**Guest column: Three win-win options for Senate Bill 10**

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*(Photo: CONTRIBUTED PHOTO)*

The tipping point, politically and ecologically, is now. The impacted: two rivers, Martin and Lee counties, Lake Okeechobee, local towns, Glades sugar and vegetable farmers and the greater Everglades system.

Scientists discover, engineers design and politicians fund. Senate President Joe Negron’s original [Senate Bill 10](https://www.flsenate.gov/Session/Bill/2017/00010) bill is what was previously called Component G of the Comprehensive Everglades Restoration Plan. The debate initially hinged on whether to build storage north or south of Lake Okeechobee. Now, it's about land south of the lake and ownership. The shift south is a win. Southern storage is scientifically stronger; north storage is politically more desirable.

Last week, Senate Bill 10 changed from calling for option 1 (a 60,000-acre land buy) to option 2 (a 30,000-acre composite of existing state-owned lands). The new option has roughly the same capacity to hold Lake Okeechobee’s outflows to the St. Lucie River, about 300,000 acre-feet. A third option I have advocated would use the government-owned Holey Land and Rotenberger tracts south of Lake Okeechobee, which combined are about 63,000 acres and would provide 250,000 acre feet of storage. With options 2 and 3, no existing farm land is bought.

Options 1 and 2 reduce discharges of future river dumps of highly polluted Lake Okeechobee water. As adjacent existing stormwater treatment system capacity is available, this stored water would be cleansed. However, flow south into the Everglades is only permissible if total phosphate achieves is 10 parts per billion. Little phosphate reduction occurs in reservoir storage.

Under option 3, a flow-through marsh replaces reservoirs. Its water-holding capacity at any given time would be less than either shallow or deep reservoirs. An advantage of a flow-through marsh is dynamic storage, meaning a flowing system of water storage and simultaneous treatment. Outflow from a flow-through marsh into stormwater treatment areas has two major benefits over reservoir storage: greater annual storage capacity and pre-cleaned treatment.

To achieve benefits called for in Senate Bill 10 would require a new, dedicated stormwater treatment area, regardless of option. The Everglades Agricultural Area’s farm runoff and/or local runoff historically receive the existing stormwater treatment areas' drainage prioritization. This policy benefits the agricultural industry and local communities over rivers, estuaries and the Everglades. An additional dedicated stormwater treatment area will ensure full use of new storage options built under SB 10. This new STA would be more efficient upon receiving water pretreated by a flow-through marsh rather than reservoirs, allowing more Lake Okeechobee flow into the Everglades and not the St. Lucie or Caloosahatchee rivers.

Other advantages of flow-through marshes over reservoirs:

* They are cheaper to build, operate and maintain. If they are gravity-fed, they require less pumps and fuel.
* They reduce pollutants.
* Increased prosperity to lake towns because new agricultural workers would be needed to grow, plant and maintain flow-through marshes for decades.
* Higher probability of more Lake Okeechobee water flowing south.
* Sacred Indian Islands saved from drowning.
* Everglades and Florida Bay plants and animals thrive.
* Greater “storage capacity” to avoid Lake Okeechobee high water events.
* Endangered bird species, Everglades kites and seaside sparrows feed and nest on flow-through marshes' gently sloped edges. Reservoirs and stormwater treatment areas' steep sides prevent suitable habitats.
* More mega-tons of atmospheric carbon dioxide trapped in flow-through marshes.
* New bass and duck habitat potentially created.

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