## Summary of 2019 Little Goose Dam Spring Spill Operations

## 2019 Spill Agreement and 2019 Fish Operations Plan (FOP) Table 3 – LGS Spring Spill:

- 120% Gas Cap 16 hours/day and Performance Standard 30% 8 hours/day. The 8 hours of 30% spill will occur in two blocks each day of 4 AM hours and 4 PM hours or 5 AM hours and 3 PM hours (AM = "beginning near dawn"; PM = "generally near dusk".)
- Operate within the 1.5-ft minimum operating pool (MOP) range of 633.0–634.5 ft.

From April 3 through May 20, the Corps and BPA operated in accordance with the 2019 Spill Agreement and maintained 30% spill as flows allowed for 4 AM hours/4 PM hours (0600-1100/1600-2000) or for 5 AM hours/3 PM hours (0600-1100/1600-1900).

By May 20, the count differential of adult Chinook between Lower Monumental and Little Goose was <u>4,775</u>. Operational changes to address adult delay were coordinated as follows:

 <u>Tuesday, May 21 – Friday, May 24</u>: per recommendation from IDFG received on May 20 and consensus recommendation from TMT at the meeting on May 22, the Corps and BPA implemented 30% spill only as a 5 AM/3 PM operation as flows allowed.

| 30% Spill 5 AM/3 PM (0600-1100/1600-1900) |                      |                      |                               |                             |                 |  |
|---|----------------------|----------------------|-------------------------------|-----------------------------|-----------------|--|
| Date                                      | 24-Hr Avg<br>Outflow | 24-Hr Avg<br>% Spill | LGS Adult CHN<br>Daily Counts | Differential<br>(LGS – LMN) | Conversion<br>% |  |
| May 21                                    | 119.8 kcfs           | 39.8%                | 1,292                         | -4,272                      | 67.0%           |  |
| May 22                                    | 119.7 kcfs           | 39.7%                | 1,130                         | -3,484                      | 73.8%           |  |
| May 23                                    | 119.9 kcfs           | 40.5%                | 546                           | -3,318                      | 75.7%           |  |
| May 24                                    | 113.0 kcfs           | 42.4%                | 391                           | -3,496                      | 75.4%           |  |

 Saturday, May 25 – Tuesday, May 28: per consensus recommendation from TMT at the meeting on Friday, May 24, the Corps and BPA implemented 30% spill for 6 AM hours (0600-1200) and 2 PM hours (1700-1900) as flows allowed.

| 30% Spill 6 AM/2 PM (0600-1200/1700-1900) |            |           |               |              |            |  |
|---|------------|-----------|---------------|--------------|------------|--|
| Date                                      | 24-Hr Avg  | 24-Hr Avg | LGS Adult CHN | Differential | Conversion |  |
|   | Outflow    | % Spill   | Daily Counts  | (LGS – LMN)  | %          |  |
| May 25                                    | 114.9 kcfs | 41.6%     | 361           | -3,689       | 75.1%      |  |
| May 26                                    | 114.6 kcfs | 41.9%     | 119           | -4,047       | 73.5%      |  |
| May 27                                    | 120.6 kcfs | 40.0%     | 21            | -4,771       | 70.2%      |  |
| May 28                                    | 123.1 kcfs | 39.0%     | 299           | -4,995       | 69.8%      |  |

**3.** <u>Wednesday, May 29 – Thursday, May 30</u>: per consensus recommendation from FPAC received on Tuesday, May 28, the Corps and BPA implemented 30% spill for 8 consecutive hours (0400-1200) as flows allowed.

| 30% Spill 8 Hours (0400-1200) |            |           |               |              |            |  |
|-------------------------------|------------|-----------|---------------|--------------|------------|--|
| Date                          | 24-Hr Avg  | 24-Hr Avg | LGS Adult CHN | Differential | Conversion |  |
|                               | Outflow    | % Spill   | Daily Counts  | (LGS – LMN)  | %          |  |
| May 29                        | 121.1 kcfs | 39.8%     | 1,159         | -4,305       | 74.7%      |  |
| May 30                        | 129.0 kcfs | 37.2%     | 423           | -4,387       | 74.9%      |  |

4. <u>Friday, May 31 – Tuesday, June 4</u>: per consensus recommendation from FPAC received on Thursday, May 30, the Corps and BPA continued to maintain spill at 30% for 8 hours/day (0400-1200) and stored additional inflows that exceeded hydraulic capacity in the forebay above MOP if necessary. Water stored above 634.5 feet would be drafted out over the remaining hours by increasing spill to pass inflow from 1200-1600 hours, then increasing spill as necessary from 1600-0400 to draft the pool back to MOP.

|        | 30% Spill 8 Hours (0400-1200); fill above MOP (633.0-634.5) if necessary. |            |           |               |              |            |  |  |
|--------|---|------------|-----------|---------------|--------------|------------|--|--|
| Date   | Max   | 24-Hr Avg  | 24-Hr Avg | LGS Adult CHN | Differential | Conversion |  |  |
|        | FB  | Outflow    | % Spill   | Daily Counts  | (LGS – LMN)  | %          |  |  |
| May 31 | 634.1'  | 132.9 kcfs | 37.0%     | 580           | -4,165       | 76.7%      |  |  |
| Jun 1  | 634.9'  | 143.4 kcfs | 37.9%     | 393           | -4,212       | 77.0%      |  |  |
| Jun 2  | 634.6   | 146.6 kcfs | 38.5%     | 419           | -4,095       | 78.0%      |  |  |
| Jun 3  | 634.8'  | 148.4 kcfs | 39.0%     | 636           | -3,747       | 80.2%      |  |  |
| Jun 4  | TBD   | TBD        | TBD       | TBD           | TBD          | TBD        |  |  |

5. Wednesday, June 5 – no later than Wednesday, June 12 (unless otherwise coordinated): per consensus recommendation from FPAC received on Tuesday, June 4, the Corps and BPA will continue to implement the operation in paragraph 4 above, with the additional request to change the Adjustable Spillway Weir (ASW) from low crest to high crest daily from 0400-1900 hours.