

Re-evaluation of LORS: Discussion Items

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Re-evaluation of LORS

- The public has an opportunity to assist the Corps in the re-evaluation of the LORS, and to assist the Corps ensure that the requirements of the National Environmental Policy Act will be met.
- Stakeholders will present their unique, and often competing, perspectives – and that's ok.
- Not everyone will be satisfied with the new LORS, but the public process is where the public's concerns can be voiced.

A few topics for discussion associated with regulatory discharges:

Public health impacts

Economic impacts

Environmental impacts

Balancing operational alternatives

Overall comparison of costs and benefits

Public Health Impacts

The primary public health concern is the discharge of Lake Okeechobee water containing toxic blue green algae, whose toxicity increases in salt water.

Exposure to these toxins can causes acute and chronic pubic health effects: from respiratory and gastrointestinal impacts to long-term liver damages and neurological diseases such as ALS and Parkinson's.

How will the Corps evaluate impacts to public health, and ensure that the public's health is not adversely impacted by discharges containing toxic blue green algae?

Economic Impacts

Another key concern is the adverse economic impacts of discharging toxic and otherwise polluted Lake Okeechobee water, including

1. Loss of jobs
2. Impacts to tourism and recreational businesses
3. Cost for health care
4. Loss of real estate value
5. Cost to mitigate effects of destructive discharges

Approx. 80,000 jobs and \$3.8 billion per year in water-related businesses around the St. Lucie and Caloosahatchee Estuaries.

Florida Realtors 2015 report: loss of property values associated with large Lake discharge events

- \$428 million around St. Lucie Estuary
- \$541 million around Caloosahatchee Estuary

How will the re-evaluation adequately ensure that the estuaries and other regions' economies are not adversely impacted by discharges?

Environmental Impacts

We all know of the significant biological resources in the Everglades that need to be protected.

But the estuarine regions also contain national wildlife refuges, state aquatic preserves and other Outstanding Florida Waters, and are home to over 30 endangered and threatened species.

In addition to transporting toxic blue green algae, regulatory releases to the estuaries convey massive amounts of pollution in excess of adopted water quality standards (TMDLs).

Over the last 5 water years, the pollution load in Lake discharges to the St. Lucie and Caloosahatchee estuaries has averaged

- Almost 200,000 pounds/yr of phosphorus
- Over 2.2 million pounds/yr of nitrogen, and
- Almost 30 million pounds/yr of suspended sediment

For the St. Lucie Estuary, concentrations were more than twice the phosphorus and nitrogen TMDLs. The St. Lucie Estuary needs no Lake water. We now know that flows well below the threshold used in the previous evaluation (2,000 cfs) causes harm, perhaps any level of flow.

How will the re-evaluation adequately ensure that the regions' environments are not adversely impacted by regulatory discharges?

Balancing Operational Alternatives

How does the federal government balance the potential impacts to a single protected species in the Everglades vs. the potential impacts to public health and more than 30 protected species in the estuaries?

What changes to normal operations are implemented to reduce inflow to the Lake prior to and during regulatory releases?

Overall Comparison of Benefits and Costs

It appears the area south of the Lake receives the benefits of LORS, while the estuary regions suffer the adverse impacts.

Before the HHD rehabilitation, there was a 1% risk of dike failure at 15 ft.

Assuming that risk has been significantly reduced after almost \$1 billion in repairs:

How does the Corps balance the <1% risk of dike failure at 15 ft vs. 100% certainty of public health, economic and environmental damages when regulatory releases are made at and below 15 ft?

Lake Elevation (ft., NGVD)	Combined Probability of HHD Breach (%)
15	1
17	11
18	45
21	100

(Table H-10.2, 1998 HHD MRR & LORS FEIS, A-3)