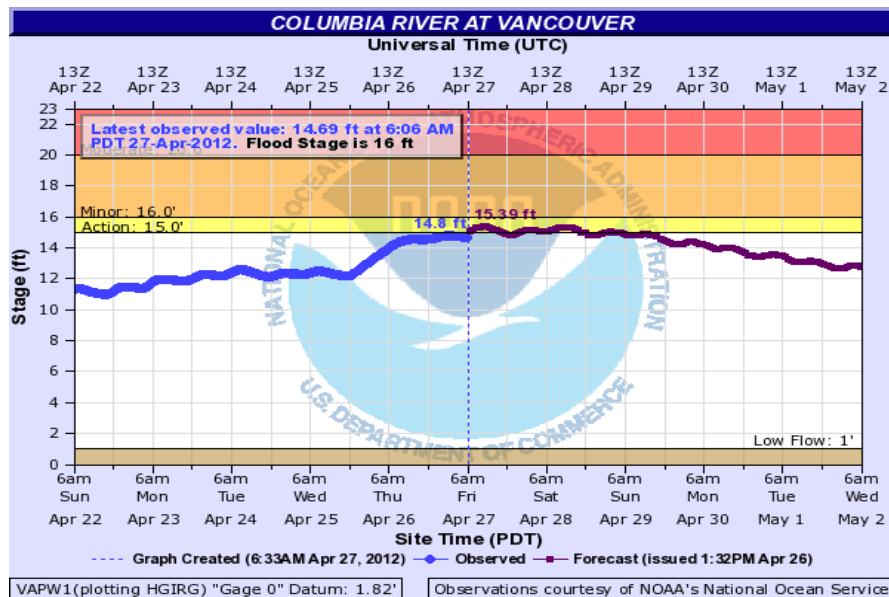
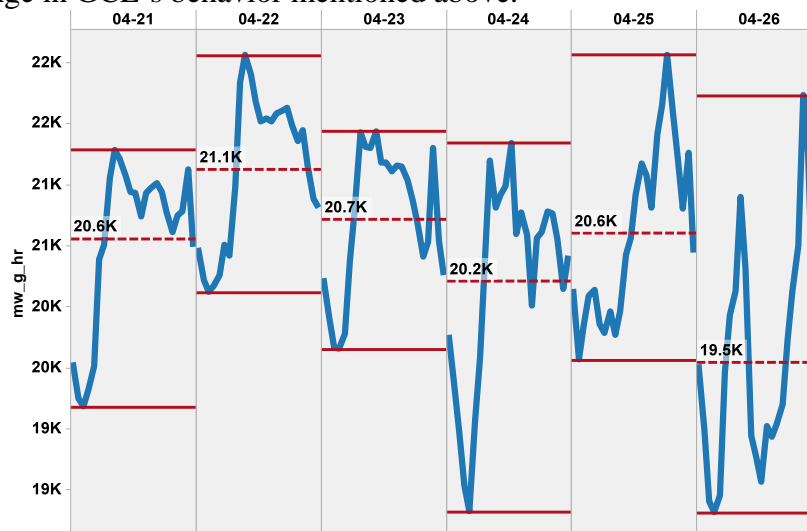


Weekly Report: 4/27/2012

This past week has been pretty exciting up in the PNW as above normal temperatures moved across the region, increasing the overall flows to record highs for this time of year. This forced Grand Coulee draft operations to cease by mid-morning on Wednesday as they passed inflows most of the day. On Thursday, they refilled just over two feet within the 24 hour period as the Snake was running and downstream gauges were at flood control levels where action had to be taken so Vancouver would not flood.



Looking at the hydro generation, Monday's flat average came in at 20.7 GW which was in line with output we saw late last week and over the weekend. The next couple of days fluctuated between flat and down 300-400 mw based on some unit outages and spill increasing on the system. As you can see by the graph below, the output dropped Thursday by 1.1 GW to average 19.5 GW (see chart below) with most of the delta showing up in the Upper/Mid Columbia basins due to the change in GCL's behavior mentioned above.



On the wind front, output began increasing with Thursday reaching close to the 4,000 MW level on that afternoon (which corresponds to the high flows on the river systems). The combination of both water and wind put downward pressure on the overall Midc heavy load prices towards the end of the week and into Monday as prices settled in single digits. The light load, on the other hand, continued to print around the \$0.00 mark.

	Heavy Load																Light Load											
	Power \$				HL Price Spreads				Gas Price				Heat Rates				Power \$											
	DA Bilat Market				CAISO Auction				Bilat				DA Bilat				CAISO Auction											
Date	MIDC	NP15	SP15	PV	MALIN	NP15	SP15	SP-MIDC	SP-PV	SP-NP	SP-MALIN	MALIN	PG&E	SOCALB	MIDC	NP15	SP15	PV	MALIN	NP15	SP15	MIDC	NP15	SP15	PV	MALIN	NP15	SP15
4/21	13.36	25.16	34.71	23.87	12.81	16.68	33.14	21.35	10.84	6.46	20.33	1.77	2.26	2.15	7.53	11.12	16.13	11.09	7.22	11.79	15.40	0.60	-	16.13	13.01	2.99	17.71	19.88
4/22	8.96	-	30.75	22.75	5.00	16.15	29.50	21.79	8.00	3.36	24.50	1.77	2.26	2.15	5.05	-	14.29	10.57	2.82	11.56	13.71	2.85	19.00	23.83	17.85	(4.64)	19.61	20.43
4/23	16.30	25.58	34.43	25.67	20.28	17.82	28.11	18.13	8.76	0.29	7.83	1.77	2.26	2.15	9.19	11.31	16.00	11.93	11.43	12.30	11.06	2.85	19.00	23.83	17.85	(0.40)	17.91	18.02
4/24	15.40	25.58	27.42	22.75	19.70	11.76	26.56	12.02	4.67	4.81	6.87	1.86	2.29	2.23	8.29	11.18	12.32	10.22	10.60	9.51	11.93	(0.31)	-	17.42	13.22	15.12	15.50	15.44
4/25	16.40	25.74	28.28	21.09	10.24	12.66	27.08	11.88	7.19	4.42	16.85	1.96	2.17	2.33	8.35	10.85	12.15	9.06	5.21	9.55	11.63	(0.04)	-	17.12	14.24	9.07	17.66	17.73
4/26	13.00	22.94	26.48	20.17	13.53	12.13	24.04	13.48	6.31	1.90	10.50	1.92	2.34	2.24	6.78	9.79	11.83	9.01	7.06	9.44	13.74	0.06	-	17.03	14.50	10.19	16.21	16.68
4/27	9.44	21.22	24.81	19.65	14.31	13.90	27.10	15.37	5.16	3.20	12.79	2.01	2.27	2.23	4.70	9.37	11.13	8.82	7.13	10.07	11.16	0.00	16.37	16.99	14.76	1.25	17.11	17.67
4/28	9.44	21.22	24.81	19.65	12.74	18.67	23.37	15.37	5.16	4.69	10.62	1.94	2.30	2.09	4.87	9.65	11.84	9.38	6.58	8.11	11.16	0.00	16.37	16.99	14.76	1.15	15.86	16.65
8 Day Avg	12.79	24.21	28.96	21.95	13.58	13.72	27.36	16.17	7.01	3.64	13.79	1.88	2.21	2.20	6.84	10.49	13.21	9.99	7.24	10.28	12.46	0.75	17.69	18.12	15.02	4.34	17.21	17.81
MTD Avg	14.20	24.05	28.99	21.48	14.72	12.59	29.14	14.79	7.51	6.55	14.42	1.93	2.38	2.22	7.21	10.12	13.07	9.68	7.64	9.50	13.13	14.20	24.05	28.99	21.48	14.72	22.55	29.14

On the CAISO front, heavy load SP15 prices pushed down from \$28 down to \$24 with the implied heat rates coming in at 10.74 – 13.06. From a demand standpoint, loads tapered off from the highs last weekend thus the grid got longer. On the supply side, imports increase week on week with Paci being re-rated anywhere from 700-1,000 mw. Nob flows were at capacity while the DSW increased on El Dorado. Palo/Mead/Adalantos flows netted each other out throughout the week. In state generation saw units come back within the LA Basin (Mountainview Power) while a jellyfish invasion got in the way of Diablo Canyon Unit 2 mid-week thus taking it offline. Turning to congestion, the SCE Limit was minimal all week while the SDGE_OC nomogram continues to bind during the heavy load hours.

Onto the next topic within CAISO, they had a Summer Assessment call this week where several topics were discussed regarding the supply situation within the LA/San Diego Basins this summer in light of the SONGS outages. Here are the highlights:

1. Speeding up completion of the Sunlink and Barre-Lewis transmission lines.
2. Returning the Huntington Beach units to service. There were no firm comments on when the units would be back online (would suspect sometime in Mid-June since they would like them up and tested prior to July)
3. Demand response and curtailment programs are actively being looked at for summer. An example of this is within San Diego they have had talks with the military branches about having the ability to go off the grid (use the ship generators) at certain times of the day.
4. The CAISO is in talks with the pertinent government entities regarding units that might run up against their emissions limits this summer to avoid conflicts with emission restrictions that constrain unit operations while ensuring sufficient supply.
5. While Unit 3 will definitely not be returning for the summer there is still some possibility of Unit 2 coming back (per IIR end date). Nothing on the CAISO side indicated certainty one way or the other.

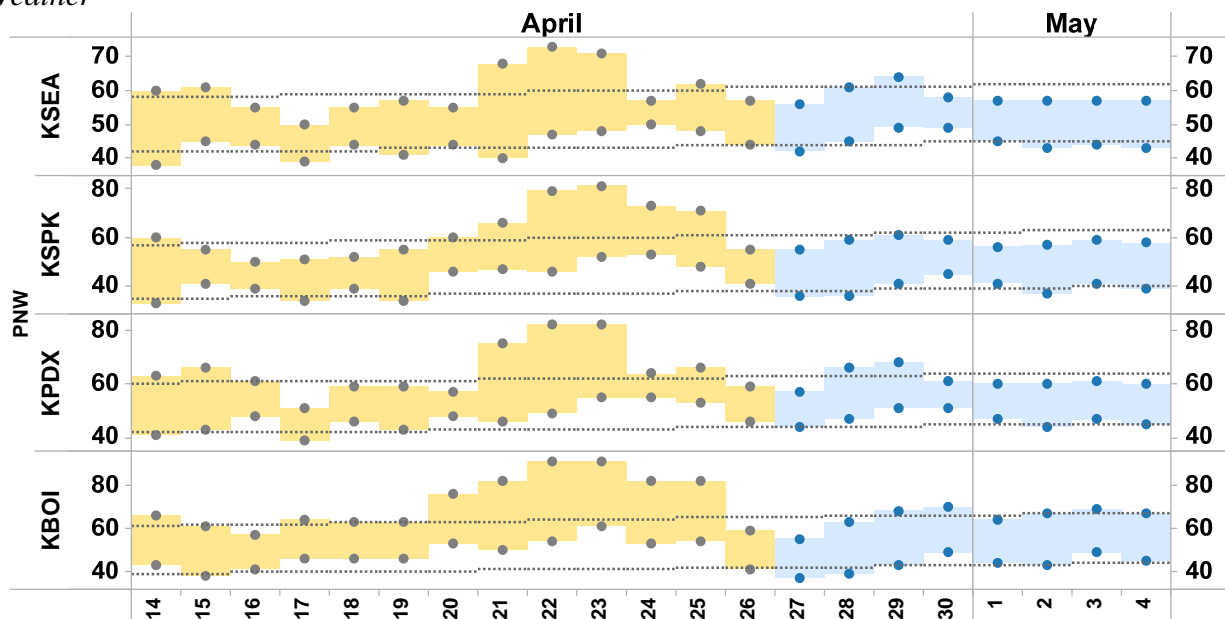
Finally, during the heat last week we took a look at the solar output down in California and compared it to last summer's actuals. The chart below illustrates how the 20/21st of this month averaged roughly 200 mw more compared to July/Aug 2011.

	Average (HE10-19)	Peak
Hot Week 2012 (4/20-21)	550	673
July 2011	346	457
July 2011	362	446

We will continue to monitor this as we move further into Q2 and summer 2012 since every MW will matter assuming both SONGS units continue to be offline.

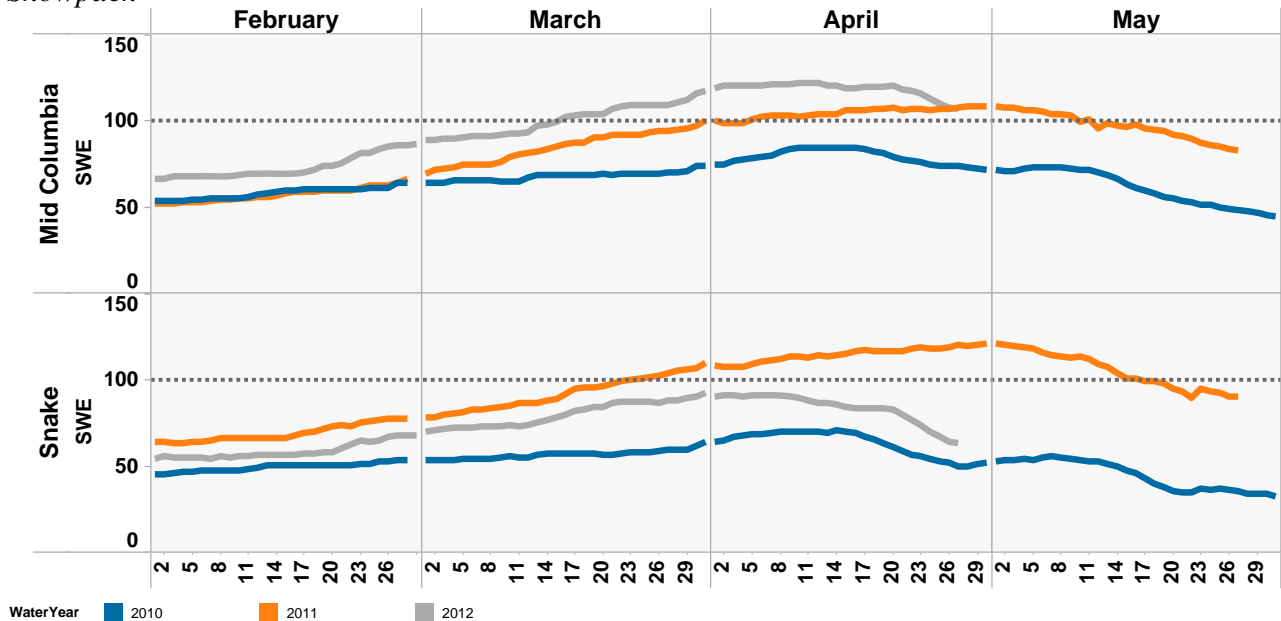
PNW

Weather



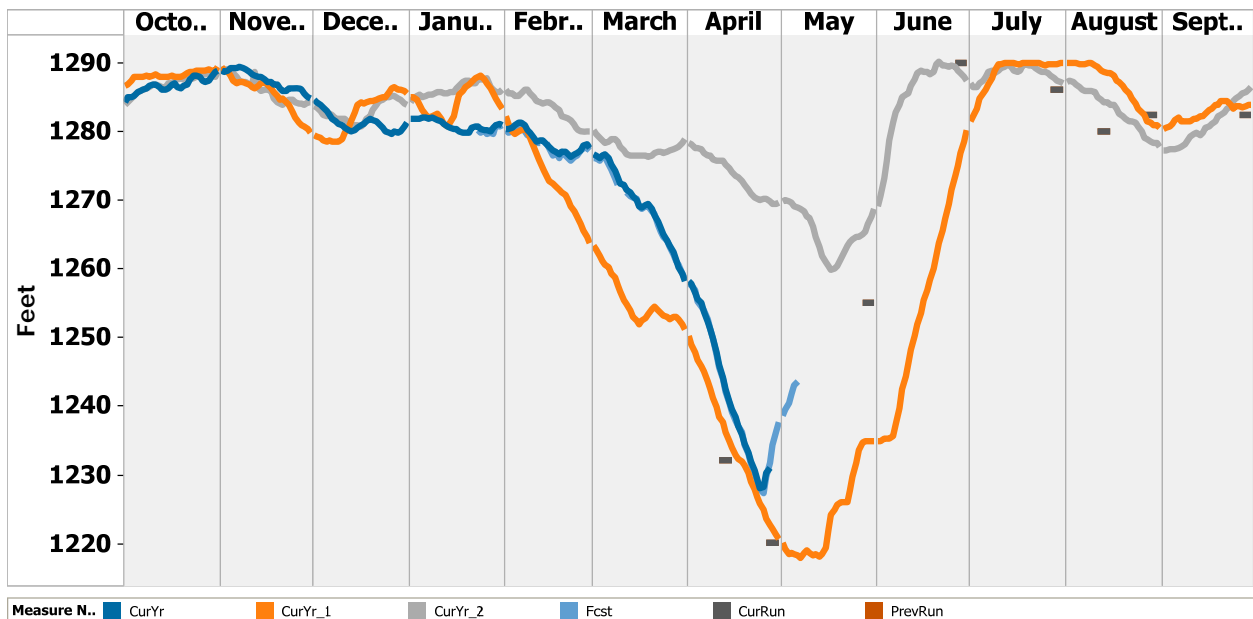
In the Pacific Northwest temperatures are warming up for the weekend in the major load centers before dropping back to around or slightly under normal next week. Boise temperatures are back to normal after the extended highs last week.

Snowpack



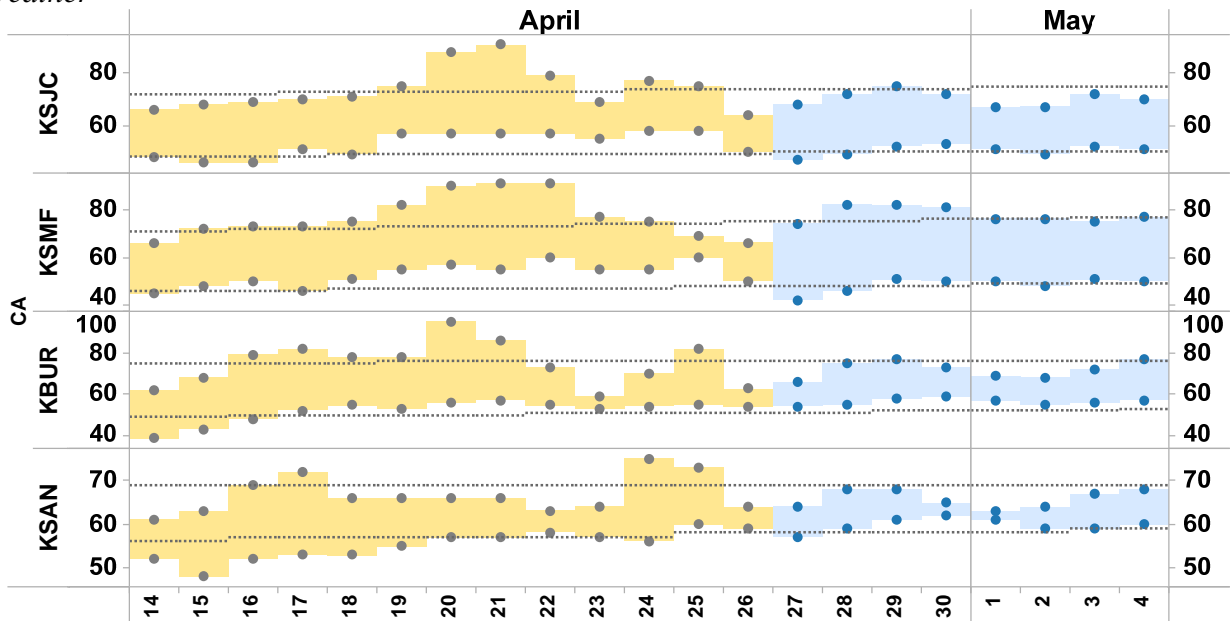
SWE has dropped considerably over the past week due to the warmer temperatures in the region. As we go forward this will be an area to watch as some of the lower elevation Snake gauges have lost most of their snowpack.

Hydro Storage



The big news this week is GCL flipping from drafting for Flood Control to storing water for the purpose of Flood Control. Elevation bottomed out at 1226' earlier in the week and is now rising at 1-2' a day. The current forecast has the elevation going to 1243' by May 6th.

CAISO Weather

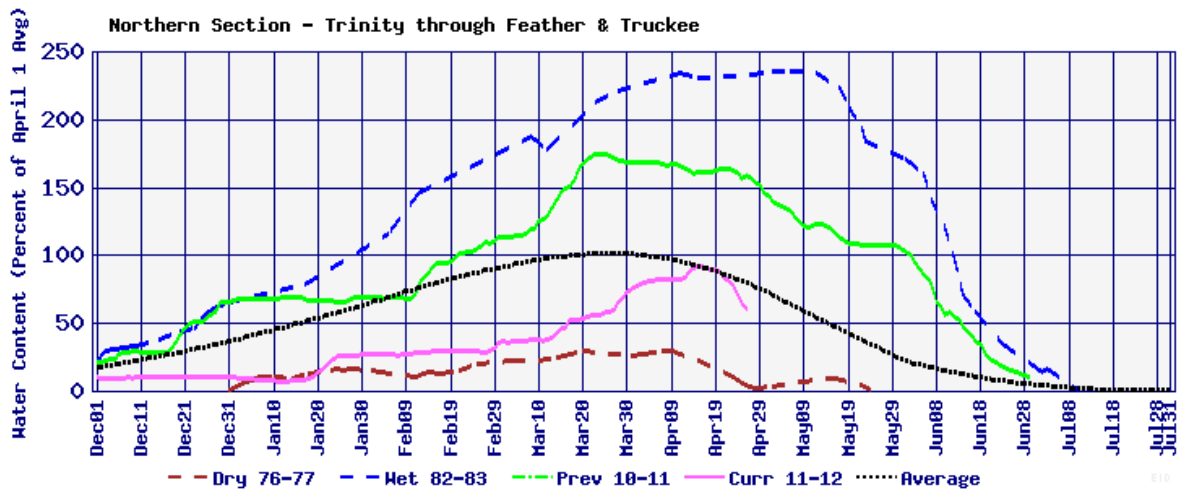


Sacramento is warming up to above normal over the next several days while the rest of California is somewhat cooler than normal. For the week temperatures dropped back from the heat wave late two weeks ago.

Snowpack

California Snow Water Content

PERCENT OF APRIL 1 AVERAGE, APRIL 26, 2012



The late May jump in Northern California snowpack has dropped back over the past couple days due to the rise in temperatures last weekend.

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