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February 8, 2005

MEMORANDUM

TO: Council Members

FROM: John Fazio, Senior Systems Analyst

SUBJECT: 2005 Hydro Conditions and Power Supply Outlook

The current snow pack forecasts are not promising for the Northwest, except in Canada. The Canadian snow pack is between 90 and 100 percent of normal, whereas for Washington and northern Idaho, the forecast is between 25 to 50 percent of normal. Overall, this translates into a January-to-July runoff volume forecast (at The Dalles) of 82.4 million acre-feet, which is about 77 percent of normal. But that forecast assumes normal precipitation from now through the end of August. The forecast drops to 71.6 million acre-feet if 75 percent of normal precipitation is assumed. For reference, the runoff in 2001 was about 58 million acre-feet and in 1977 it was about 54 million acre-feet.

Because the region is currently about 1,500 average megawatts surplus (based on a critical water calculation) there is very little risk of curtailment due to poor water conditions. Nor should the region see extreme price spikes, as occurred in 2001. In that year, the region was nearly 4,000 average megawatts deficit and California had little, if any, energy to export. The poor water conditions, however, will likely cause electricity prices to rise a little and BPA's revenues from spring and summer surplus energy sales are likely to be much lower than average.

Reservoir elevations should be at planned levels by the end of summer, however, biological opinion flow objectives for both the lower Snake and lower Columbia rivers are not likely to be met. Historically those flow objectives (200,000 cubic feet per second at McNary and 50,000 cubic feet per second at Lower Granite) are not met very often -- in July about 60 percent of the time at McNary and about 50 percent at Lower Granite. In August it gets worse -- under simulated operation, Lower Granite never achieves the objective and at McNary, the objective is met 40 percent of the time in the first half of August and only 8 percent in the second half.

c:\ww\2005\runoff 20805.doc (John Fazio)

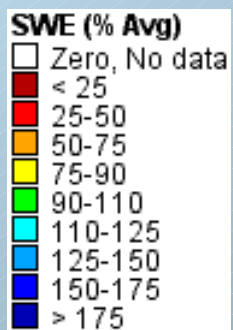
Northwest Power Supply Outlook 2005

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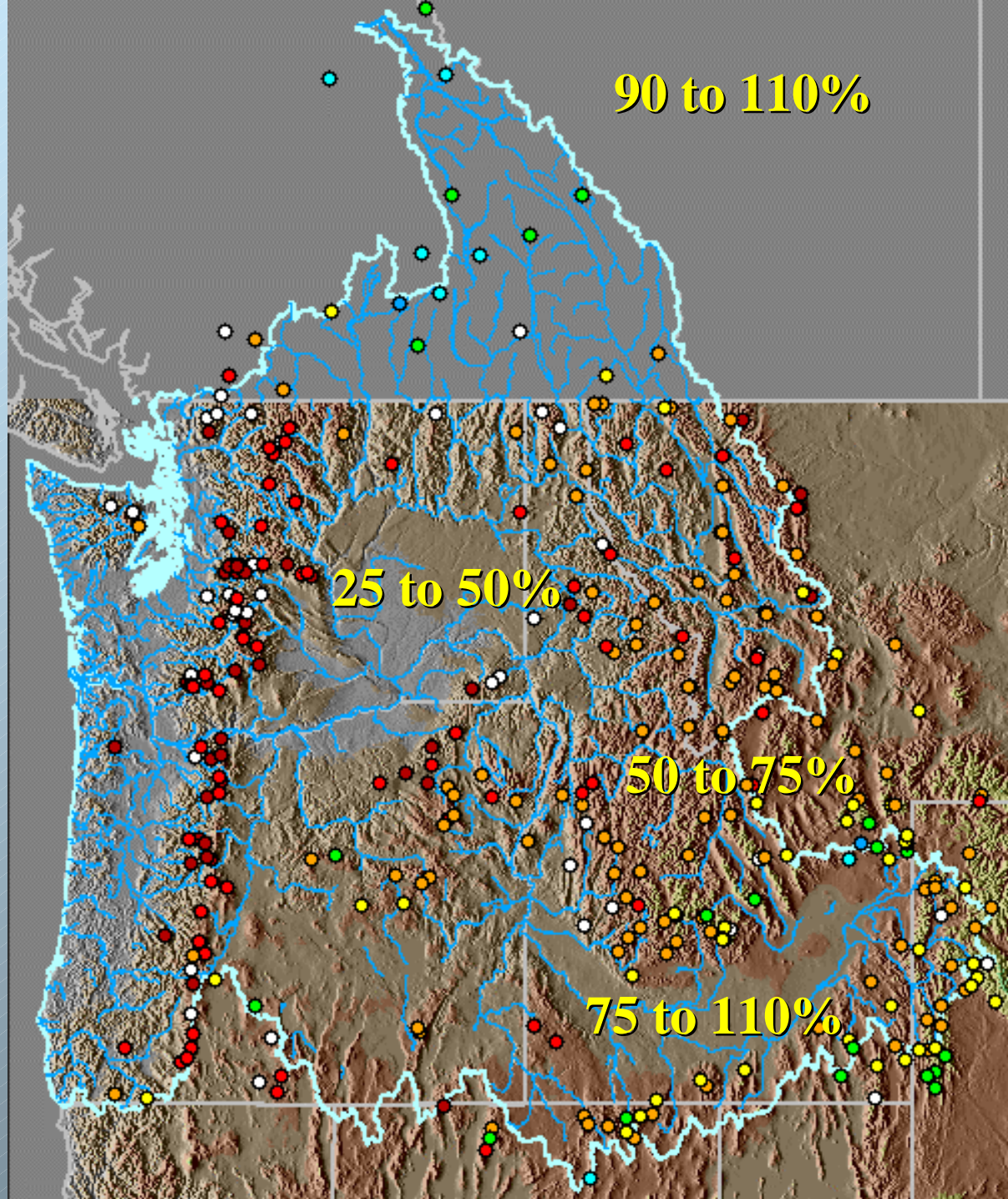


Current Snow Pack Levels

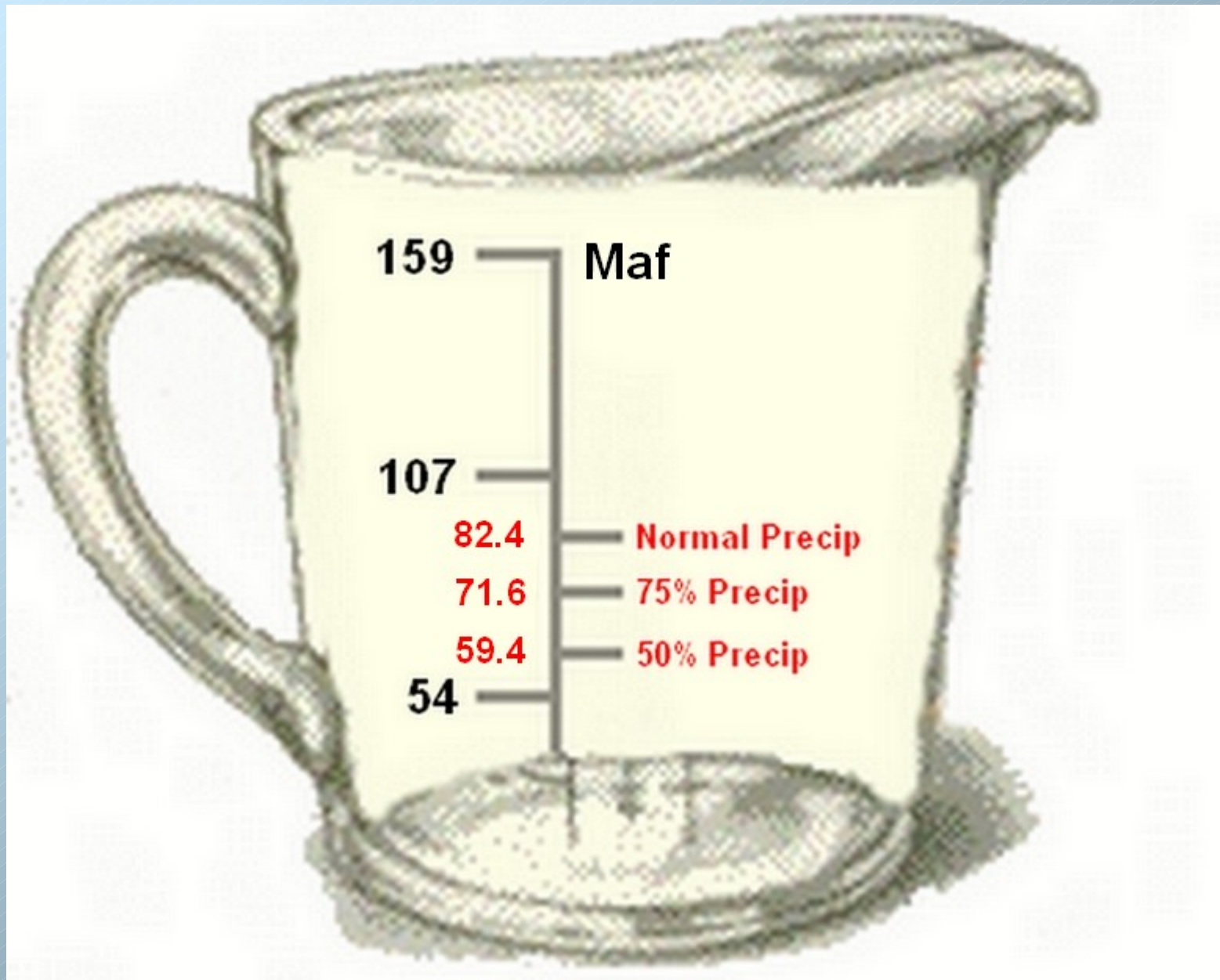
2/08/05



NW River Forecast Center

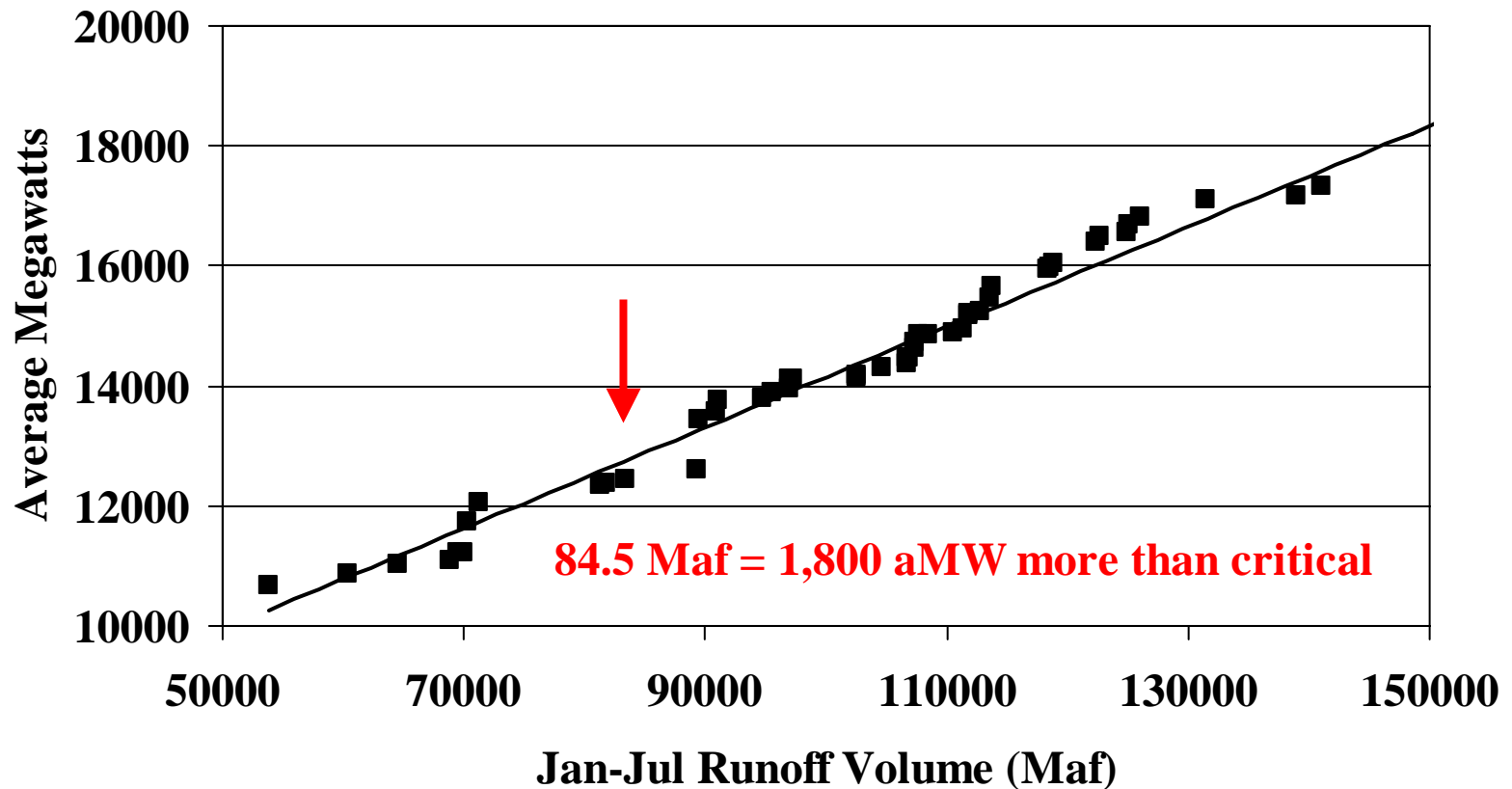


2/08/05 Jan-Jul Runoff Forecast at The Dalles



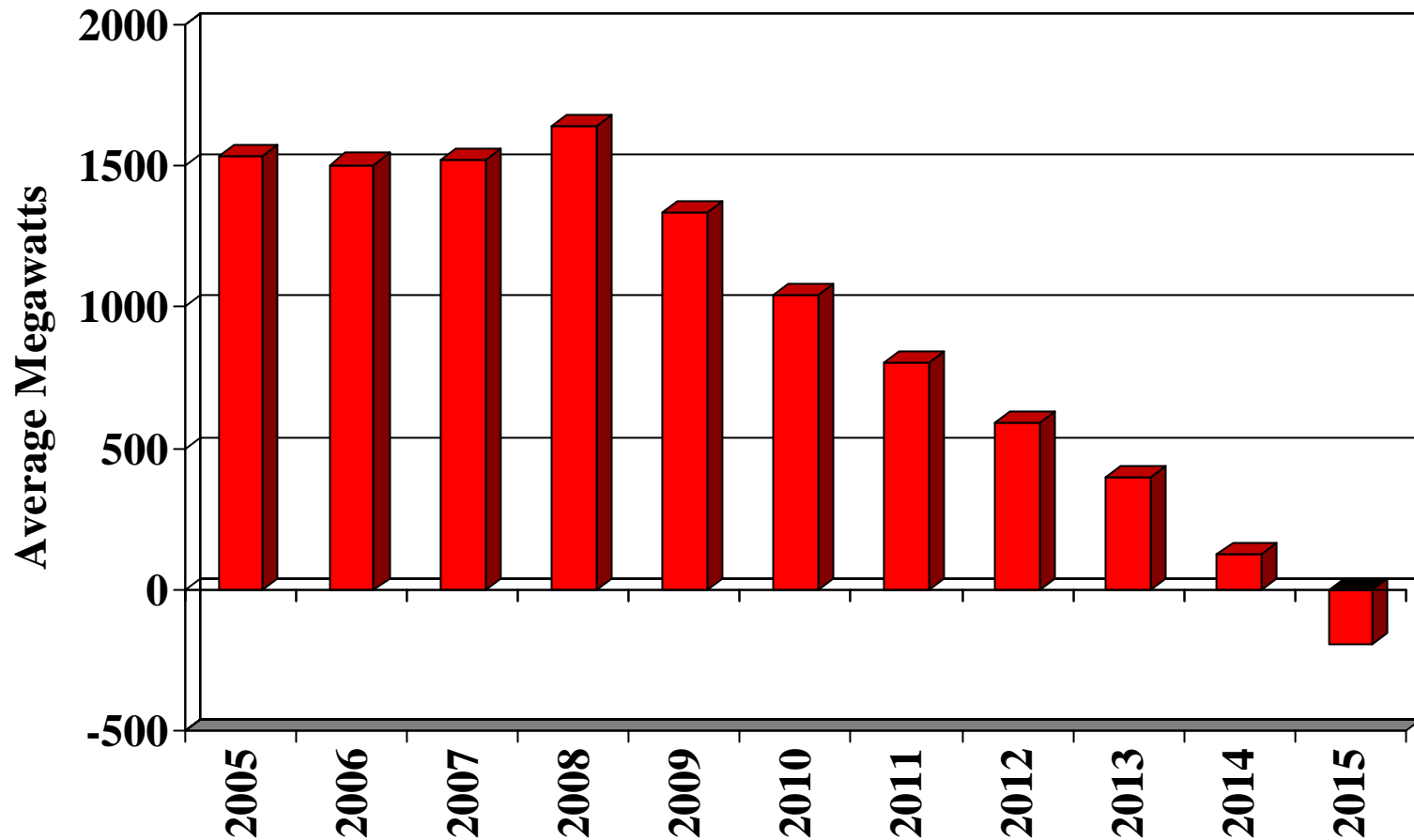
Annual Hydro Generation

(Regulated Projects Only, 1929-78 Historical Conditions)



Load/Resource Balance

Critical Water, Medium Load Forecast, Existing Resources Only



Difference from 2001

- Then - **4,000 aMW critical water deficit**
Now - **1,500 aMW critical water surplus**
(Counting resources in or committed to region)
- California in better shape (in terms of surplus capacity for export)
- No danger of blackouts (due to poor water)
- No danger of extreme prices spikes (due to poor water)

Consequences of Poor Water

- Will likely cause some increase in electricity prices
- Will likely reduce BPA's spring and summer revenues (from spot market sales)
- Should not affect end-of-summer reservoir elevations
- Not likely to meet BiOp target flows

Overall Probability of Meeting Target Flows

(Over the historical water record - not for 2005)

	Jul	Aug1	Aug2	Target (Kcfs)
Dalles	62 %	40 %	8 %	200
Lower Granite	48 %	0 %	0 %	50

Projected Summer Flows

(Rough Estimate Based on Historic Flows)

(in Kcfs)	Jul	Aug1	Aug2	Target
Dalles	167	149	120	200
Lower Granite	38	32	22	50