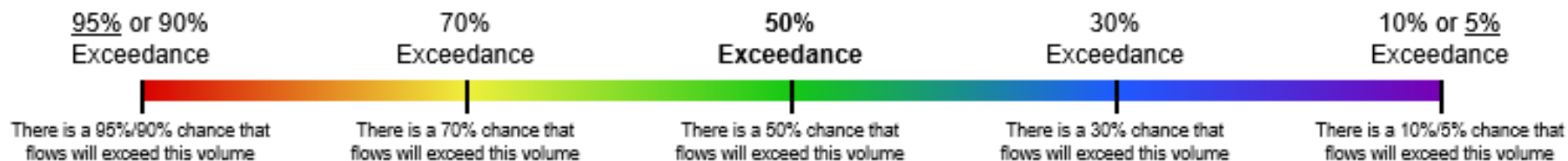


Interpreting the Streamflow Forecast Chart

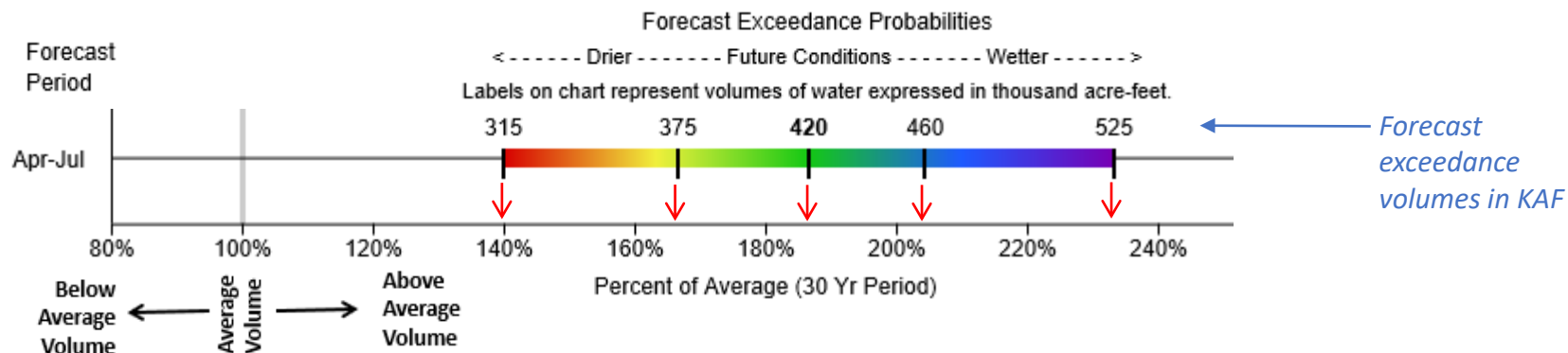
Typically the NRCS has presented streamflow forecasts as a table format showing the five exceedance probabilities compared to the 30 year average as follows:

Forecast Exceedance Probabilities for Risk Assessment							
Chance that actual volume will exceed forecast							
Forecast Period	90% (KAF)	70% (KAF)	50% (KAF)	% Avg	30% (KAF)	10% (KAF)	30yr Avg (KAF)
APR-JUL	315	375	420	187%	460	525	225

The Forecast Chart provides a visual alternative to the table. The forecast range is represented by a colored bar. Vertical lines on the bar signify the five forecast exceedances.

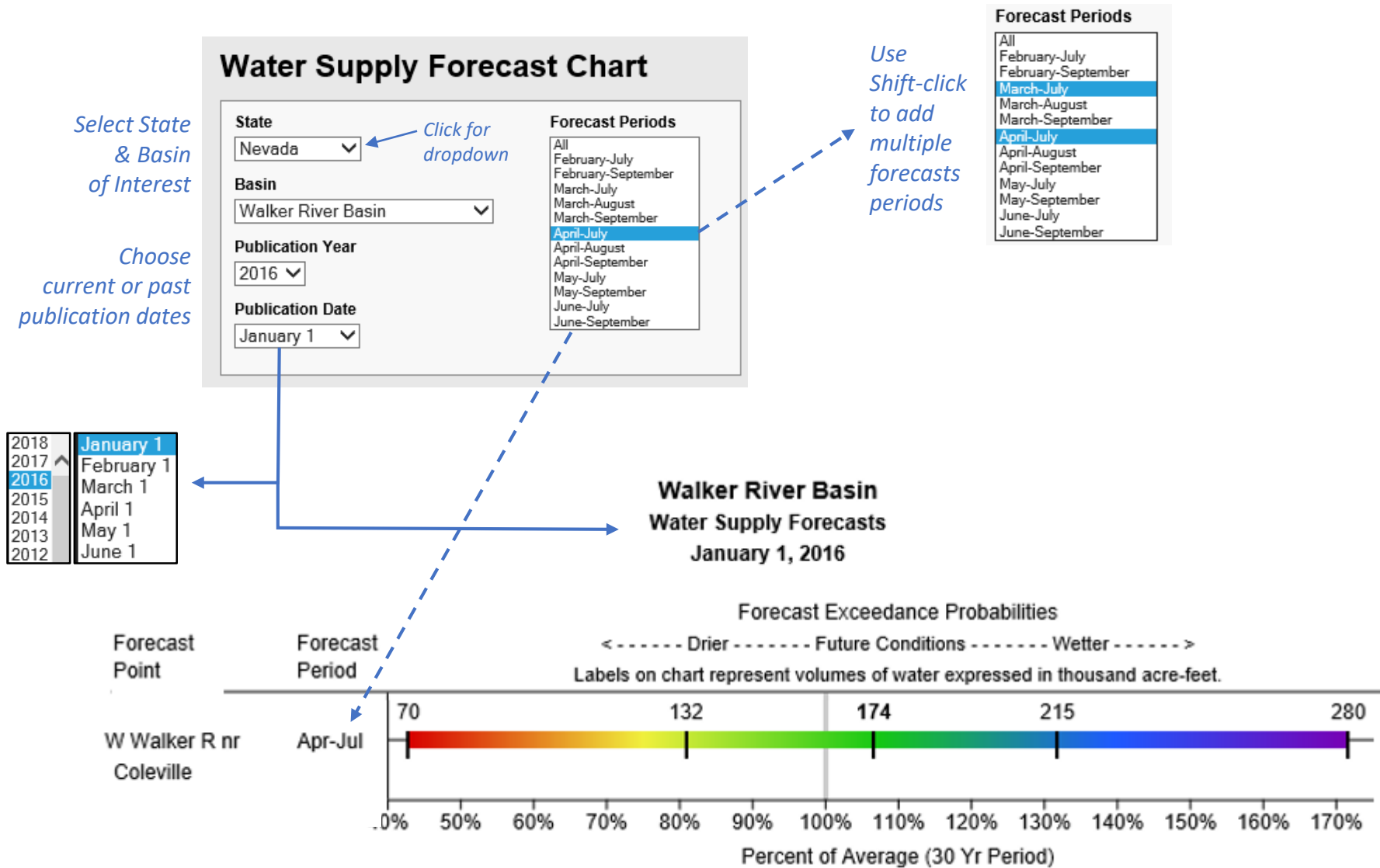


Below is an example. The numbers above the forecast bar are the five exceedance probability volumes in thousand acre-feet (KAF). Each exceedance forecast's percent of average can be estimated by looking at the horizontal axis. The gray line centered above 100% on the horizontal axis represents the 1981-2010 historical average streamflow for the forecast period.

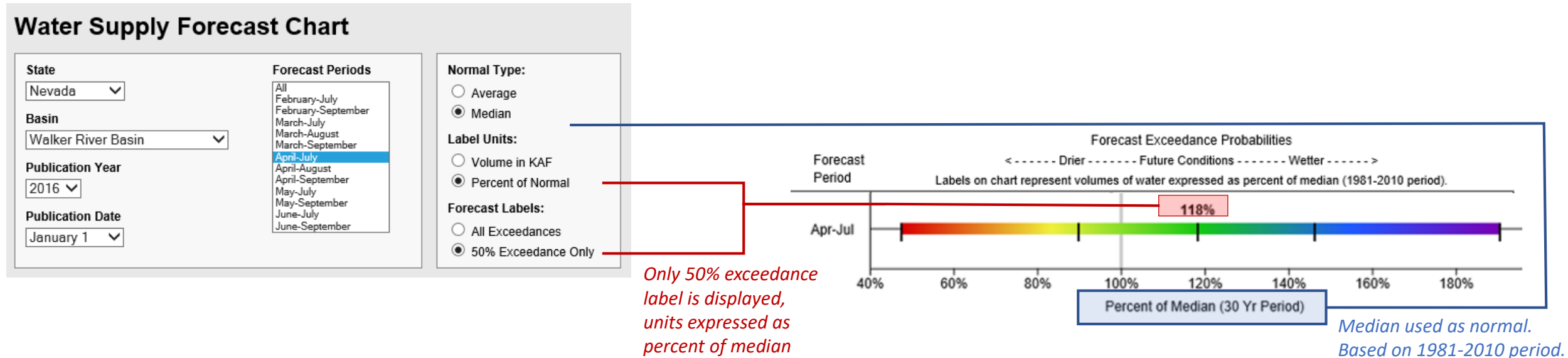
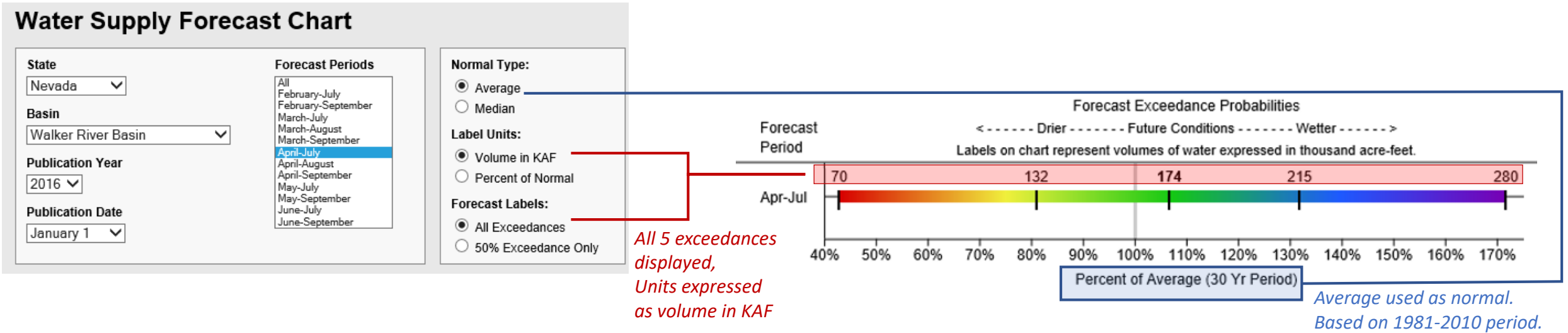


In the example, the entire forecast bar is shifted right of the gray line indicating a forecast for above average streamflow. The 50% exceedance is represented by the black line in the green portion of the colored bar. This represents a forecast volume of 420KAF which is ~185% of average. If drier than normal future conditions occur the 70% exceedance forecast may be more likely (375KAF or ~165% of average). If future conditions turn wetter than normal, the 30% exceedance forecast may be more likely (460KAF or ~205% of average). Water users are encouraged to consider the range of forecast exceedances instead of relying solely on the 50% forecast.

The **left control panel** at the top of the Forecast Chart controls what forecasts are displayed on the chart.



The **center control panel** at the top of the Forecast Chart gives controls the chart's horizontal axis and the labels used for the exceedance forecasts.

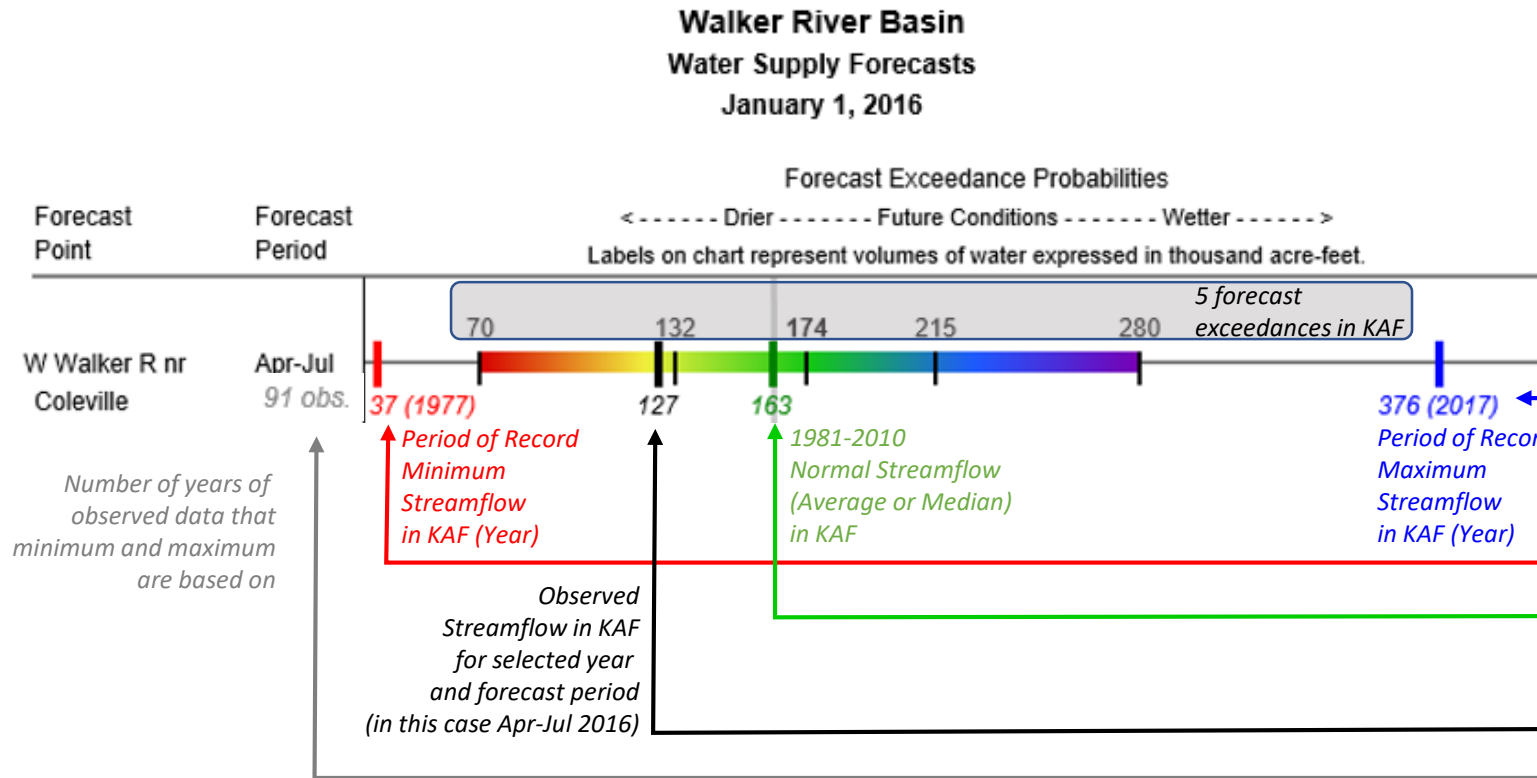


The **right control panel** can be used to compare forecasts to historic observed streamflow, as well as, period of record maximums and minimums.

Water Supply Forecast Chart

State Nevada	Forecast Periods All February-July February-September March-July March-August March-September April-July April-August April-September May-July May-September June-July June-September	Normal Type: <input checked="" type="radio"/> Average <input type="radio"/> Median Label Units: <input checked="" type="radio"/> Volume in KAF <input type="radio"/> Percent of Normal Forecast Labels: <input checked="" type="radio"/> All Exceedances <input type="radio"/> 50% Exceedance Only	Include on Chart: <input checked="" type="checkbox"/> Observed <input checked="" type="checkbox"/> with label <input checked="" type="checkbox"/> Normal <input checked="" type="checkbox"/> with label <input checked="" type="checkbox"/> Max <input checked="" type="checkbox"/> with label <input checked="" type="checkbox"/> with year <input checked="" type="checkbox"/> Min <input checked="" type="checkbox"/> with label <input checked="" type="checkbox"/> with year <input checked="" type="checkbox"/> Years of Observed Data
Basin Walker River Basin			Display Options: <input checked="" type="checkbox"/> Only Show Points With Forecast For Selected Period Chart Width: 700
Publication Year 2016			
Publication Date January 1			

Check boxes turn options on/off



Changing the **normal type** and **label units** controls the historic labels (observed, normal, maximum and minimum), as well as, the exceedance probability labels.

Water Supply Forecast Chart

State
Nevada

Basin
Walker River Basin

Publication Year
2016

Publication Date
January 1

Forecast Periods

- All
- February-July
- February-September
- March-July
- March-August
- March-September
- April-July
- April-August
- April-September
- May-July
- May-September
- June-July
- June-September

Normal Type:

Average

Median

Label Units:

Volume in KAF

Percent of Normal

Forecast Labels:

All Exceedances

50% Exceedance Only

Include on Chart:

Observed with label

Normal with label

Max with label with year

Min with label with year

Years of Observed Data

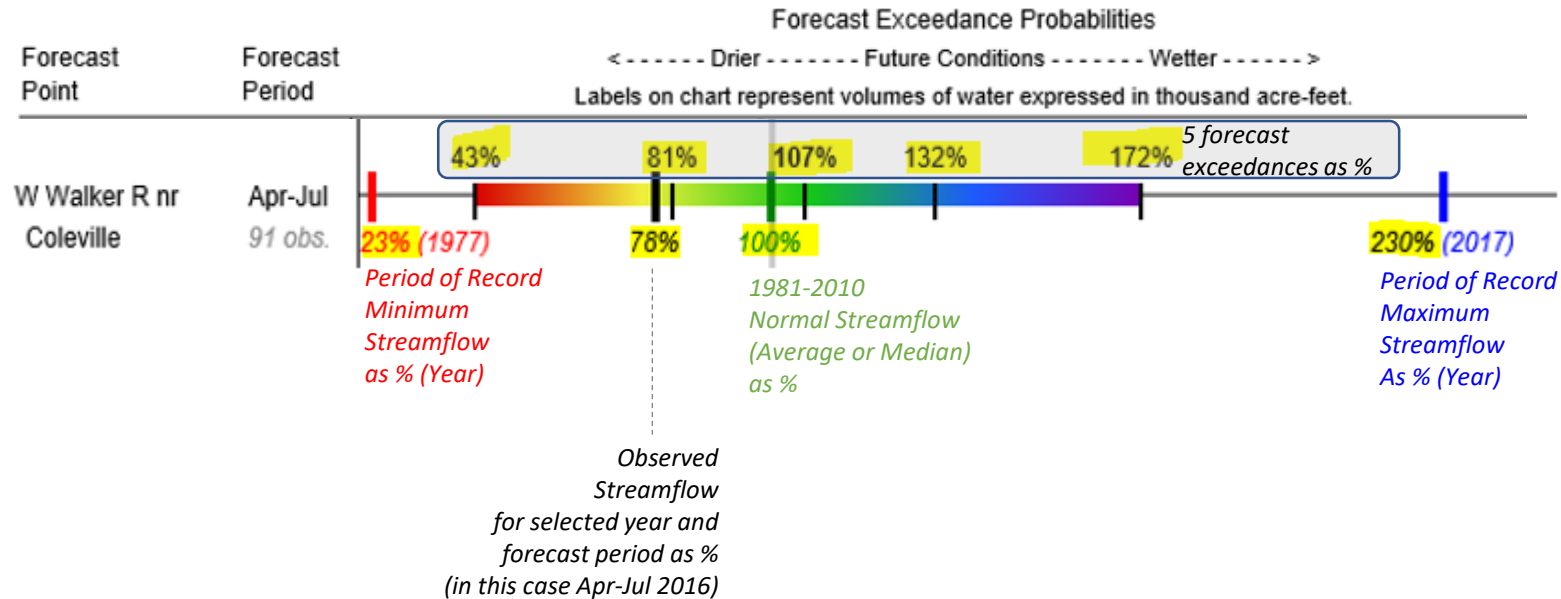
Display Options:

Only Show Points With Forecast For Selected Period

Chart Width: 700

All labels expressed as percent of average

Walker River Basin Water Supply Forecasts January 1, 2016



The **chart width** option reduces overlap when charts become crowded. The **export options** provide presentation quality graphics.

Water Supply Forecast Chart

State Nevada	Forecast Periods All February-July February-September March-July March-August March-September April-July April-August April-September May-July May-September June-July June-September	Normal Type: <input checked="" type="radio"/> Average <input type="radio"/> Median	Include on Chart: <input type="checkbox"/> Observed <input type="checkbox"/> with label <input type="checkbox"/> Normal <input type="checkbox"/> with label <input type="checkbox"/> Max <input type="checkbox"/> with label <input type="checkbox"/> with year <input type="checkbox"/> Min <input type="checkbox"/> with label <input type="checkbox"/> with year <input type="checkbox"/> Years of Observed Data
Basin Walker River Basin		Label Units: <input checked="" type="radio"/> Volume in KAF <input type="radio"/> Percent of Normal	Display Options: <input checked="" type="checkbox"/> Only Show Points With Forecast For Selected Period
Publication Year 2018		Forecast Labels: <input checked="" type="radio"/> All Exceedances <input type="radio"/> 50% Exceedance Only	Chart Width: 700
Publication Date January 1			

Some web browsers may not support image export. Tested in **Chrome 55, Firefox 50, and Safari 11.**

Export SVG Export PNG

These are image export options which work best with the internet browsers highlighted to the left.

Chart Width: 700
800
900
1000
1100
1200
1300
1400
1500

This dropdown controls the width of the chart to reduce overlap when exceedances are grouped tightly.

The chart uses **Dynamic URLs** which keep track of selections and can be bookmarked, shared, or linked.

https://www.wcc.nrcs.usda.gov/wsf/Fcst_Chart/#state=NV&basin=Walker River Basin&year=2016&pubDate=1-1&period=APR-JUL&chartWidth=800&normalType=MED&labelUnit=VOL&forecastLabels=ALL&showObserved=true&showObservedLabel=true&showNormal=true&showNormalLabel=true&showMax=true&showMaxLabel=true&showMaxYear=true&showMin=true&showMinLabel=true&showMinYear=true&showNumberObservations=false&hideEmpty=true