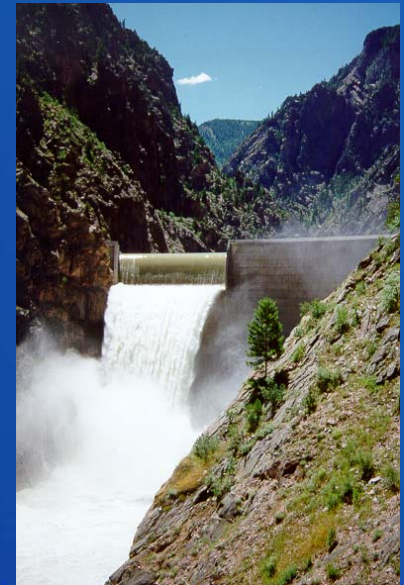
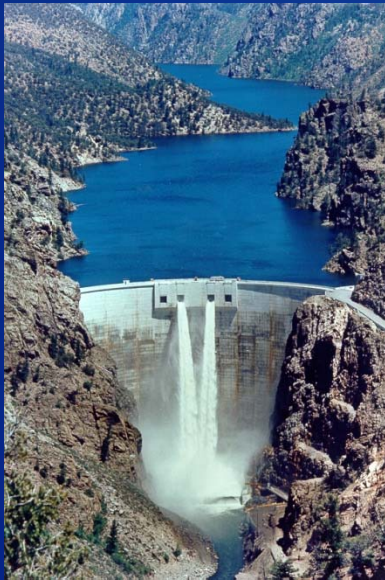


Aspinall Operations Meeting

January 19, 2017

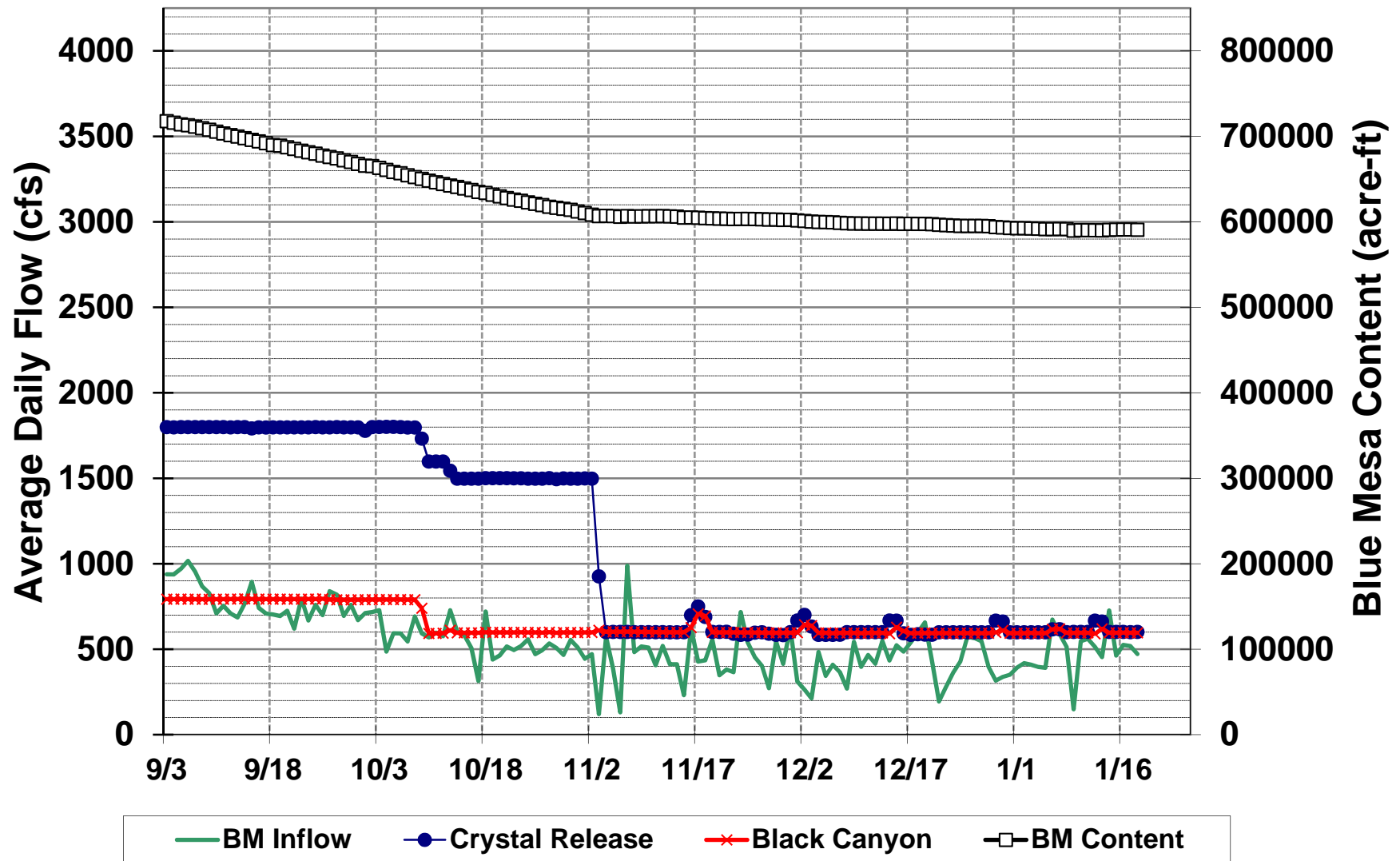


RECLAMATION

OPERATIONS PAST AND PRESENT

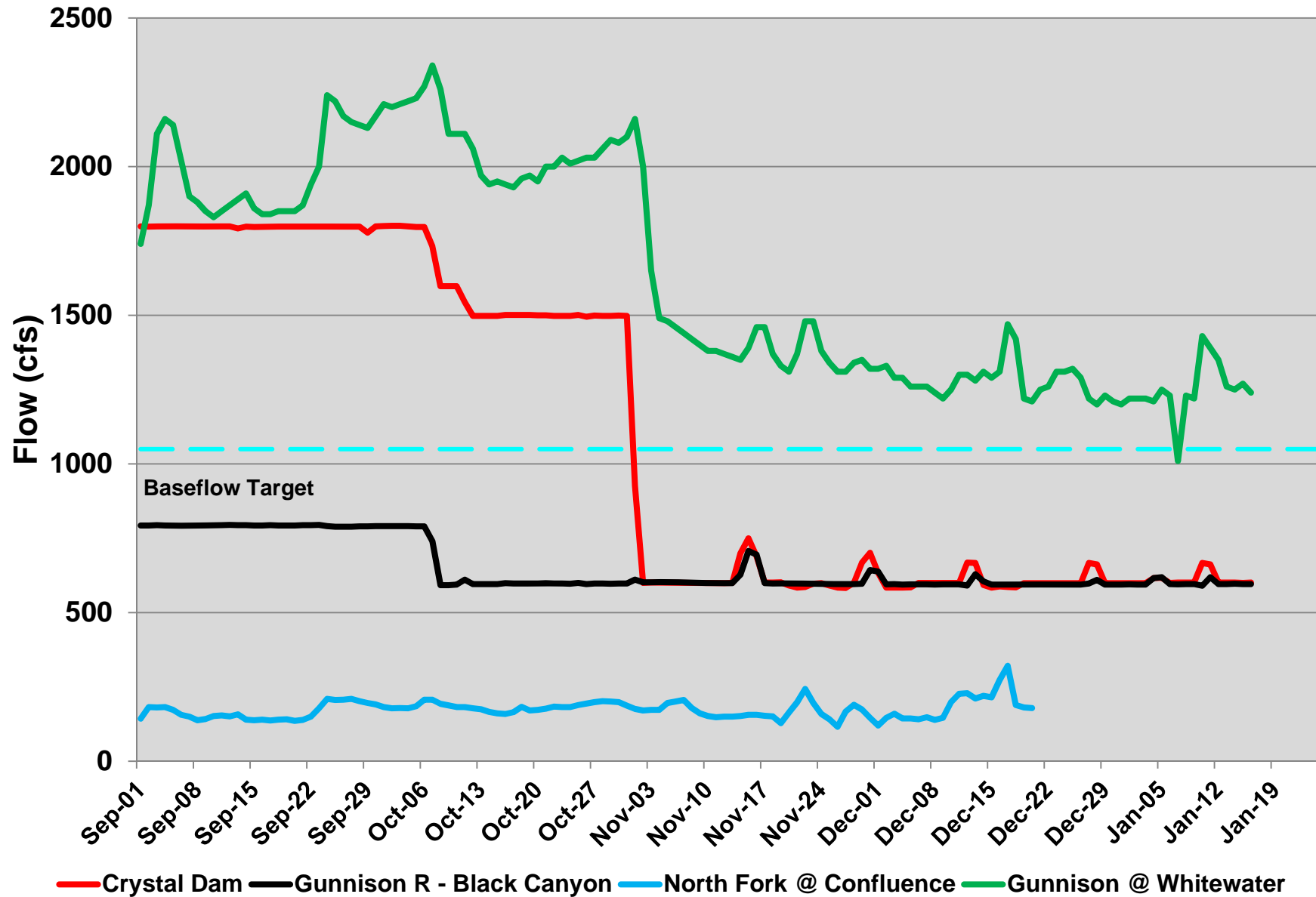
RECLAMATION

September 2016 - January 2017



RECLAMATION

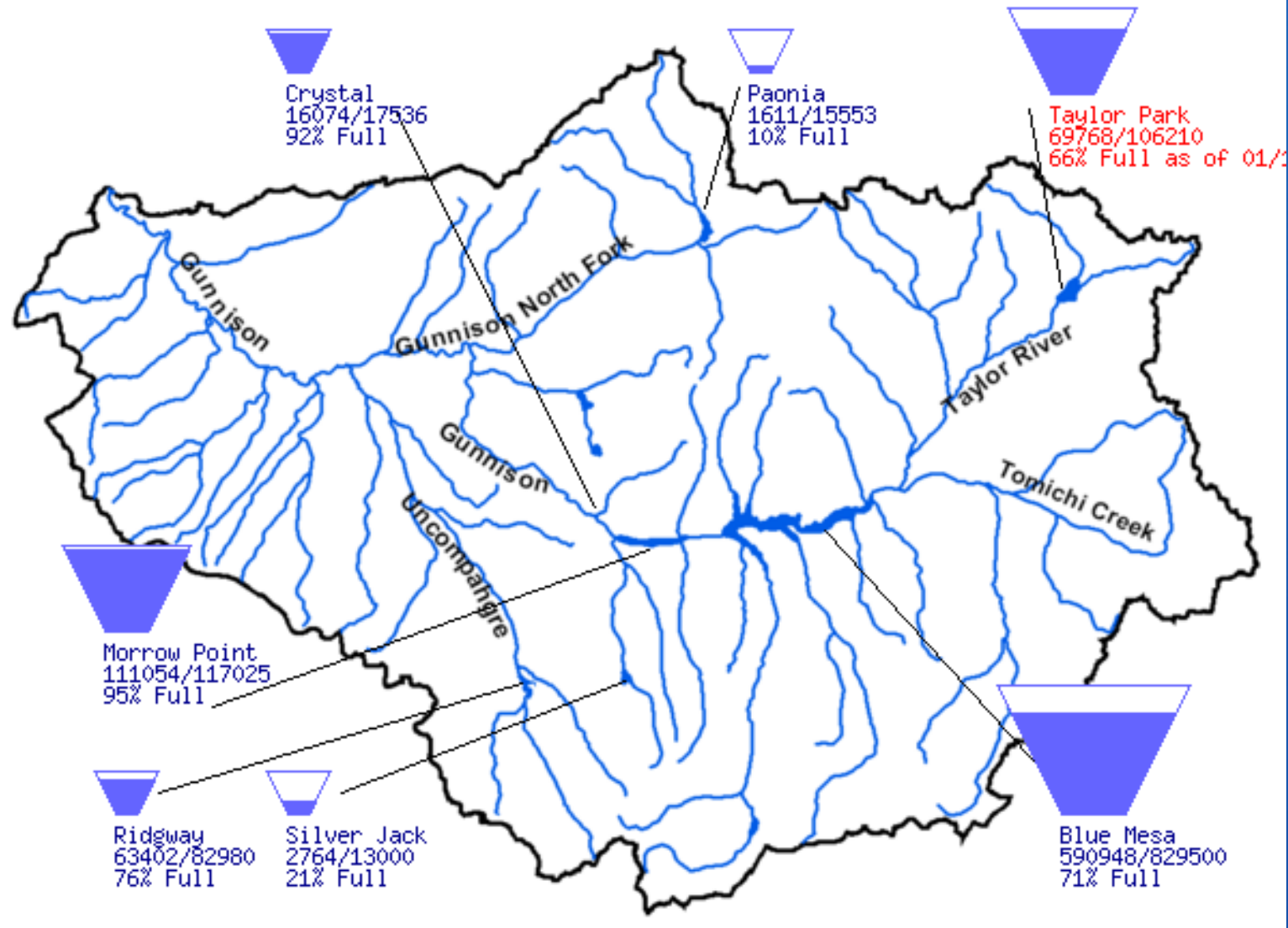
Gunnison River Flows



RECLAMATION

Data Current as of:
01/17/2017

Gunnison River Basin, CO



RECLAMATION

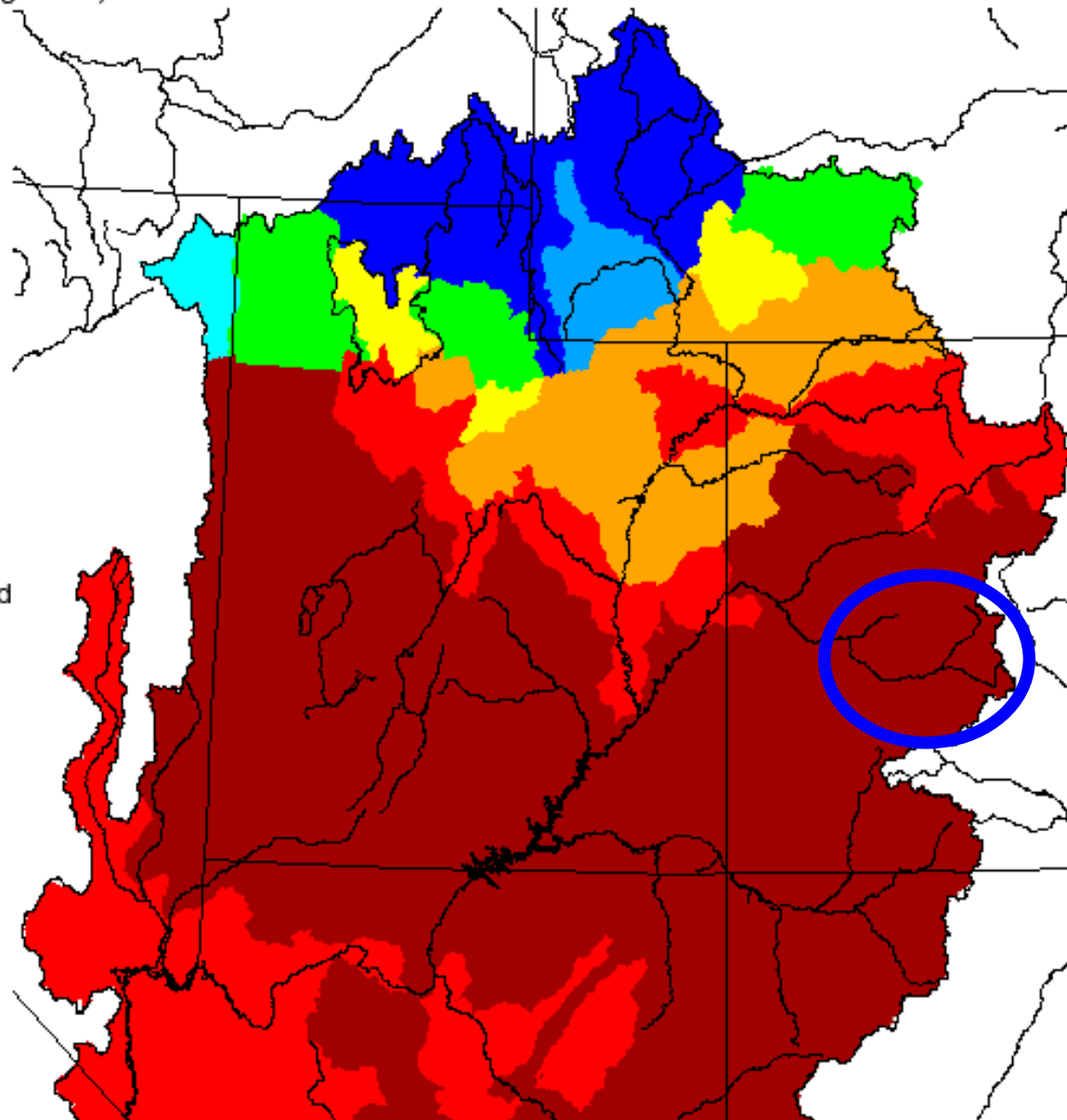
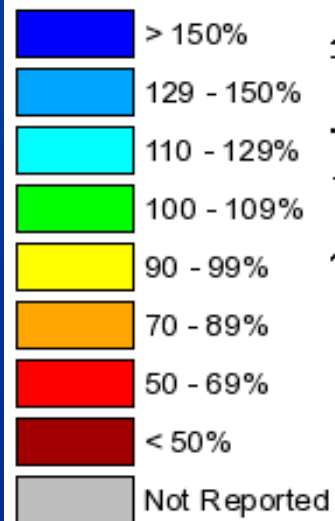
SNOW CONDITIONS

RECLAMATION

Monthly Precipitation for October 2016

(Averaged by Hydrologic Unit)

% Average

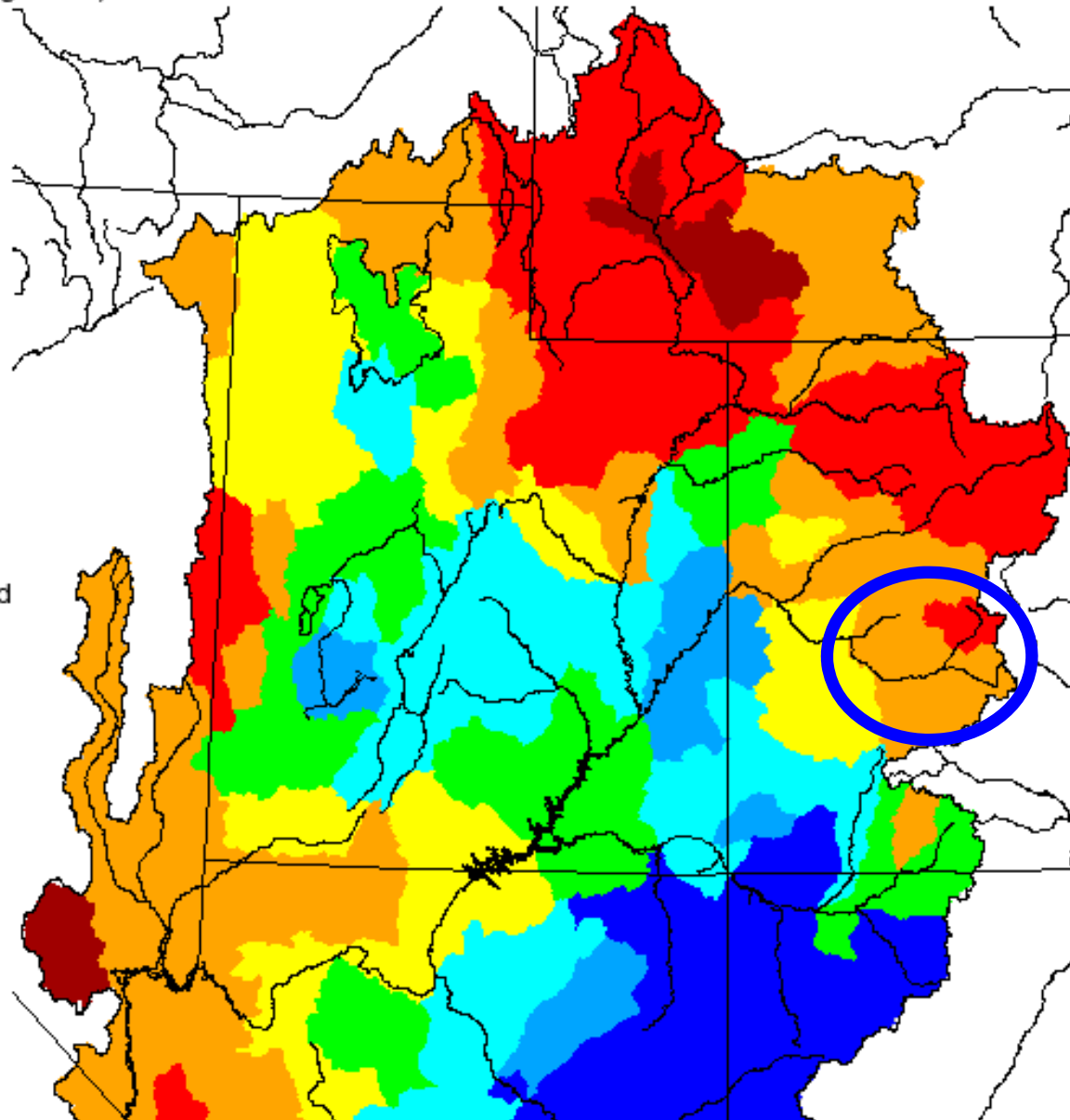
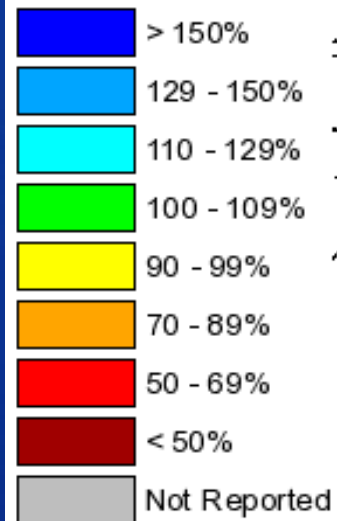


RECLAMATION

Monthly Precipitation for November 2016

(Averaged by Hydrologic Unit)

% Average

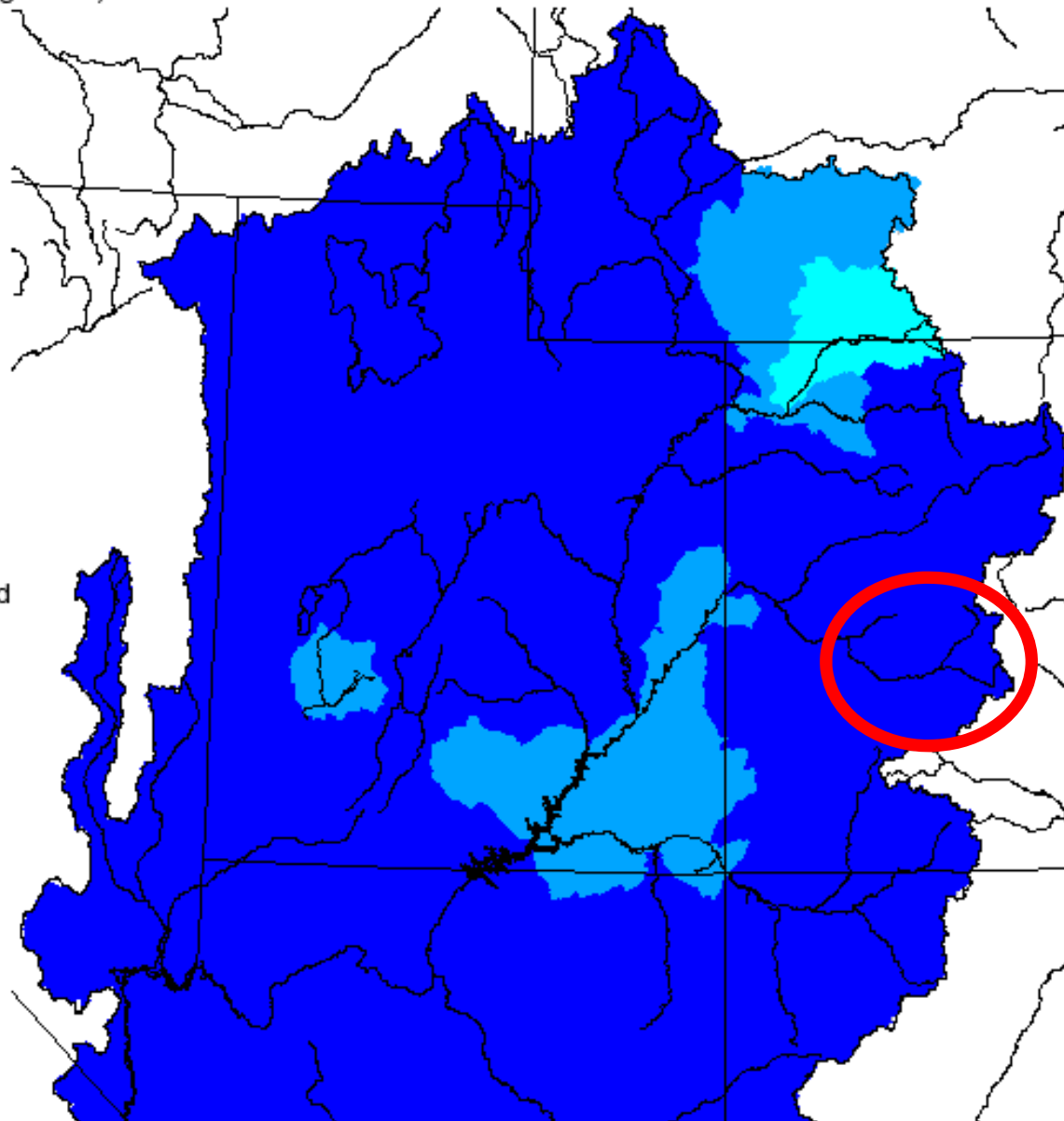
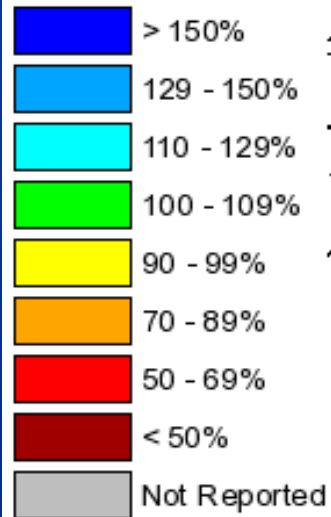


RECLAMATION

Monthly Precipitation for December 2016

(Averaged by Hydrologic Unit)

% Average

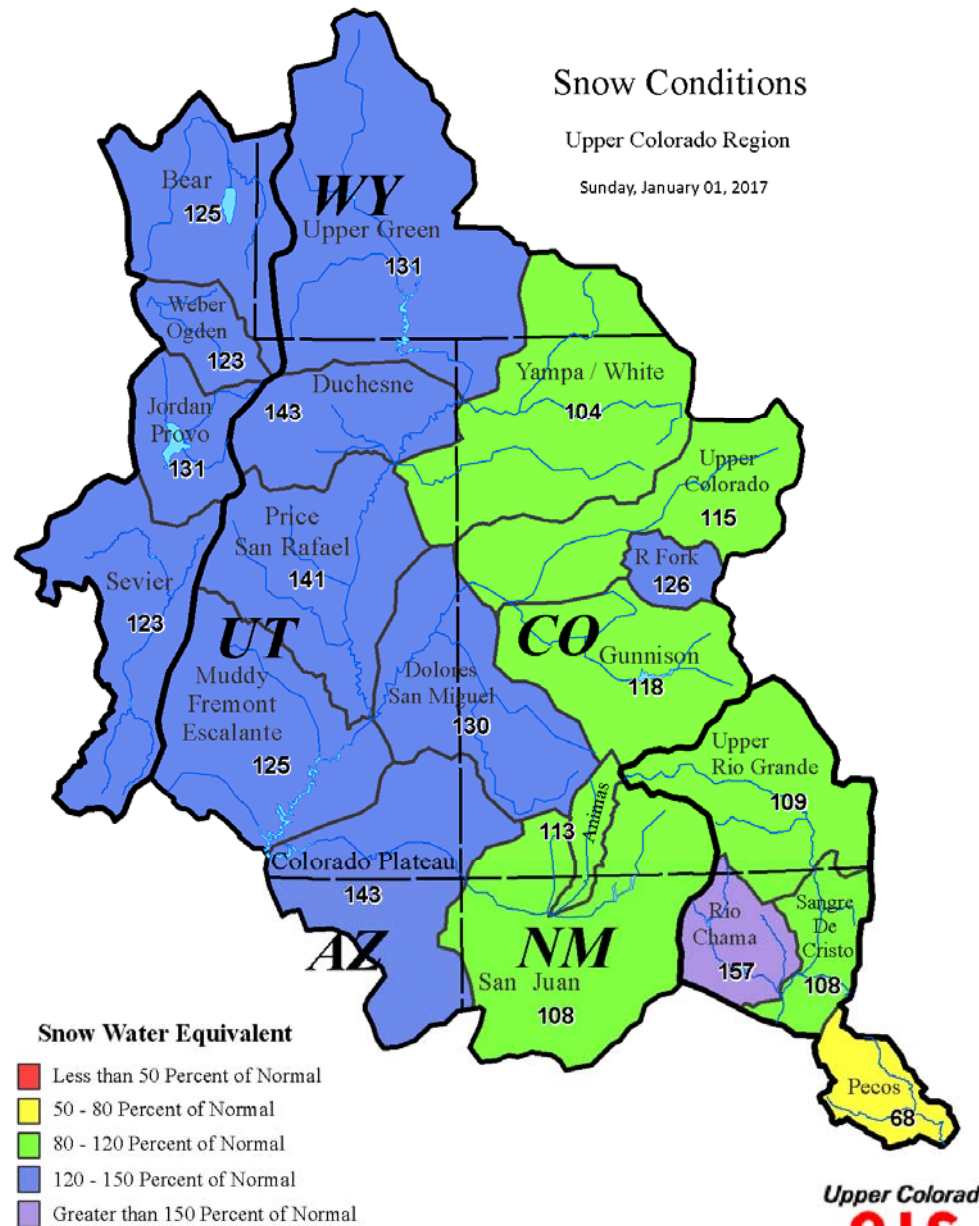


RECLAMATION

Snow Conditions

Upper Colorado Region

Sunday, January 01, 2017

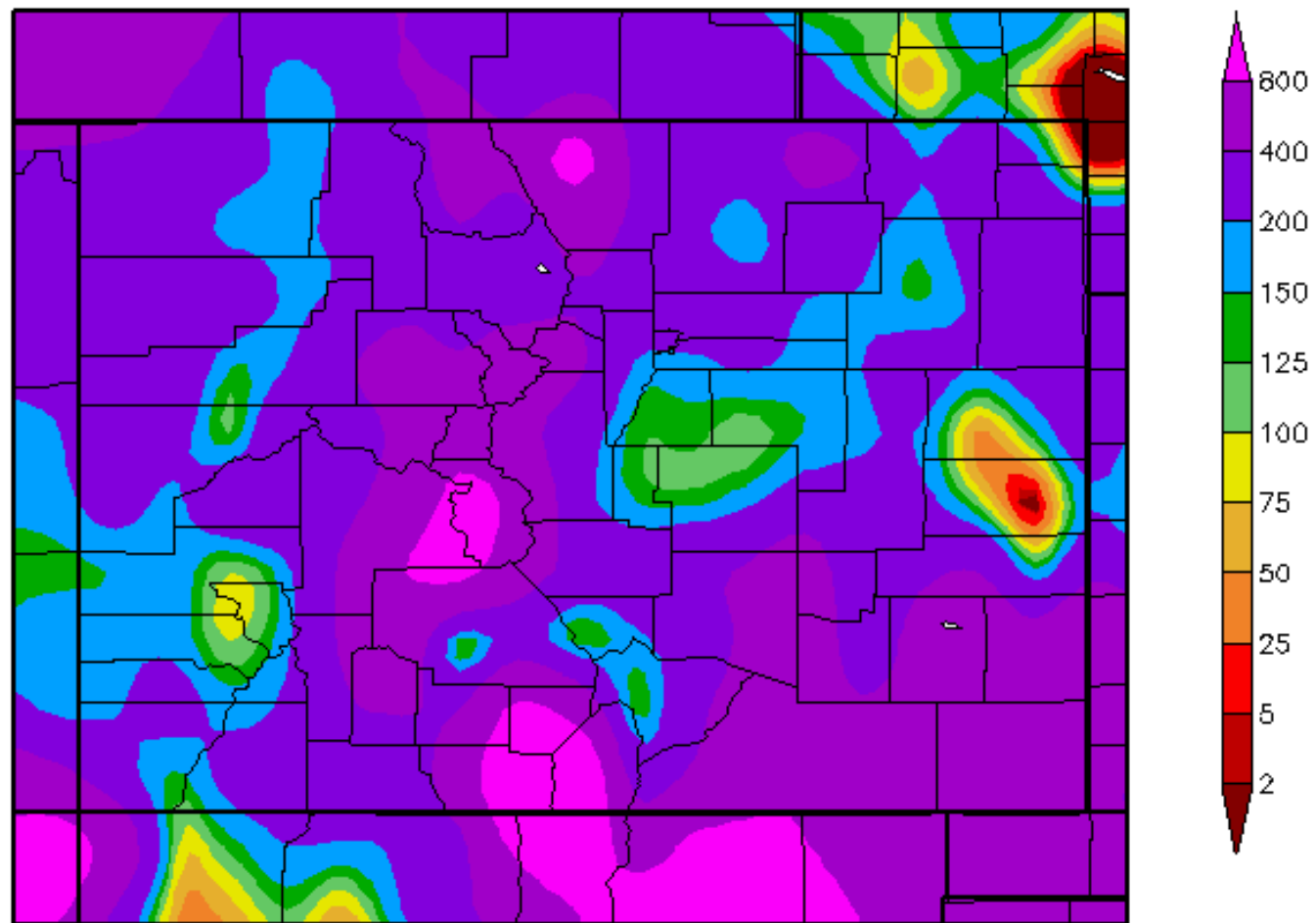


Data Provided by the Natural Resource Conservation Service

Upper Colorado
GIS
Region

RECLAMATION

Percent of Normal Precipitation (%)
1/1/2017 - 1/17/2017



Generated 1/18/2017 at HPRCC using provisional data.

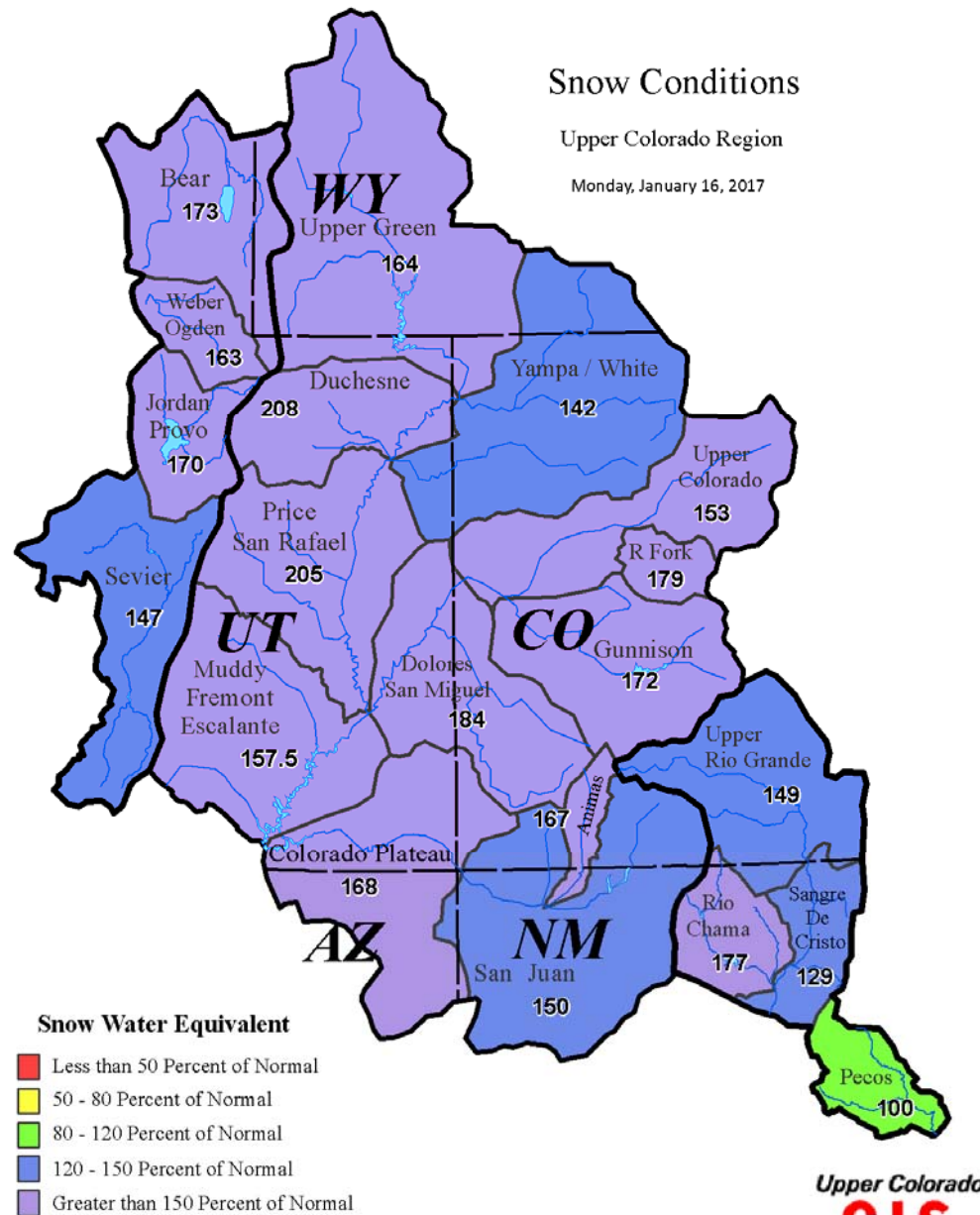
Regional Climate Centers

RECLAMATION

Snow Conditions

Upper Colorado Region

Monday, January 16, 2017



Data Provided by the Natural Resource Conservation Service

Upper Colorado
GIS
Region

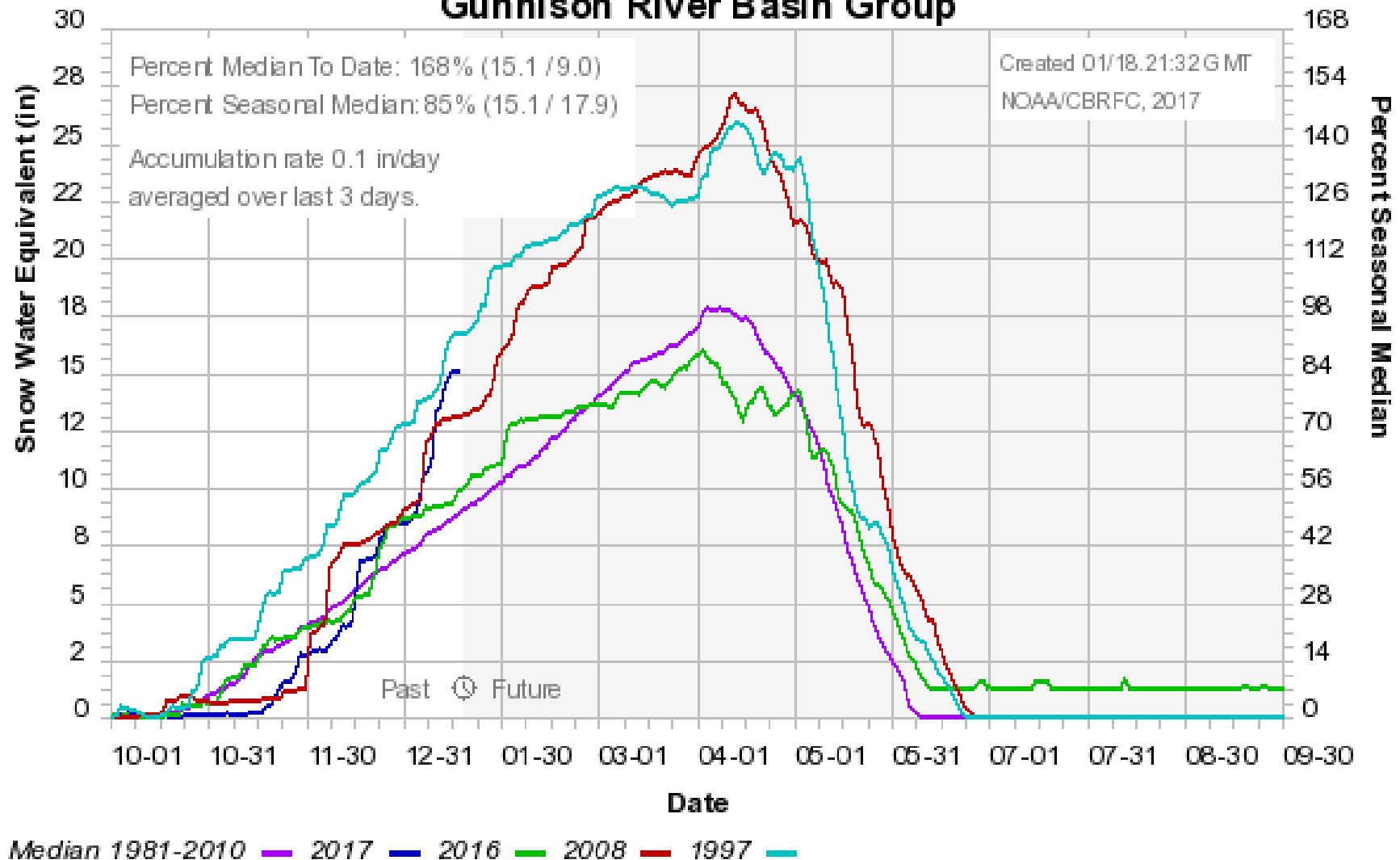
RECLAMATION

Days to Receive a Month's Worth of Snow

	Dec	Jan	Jan	Rank
Butte	17	8	12	# 2
Schofield	17	9	13	# 2
Porphyry	17	6	12	# 2
Slumgullion	22	10	17	# 2
Park Cone	17	8	10	# 1

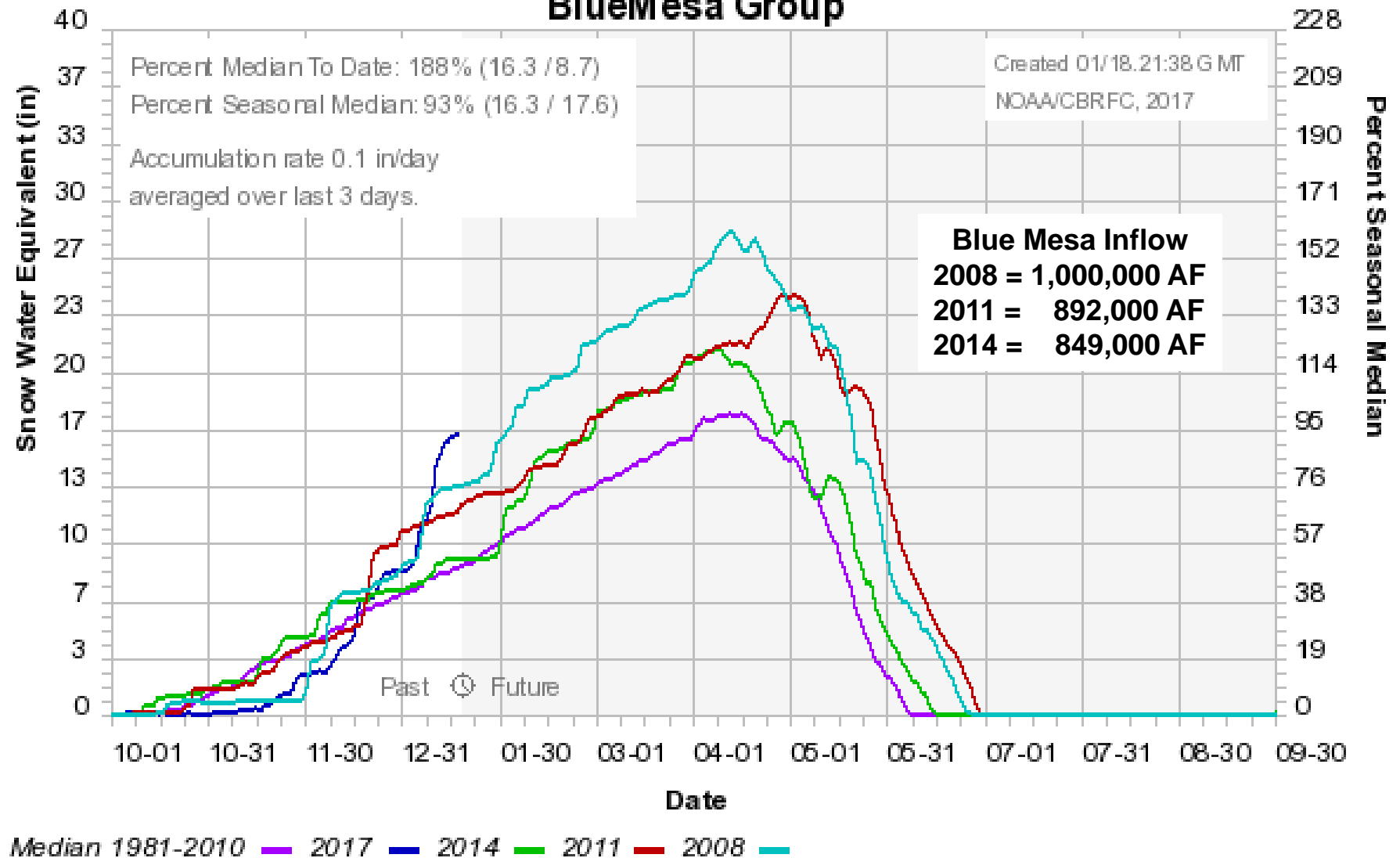
RECLAMATION

Colorado Basin River Forecast Center Gunnison River Basin Group



RECLAMATION

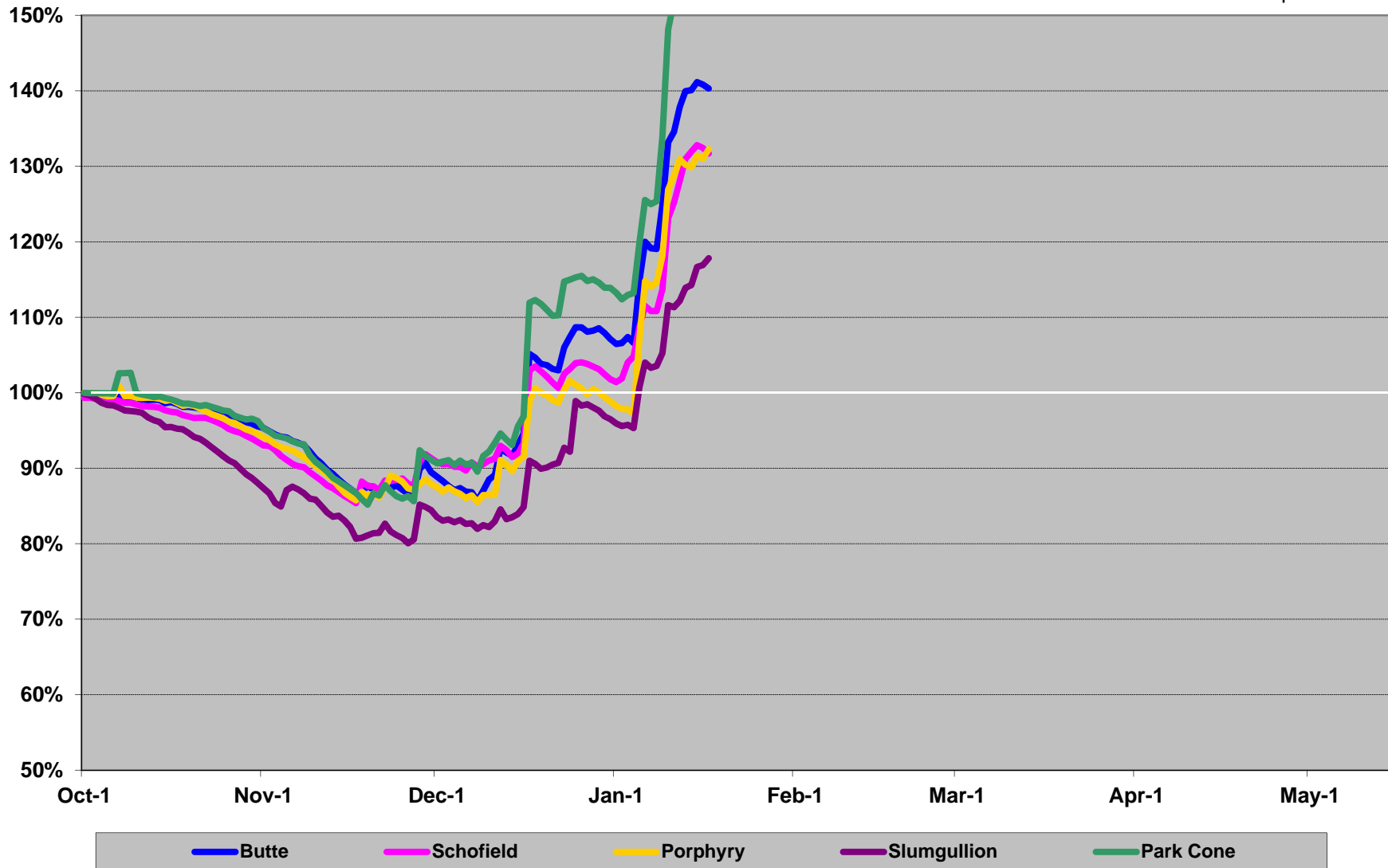
**Colorado Basin River Forecast Center
BlueMesa Group**



RECLAMATION

Upper Gunnison Basin SWE % of Average Daily (Scaled to % of Avg Annual Peak)

Basin Snowpack = 169%

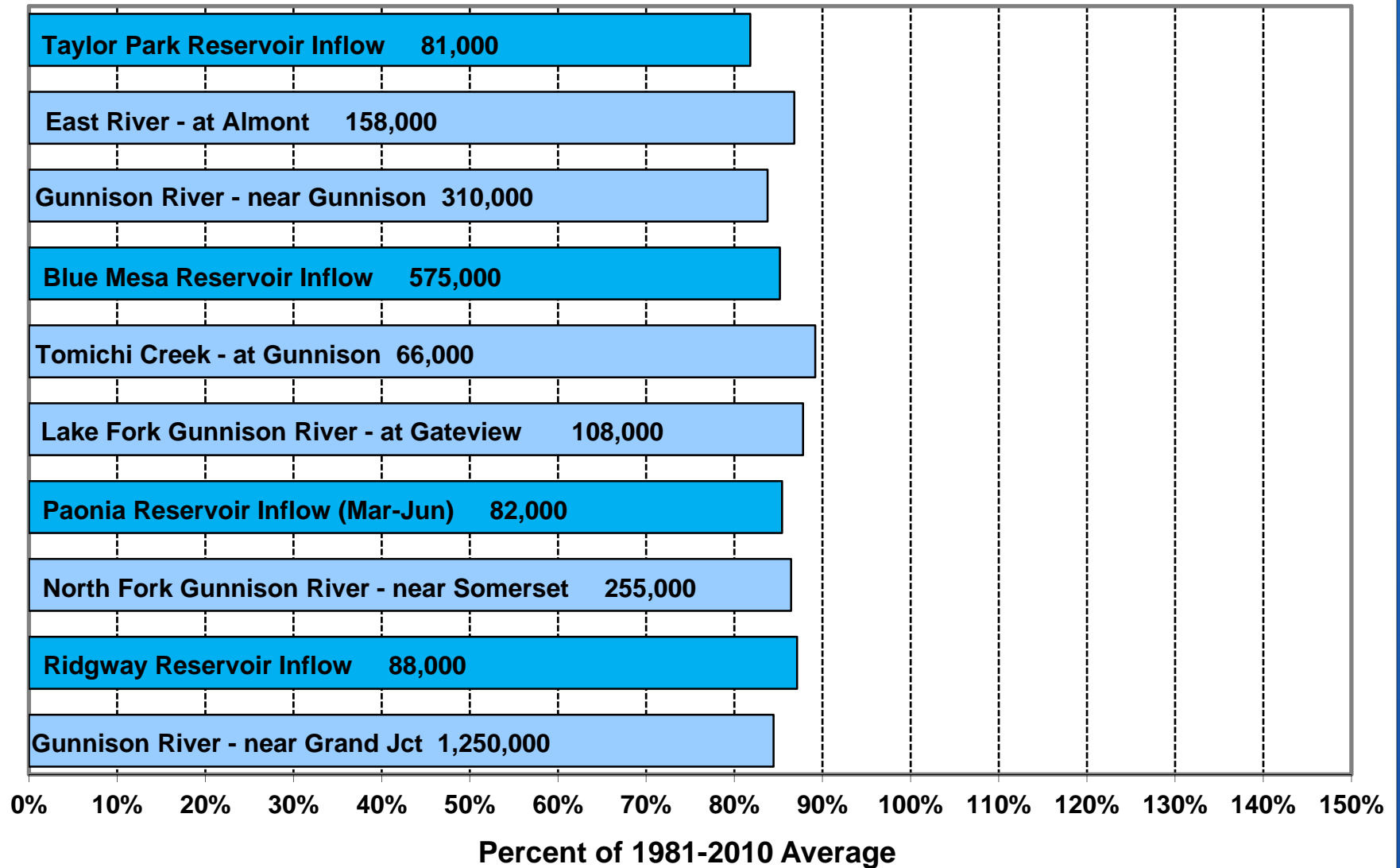


RECLAMATION

RUNOFF FORECASTS

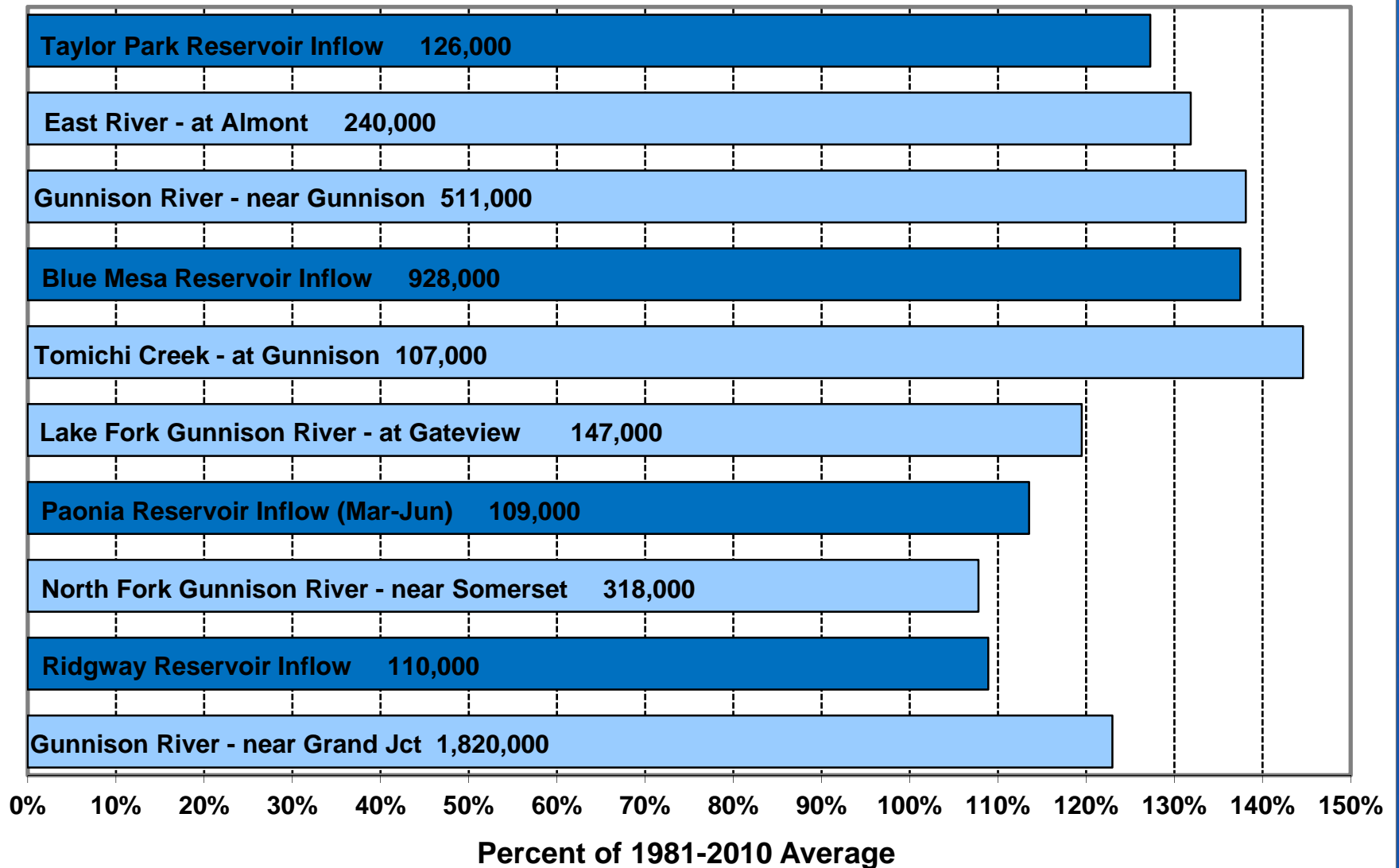
RECLAMATION

Forecasted April-July Runoff As of January 1st



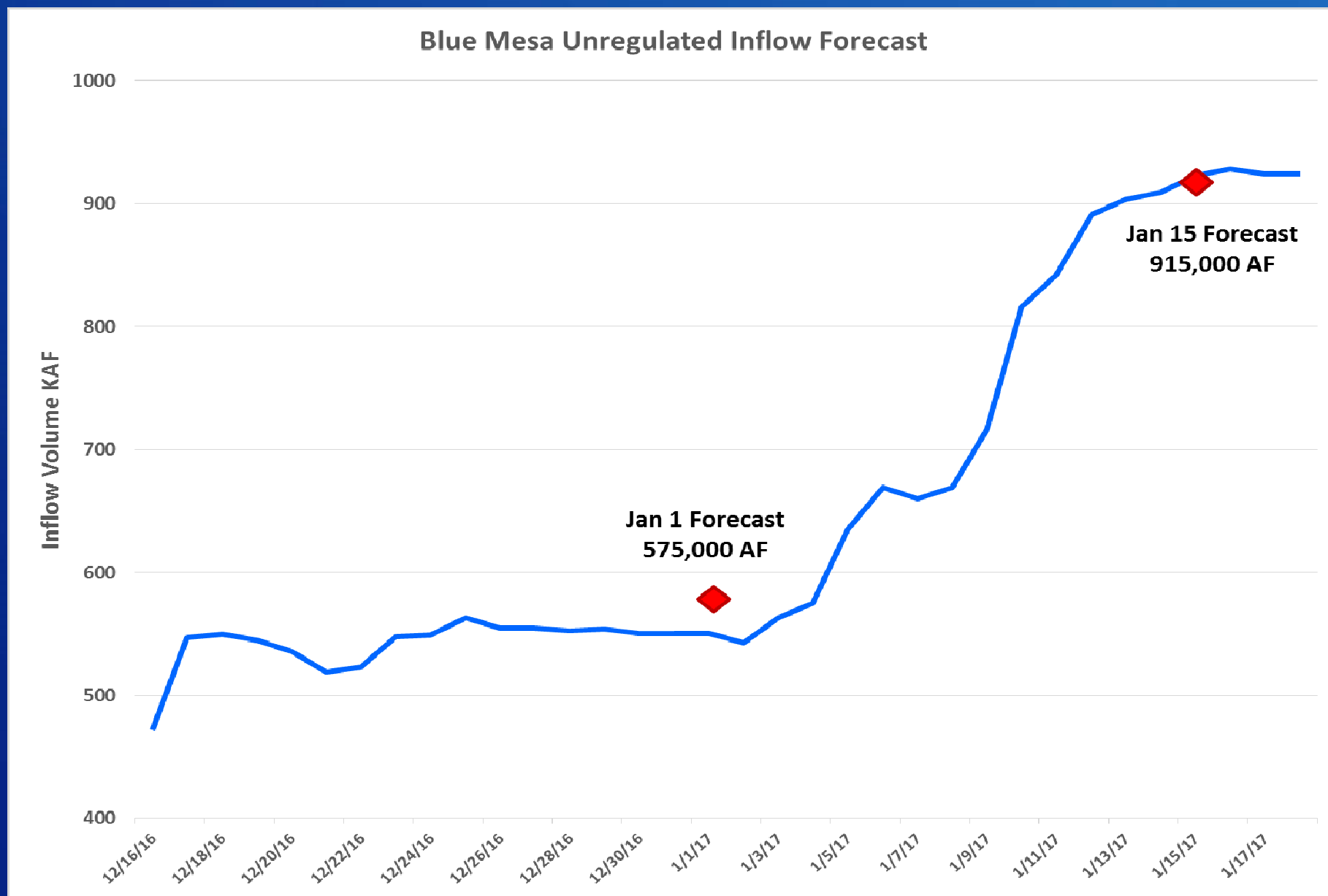
RECLAMATION

Forecasted April-July Runoff As of January 15th



RECLAMATION

CBRFC Hydrologic Model – Daily Forecast Evolution Plot



RECLAMATION

SPRING TARGETS AND FUTURE OPERATIONS

RECLAMATION

Spring Peak & Duration Targets Based on Hydrologic Year Type

Year Type	Blue Mesa Forecasted	Desired Peak at Whitewater	Duration of Half Bank (8,070 cfs)	Duration of Peak Flow (up to 14,350 cfs)
	April-July Inflow Af	cfs	Days	Days
DRY	< 381,000	900	0	0
MOD DRY	381,000 to 516,000	2,600 to 8,070	0	0
AVG DRY	516,001 to 709,000	8,070	10	0
AVG WET	709,001 to 831,000	8,070 to 14,350	20	2
MOD WET	831,001 to 1,123,000	14,350	40	10
WET	>1,123,000	14,350	60	15

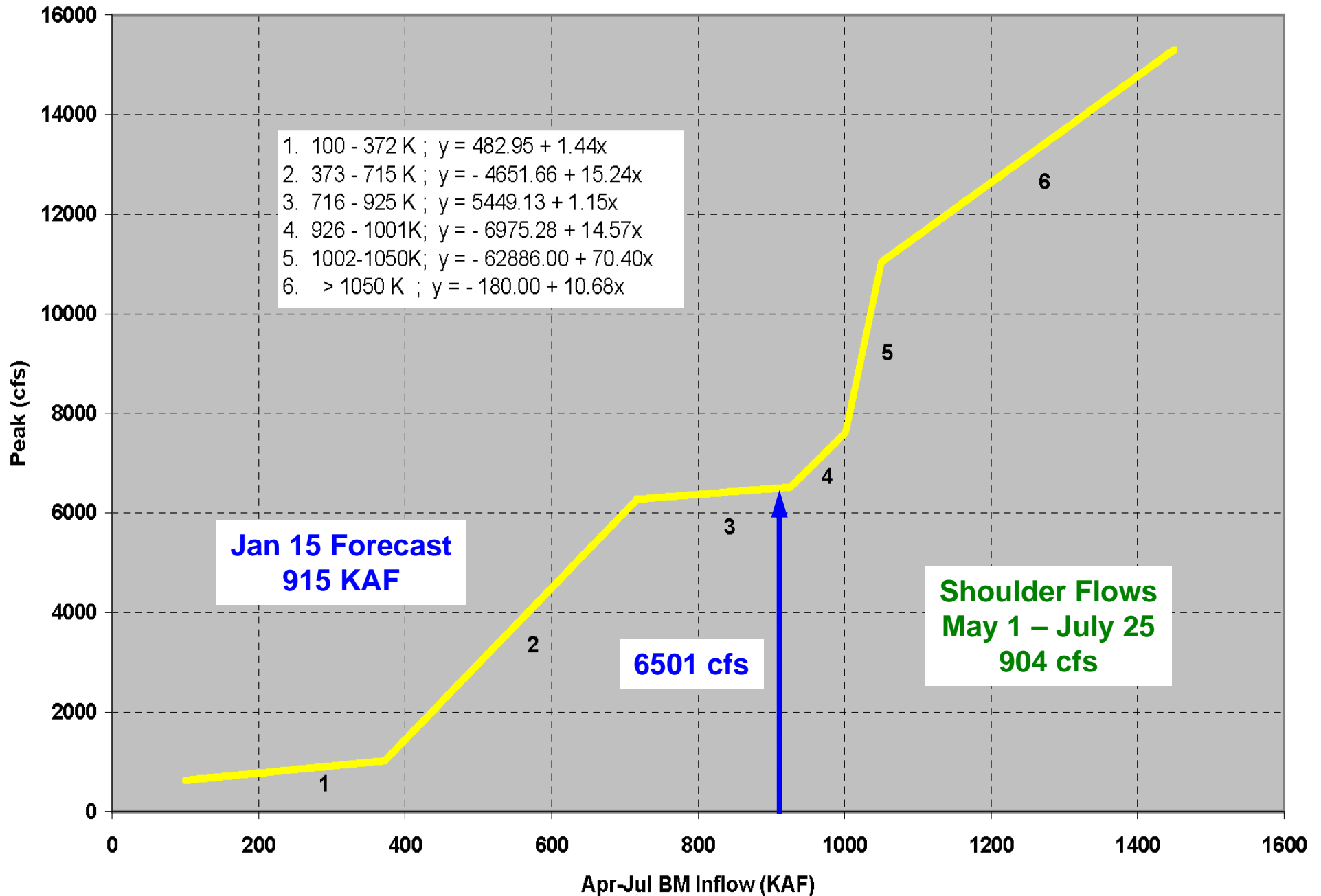
Mid-Jan
915,000



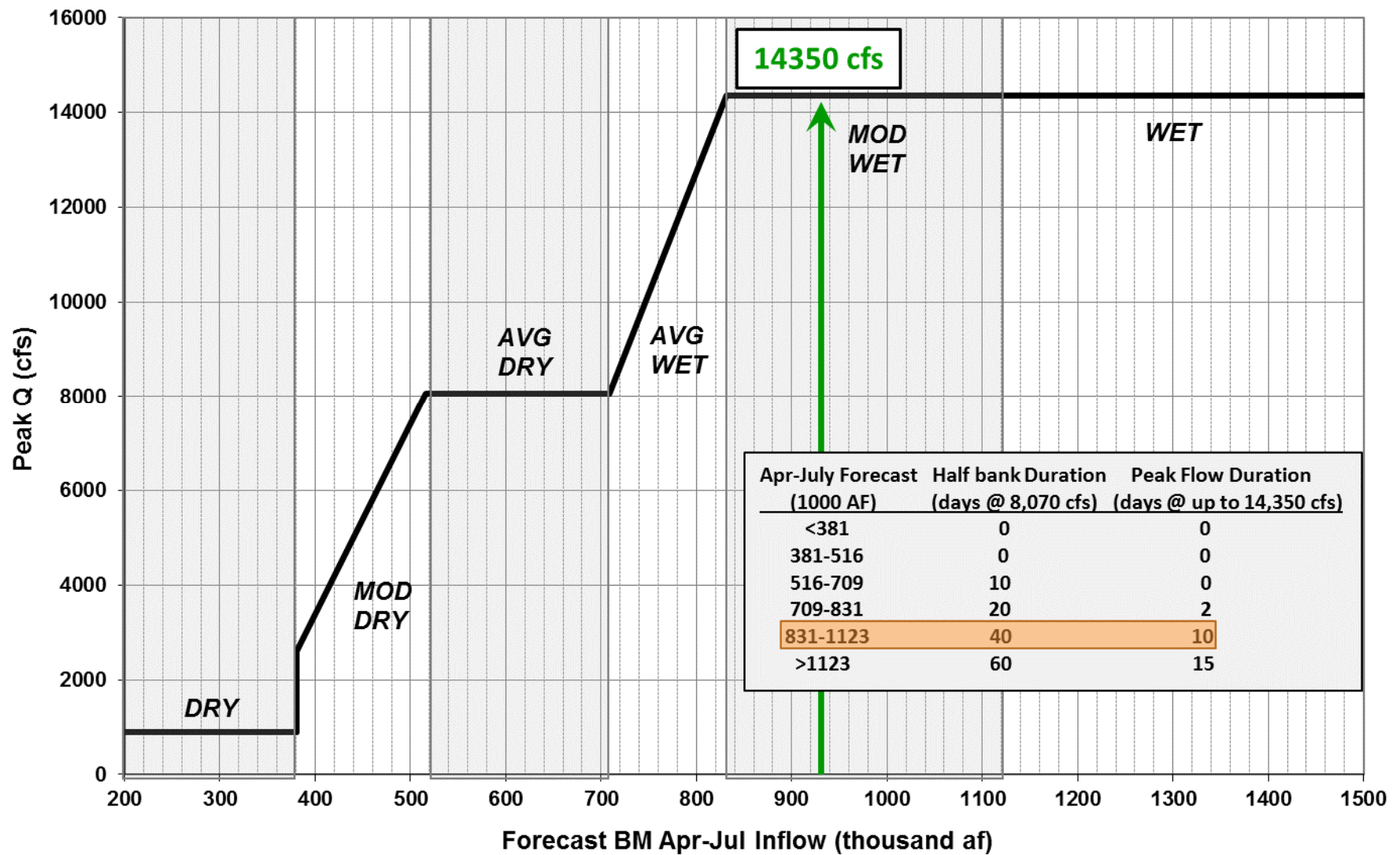
RECLAMATION

Black Canyon Peak Flow Determination

based on Blue Mesa May 1 forecast



Peak Flow and Duration Day Targets at Whitewater



RECLAMATION

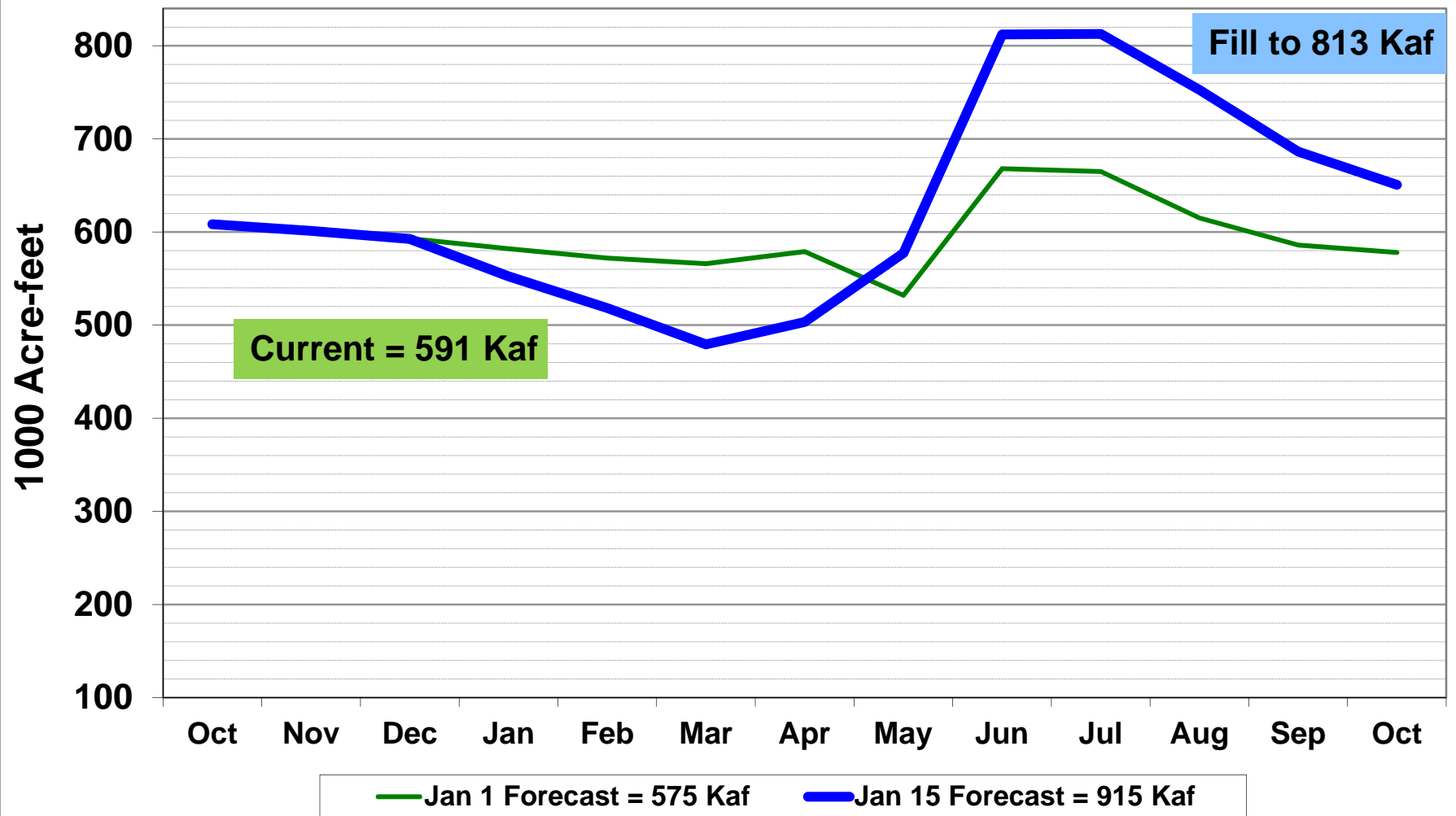
Baseflow Targets

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Wet	1050	1050	1050	1050	1050	1500	1500	1500	1050	1050	1050	1050
Mod Wet	1050	1050	1050	1050	1050	1500	1500	1500	1050	1050	1050	1050
Avg Wet	1050	1050	1050	1050	1050	1500	1500	1050	1050	1050	1050	1050
Avg Dry	1050	1050	1050	1050	1050	1500	1500	1050	1050	1050	1050	1050
Mod Dry*	750	750	750/790	750/890	750/890	1050	1050	1050	750/890	750/790	750/790	750
Dry*	750	750	750/790	750/890	750/890	1050	1050	750/890	750/890	750/790	750/790	750

*During March through November in Moderately Dry and Dry type years, additional releases will be made as necessary to provide flows above the 750 cfs anticipated to be diverted by the Redlands Water and Power Company, for the fish ladder and fish screen as shown.

RECLAMATION

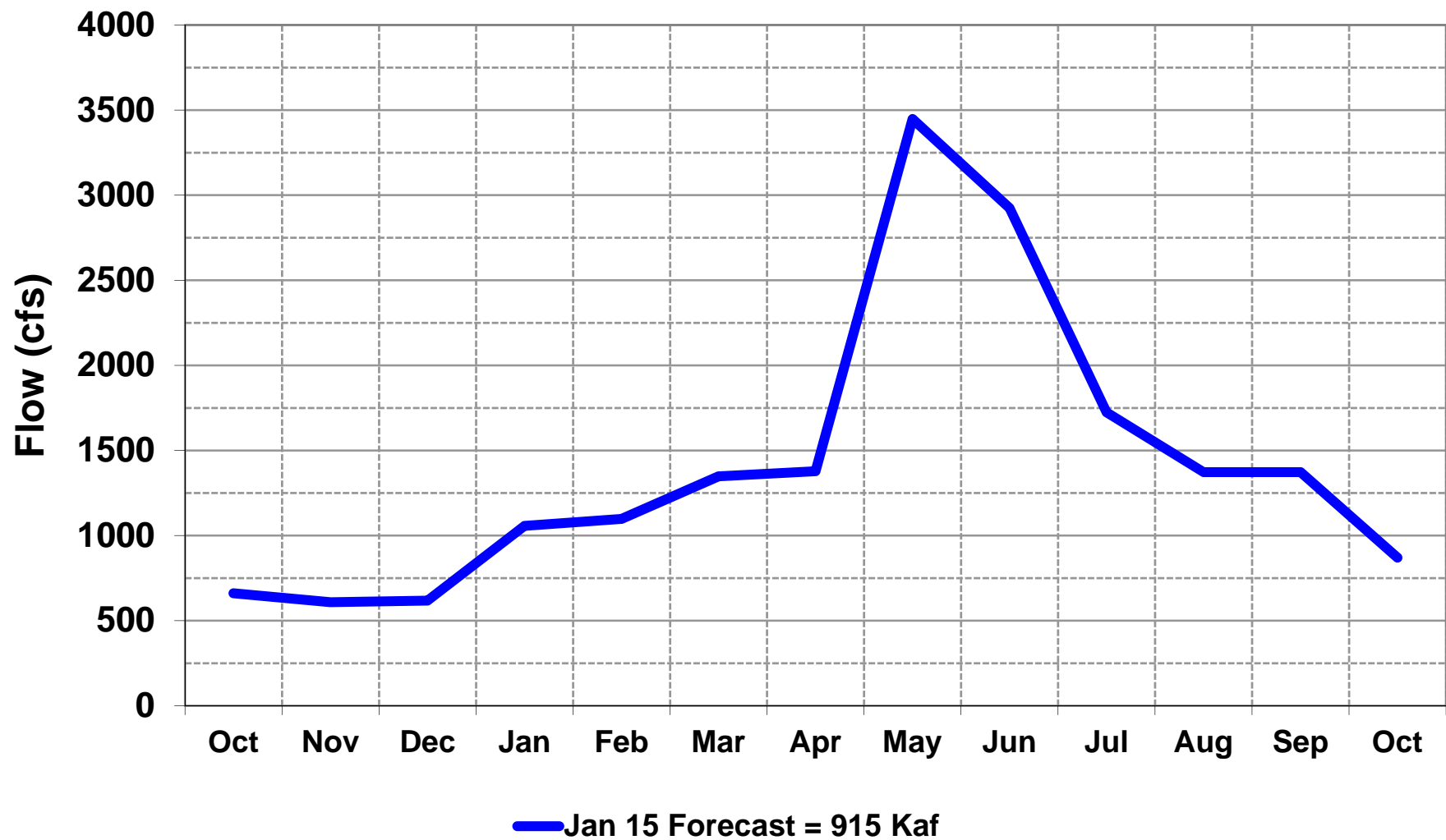
Blue Mesa Content End of Month



RECLAMATION

Gunnison River - Black Canyon

Monthly Average Flow



RECLAMATION



RECLAMATION