

greatest benefit from CLA are the years when a reduction in the lake stage could help prevent a tropical or other rain event from causing the lake stage to rise above Zone D; for example 1966 (Figure 4), 1979-80 and 1982 (Figure 5) and 1993 (Figure 6).

4.2 VEGETATION

4.2.1 PROPOSED ACTION, CLASS LIMIT ADJUSTMENT

Lake Okeechobee

Modeling results (reference Water Resources Advisory Commission Lake Okeechobee Workshop in Appendix B, pages 22-24) indicate that the CLA alternative reduces the occurrence of lake stages above 17 feet compared to the base, and also improves the seasonal variation of lake stages. These responses are anticipated to have benefits for submerged aquatic plants in the lake's shoreline and littoral areas, and this in turn is expected to have benefits for fish that use those plant communities as essential spawning and foraging habitat. Increased submerged plant biomass also is known to be associated with improved water quality, because plants and their associated periphyton remove nutrients from the water, which lessens the risk of shoreline algal blooms (Haven, et al., 2004b).

St. Lucie

The St. Lucie Estuary performance was evaluated by counting the number of times during the 36-year (432 months) simulation that the average monthly flows to the estuary exceeded specific flow limits. The summary of the mean monthly flow envelope can be found below in **table 3**.

Table 3. St. Lucie Estuary Mean Monthly Flow Envelope Summary

Total inflows to SLE (basin runoff from C23,C24, C44, etc, plus LOK releases) (mean monthly cfs)	BASE (months)	CLA (months)	CLA-BASE (months)
< 350 cfs (less is better)	136	129	-7 (better)
350-2000 cfs (more is better)	231	235	+4 (better)
2000-3000 cfs (less is better)	33	40	+7 (worse)
> 3000 cfs (less is better)	32	28	-4 (better)

Source: SFWMD Technical Report (Appendix B)

As table 3 indicates, there is an increase in the moderate discharges to the St. Lucie Estuary. When low to moderate releases are done over a longer time-frame and in an estuarine-sensitive manner, then there may be some avoidance of the