

## Libby Dam Spill Test – 2010

- Tier 2 sturgeon volume (0.8 MAF)
- Spill test commenced 10-June and ceased 16-June
- Spill of 7-9,000 cfs throughout; limited to 123% Total Dissolved Gas
- No bull trout or resident fish Gas Bubble Trauma detected during or after 2010 spill, though injured fish were observed (spillway or stilling basin trauma)
- 2010 Kootenai River flow at Bonners Ferry was sufficient to provide for attainment of 16.5' of depth in 60% of the rocky substrate in RM 152-157 (USFWS Biological Opinion Depth Criteria low end) throughout the duration of spill at Libby Dam
- Spill of the full 10,000 cfs would not have provided for attainment of 23' of depth in 60% of the rocky substrate in RM 152-157 (USFWS Biological Opinion Depth Criteria high end) in 2010
- No discernable difference in sturgeon movement or behavior in 2010.
- Stage at Bonners Ferry during sturgeon flow augmentation ranged from 1753'-1761' MSL.

## Libby Dam Spill Test - 2011

- The early bird 1-March forecast of ~ 6.9 MAF provides a Tier 3 or 4 sturgeon volume. There is still potential for a Tier 2 sturgeon volume if the rest of the accumulation period is dry and/or warm. Sturgeon volume is likely to be between 1.06 and 1.2 MAF.
- It is likely that spill operations at Libby Dam will occur shortly after the peak of the second tributary freshet, given flood stage constraints at Bonners Ferry, reservoir elevation required for spill, and thermal dynamics of the forebay.
- The ability to spill 10,000 cfs could occur as early as 1-June and as late as 11-June, depending on timing of the freshet and how deep Koocanusa Reservoir is drafted during the spring.
- Spill may need to be reduced to limit Kootenai River flow below the flood stage elevation of 1764' MSL at Bonners Ferry.