Water Management Plan Appendix 3

Introduction to Timeline

The timeline given below shows the approximate starting and end times of actions and events included in this year’s Water Management Plan. It is designed to give a sense of when various actions occur. Dates are approximate and subject to change. Also note actions shown may not occur.

Project Abbreviations LIB – Libby

HGH – Hungry Horse LWG – Lower Granite LGS – Little Goose

LMN – Lower Monumental IHR – Ice Harbor

MCN – McNary JDA – John Day TDA – The Dalles BON – Bonneville

TMT – Technical Management Team DWR – Dworshak

PRD – Priest Rapids ALF – Albeni Falls GCL – Grand Coulee

RCC – Reservoir Control Center RFC – River Forecast Center USBR – US Bureau of Reclamation

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| **ID** | **Task Name** | **Start** | **Finish** |
| 1 | LIB Operate to Minimum Flows / Ramp Rates | 10/1/21 | 9/30/22 |
| 2 | HGH Operate to Minimum Flows / Ramp Rates | 10/1/21 | 9/30/22 |
| 3 | TMT Assess Potential of Providing Flow for Chinook Below BON | 10/1/21 | 11/30/21 |
| 4 | TMT Assess Potential of Providing Flow for Chum Below BON | 10/1/21 | 11/30/21 |
| 5 | TMT Preliminary Discussions of FRM/Water Supply / Refill | 10/1/21 | 10/1/21 |
| 6 | Albeni Falls Fall / Winter Draw Down to MCE  | 09/20/21 | 11/15/21 |
| 7 | Hanford Reach / Vernita Bar Flows Set (Non-BiOp) | 10/1/21 | 11/26/21 |
| 8 | DWR Operate at Minimum Outflow/FRM | 10/1/21 | 12/31/21 |
| 9 | PRD Vernita Bar Protection Flows (Non-BiOp) | 11/26/21 | 5/9/22 |
| 10 | LIB Storage May be Used to Support Chum Flows | 11/2/21 | 2/23/22 |
| 11 | HGH Storage May be Used to Support Chum Flows | 11/2/21 | 2/23/22 |
| 12 | ALF Storage May be Used to Support Chum Flows | 11/2/21 | 2/23/22 |
| 13 | GCL Storage May be Used to Support Chum Flows | 11/2/21 | 2/23/22 |
| 14 | BON Provide Chum Tailwater | 11/1/21 | 4/10/22 |
| 15 | TMT Determine Winter / Spring Chum Flow Levels | 11/1/21 | 4/10/22 |
| 16 | HEPB Determine FRM / Refill Strategies | 12/1/21 | 4/16/22 |
| 17 | HEPB Determine FRM Shifts | 12/1/21 | 4/16/22 |
| 18 | LIB Operate to FRM Curve | 12/1/21 | 6/30/22 |
| 19 | DWR Operate to FRM Curve/VDL | 12/1/21 | 6/30/22 |
| 20 | ALF Operate to FRM Curve/FWPO | 9/10/21 | 6/22/22 |
| 21 | GCL Operate to FRM Curve/VDL | 1/1/22 | 4/30/22 |
| 22 | HGH Operate to FRM Curve/VDL | 10/1/21 | 4/30/22 |
| 23 | ARDB Whitefish Flows (non-BiOp) | 12/1/21 | 1/31/22 |
| 24 | TMT Preliminary Coordination of Zero Generation Operations | 11/17/21 | 2/28/22 |
| 25 | 1 MAF Treaty Flow Augmentation Filling | 1/1/22 | 4/25/22 |

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| **ID** | **Task Name** | **Start** | **Finish** |
| 26 | RFC January Final Forecast | 1/5/22 | 1/5/22 |
| 27 | TMT Begin Spring Transport Discussions | 3/1/22 | 3/1/22 |
| 28 | TMT Mid-C Flows Discussions  | 4/1/22 | 5/15/22 |
| 29 | RFC February Final Forecast | 2/3/22 | 2/3/22 |
| 30 | USBR Min. Flows from HGH and at Columbia Falls Set | 3/1/22 | 3/1/22 |
| 31 | RFC March Final Forecast | 3/3/22 | 3/3/22 |
| 32 | Reclamation Reports Est. of Upper Snake Augmentation Volumes | 3/1/22 | 6/30/22 |
| 33 | PRD Hanford Reach Protection Flows (non-BiOp) | 11/26/22 | 6/28/22 |
| 34 | ARDB Trout Spawning Flows (non-BiOp) | 4/1/22 | 6/28/22 |
| 35 | LWG Spring Flow Objective | 4/3/22 | 6/20/22 |
| 36 | LWG MOP Operation | 4/3/22 | 8/15/22 |
| 37 | LGS MOP Operation | 4/3/22 | 8/15/22 |
| 38 | LMN MOP Operation | 4/3/22 | 8/15/22 |
| 39 | IHR MOP Operation | 4/3/22 | 8/15/22 |
| 40 | LWG Spill for Juvenile Fish Operation | 4/3/22 | 8/31/22 |
| 41 | LGS Spill for Juvenile Fish Operation | 4/3/22 | 8/31/22 |
| 42 | LMN Spill for Juvenile Fish Operation | 4/3/22 | 8/31/22 |
| 43 | IHR Spill for Juvenile Fish Operation | 4/3/22 | 8/31/22 |
| 44 | RFC April Final Forecast | 4/5/22 | 4/5/22 |
| 45 | LIB at April 10 Elevation Objective | 4/10/22 | 4/10/22 |
| 46 | GCL at April 10 Elevation Objective | 4/10/22 | 4/10/22 |

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| **ID** | **Task Name** | **Start** | **Finish** |
| 47 | DWR at April 10 Elevation Objective | 4/10/22 | 4/10/22 |
| 48 | HGH at April 10 Elevation Objective | 4/10/22 | 4/10/22 |
| 49 | MCN Spring Flow Objective | 4/10/22 | 6/30/22 |
| 50 | PRD Spring Flow Objective | 4/10/22 | 6/30/22 |
| 51 | MCN Spill for Juvenile Fish Passage | 4/10/22 | 8/31/22 |
| 52 | JDA Spill for Juvenile Fish Passage | 4/10/22 | 8/31/22 |
| 53 | TDA Spill for Juvenile Fish Passage | 4/10/22 | 8/31/22 |
| 54 | BON Spill for Juvenile Fish Passage | 4/10/22 | 8/31/22 |
| 55 | LIB Sturgeon Pulse | 5/16/22 | 6/30/22 |
| 56 | 1MAF Flow Augmentation Release  | 4/10/22 | 7/29/22 |
| 57 | RFC May Final Forecast | 5/4/22 | 5/4/22 |
| 58 | Volume Forecast to Determine Sturgeon Pulse Volume | 5/1/22 | 5/1/22 |
| 59 | RFC June Final Forecast | 6/3/22 | 6/3/22 |
| 60 | TDA Summer Flow Objective | 6/7/22 | 6/7/22 |
| 61 | DWR Temperature Modeling and Release Strategy | 6/15/22 | 6/15/22 |
| 62 | LWG Summer Flow Objective | 6/21/22 | 8/31/22 |
| 63 | LIB Refill  | 6/20/22 | 7/30/22 |
| 64 | GCL Refill and July 4th Operation coordinated in-season | 6/30/22 | 7/31/22 |
| 65 | DWR Refill by about June 30 or earlier in dry years  | 6/1/22 | 6/30/22 |
| 66 | HGH Refill ~June 30 | 6/30/22 | 6/30/22 |
| 67 | ALF Refill by June 30 | 6/30/22 | 6/30/22 |
| 68 | GCL Operate to Meet Summer Flow Objectives | 7/1/22 | 8/31/22 |

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| **ID** | **Task Name** | **Start** | **Finish** |
| 68 | DWR Operate to Meet Tailrace Water Temperature at LWG | 6/20/22 | 8/31/22 |
| 69 | MCN Summer Flow Objective | 7/1/22 | 8/31/22 |
| 70 | GCL Operate Banks Lake 5 ft. from full or lower | 7/1/22 | 8/31/22 |
| 71 | LIB Bull Trout Minimum Flow | 7/1/22 | 9/30/22 |
| 72 | RFC July Final Forecast | 7/6/22 | 7/6/22 |
| 73 | DWR Draft no lower than Elevation 1535 feet | 8/31/22 | 8/31/22 |
| 74 | GCL Summer Draft Limit 1280 or 1278 ft. minus Incremental Adjustment  | 8/31/22 | 8/31/22 |
| 75 | LIB Summer Draft to End of September Elevation | 9/30/22 | 9/30/22 |
| 76 | HGH Operate to Summer Draft Limit 3540 ft to 3550 ft. | 6/30/22 | 9/30/22 |
| 77 | DWR Draft to elevation 1520 feet | 9/30/22 | 9/30/22 |
| 78 | GCL Fall Refill to Elevation 1283 ft. (non-BiOp) | 9/1/22 | 10/31/22 |