

City of Palm Bay

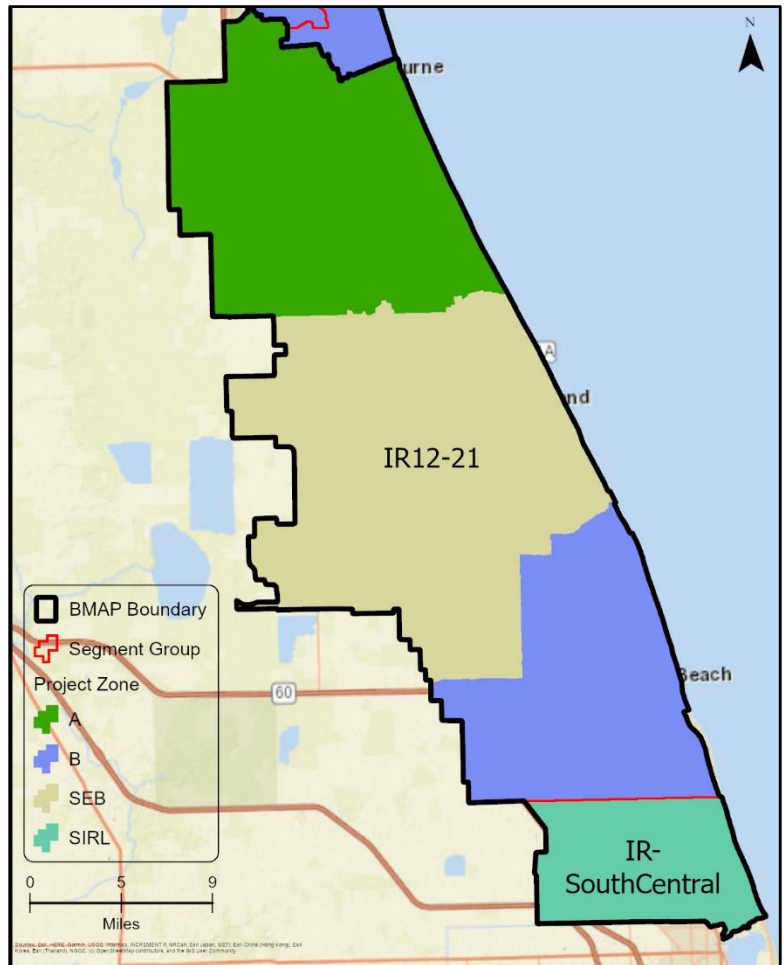
Central Indian River Lagoon BMAP

Draft Allocations April 2020

Summary:

- Used load estimation tool (LET) developed from SWIL model to calculate total nitrogen (TN) and total phosphorus (TP) starting loads for each total maximum daily load (TMDL) "Segment Group."
- Applied percent reduction from TMDL for each Segment Group (see tables below) to calculate total TN and TP load reduction required for each Segment Group.
- Used LET to calculate total anthropogenic starting load in each Segment Group and determine the percent each entity contributed to the total anthropogenic starting load.
- Multiplied the load reduction required in the Segment Group by the percent each entity contributed to the total anthropogenic starting load to calculate each entity's required reductions within each Segment Group.

Note: Numbers have been rounded for display in this document but were not rounded during the full calculation process.

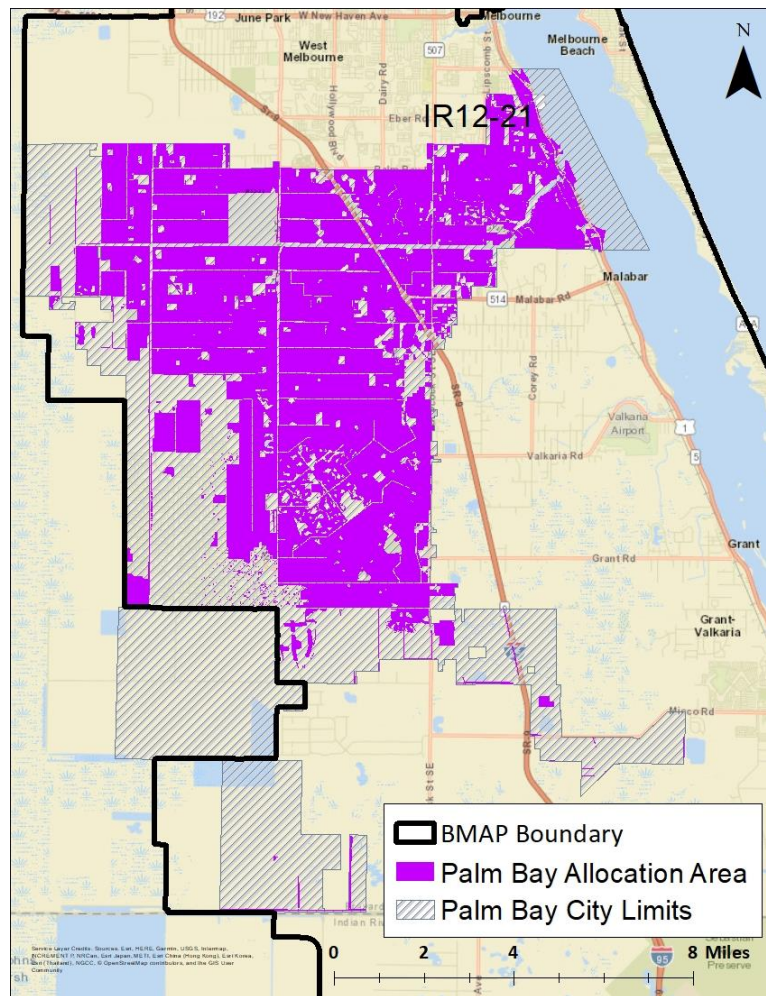


Required Reductions Per TMDL Segment Group

BMAP	Project Zone	TMDL Segment Group	% TN TMDL Total Reduction	% TP TMDL Total Reduction
Central IRL	A, B, SEB	IR12-21	56%	48%
Central IRL	SIRL	IR-SouthCentral	36%	58%

New Load Calculations from SWIL Model

BMAP	Project Zone	TN (lbs/yr)			TP (lbs/yr)		
		Starting Load	Required Reductions	Allocation	Starting Load	Required Reductions	Allocation
Central IRL	A	291,475	208,778	82,697	42,287	24,668	17,619
Central IRL	SEB	2,860	2,269	591	382	239	143
Total		294,335	211,047	83,288	42,669	24,907	17,762



Draft Project Credit Recalculations

Using the LET and geographic information systems (GIS) tools, base loads for the project treatment areas were updated for all projects that require a base load for credit calculations. This allowed the project credits to be recalculated using the same foundation that was used for the updated allocations.

Current verified and completed projects:

Central Indian River Lagoon Project Zone A

TN (lbs/yr)			TP (lbs/yr)		
Required Reductions	Updated Project Credits	% Reductions Achieved	Required Reductions	Updated Project Credits	% Reductions Achieved
208,778	30,974	15%	24,668	4,644	19%

These credits represent the City of Palm Bay's status as of April 2020 – there will continue to be opportunities to submit new projects and obtain additional credits.

Notes:

- There are currently no projects listed in Project Zone SEB.
- We could not locate a treatment area (TA) shapefile for projects **PB-26, PB-33, PB-34, PB-42, PB-44, and PB-45**. Once we receive the TA shapefiles for these projects, the reduction credits can be updated/calculated and added to the City's total reductions.
- Additional information is required to calculate credits for the following projects: **PB-01, PB-17, PB-18, PB-21, PB-29**.
- The acres treated provided in the table do not match the acreage in the TA shapefiles for the following projects: **PB-08, PB-14, PB-19**.
- **PB-42, PB-44, and PB-45** are listed as "Planned" with a completion date of 2019. Information on the status of these projects is requested.
- **PB-27** and **PB-35** appear to be duplicates (education efforts).