Fourteen Fatal Flaws

of the Columbia River Systems Operations Draft Environmental Impact Statement

By Nina Sarmiento & Jim Waddell for Dam Sense

1. **Peaking, Ramping, Balancing, & Reserve hydropower benefits of the Lower Snake River Dams (LSRDs).**
   - Claimed over 2,000 MW with a value of $966 million for replacement cost.
   - Inconsistent with claimed 15 MW in 2002 EIS, Waddell et al. 2020 "Claims of Sustained Peaking, Ramping, Reserve, Flexibility and Balancing Power from the lower Snake River Dams, What Is Feasible?"

2. **Recreation Visitation Estimated at 2.4 million non-local visitors/year for LSRDs.**
   - 2.4 million visitors is more than those going to Mt Rainier, 6,575 visitors every day.
   - Data from 2002 EIS since corrected to 53,000 visitors/year by Earth Economics 2016 "National Economic Analysis of Four LSRDs."
   - Used to extrapolate Multiple Objective 3 (MO3) losses of 1,420 jobs, $59 million in labor income, and $189 million in annual sales. No benefits quantified, though 3-4,000 jobs would be created (Earth Economics 2016).

3. **MO3 anadromous fish mitigation with additional hatchery salmon, cost of 78.1 million.**
   - Absent in the 2002 EIS breach alternative because appropriate timing is in winter, when almost no fish are in the river. Breaching is the mitigation, preventing the death of ~8 million chinook smolts per year.

4. **Salmon survival/mortality data insufficient.**
   - Does not assess latent and reservoir mortality, SAR values, and recovery standards for each multiple objective even though the Biological Opinion says the PA adversely affects all stocks.

5. **Snake Chinook deemed insignificant prey source for Southern Resident Killer Whales (SRKW).**
   - Ignores NOAA data on SRKW diet.

6. **Irrigation mitigation of MO3 based on devaluing irrigated land, 47,840 acres at cost of $313.7 million.**
   - Mitigation method justifies loss of 4,800 jobs, $232 million in labor income and 460.5 million in sales.
   - Pipe extension and pump installation mitigation overlooked, estimated at $20 million from Sampson, Rob 2018 "A brief review of the impacts to irrigated farmland from breaching the four dams on Lower Snake River".

7. **MO3 navigation rate increase based solely on opinion of "some stakeholders."**
   - 25 to 50% increase in rail shipment costs cannot be justified without cost estimate modeling and supporting data.
   - Use of recently upgraded rail line along the snake that can move all grain to market is not mentioned.

8. **Navigation dredging of Lake Wallula/Lower Snake in MO3 with cost of $76 million.**
   - 2002 EIS did not include this cost because no dredging is required in this location, breaching sediment drops out above Ice Harbor.

9. **Flood conveyance dredging at Lewiston absent in multiple objective costs.**
   - Should increase cost by approx. $12 million/year for NA, MO1, MO2, MO4 & PA.

10. **LSRD breach cost from 2002 EIS without mitigation uncorrected and escalated to $994 million.**
    - Error of approx. $600 million, from Waddell et al. 2016 "Reevaluation of The Lower Snake River Juvenile Salmon Migration Feasibility Report And Supplemental Environmental Impact Statement Appendix D Natural River Drawdown Engineering."
    - Stated as $994 million in chapter 3, inconsistent with appendix Q that says it is $955 million.

11. **Congressional authorization assumption for MO3 incorrect.**

12. **Breach alternative MO3 conflated with construction and mitigation costs on other dams.**

13. **Power Replacement Costs & Loss of Load Probability overstated for 1,000 MW.**
    - Least-cost power resource acquisition strategy not modeled, most up-to-date costs of wind and solar not used for cost replacement, if needed.

14. **Greenhouse gas emissions from LSRDs ignored in MO3.**
    - From US Department of Energy 2013 "Evaluating greenhouse gas emissions from hydropower complexes on large rivers in Eastern Washington."