

2001 Summer Operations Outlook

June 27, 2001

Considerations for Summer Spill

*** What is the Council's view of the region's reliability situation relative to the Federal Agencies' Operations Plan criteria?**

*** Does the Council agree that a deeper summer draft at Dworshak can provide benefits to ESA-listed stocks that are comparable or better than lower river spill, given this year's unique conditions?**

*** Given the biological analysis of the benefits of various spill levels to non-listed stocks and the cost of spill under current prices, what spill action would the Council recommend?**

*** Given the biological analysis of the benefits of various spill levels to non-listed stocks and the cost of spill under a \$50 market price, what spill action would the Council recommend?**

June 15 Summary Analysis of the Power Emergency Criteria

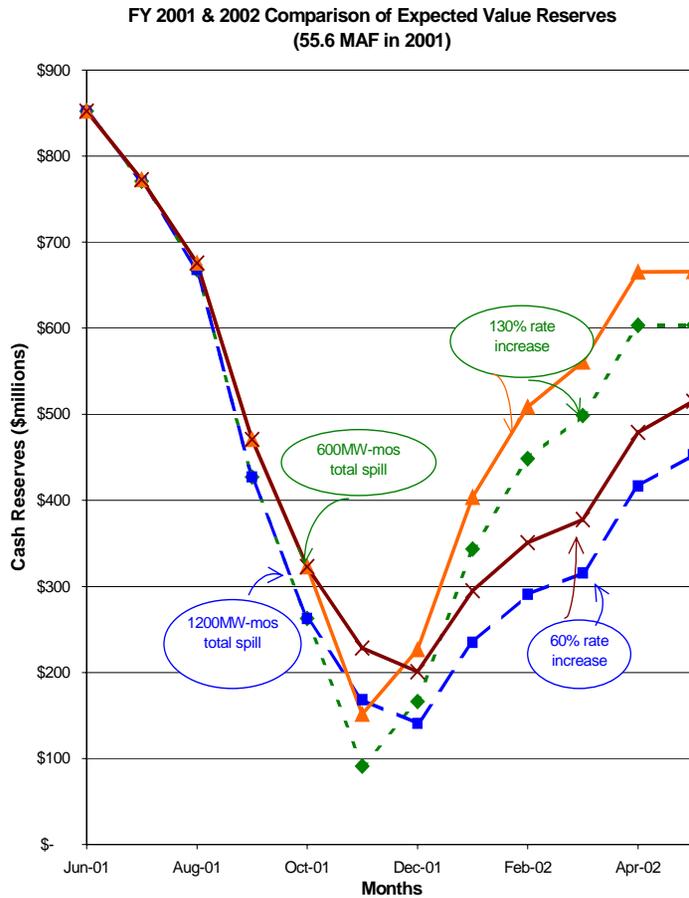
CRITERIA	4/13 Analysis	6/27 Analysis
Criterion 1: Near-Term Insufficiency (Sufficient Volume to Meet Near-term Load Obligations)	54	48.8
Criterion 1: 75% Probability Volume Forecast Standard June Forecast Error Buffer—RFC @ 4.0	58	N/A
Criterion 2: Long-Term Insufficiency (< 5% Loss of Load Probability)	59.5 ¹	53.7 ²
<i>Adjustment for 600 MW-mo Spring Spill</i>		<i>0.4</i>
TOTAL MAF to MEET CRITERIA 1 & 2 w/ RFC Buffer (4.0 MAF) w/ NPPC Buffer (1.7 MAF) w/ ESP Buffer (1.1 MAF)	59.5	55.8 55.2
June Mid-Month Forecast		55.9
Criterion 3: Insufficiency Due to Inadequate Reserves (< 20% Probability of \$0 Reserves)	Protect against drop in water supply and use to meet criteria 1 & 2	600 MW-mo of summer spill

¹1.5 MAF is used as a proxy for the 1500 MW-mo of storage needed for reliability purposes. Depending on the location and shape of the volume, the MAF requirement to provide the MW-mo could change.

²Uncertainties in the analysis:

- Assumes expected thermal generation based upon a forced outage rate with an estimated planned outage schedule
- Assumes normal temperatures
- Assumes modest amount of conservation
- Assumes significant amount of regional generation dedicated to exports to California
- Small variations in monthly (aMW) uncertainties can lead to large amounts of uncertainty accumulated over several months (MW-mos)
- Assumes all storage for next winter must be completed by Oct 1

June 15 Summary Analysis of the Power Emergency Criteria



Cash Flow

(Probability of < \$0 Reserves)

Total Spring and Summer Spill - FY2001

600MW-mos spill 60% rate increase	600MW-mos spill 130% rate increase	1200MW-mos spill 60% rate increase	1200MW-mos spill 130% rate increase
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Jun-01	0.0%	0.0%	0.0%	0.0%
Jul-01	0.0%	0.0%	0.0%	0.0%
Aug-01	0.0%	0.0%	0.0%	0.0%
Sep-01	1.6%	1.6%	1.7%	1.7%
Oct-01	5.5%	5.5%	8.2%	8.2%
Nov-01	8.4%	13.6%	13.5%	21.3%
Dec-01	10.9%	8.9%	17.4%	14.5%
Jan-02	6.4%	4.2%	10.6%	5.8%
Feb-02	9.6%	6.1%	11.8%	7.6%
Mar-02	13.0%	9.1%	14.7%	10.5%
Apr-02	11.7%	9.8%	13.5%	10.5%
May-02	12.4%	10.9%	13.3%	11.4%

FY2001 Ending Reserve Levels

(Probability of < \$300M Reserves)

Sep-01	7.8%	7.8%	12.8%	12.8%
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Assumptions:

1. Cal ISO/PX don't pay anything due.
2. 4H10c credits applied monthly starting in February.

Observations:

- 600 MW-mo of spill, no additional spill beyond today, leaves BPA well within the financial criteria.
- 1200 MW-mo of spill, an additional 600 MW-mo beyond the already complete 600 MW-mo, is on the boundary of not meeting the financial criteria.
- Changes in water supply, loads, market prices, and thermal plant generation could change the results of this analysis.

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Estimated Costs of Summer Spill

Assuming Market Prices a Month Ago (\$300)

- * 200 mw-mos = \$45 million
- * 400 mw-mos = \$90 million
- * 600 mw-mos = \$135 million

Assuming Current Market Prices (\$75)

- * 200 mw-mos = \$11 million
- * 400 mw-mos = \$22 million
- * 600 mw-mos = \$33 million

Assuming Further Reduced Market Prices (\$50)

- * 200 mw-mos = \$7.5 million
- * 400 mw-mos = \$15 million
- * 600 mw-mos = \$22 million

Summary of Potential Alternative Actions

Potential Actions with immediate benefits for listed summer migrants

- * Dworshak draft below 1520 feet
- * Increase Northern Pikeminnow Bounty

Potential Actions with immediate benefits primarily for other summer migrants

- * Columbia storage drafts
- * Increase Northern Pikeminnow Bounty

Potential Actions that would benefit listed summer migrants in the long-term

- * Non-native predator control through operations and/or incentives
- * Modify current Dworshak hatchery water supply

Potential Actions that would benefit other summer migrants in the long-term

- * Access storage at Owyhee Reservoir

Next Steps

- * **June 27:** Northwest Power Planning Council recommendation on summer spill for non-listed fish.
- * **June 29:** Federal, State and Tribal Regional Executives meet to discuss summer spill for listed fish.