

Water Resources CBRFC Tools

October 31, 2017



Introduction

- Water
- Sewer
- Storm Water
- Street Lighting



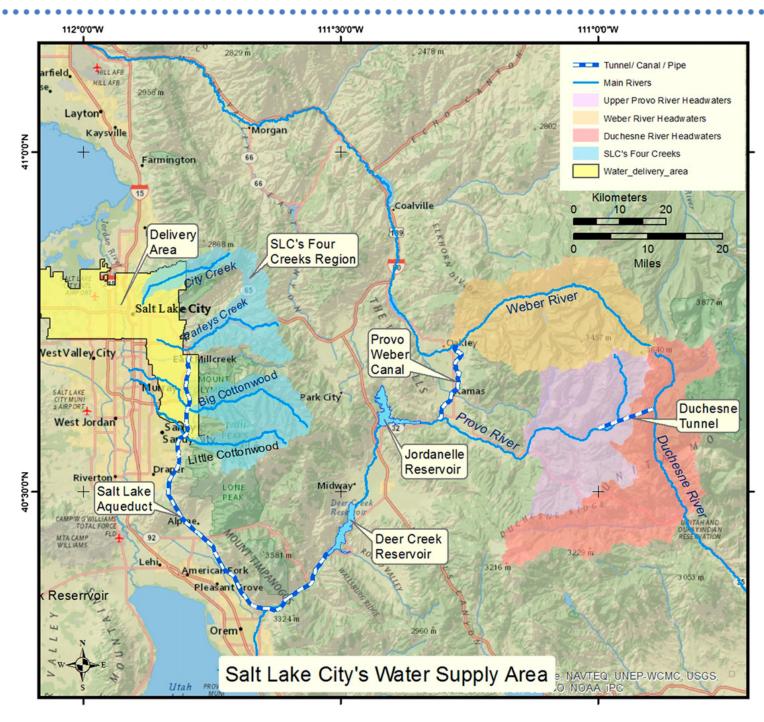








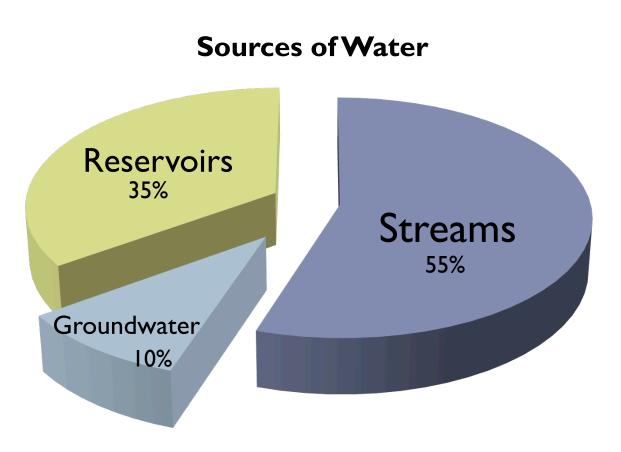
SCL Water Delivery and Water Sources





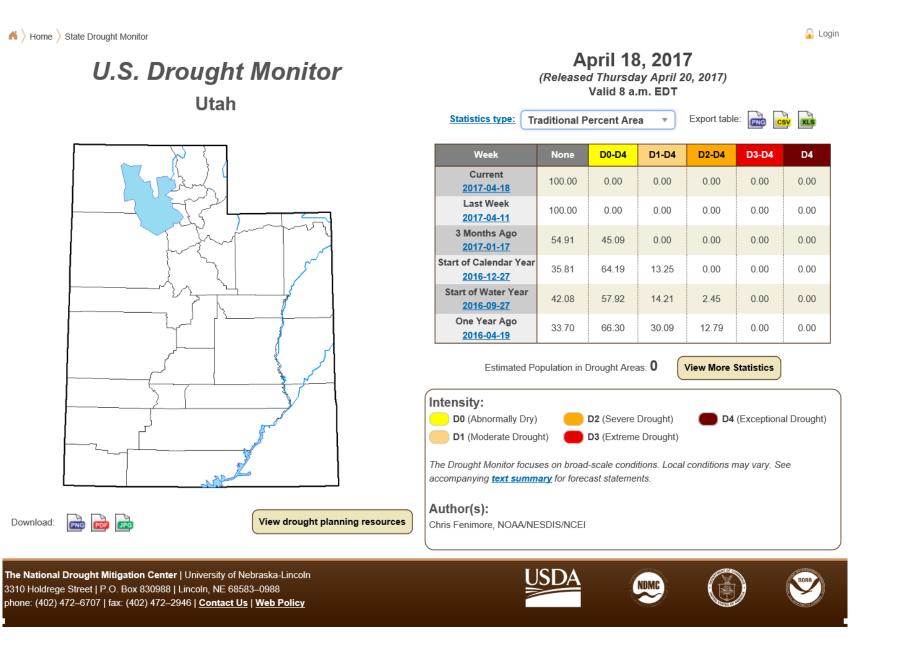
Water Sources

- Streams
 - Little Cottonwood Creek
 - Big Cottonwood Creek
 - City Creek
 - Parleys Creek
- Reservoirs
 - Deer Creek
 - Jordanelle
 - Mountain Dell/Little Dell
- Groundwater

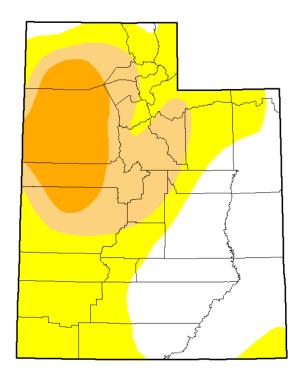




Drought Conditions

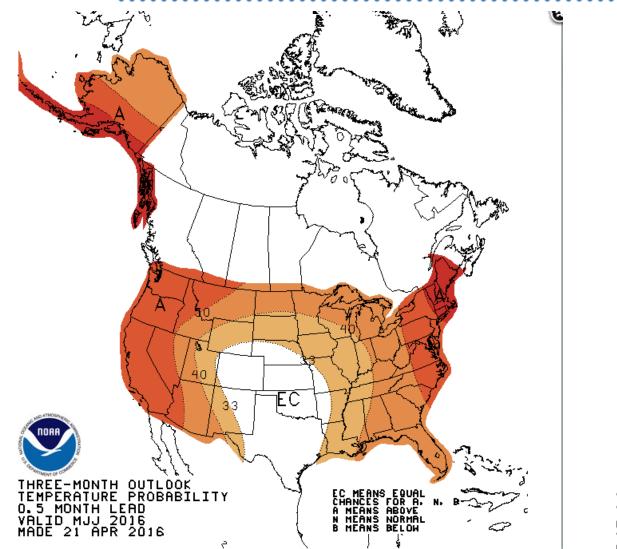


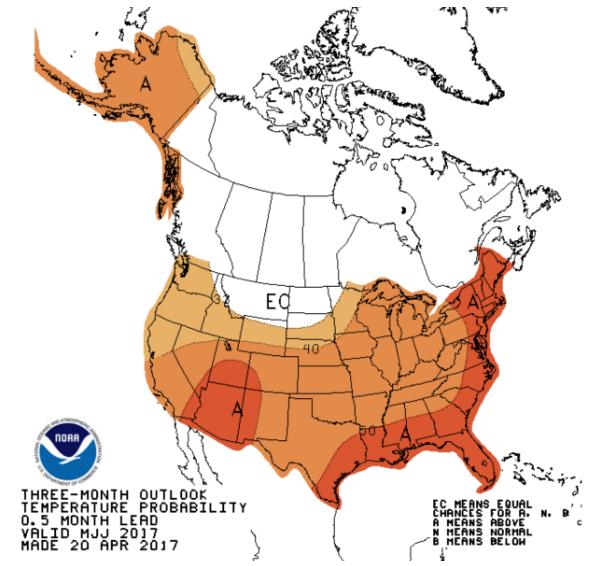
April 19, 2016

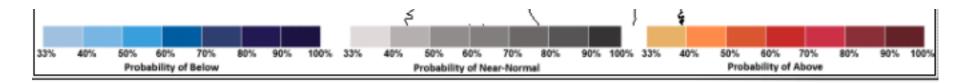




Temperature Forecast

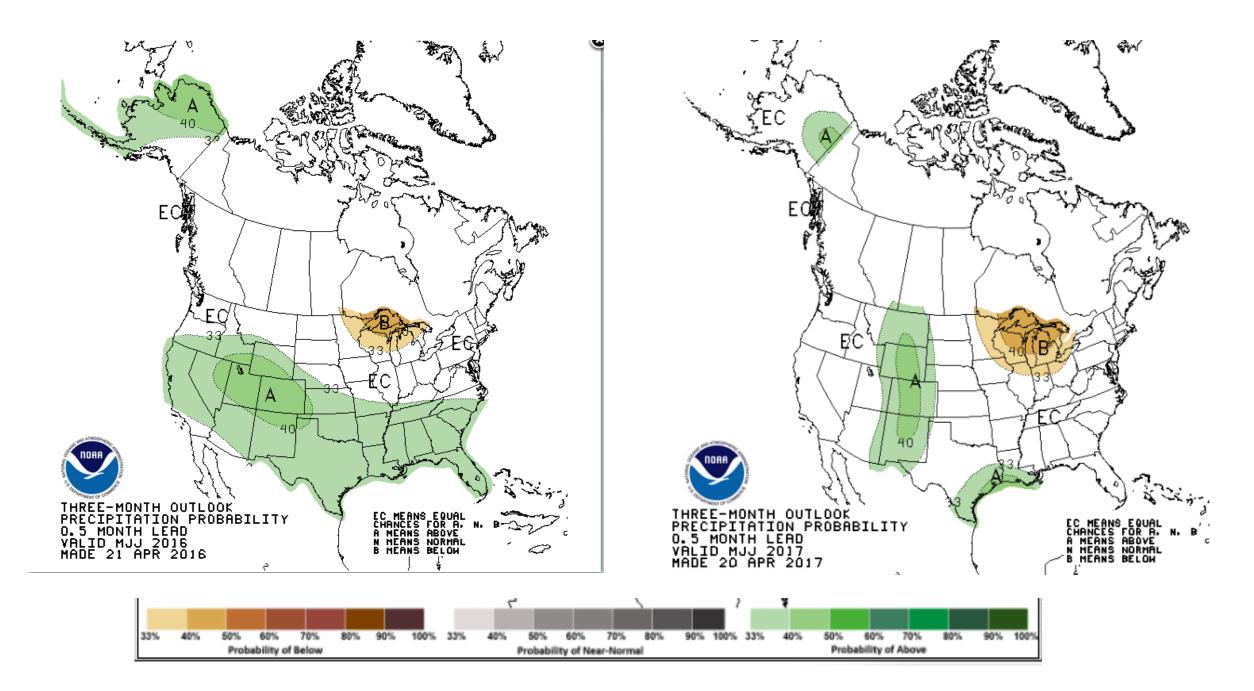








Precipitation Forecast





Stream Runoff Models

Daily ESP List Download Data

/usr/bin/Rscript /web/rmap/wsup/espsort.R cbrfc Area Sub.Area SC Water Supply Volume Percent Average/Median Condition △ < 30% ▲ 30-50% ▲ 50-70% ▲ 70-90% ▲ 90-100% ▲ 100-110% ▲ 110-130% ▲ 130-150% ▲ 150-200% ▲ 200-300% ▲ 300-500 ▲ >500% ▲ Regulated △ No Forecast

Options (on/off): Plot

Area: CBRFC Green Colorado San Juan Great Sevier Virgin Low Col

Columns (on/off): Area Sub Area NWS ID DS River Location ESP Date Avg Cond Med Cond Forecast Period P 90 P 70 P 50 P 30 P 10

Click column heading to sort by that data. Click ID to view point info. Click Area, Sub Area, or Forecast Period to show only those points.

Area Sub Area NWS ID River Location ESP Date Avg Cond Med Cond Forecast Period P 90 P 70 P 50 P 30 P 10 Avg Med Pct Avg Pct Med

1 Great Six Creeks	CCSU1	City Ck	Salt Lake City	2017-04-26	Δ	Δ	Apr 01-Jul 31	0	0	0	0	0	7.7	5.9	0	0
2 Great Six Creeks	EMIU1	Emigration Ck	Salt Lake City	2017-04-26	Δ	Δ	<u>Apr 01-Jul 31</u>	3.4	3.58	3.98	4.48	5.55	4	2.5	100	160
3 Great Six Creeks	DELU1	Dell Fk	Little Dell Res	2017-04-26	\triangle	Δ	<u>Apr 01-Jul 31</u>	0	0	0	0	0	5.5	4	0	0
4 Great Six Creeks	LAMU1	Lambs Ck	NA	2017-04-26	\triangle	Δ	<u>Apr 01-Jul 31</u>	0	0	0	0	0	5.3	4.1	0	0
5 Great Six Creeks	PRLU1	Parleys Ck	Salt Lake City	2017-04-26	\triangle	Δ	<u>Apr 01-Jul 31</u>	0	0	0	0	0	14.2	10.7	0	0
6 Great Six Creeks	MILU1	Mill Ck	Salt Lake City	2017-04-26	Δ	Δ	<u>Apr 01-Jul 31</u>	6.64	6.8	7.06	7.82	8.7	6.4	5	110	140
7 Great Six Creeks	BCTU1	Big Cottonwood Ck	Salt Lake City	2017-04-26	\bigtriangleup	Δ	<u>Apr 01-Jul 31</u>	0	0	0	0	0	36	31	0	0
8 Great Six Creeks	LCTU1	Little Cottonwood Ck	Salt Lake City	2017-04-26	\triangle	Δ	Apr 01-Jul 31	0	0	0	0	0	38	35	0	0
9 Great Six Creeks	WCGU1	S Willow Ck	Grantsville	2017-04-26	Δ	Δ	Apr 01-Jul 31	3.43	3.65	3.9	4.25	4.52	3.1	2.6	130	150

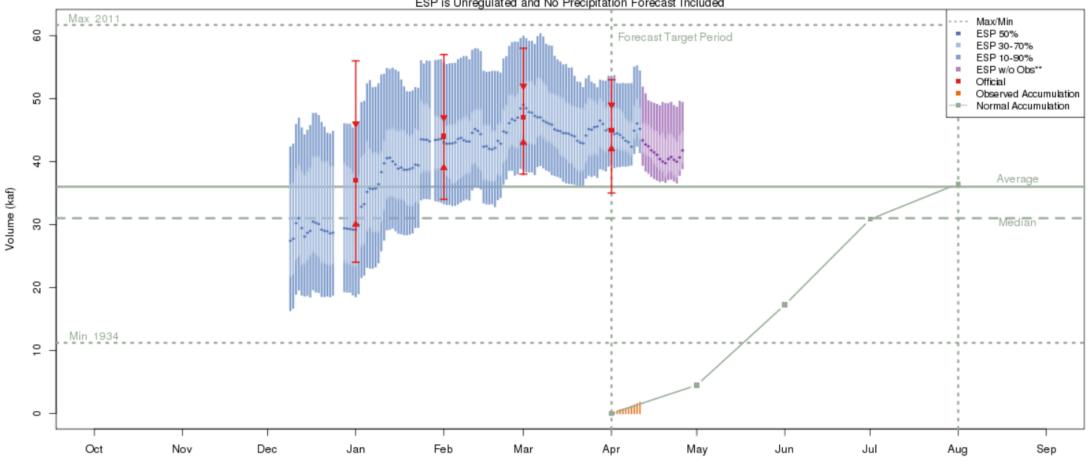


Big Cottonwood Creek

BCTU1 Water Supply Forecasts

Plot Forecasts Observations Historical Annual/Official Verification Reforcast Verification

Water Year: 2013 2014 2015 2016 2017 Plot Options (on/off): QPF ESP Official Forecasts Observations Max/Min Historical Plot Help: Text Description Graphic Interpretation ESP Model Description



Big Cottonwood Ck - Salt Lake City- Nr (BCTU1) 2017-04-01Apr-Jul Official 50% Forecast: 45 kaf (125% of average) ESP is Unregulated and No Precipitation Forecast Included

The most recent (2017-04-11) full period 50% ESP forecast is 45 kaf. Plot Created 2017-04-26 13:11:35, NOAA / NWS / CBRFC **Purple ESP forecasts do not include observed and are not total runoff.

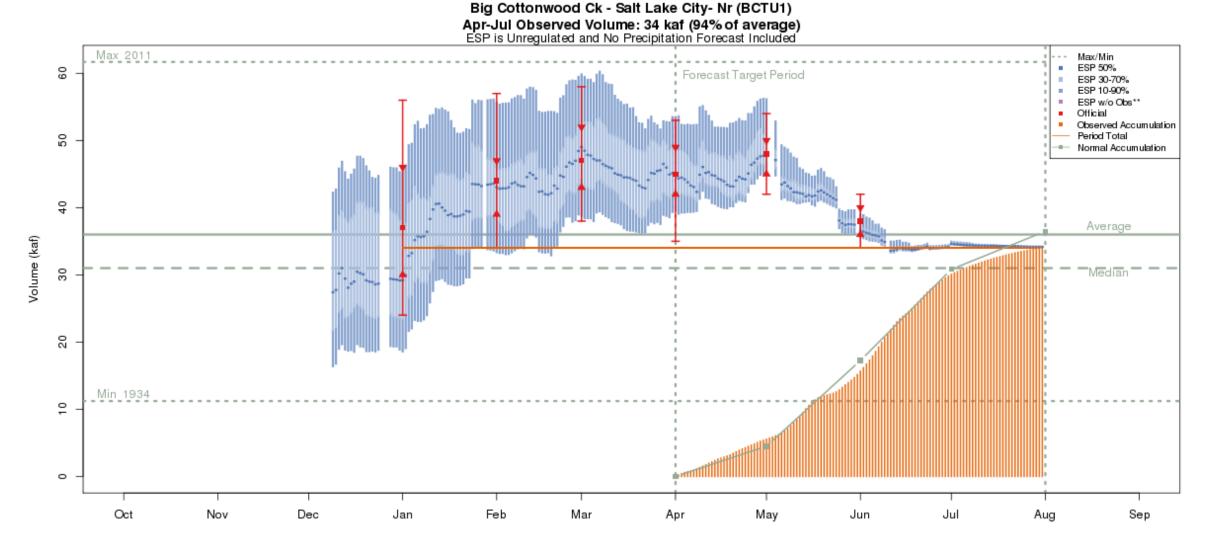


Big Cottonwood Creek

BCTU1 Water Supply Forecasts

Plot Beta Plot Forecasts Observations Historical Annual/Official Verification Reforcast Verification

Water Year: 2013 2014 2015 2016 2017 Plot Options (on/off): QPF ESP Official Forecasts Observations Max/Min Historical Plot Help: Text Description Graphic Interpretation ESP Model Description



Plot Created 2017-08-14 11:56:40, NOAA / NWS / CBRFC Forecasts in the forecast target period include observed values.

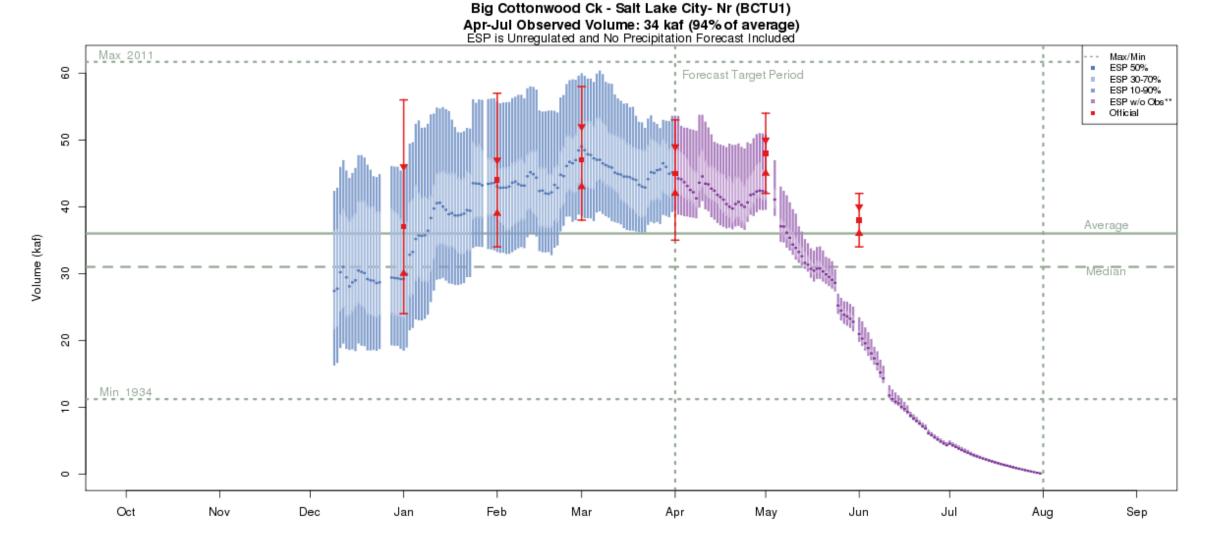


Big Cottonwood Creek

BCTU1 Water Supply Forecasts

Plot Beta Plot Forecasts Observations Historical Annual/Official Verification Reforcast Verification

Water Year: 2013 2014 2015 2016 2017 Plot Options (on/off): QPF ESP Official Forecasts Observations Max/Min Historical Plot Help: Text Description Graphic Interpretation ESP Model Description

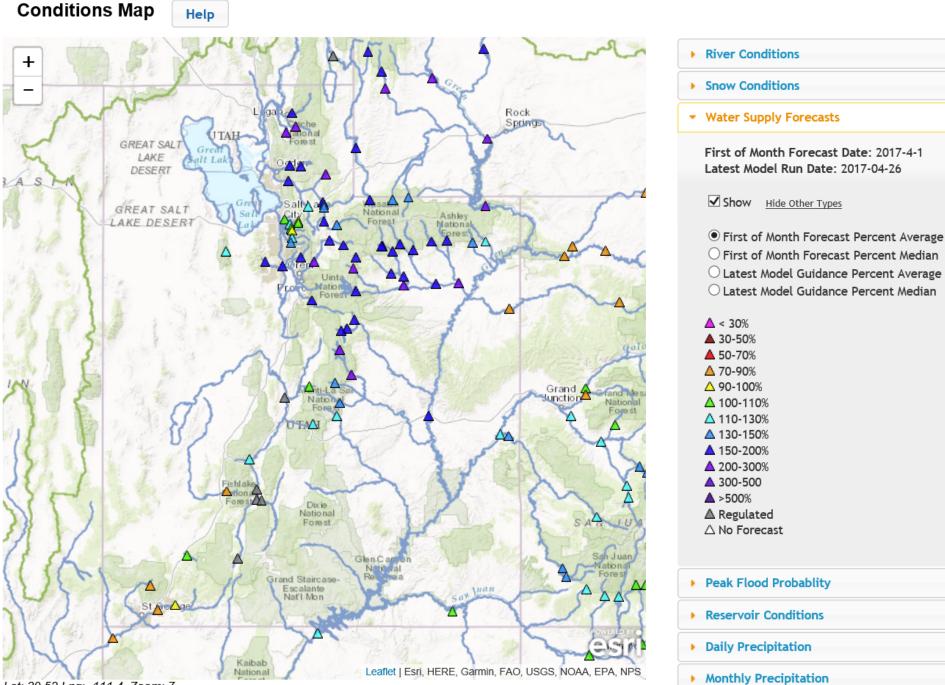


Plot Created 2017-08-14 11:56:40, NOAA / NWS / CBRFC **Purple ESP forecasts do not include observed and are not total runoff.



Water Supply Forecast

<u>Help</u>



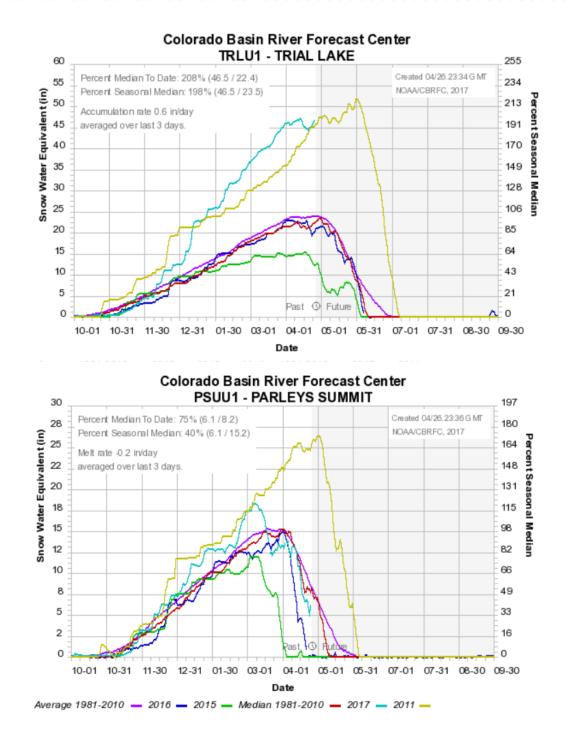
Lat: 39.52 Lng: -111.4, Zoom: 7



Reservoir Storage and Basin Water

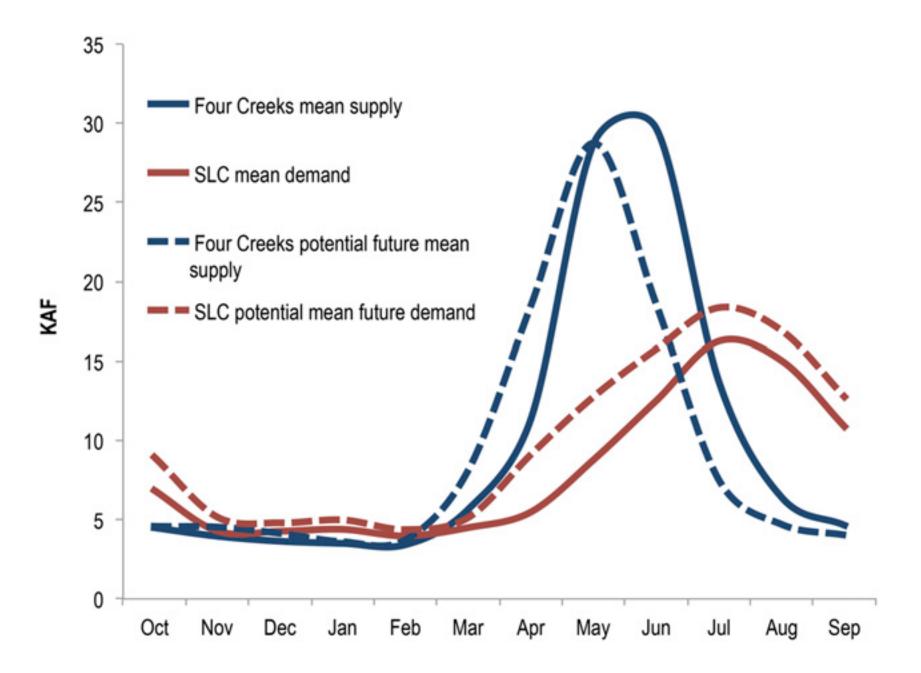
- Deer Creek 96.69% full
- Jordanelle 79.79% full
- Utah Lake 64.68% full

 Parleys System (Mountain Dell and Little Dell)





Water Demand





Water Supply Outlook and Management

- Stream flow ??
- Reservoir storage??
- Groundwater supplies??
- We manage water resources with future drought potential

