

SUMMARY: INDIAN RIVER LAGOON BASIN MANAGEMENT ACTION PLANS (BMAPs)



Overview

Seagrass are important to the ecological and economic health of the Indian River Lagoon (IRL). Economic studies have shown that a healthy lagoon increases property values, tourism, and fishing activities which, in turn, support the local economy. The Banana River Lagoon (BRL), North IRL, and Central IRL are impaired for nutrients based on seagrass losses, which prompted the development of total maximum daily loads (TMDLs) for nutrients, both total nitrogen (TN) and total phosphorus (TP). The draft implementation plans for controlling nutrients in each of these subbasins are called basin management action plans (BMAPs). **Comments are welcome on the draft BMAPs until December 7th; the plans will be legally adopted in early 2013.**

BRL and North IRL BMAPs

The seagrass data from 2003-2009 indicate that the **BRL seagrass in the southern zone ("BRL B"), which is the area south of the State Road 528 Causeway, are not meeting their targets and additional stormwater reductions are needed in the first 5-year BMAP cycle. The seagrass in the northern zone ("BRL A"), which is the area north of the State Road 528 Causeway, are meeting their target and further reductions are not currently required.** These seagrass data also indicate that the **North IRL seagrass are not meeting their targets and additional stormwater reductions are needed in the first 5-year BMAP cycle**, in both the northern zone ("North A"), north of the NASA Causeway, and southern zone ("North B"), south of the NASA Causeway. The most recent data for BRL B and North IRL also indicate that additional reductions will be needed in the second 5-year cycle, and **therefore those stormwater programs should plan their long-term capital improvement programs (CIPs), utility fees, and maintenance activities accordingly.** The additional projects will take substantially more effort, since this BMAP accounts for the reductions from projects performed over 13 years (2000-2012).

Brevard County included projects in the BRL BMAP that are completed (since the year 2000), ongoing, or planned within the next five years including:

- Education and outreach;
- Street sweeping;
- Wet detention ponds;
- Baffle boxes;
- Baffle box retrofits;
- Managed aquatic plant systems; and
- Other best management practices.

In addition, **Brevard County included the following projects in the North IRL BMAP:**

- Education and outreach;
- Street sweeping;
- Wet detention ponds;
- Baffle boxes;
- Baffle box retrofits;
- Managed aquatic plant systems;
- Stormwater reuse; and
- Other best management practices.

Through these projects, the County has met its reduction requirements for the first five years in both the BRL and North IRL BMAP.

When adopted, **the BMAP becomes the compliance schedule for nutrient load reductions.** Each stormwater entity has a specific load reduction assigned, a list of projects to achieve load reductions, and a project deadline of no more than 5 years from BMAP adoption. While **the project list is flexible and can be amended through the annual reporting process, the compliance schedule is not.** When a stormwater entity has a municipal separate storm sewer system (MS4) permit, **BMAP compliance is linked to the MS4 permit and the permit penalties for noncompliance.** If an urban stormwater entity is not a permit holder, the adopted BMAP provides enforcement authority. **For agricultural**

operations, **best management practice (BMP) implementation is required or grower-funded water quality monitoring** must be implemented to demonstrate that the operation is not a contributing source.

Central IRL BMAP

The seagrass data from 2003-2009 indicate that the **Central IRL seagrass have responded to water quality projects in the past 10 years and were meeting their targets.** This impressive result is due to project and programs to prevent nutrient inputs and to treat stormwater before it reaches the IRL.

Examples of the types of local and regional projects that have reduced nutrients include:

- **Diverting historic flows** back to the Upper St. Johns River;
- **Removing domestic and industrial wastewater discharges;**
- **Adding wet detention ponds** to treat stormwater;
- **Street sweeping** to prevent materials from entering stormwater;
- **Dredging** problematic muck deposits;
- **Maintaining stormwater ponds, baffle boxes, swales, and retention areas;** and
- **Improving public education** on fertilizer practices, pet waste, landscape irrigation, and planting choices.

Since seagrass were meeting targets, the Central IRL BMAP focuses on maintaining the existing water quality infrastructure, promoting maintenance activities, supporting public education, and listing projects planned in the next 5 years. While future projects are not required, **it is important for the IRL to maintain its water quality and to lessen the impacts of growth and human activities.**

Brevard County included projects in the BMAP that are completed, ongoing, or planned within the next five years including:

- Education and outreach;
- Street sweeping;
- Wet detention ponds;
- Baffle boxes;
- Managed aquatic plant systems; and
- Other best management practices.

Next Steps

It is notable that there were **significant algal blooms in the IRL in 2011 and 2012**, and these blooms have caused seagrass die-off and the extent of the damage is not yet known. The BMAPs include research objectives and monitoring plans to further the understanding of the causes of water quality problems in the IRL Basin. Local governments can support a healthy IRL and potentially minimize future requirements by considering the following actions:

- **Adopt and/or promote local ordinances** that encourage proper fertilizer use, trash and yard waste disposal, irrigation, and pet waste disposal.
- **Maintain and improve stormwater treatment**, particularly in areas that were built before treatment was required. Recognize that **funding stormwater operations** is an important local responsibility.
- Review local permit requirements for growth and development to **promote adequate stormwater treatment.** It is much cheaper and easier to prevent pollution than it is to treat stormwater. Prevention and on-site treatment is the most efficient approach.

The draft BMAPs are available for your review and comment at http://publicfiles.dep.state.fl.us/DEAR/BMAP/IndianRiverLagoon/BMAP_Documents/. Please send any comments to the FDEP staff listed below. We appreciate your interest and support of a healthy lagoon that meets water quality standards.

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