

## SIMPLE-Monthly Pollutant Loading Model Results - Hudson Bayou TN

**Section 1** TN Loading has decreased by 30% from 2001-2016.  
Irrigation was the component that saw the greatest increase in loading from 2001-2016 (+50%)

**Section 2** Stormwater Runoff is the greatest contributor to TN in the Hudson Bayou, contributing 74% of the total load.

**Section 3** Hudson Bayou is a major TN contributor to the Sarasota Bay watershed.

### Section 1

#### Hudson Bayou

		Total Nitrogen		
Pollutant Loading Trend		Decrease	-30%	2001 to 2016
Components of the Trend				
	Stormwater Runoff	No Change	0%	2001 to 2016
	Baseflow	No Change	0%	2001 to 2016
	Septic Systems	Decrease	-45%	2001 to 2016
	Point Source	No Change	0%	2001 to 2016
	Irrigation	Increase	50%	2001 to 2016
	Atmospheric Deposition	Not Modeled		2001 to 2016

Year	Total	Runoff	Baseflow	Septic	Point Source	Irrigation	Atmospheric
2001	4414.90	2265.33	554.48	170.01	0.00	103.86	0.00
2006	3152.26	2265.33	554.48	177.12	0.05	155.27	0.00
2011	3132.78	2265.33	554.48	97.23	60.47	155.27	0.00
2016	3069.38	2265.33	554.48	94.10	0.20	155.27	0.00

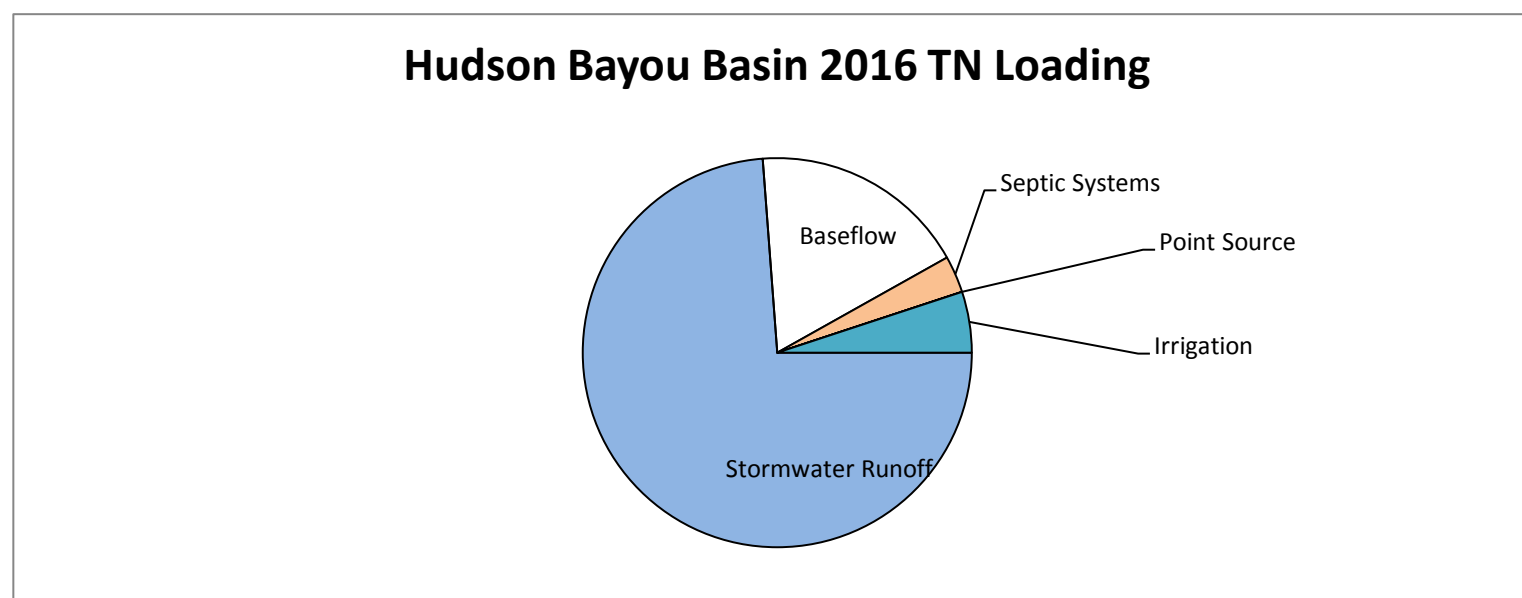
Units are pounds per year and modeled using a typical rainfall year.  
 Jones Edmunds and Associates conducted this modeling for Sarasota County in 2017.  
 Modeling was conducted only for the parts of basins located within Sarasota County.  
 Pollutant loading from Atmospheric Deposition (wet and dry) was conducted only for bays.

### Section 2

#### Hudson Bayou

2016 Pollutant loading is influenced by some sources more than others

		Total Nitrogen	
Stormwater Runoff		74%	
Baseflow		18%	
Septic Systems		3%	
Point Source		0%	
Irrigation		5%	
Atmospheric Deposition		Not Modeled	



### Section 3

#### Hudson Bayou

#### Total Nitrogen

2016 Pollutant loading to the Sarasota Bay watershed has more than one source

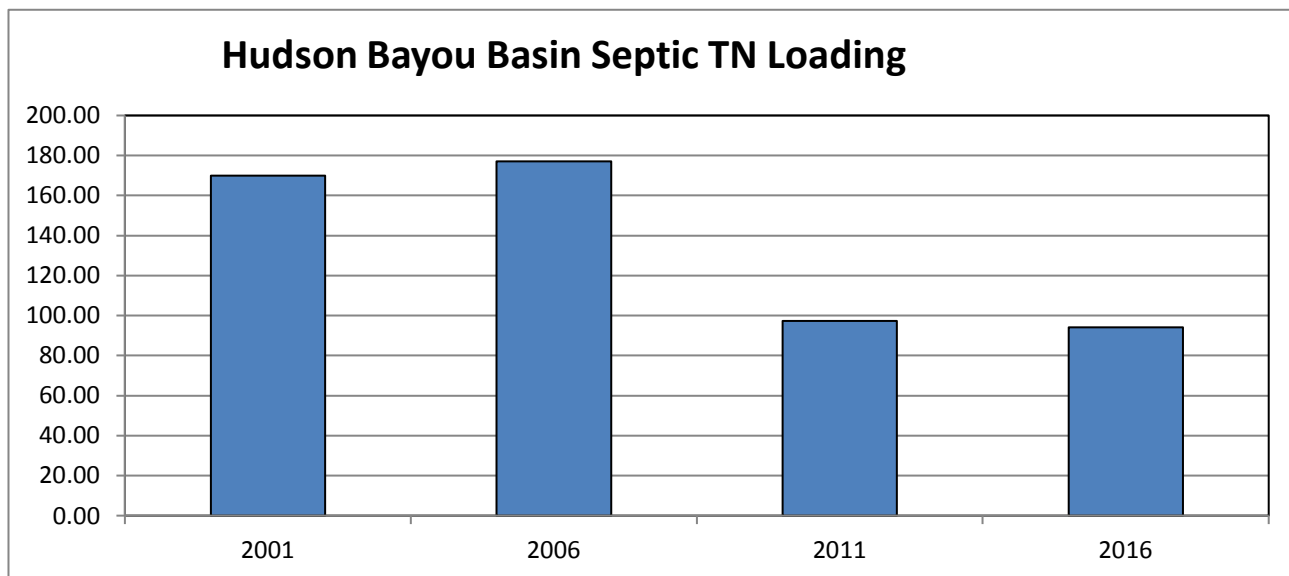
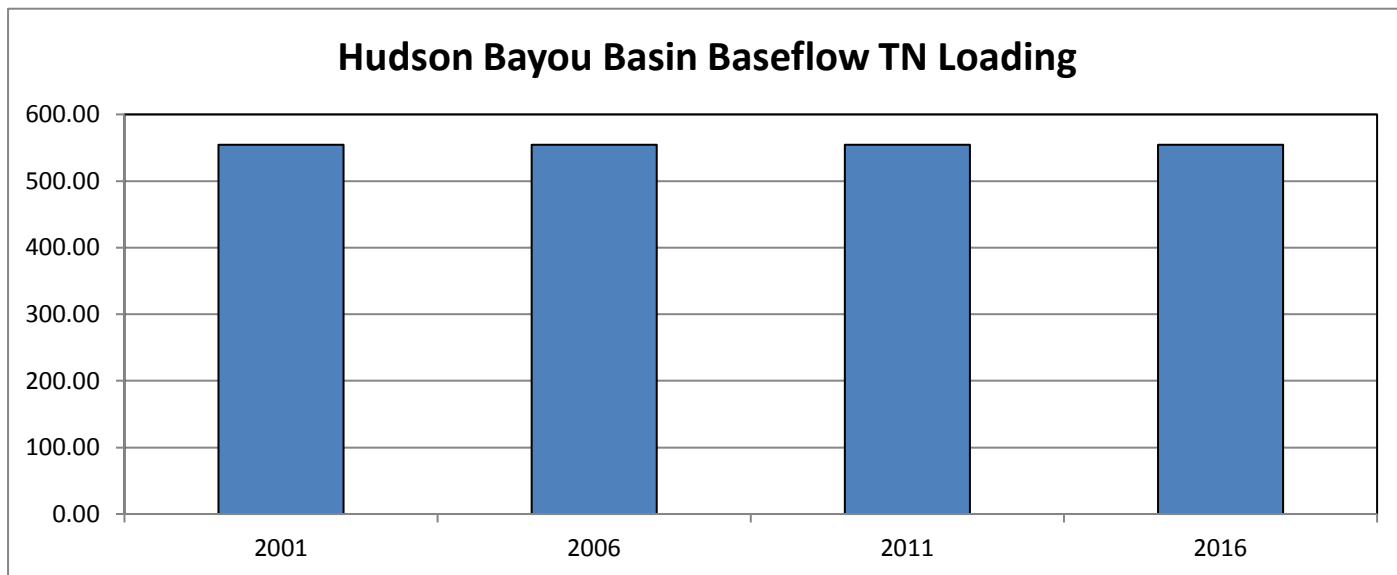
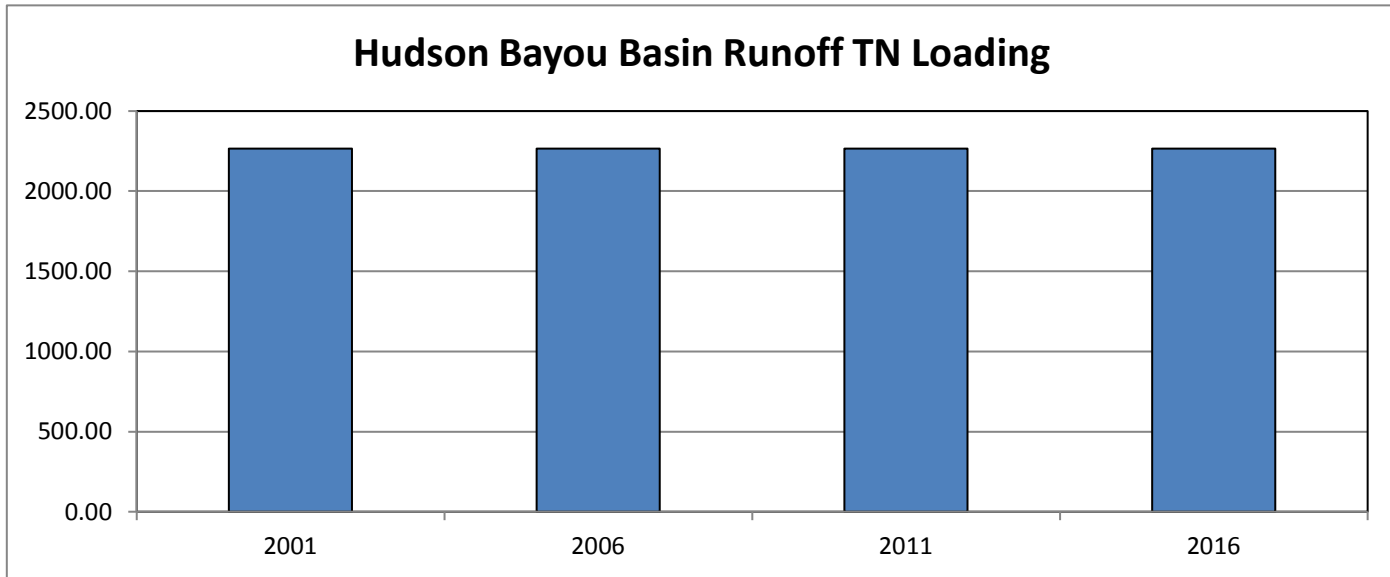
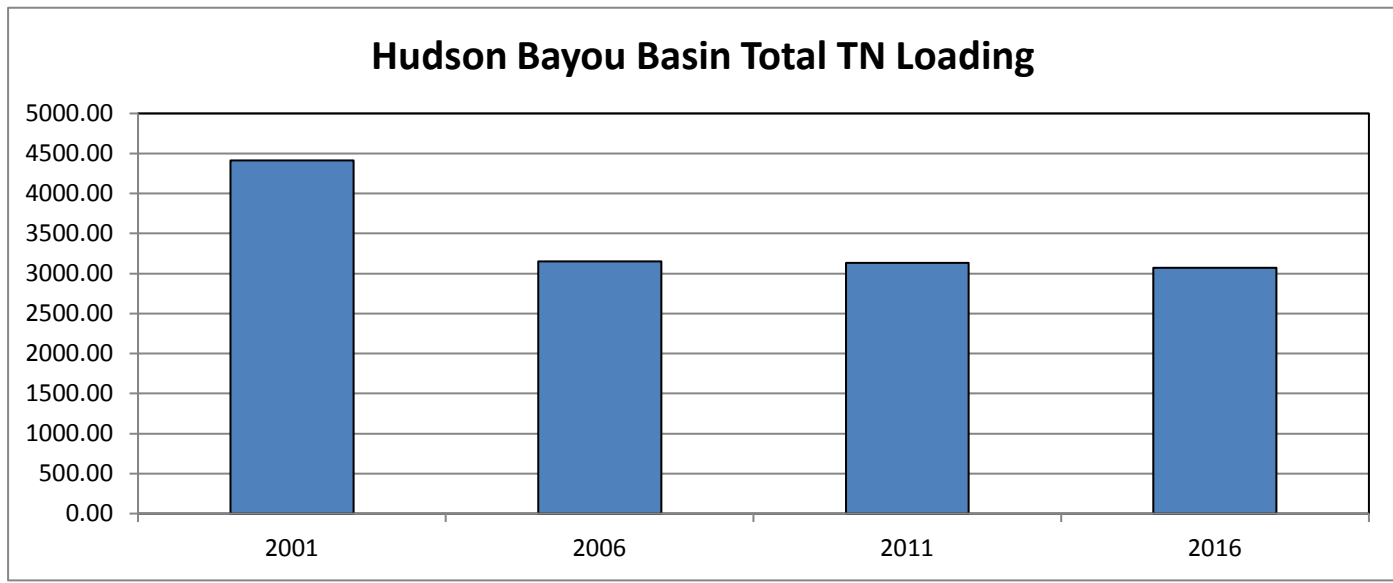
Proportion of loading is **High** when % load is compared to % acreage.  
Hudson Bayou acreage is 11% and % loading is 2%

Hudson Bayou is a part of the Sarasota Bay watershed

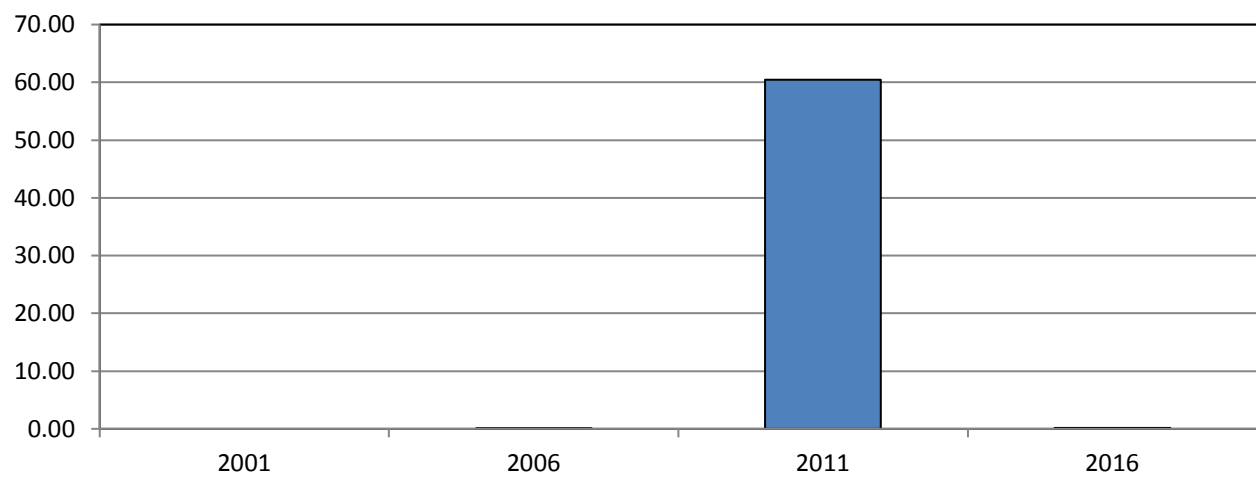
	Pounds TN 2016	Acreage
Sarasota Bay watershed	159,061	21,233

The following basins contribute to the loading to the Sarasota Bay watershed

	Pounds TN 2016	% of Watershed Load	Acreage	% of Sarasota Bay watershed
Hudson Bayou	3,069	2%	2,406	11%
Bowlees Creek	10	0%	148	1%
Sarasota Bay Coastal	1,083	1%	1,563	7%
Whitaker Bayou	7,262	5%	4,228	20%
Longboat/Lido Key	4,539	3%	2,765	13%
Sarasota Bay	143,099	90%	10,123	48%



**Hudson Bayou Basin Point Source TN Loading**



**Hudson Bayou Basin Irrigation TN Loading**

