Northwest Power and Conservation Council

May 3, 2005

MEMORANDUM

TO: Council Members

FROM: John Fazio, Senior System Analyst

SUBJECT: May update to the power outlook for 2005

The current runoff forecast at The Dalles is 74.2 million acre-feet or about 69 percent of average. Currently, the region has an annual energy surplus of about 1,250 average megawatts (based on critical water conditions). However, that is an annual figure and hydroelectric production varies substantially from month to month. Under the lowest forecast for 2005 and a "nominal" maintenance schedule for thermal generation, the region gets very close to load/resource deficit in June. However, any unexpected resource outages in that month can easily be made up by deferring some maintenance on other resources or by purchasing surplus hydro energy from northern California (which has surplus at least through June). This means that there should be adequate supply to keep the lights on.

The region will likely see an increase in wholesale bulk electricity prices over the summer period due somewhat to the short water supply but mostly to higher gas prices. Electricity futures prices look like they will peak at about $65 per megawatt-hour in July and August. Natural gas prices, which are about $2 to $2.5/MMBtu higher than last year, have pushed electricity prices up by more than 40 percent this year.

River flows at both Lower Granite and McNary are projected to be much lower than normal and far from meeting the biological opinion objectives.

Analysis is ongoing and if new information is available, staff will update the Council in Walla Walla next week at the regularly scheduled Council meeting.

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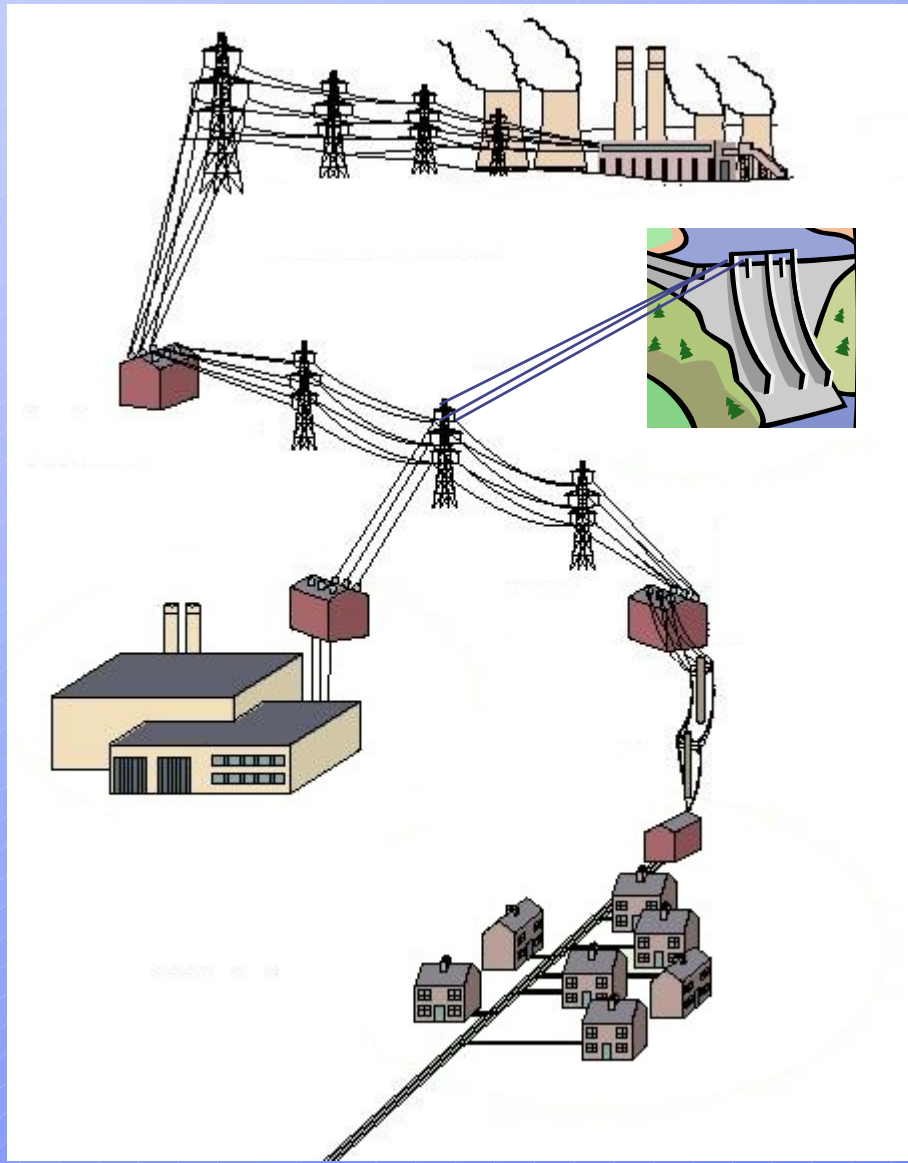
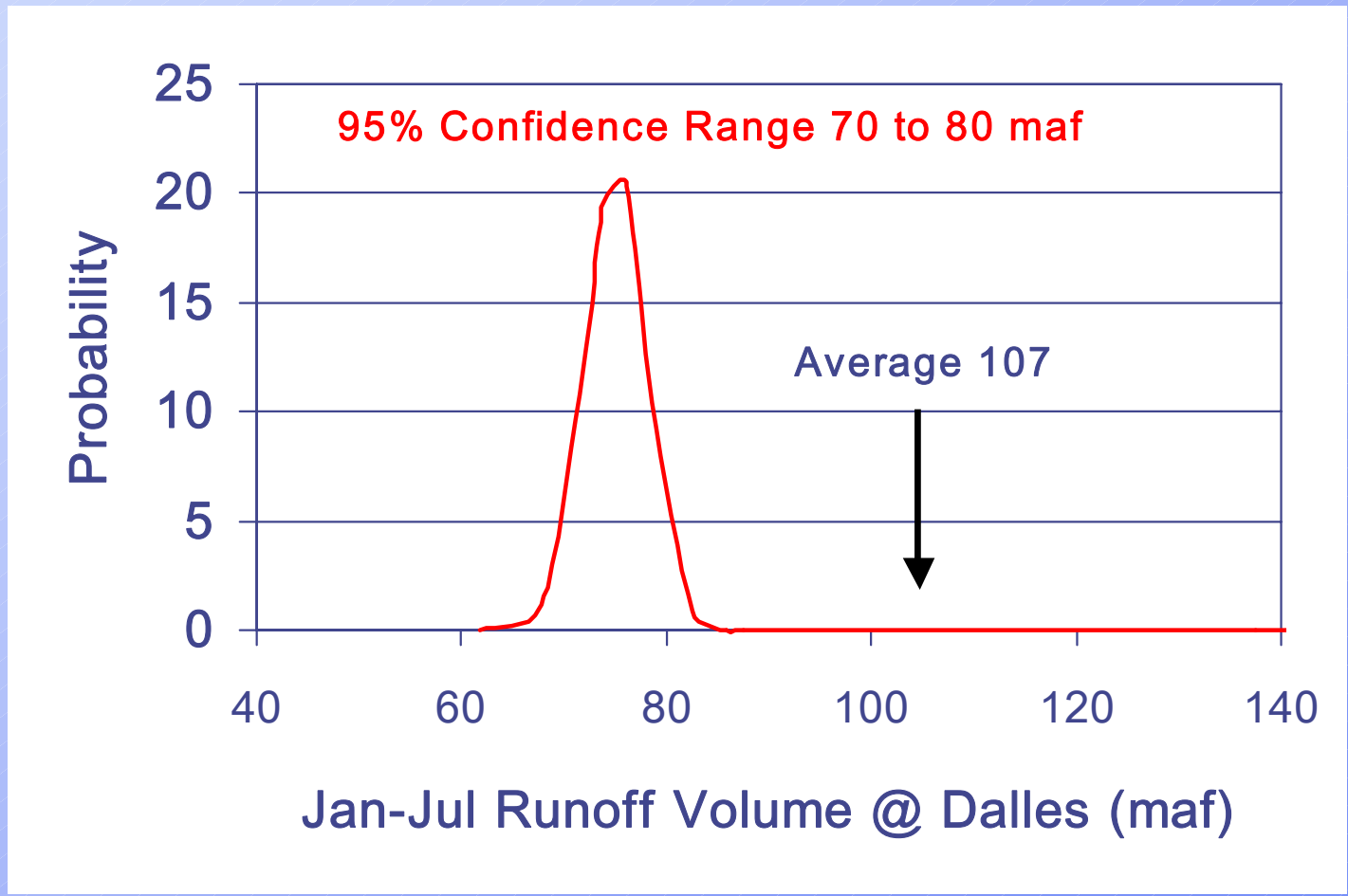
Northwest Power Supply Outlook

May 11, 2005
Council Meeting
Walla Walla



2005 Runoff Forecast Distribution
Early May forecast 74.2 maf (69%)



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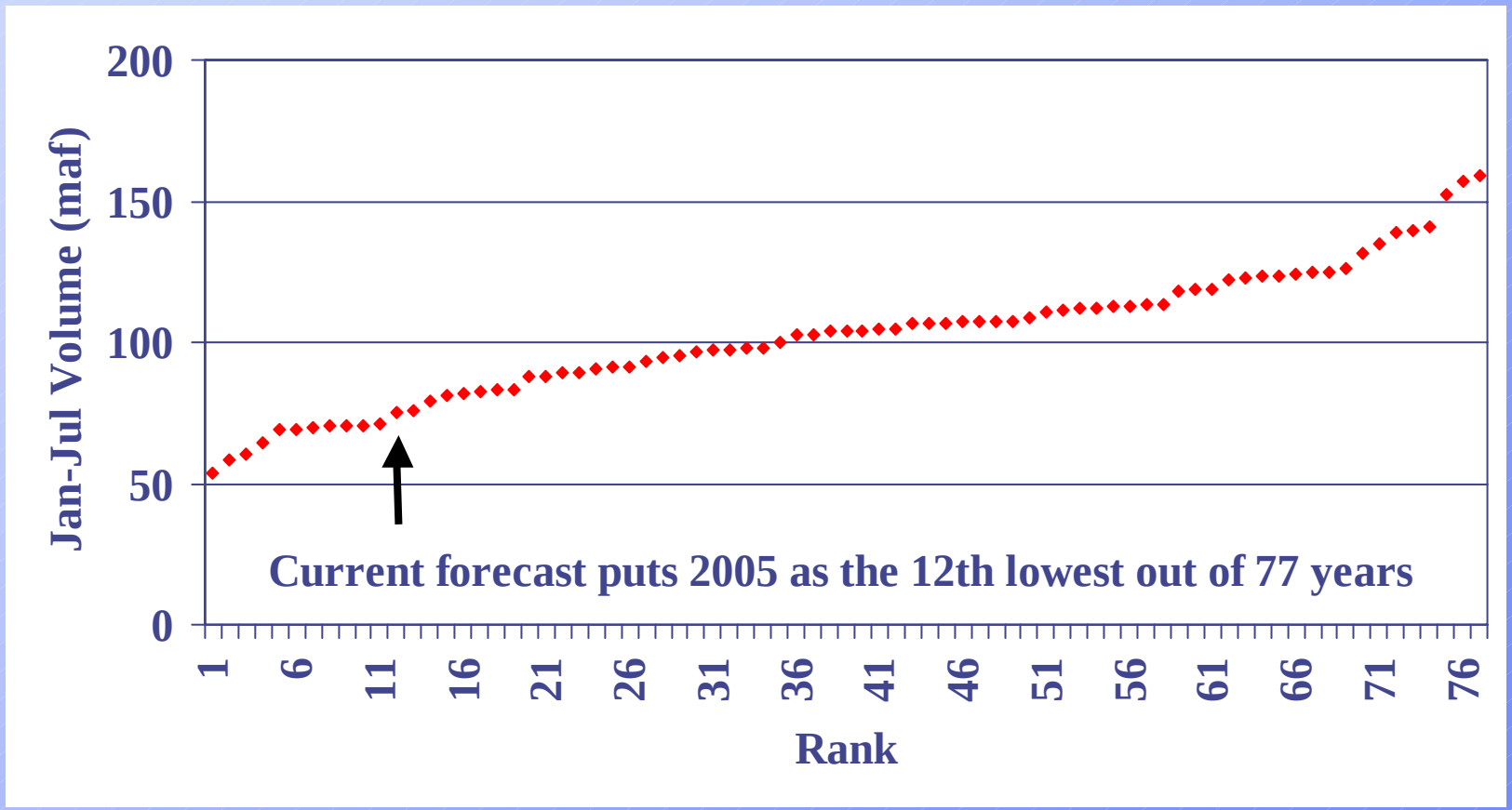
Jan-Jul Runoff Volumes 1929-2005



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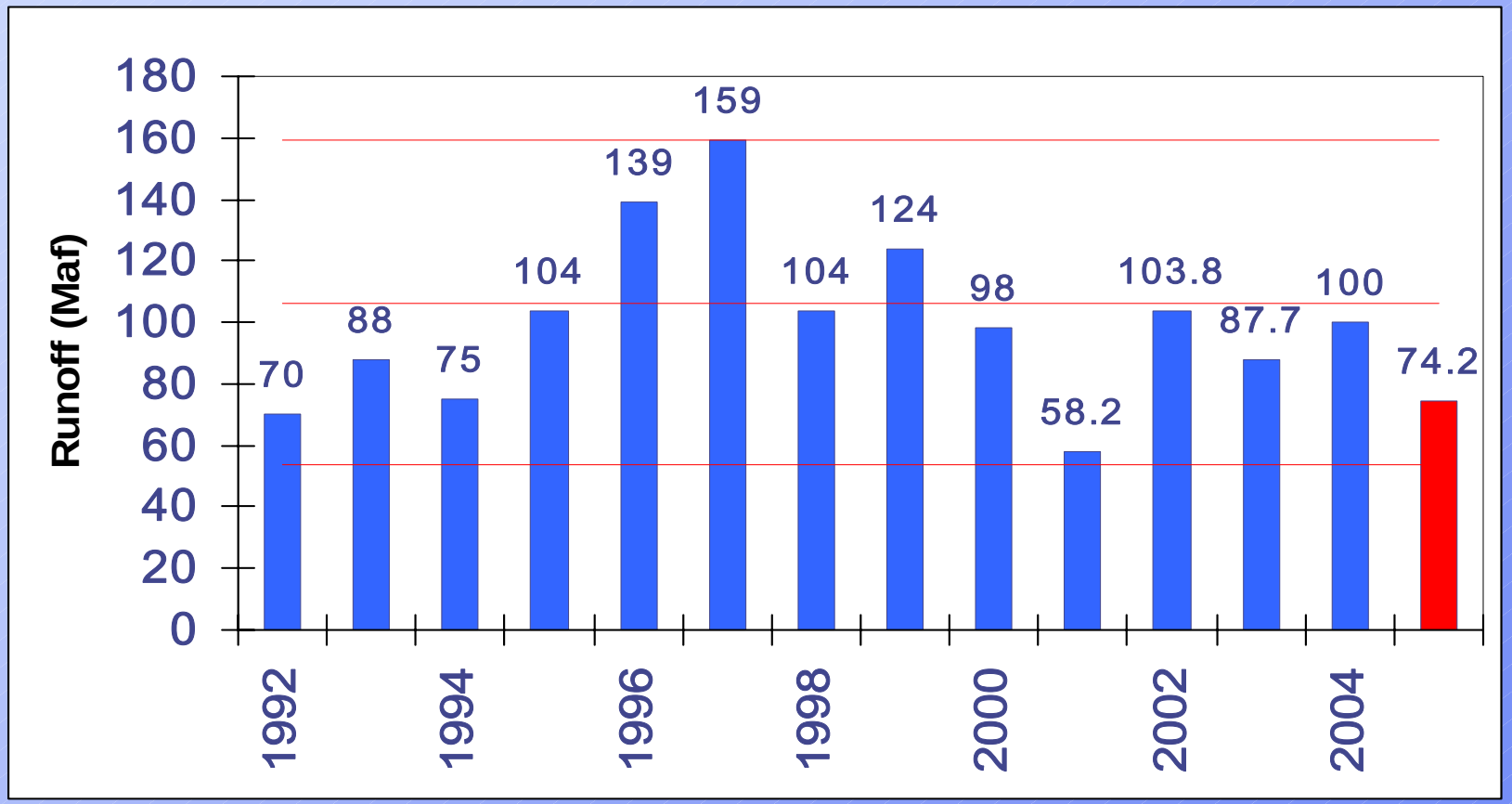
Recent Runoff Volumes

(January-July Volume at The Dalles)



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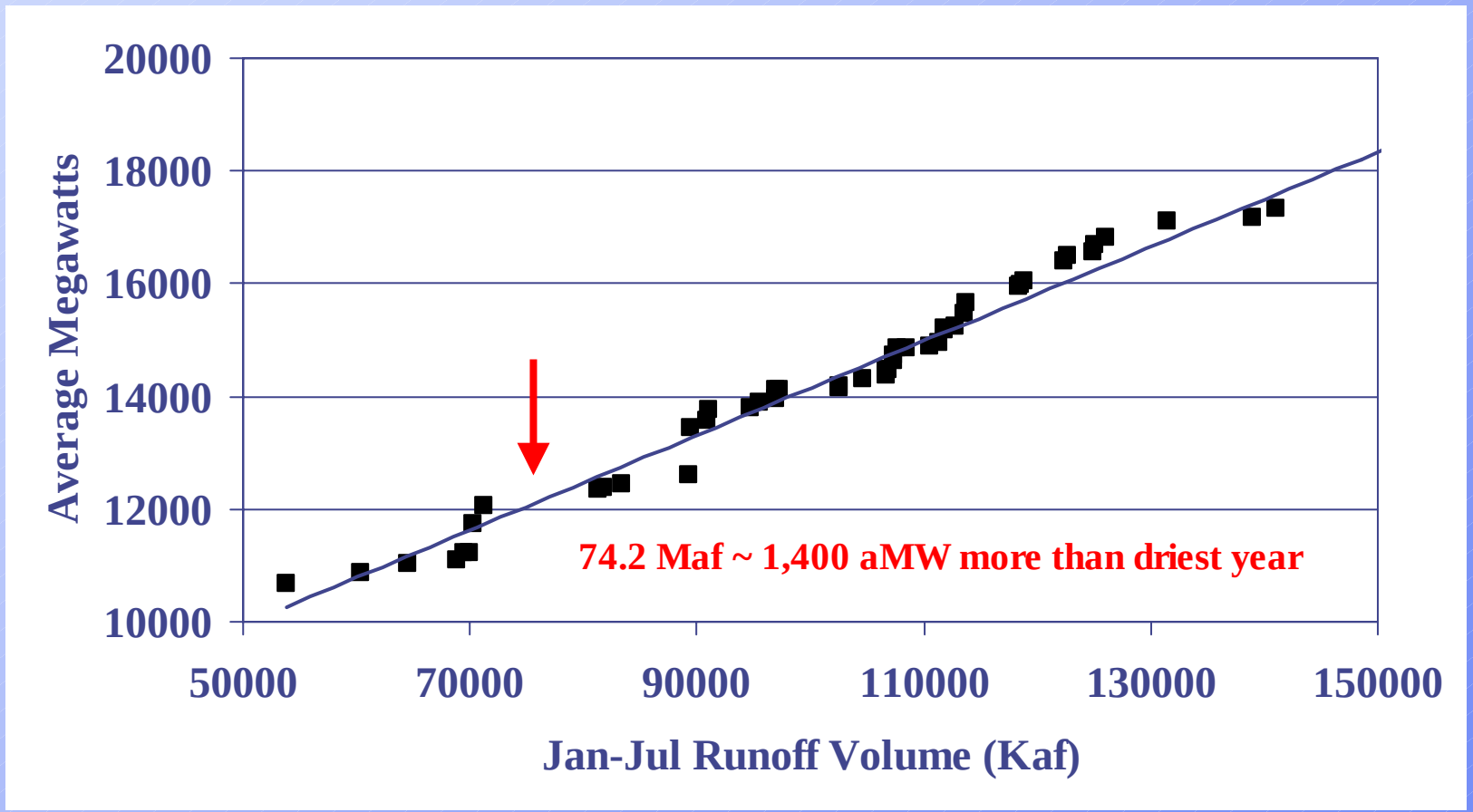
Annual Hydro Generation

(Regulated Projects Only, 1929-78 Historical Conditions)



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Assumptions for this Analysis

- GENESYS model was used
- Selected water years from the historical record, frequency-weighted to yield the current forecast runoff volume
- This tends to make the statistics a bit "lumpy"
- Better to use synthetic stream flow forecasts (working with federal agencies to acquire this data)

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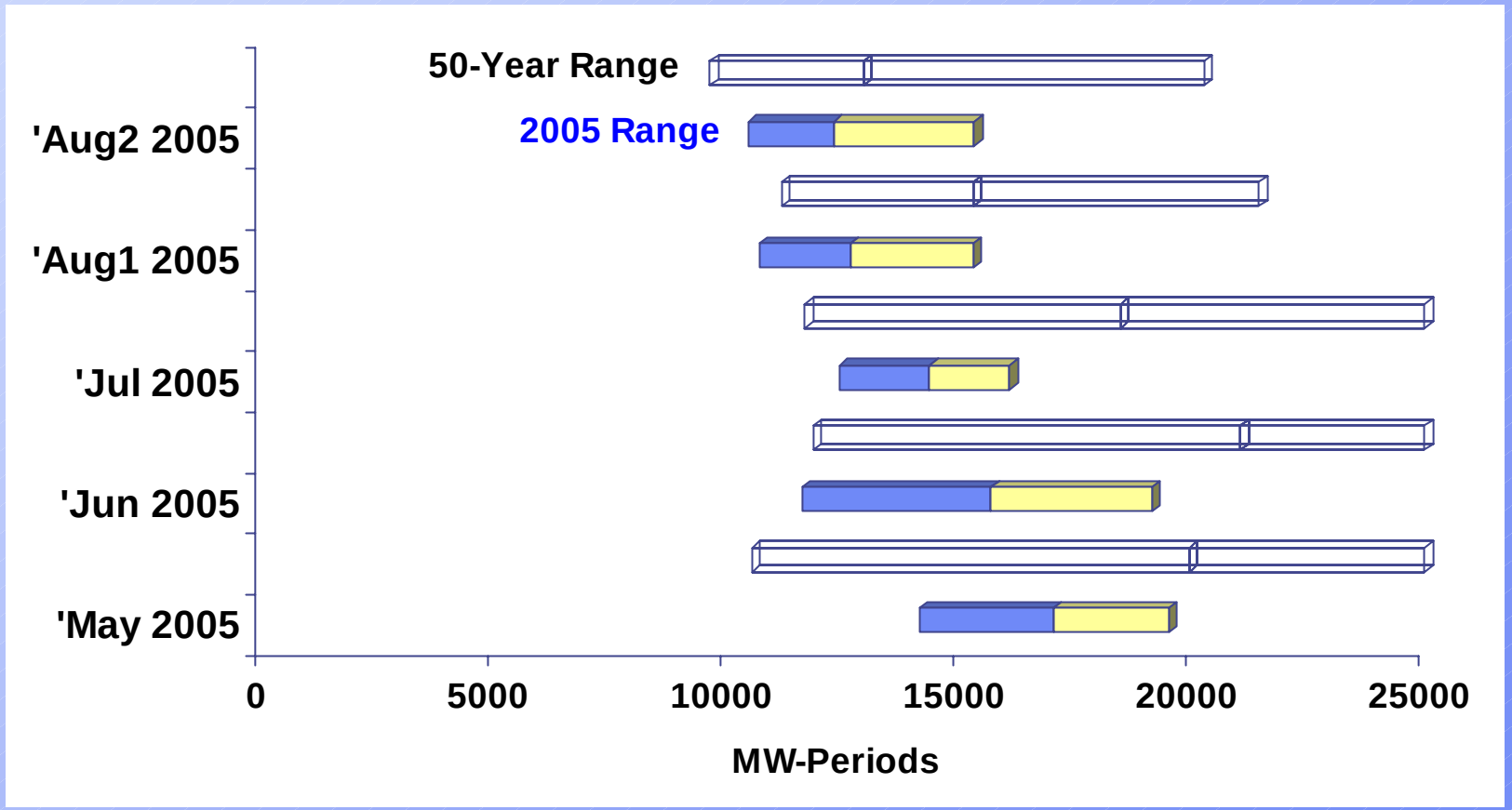
Projected Hydro Energy

(Based on Simulated Operations)



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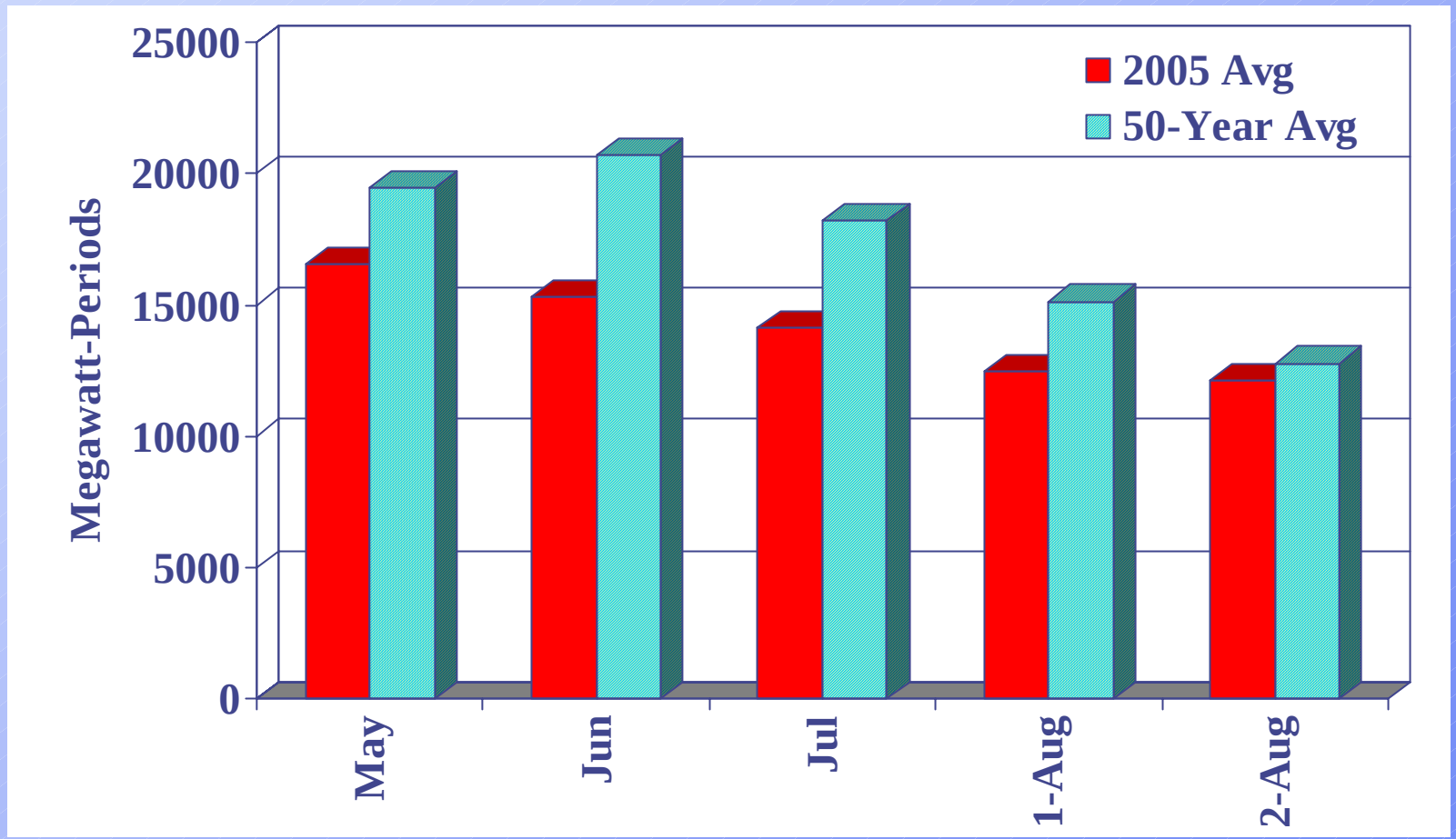
Difference in Hydro Generation
(50-Year Avg versus 2005 Avg)



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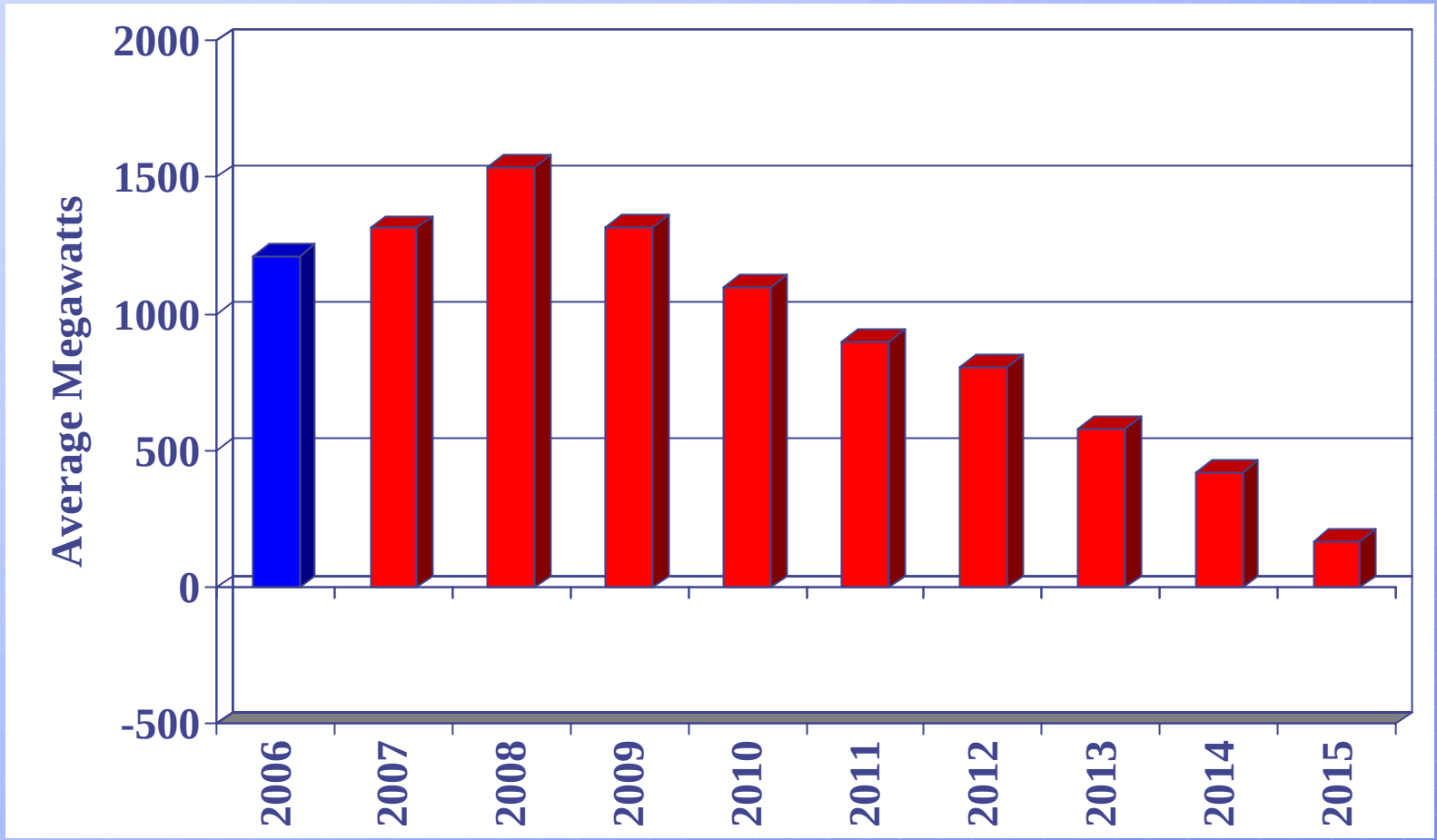
Forecast Load/Resource Balance

Critical Water, Medium Load Forecast, Existing Resources Only
Firm contracts only, no spot market imports assumed



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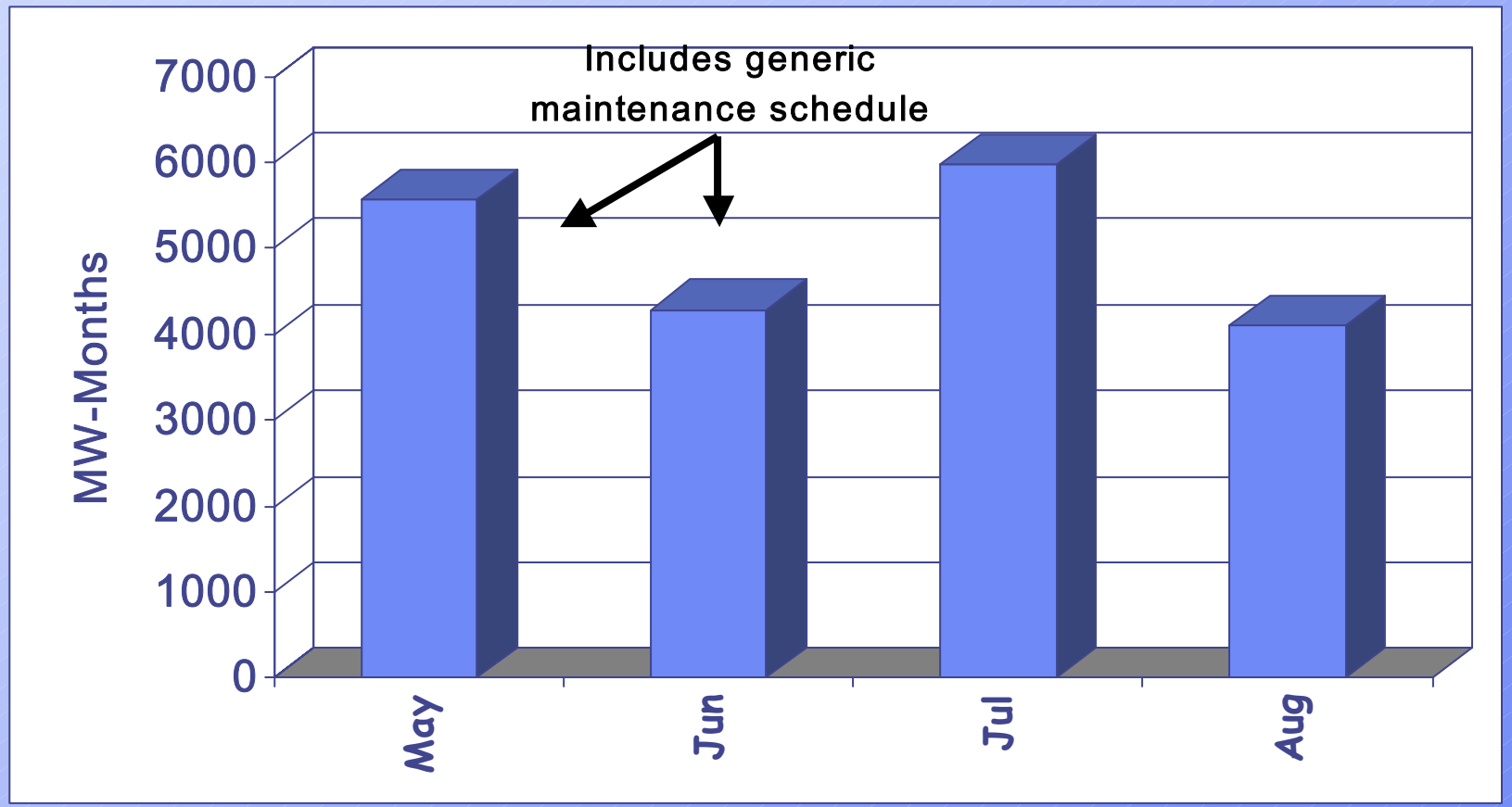
Approximate Monthly L/R Balance 2005-06 (Using Expected Hydro Generation for 2005)



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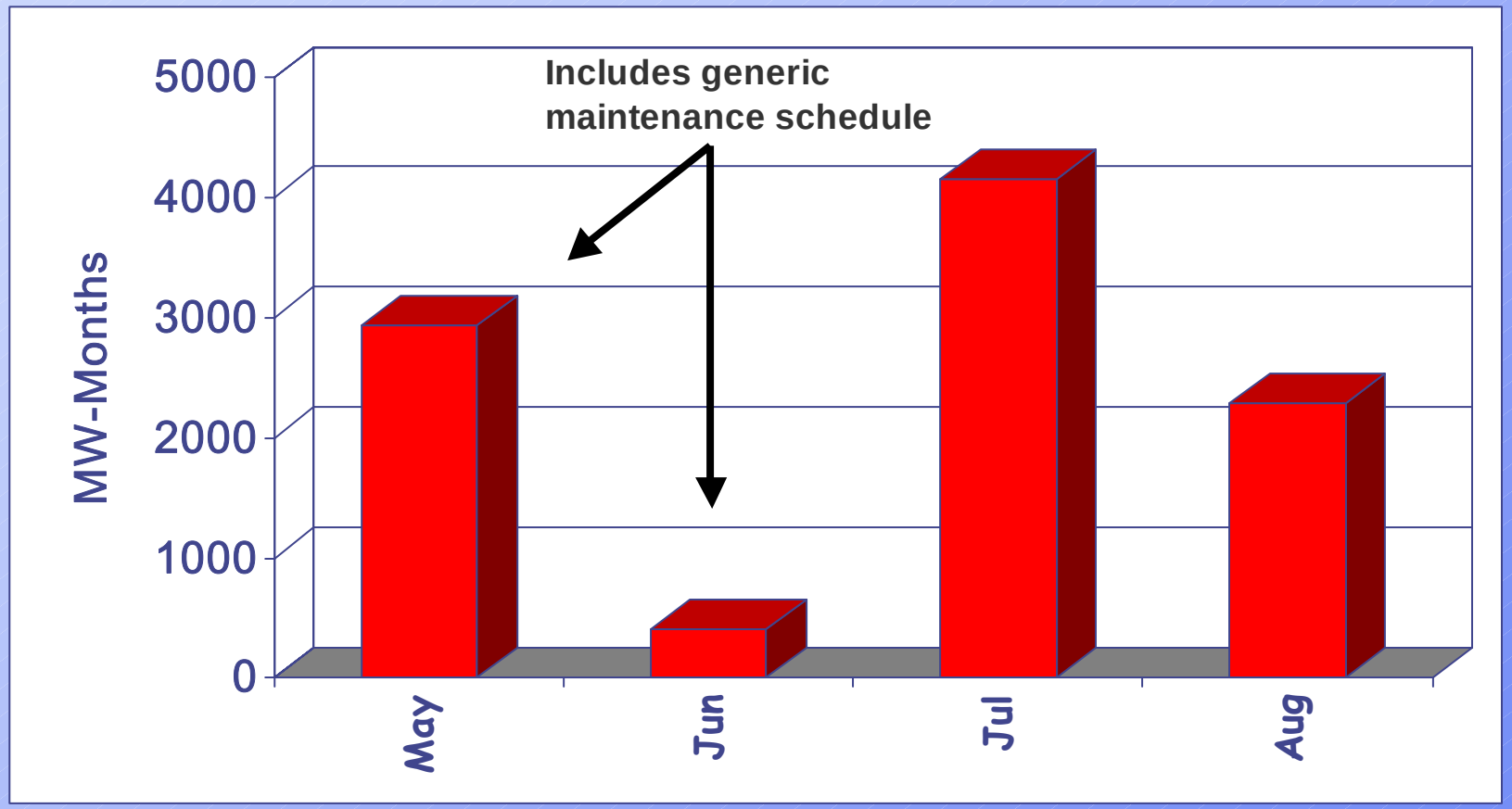
Approximate Monthly L/R Balance 2005-06 (Using Low Forecast for 2005)



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Do we have an adequate supply?

- Simple answer is YES.
- Assuming that in an emergency some maintenance for thermal resources can be deferred,
- and/or that northern California has a modest amount of surplus hydro generation,
- the loss of load probability (LOLP) is near zero for the May-Aug period.
- But, the cost of serving demand will be higher (current electricity price futures for Q3 are about $65/mw-hour on peak).

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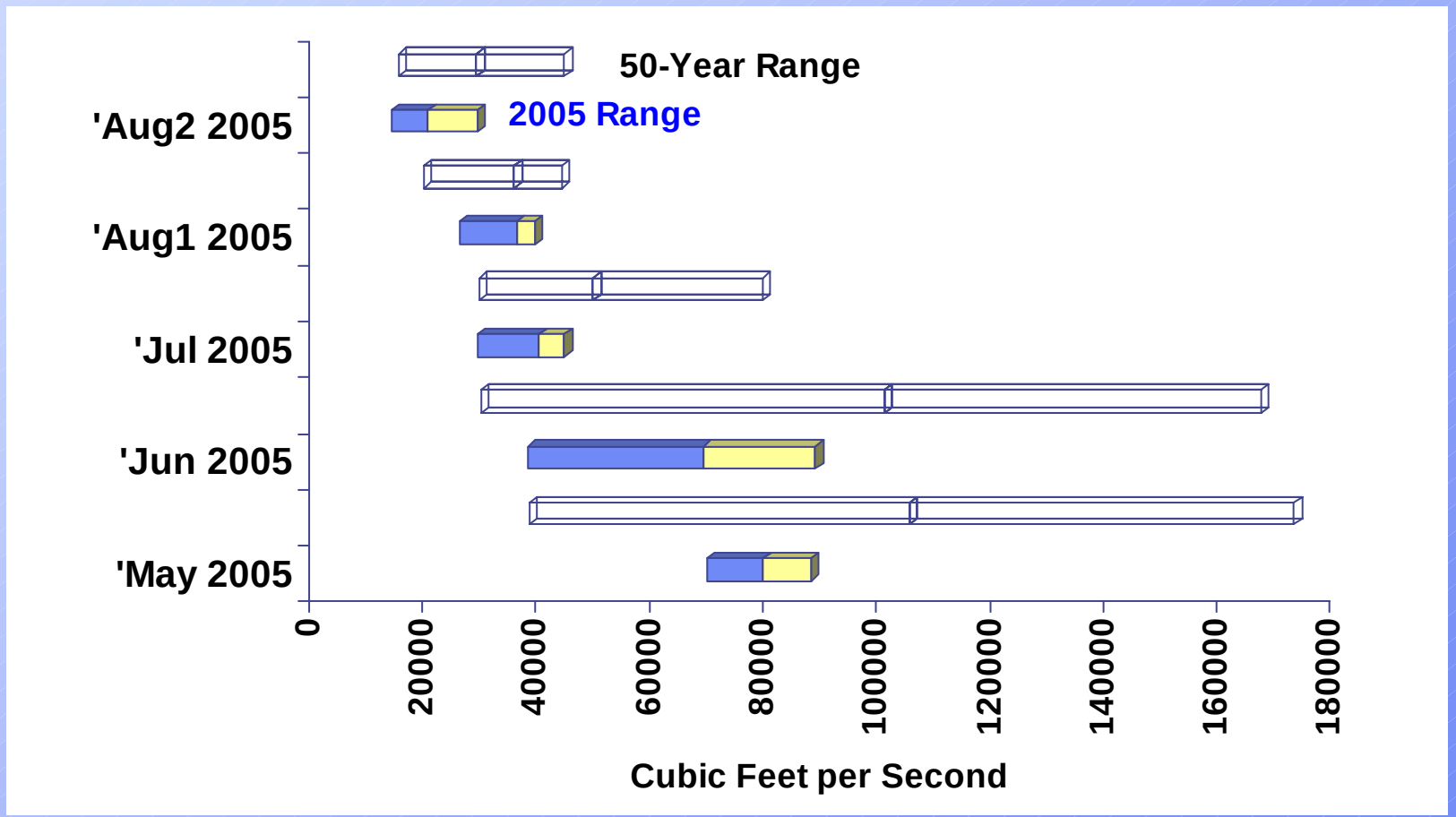
Projected Flow @Lower Granite

(Based on Simulated Operations)



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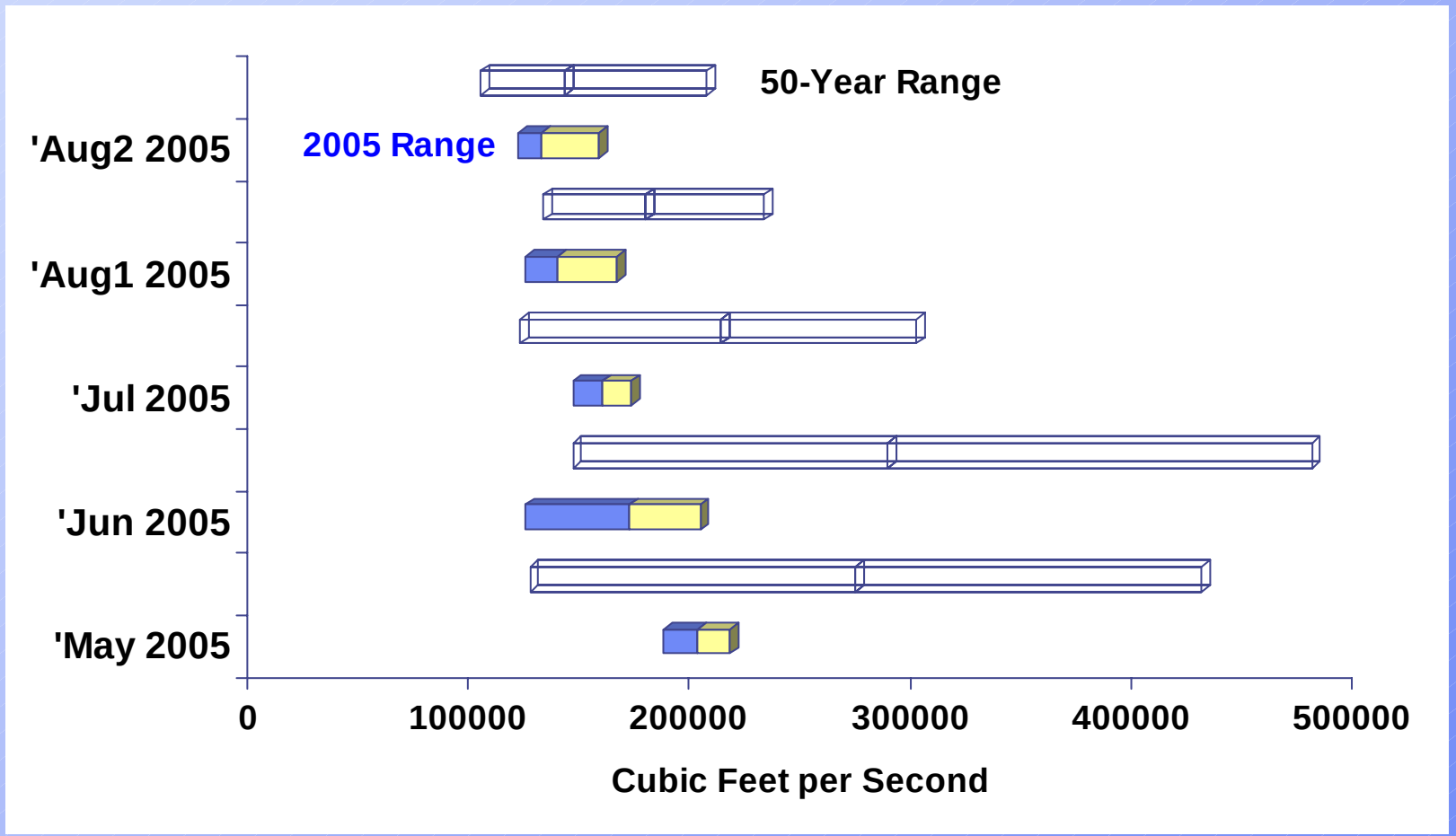
Projected Flows @McNary

(Based on Simulated Operations)



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Projected 2005 Flows vs. 50-Year Average Flows

	Jul 1-31	Aug 1-15	Aug 16-31	Target (Kcfs)
McNary 50-Year	211	178	141	200
McNary 2005	158	138	130	200
L Granite 50-Year	49	35	29	50
L Granite 2005	40	36	20	50

Forecast August 31st Elevations

- Coulee – 1278’ (BiOp level)
- Dworshak – 1535’ (recent MOA)
- Libby – 2,439’ (BiOp level)
- Horse – 3,440’ (BiOp level)

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