

Final 17 January 2007

Francis E. Walter Reservoir Recreation Operations Plan for 2007

The proposed plan for 2007 is very similar to that of 2006. That plan was able to satisfy all water needs, so at this point only minor modifications are being made as we operate for another year, while assessing performance and collecting additional data. Tables 1 and 2 were developed to define operational procedures for recreation weekends under various flow/storage conditions.

On or about 1 April 2007 storage will be initiated at F. E. Walter Dam. The exact date that storage will be initiated will be determined by the Corps of Engineers based on basin hydrologic conditions at the time. Storage could start earlier if precipitation raises the pool above elevation 1300. During the initial storage period outflows will be limited to 250 cfs on weekdays, and weekends outflow will match inflow up to a maximum release rate of 1000 cfs. The weekend limit will be lowered to 850 cfs and weekday limit lowered to 225 cfs if hydrologic conditions are such that reaching the target level of 1365 by 11 May 2007 is in jeopardy. The storage of excess inflows will continue until the pool reaches the elevation of 1365, which is the target elevation for the 2007 recreation season. The pool elevation of 1365 is expected to be reached no later than Friday 11 May 2007, in time for the first scheduled release to begin on Saturday 12 May 2007. Weekend events are planned for every other weekend thru 30 September 2007. The scheduled releases will be made from 1AM Saturday till 1 PM on Saturday, then from 1 AM Sunday till 1 PM on Sundays provided sufficient storage is available. If sufficient storage is not available to meet the targeted releases, the attached priority lists, Tables 1 and 2 will be utilized to determine the weekend releases.

Pool elevations above elevation 1365 at any time, are generally considered undesirable encroachments into flood control storage, and will normally be evacuated as quickly as possible in accordance with the Corps' F.E. Walter Reservoir Water Control Manual. If weather forecasts are such that no urgency exists to evacuate the encroachment into flood control storage, water may be retained for brief periods to enhance recreational opportunities. As in previous years, flood control objectives take priority over recreation and if deemed necessary any storage above elevation 1300 could be released by the Corps of Engineers for flood damage reduction.

During May and June the pool elevation will be maintained between 1365 and 1360. This 5 foot pool fluctuation limit is intended to help conserve cold water for later in the season, and to help in-lake fish spawning. As noted above, pool levels above elevation 1365 is an undesirable encroachment into flood control storage, which will normally be evacuated as quickly as possible. During the months of May and June, the minimum weekday release will be set at 250 cfs, provided there is sufficient storage between 1365 and 1360 to meet this flow objective. Weekend recreation releases during this period will be made as long as sufficient storage exists above elevation 1360, with a release target of

1000 cfs in May and 750 cfs in June. Based on the inflows during May and June the recreational releases will be made in accordance with Table 1.

In response to the public input received last year, an attempt will be made to help ensure sufficient storage remains above elevation 1360 for the scheduled events on 23 and 24 June. Based on prevailing hydrologic conditions at the time, the 9 and 10 June scheduled releases may be reduced in order to conserve storage to help meet the 23-24 June objectives. The conservation measures could include reduced target flows, shortened release periods, or possibly cancellation of the Sunday release if necessary. Any storage conserved on 9-10 June would then be available for both weekday flow augmentation and releases for 23 - 24 June.

Starting in July, there will no longer be specific flow targets as in May and June. The releases from July 1 through 30 September will be set in accordance with an ever decreasing augmentation rule curve (See attachment 1). The augmentation release is the amount above inflow to be released. The rule curves have been established to ensure that sufficient storage will be available to sustain a minimum augmentation release of 50 cfs for weekdays and non-recreational weekends, and an augmentation of 300 cfs for a 24 hour period over the scheduled recreational weekends (Ratio of 1:6), throughout the remainder of the recreation season. Based on inflows at the time, the 300 cfs available for recreation weekends will be distributed in accordance Table 2. If at any time July 1 and September, sufficient precipitation occurs to allow additional storage to accumulate, (up to the rule curve will be revised upward to the next greatest nested rule curve shown on the plot (for example 75/450 or 100/600). This new minimum release will then be utilized for the remainder of the recreation season unless additional precipitation raises it to an even higher level, at which time the new rule curve would govern releases for the remainder of the season. If precipitation is insufficient to raise the rule curve to the next higher curve, any additional storage will be utilized to maintain the weekday releases or increase the next scheduled weekend release up to the scheduled maximum amount.

At the end of the recreation season, any storage still remaining above elevation 1300, will be evacuated over a two week period with the intent of providing releases for recreation on 13 and 14 October (maximum of 1200 cfs). If it appears as though the 13-14 October event can be accomplished by storing water between 1 and 12 October, the minimum weekday release during this period will be 144 cfs. If at the end of September storage in excess of what would be necessary to accommodate the 13-14 October event still remains an additional high flow weekday event will be announced for 10 October. With the exception of the water needed for the 13-14 October event, all remaining excess storage, up to a maximum of 4000 cfs, will be released on 10 October.

Subsequent to either the 14 October event, or the 30 September event if the October events do not materialize, operations of the project will be strictly for flood damage reduction with the intent of maintaining the pool at elevation 1300.

As was done last year, in order to conserve cold water in the reservoir, the bypass system will be utilized to the maximum extent possible to make releases. Once release temperature from the bypass reaches 68 degree F, all releases will be made from the flood control gates

TABLE 1
MAY – JUNE

Available Volume (Inflow + Storage) DSF	Saturday Recreation Release(cfs) (12hr/12hr)	Sunday (12hr/12 hr)
675	600/250	250/250
700	650/250	250/250
725	700/250	250/250
750	750/250	250/250
800	725/250	500* /250**
850	725/250	700* / 250**
900	750/250	550/250
950	750/250	650/250
1000	750/250	750/250

Non recreational releases are 250 cfs during this period

* release for 6 hrs.

** release for 18 hrs.

Available volume is equal to mean daily inflow (x2) plus available storage between elevation 1360 and 1365

**TABLE 2
JULY – SEPTEMBER**

Augment DSF	Inflow cfs/day (x2)	Total	Saturday Recreation Release(cfs) (12hr/12hr)	Sunday Recreation Release(cfs) (12hr/12hr)
350	150	500	625/125	125/125
350	200	550	650/150	150/150
350	250	600	675/175	175/175
350	300	650	700/200	200/200
350	350	700	700/225	225/225
350	400	750	750/250	250/250
350	450	800	700/250	500*/250**
350	500	850	750/250	550/250**
350	550	900	800/250	600*/250**
350	600	950	800/250	600/250
350	650	1000	800/250	700/250
350	700	1050	900/250	700/250
350	750	1100	1000/250	700/250
350	800	1150	1000/250	800/250
350	850	1200	1000/250	900/250
350	900	1250	1000/250	1000/250

- Sunday releases for 6 hr. period are indicated with *
- Sunday releases for 18 hr. period are indicated with **
- Remainder of weekend, releases are equal to inflow plus 50 cfs, up to a maximum of 250

- Total dsf available defined as (storage=350dsf plus average daily inflow X2) For Example: 1000 dsf represents 350 dsf for recreation from storage plus an average inflow over the weekend of 325 cfs (X2)
- If additional augmentation storage becomes available during this period, this table will need to be revised.

Augmentation Rule Curves Daily Storages (2006 Season)

