

Attachment M

Excerpt: Lower Dolores Working Group, Meeting 2 Summary, Jan. 19, 2009

Managing spills: Mike Preston, manager of the Dolores Water Conservancy District (“DWCD”), discussed the logistics of managing spills from McPhee and described the 2008 season.

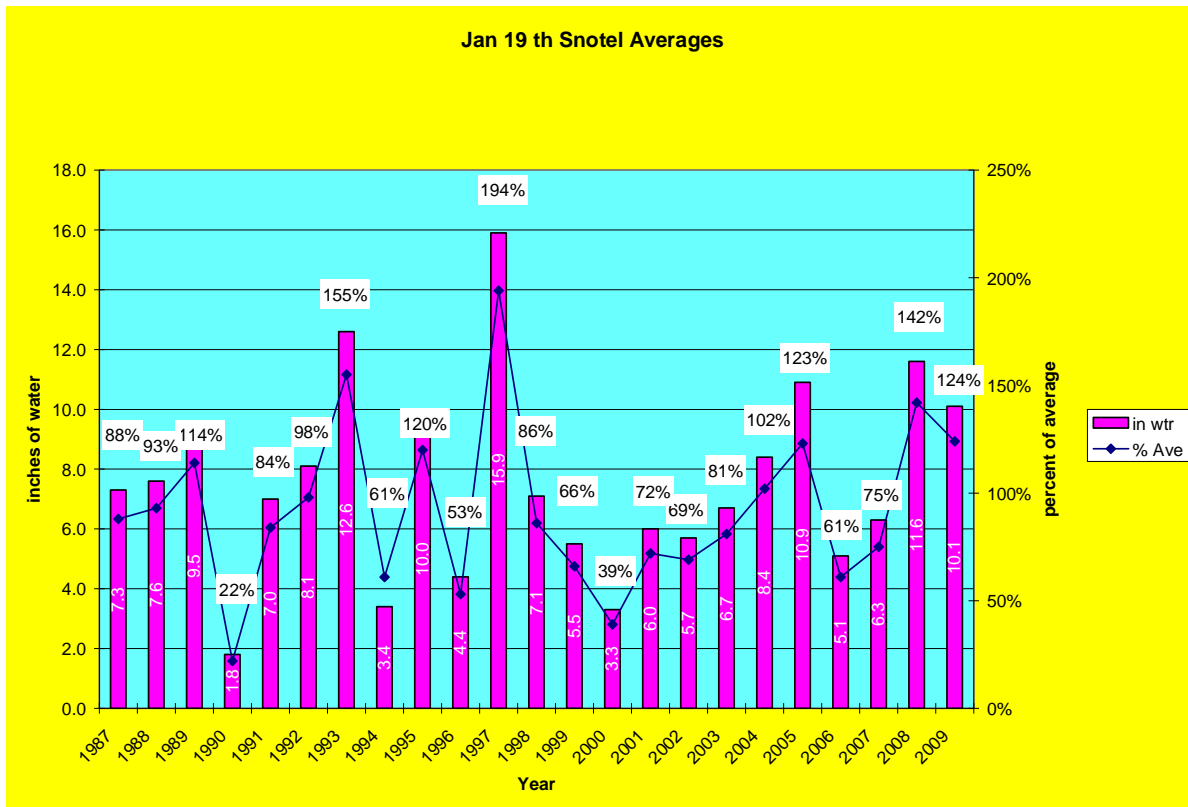
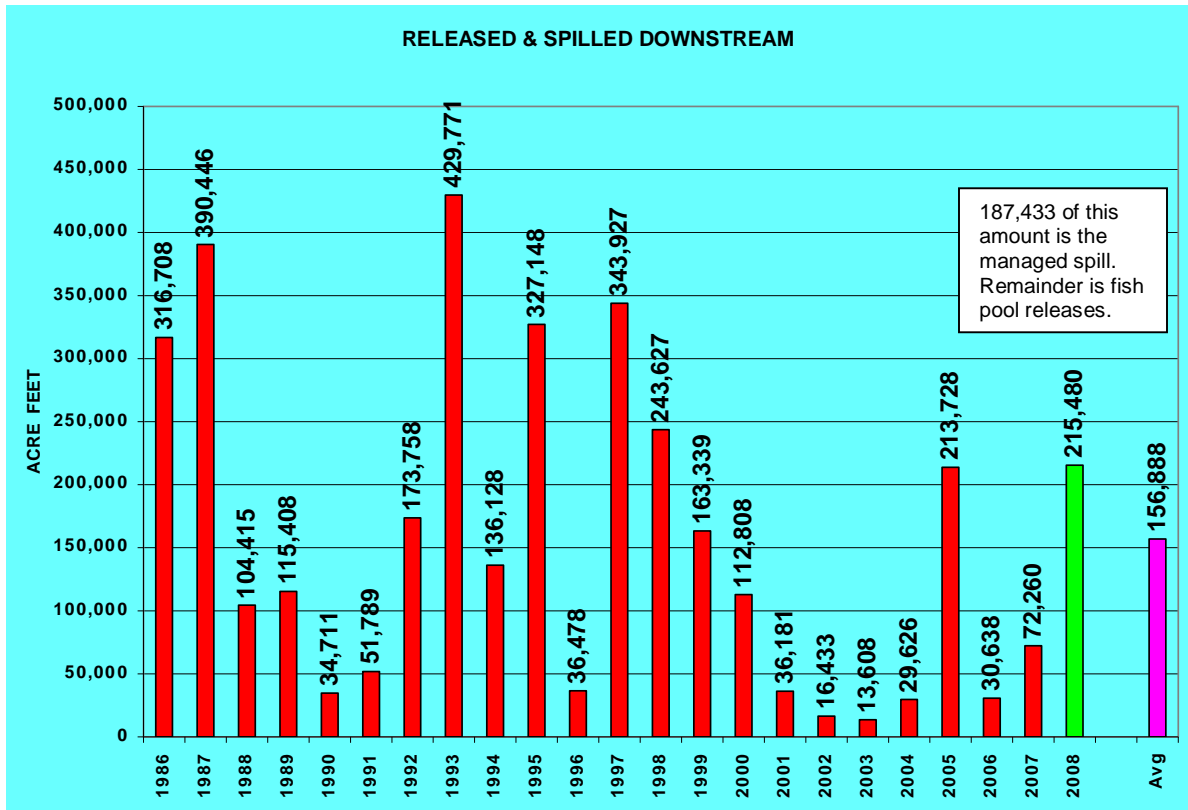
The DWCD had a good working relationship with the Dolores Public Lands Office last summer. The 2008 forecasted spill turned out to be a somewhat optimistic projection, but there was still plenty of water for a spill. When inflow equals outflow, the spill is over. Last year that occurred on June 24.

Last year the reservoir filled and stayed full. It is now down by about 25 feet, or 100,000 acre-feet, which bodes well for 2009. At a minimum the reservoir will fill and there will probably be some releases; managers will know more in February.

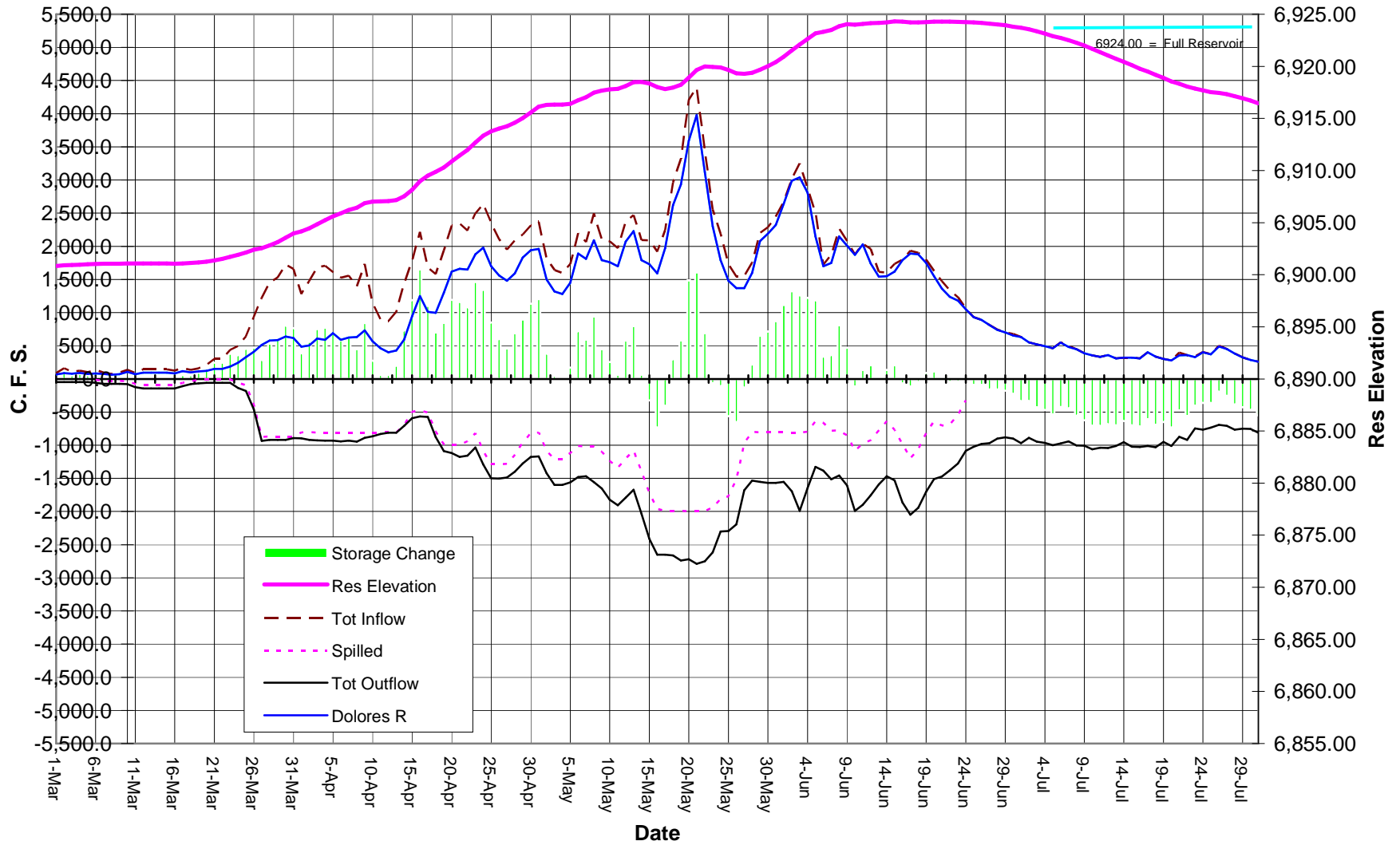
Mike presented and explained graphs showing McPhee downstream releases and Snotel averages over the years.

Mike was asked whether releases could be timed to coincide with low-elevation snowmelt coming off below the dam. He said in some years it could and that might be helpful. A lecturer from the University of New Mexico spoke in Cortez on Jan. 16 about how climate change might affect the Southwest. He projected that there will be more rain and less snowfall. Snowpack will melt earlier and temperatures will be warmer, so more evaporation will occur. Over the next 100 years there could be a 30 percent reduction in reservoir water in Southwest Colorado. Mike said managers will be keeping a close eye on when the snowpack is melting and will plan different management if necessary. So far the time of peak snowmelt seems to be steady, around the third week in May.

McPhee Downstream Release and January 19 Snotel Averages



McPhee Reservoir 2008 Hydrograph (Mar-Jul)



Excerpt: Dolores River Dialogue -- Technical Committee Monthly Meeting, August 5, 2009

2009 Spill: Mike Preston elaborated on the handouts related to the 2008 and 2009 spill. At the last DRD meeting, time ran short. Mike made the point that it was unfortunate that the planned fish shocking didn't happen this year but it was not because Jim White, CDOW and the DWCD were not communicating. The timing of this year's run off was unpredictable and very difficult to manage due to the nature of the early heat, disappearance of low snow and eight layers of dust that accelerated the run off. Mike said Jim and the DWCD were in constant contact around when the fish shocking was going to happen. Due to weather, the peak happened three weeks early and it just didn't work out. Of course, having Jim become stranded is not desirable as 400 cfs is needed for fish shocking...at least 2 days at this level, but ideally 4. This is an equipment issue more than a fish shocking issue, David told everyone. David brainstormed that maybe the fish shocking should be moved up earlier every year, such as in April.

Mike further explained that while indicators exist that go into the forecast for a run off and spill, they can be unpredictable and 2009 was especially so. Also, Ken said some conditions that affect a run off are not in the official forecast. Ann asked when a decision was made to fill the reservoir first and then spill. Mike said this decision was made early on and that actually, at one point, it was thought there would be no spill. In March, it was known that this would be a low snow year.

Carolyn again expressed that for rafters that while there were 14 raft-able days, what rafters want is a minimum of 1,000 cfs and two weeks notice. Mike and Ken said this isn't always possible given all the factors they explained about forecasts, the weather, etc. Carolyn said this should be something to shoot for in the future. Mike said next year the DWCD may very well say: *This is what we are doing. Rafters: make your own decisions about your trip.* The communication part of this is very tricky, Mike relayed and the DWCD is rethinking how it communicates information about spills. Perhaps in medium to low water years, absolutely no promises are made. Of course, in high water years, everything is much easier to manage. Mike said he felt there were good rafting days but it was unpredictable.

Vern said the goal is to fill the reservoir as quickly as possible each year and with as much water as is possible. Mike noted that the fish pool "clock" is turned off during spills. Ann stated that she felt the spill this year created a shock on the fish, in terms of when it was done and the temperature of the water (being cold). Data is not yet in on the affect. David said part of this management relates to the risks that the water managers are wanting and able to take. "What is the risk threshold the DWCD and BOR and Spill Committee are willing to take?", he posed as a policy question. Jim Siscoe noted that his low snow model he's been working on could be one more layer of predictability and could help manage the risk better. Mike noted that the DWCD was trying the best it could to accommodate everyone but mother nature dictated the factors this year. He ended by saying learning should occur to manage things next year, and develop associated and improved communication techniques through which the variables are communicated and various interests can make their plans and draw conclusions.