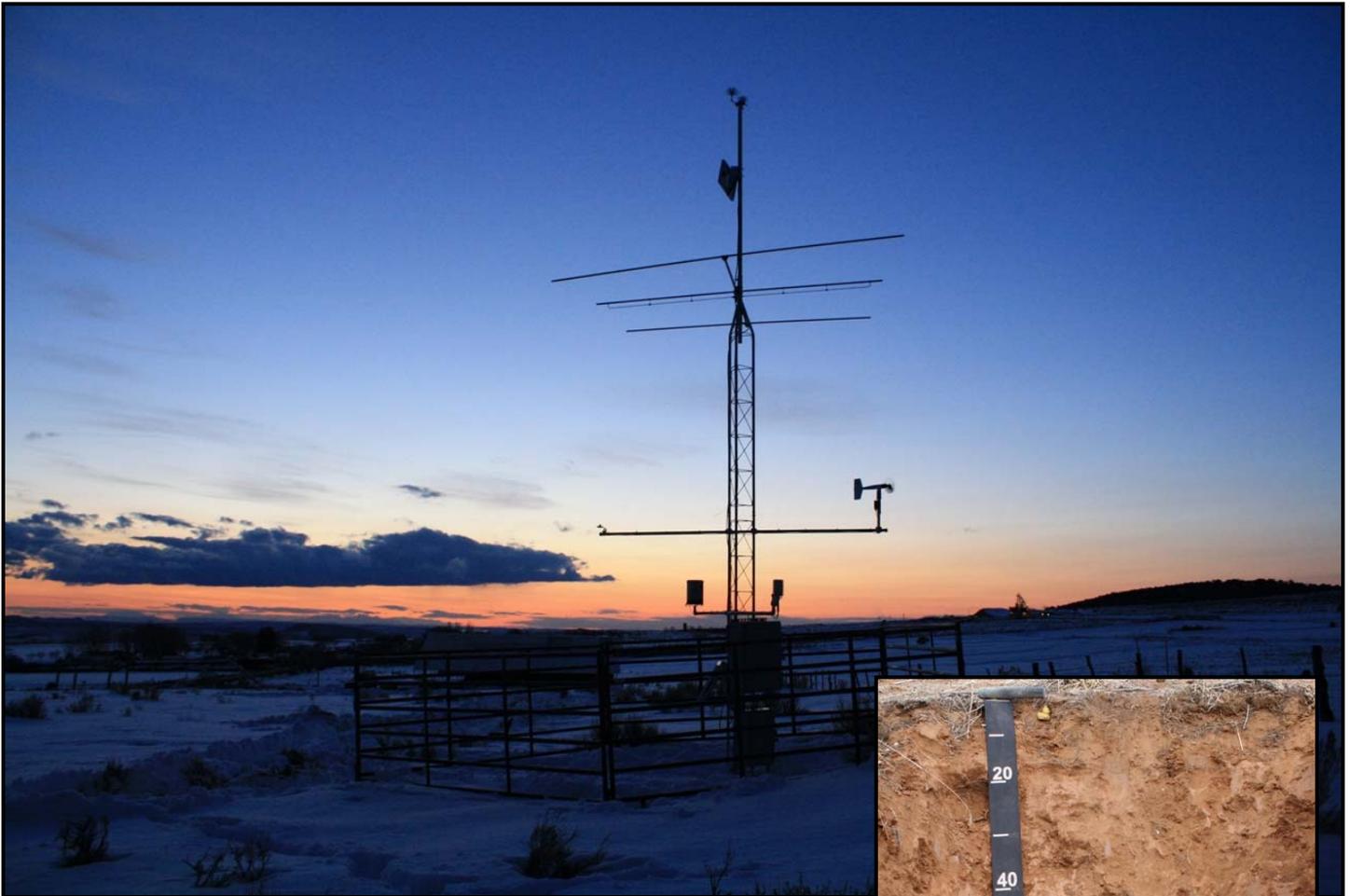


Utah Climate and Water Report

December, 2010



Harm's Way SCAN site LaSal, Utah

Photos by Karen Vaughan, USDA-NRCS



Utah Climate and Water Report

The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.

Report Content

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- a) Utah SCAN Water Year Precipitation
- b) North Central
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- d) Uintah Basin
- e) Southeast
- f) South Central
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- h) 2010 Minimum Soil Temperatures at Utah SCAN sites

2) General Hydrological Conditions

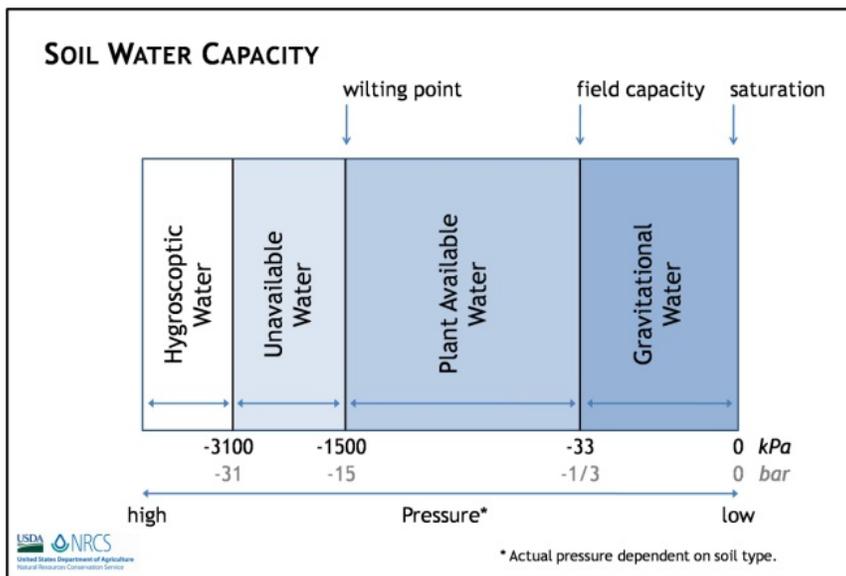
- a) SNOTEL Days since 0.5 inches of Precipitation
- b) SNOTEL Water Year to Date Precipitation
- c) Bear River Basin
 - Water Availability Index
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 - Water Availability Index
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 - Water Availability Index
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 - Water Availability Index
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 - Water Availability Index
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 - Water Availability Index

Climate and Water Information

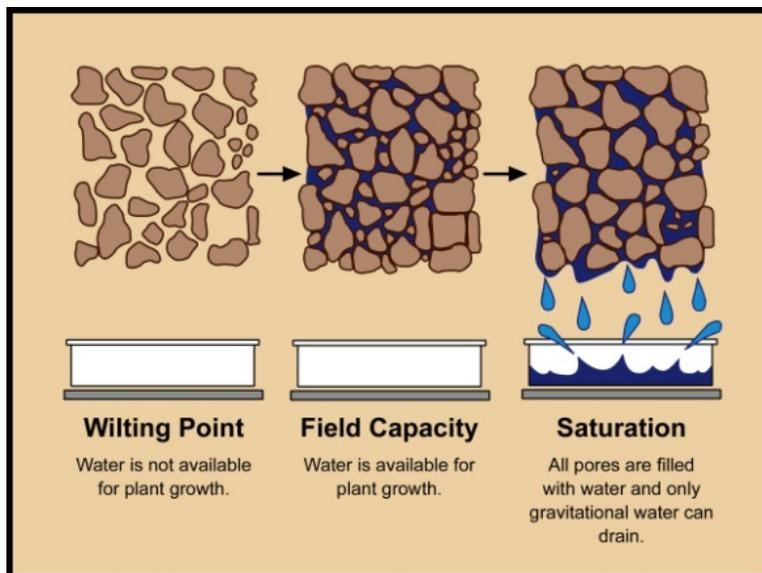
Soil Climate Analysis Network

Soil Climate Analysis Network (SCAN) stations are primarily located on low-to mid-elevation, agriculturally important landscapes that maintain representative soils. Elevations range from 3,000 to 7,000 ft. The SCAN network provides real-time soil moisture and temperature data coupled with additional climate information for use in natural resource planning, drought assessment, water resource management, and resource inventory. Stations are situated on non-irrigated, native soils, are remotely located, and collect hourly atmospheric and soils data that are available to the public online.

In order to summarize SCAN data, the 35 sites in Utah are grouped by climate divisions (North Central, Northern Mountains, Uintah Basin, Southeast, South Central, Dixie, and Western).

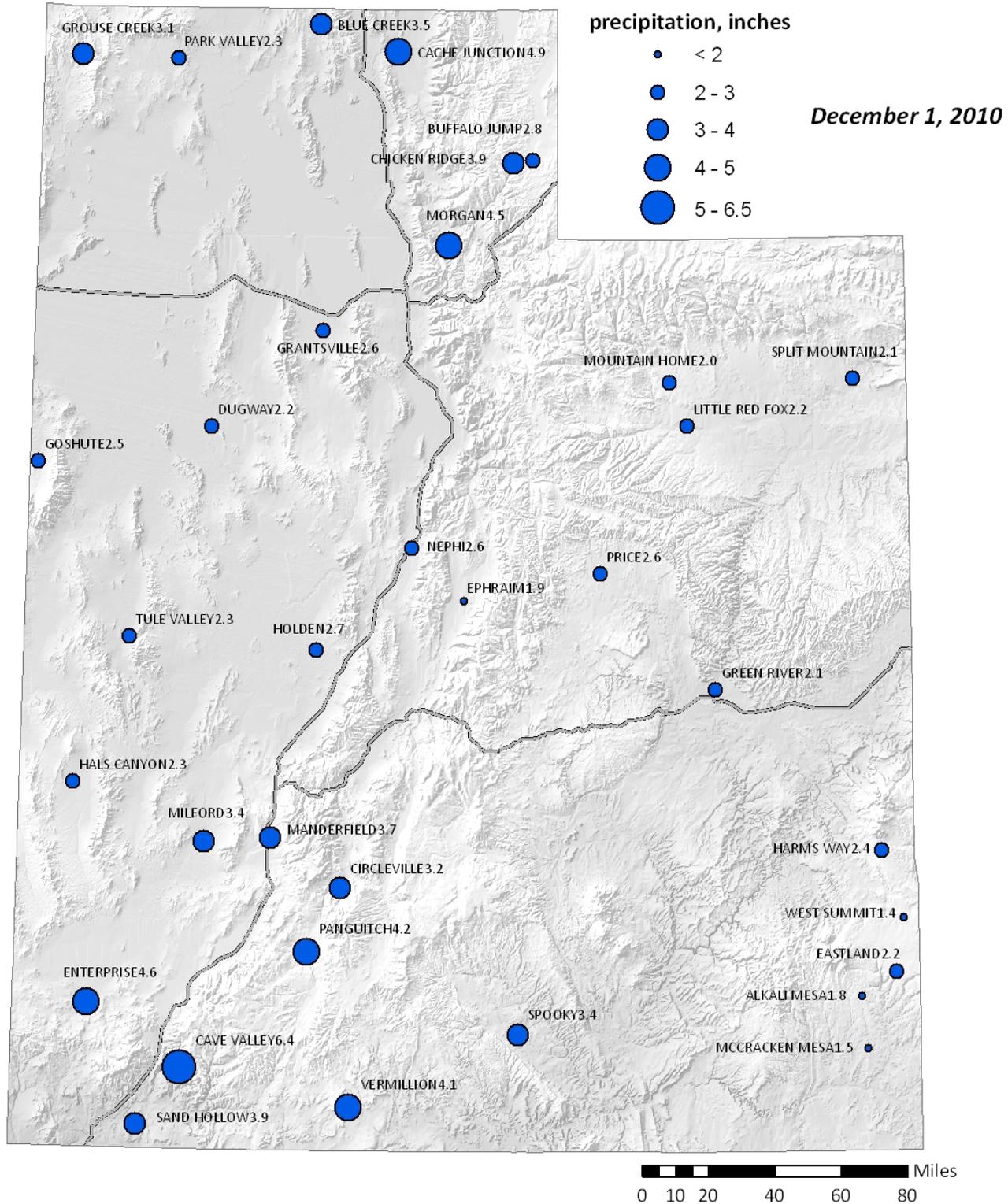


Explanation of soil water capacity definitions. Field capacity (FC) and wilting point (WP) are calculated in the laboratory for each soil horizon. The amount of water held between field capacity and wilting point is plant available.



Visual explanation of soil water capacity definitions.

Utah SCAN Water Year Precipitation *



*since October 1, 2010. Data based on the first reading of the day.

Prepared by the USDA/NRCS Utah DCO
Salt Lake City, Utah
<http://www.wcc.nrcs.usda.gov/scan/Utah/utah.html>
Science contact: Karen Vaughan
(karen.vaughan@ut.usda.gov)

Provisional Data Subject to Revision

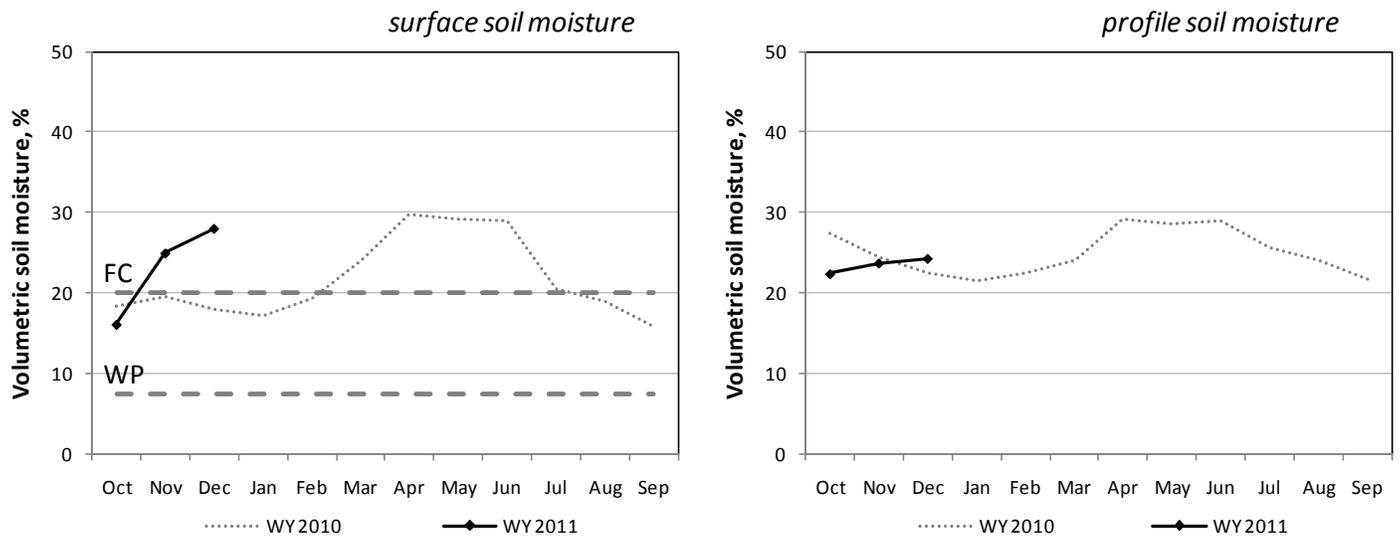
North Central

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
NORTH CENTRAL														
Blue Creek	<i>Box Elder</i>	3.5	0.92	14	32	32	35	22	21	34	36	37	40	46
Cache Junction	<i>Cache</i>	4.9	1.99	4	35	35	36	22	25	35	36	37	41	47
Grantsville	<i>Tooele</i>	2.6	1.64	16	9	7	22	23	23	31	32	38	47	56

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

North Central



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

Northern Mountains

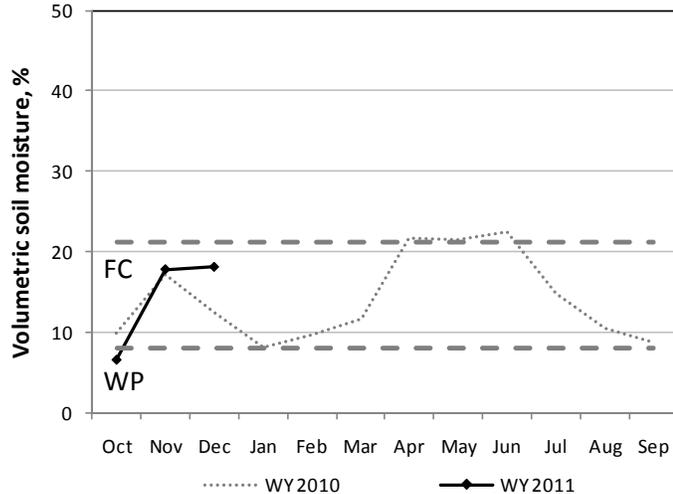
Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
NORTHERN MOUNTAINS														
Chicken Ridge	<i>Morgan</i>	3.9	0.67	12	19	12	20	16	23	34	34	35	35	33
Buffalo Jump	<i>Rich</i>	2.8	0.84	12	9	12	11	7	-	30	31	33	39	-
Morgan	<i>Morgan</i>	4.5	1.31	7	24	27	27	13	5	37	37	38	40	42

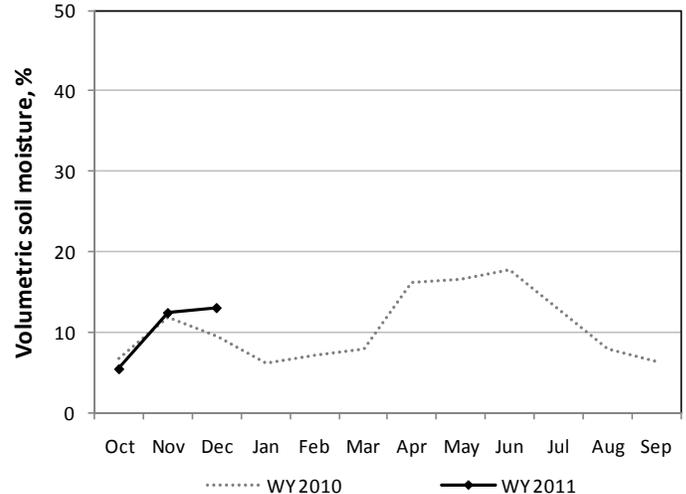
*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Northern Mountains

surface soil moisture



profile soil moisture



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

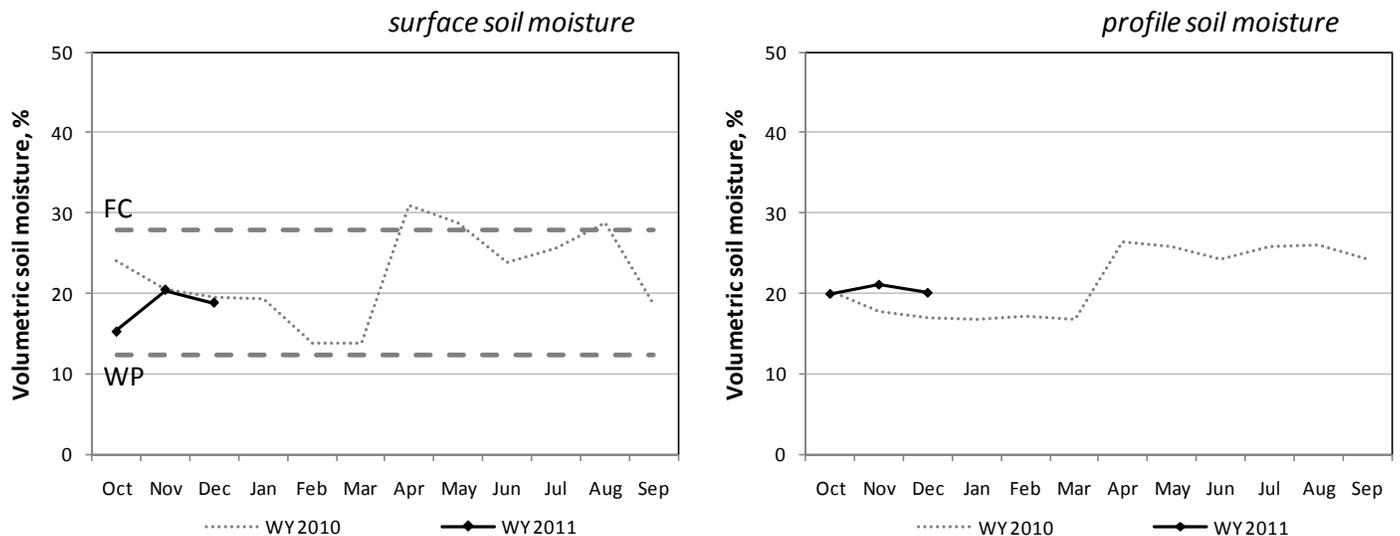
Uintah Basin

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
UINTAH BASIN														
Mountain Home	<i>Duchesne</i>	2.0	0.22	15	19	30	30	18	12	31	32	34	37	41
Little Red Fox	<i>Duchesne</i>	2.2	0.44	21	4	19	20	30	44	28	28	29	35	42
Split Mountain	<i>Uintah</i>	2.1	1.13	21	9	17	14	10	10	28	28	30	37	46

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Uintah Basin



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

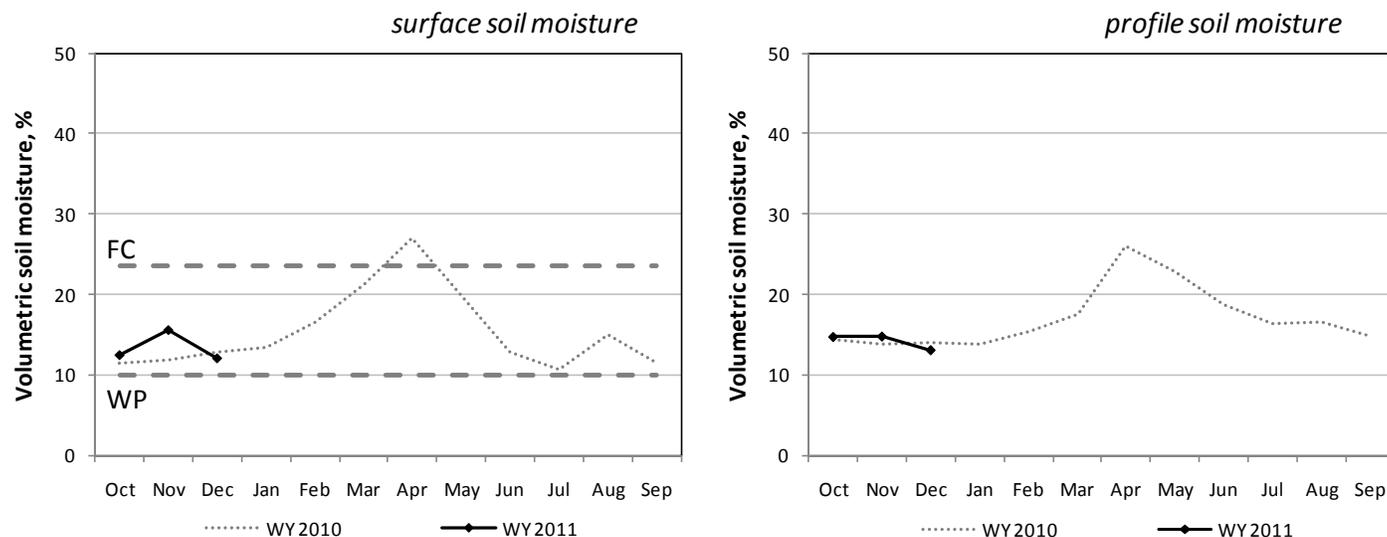
Southeast

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
SOUTHEAST														
Price	<i>Carbon</i>	2.6	0.04	23	2	12	15	12	16	29	30	30	37	43
Green River	<i>Emery</i>	2.1	0.18	24	8	9	10	3	9	28	29	31	37	46
Harm's Way	<i>San Juan</i>	2.4	0.50	19	14	2	23	13	6	33	32	35	39	45
West Summit	<i>San Juan</i>	1.4	0.24	17	12	14	12	13	18	28	28	32	35	42
Eastland	<i>San Juan</i>	2.2	0.23	18	13	15	11	21	21	31	32	33	38	44
Alkali Mesa	<i>San Juan</i>	1.8	0.27	24	8	10	13	16	12	31	31	35	40	45
McCracken Mesa	<i>San Juan</i>	1.5	0.09	25	10	13	14	14	13	28	32	35	44	51

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Southeast



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. FC is the mean field capacity, WP is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and WY is the water year lasting October through September. Profile soil moisture is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

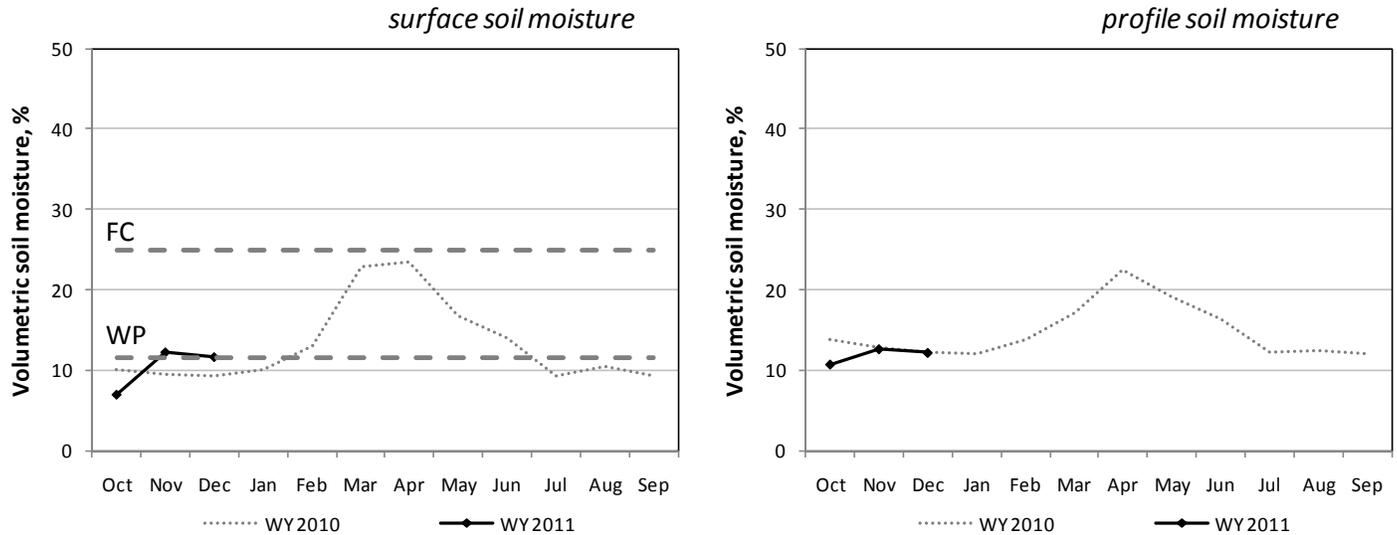
South Central

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
SOUTH CENTRAL														
Nephi	<i>Juab</i>	2.6	1.62	12	23	25	19	7	0	33	33	35	41	47
Ephraim	<i>Sanpete</i>	1.9	0.69	15	8	12	13	14	30	30	32	33	40	47
Holden	<i>Millard</i>	2.7	0.60	9	6	7	6	10	12	32	33	35	39	49
Milford	<i>Beaver</i>	3.4	0.84	2	15	25	14	24	16	31	33	35	42	49
Manderfield	<i>Beaver</i>	3.7	0.67	10	12	18	10	9	4	32	33	35	39	44
Circleville	<i>Piute</i>	3.2	0.17	12	13	7	10	7	8	27	26	31	39	47
Panguitch	<i>Garfield</i>	4.2	0.45	5	13	30	23	19	33	31	32	33	39	46
Cave Valley	<i>Washington</i>	6.4	1.93	16	6	8	8	8	8	52	34	34	64	41
Vermillion	<i>Kane</i>	4.1	1.19	22	0	7	6	9	8	29	33	35	37	42
Spooky	<i>Kane</i>	3.4	0.48	25	1	2	5	21	3	31	30	32	38	43

*since October 1, 2010. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

South Central



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. FC is the mean field capacity, WP is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and WY is the water year lasting October through September. Profile soil moisture is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

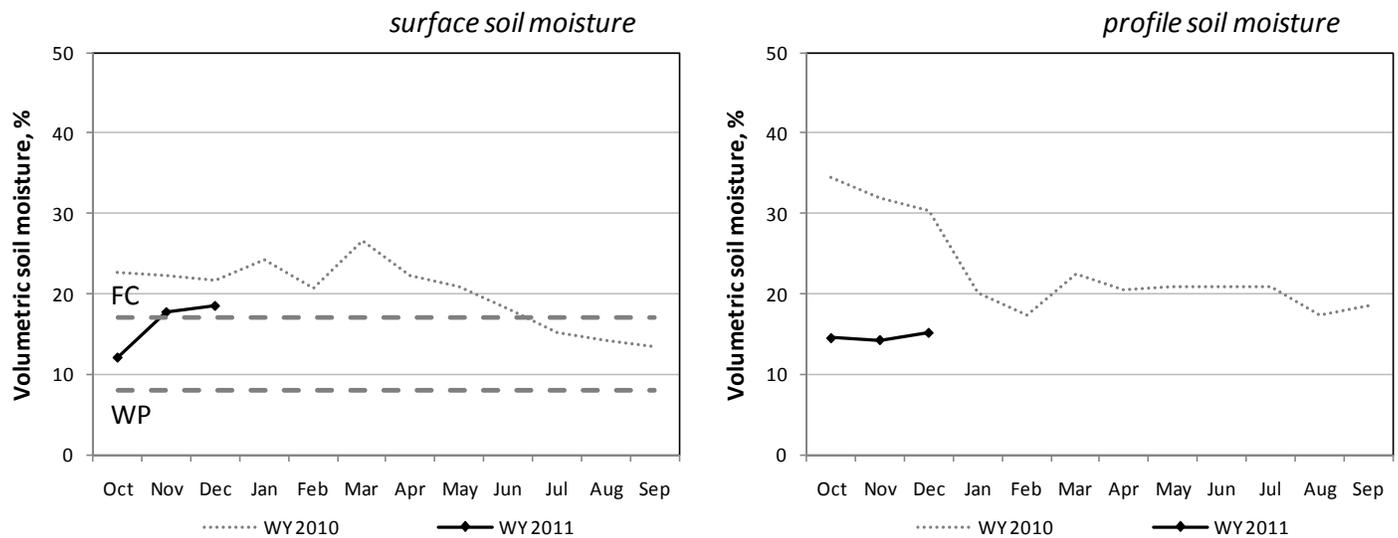
Western and Dixie

Soil Climate Analysis Network (SCAN)

Site name	County	Precip to Date*	Monthly Precip	Avg Air Temp	Soil Moisture					Soil Temperature				
					2"	4"	8"	20"	40"	2"	4"	8"	20"	40"
		<i>in.</i>	<i>in.</i>	<i>° F</i>	<i>volume %</i>					<i>° F</i>				
WESTERN														
Grouse Creek	<i>Box Elder</i>	3.1	1.19	12	13	23	26	15	15	35	35	37	40	44
Park Valley	<i>Box Elder</i>	2.3	0.86	13	10	11	14	22	24	34	34	35	40	48
Goshute	<i>Tooele</i>	2.5	1.22	13	12	25	21	28	25	31	32	34	37	46
Dugway	<i>Tooele</i>	2.2	1.31	16	40	41	37	nd	13	30	32	34	42	44
Tule Valley	<i>Millard</i>	2.3	1.25	11	12	14	20	10	7	31	33	36	39	48
Hal's Canyon	<i>Millard</i>	2.3	0.82	12	3	6	10	7	8	28	30	32	41	49
Enterprise	<i>Washington</i>	4.6	1.23	11	6	36	31	13	14	30	32	33	39	48
DIXIE														
Sand Hollow	<i>Washington</i>	3.9	0.88	31	4	6	6	6	0	32	34	35	39	48

*since October 1, 2010, (nd) no data. Monthly Precip is the amount of precipitation accumulated in the past month and Avg Air Temp is the average air temperature measured at the SCAN station. Soil moisture and temperature values reflect conditions measured on the first of the month.

Western & Dixie



Surface soil moisture is the weighted mean of the water content measured at depths of 2, 4, and 8 inches. **FC** is the mean field capacity, **WP** is the mean permanent wilting point for the soil surface (0 to 12 inches) at SCAN sites within the region, and **WY** is the water year lasting October through September. *Profile soil moisture* is the weighted mean of water content measured at depths of 2, 4, 8, 20, and 40 inches.

Additional data available at the SCAN website, including: hourly air temperature, relative humidity, wind speed, wind direction, barometric pressure, precipitation, solar radiation, soil temperature, and soil moisture.

2010 Minimum Soil Temperatures at Utah SCAN sites

Minimum soil temperatures and number of days less than or equal to 32°F.

Site Name	2-inch		4-inch		8-inch		20-inch		40-inch	
	min. temp	#								
	°F	days								
Alkali Mesa	23	34	22	45	29	5	34	0	36	0
Blue Creek	20	64	24	26	26	22	33	0	38	0
Buffalo Jump	19	125	24	121	26	113	31	68	R	
Cache Junction	22	83	24	54	27	50	34	0	38	0
Chicken Ridge	23	133	26	102	26	92	33	0	35	0
Circleville	19	82	21	96	21	127	29	29	37	0
Dugway	15	56	21	39	26	28	35	0	37	0
Eastland	28	38	31	23	32	0	34	0	36	0
Enterprise	23	52	29	32	30	27	34	0	40	0
Ephraim	18	105	26	56	30	6	35	0	38	0
Grantsville	22	65	27	42	32	7	38	0	46	0
Green River	15	99	16	94	21	89	27	44	35	0
Holden	26	27	27	29	29	21	33	0	41	0
Lightning Ridge	32	12	34	0	33	0	33	0	35	0
Little Red Fox	28	43	29	44	30	41	33	0	36	0
McCracken Mesa	26	55	31	8	33	0	36	0	40	0
Milford	22	43	27	26	29	11	36	0	42	0
Morgan	24	80	26	82	27	56	32	1	34	0
Mountain Home	25	27	28	19	30	11	34	0	38	0
Nephi	24	34	27	22	30	6	36	0	39	0
Panguitch	25	53	28	35	29	29	33	0	38	0
Price	15	79	21	71	25	50	32	0	37	0
Sand Hollow	33	0	36	0	40	0	43	0	46	0
Split Mountain	18	53	20	52	23	51	28	41	34	0
West Summit	20	53	22	55	28	6	33	0	36	0

min. temp, minimum temperature recorded; #, number of days less than or equal to 32°F; R, bedrock; site installation not complete in time to calculate 2010 frost depth at Harm's Way, Goshute, Hal's Canyon, Tule Valley, Vermillion, Cave Valley, Grouse Creek, Spooky, Manderfield, and Park Valley.

General Hydrologic Conditions

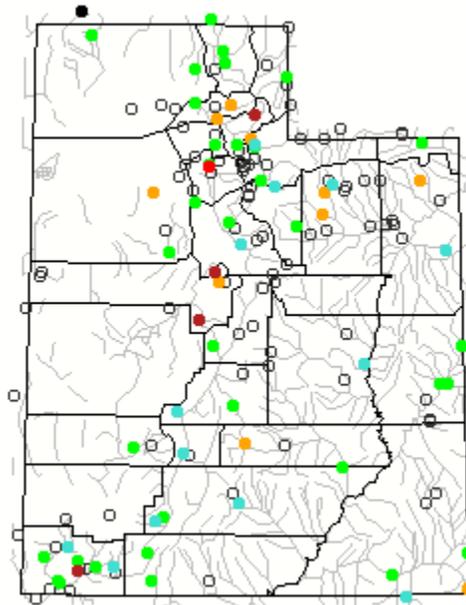
The data and analyses in the following section are from the Natural Resources Conservation Service (NRCS) SNOTEL network (precipitation and soil moisture), US Geological Survey (streamflow), and various additional sources of reservoir data including the Bureau of Reclamation, Water Conservancy Districts, and NRCS. These analyses provide information on general hydrologic conditions at higher elevation, snowfall driven environments that contribute greatly to potential water collection and storage.

Current Conditions

Soil moisture uniformly across the state has responded to the much above average precipitation in October going from near the bottom (extremely dry conditions) of observed soil moisture to near the wettest of observed fall conditions and has remained at those higher levels through November and may remain near these levels until spring. This rebound in soil moisture sets up a much better potential for enhanced springtime runoff from snowmelt. Reservoir storage is at 62% of capacity, down 1% from last year. Individual basins are: Bear – 31%, Weber -67%, Provo -83%, Uintah Basin 82%, SE Utah – 48%, Sevier – 33% and SW Utah – 62% of capacity. Water Availability Indexes (total of observed reservoir storage and streamflow) range from 17% in SW Utah to 52% on the Weber. Many Water Availability Indexes are below average for this time of year.

Current Utah Streamflow - Courtesy US Geological Survey

Thursday, December 09, 2010 10:30ET

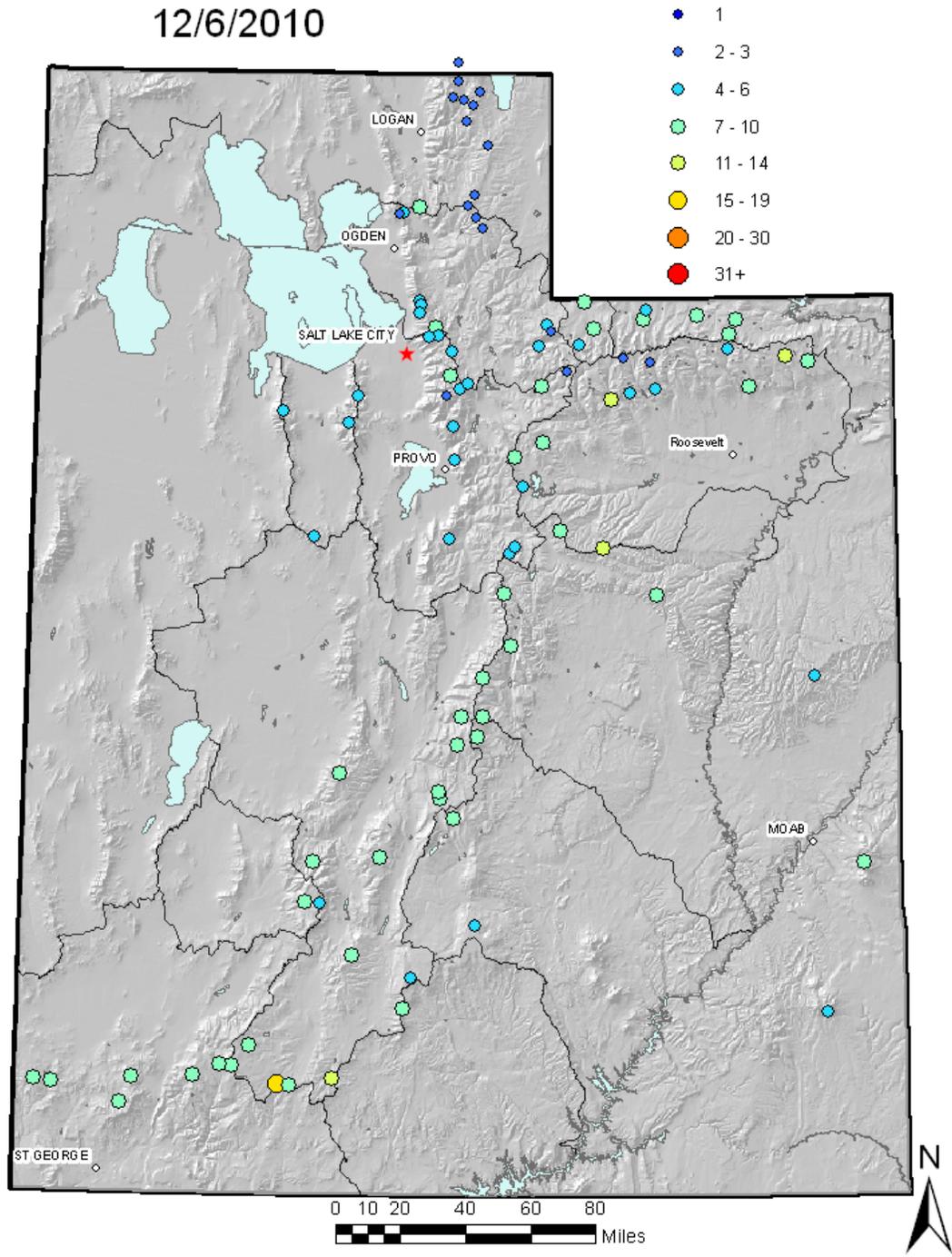


Explanation - Percentile classes							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not ranked

Days Without Precipitation

Days Since 0.3" Accumulated Precipitation

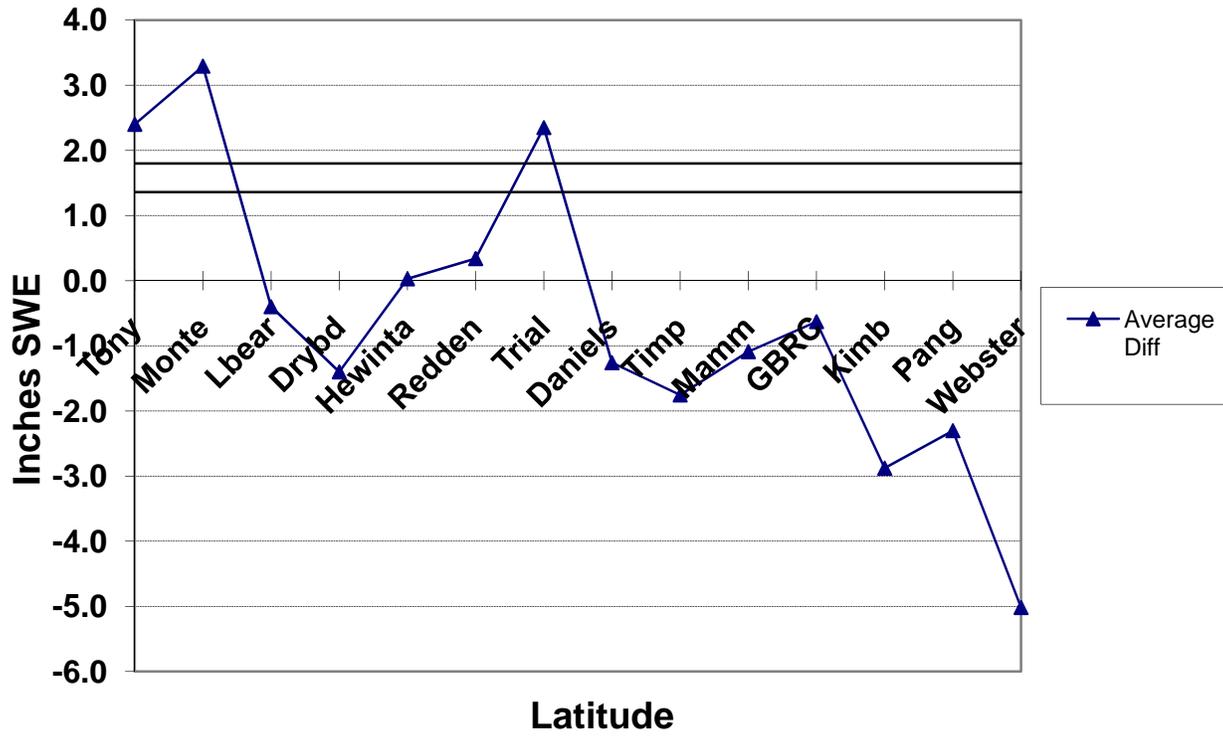
12/6/2010



Hydrologic Outlook for Water Year 2011

Climatological conditions are presently defined by a "La Nina" phase of Southern Oscillation Index and are projected to remain potentially until next summer. La Nina conditions typically mean a dry winter in southern Utah and average or potentially above average conditions for northern Utah. In the graph presented below, we see that in La Nina Years, northern Utah typically gets several inches more snow water equivalent whereas southern Utah gets several inches less.

Average Difference, of La Nina years by Latitude

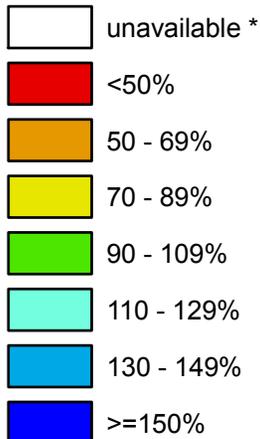


Utah

SNOTEL Water Year (Oct 1) to Date Precipitation % of Normal

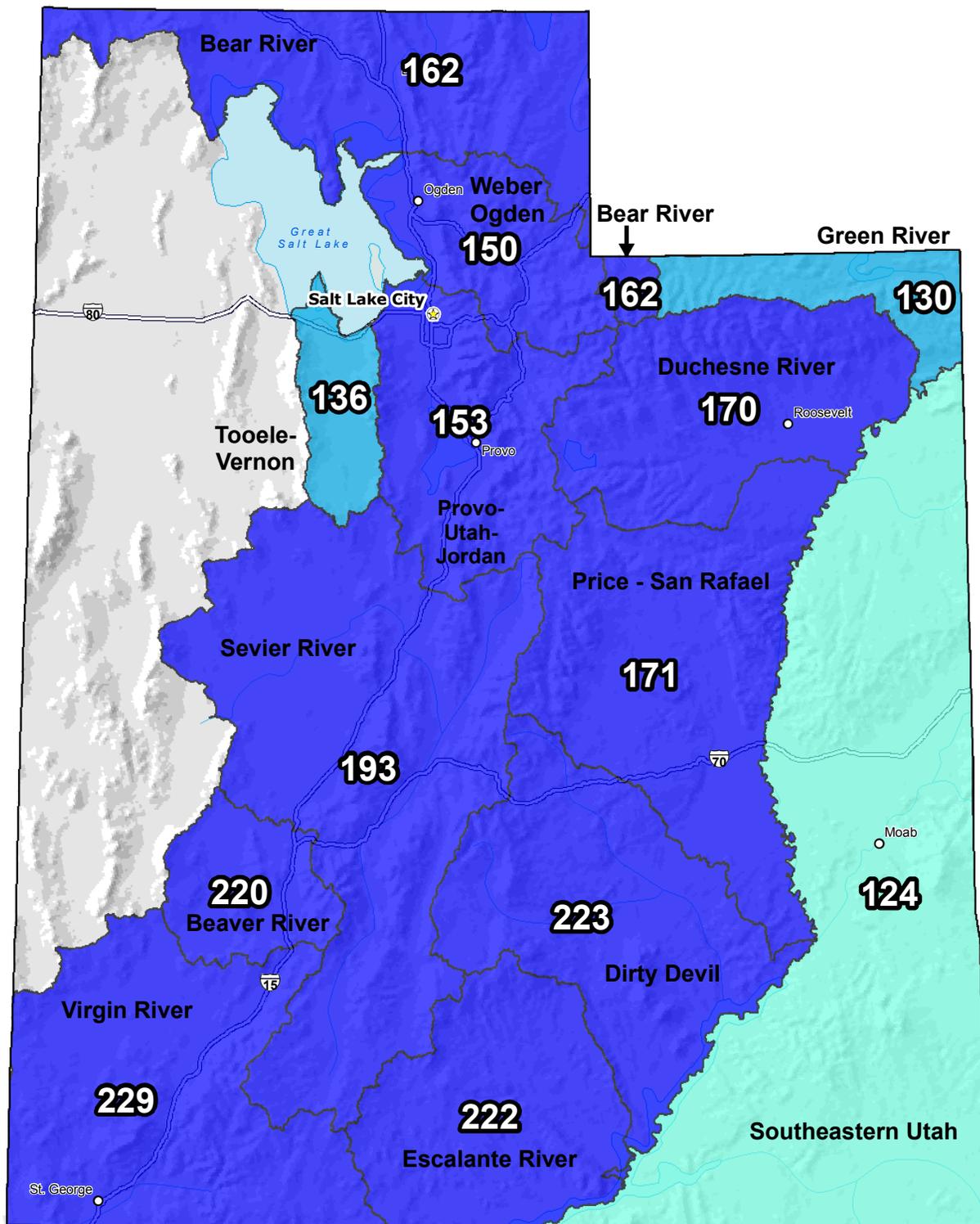
Dec 01, 2010

**Water Year
(Oct 1) to Date
Precipitation
Basin-wide
Percent of
1971-2000
Normal**



* Data unavailable at time of posting or measurement is not representative at this time of year

**Provisional Data
Subject to Revision**



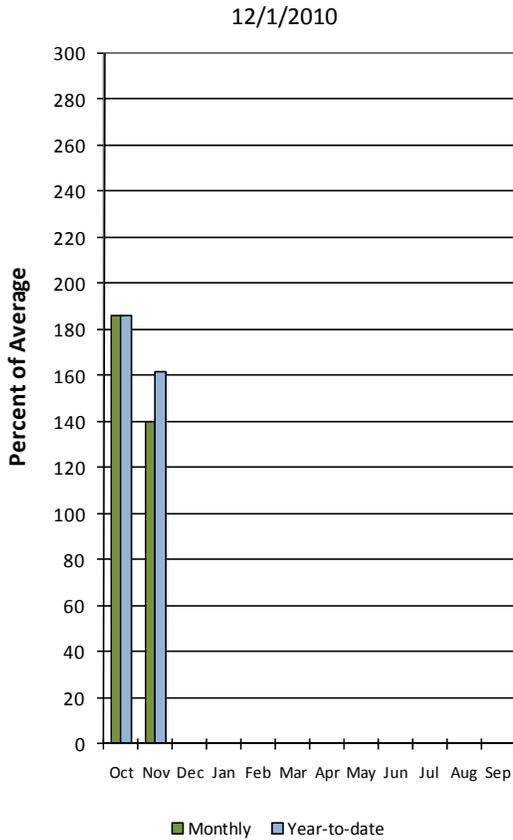
The water year to date precipitation percent of normal represents the accumulated precipitation found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center
Portland, Oregon <http://www.wcc.nrcs.usda.gov/gis/>
Based on data from <http://www.wcc.nrcs.usda.gov/reports/>
Science contact: Tom.Pagano@por.usda.gov 503 414 3010

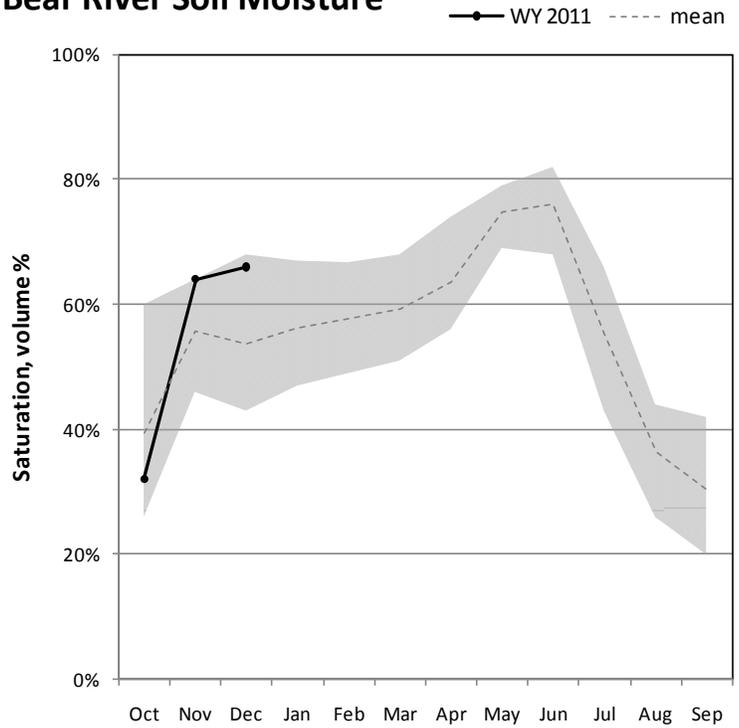
Bear River Basin December 1, 2010

Precipitation in November was much above average at 140% which brings the water year accumulation to 162%. Reservoir storage is low at 30% of capacity, which is 4% lower than this time last year. Soil moisture is at 66% compared to 50% last year.

Bear River Precipitation

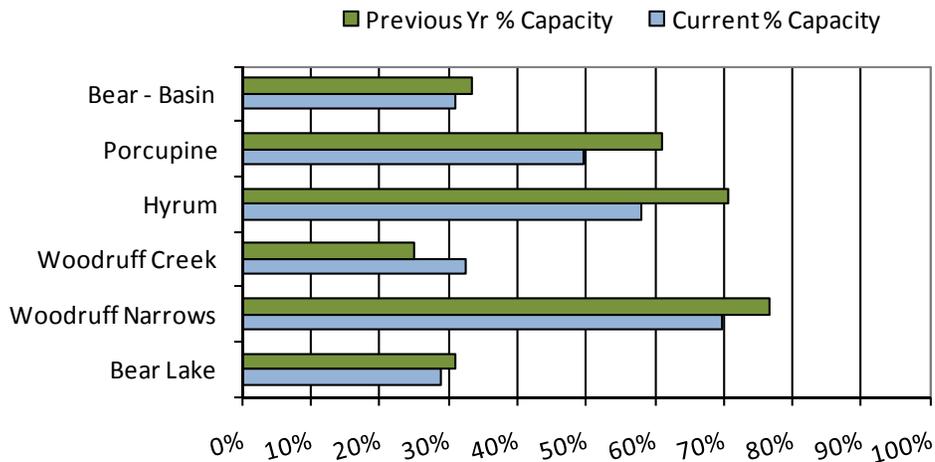


Bear River Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

December Bear River Reservoir Storage



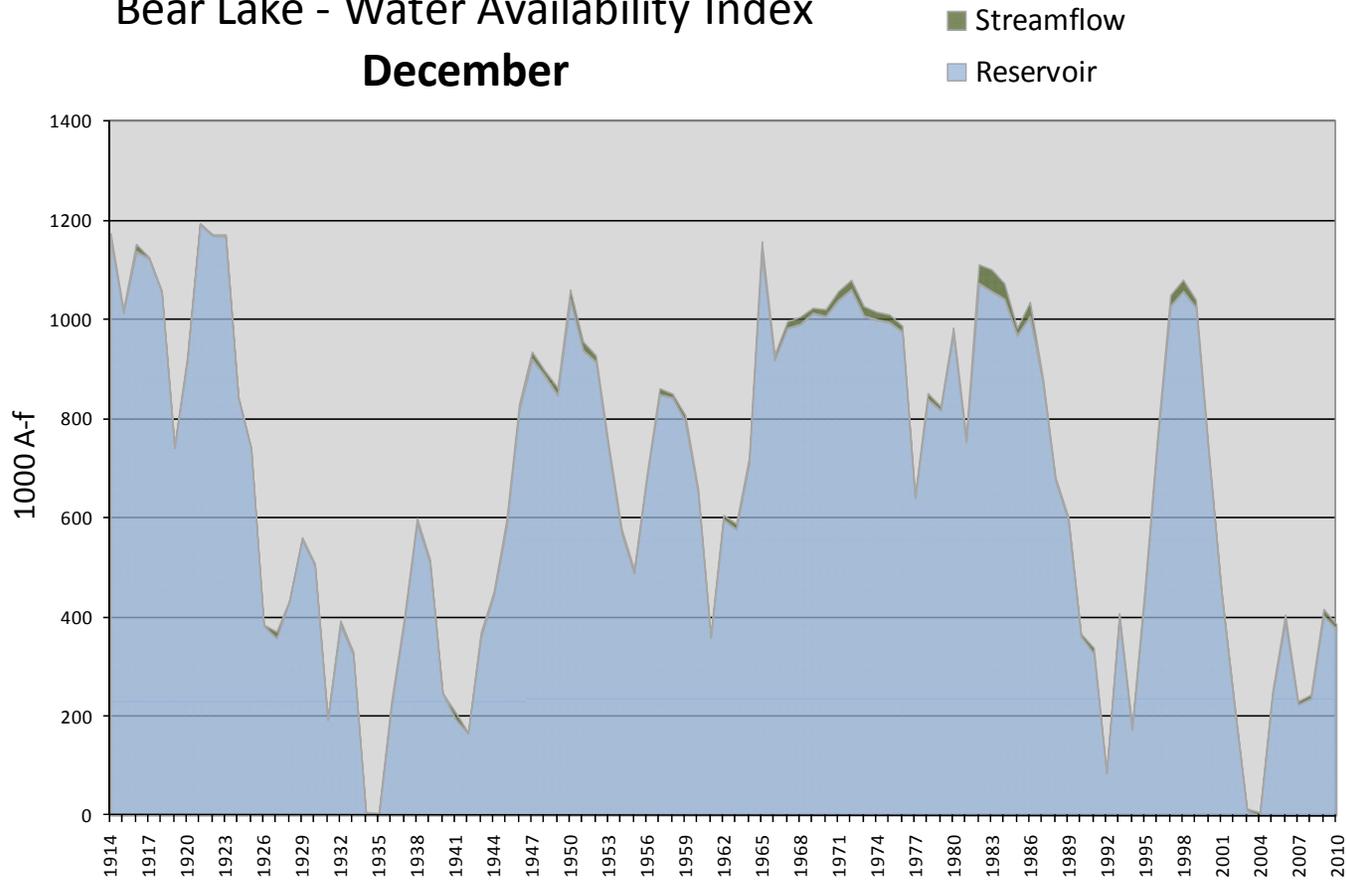
December 1, 2010

Water Availability Index

Basin or Region	November EOM* Bear Lake	November accumulated inflow to Bear Lake <i>(observed)</i>	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Bear River	376	9	385	-2.21	23	26,27,32,37

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

Bear Lake - Water Availability Index December

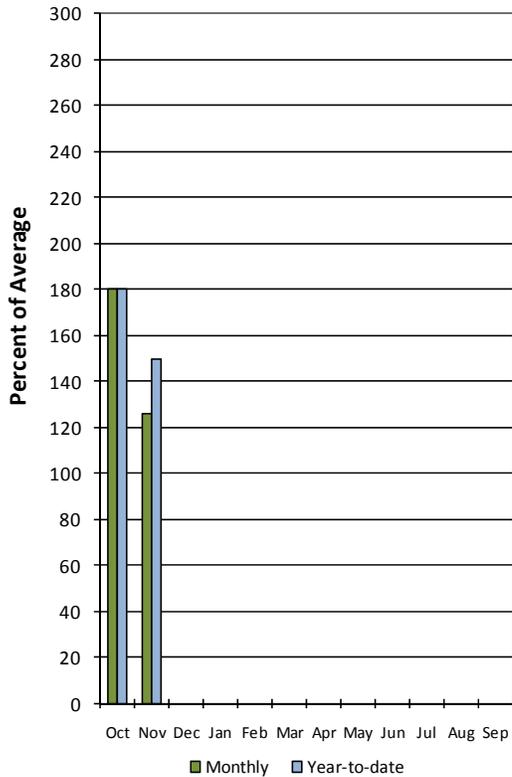


Weber and Ogden River Basin December 1, 2010

Precipitation in November was above average at 126% which brings the water year accumulation to 150%. Reservoir storage is at 64% of capacity, which is 5% lower than this time last year. Soil moisture is at 66% compared to 50% last year.

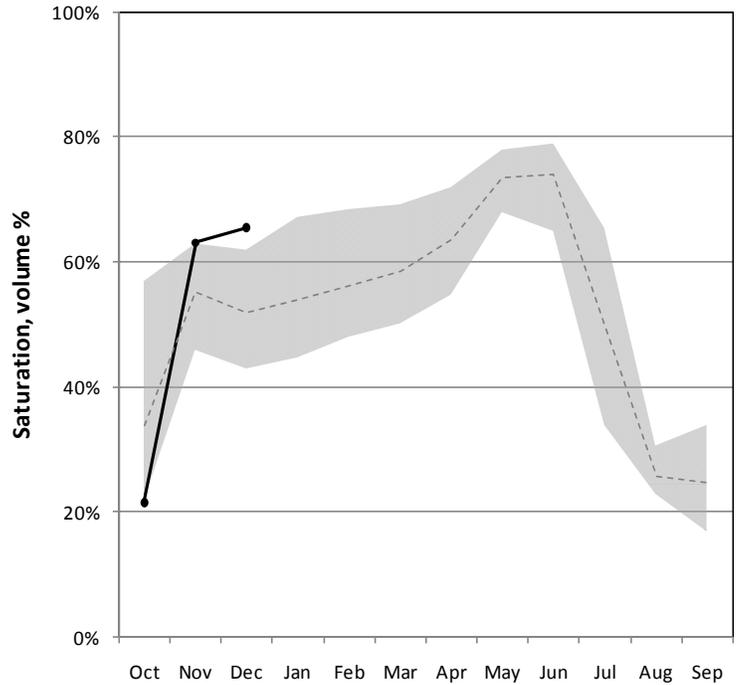
Weber River Precipitation

12/1/2010



Weber River Soil Moisture

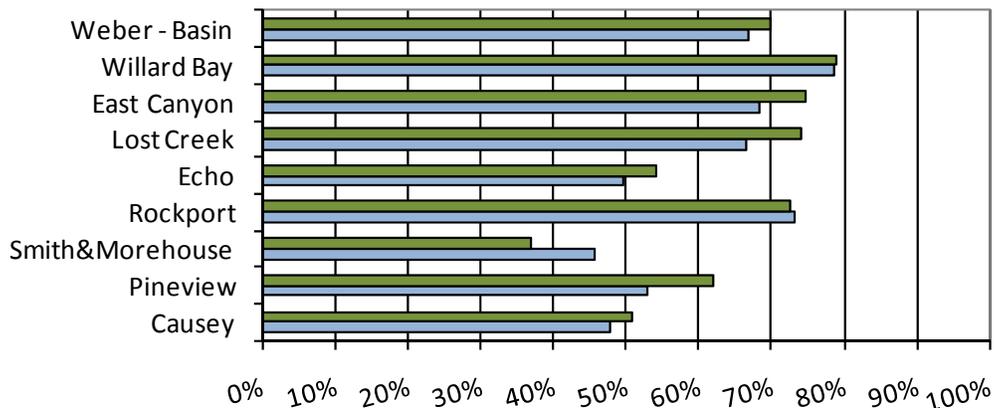
—●— WY 2011 - - - - mean



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

December Weber Basin Reservoir Storage

■ Previous Yr % Capacity ■ Current % Capacity



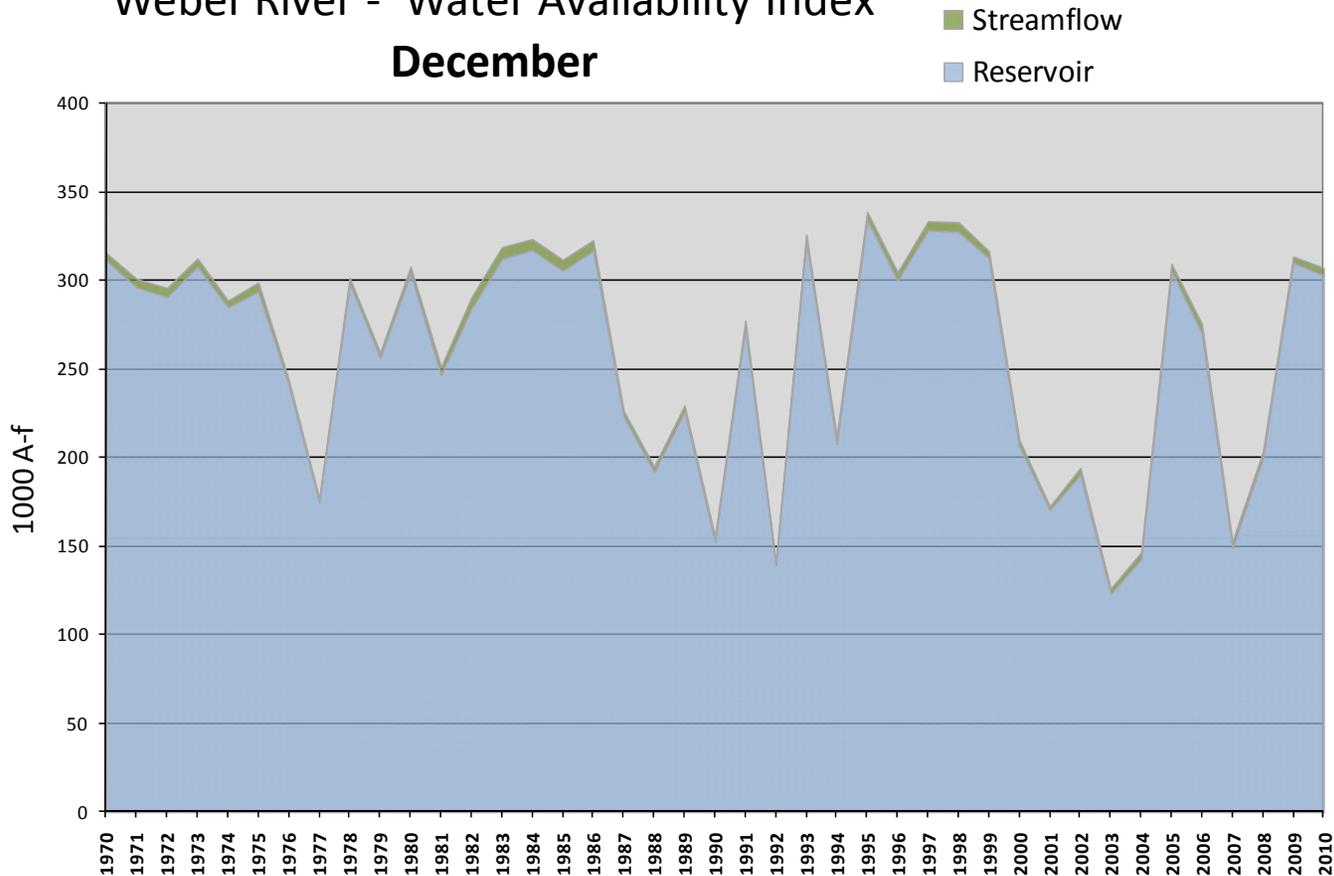
December 1, 2010

Water Availability Index

Basin or Region	November EOM* Reservoirs	November accumulated flow at Weber near Oakley (observed)	Reservoirs + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Weber River	303	4	307	1.19	64	78,80,96,05

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

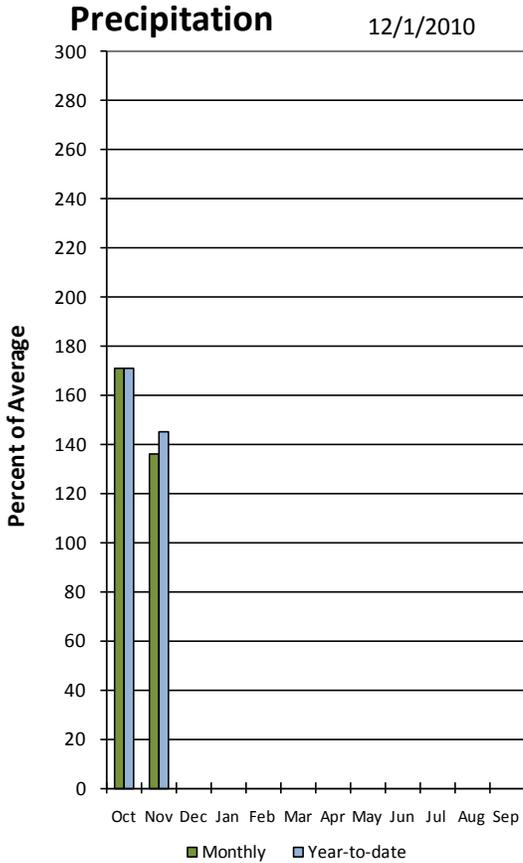
Weber River - Water Availability Index December



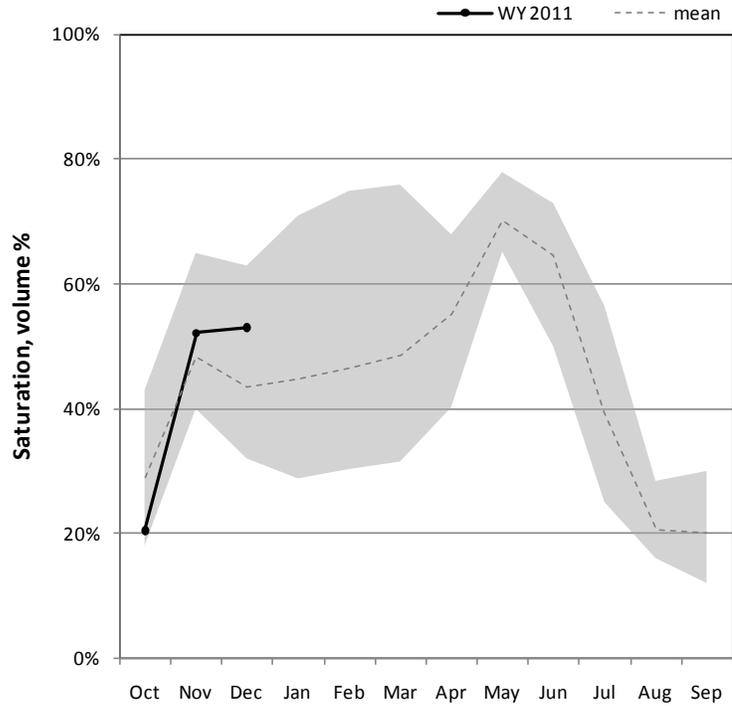
Utah Lake, Jordan River, & Tooele Valley Basins December 1, 2010

Precipitation in November was above average at 136%, bringing water year accumulation to 151%. Reservoir storage is at 83% of capacity, which is 3% less than this time last year. Soil moisture is at 53% compared to 3% last year at this time.

Jordan / Provo River

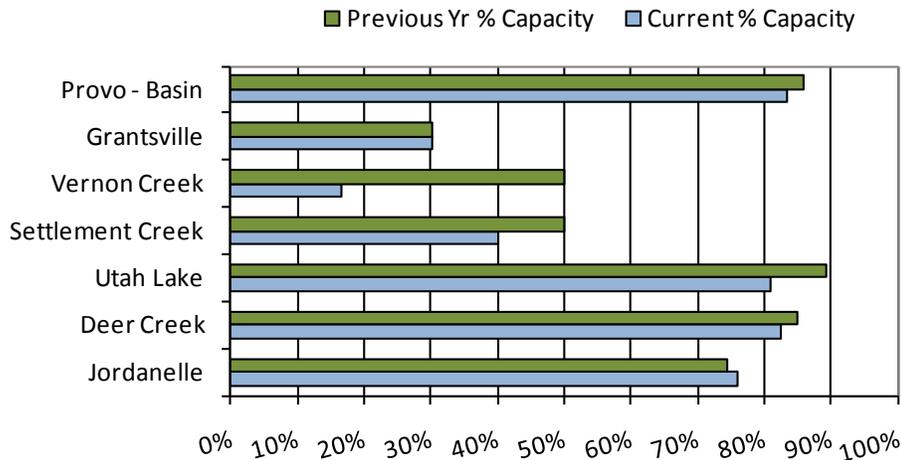


Jordan / Provo River Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

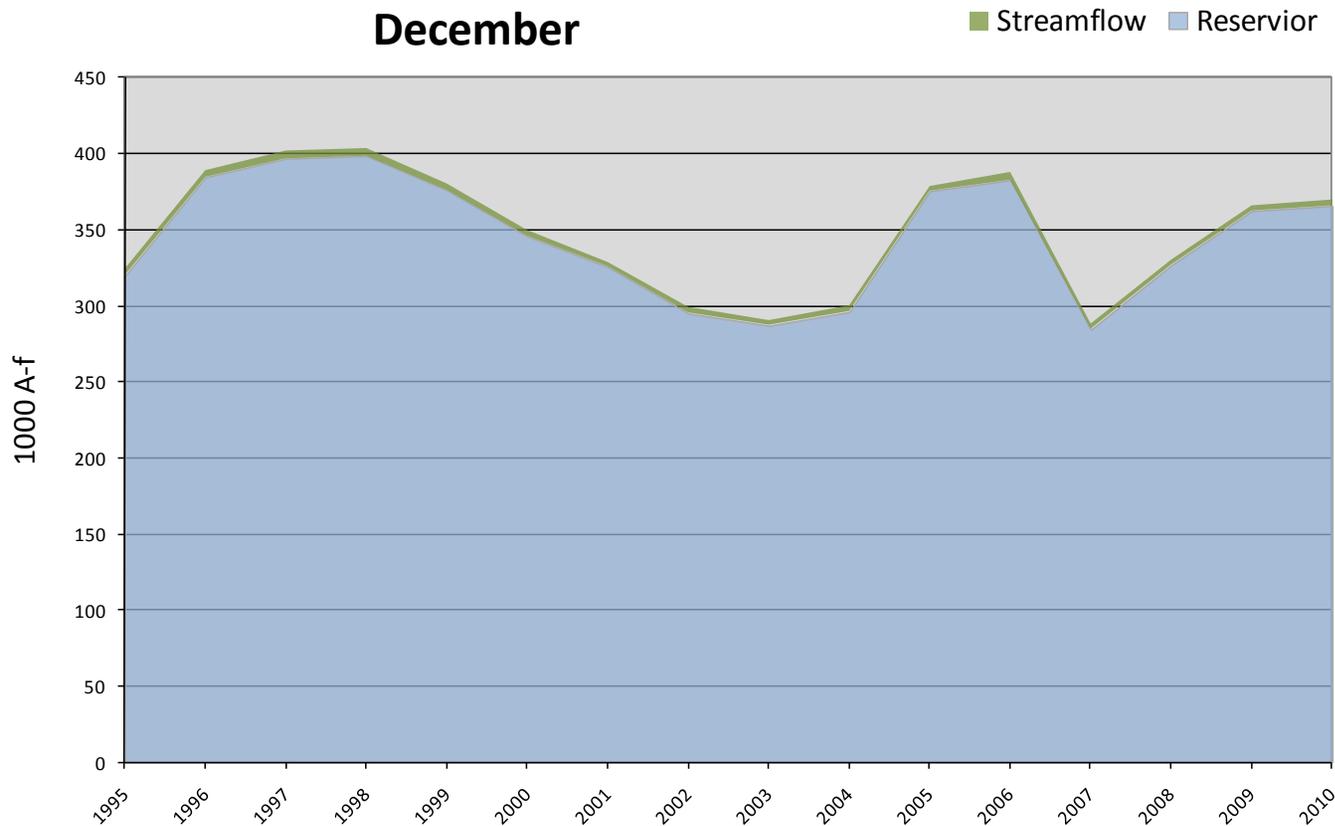
December Provo River Reservoir Storage



December 1, 2010		Water Availability Index				
Basin or Region	September EOM* Deer Creek, Jordanelle	September accumulated flow Provo River at Woodland (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Provo	366	4	370	0.74	59%	00, 09, 05, 99

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

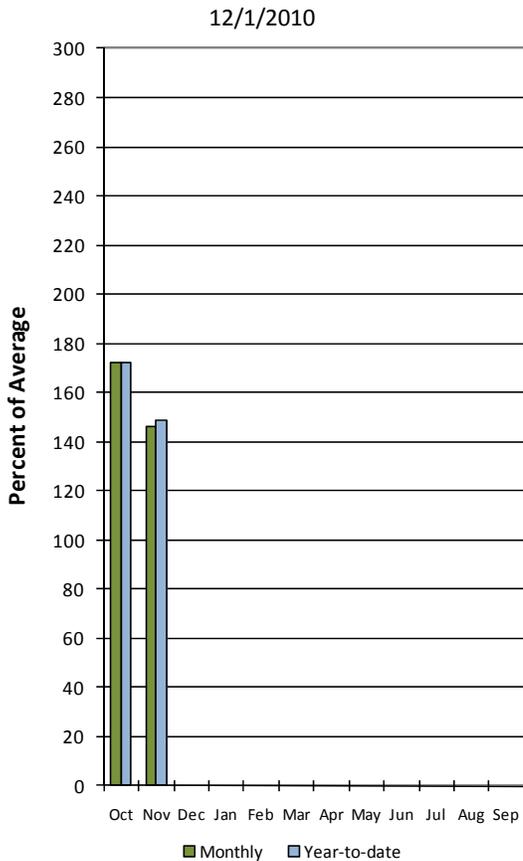
Provo River - Water Availability Index
December



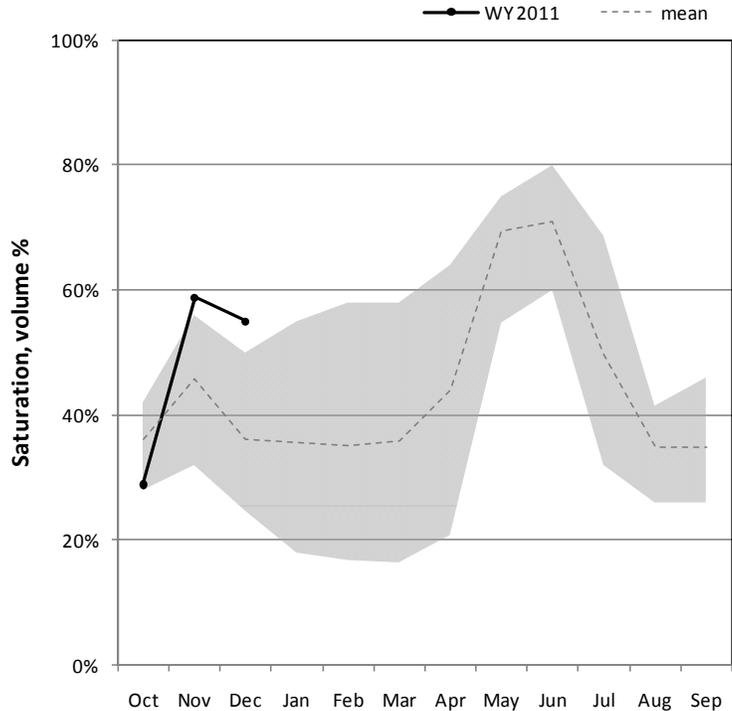
Uintah Basin and Dagget SCDs December 1, 2010

Precipitation in November was much above average at 146%, bringing the water year accumulation to 157%. Reservoir storage is at 82% of capacity, which is 1% lower than at this time last year. Soil moisture is at 55% compared to 25% last year. Soil moisture is at 55% compared to 25% last year.

Uintah Precipitation

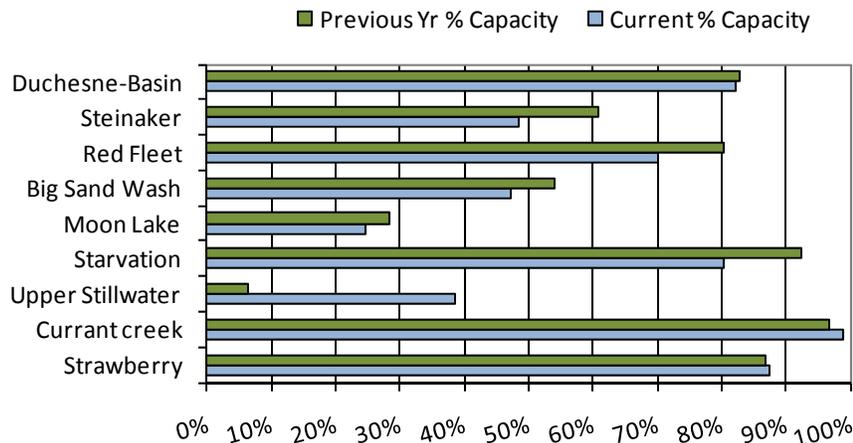


Uintah Basin Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

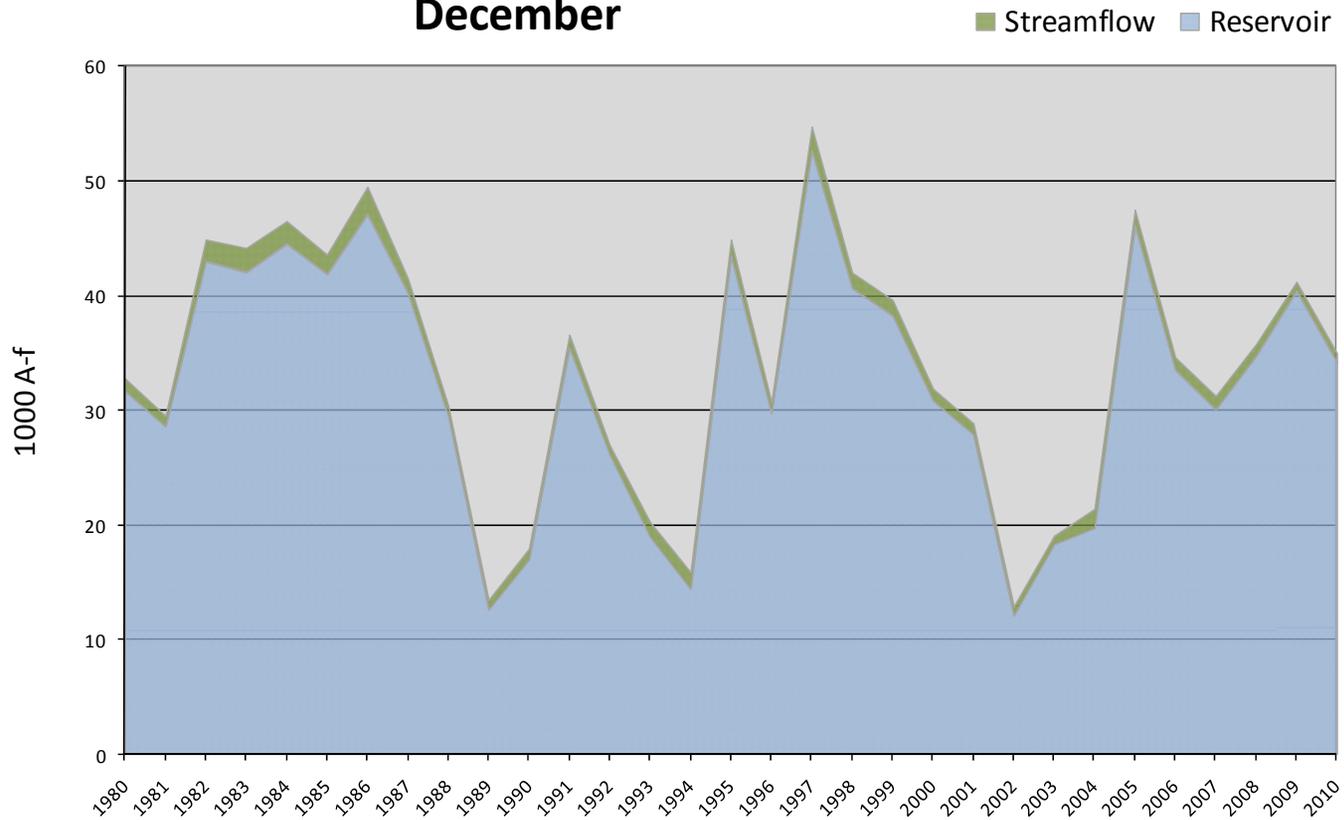
December Uintah Basin Reservoir Storage



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Red Fleet and Steinaker	November accumulated flow Big Brush Creek (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Eastern Uintah	34	1	35	0.26	53%	80, 06, 08, 91

**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*

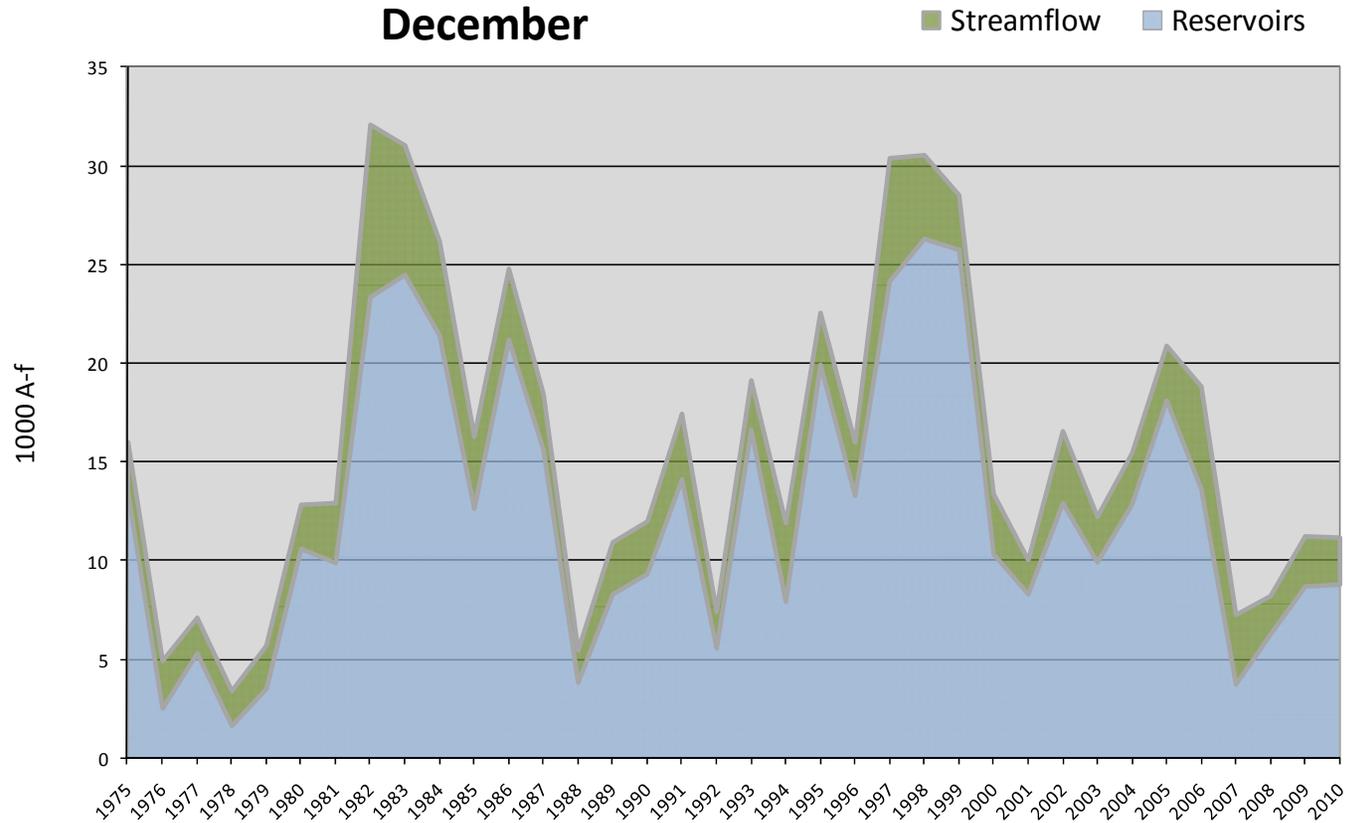
Eastern Uintah - Water Availability Index
December



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Moon Lake	November accumulated flow Lake Fork Creek above Moon Lake (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Moon Lake	9	2	11	-1.69	30%	01, 89, 09, 94

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

Moon Lake Water Availability Index December

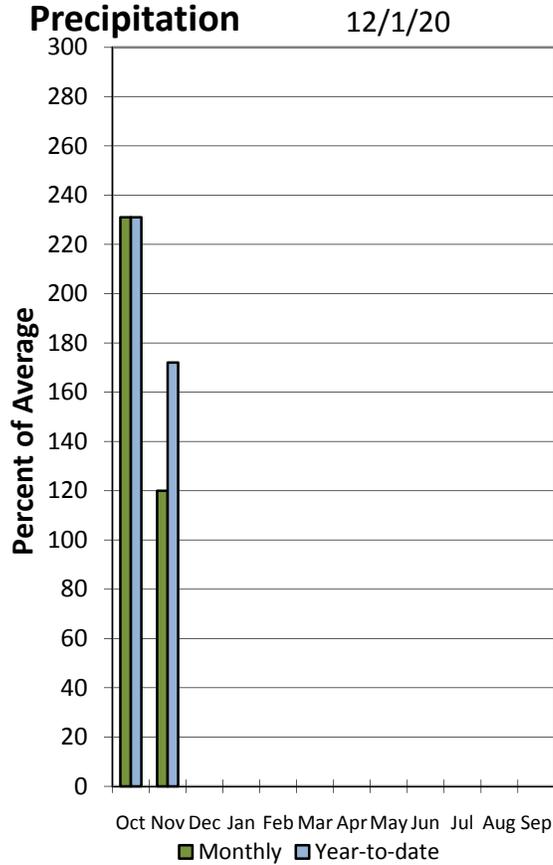


Southeast – Carbon, Emery, Wayne, Grand, and San Juan Counties

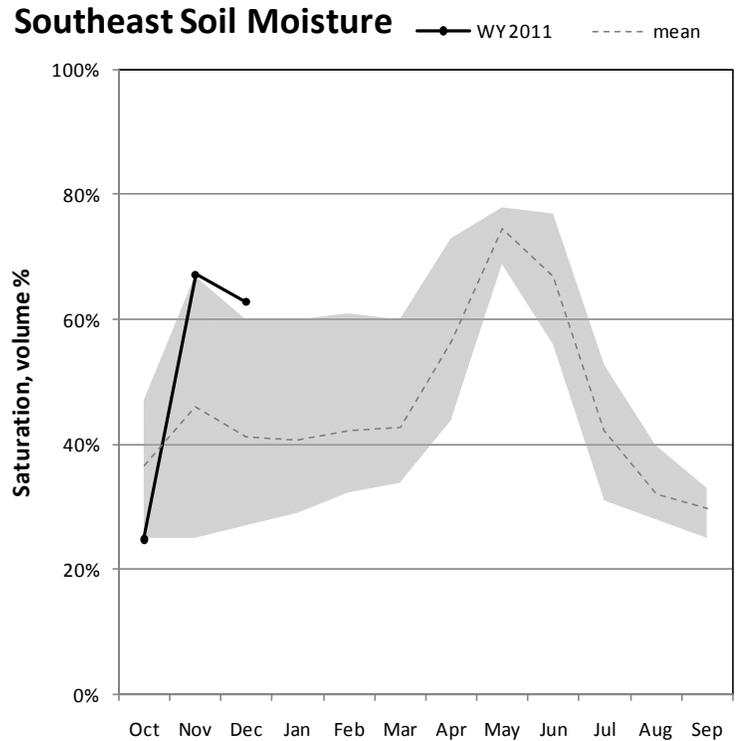
December 1, 2010

Precipitation in November was much above average at 172%. Reservoir storage is at 48% of capacity, which is 3% Lower than this time last year. Soil moisture is at 63% compared to 39% last year.

Southeast Utah

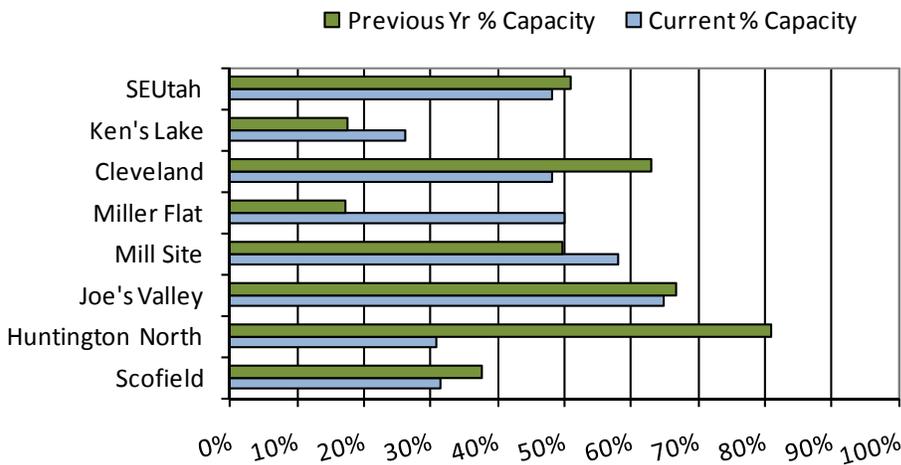


Southeast Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

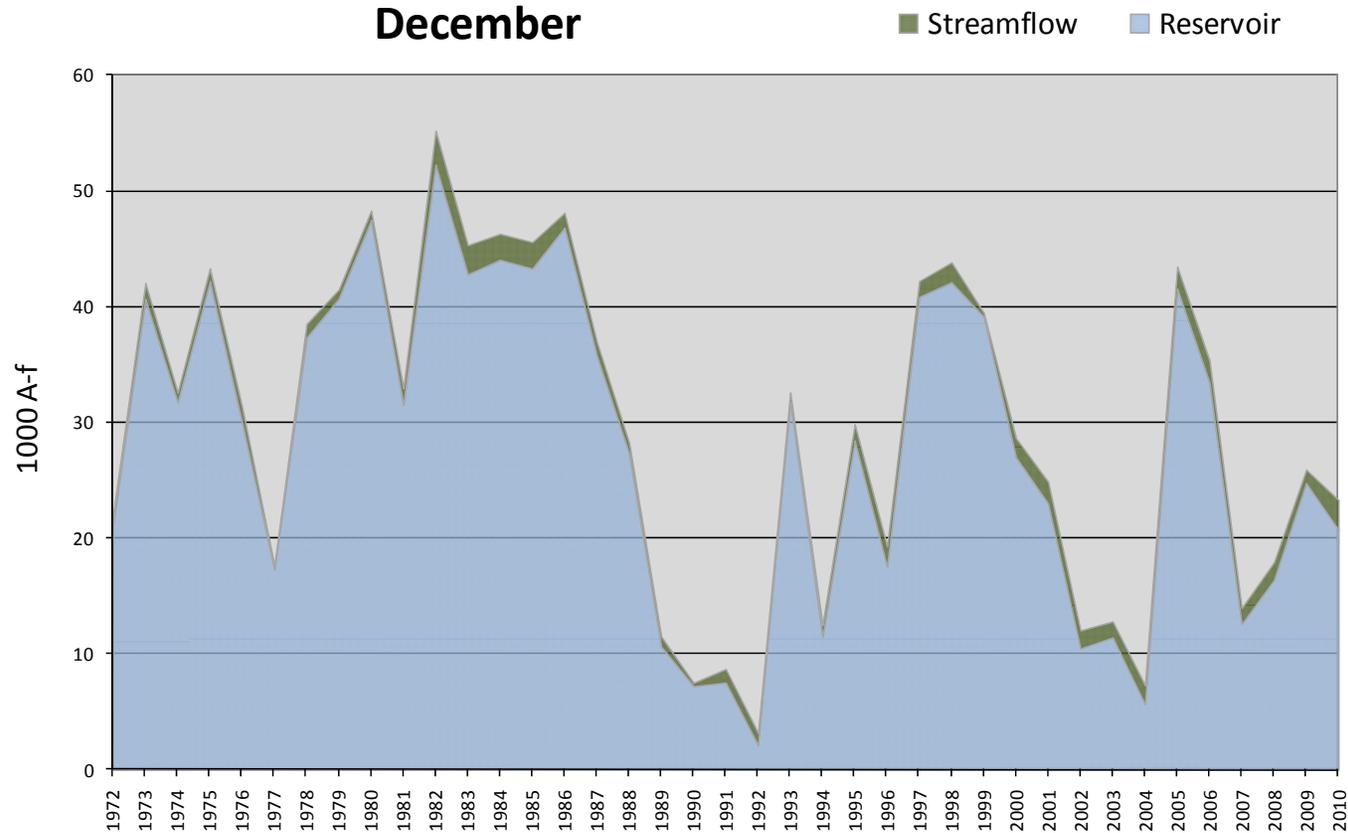
December Southeast Utah Reservoir Storage



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Scofield	November accumulated inflow to Scofield (calculated)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Price River	52	2.9	55	-1.25	35	97,72,01,09

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

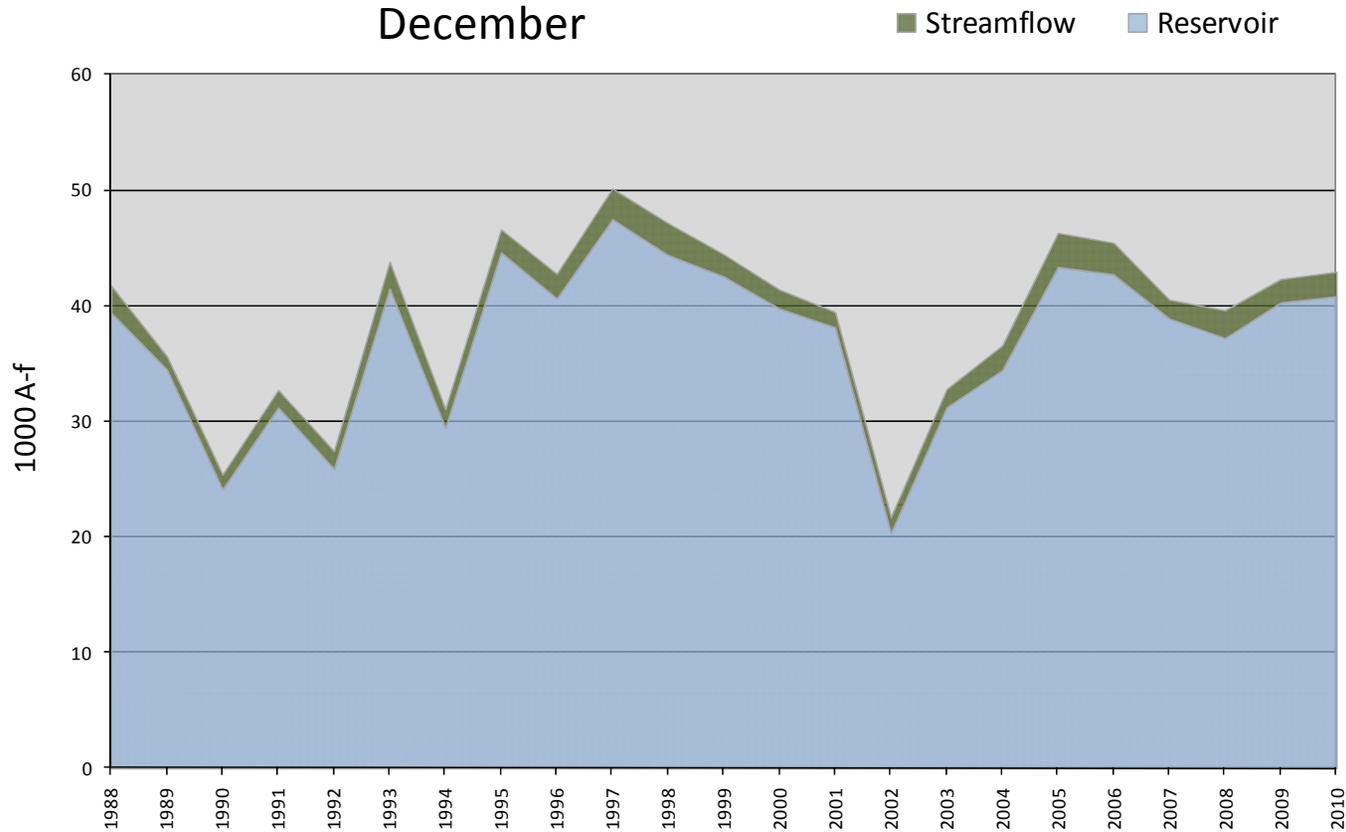
Price River - Water Availability Index
December



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Joe's Valley	November accumulated inflow to Joe's Valley (calculated)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Joe's Valley	47.5	2.7	50.2	1.39	67	09,96,93,99

**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*

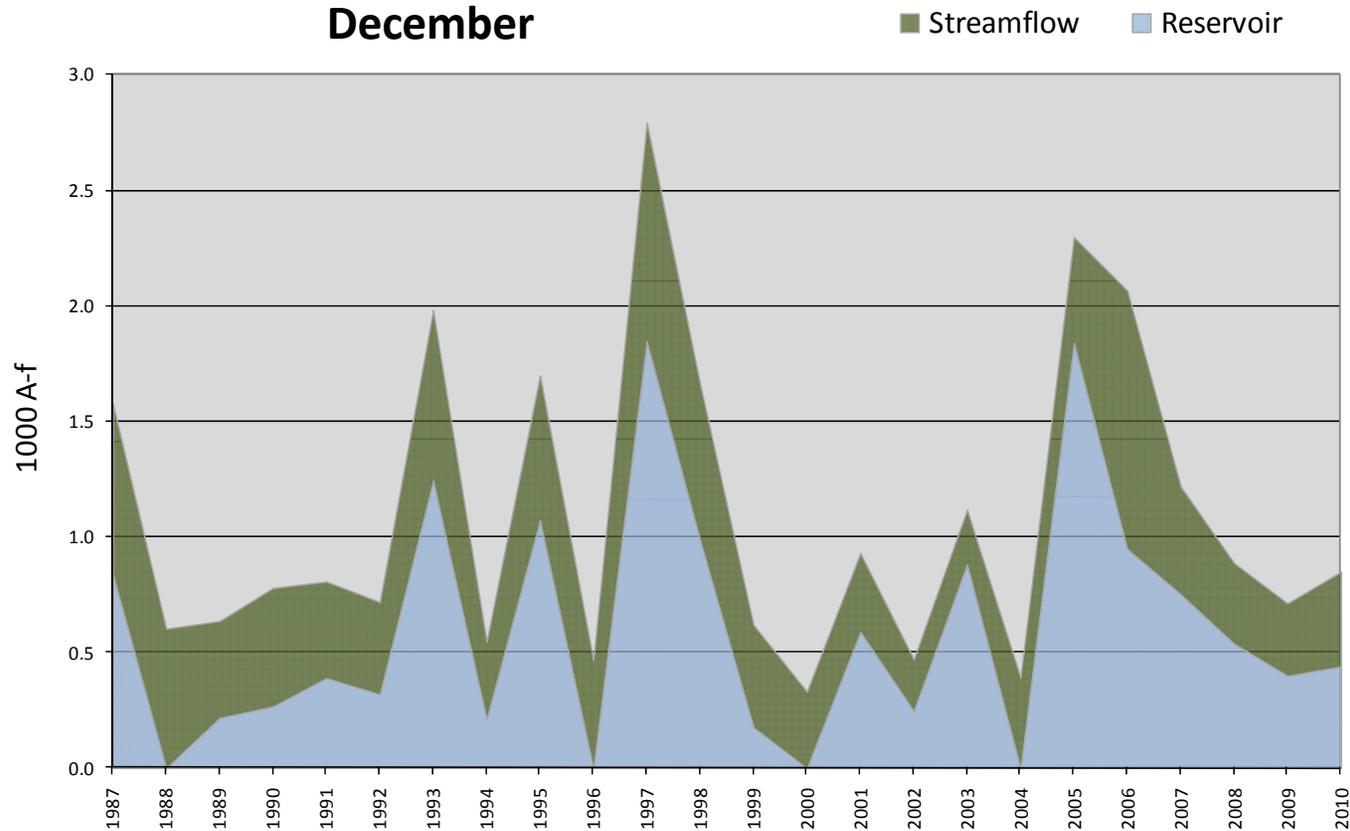
Joe's Valley - Water Availability Index
December



<i>December 1, 2010</i>		Water Availability Index				
Basin or Region	September EOM* Ken's Lake Reservoir	September accumulated flow Mill Creek at Sheley (<i>observed</i>)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	<i>KAF</i> [^]	<i>KAF</i>	<i>KAF</i>		%	
Moab	2.1	0.6	2.7	0.50	56	92,90,08,91

**EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.*

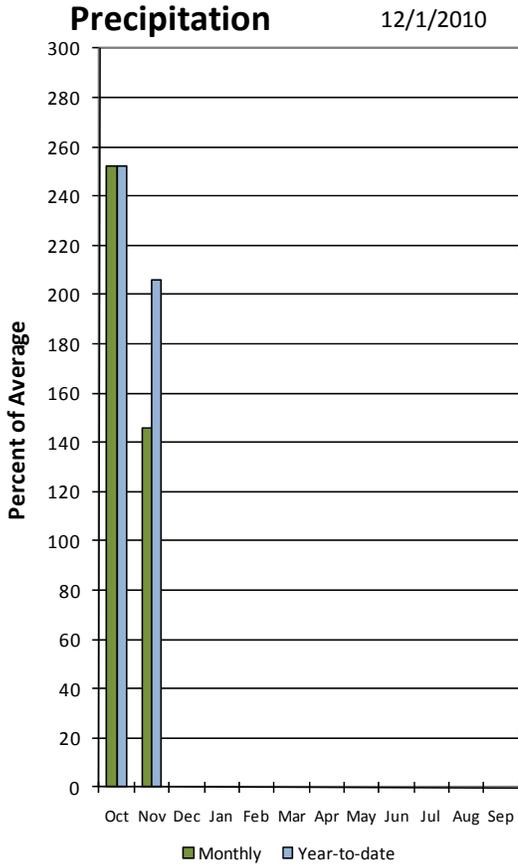
**Moab - Water Availability Index
December**



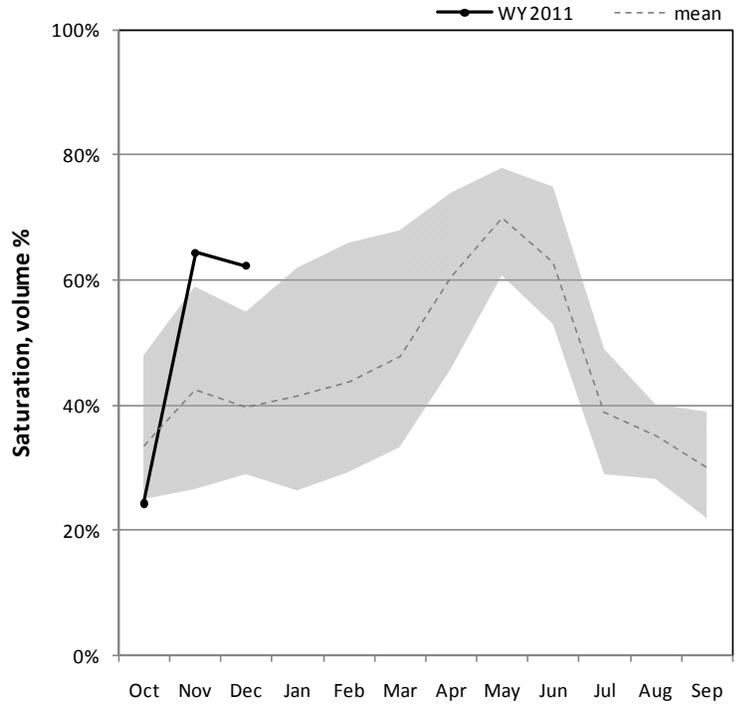
Sevier and Beaver River Basins December 1, 2010

Precipitation in November was much above average at 230%, which brings the seasonal accumulation (Oct-Sep) to 230% of average. Reservoir storage is low at 33% of capacity, but 10% more than last year. Soil moisture declined slightly over last month and last year: current 62%, last month – 64% and last year -30% of saturation.

Sevier /Beaver River

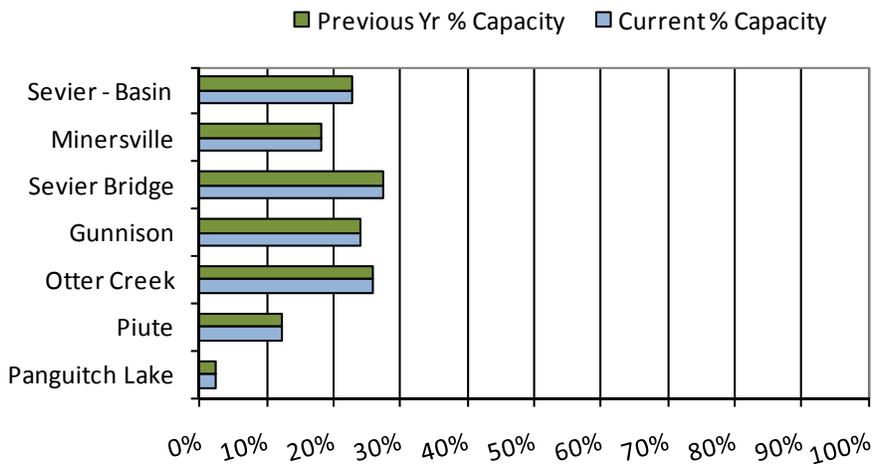


Sevier / Beaver River Soil Moisture



Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

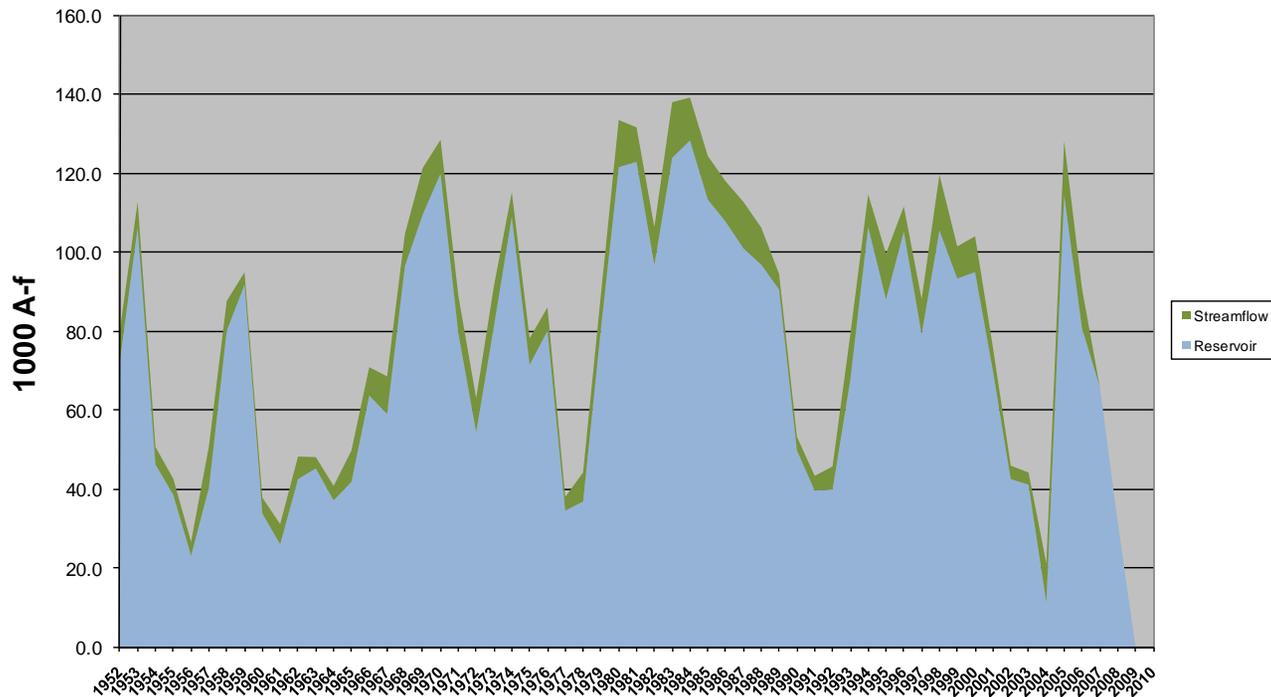
December Sevier River Reservoir Storage



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Otter Creek and Piute	November accumulated flow at Kingston (observed)	Reservoir + Streamflow	WAI#	Percentile	Years with similar WAI
	KAF^	KAF	KAF		%	
Upper Sevier River	29.9	3.1	33.0	-3.33	10	56, 61, 60, 77

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

Upper Sevier River Water Availability Index December



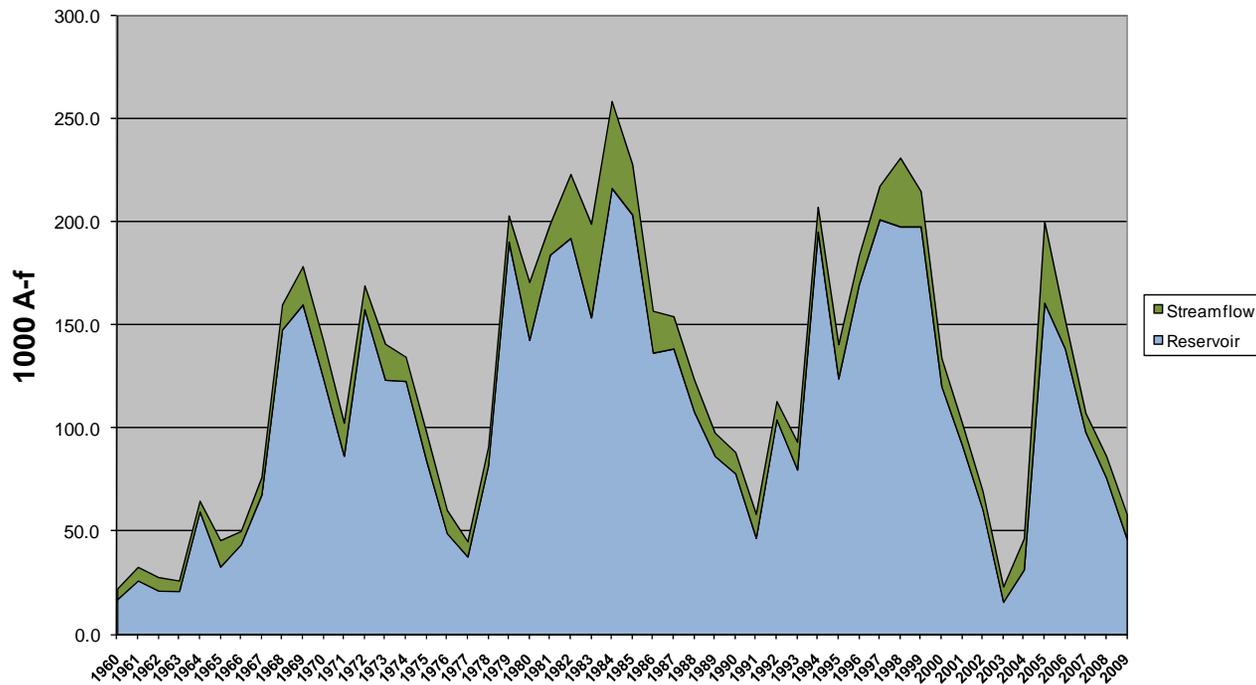
December 1, 2010

Water Availability Index

Basin or Region	November EOM* Sevier Bridge <i>KAF^</i>	November accumulated flow Sevier at Gunsion (<i>observed</i>) <i>KAF</i>	Reservoir + Streamflow <i>KAF</i>	WAI#	Percentile %	Years with similar WAI
Lower Sevier River	42.3	13.5	55.8	-2.56	19	04,66,09,91

*EOM, end of month; # WAI, water availability index; ^KAF, thousand acre-feet.

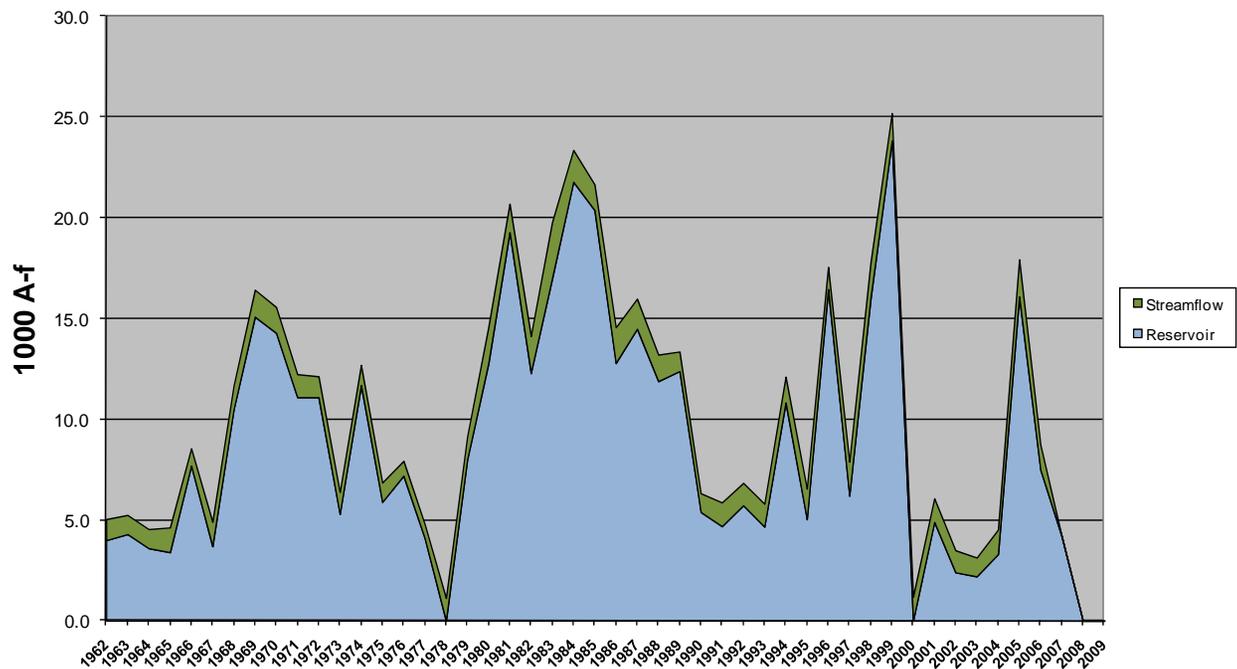
Lower Sevier River Water Availability Index December



December 1, 2010		Water Availability Index				
Basin or Region	November EOM* Minersville Reservoir	November accumulated flow Beaver River at Beaver (<i>observed</i>)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	KAF [^]	KAF	KAF		%	
Beaver	5.5	2.8	8.3	-0.83	40	71, 68, 79, 97

**EOM, end of month; [#]WAI, water availability index; [^]KAF, thousand acre-feet.*

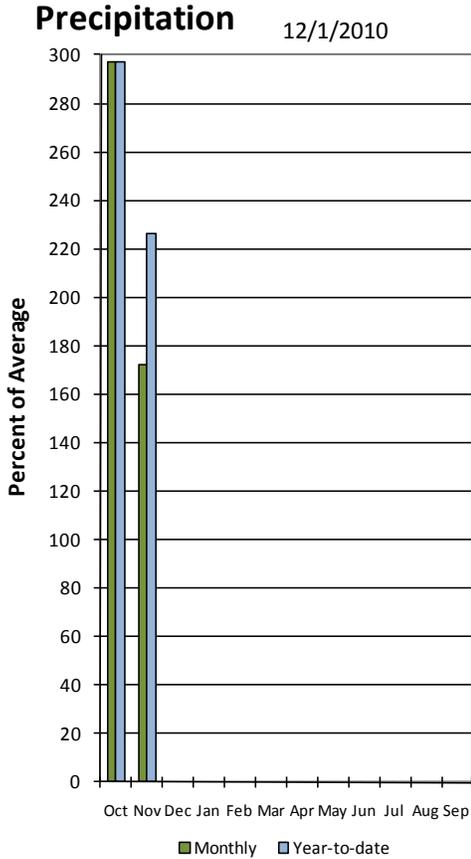
Beaver River Water Availability Index December



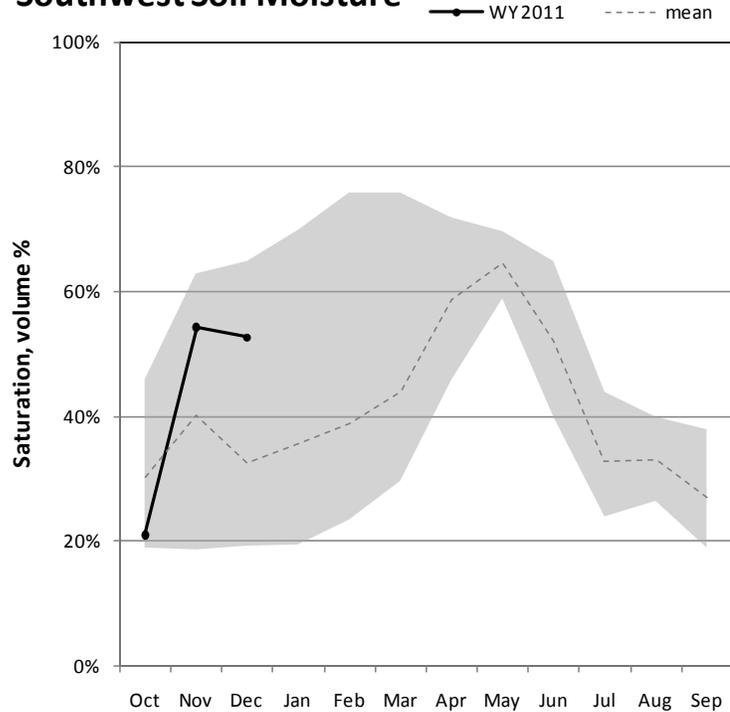
Southwest – E. Garfield, Kane, Washington, & Iron Counties December 1, 2010

Precipitation in November was much above average at 172%, bringing water year accumulation to 230%. Reservoir storage is low at 62% of capacity, 10% higher than last year at this time. Soil moisture is at 53% compared to 19% at this time last year.

Southwest Utah

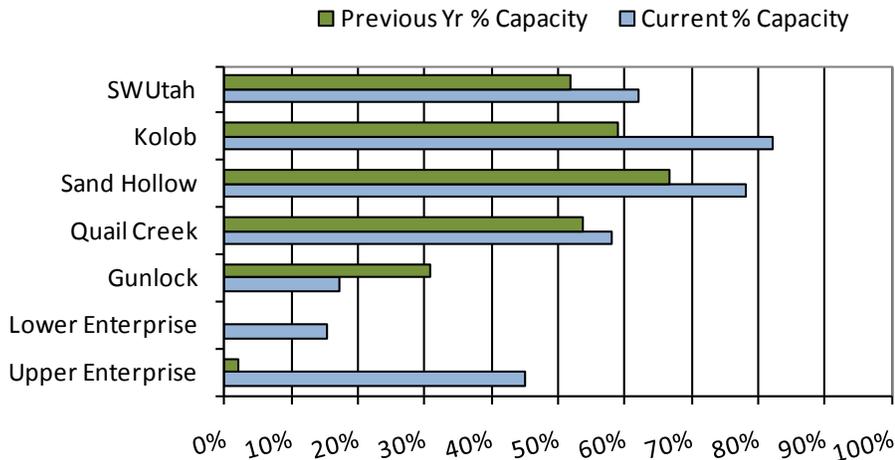


Southwest Soil Moisture



Percent saturation is calculated using the weighted average of volumetric soil moisture content at 2, 8, and 20-inch depths. Saturation is estimated as 40% volumetric water content. The gray area represents the range in saturation values since 2005.

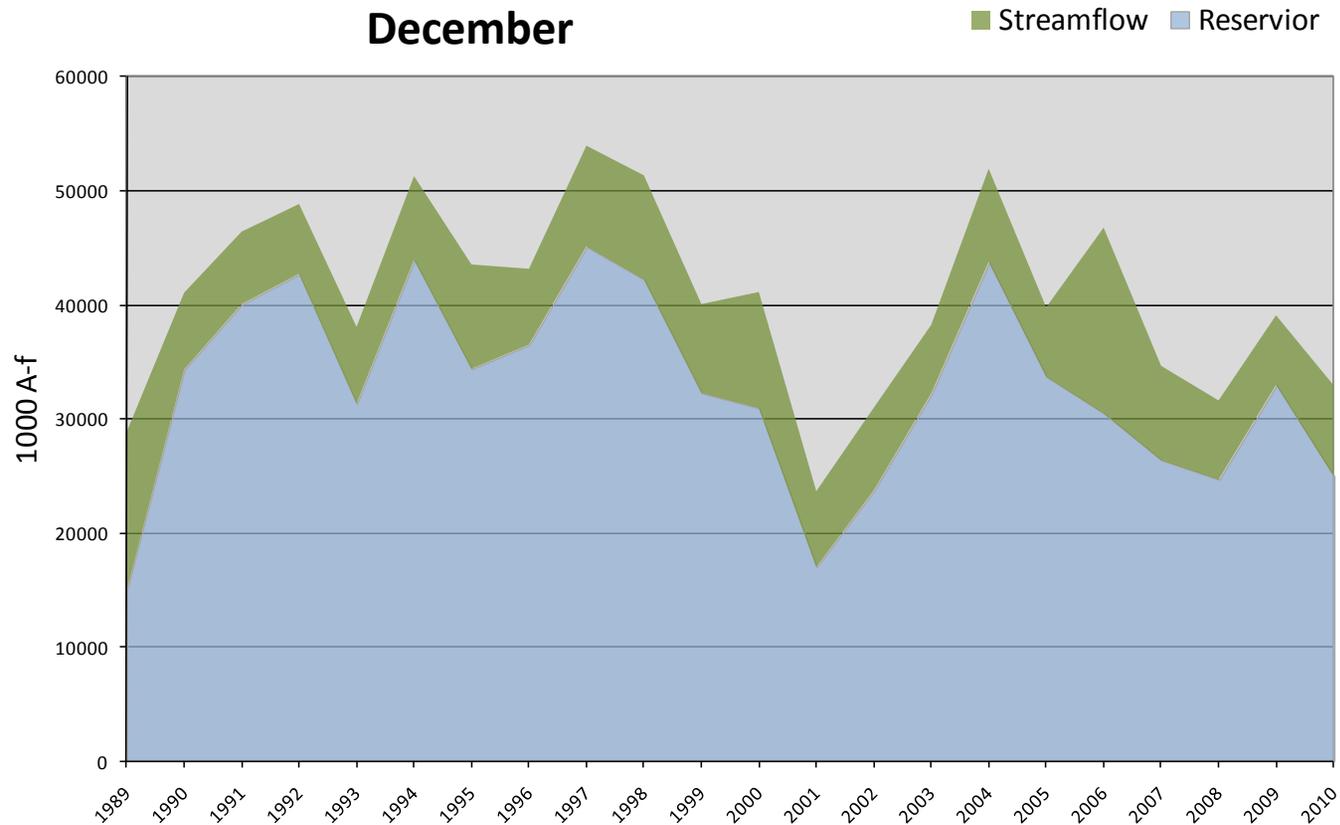
Dec. Southwest Utah Reservoir Storage



December 1, 2010		Water Availability Index				
Basin or Region	August EOM* Reservoir	August accumulated flow Virgin and Santa Clara Rivers (observed)	Reservoir + Streamflow	WAI [#]	Percentile	Years with similar WAI
	KAF [^]	KAF	KAF		%	
Southwest	24800	9691	34491	-2.36	22%	02, 08, 07, 93

**EOM, end of month; [#] WAI, water availability index; [^]KAF, thousand acre-feet.*

Southwest - Water Availability Index
December



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**Utah Climate and
Water Report**
Natural Resources Conservation Service
Salt Lake City, UT

