



*Florida Department of
Environmental Protection*

Banana River Lagoon Basin Management Action Plan

August 2, 2012



Overview of the BMAP

DRAFT

BASIN MANAGEMENT ACTION PLAN

for the Implementation of Total Maximum Daily Loads for Nutrients
Adopted by the Florida Department of Environmental Protection

in the

Indian River Lagoon Basin Banana River Lagoon

developed by the
Banana River Lagoon Stakeholders

in cooperation with the
Florida Department of Environmental Protection
Division of Environmental Assessment and Restoration
Bureau of Watershed Restoration
Tallahassee, Florida 32399

July 2012





Acknowledgments

- The acknowledgements table was updated to list organizations, instead of individual names.
- The table lists allocation entities, agencies, and other interested parties.





Executive Summary

- The first paragraph was revised to better explain the extent of the Banana River Lagoon (BRL) subbasin and to note that BRL is a negative estuary.
- Additional details were added to explain the seagrass depth limit targets in the total maximum daily loads (TMDLs).
- Text was added to explain the reductions in this BMAP iteration are 15% of the TMDL reductions, and that a second iteration of the BRL BMAP will be needed because BRL B already has two noncompliant years.





Executive Summary, continued

- A new subsection was added, Management Actions and BMAP Enforcement.
 - Describes what management actions were eligible in this BMAP iteration.
 - Summarizes BMAP enforcement mechanisms.
- A new subsection was added, Economic Benefits of the IRL System.
 - Summarizes the economic benefits of restoring the IRL.
- BMAP cost information was updated.





Comments and Questions on Executive Summary





Chapter 1: Context, Purpose, and Scope of the Plan





Water Quality Standards and BMAP Approach

- The water quality standards (Section 1.1) information was updated to reflect that the BRL subbasin waters are Class II not Class III.
- The BMAP approach (Section 1.3.3) was updated to clarify that the required reductions in this BMAP iteration are 15% of the TMDL reductions.
- Also added information in this section that reductions in future years will be more difficult to achieve because this iteration included credit for past projects.
- New maps for Figures 1 -3 were added.





TMDLs Addressed in the BMAP

- Section 1.3.5 was updated to clarify how the TMDL seagrass depth limit targets were determined.
- Table 3 was updated to include:
 - The correct name for WBID 3057A;
 - TN and TP totals; and
 - A footnote to explain what the percentage means in the stormwater wasteload allocation column.





New Considerations for Future Iterations

- Areas with stormwater treatment - At the time of TMDL development, areas with stormwater treatment areas were not well mapped. During the next BMAP iteration, FDEP or SJRWMD will review available data and make adjustments to the treated areas in the model, as needed.
- Event mean concentrations (EMCs) and runoff coefficients (ROCs) - More accurate and extensive EMCs and ROCs have been added to FDEP's database. During the next BMAP iteration, FDEP or SJRWMD will review available data and make adjustments to the EMCs and ROCs in the model, as needed.





New Considerations, continued

- Ground water loads - The nutrient loading from the surficial aquifer was implicitly included in the TMDL modeling as part of the watershed flow and loadings. The stakeholders expressed concern that the ground water loads were not sufficiently accounted for in the. In future iterations, FDEP or SJRWMD will evaluate any available ground water data and utilize this information, to the extent possible, in the modeling.



Future Growth in the Basin

- Information was added about the new “10/2” general permit.
 - Developers have the option of obtaining a general permit for construction of systems serving up to 10 acres, with less than 2 acres of impervious area and no wetlands impacts.
 - This general permit would be in lieu of an Environmental Resource Permit.
 - Developer must demonstrate that the project does not cause adverse impacts, including violations of state water quality standards.
 - Local governments cannot require that the developer obtain a permit from a state or federal agency as a condition of issuing a permit.
- Also added language about the importance of local governments being proactive to address loading from future growth.





Economic Benefits of the IRL System

- This new section was added to describe the economic benefits of improving the lagoon.
- Summarized the findings from the Hazen and Sawyer report prepared for the IRL National Estuary Program (NEP) in 2008.





Comments and Questions on Chapter 1





Chapter 2: Banana River Lagoon Basin Setting





Basin Hydrology

- Additional text was added to explain that the BRL functions as a negative estuary.
- Removed reference to impacts from causeway construction because of conflicting information in different reports.
- New Figure 4 was added and the date of the land use coverage (2000) is included.



Seagrass Evaluation

- The BRL A project zone is compliant with the seagrass depth limit target:
 - For the period of 2003-2007 and the period of 2005-2009.
- The BRL B project zone is not meeting the seagrass depth limit target:
 - For the period of 2003-2007 and the period of 2005-2009.
- Therefore, reductions are required in this iteration of the BMAP for only the stakeholders in the BRL B project zone.
- The text was updated to include 2009 data as part of the evaluation description.





Comments and Questions on Chapter 2





Chapter 3: Pollutant Sources and Anticipated Outcomes





Sources in the TMDL

- New Section 3.3 was added to describe non-MS4 stormwater sources and enforcement of BMAP activities for these sources.





Enforcement of BMAPs

- A BMAP is developed collaboratively with stakeholders to meet provisions in Section 403.067(7), Florida Statutes (F.S.).
- For point sources, BMAPs are enforceable through WWTF and MS4 National Pollutant Discharge Elimination System (NPDES) permits.
- For nonpoint sources, BMAP projects are enforceable through the BMAP itself.
- For agriculture, best management practices (BMPs) or monitoring is required.
- BMAPs are adopted by FDEP Secretarial Order.





Comments and Questions on Chapter 3





Chapter 4: Detailed Allocations





Allocations

- The baseline loads in Table 9 were updated to show the correct loading for each entity.
 - Total row was added at the bottom of the table.
- The *de minimus* tables and the total required reduction tables were added to this chapter.
- New Sections 4.5.3 and 4.5.4 were added to explain that the non-MS4 entity and agriculture, respectively, in the BRL B project zone are both *de minimus* and, therefore, do not have allocations.





Comments and Questions on Chapter 4





Chapter 5: Management Actions





Management Actions

- The summary tables in Chapter 5 were updated to include a column with credit for future BMAPs.
- The provisional credit for floating islands (Section 5.3.1) was clarified to state that the 20% credit is applied to the TN and TP load remaining after treatment by the stormwater pond.
- The provisional credit for public education and outreach (Section 5.3.2) was clarified to state that the 6% credit is applied to the anthropogenic starting load.
- A summary of the provisional credit for aquatic vegetation harvesting (Section 5.3.4) was added.





Comments and Questions on Chapter 5





Chapter 6: Assessing Progress and Making Changes





Seagrass Evaluation

- In year four of the BMAP, FDEP will use the 2007, 2009, 2011, and 2013 seagrass mapping data to reassess seagrass depth limit compliance.
 - Clarified that these will likely be the latest data available at that time.
- Text was revised to clarify that a second BMAP iteration will be needed since 2 of these 4 years for BRL B are not compliant.





Monitoring and Research Priorities

- Clarified that the primary monitoring is the only component of the monitoring plan that is required (Section 6.4.1).
- Added new research priorities:
 - Testing/verifying the TN, TP, and seagrass depth regression equations using the seagrass data collected since 1999.
 - Collecting ground water load contribution data and conducting ground water modeling.





Comments and Questions on Chapter 6





Chapter 7: Commitment to Plan Implementation





Commitment to the BMAP

- The stakeholders have worked collaboratively to develop the BMAP.
- The stakeholders have committed to the activities included in the BMAP.
- This chapter will include letters of commitment or resolutions of support for the BMAP provided by the stakeholders.





Letters of Commitment

- Providing a letter of commitment or resolution of support for the BMAP is not required.
- However, stakeholders in other basins have stated that having this letter provides a way to show support for the BMAP as staff and board/commission members change over time.
- An example letter was provided. The wording and format can be modified to meet each stakeholder's needs.





Comments and Questions on Chapter 7





Appendices





BMAP Appendices

- Appendix A: TMDL Basin Rotation Schedule
 - Explains the FDEP watershed assessment cycle.
- Appendix B: Summary of Statutory Provisions Guiding BMAP Development and Implementation
 - Includes excerpts from Sections 403.067(6) and (7) in Florida Statutes
- Appendix C: Summary of EPA-Recommended Elements of a Comprehensive Watershed Plan
 - Outlines key elements in a watershed plan; necessary to obtain certain types of funding.





BMAP Appendices, continued

- Appendix D: Process to Conduct the Seagrass Depth Limit Compliance Evaluation
 - New appendix that summarizes the GIS process to evaluate seagrass compliance.
- Appendix E: Projects to Achieve the TMDL
 - *Please review the information in your project tables carefully.*
- Appendix F: Glossary of Terms
- Appendix G: Bibliography of Key References and Websites





Comments and Questions on Appendices





Steps to BMAP Adoption





Stakeholder and FDEP Staff Actions

Action	Responsible Party	Date
Comments on first Draft BMAP	Stakeholders	Completed
Technical meeting to review updated Draft BMAP	FDEP and Technical Stakeholders	August 2, 2012 (today)
Comments on second Draft BMAP due	Stakeholders	<i>August 24, 2012</i>
Policy briefing on final Draft BMAP	FDEP, Policy Makers, and Technical Stakeholders	October 2012
Public meeting on BMAP	Public/FDEP	November 2012
Public comment period closes	FDEP	30 days after public meeting
Review of public comments by staff complete	FDEP	1 week after end of public comment period
Letters of commitment due for inclusion in BMAP package to FDEP Secretary	Policy Makers and Technical Stakeholders	End-2012





FDEP Secretarial Adoption Process

- Brief FDEP DEAR management on BMAP.
- Brief FDEP Deputy Secretary on BMAP.
- Brief FDEP Secretary on BMAP and obtain Secretarial approval.
- Notify interested parties and place Florida Administrative Weekly (FAW) notice.
- End of challenge period (21-days after notice).
- BMAP adopted and enforceable (if there are no challenges).





Questions?

