

## DAVIS POND OPERATIONAL PLAN 2021

From December through May, the intent is to operate the diversion to maintain the seasonal average salinity at the 15 ppt line illustrated in the map below (Figure 1). December- May operations will be based on data from the Barataria Bay N Grand Terre gauge specified by the map (Figure 1) and graph below (Figure 2). From June through November, operations will be based on the monthly salinity range at the 5 ppt line specified by the map (Figure 1) and graph (Figure 3) below, utilizing the Little Lake Bay Dos Gris gauge as the primary gauge. Barataria Waterway at Mud Lake S of Lafitte will also be monitored, and utilized as a secondary gauge for the 5ppt line. The structure will be operated when the 14-day moving average salinity is within or above the long term data range for the gauge(s) in use. When the moving average drops below the low trigger (the greater of the long term average minus 1 SD or 5ppt) the diversion operations will be maintained at the minimum of 1,000cfs until the moving average re-enters the operational range.\* Operational settings are not to exceed 10,000 cfs.

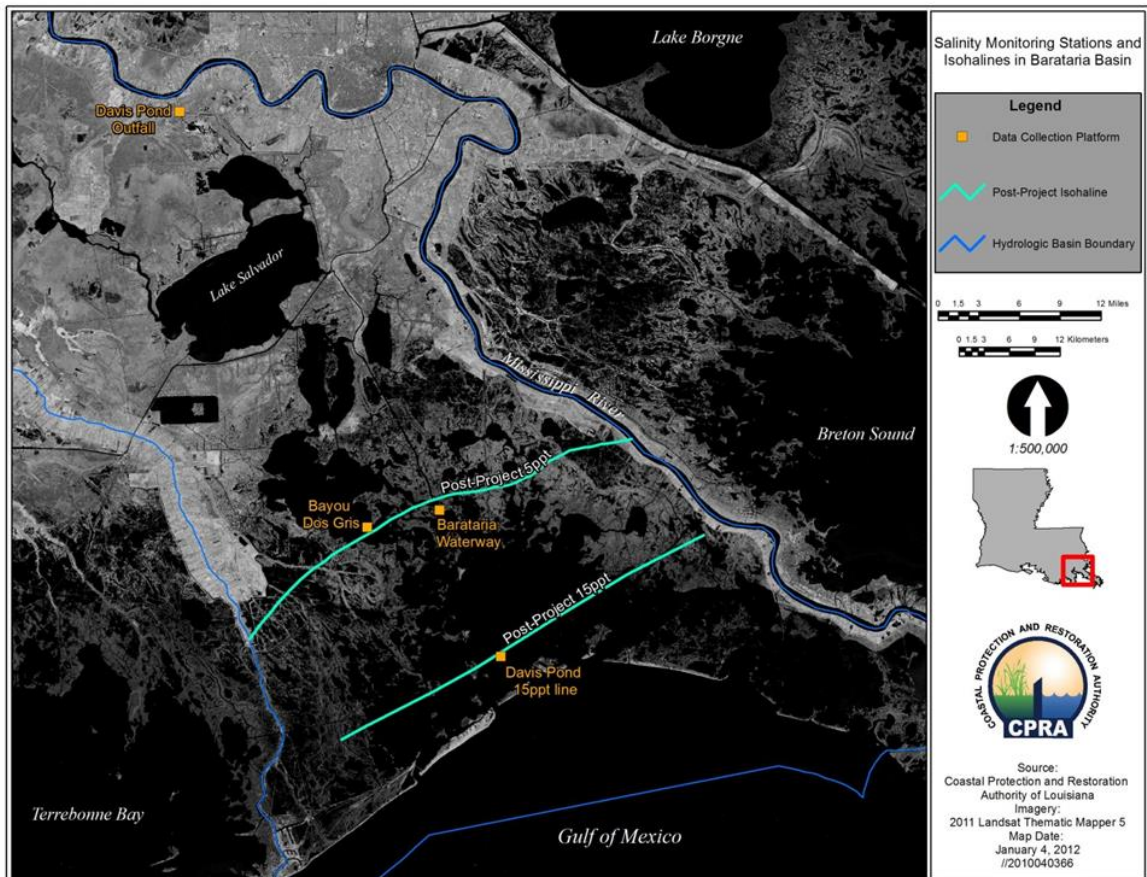


Figure 1. Map of salinity gauges and isohaline lines in Barataria Basin to be used for guidance and operation of the Davis Pond Freshwater Diversion.

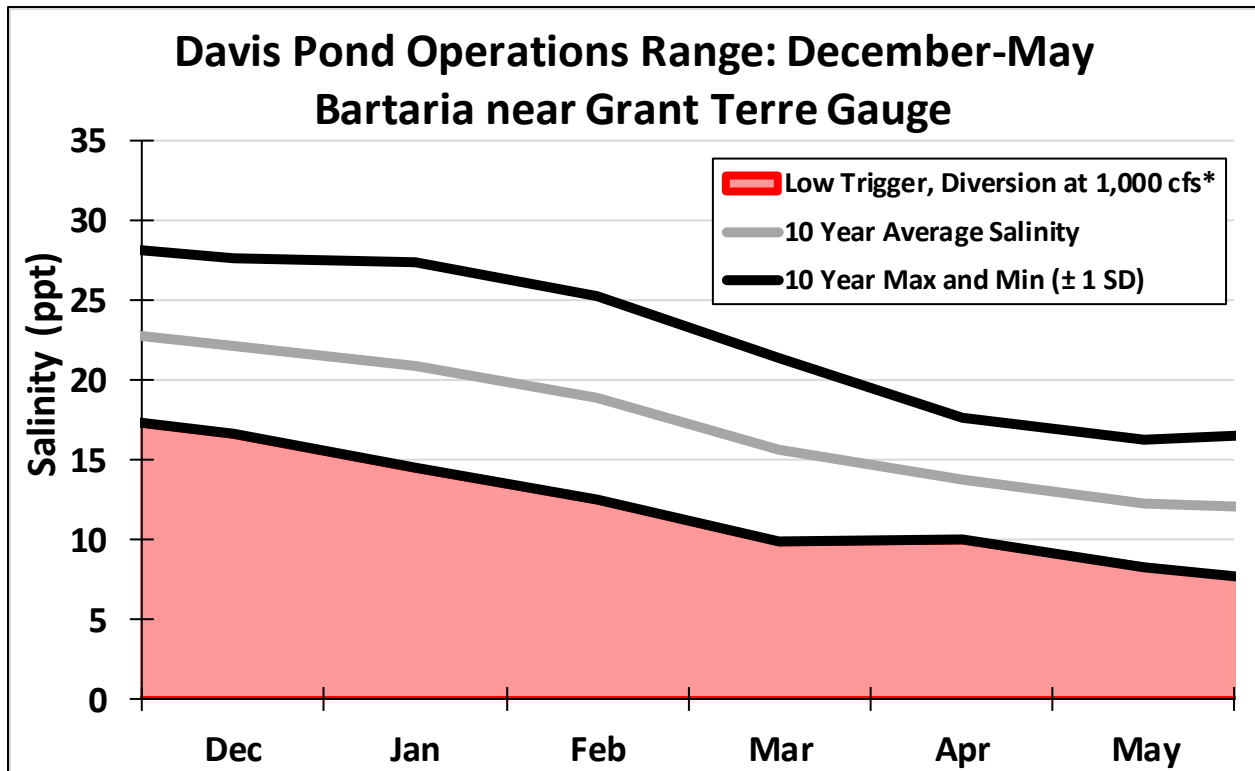


Figure 2. Ten year average ( $\pm 1$  standard deviation) salinities from the Barataria Bay N of Grand Terre Gauge (USGS site 291929089562600). From December through May the Davis Pond Freshwater Diversion structure may be operated when the 14-day moving average salinity is within or above the data range. Operations will be decreased to the minimum of 1,000cfs if the moving average drops below the low trigger.\*

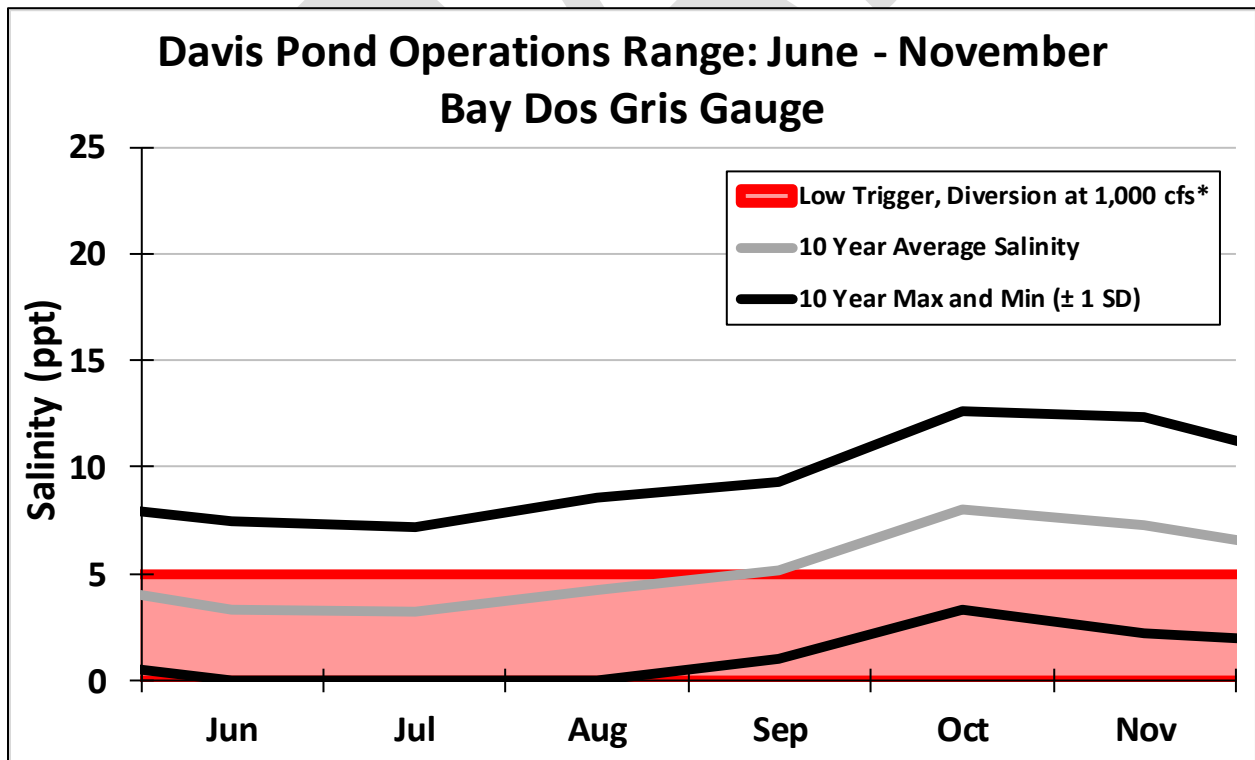


Figure 3. Long term average ( $\pm 1$  standard deviation) salinities from the Little Lake Bay Dos Gris (USGS site 292800090060000). From June through November the Davis Pond Freshwater Diversion structure may be operated when the 14-day moving average salinity is within or above the data range. Operations will be decreased to the 1000cfs minimum if the moving average drops below 5ppt.\*

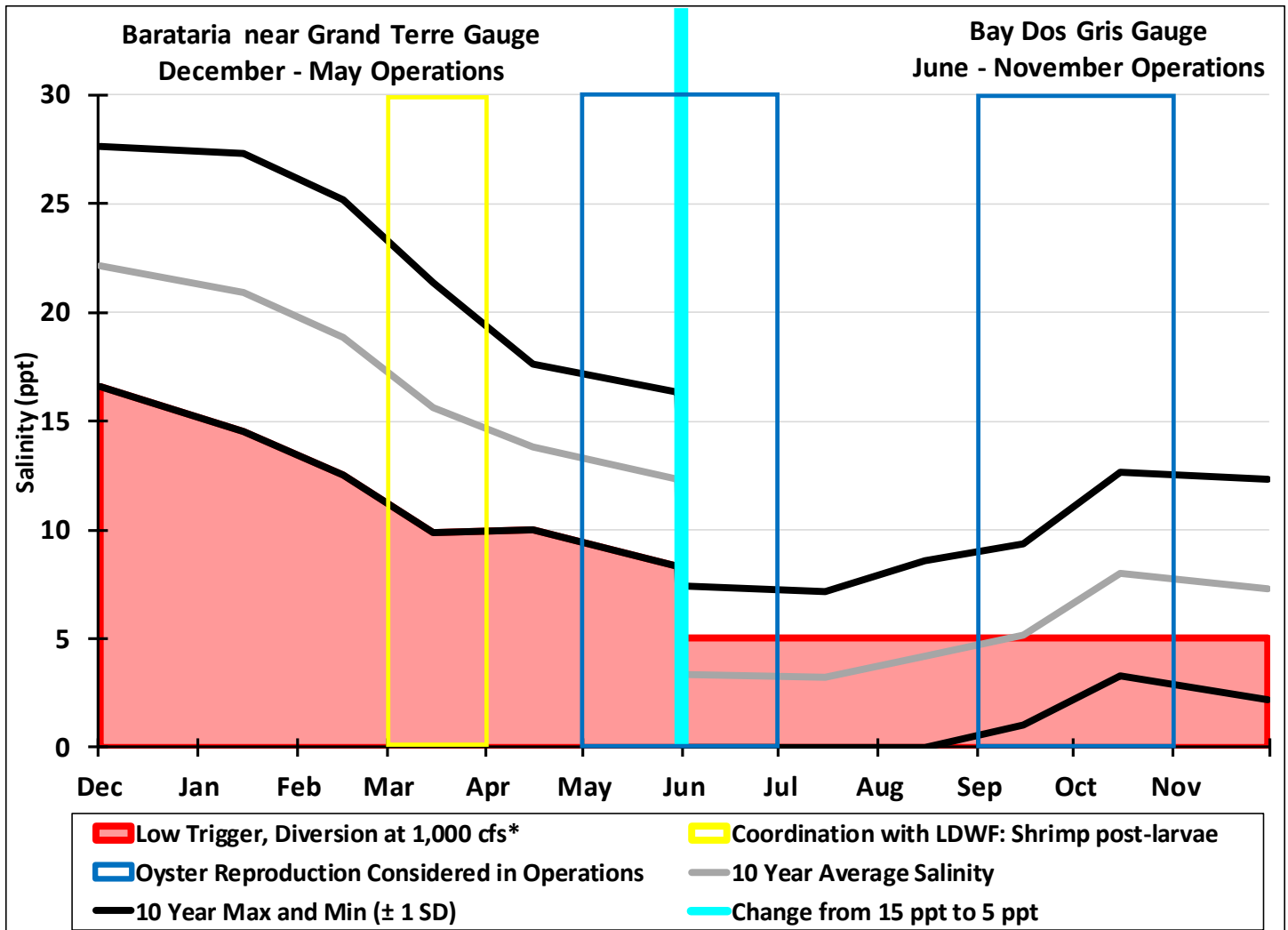


Figure 4. Ten Year average ( $\pm 1$  standard deviation) salinities from the Barataria Bay N Grand Terre Gauge (USGS site 291929089562600) from December through May, and the Little Lake Bay Dos Gris (USGS site 292800090060000) gauge from June through November. The Davis Pond Freshwater Diversion structure may be operated when the 14-day moving average salinity is within or above the data range. Operations will decrease to the minimum of 1000 cfs if the moving average drops below the low trigger. \*

\* Discharges may deviate from operational plan as outlined below:

- Emergency, maintenance and local parish situations will be evaluated on a case-by-case basis to determine operational needs. The Davis Pond Interagency Advisory Committee shall be notified if operations outside of the plan are required.
- Structure may be operated for public relations and/or educational purposes, though output is not to exceed 5,000 cfs for a duration of no longer than 2 hours.
- Coordination with LDWF during post-larval brown shrimp migration period and oyster reproductive seasons to assist in operational decisions/adjustments to maximize benefit.