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February 9, 2004

MEMORANDUM

TO: Council Members

FROM: John Fazio, Senior Systems Analyst

SUBJECT: Power Supply Status for 2004

The Northwest power supply is currently about 1,000 average megawatts surplus (based on critical water conditions) over a regional demand of about 22,000 average megawatts. The forecast for water supply (January-July runoff volume at The Dalles) is 100 million acre-feet or 93 percent of normal. This yields about 2,700 average megawatts more energy than critical water. However, there is a large range of uncertainty surrounding this forecast, with an unlikely but possible low of 77 million acre-feet to a high of 123 million acre-feet. Based on the above information, in conjunction with California forecasts that show an ample supply of surplus winter capacity, the power supply is in very good shape for 2004.

Assuming a medium demand forecast and planned-to-be-completed resources, the Northwest should be in a surplus condition for up to seven years. Of course, more dramatic changes in demand (i.e. rapid growth) without new resource development could evaporate the existing surplus. For the time being, however, there are no indications of such events. Projections of Loss of Load Probabilities (LOLP) are near zero for several years out (an adequate power supply typically has an LOLP of 5 percent or lower).

Reservoirs are in good shape, being very close to the critical rule curve elevations (based on 1937 water conditions). Grand Coulee is currently at 1,269 feet or about 70 percent full (volume). Libby is at 2,401.9 feet or about 53 percent full. Hungry Horse is at 3,518.2 feet or about 70 percent full and Dworshak is at 1,511.2 feet or about 33 percent full.

c:\ww\2004\power supply 204.doc (John Fazio)

Northwest Power Supply 2004 Forecast



Council Meeting

Boise, Idaho

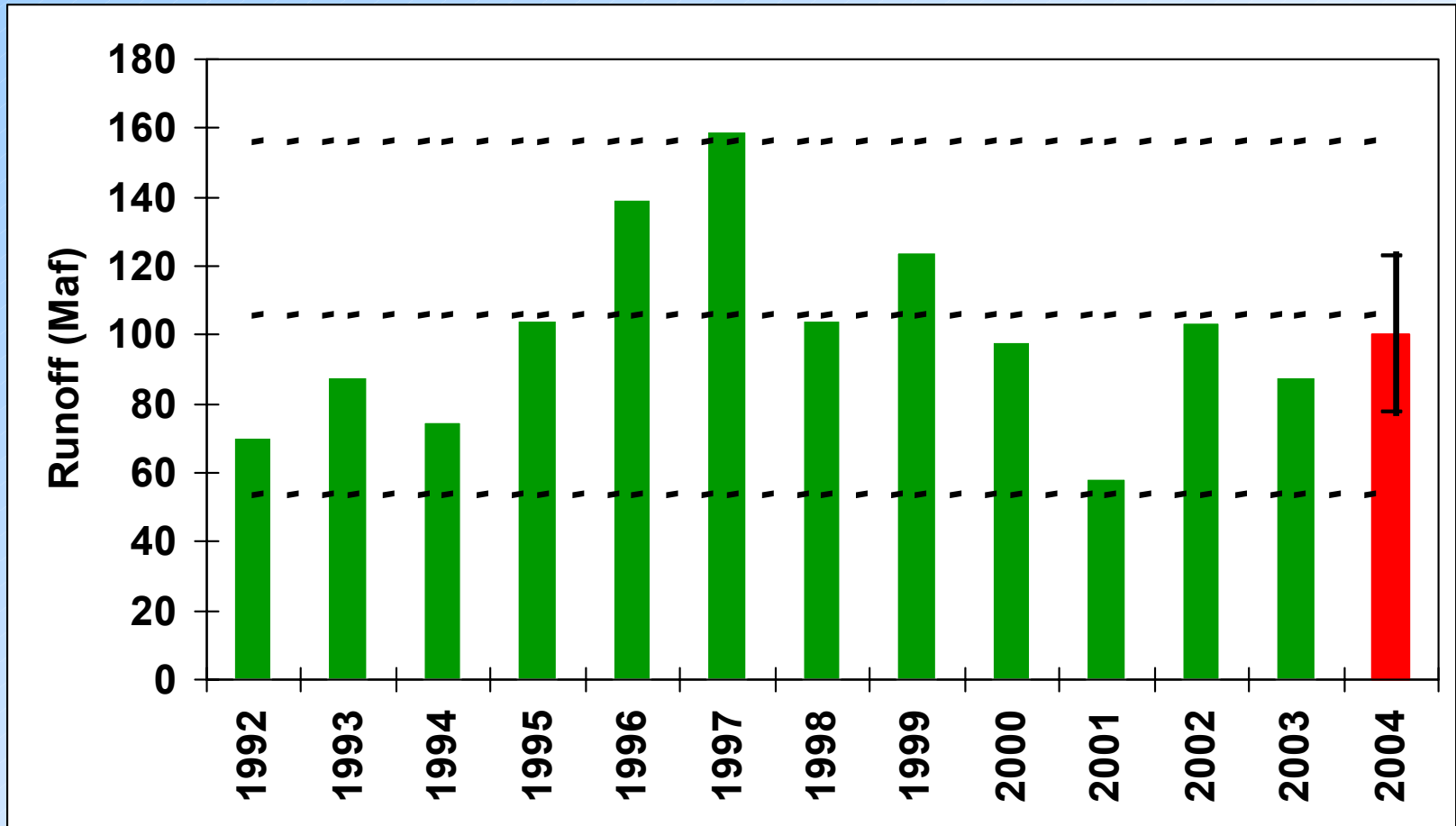
February 17, 2004

Water Supply

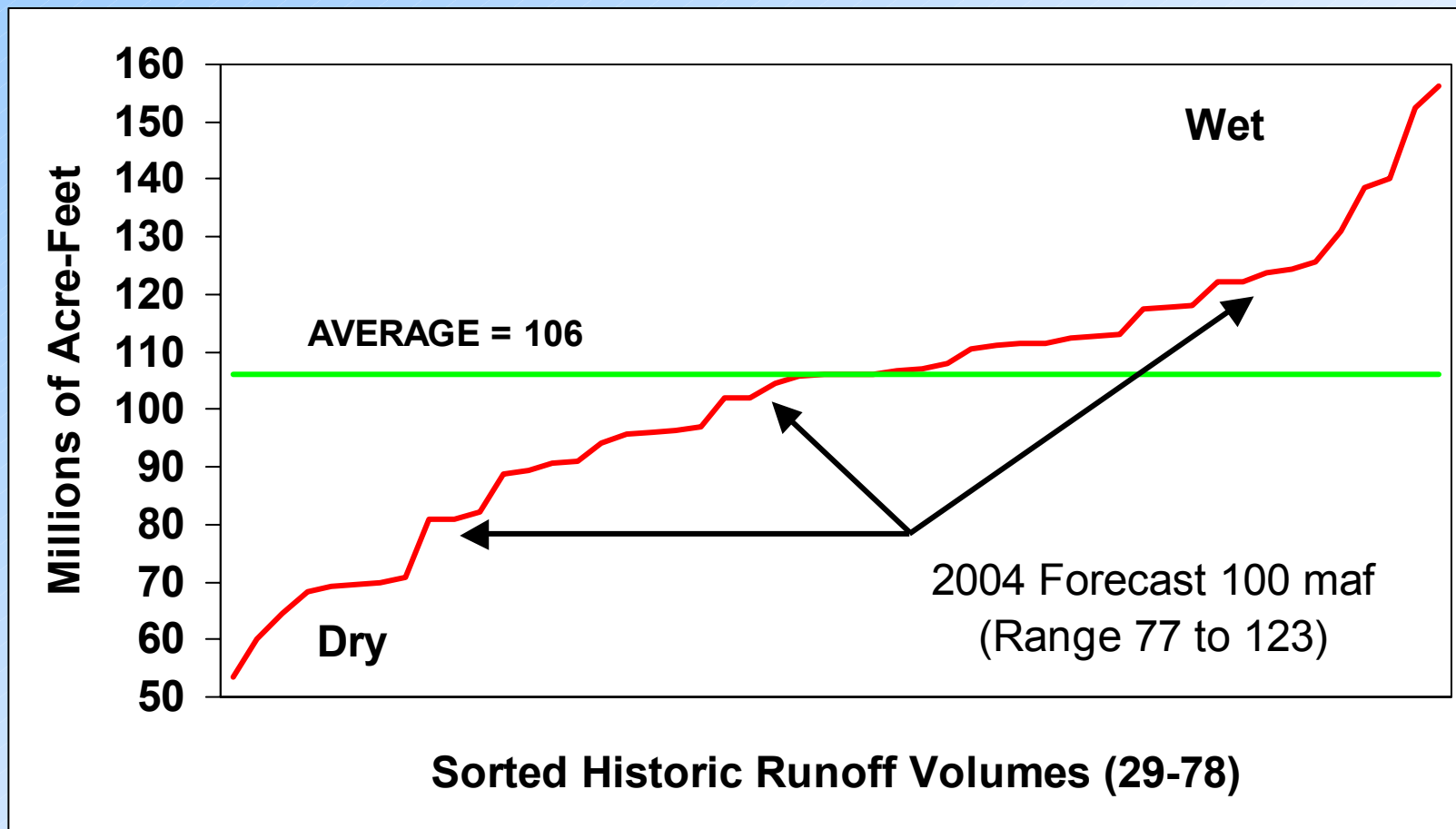
- **Runoff forecast (Jan-Jul @TDL 2/9/04)**
100 maf or 93% of normal
(Range 77 to 123 maf)
- **Precipitation (above TDL 10/03 to 1/26/04)**
97% of normal

Source: River Forecast Center and UW DART

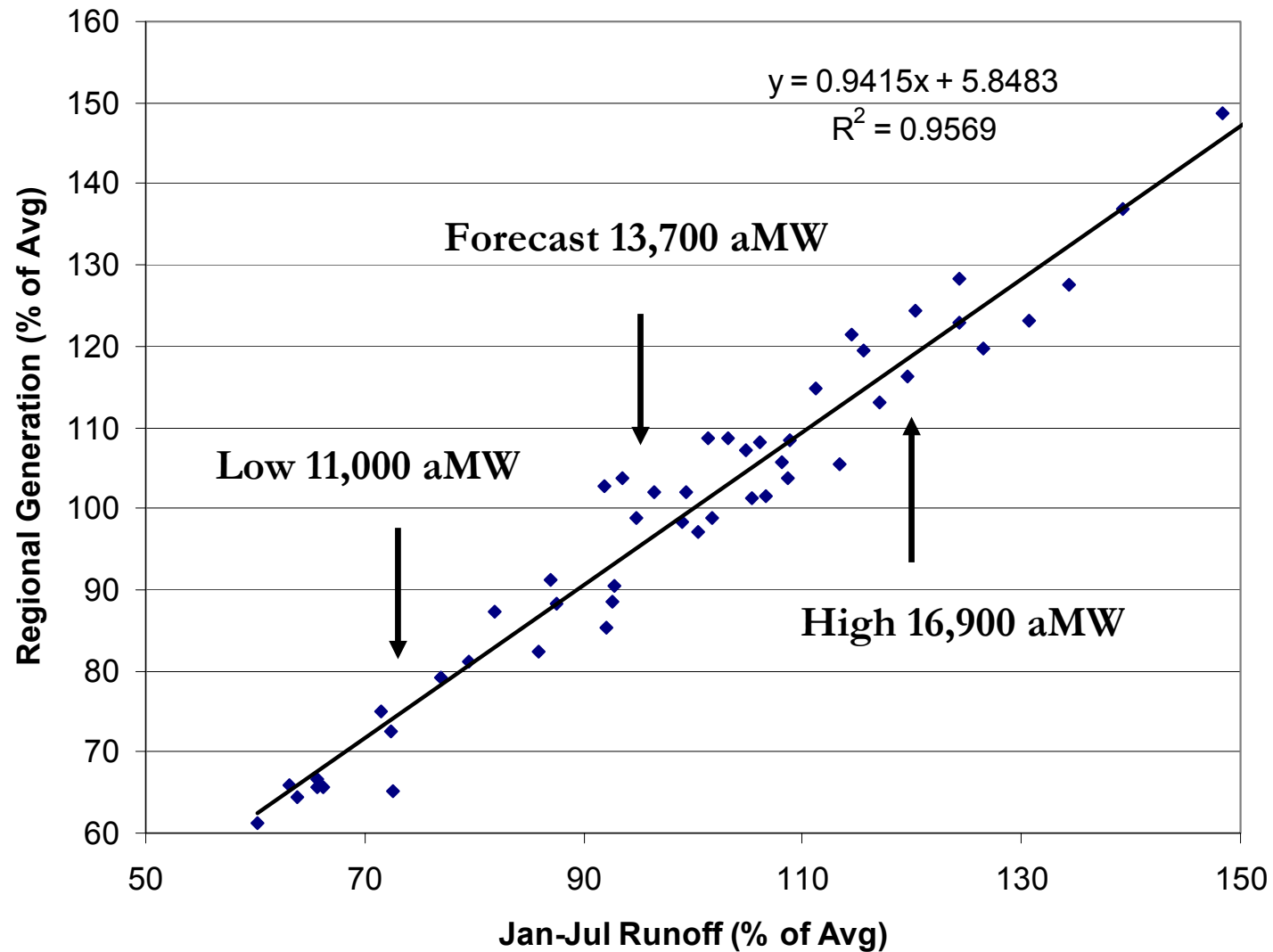
Recent Runoff Volumes (in Maf)



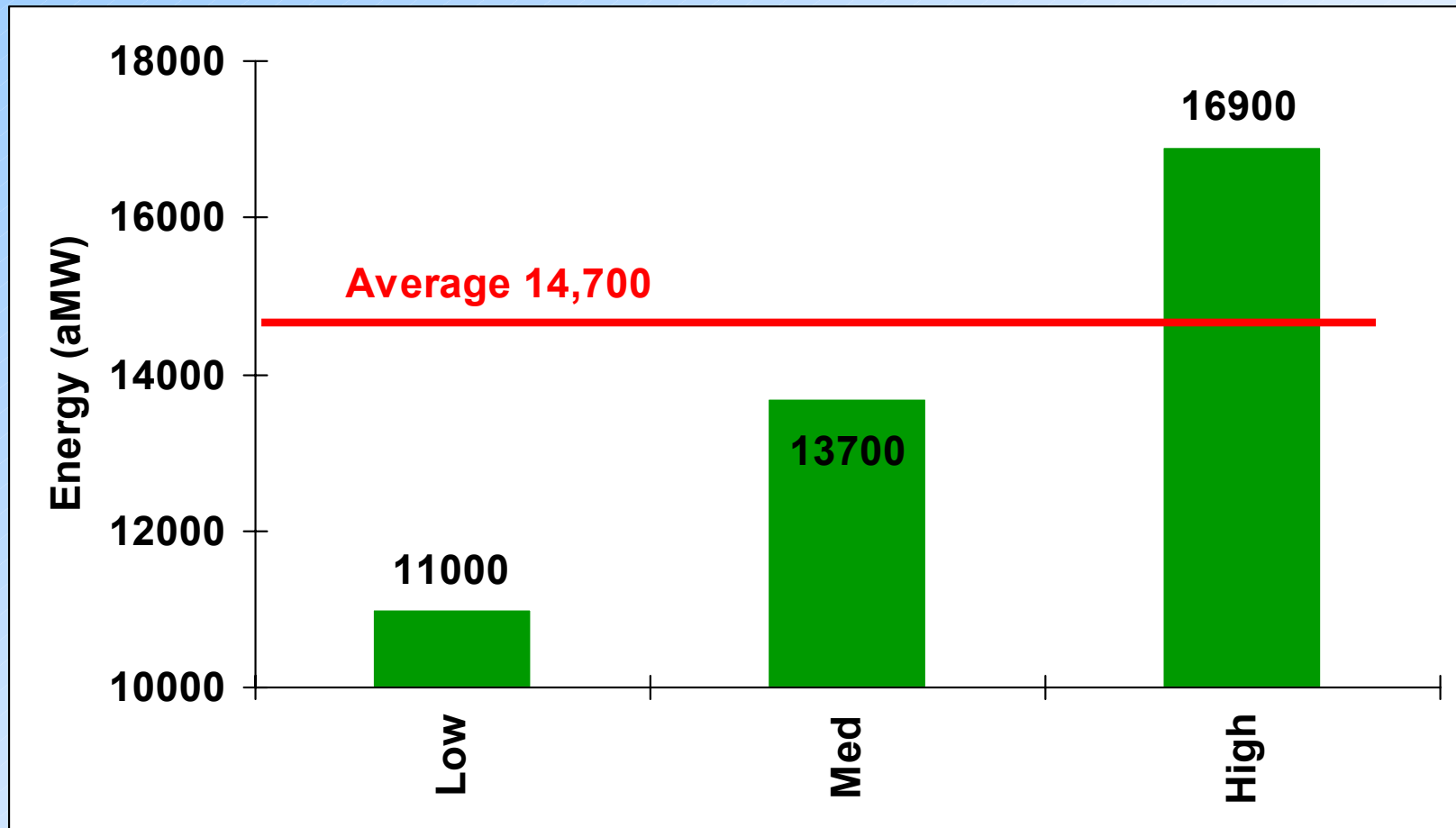
Historic Runoff Volumes at The Dalles



Runoff vs. Generation



Effect of Runoff on Hydro Generation



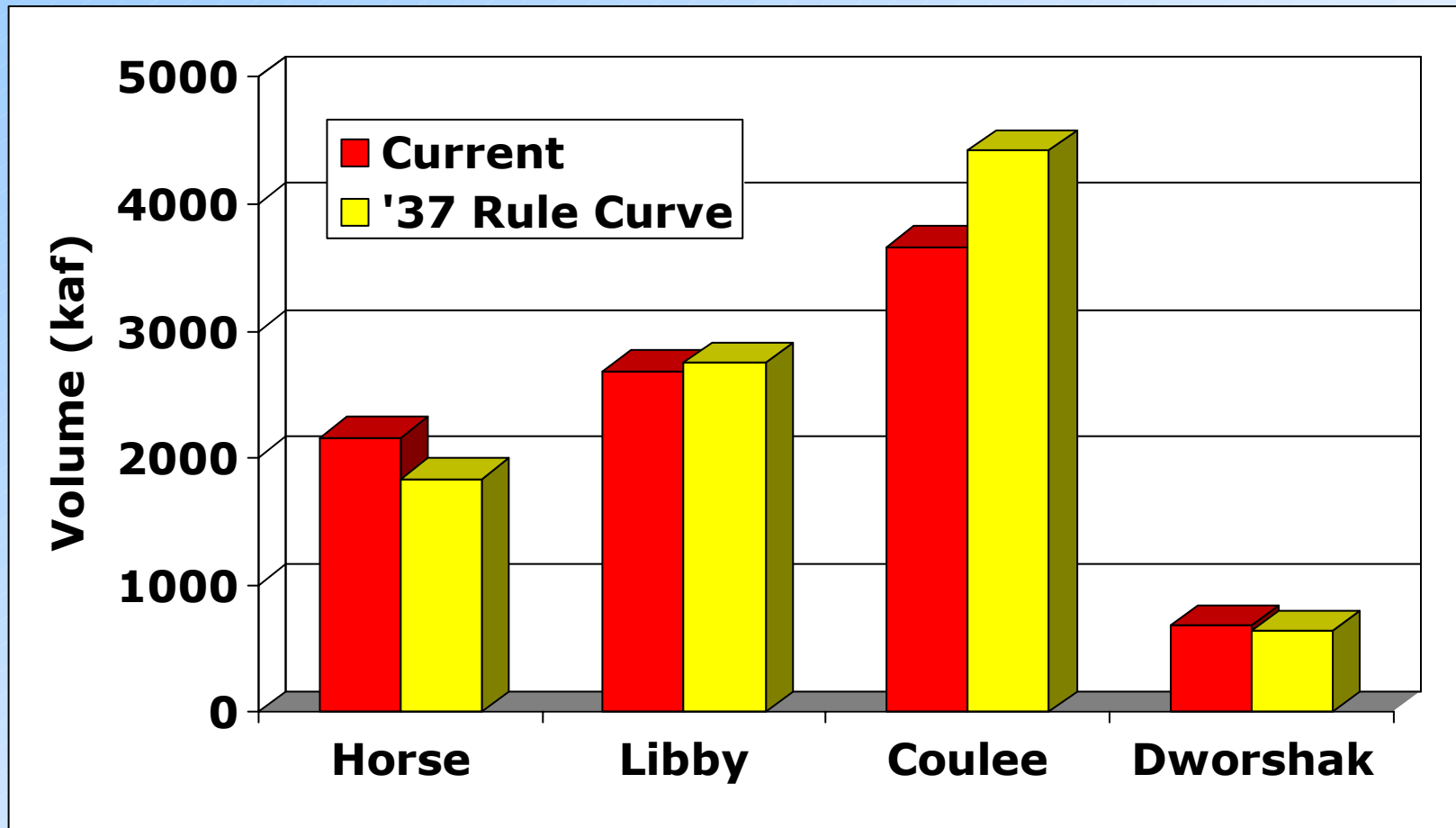
Reservoir Status 2/9/04

(% Relative to Full Volume)

■ Grand Coulee	1269.0 feet/1290' (70%)
■ Libby	2401.9 feet/2459' (53%)
■ Hungry Horse	3518.2 feet/3560' (70%)
■ Dworshak	1511.2 feet/1600' (33%)

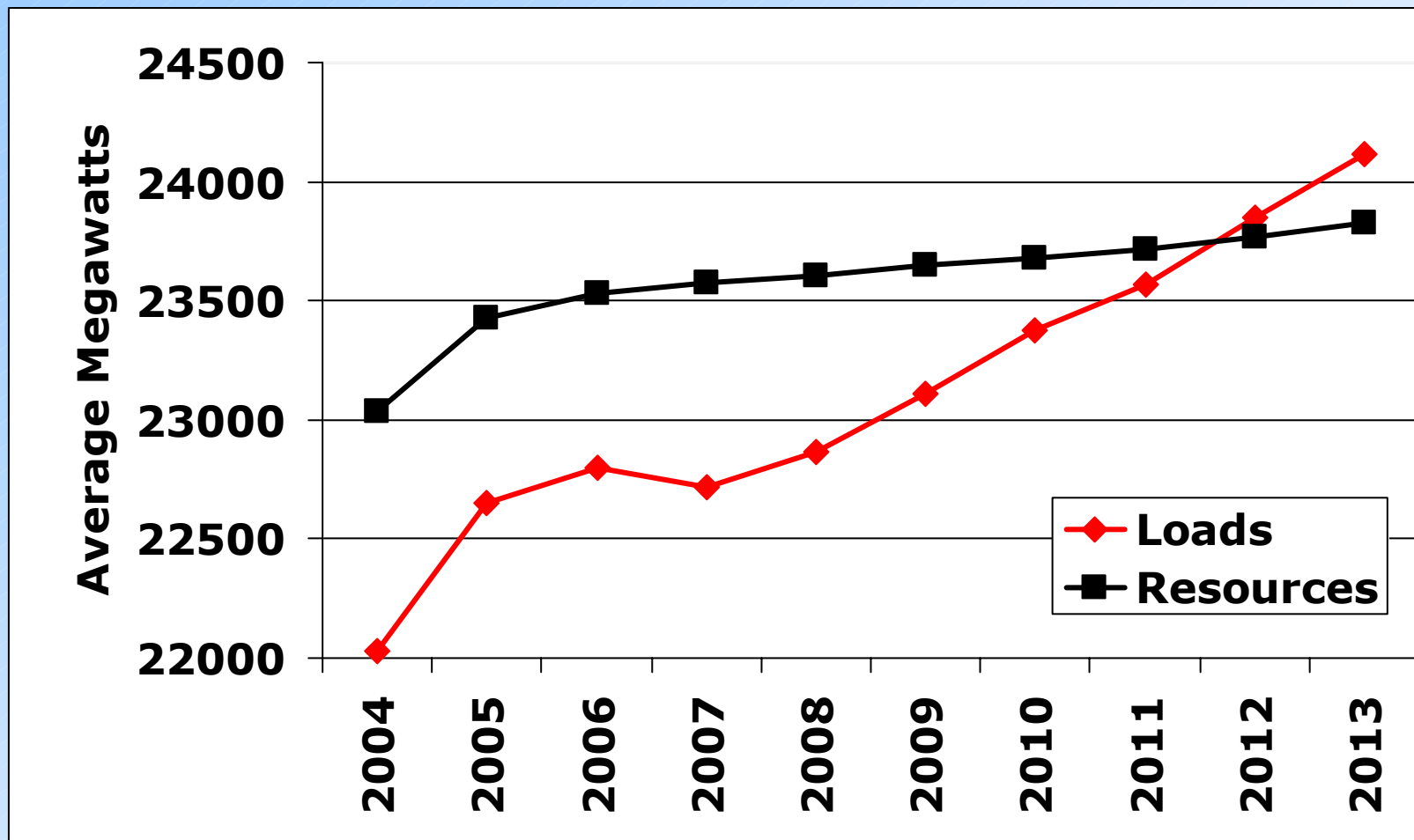
Source: River Forecast Center and UW DART

Reservoir Status (2/9/04)



NW Loads and Resources

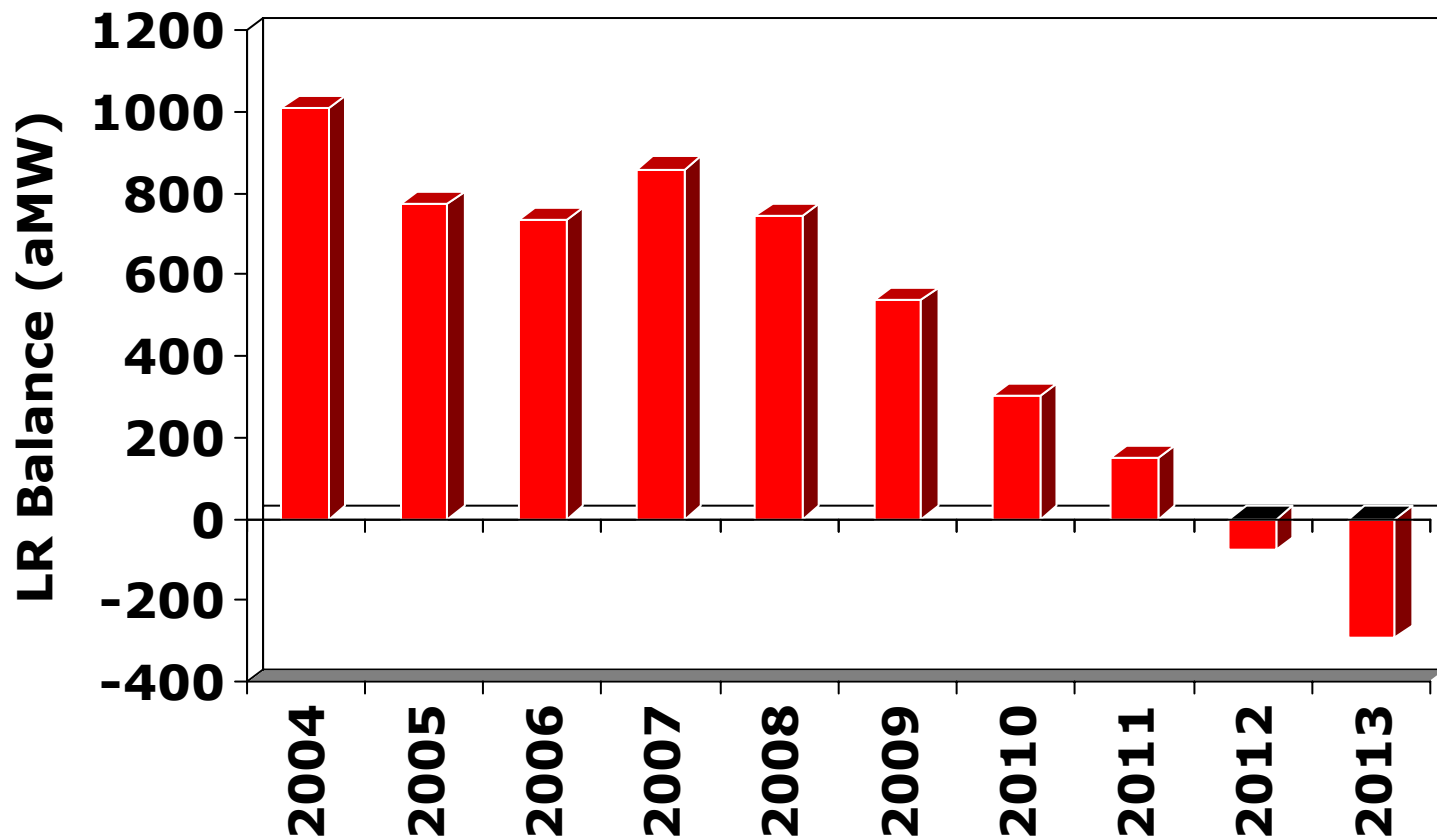
(Preliminary medium load forecast, critical hydro)



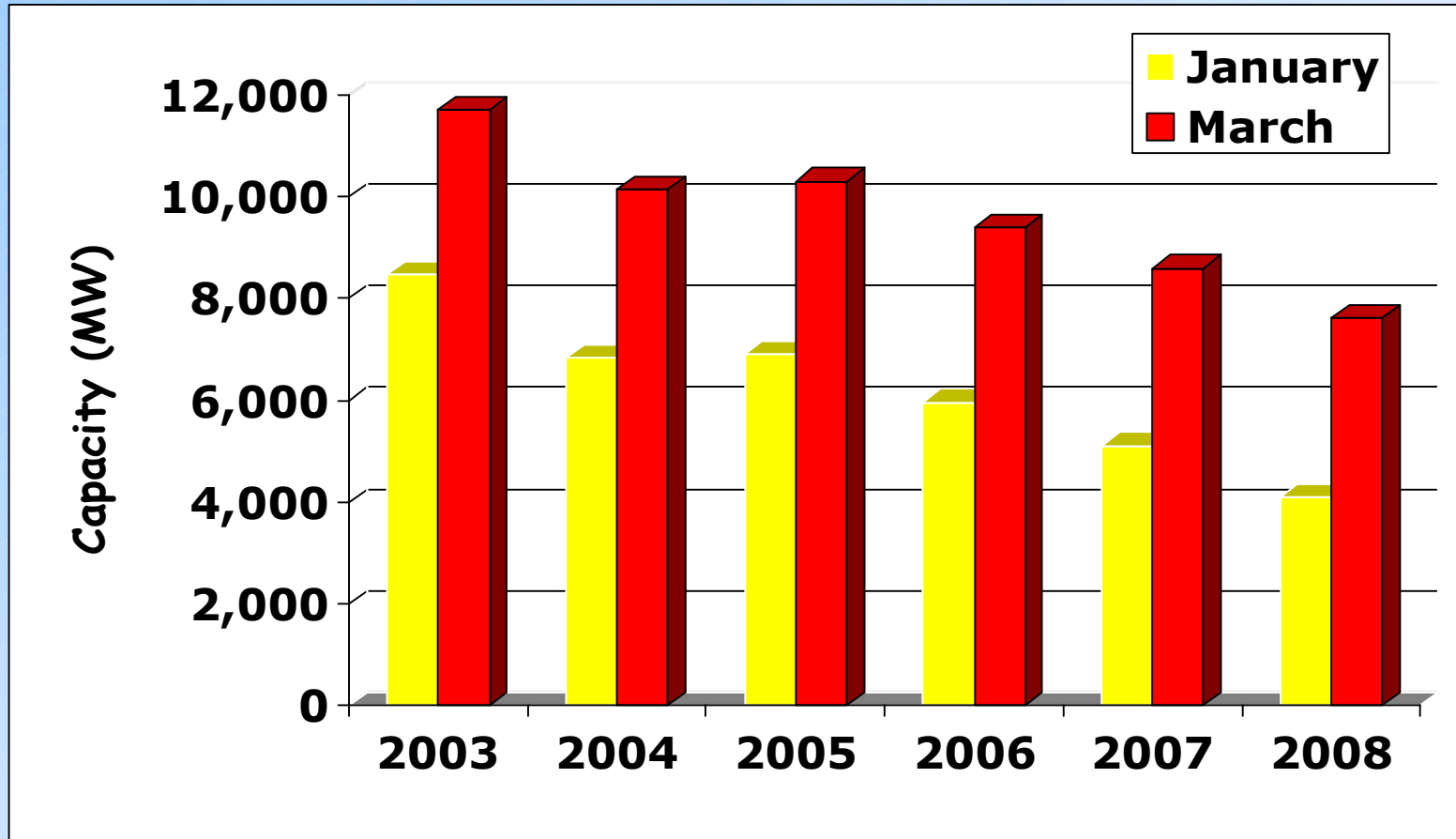
Loads include eastern Montana and firm out-of-region contracts.

Forecast L/R Balance

(medium forecast, critical water)



Estimated California Surplus (CEC data)



Conclusions

- Water supply is about average
- Region is about 1,000 aMW surplus
- California winter surplus seems ample
- Reservoirs are in good shape, with storage close to critical year rule curve values