

Everglades West Coast (EWC) Loading Calculations

Explanation of Changes Made Since Technical Meeting on March 9, 2011

FDEP has been using a spreadsheet loading model to estimate the total loads associated with each jurisdictional participant in the Hendry Creek and Imperial River within the Everglades West Coast. The results were preliminarily presented at the technical meeting on March 9th using the loading factors defined mostly in the Charlotte Harbor National Estuary Program studies. The results shown at the technical meeting are summarized below:

Hendry Creek

Jurisdiction	Area (acres)	Existing TN (lbs/yr)	Background (lb/yr)	Non-Background (lb/yr)	% of Non-Background	Portion of Non-Background	Allocation	% Reduction	1st 5-yr Load Reduction (lb/yr)
Lee	10,166	60,942	30,719	30,224	97.7%	21,080	51,799	15.0%	3,048
Catalina	111	203	202	1	0.0%	0	202	0.5%	0
Agriculture	98	668	150	518	1.7%	362	511	23.5%	52
Roads	89	313	133	180	0.6%	125	258	17.4%	18
Total	10,464	62,127	31,204	30,923	100.0%	21,567	52,771	15.1%	3,119

Imperial River

Jurisdiction	Area (acres)	TN (lbs/yr)	Background (lb/yr)	Non-Background (lb/yr)	% of Non-Background	Portion of Non-Background	Allocation	% Reduction	1st 5-Year Reduction (lb/yr)
Lee	26,113	97,679	95,879	1,800	1.5%	916	96,796	0.9%	294
Bonita Springs	7,154	36,998	18,960	18,038	14.7%	9,185	28,146	23.9%	2,951
Agriculture	11,597	120,084	17,743	102,341	83.6%	52,114	69,857	41.8%	16,742
Roads	96	317	140	177	0.1%	90	230	27.4%	29
Total	44,960	255,078	132,723	122,355	100.0%	62,306	195,029	23.5%	20,016

Based on comments received during the technical meeting, FDEP re-evaluated the modeling prior to providing the spreadsheets to the stakeholders and found that a few corrections were warranted beyond the suggestions of the stakeholders. To this end, the following corrections were made:

- Loads for saltwater marshes were initially included in the loading. These have been eliminated, affecting not only the Existing Loading but also the Background, both of which have been reduced.
- The runoff coefficient used for agriculture was not correct and was corrected in the new model.
- The Background calculation was not correctly summed, underestimating the Background.
- Incorrect columns were summed for the Hendry Creek background calculation. The correct columns were summed in the new results.

Also, to show the full calculation of each load, the agricultural loading was inserted with the average loading factor for Hendry Creek different than the counterpart for Imperial River (based on original modeling factors). With these changes, the new loading and allocation results are as follows:

Hendry Creek

[illegible]

Imperial River

[illegible]