

**Colorado River Storage Project
Flaming Gorge Working Group
Meeting Minutes
October 28, 2005**

Participation:

This meeting was held at the Federal Building, Room 8107, Salt Lake City, Utah. Attendees are listed below.

Purpose of Meeting

Ed noted that this is a special meeting of the Flaming Gorge Working Group, specifically to discuss the Western Area Power Administration's request for within-day winter flows that in broad terms, include double peaks and ramp rates that exceed 800 cfs per hour. Western had introduced this request at the August 2005 Flaming Gorge Working Group meeting as a two month request and have slightly modified the request to cover Flaming Gorge Dam operations from November 1, 2005 thru the end of February 2006. Ed pointed out that recently there was a meeting on the Individual Based Model that is intended to assist with measuring the effects of certain dam operations to the tailwater trout fishery. Certain action items came out of that meeting and are being pursued separately, today's meeting is just to focus on Western's request.

General

Ed Vidmar started the meeting at 1:12 p.m. with 28 people present. Ed started by asking everyone to introduce themselves, and asked everyone to be sure to sign the signup sheet, and be sure to indicate on that sheet, or let Ed know, if you want to be added to the email list. Normally, these meetings begin with an overview by Rick Clayton of current hydrology; Rick did not have a briefing for today's meeting but noted that the October forecast has dropped. At present, we expect an increased drop of the reservoir of an additional two feet over the winter, to 6022 ft. above mean sea level by March 1. The reservoir is presently at approximately 6025 ft.

Dual Peak Flows - Agenda

The agenda for today's meeting is first, for Clayton Palmer to make a presentation on Western's request for winter operations; second, Roger Schneidervin of the Utah Division of Wildlife Resources will make a presentation and then there will be a discussion period. Minutes from today's meeting are being taken and will be posted on the web site; they will also be presented to the Regional Director as part of the information package for a November 2, 2005 meeting at which he will consider Western's request. It is not known at this time whether the Regional Director will make a decision at the November 2 meeting but at this time we expect a decision by the end of next week; the Regional Director may require additional information prior to making a decision. Reclamation will be sure to articulate all of the positions expressed at today's meeting.

Dual Peak Flows - Western's Presentation

Clayton Palmer of Western began his presentation on Western's request (see handout). He began by complimenting the Provo Area Office on the collaborative effort on the Flaming Gorge EIS. By way of background, the recent drought period has precluded any opportunities for variations on releases at Flaming Gorge Dam. We have had sufficient water this year for variations in 2005, and the base flow over the summer, 1400 cfs, has been higher than in the past several years as a

result. Because of the full agenda at the August workgroup meeting, there wasn't much opportunity to discuss Western's request at that time. Although at that time, the request was for November-December, not for four months as it now is. By way of background, due to the environmental constraints at Glen Canyon, power generation at Aspinall and Flaming Gorge have become more important to Western. Clayton noted that the proposed double peaks improve the ability to meet 1992 BO targets at Jensen. As a followup to the recent meeting on the trout model, Clayton noted that Western would take advantage of double peaks to do some more research on the IBM model (see handout, 'trout and Pikeminnow research' listed as 'Other Objectives'). Explanation and discussion of the graphs in Western's presentation followed. "Load following" in the graphs = double peak. Ed Vidmar observed that use of January 1987 data for comparison might not be valid, that was a very high water year. Reference was made to the Jensen gauge limitations as analyzed in the Flaming Gorge EIS as well as moving water from one month to another. At present, releases from FG Dam are averaging 1400 cfs. For power generation in general, December and January are the peak winter months, and July and August are the peak summer months. Ted Rampton of UAMPS asked, what is the difference in volume between one peak and two peaks within a day? Rick Clayton asked, how did Western arrive at details of the request? Clayton stated that the pattern was based on data from the September-October pattern. Denny Breer asked, why did the request change from two months to four months? At the August meeting it was represented as December-January operations, and now the request is for November through February. Clayton Palmer referenced the 'conclusions' page of his presentation; Western is actively seeking input and is willing to consider stakeholder concerns. Ted Rampton asked, what is the stage change in the river with the proposed ramp rates? Tom Ryan noted that the biggest change at Greendale would be about 1.5 feet; the difference between 1600 cfs and 2000 cfs would be 'a few inches.' Clayton Palmer noted that the proposed pattern represents a 14% stage change at Jensen which is below the 92 BO limit of 25%. Clayton stated that Western's request does take effects to trout into account, they don't believe that the proposed operations will have an adverse effect on trout.

UDWR Presentation - Tailwater Trout

Roger Schneidervin of the Utah Division of Wildlife Resources (habitat manager, Flaming Gorge) gave a presentation on the tailwater trout resource, to be followed by a q & a session. Roger expressed his appreciation for the Flaming Gorge Working Group, this opportunity for exchange of information dating back to the early '90s has helped the trout resource. Roger gave a slide presentation that described the Division of Wildlife Resource's management of the trout fishery below Flaming Gorge Dam. In particular, the presentation included some earlier data and data on size, condition, and age gathered during electrofishing surveys that were previously conducted twice a year (April and September), have just conducted these once a year (September) for the past three years. Roger also described Dr. Mark Vinson's invertebrate data and current research underway on New Zealand mud snails. Roger also described DWR's stocking protocol, they typically stock rainbows at the tail end of high spring flows each year, along a 7 mile stretch of the river, below the dam and at Little Hole. They also stock rainbows (5k last year) at Browns Park. They have not stocked brown trout for years, this population is wild and self sustaining. Roger gave an explanation of the electrofishing protocol, this activity began in the late 1980s. Data gathered includes growth and survival rates among other trends. A question was asked, whether any of the fish were pit tagged. Roger answered that they have not done so to date (they do mark stocked fish with a dye that is visible under black light), but they would like to do so in the future. Pit tagging would enable getting good data on specific fish,

which could help both for improving the IBM model and verifying effects of specific dam operations (although there are many other factors that play into fish condition, such as mud snail, whirling disease, and silt from the Mustang fire, etc.). From the 90s to present, the trout fishery has been changing to a predominately wild brown trout fishery. Browns have increased dramatically during the drought years. Roger theorizes that since the last double peaking was in 1993, the steady flows since then have helped the natural fishery. Warmer temperatures favor browns over rainbows. Predation by brown trout is also an issue. Anglers like the high catchability of brown trout. Roger also presented data on diversity and abundance of invertebrates which has improved from 1993 to present [note, observation by minute-taker, slides also show that 1985 to 90 looked better for invertebrates than 1993 to present].

Roger noted there are other issues of concern to the trout fishery. For example, the Mustang Fire and aftermath caused siltation which caused a water quality issue. There were no fish kills due to silt issues, but there was a public perception of bad water quality. Mud snails are also an issue of growing concern, they first appeared below Flaming Gorge in 2002, and are spreading throughout Utah. Data show that 40% of snails ingested by trout pass through the fish and provide very little nutritional value. Roger noted that in addition to these two issues, the Division of Wildlife Resources would hope to not have another factor, double peaks, to worry about. Noting the slide presenting KTL data (an indicator of body condition), there has been a slight decline in rainbows at Little Hole in recent years. In general, as fish get larger in the Green River the KTL value decreases due to the lack of large prey. It would be good to get tag information for brown trout over the next couple of years.

CREDA - Power Customers' Perspective

Leslie James of CREDA made a brief presentation from the power customers' perspective. Power generation at Flaming Gorge is a non-profit undertaking but does factor into the state of the Basin Fund. That fund has paid out environmental benefits over the years including \$10M to the Glen Canyon Adaptive Management Program, \$17M to the Upper Colorado River Endangered Fish Recovery Program, and also funding for the salinity program. In 1999, the Basin Fund started getting low, and the power marketers have worked hard to avoid rate increases, which among other things led to a cutback in Western's generation of power. This helped avoid rate increases but also led to further depletion of the Basin Fund. Rate increases have finally become necessary, 22% on October 1 of this year, there would have to be further pass-throughs if the Basin Fund gets too low. Reclamation must maximize power generation while considering other resources. At present, spot market prices are 4 to 5 times higher than CRSP rates, due primarily to the recent hurricanes on the Gulf Coast. Leslie thanked Reclamation for their hard work, she recently had a tour of Flaming Gorge and Dutch John, and noted that she was happy to testify before Congress a few years ago in support of the Dutch John privatization legislation.

Open Discussion

Open discussion began at 2:50 p.m. In reference to the dissolved oxygen issue at Glen Canyon, Clayton Palmer noted that Reclamation included Western in the discussions and this was a good example of how to approach the trout issue while maintaining authorized purposes. He referenced Roger's presented data in comparison to data at Lee's Ferry, and Glen Canyon experiment with fluctuations to help the trout. Referencing the invertebrate data, Clayton noted a similar increase in taxa diversity and richness in the 1988-91 period. We should study the matter

and act accordingly. Roger Schniedervin noted that earlier data (from the 1980s) might not be as complete. In reference to the IBM trout model, Roger noted that DWR agrees this model could eventually be an important management tool but it is not ready yet. In particular, there are serious concerns over the validity of the food penalty, a spawning component needs to be added, more and better transect data needs to be added, etc (as discussed at recent meeting on the trout model). We can add to the science with studies of specific flows, but we aren't yet to the point with the model that we can test it.

Denny Breer asked Clayton, has there been an increase in revenues with the summer 2005 power generation at higher flows? Yes, per Clayton, but this should be characterized not as an increase in revenues but rather as a reduction in costs, because they had to buy less on the spot market. Denny asked about the \$1M in savings with the proposed winter flows, what percentage does that represent? Per Clayton, speaking in broad terms and estimating, the annual figure is \$40M, so this would be a 2.5% savings. Denny expressed concern that the impacts of double peaking are unknown, particularly as they relate to successful spawning of brown trout. Also, local business values need to be considered. In particular, Denny estimated winter recreation values at about \$20,000, which maybe doesn't sound like much but it's a lot in Dutch John. Losses would be extreme. He referred to his Flaming Gorge EIS comments about within day peaks and their effects to fishing and 'fishability.' Double peaking could have huge impacts to the attempt to grow winter business in Dutch John. There are too many unknowns at this time, and he is opposed to Western's proposal. Reclamation needs to consider recreation values along with biology and local economics. In 1992, the value of trout fishing to Utah was \$45M. Denny believes that the FGEIS missed the opportunity to evaluate local economics. Denny was present for double peaks in the past and there was not a general acceptance of that by fishermen. We need to try to balance everybody's needs and the overall effects. He is not in favor of double peaking at present. Reclamation needs to consider the short term benefits against the long term risks.

Melissa Trammell of the National Park Service stated that she had no comments, but had a question for Denny: Western's proposal shows the second peak at dusk, how would this affect the fishermen since they would be off the river by then, and would therefore see only one peak during the day? Melissa observed that as a trout fisherman herself, she doesn't see this as a point of concern.

Ted Rampton of UAMPS stated that he appreciates the comments about economic impacts, it would be good to consider the effects to trout and this should be studied, but it does not appear up front that the impacts of double peaking would be 'devastating.' But we do need to take a look.

Larry Crist of the Fish and Wildlife Service stated that there are no ESA issues associated with the double peak, but his concern is with the fish and wildlife coordination act and he agrees with the State of Utah on trout concerns. We need additional research to determine longer term effects. He agrees there are issues with the Individual Based Model assumptions. He thinks there is room for some testing on the double peaks. Denny Breer asked, what about research on impacts to recreation? Larry agreed with Denny's point on the merits, but this is not a FWS responsibility. Dave Trueman asked whether brown trout were a concern, due to predation, on

the Green River relative to the endangered fish? Per Larry, this is not a concern so far, the trout stay relatively closer to the dam and have not been found in endangered fish habitat. Other species like small mouth bass are more of a concern at present.

Roger Schneidervin stated that the quality of the recreation experience is a priority of the Division of Wildlife Resources, and they support Denny. Larry Crist asked about the IBM model for trout, Roger agrees there is a need for model improvement and validation, the model can be a valuable tool but it isn't there yet. The IBM model run previously shown in a separate meeting showed a decline in productivity, and Roger thinks it underestimated the decline. Testing of the model needs to occur over a period of a few years. Roger would be more comfortable with the increased growth data in the model if he could get some baseline growth information before double peaking by pit tagging, particularly for the brown trout. Roger noted that with the other factors affecting the trout fishery, water quality (silt from fires) and the mud snails, it is difficult to tease out the effects of double peaking. We would need to watch a full life cycle of trout in order to get good information, and would also need the corresponding invertebrate data and mud snail data from Vinson. Mark Vinson believes that with double peaking, there would be detrimental effects to invertebrates, particularly the native invertebrates (mayflies and caddis) which have been doing better under the steady flows of recent drought years.

Clayton Palmer stated Western's position that if Western thought that double peaking would cause harm they would not propose it. He said their winter proposal was based in part on Denny Breer's statements to him that the fishing season ends in October. Denny agreed that he said that but reiterated that they are trying to establish winter fishing opportunities and that as previously noted, this would be a small amount of fishing but the revenues would be critical to the local economy. Brian, representing Daggett County, noted (in response to Clayton's statement that Western provides the power to Dutch John) that if the businesses fail, they won't be needing the power. Clayton Palmer noted that relative to past operations, the proposed fluctuations are very small. Western has programmed funds for research this winter to acquire needed information for the IBM model, this would be an opportune time to do some field testing. In response to Roger's comments on the modeling effort, Clayton noted that Western would agree to get Roger and the modelers together to come up with a plan for improving and testing the model.

Steve Brayton, Utah Division of Wildlife Resources, stated that he is glad to see that the model is coming along, but this is complex, new, expensive technology and it could take a decade to get to a usable model, in fact we might never get there. Steve noted that some of the data from the 1980s used as a model input was possibly incomplete or corrupted data, and a basic problem is that that data didn't tease out the effects of ramp rates and double peaks. Steve also noted that the impacts to trout are cumulative over time. We need good information in order to make professional judgments. In past operations, winter was the highest loss period for trout, especially the end of winter (February-March). This was the basis for the Working Group agreement to restrict operations to a single hump (though steady winter flows would be preferable). The old data does not support a double peak. Summer peaking operations are not as big a concern as winter. It would be risky at this time to rely on the IBM model for Western's flow proposals. Roger Schneidervin added that we still need to get adequate habitat data, there are only minimal transects in the model at present and many more are needed. Clayton Palmer reiterated that Western knows the model is not ready, Western's proposal is not based on the

model, it is based on customer needs. Steve Brayton restated his concern that the ramp rates in excess of 800 cfs/hour are not supported by the best available data. Clayton Palmer stated that the goal is to find flows that support a good fishery and still maximize power.

Walt Donaldson, Utah Division of Wildlife Resources, stated that we need to look at the whole thing in perspective. He has appreciated the give and take among resources in the Flaming Gorge Working Group meetings. He notes that the operational protocols agreed to in the 1993 working group meeting have worked, so why change them? Why go back on that compromise? Why fix what isn't broke? This is the basis for DWR's opposition to Western's proposal.

Melissa Trammell, National Park Service, asked whether Western's proposal is just for this year, or is it intended to be long term? Clayton Palmer responded that the basis for the proposal is not the condition of the Basin Fund, that is not a critical issue right now, his authority was just to make the proposal for this winter. Western is interested in knowing all of the impacts. This winter, research on the flows for the model could be conducted, in future years, Western hopes that the IBM model will be a tool to guide flow requests. Roger Schneidervin, Division of Wildlife Resources, reiterated concerns with the model, and Clayton stated that Western is amenable to putting together a plan before moving forward with the flow regime.

Roger Schneidervin also noted that whirling disease is an increasing threat. Steve Brayton noted that now that ESA analyses are done, the only remaining major conflict at Flaming Gorge Dam is power versus the sport fishery. Steve noted that we keep deferring trout studies, Western's Power Marketing EIS deferred the issue to the Flaming Gorge EIS, but the FGEIS ended up with a narrow scope, only on the Flow and Temperature Recommendations versus the 92 BO. Steve noted that he had discussed this issue previously with Beverley Heffernan, she responded that the narrow scope was already established before she assumed management of the FGEIS in 2001, but that Steve had articulated to her his concerns about double peaking and ramp rates. It was noted that DWR has only done one electrofishing survey per year for the past three years because of staff shortages. Western stated that they would assist in spring surveys if DWR wishes to start them again.

Brian, representing Daggett County, stated the county's concern that this year is too soon to start the double peaks and higher ramp rates. He feels the county's concerns aren't heard by the Federal government, there are only 800 residents in the county and maybe because of that the county's views aren't considered to be important. He is concerned about local businesses already being in trouble, one has recently filed for bankruptcy. Brian had a question on reservoir level targets which Rick Clayton answered. Daggett County has three main issues: 1) Fish productivity and health, 2) fishability, 3) perceived fishability (even when the fishing is good, word of mouth perceptions of bad fishing can spread fast and the local businesses get lots of cancellations). These things strongly affect the local economy.

Denny Breer noted that the double peak is ideal for Western's economics, but not necessarily for the local economy. He noted that the trout fishermen supported the Recovery Program flows last May and June even though it cost about \$60k in business, and now though it wouldn't necessarily be devastating, they would take a hit when trying to increase winter business. The few winter dollars are critical to their economy. Dave Trueman asked Clayton Palmer whether,

in looking at the graphs showing Aspinall and Flaming Gorge relative operations, Aspinall could take the morning peak and have Flaming Gorge take the evening peak? Clayton Palmer responded that he appreciated Dave's thought process; Rick Clayton noted that with the requested ramp rates, a single peak would violate the Jensen stage restrictions under the 1992 BO.

US Forest Service Opposition

Kevin of the Forest Service spoke, referencing a letter from the Forest Service to Rick Gold (dated October 24, Reclamation had not received it as of the Working Group meeting) which states the Forest Service's opposition to Western's request. They are concerned about fishability, recreation, the local economy, and safety, and concerned about setting operational precedents for the future.

In Conclusion

To conclude the meeting, Ed Vidmar summarized the next steps in the decision process, Reclamation staff will prepare briefing materials on Monday October 31, and the Regional Director will be briefed on Tuesday November 1. Once the Regional Director has made a decision, whether on Tuesday or later, that decision will be communicated via the email list. If anyone has any questions, they should call Ed Vidmar or Rick Clayton.

Presentations

[Western Presentation of Double vs Single Peak Flows](#)

<http://www.usbr.gov/uc/water/crsp/wg/fg/pdfs/DoubleVSSinglePeak.pdf>

[Utah Diversion of Wildlife Resources](#)

<http://www.usbr.gov/uc/water/crsp/wg/fg/pdfs/GreenRiverFlowMtg2005.pdf>

Previous Meeting Minutes

Flaming Gorge Working Group Meeting Minutes:

August 25, 2005

April 20, 2005

August 19, 2004

April 15, 2004

Next Meeting

Meeting adjourned 4:15 p.m. Next meeting date was not scheduled but would be expected to be in April 2006.

Attendees:

Name	Organization	Telephone Number
Ted Rampton	UAMPS	
Kevin Clegg	USFS	435.781.5245
Dennis Breer	GROGA	435.885.3355
Stacey Carroll	Reclamation	801.524.3813
Peter Crookston	Reclamation	801.379.1152
Brian Raymond	Daggett County	435.784.3218
Doug Hendrix	Reclamation	801.524.3837
Ed Clark	NWS	
Roger Schneidervin	DWR	435.885.3164
Dave Trueman	Reclamation	801.524.3759
Amy Thatcher	Reclamation	801.379.1196
Rick Clayton	Reclamation	801.524.3710
Kerry Schwartz	Reclamation	801.379.1150
Steve Brayton	Utah DWR	
Walt Donaldson	UDWR	435.789.9453
Larry Crist	USFWS	801.975.3330x126
Clayton Palmer	WAPA	801.524.3522
Kerry McCalman	Reclamation	801.524.3797
Jane Blair	Reclamation	801.524.3628
Brent Rhees	Reclamation	801.379.1210
Melissa Trammell	NPS	801.539.4255
Leslie James	CREDA	
Tom Ryan	Reclamation	801.524.3732
Dave Speas	Reclamation	801.524.3863
Beverly Heffernan	Reclamation	801.379.1161
Ed Vidmar	Reclamation	801.379.1182
Nancy Coulam	Reclamation	801.524.3684
Dave Schmidt	GROGA	