

# Update for the Green River Basin Advisory Group

*April 5, 2004*

Green River Basin Advisory Group Meeting

in Big Piney, Wyoming

*by*

Harry LaBonde, Deputy State Engineer

*and*

John W. Shields, Interstate Streams Engineer

Wyoming State Engineer's Office

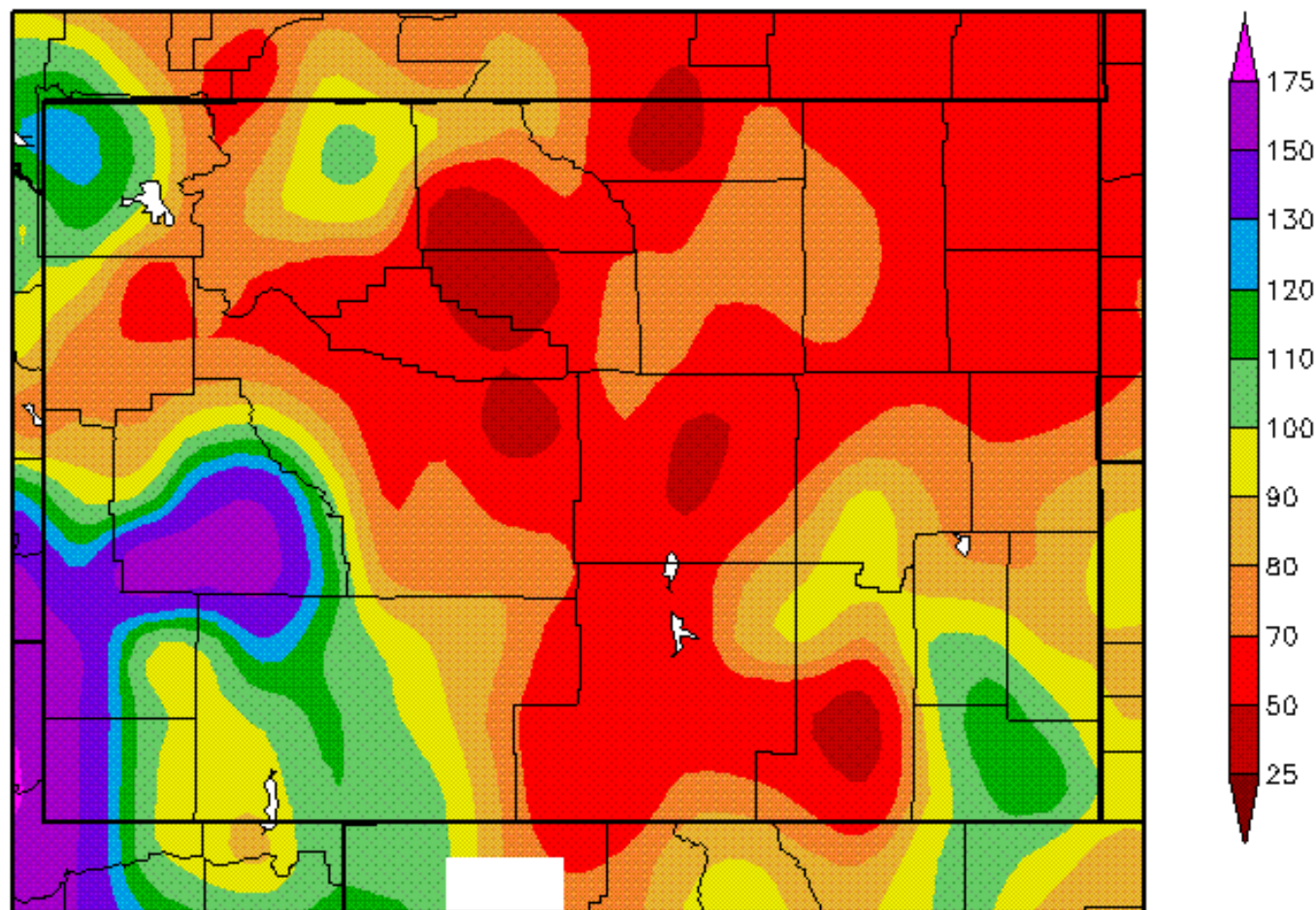


# An Update on Colorado River Programs and Issues:

- Water Supply Update
- Seven Basin States' Water Management Discussions
- Upper Colorado River Endangered Fish Recovery Program
- Colorado River Basin Salinity Control Forum
- Colorado River Compact Administration Planning Project



Percent of Normal Precipitation (%)  
10/1/2004 - 3/31/2005

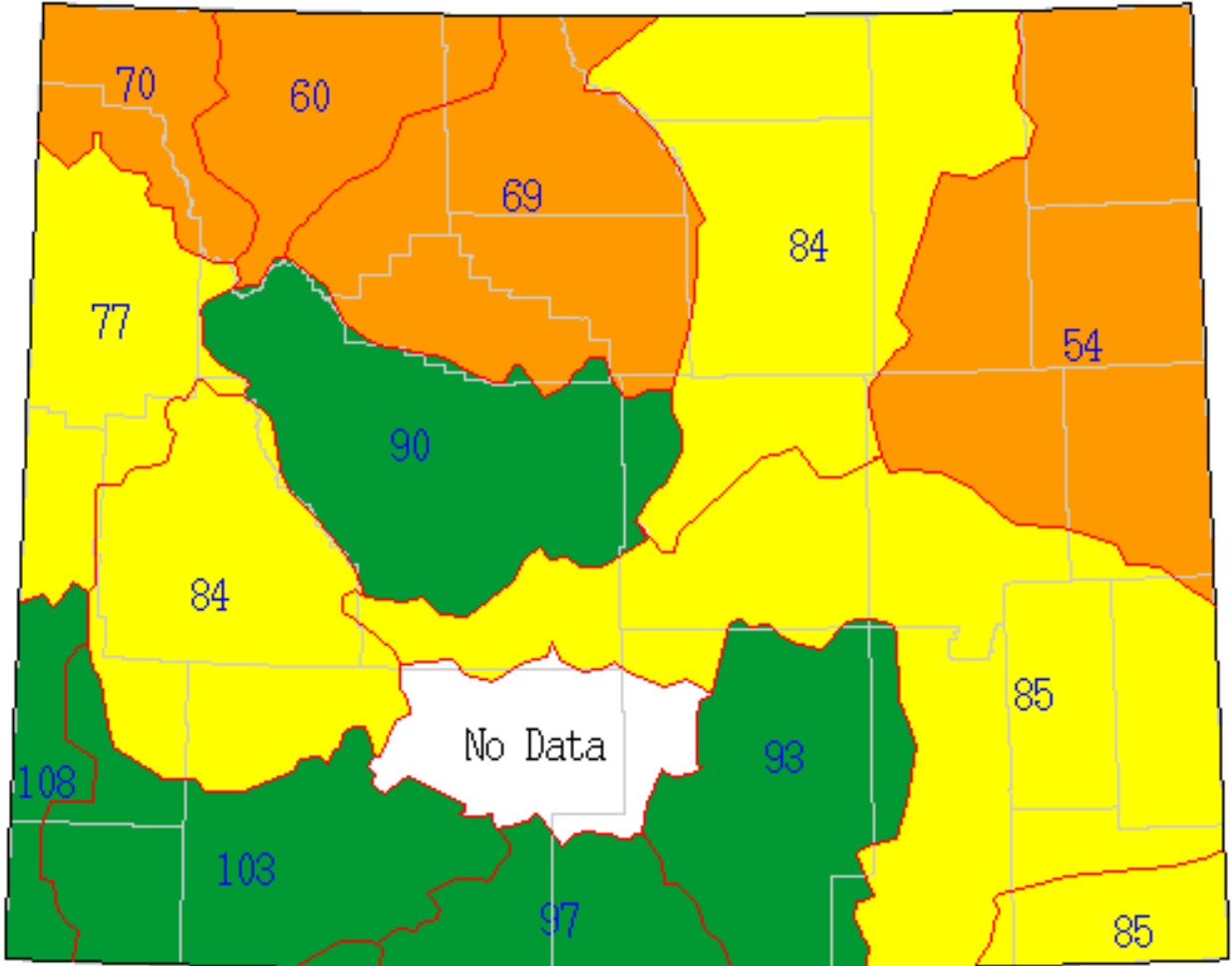


Generated 4/1/2005 at HPRCC using provisional data.

NOAA Regional Climate Centers

# Statewide Snowpack Expressed as Snow Water Equivalent As of April 1, 2005

SWE % of Average as of Friday, 01 April 2005



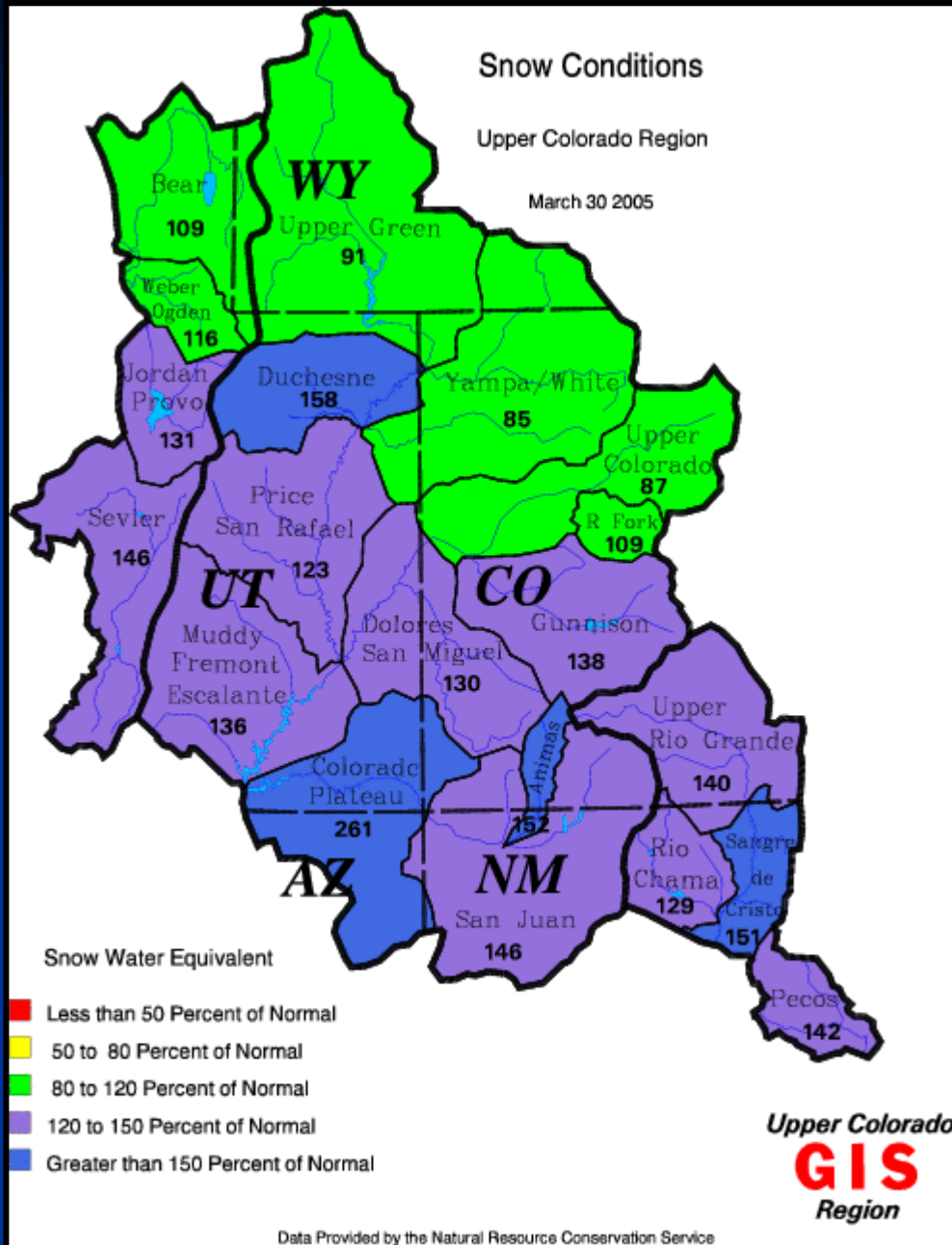
- Percent of Average
- > 200
  - 175 to 200
  - 150 to 175
  - 125 to 150
  - 110 to 125
  - 90 to 110
  - 75 to 90
  - 50 to 75
  - 25 to 50
  - < 25

\* = Data may not provide a valid measure of conditions

# Snow Conditions

Upper Colorado Region

March 30 2005



- Snow Water Equivalent
- Less than 50 Percent of Normal
  - 50 to 80 Percent of Normal
  - 80 to 120 Percent of Normal
  - 120 to 150 Percent of Normal
  - Greater than 150 Percent of Normal

Upper Colorado  
**GIS**  
Region

Data Provided by the Natural Resource Conservation Service

# Forecast and Other Relevant Information

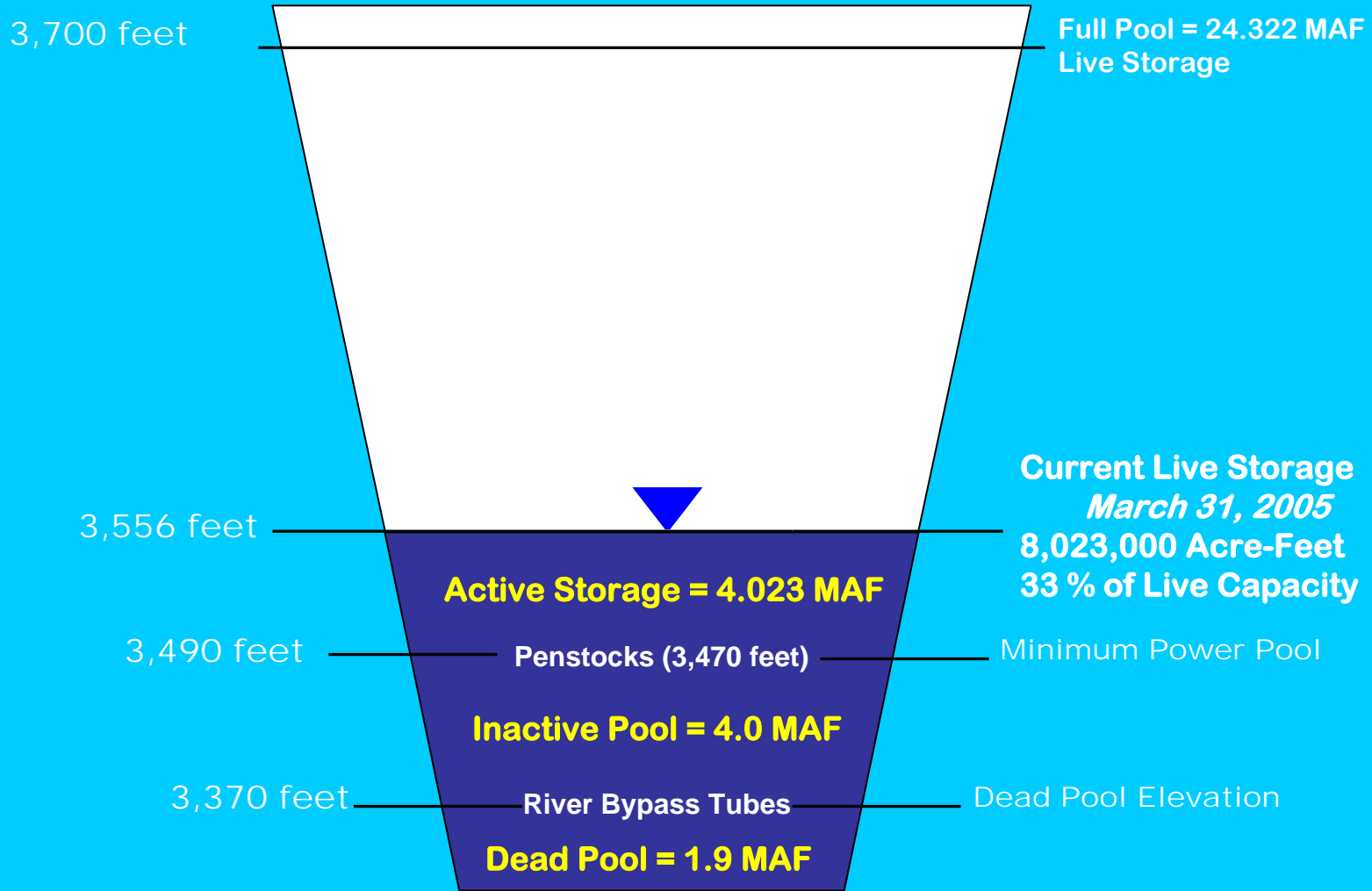
UNREGULATED INFLOW INTO LAKE POWELL - MARCH mid-month FORECAST -3/14/05		
	MILLION ACRE-FEET	% of Normal
PROJECTED WATER YEAR 2005	12.104	101%
PROJECTED APRIL-JULY 2005	8.000	101%
FEB OBSERVED INFLOW	0.497	118%
MAR INFLOW FORECAST	0.600	90%
	Colorado Basin	Gila Basin
WATER YEAR PRECIP TO DATE	107% (21.0")	156% (25.8")
CURRENT BASIN SNOWPACK	115% (20.4")	149% (8.3")

# Current Reservoir Storage

Reservoir	Percent Full	Current Storage (in millions of acre-feet)
Fontenelle Reservoir	36%	0.124
Flaming Gorge Reservoir	76%	2.844
Lake Powell	33%	8.023
Lake Mead	63%	16.218
Lake Mohave	94%	1.693
Lake Havasu	88%	0.547

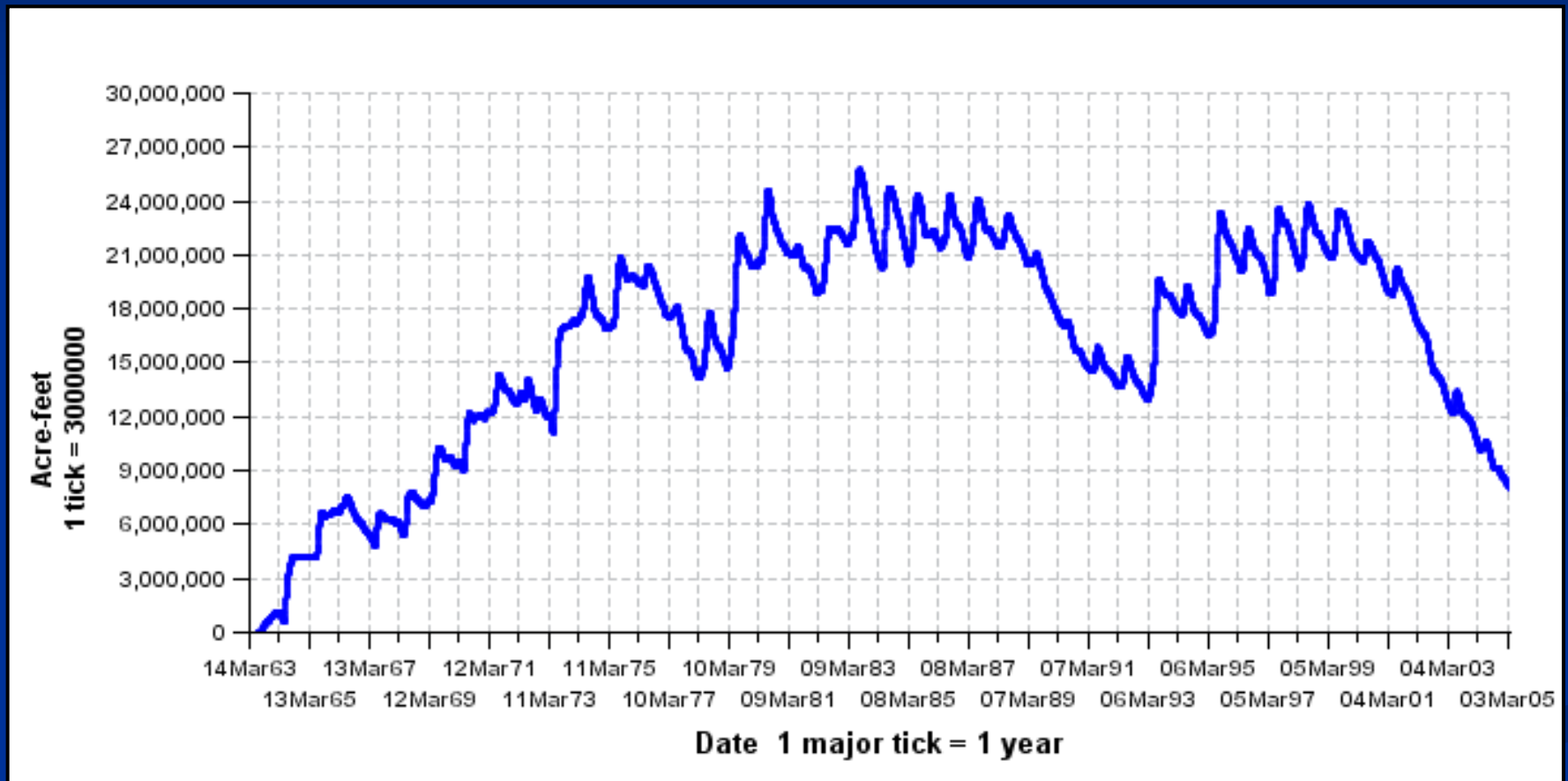


# Lake Powell Storage Schematic





# Lake Powell Storage Since Dam Closure March 14, 1963 (Acre-Feet)



# Seven Basin States' Water Management Discussions

- Seven Basin States' Meetings on 1/31--2/1, 2/28—3/1 and yesterday on April 4<sup>th</sup>
  - Department of the Interior “deadline” of April 1<sup>st</sup> joint submittal of recommendations was not met and state dialogue is not progressing
- Seven Basin States' Technical Group meetings on March 18<sup>th</sup> and March 29<sup>th</sup>
  - Evaluating Conjunctive Management (Lakes Powell and Lake Mead) proposals
- Colorado River Management (Annual Operating Plan) Work Group meeting on the 2005 mid-year review of the 2005 AOP on March 29<sup>th</sup> and upcoming on April 18<sup>th</sup>
  - No agreement on reducing Lake Powell deliveries in 2005
  - Lower Division States, especially Arizona, fixated on 8.23 MAF minimum objective release as being the “baseline” – saber-rattling going on
  - Secretary of the Interior will be asked to make decision – still wants a consensus – conference call among States and Interior will take place tomorrow

The 2005 Annual Operating Plan specified a mid-year review (in April 2005) of the Annual Operating Plan will occur to determine if a reduction in total release from Lake Powell should occur.

The AOP language reads as follows:

“Due to the severe drought and the reduction in available reservoir storage in the Colorado River Basin, pursuant to Article I(2) of the Operating Criteria, the Secretary will review the 2005 annual release amount from Lake Powell in April 2005 to determine if the runoff forecast warrants an adjustment to the release amount for water year 2005. Any revision to the AOP may occur only through the AOP consultation process as required by applicable federal law.”

Continuing deliveries of 8.23 million acre-feet per year (MAFY) will result in Lake Mead continuing to drop:

- With average side (tributary) inflows and normal deliveries to CA, AZ and NV, Lake Mead storage will continue to decline between 0.75 to 1.0 MAFY.
- Side inflow about balances evaporative losses at Lake Mead on an average annual basis.
- The Lower Basin cannot sustain 7.5 MAFY of use (“normal” deliveries”) if releases from Lake Powell continue to be 8.23 MAFY for a prolonged period.

Annual LCRB Water Balance:

<b>Inflow:</b>	+ 8.23 MAF
	+ 0.77 MAF
	<hr/>
	<b>+ 9.00 MAF</b>

(Powell release + side inflows)

<b>Outflow:</b>	- 7.5 MAF
	- 1.5 MAF
	- 0.3 MAF
	<hr/>
	<b>- 9.30 MAF</b>

(LB & Mexico apportionments + downstream regulation, gains and losses)

<b>Evaporation:</b>	- 0.70 MAF
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(Lake Mead annual evaporation loss)

<b>Balance:</b>	<hr/>
	<b>- 1.0 MAFY</b>

## Colorado River Discussions Overview - continued:

- “Stay tuned.”
- Raised stakes for Upper Division States due to continuing decline of Lake Powell.
- “Good faith” negotiations
  - Short-term versus long-term perspectives
  - Trade-offs
  - Lower Basin insistence on maintaining 8.23 maf release
  - Upper Basin insistence on conserving storage in light of extremely low reservoir level and being below 602(a) storage level
    - Don’t want the Lower Basin’s water appetite to drive the system into shortage water supply conditions

# Colorado River Basin Salinity Control Program

- The Forum will hold its 72<sup>nd</sup> Meeting in Grand Junction, Colorado on June 8th.
  - The next Work Group meeting will be held on April 13<sup>th</sup> and 14<sup>th</sup> in Salt Lake City, Utah
  - The Work Group is preparing of the 2005 Review of Water Quality Standards in the Colorado River Basin (Triennial Review).
    - This review and the resulting triennial review report are likely to be different than prior ones.
      - Computer modeling projects only a 3% chance the numeric criteria of 723 mg/l at Hoover Dam will be exceeded with salinity control measures now in place. At the end of the 2005 Review period, 2008, without any new salinity control measures implemented, there is only a 12% chance of the numeric criteria being exceeded.
      - the numeric criteria and that standard which the Forum has elected not to change since its adoption in the mid-1970's calls for a program that prevent the numeric criteria exceedance 50% of the time.



## Upper Colorado River Endangered Fish Recovery Program:

- Briefing visits with Congressional delegation and committee staff members, DOI officials and others occurred during March 9-15<sup>th</sup> trip.
  - Handout copies of briefing booklet and synopsis documents available today and on-line
  - Secure support for Fiscal Year 2006 Program funding -- \$2.239 M of USBR appropriations for capital construction (in President's budget) and \$691,000 in the Fish and Wildlife Service's "Recovery" funds for USFWS program personnel, salary and expenses (zeroed out of President's budget again on account of being a "Congressional earmark."
    - 13 of 14 House members to sign onto joint delegation letters
    - Good support among the States' Senate delegation members

# Upper Colorado River Endangered Fish Recovery Program - continued

- Working with States' Congressional Delegations to amend the P.L. 106-392 capital construction authorization for the Upper Colorado River and San Juan Programs
  - Representative Cubin has agreed to be the lead sponsor of this legislation in the House (THANK YOU); Senator Allard has agreed to be the lead sponsor on the Senate side
    - Will get cosponsorship by nearly all of the four States' Congressional delegations
    - Shooting for introduction prior to the May recess)
  - Copies of handout prepared for February briefing visits with Congressional delegation and committee staff members available today and on-line
  
- Met on March 11th with Deputy Secretary Lynn Scarlett, FWS Deputy Director Marshall Jones and DOI Budget Office Director John Trezise and advised the Program's non-federal participants want to work with the Administration to solve this problem – FWS needs to be providing FWS \$\$ to fund FWS core administrative functions for the UCEFRP.
  - Joint delegation funding request letters addressed to Secretary Norton requesting that FY2007 budget include Recovery Program funding in FWS "base" "recovery" budget – anticipate nearly all of the House and Senate delegation members from the four States to sign onto the letters.



# Colorado River Compact Administration Planning Project

- ❑ At the last GRBAG meeting, the State Engineer's Office advised we were initiating a Colorado River Compact Administration Project due to the prolonged drought and the low reservoir elevation at Lake Powell raising the possibility of a compact call pursuant to Article IV of the Upper Colorado River Basin Compact.
- ❑ The project is underway. The purpose of the project is to outline the information that the State Engineer's Office would need to react to a valid call for curtailment under the Colorado River and Upper Colorado River Basin Compacts. In addition, alternative means to develop this information will be defined and preliminary cost estimates will be developed.
- ❑ Mike Purcell of Purcell Consulting in Cheyenne has been retained to draft the plan. The draft plan will be the topic of public information meetings in the basin. These meetings are tentatively scheduled for late May.

## Colorado River Compact Administration Planning Project:

- *Gather affected public input through meetings with public held in Wyoming's portion of the Basin.*
- *End product: report with recommendations advising State Engineer what he needs to do and how it should be done:*
  - *additional water measurement data needs*
  - *what rules and regulations, if any, should be promulgated by the State Engineer*
  - *Describe options to use Fontenelle Reservoir (or other) storage to lessen impacts*
  - *What protections exist for post-1922 water rights*
  - *General approach to compliance with Article IV*

# Tentative Public Meeting Dates

## for Colorado River Compact Administration Planning Project

- May 24<sup>th</sup> in Pinedale
- May 25<sup>th</sup> in Green River
- May 26<sup>th</sup> in Baggs

Meeting place locations within each community are to be determined and will be well publicized. Meeting times to be set to accommodate as many folks as possible.

Thanks for your interest and  
attention;

Questions?



Tree at Dead Horse Point, near Moab, Utah;  
2000 feet above the Colorado River



# Going Into our 6<sup>th</sup> Year of Drought

## Lake Powell Unregulated Inflow – Water Years 1999 - 2004

Water Year 1999	109% of average
Water Year 2000	(7.1 MAF) 62% of average*
Water Year 2001	(6.8 MAF) 59% of average
Water Year 2002	(3.1 MAF) 25% of average
Water Year 2003	(6.4 MAF) 51% of average
Water Year 2004	(5.8 MAF) 51% of average

The average of the last five years has been 50 percent of the 30 year average of 11.8 million acre-feet!

\* Average computed using the Water Year 1971 through 2000 period.

## Article IV of the Upper Colorado River Basin Compact of 1948:

In the event curtailment of use of water by the States of the Upper Division at any time shall become necessary in order that the flow at Lee Ferry shall not be depleted below that required by Article III of the Colorado River Compact, the extent of curtailment by each State of the consumptive use of water apportioned to it by Article III of this Compact shall be in such quantities and at such times as shall be determined by the Commission upon the application of the following principles:

(a) The extent and times of curtailment shall be such as to assure full compliance with Article III of the Colorado River Compact;

(b) If any State or States of the Upper Division, in the ten years immediately preceding the water year in which curtailment is necessary, shall have consumptively used more water than it was or they were, as the case may be, entitled to use under the apportionment made by Article III of this Compact, such State or States shall be required to supply at Lee Ferry a quantity of water equal to its, or the aggregate of their, overdraft of the proportionate part of such overdraft, as may be necessary to assure compliance with Article III of the Colorado River Compact, before demand is made on any other State of the Upper Division;

(c) Except as provided in subparagraph (b) of this Article, the extent of curtailment by each State of the Upper Division of the consumptive use of water apportioned to it by Article III of this Compact shall be such as to result in the delivery at Lee Ferry of a quantity of water which bears the same relation to the total required curtailment of use by the States of the Upper Division as the consumptive use of Upper Colorado River System water which was made by each such State during the water year immediately preceding the year in which the curtailment becomes necessary bears to the total consumptive use of such water in the States of the Upper Division during the same water year; provided, that in determining such relation the uses of water under rights perfected prior to November 24, 1922, shall be excluded.