MEMORANDUM

TO: FPAC

FROM: Michele DeHart

DATE: February 28, 2011

RE: Comments on Draft 2011 Spring Fish Operations Plan

The Fish Passage Center Staff reviewed the draft 2011 Spring Fish Operations Plan (herein 2011 Spring FOP) with the focus of comparing it to the 2010 Spring FOP. The most significant changes in the 2011 FOP from the 2010 FOP in terms of potentially decreasing fish protection are the inclusion of the Camas/Washougal gage in TDG management when neither State requires it, and the decrease in spill levels at John Day Dam. Below is a more complete list of the main differences we found with the 2011 Spring FOP (compared to the 2010 Spring FOP) and potential impacts they may have on fish passage in 2011.

1) **Introduction** – there is no mention of the 2011 FOP being consistent with the recent Court Ordered operations. The 2010 FOP stated that operations in 2010 were consistent with the 2009 Court Ordered operations.

2) **Operations Considerations (Spill Percentages, pg 3)**
   - The 2011 FOP states that flows less than 33 Kcfs for three consecutive days, along with a continued downward trend in flows would transition a constant spill operation (~7-11 Kcfs) at Little Goose Dam (LGS). The 2010 FOP had minimum flow of 33 Kcfs at LGS before constant spill volume (7-11 Kcfs) would be initiated.
   - 2011 FOP says that spill percentage at The Dalles (TDA) could vary up to ± 1.6%, depending on river discharge (no mention of 300 Kcfs flow). The 2010 FOP had ± 3.5% at TDA when total river discharge was less than 300 Kcfs.
3) **Table 1** – Ice Harbor minimum generation requirements changed. The 2010 FOP had 8.5-10.3 Kcfs for turbines 1-6. The 2011 FOP now has 8.5-10.3 Kcfs for turbines 1 and 3-6 and 11.3-13.1 Kcfs for turbine 2. Depending on turbine priorities, this will likely affect minimum spill levels in summer when flows are low and spill is any flows above PH minimums.

4) **Low Flow Operations** (page 5) – The 2011 FOP states that flows of 33 Kcfs or less will warrant switching turbine operations in order to maintain 30% spill. The 2010 FOP states 32 Kcfs or less.

5) **Navigation Safety** (page 6) – 2011 FOP states that LGS pool may be up to 1 foot above MOP when flows are less than 32 Kcfs. The 2010 FOP states that LGS pool may be up to 1 foot above MOP when flows are less than 50 Kcfs.

6) **Juvenile Transportation** (page 6) – 2011 FOP removed statements regarding not providing spill when flows are less than 65 Kcfs, thus maximizing spill.

7) **Spring Spill Operations** (top of page 8) – 2011 FOP mentions that Camas/Washougal gauge (CAMWAS) will be used to manage Total Dissolved Gas (TDG) for Bonneville Dam (BON) at 115% TDG level. The 2010 FOP did not specifically mention managing to CAMWAS, and NEITHER state requires the usage of CAMWAS.

8) **Table 2** (page 9) – The 2011 FOP has spring spill operation at John Day Dam (JDA) as 30% (24-hours). This is a change from the 2010 FOP, which had 30% vs. 40% spill (24-hours).

9) **Lower Granite** (page 9) – 2011 FOP states that fish passage operations may be curtailed for all barges. The 2010 FOP mentions fish transportation barges only.

10) **Little Goose** (page 10) – 2011 FOP states that flows of 33 Kcfs or less result in incompatible operations with LMN. The 2010 FOP has 32 Kcfs.

11) **Lower Monumental** (page 10) – 2011 FOP states that spill pattern at LMN will be “bulk” based on past studies. The 2009 studies showed no significant survival differences but did show improvements in passage conditions under “uniform” spill (e.g., increased SPE, decreased delay, etc.).

12) **McNary** (page 12) –
   - 2011 FOP indicates that TSWs will be in place until early June, when they will be taken out for subyearlings in mid-June. 2010 FOP had hard date of June 6.
   - Spring spill at MCN is set from April 10-June 19. Old court order had July 1 as beginning of summer for Lower Columbia sites, unless there was a study. Why is spring only through June 19th in 2011?

13) **John Day** (page 13) – 2011 FOP indicates that only 30% spill will be provided in spring. 2010 FOP had 30% vs 40% spill.

14) **The Dalles** (page 14) – 2011 FOP has different spill percentages for different flow bands (90 and 150 Kcfs, 150 and 300 Kcfs, and 300-420 Kcfs) than what were presented in 2010 FOP.

15) **Bonneville** (page 14) – Is spring spill planned to end on June 20, 2011 because of a planned summer test at Bonneville? Summer spill in past years has started on or around June 20th due to summer spill tests. Are there going to be summer spill tests at BON in 2011?

16) **Latent Mortality** (page 15) – 2011 FOP indicates a reduction in sample size for this study. 2010 FOP had 120,000 smolts, 2011 FOP as only 74,000 smolts.