



P.O. Box 2627, Stuart, FL 34995

772-225-6849

Date: May 12, 2009

To: Governor Charlie Crist, Florida Legislature, South Florida Water Management District, and the Florida Department of Environmental Protection

From: Rivers Coalition

RE: Phosphorus Bomb Presentation

Dear Everglades Restoration Leaders,

The Rivers Coalition, representing 54 organizations in Martin and St. Lucie Counties, finds that action is urgently needed to curtail excessive uses and loading of phosphorus into our estuaries and water bodies.

The immense and growing threat of damages due to excess phosphorus was detailed in a presentation to the Rivers Coalition by Florida Audubon's Dr. Paul Gray. Following are factual highlights from the talk.

His program entitled "The Phosphorus Bomb: Nutrients Are Sabotaging Restoration" covered severe impacts of massive phosphorus loading, including the fueling of toxic algae blooms, rapid accumulation of mud sediments, declining water quality, dead zones and loss of biological diversity in our waters, plus large impacts to economies that rely on clean waters. Significant, and often senseless, problems due to past and present phosphorus applications by humans in the Okeechobee and St. Lucie watersheds were documented.

The Rivers Coalition must conclude that not nearly enough is being done to curb the phosphorus problem. Specifically, agricultural and urban-turf Best Management Practices are not designed to meet water quality standards, and they continued fertilizing at rates that make our watersheds more phosphorus enriched each year, at the very time we hope the phosphorus problem will improve. Specifically, Best Management Practices are not designed to meet water quality standards, and they allow the continued addition of phosphorus to our watersheds, at the very time we are trying to recover from past dumpings. Grossly excessive distributions of human solid wastes are ongoing, with some individual properties receiving more phosphorus each year than the *entire* annual load (TMDL) for Lake Okeechobee!

The Rivers Coalition considers the continued loading of phosphorus in our watersheds and water bodies a massive degradation, and an emergency. We request that you correct the ongoing phosphorus overloading by changes to BMP allowances in the Northern Everglades legislation, and through rule making by FDEP. Residuals dumping must be banned and facilities ordered to switch their disposal to landfills, or preferably, to energy generation, similar to the City of Sanford's efforts.

Lastly, Everglades Restoration must have active support for finishing the River of Grass acquisition, in order to allow more area for treatment, storage and to facilitate moving Lake Okeechobee's water away from the estuaries, where it is harmful, and into the Everglades, where it will be beneficial.

We must all unite to defuse this extremely damaging nutrient bomb.

Leon Abood and Board of Directors
Rivers Coalition
May 12, 2009

PS: A pared down version of Dr. Gray's presentation is posted on the RiversCoalition.org website.



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Highlighted facts from THE PHOSPHORUS BOMB

- Lake Okeechobee's annual phosphorus goal (TMDL) is only 105 metric tons of phosphorus, but it's watershed has an estimated 190,000 metric tons of "legacy" phosphorus that will create water quality problems for decades, if not centuries,
- We continue adding 5,600 *more* tons of phosphorus to the Lake's watershed every year, further exacerbating the legacy problem (5,600 tons is enough to meet Okeechobee's TMDL for another 53 years),
- Recent actual annual phosphorus loads to Lake Okeechobee have been 5-6 times the lake's TMDL,
- Recent phosphorus loads to the St. Lucie Estuary and Southern Indian River Lagoon also have in the hundreds of tons--more than the Lake's TMDL—even though these water bodies are only 1/12th the size of Lake Okeechobee,
- Agricultural and Urban Best Management Practices (BMPs) allow continued fertilizing at "agronomic rates" that are *not* designed to meet water quality goals and will allow ongoing loading and water quality problems, for example:
 - Sugar BMPs allow a net loading of perhaps 10 more pounds of phosphorus per year, meaning the 350,000 acres of sugar cane in the EAA likely are adding as much as 1,590 additional tons of phosphorus each year,
 - Urban turf BMPs allow fertilizing at about 100 times the level that a unit of land in Okeechobee's watershed would ideally shed phosphorus
- Land applications of residuals is putting vast amounts of phosphorus in these watersheds, for example:
 - St. Lucie County received almost 34,000 tons of Class B residuals in 2004, mostly from lower east coast counties, containing more than 1,000 tons of phosphorus (i.e., roughly 10 times the TMDL of Lake Okeechobee in one county that drains into the St. Lucie and Indian River Lagoon!),
 - Martin County does not allow class B residuals but received about 12,000 tons of Class AA residuals, with similar nutrient profiles, in 2006 and 2007,
 - Lake Okeechobee's watershed annually receives at least 1,500 tons of Class AA and B residuals, roughly 15 times the lake's TMDL,
 - Several individual properties are receiving more than 105 tons of phosphorus in residuals each year (i.e., more than the lake's TMDL),
 - And, FDEP does not even compile annual Class AA and B residuals reports detailing how much nutrient loads are occurring, or where.

Conclusions from Dr. Gray's presentation

- Present projects, including the Indian River Lagoon South-component of CERP and Northern Everglades plans for Lake Okeechobee and the St. Lucie Watersheds, while meritorious and deserving of immediate funding, must include more nutrient control measures, specifically:
 - Residuals dumping of either Class B or AA (both have the same nutrient concerns) must be stopped. Residuals can be used for biofuels and other beneficial products and should not be allowed to be harmfully dumped,
 - All phosphorus imports must be halted or greatly reduced, and if certain sectors cannot attain a nutrient balance, water quality treatment must be installed on-site to reach appropriate goals,
- Much more Lake Okeechobee water must be sent south to the Everglades and away from the St. Lucie Estuary:
 - This requires the capacity to store and treat more than a million acre-feet of Okeechobee's water in the EAA, which in turn requires finishing the River of Grass acquisition,
- More water storage north of the lake is needed to improve water quality and the overall movement of water throughout the system.