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## Why We Must Restore Peak Flows to the Lower Withlacoochee River

Decreased water flow on the Lower Withlacoochee River has been a problem since the Army Corps of Engineers dug the barge canal across the river west of Lake Rousseau and began releasing a large part of the river's intended natural flow into the canal - to the benefit of no one. The long term and catastrophic result of the poor environmental planning and unfortunate engineering that took place here is that water is literally being stolen from the river to be flushed out to sea.



*This area map shows the lower river and the engineered modifications that affect the flow.*

In terms of numbers, it looks like this: currently, the average system flow is approximately 1,540 cubic feet per second (cfs) when calculated as an annual daily flow. The Bypass Spillway, which is the water source for the lower river, has a maximum discharge rate of 1,450 cfs, but the average is less; typically, closer to 1,100 cfs. Most importantly, severing the river channel to create the Barge Canal caused the loss of high peak flows into the lower river, that on occasion used to exceed 6,000 cfs.

Decreased flow has multiple negative consequences for the river and our communities, with the most critical impact stemming from the loss of high peak flows. Why is this? Because high peak flows were strong enough to regularly scour the river bottom.

### **HABITAT HEALTH**

The scouring effect that was seen during high peak flows as a natural result of heavy summer rain or tropical weather that regularly cleaned out the accumulating river sediments. **These scouring high flows were essential to keep the river running wide, deep and free of scum and other pollutants that build up on the bottom.** The recent lack of scouring has allowed the river to fill with detritus that includes rotting plant matter, leaves, and more. Debris prevents light from penetrating to the natural bottom, in turn inhibiting aquatic grasses from growing - grasses that would provide food and shelter for marine life and that would also help to naturally consume excess nutrient pollution.

## **FLOOD RISK**

Insufficient flow is also causing the river to slowly lose depth and volume. A gradually shrinking, new, smaller channel becomes less capable every year of handling high water events brought on by unusual tides, strong west winds, and/or heavy rains.

Before the construction of the barge canal, flooding was not an issue for the towns of Inglis or Yankeetown. The founders of our towns built their homes and businesses here, knowing the lower river would not wash them out during heavy rain. Logically it follows that the historic volume of water the river handled then could be handled now, if the Lower Withlacoochee was allowed to once again flow as nature intended.

## **SALT WATER INTRUSION DAMAGE**

The decreased flow of freshwater is also contributing to the influx of seawater at the lower river. Earlier this year we learned from Florida Wildlife Commission that **oysters are being seen a half mile further up the Withlacoochee River than ever before. People should realize that this is about salt-water intrusion and not about good news for oysters.**

This intrusion is an ongoing and increasingly serious menace that has already killed the old strands of cypress and now threatens the very trees that hold the outer islands and marshes in place. These trees protect the river mouth and our coastline from storm weather. Without a generous flow of fresh water to flush out incoming salt water from the Gulf, the trees and plants holding the land in place will perish, and the islands will wash away. And without the protection afforded by our outer islands and marshlands, increased coastal flooding during tropical events will become a greater certainty.

## **SECURING OUR DRINKING WATER**

And finally, without enough flow of freshwater coming down river, the plumes of salt water intruding into the river will eventually reach the water table, impacting the towns' drinking water supply and contaminating private wells. Needless to say, that impact would be devastating to the communitiess.

**We must act now**, to restore peak flows to our lower Withlacoochee River.



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