to the Water Acquisition Committee.

WAC #71 Colo. R. Decision Support Sys – Michelle said Colorado has funds (\$250K) from the Colorado Water Availability Study to get the Yampa and Colorado depletion accounting reports done in FY14.

WAC # C-9 O&M for Elkhead releases

WAC/MC # C-34 OMID efficiency improvements – *Tom Pitts: The section entitled “III. Study Background/Rationale and Hypotheses” needs to be updated. The description indicates that capital construction costs will continue to be incurred in 2016. Please display those out year costs.* >Brent will update and provide best estimates for outyear capital costs. Brent says he believes they can award the reregulating reservoir in FY14, even based on a worst-case budget scenario.

Price River - >Jana will provide some background information and potential elements of a scope of work and share that with the Water Acquisition Committee. The Price River Enhancement Committee working with BLM will be good to work with on this, as they have some similar objectives.

IE/WAC 12C-P Coord. Res. Ops

WAC/MC FR #? Draft White River Management Plan & PBO

*Tom Pitts: As indicated in the agenda, scope of work/schedule is needed indicating the expenditure of \$250,000 provided by CWCB plus in-kind support provided by PDO/FWS hydrology support. The \$250,000 needs to be incorporated into the Program Highlights expenditure charts as it is expended.*

- 10.** Schedule next meeting and suggest agenda items: Jana will conduct a Doodle poll later. Upcoming agenda items will include Green River flow protection, geomorphology, “April hole” white paper, White River update, and CFOPs report (draft out by August 31).

## **11. Current Flow updates**

### **15-mile Reach**

#### **2013 April Hole at Palisade**

Background: A “perfect storm” occurred this year due to lack of snow melt from late cold conditions, beginning of the irrigation season in April, low soil moisture, and low reservoirs holding water due to the previous year of drought.

Description of conditions: For 28 days (Apr 2 – Apr 29) flows at Palisade were less than the minimum base flow target of 810 cfs. For some period during 5 days this April flows were below 54 cfs.



Photo by Doug Osmundson at 32 Road on April 27, 2013 at 5:18pm (100 cfs provisional USGS)

Possible effects of the 2013 "April Hole" Concerns expressed by biologists; Tom Czapla, Dale Ryden, Doug Osmundson

1. Razorbacks spawn on the rising limb of the hydrograph this could possibly impact spawning cues.
2. Denies access to habitats fish would otherwise use this time of year (backwaters, oxbow channels, etc.).
3. The endangered fish are stressed as they crowd together. They compete for space and food and are forced into closer proximity to piscivorous fishes in remaining habitats.
4. Fish use extra energy and resources that their bodies might otherwise put towards things like getting ready for spawning trying to find habitat and escaping piscivorous fish.

5. Lastly, low flow means shallow clear water, making fish more vulnerable to avian predators (native fish rely on deeper, turbid water to hide from birds).

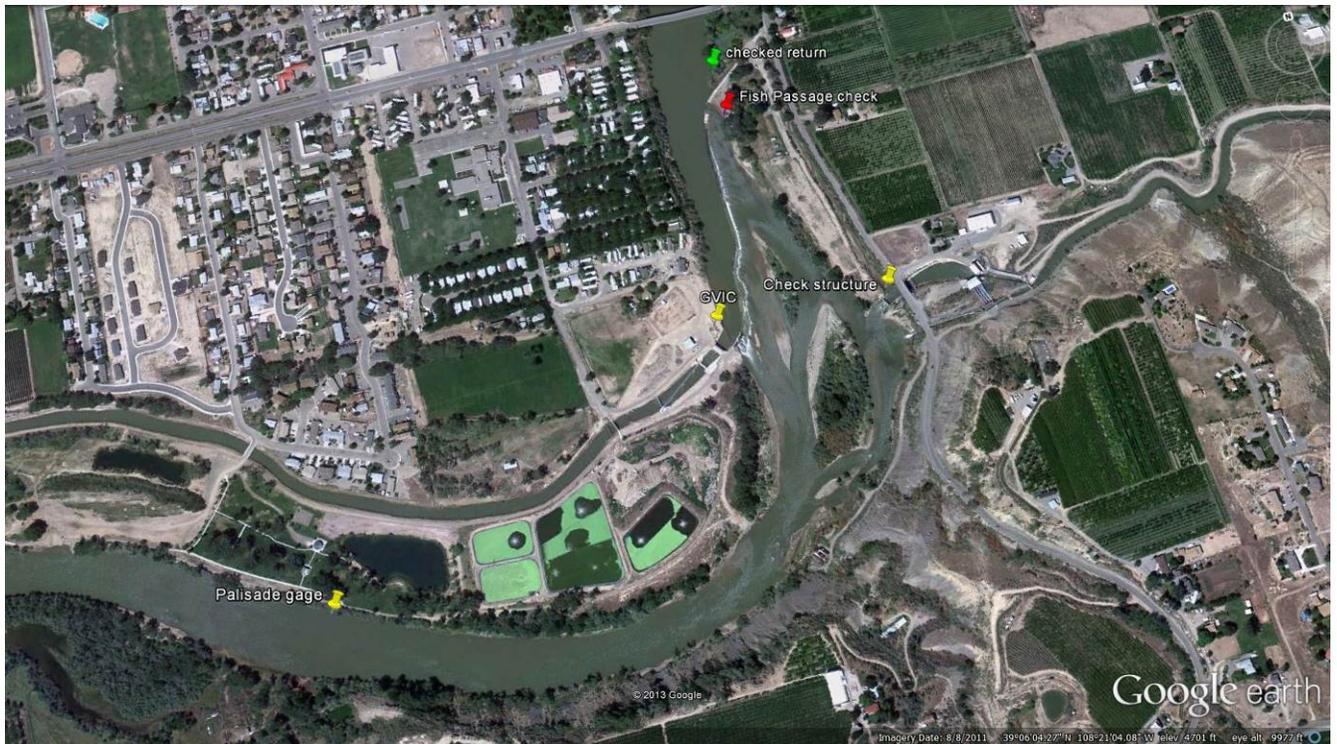
On June 12, 2013 there was a conference call of interested parties to discuss April Holes.

**CWCB's Michelle Garrison/ Ray Alvarado's model to predict flows below 100 cfs in April:**

While the model shows flows dropping below 100 cfs in a few other dry Aprils, the years with both gage and modeling data suggest that our model underestimates April flow. In the 23 years that the Palisade gage has operated, 2013 is the only time flows have dropped below 100 cfs in April. In general, in dry years the runoff occurs early and the April flows look better than this year, with a dry fall and winter followed by cold weather in April. It is doubtful this can be predicted more accurately to recreate the same weather and soil conditions as 2012/2013 resulting in an April hole of similar magnitude to 2013.

Although CWCB has two instream flow rights for endangered fish in the 15-mile reach, they are junior to most diversions (1992 & 1994) and can only be used July 1 - September 30<sup>th</sup>. CWCB can call on the 1992 right if the 15-mile reach is below 581 cfs and the 1994 if flows are lower than 300 cfs. These instream rights would call out undecreed users and second fills on some reservoirs. No instream rights are in place for the "April Hole" time period.

Dan Crabtree thought this April was an anomaly because the Check was operating and the fish passage on the diagonal was closed, which limited flow to the 15-mile reach to a degree. Brent agreed the check operations exacerbated the situation. The water users didn't want to put call on river and preclude upstream reservoir storage. In hindsight, more snow came and reservoirs filled, but if that hadn't happened, we would have been very grateful for the April storage. So, we have to ask if it's worth the trade-off to have extreme low-flow conditions in April when temperatures are lower so that we can have more water in upstream storage to release for the fish during summer low-flow periods. Dan Luecke noted this situation was unanticipated in developing the biological opinion and endorsed answering the questions Jana has identified in the White Paper.

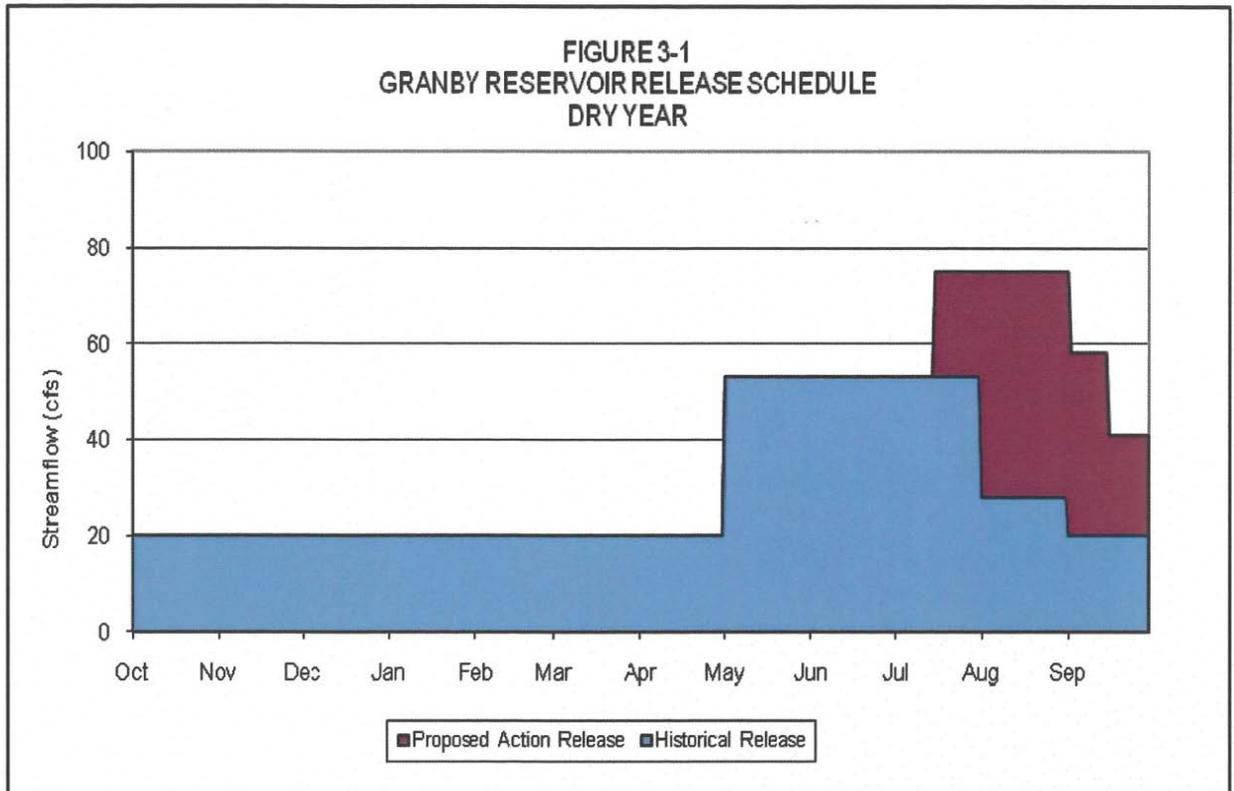


**Assignments for the April Hole White Paper were:**

1. Dan Crabtree: provide documentation of April operations of the Check structure
2. Michelle Garrison: document and provide the model that examined occurrences of flows below 100 cfs
3. Jana: document the reason for the 810 cfs baseflow target
4. Tom Chart: Interpret biological basis of the 810 cfs

We'll convene this group to approve the April Hole White Paper in early fall to plan the next step.  
Proposed deadline for the White paper is late fall 2013.

**5412 from Granby:** Although the contracting is not finalized, releases are scheduled to begin on August 1, the date existing minimum flow releases from Granby drop from 75 cfs to 40 cfs. The 5412 releases will be timed to make up for this drop in flows to help maintain aquatic habitat and stream temperatures in the upper Colorado River and provide a consistent supply of water to the 15-mile reach. The "if and when" trading of water if the Granby release is not needed in the 15-mile reach more than likely will not come into play on a dry year like 2013. All the reservoir operators said they would try to offset wet year concerns such as that in the future.



**All targets set for Dry conditions (flows are as of 7/10/13)**

Flaming Gorge: Green R. at Jensen. 2036 cfs (baseflow target 900 - 1100 cfs)

Aspinall Units: Gunnison R. at Grand Junction 936cfs (baseflow target 900 cfs)

Colorado R. At Palisade: 642 cfs (target 810 cfs) weekly call started 7/3/13, Ruedi releasing 50cfs

Duchesne R. at Randlett 70 cfs (50 cfs baseflow target)

Yampa River: currently 380 cfs, calls will convene weekly calls at 200 cfs to meet a 93 cfs target

The Colorado Water Trust and TNC are investigating ways to lease additional water for the Yampa River for 2013.

2013 Elkhead Fish pool volume :

Existing pool:	5,000 acft
2012 carry over	418 acft.
<u>2013 lease:</u>	<u>1,000 acft</u>
Total	6,418 acft

**ADJOURN 11:30 a.m.**