

## 1. NOTIFICATION PROTOCOL FOR FLOW DEVIATIONS AND POWER GENERATION REQUESTS

1.1. This section describes specific reporting protocol to be followed for reporting events to the Services. Information will be provided to the WATER stakeholders regarding events reported to the Services as described above. The Action Agencies would provide the following information during reporting:

- Location of deviation - subbasin/project/specific site (if applicable);
- Date/time of deviation;
- Type of deviation (flow/ramp/hazardous spill/water quality exceedances);
- Type of emergency operation (if applicable);

1.2. Type and severity of spill (if applicable); The USACE will provide notification to researchers in the event of an emergency or other adverse conditions are identified that may impact research activities or result in potential unsafe conditions or damage to scientific equipment. Direct notification will be completed by the USACE for real-time events with coordination occurring through the WATER Research, Monitoring and Evaluation (RM&E) Team.

Notification directly to the Services will occur under the following situations:

- Ramp rate target deviations;
- Instream flow target deviations;
- Identified adverse water quality conditions;
- Emergency operations that may impact ESA-listed fish; and
- Hazardous spills.

1.3. For activities occurring in or around reservoirs, dams, or other facilities by researchers or other entities, notification must be made to the USACE. The notification must be formally written and should list the location, date and time located in vicinity, nature of research, and type of physical activity.

1.4. Ramp Rates, Flow Targets, and Flood Risk Management Operations

The USACE project operations staff that are onsite have the ability to identify and report deviations from the required ramp rates and instream flows. Although this would provide near-immediate notification for external reporting purposes, the USACE also initiated reviewing operations records at each Willamette project on a 48-hour basis to track project performance and report any deviations in a timely and coordinated fashion. The purpose of this is to provide the ability to identify the more “minor” deviations that may occur that are not readily identified by staff in the field.

1.5. Flow data assessed for deviations from instream flow and ramp rate targets are based on preliminary data (provisional) that is subject to change. Flow data used for reporting is provisional and may be modified by the USGS following periodic updates to the rating curves for each gage site. Flows in the Willamette mainstem are measured at Salem and Albany. Specific gage sites are listed in subbasin Chapters.

1.6. Down Ramp Rates. Check to ensure language is correct. The USACE will report ramp rate deviations that exceed by two-fold the required down ramp rate. An example would be if the target is 0.1 foot/hour, reporting would occur if the ramping exceeds 0.2 foot/hour. Similar reporting would occur if the daily maximum (24 hour) flow decrease (1 ft/24 hours) is exceeded by 25%. These bounds alleviate excessive and unnecessary reporting and coordination between the USACE and

Services that would be required unless otherwise modified herein. Ramp rate targets are in RPA 2.6.4 of the BiOp (NMFS 2008).

- 1.7. Instream Flows. The USACE will report instream flow deviations that exceed 5% of the target flow value due to project operations. For example, if the minimum flow required is 1,500 cubic feet per second (cfs), reporting would occur if the minimum instantaneous flow dropped to 1,425 cfs or below. These bounds would alleviate excessive and unnecessary reporting and coordination between the USACE and Services that would be required unless otherwise modified herein. Instream flow targets are in RPA 2.4 of the BiOp (NMFS 2008).
- 1.8. Flow/Stage Reductions. The USACE will report any flow reduction below projects of more than 50% per hour or 1 foot per hour. Reporting will also occur if a flow reduction occurs that is 50% per 24 hours. Exceedances that are less than 25% outside of criteria will not be reported but may be discussed at interagency coordination meetings to reduce superfluous reporting. Flow reduction guidelines are in Table 9.2-4 of the BiOp (NMFS 2008).
  - Magnitude of deviation;
  - Duration of deviation;
  - Cause of deviation;
  - Measures taken to minimize the deviation;
  - Measures implemented or proposed to ensure that similar incidents do not recur;
  - Any identified or potential biological impacts; and
  - Follow-up recommendations, if applicable.
- 1.9. Time of Notification. The USACE will contact (email or phone call) ODFW and the Services within 24 hours of identifying any reportable incident. Although information relating to the incident may not be immediately available, initial contact will be made within the first 24 hours of when the incident is identified. A complete written notification to the Services will be completed within 48 hours of identification and will include the reporting information previously discussed, if available at the time of reporting.
- 1.10. Requests for Changes in Power Generation. At times, BPA may request changes in generation produced at the WVP dams based on load needs. This can either be caused by excessive energy on the grid, or a need for more generation caused by weather conditions. Requests received by USACE Reservoir Regulation will be reviewed by operations fish biologists to determine if any impacts to aquatic resources, including ESA-listed fish, may result. The USACE will then request modifications or potentially deny the request if impacts are identified and cannot be avoided.
- 1.11. If a region wide power shortage is anticipated, a power system emergency could be declared. In this scenario, the USACE will identify impacts and provide notification to the ODFW, USFWS, and NMFS prior to implementation. Notification will address any perceived impacts on water quality, fish facility operations, or flow changes that may deviate from flow or ramp rate targets. Updates will be provided to WATER through the WFPOM Team.