

## Protocol for West Rosebud Creek Whitewater Flow Enhancement (June 2011)

Under normal, routine operation of the Mystic Lake Hydroelectric Project by the Licensee during the descending limb of the West Rosebud Creek spring hydrograph:

- When the Wednesday noon stream flow reported on the USGS Streamflow Gauge West Rosebud Creek near Roscoe MT (#06204050) is greater than 400 cfs, no white water flow enhancement will be provided, except:
  - When the following Friday noon stream flow reported on the USGS Streamflow Gauge #06204050 is 286 to 400 cfs, PPLM will endeavor to release 500 cfs from the West Rosebud Lake Dam on the following Saturday and Sunday.
- When the Wednesday noon stream flow reported on the USGS Streamflow Gauge West Rosebud Creek near Roscoe MT (#06204050) is between 286 cfs and 400 cfs, PPLM will endeavor to release 500 cfs for 5 hours from the West Rosebud Lake Dam on the following Saturday and Sunday, except:
  - When the following Friday noon stream flow reported on the USGS Streamflow Gauge #06204050 is less than 270 cfs due to rapidly decreasing inflow, PPLM will endeavor to release 500 cfs for 5 hours from the West Rosebud Lake Dam on the following Saturday only.
- When the Wednesday noon stream flow reported on the USGS Streamflow Gauge West Rosebud Creek near Roscoe MT (#06204050) is between 250 cfs and 285 cfs, PPLM will endeavor to release 500 cfs for 5 hours from the West Rosebud Lake Dam on the following Saturday only, except:
  - When the following Friday noon stream flow reported on the USGS Streamflow Gauge #06204050 is less than 250 cfs due to rapidly decreasing inflow, a Saturday flow will not be provided.
- When the Wednesday noon stream flow reported on the USGS Streamflow Gauge West Rosebud Creek near Roscoe MT (#06204050) is less than 250 cfs, no white water flow enhancement will be provided.
- PPLM will endeavor to operate West Rosebud Lake below 6397.6 feet and above 6395.0 feet elevation during whitewater flow enhancement events.
- Minimum flow below West Rosebud Lake, during whitewater flow enhancements, will be maintained at 200 cfs or greater as measured at the USGS Streamflow Gauge West Rosebud Creek at Emerald Lake Campground (#06204070).
- White water releases from West Rosebud Lake Dam will begin at 8:30 AM. Peak flow (near 500 cfs) will reach the Emerald Lake Outlet between approximately 11:00 AM and 12:00 noon and will continue for approximately 2.5 hours, gradually reducing to pre-enhanced base flow conditions thereafter.