APPENDIX J

CUMULATIVE EFFECTS ASSESSMENT

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The no action alternative would allow the SJMCA to drain into the TFMCA, degrading the SJMCA habitat and providing an influx of fresh water that will eventually further dilute the salinity in Indian River Lagoon. The channel and levee construction and subsequent water redirection has as a purpose, the re-direction of runoff water into the TFMCA. The assessment methodology used is whether the planned work will result in a diminution or an enhancement of habitat for the species found in the area, and whether a significant change will take place in the ecosystem or not.

The resulting flooding of the TFMCA is expected to convert the area from a wet marsh to open water habitat. This will reduce habitat for such species as the Eastern indigo snake and the crested caracara. However, these species can find suitable habitat immediately west in the SJMCA, and the specimens present are expected to relocate without impact. Optimal habitat conditions will be created for the wood stork in the same area, and potential forage habitat for the bald eagle will increase.

The TFMCA will provide enhanced habitat for a variety of fish species and it's supporting food chain, including microorganisms such as plankton consumed by the fish and the bird and other species that in turn will feed from the fish.

An ancillary effect of the work will be to reduce the flow of fresh water diluting the natural salinity of Indian River Lagoon.

No significant cumulative effects are expected as a result of the proposed work, since the object of the work is precisely to reverse the ongoing degradation of SJMCA and TFMCA habitat.