How Can the Changes to Lake O's Release Schedule Help the Refuge?

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As described in <u>a previous newsletter</u>, the Army Corps of Engineers is embarking on a multiyear project to establish a new release schedule for Lake Okeechobee (Lake O). We ask you to send a letter to the Army Corps to let it know how the schedule needs to change to better protect the Refuge.

A few things we are advocating for in the new release schedule:

- The releases be measured at just one point on the Caloosahatchee at the Franklin Lock. Measuring at the Franklin Lock takes into account watershed runoff and therefore gives a more representative reading of the water flows that hit the Refuge. (See further explanation at the end).
- The need to relate the actual volume of water that flows down the river with the salinity targets that are required to have a healthy river. This is important because the health of the Caloosahatchee is critical to the health of the Refuge.
- The practice of holding Lake water levels as high as possible during the dry season, right up until the wet season, and then dumping all that water to the estuaries must be discontinued. This practice was a key driver of the ecological attack that the Refuge experience last year.
- The new release schedule must share adversity equitably and ration all water users during dry periods. The Corps is supposed to consider all congressionally authorized purposes for Lake O (see below). We have been advocating, and will continue to advocate, that the mandate to enhance fish and wildlife cannot be ignored when all other needs are being fully satisfied.

The rest of this detailed article describes how the current release schedule works and further explains some of changes we are seeking.

The Army Corps manages the water releases out of Lake O in a way that is supposed to consider all the **congressionally authorized purposes** for Lake O. This includes flood control, navigation, water supply for a variety of constituents, enhancement of fish and wildlife, and recreation. For a very thorough (100+ pages) description of the currently operational Lake O water control plan see more.

Although the current preference of the Army Corps is to keep the height of the water in the lake between 12.5 feet and 15.5 feet, the current operational plan assigns management bands to the

lake that cover a wide range of heights. As shown in this <u>graphic</u>, the amount of water in the lake, combined with the time of year, determine which management band is in effect. That is important because under the current Lake O control plan there is a different decision process associated with each band relative to how much water can be released.

As shown in the previously referenced graphic, if the height of the water is between 12.5 feet and 15.5 feet, that indicates that a number of possible sub-bands are in effect, two of which are referred to as the low and the base flow sub-bands.

To illustrate how the process works, assume that the lake has a depth of 13.5 feet. If that reading was taken at the end of May, that would mean that the height of the water was in the low subband. However, if the reading was taken during the majority of the year, it would indicate that the height of the water was in the base flow sub-band.

As noted, the determination of the management band triggers a process in the Lake O control plan that is used to determine how much water can be released. The process takes into account a number of factors including the likelihood of significant rain. For those who can work through a detailed flow chart, this graphic outlines the process the Army Corps uses.

Some examples help to demonstrate the process. If the water was in the low sub-band, one possible result of the process is that the Army Corps could release up to 4,900 cubic feet per second (cfs) of water at S-77, which is the Moore Haven Lock on the Caloosahatchee. However, if the water level is in the range of the base flow sub-band, the Corps can release significantly less water: 450 cfs or less at S-79, which is the Franklin Lock.

The key concept here is that while 13.5 feet is a lot of water for the Lake to hold at the beginning of the rainy season, it is not necessarily a lot of water to hold for the majority of the year. The process the Army Corps uses takes that into account and adjusts its releases accordingly.

The above discussion demonstrates a strange aspect of the current water release schedule: the water releases can be measured at different points on the river, and that is why we are advocating that the releases be measured at just the Franklin Lock.