



How do we meet our water quality goals for Sarasota Bay?

February 2023

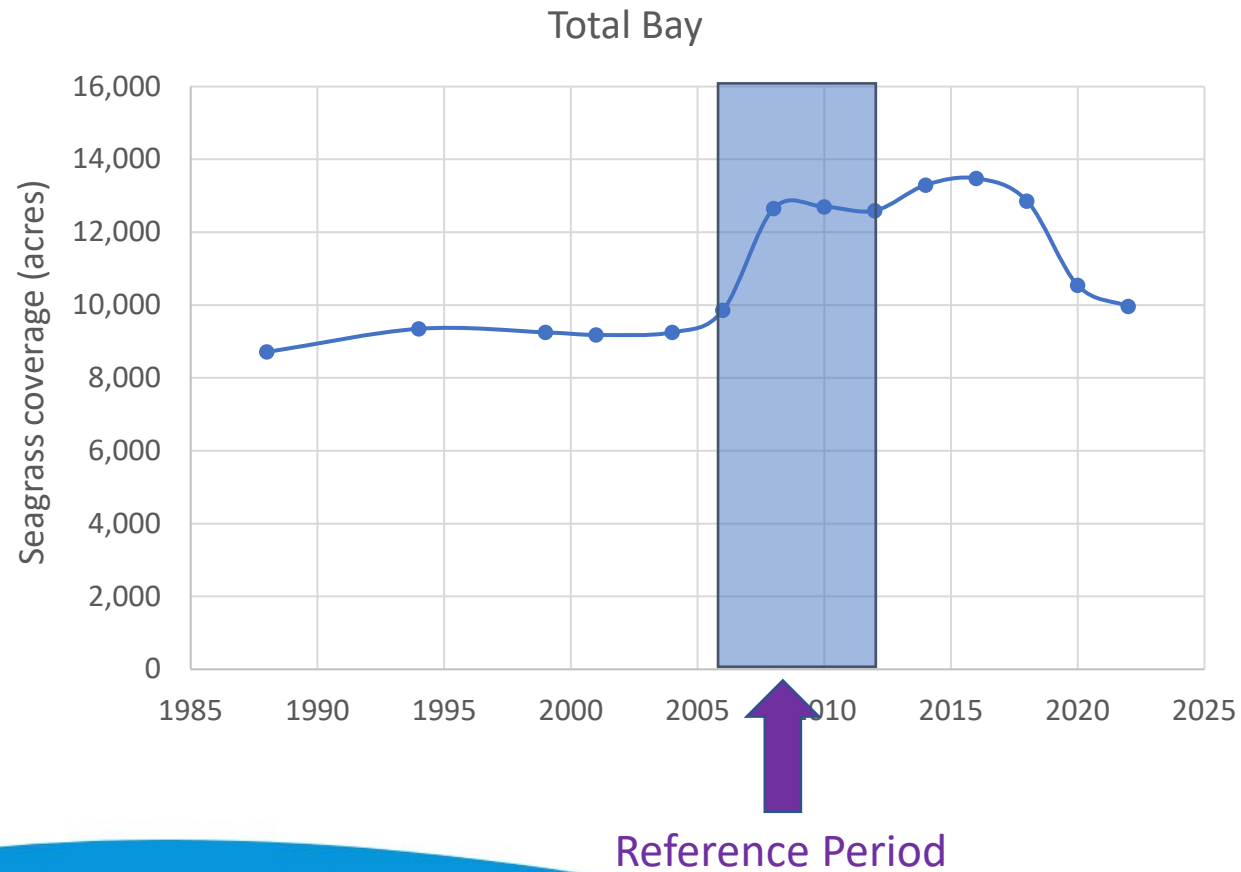
David Tomasko, Ph.D.



Seagrass coverage trend

Down 5% last two years

26% lower than in 2016 – *but still higher than in 1980s and 1990s*

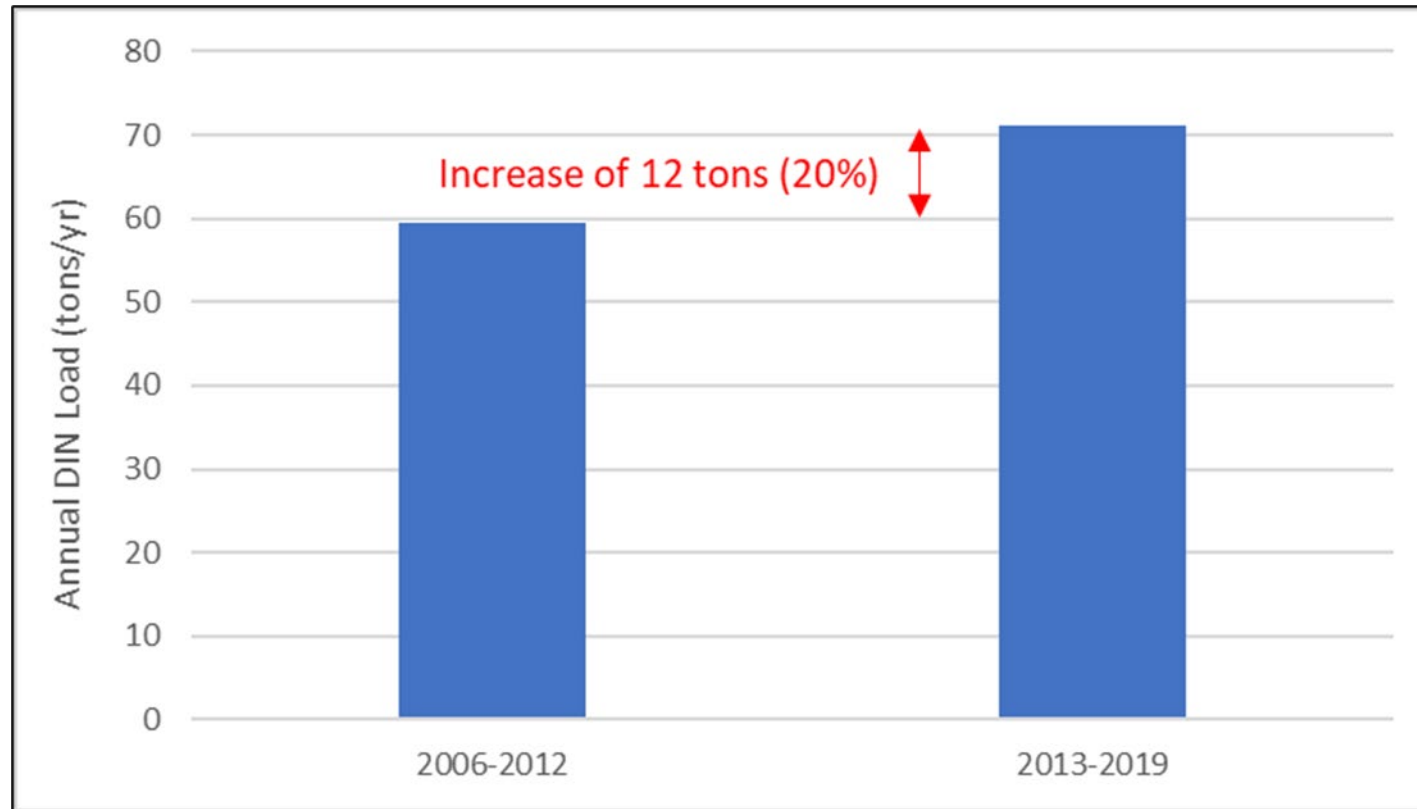


Importance of “reference period” of 2006 to 2012

- Nutrient concentrations were lower
- No bay segment impaired for chlorophyll-a
- Lower levels of macroalgae (where data exist)
- 28% increase in seagrass coverage
- Why better?
 - 20% lower nutrient loads, bay-wide
 - Gives us our preliminary nitrogen load reduction target of 12 tons of DIN / yr



How did we quantify the load reductions we need?



Data compiled from Janicki Environmental, Inc (with Jones Edmunds, Inc.) - 2021



Are there 12 tons of controllable DIN loads?

- Reclaimed water (from non AWT WWTPs)
 - Up to 20 tons / yr
- WWTP overflows
 - Up to 6 tons / yr (peak in 2018)
- Septic tanks(?)
 - Up to 20 tons / yr
 - But 70% now offline
- Stormwater still the biggest source
 - Easily for Total Nitrogen
 - Even for Dissolved Inorganic Nitrogen
- **There is more than enough controllable loads to get 12 tons!**



Is there political will to do what needs to be done?

List of commitments made at October 2021 Water Quality Restoration Workshop

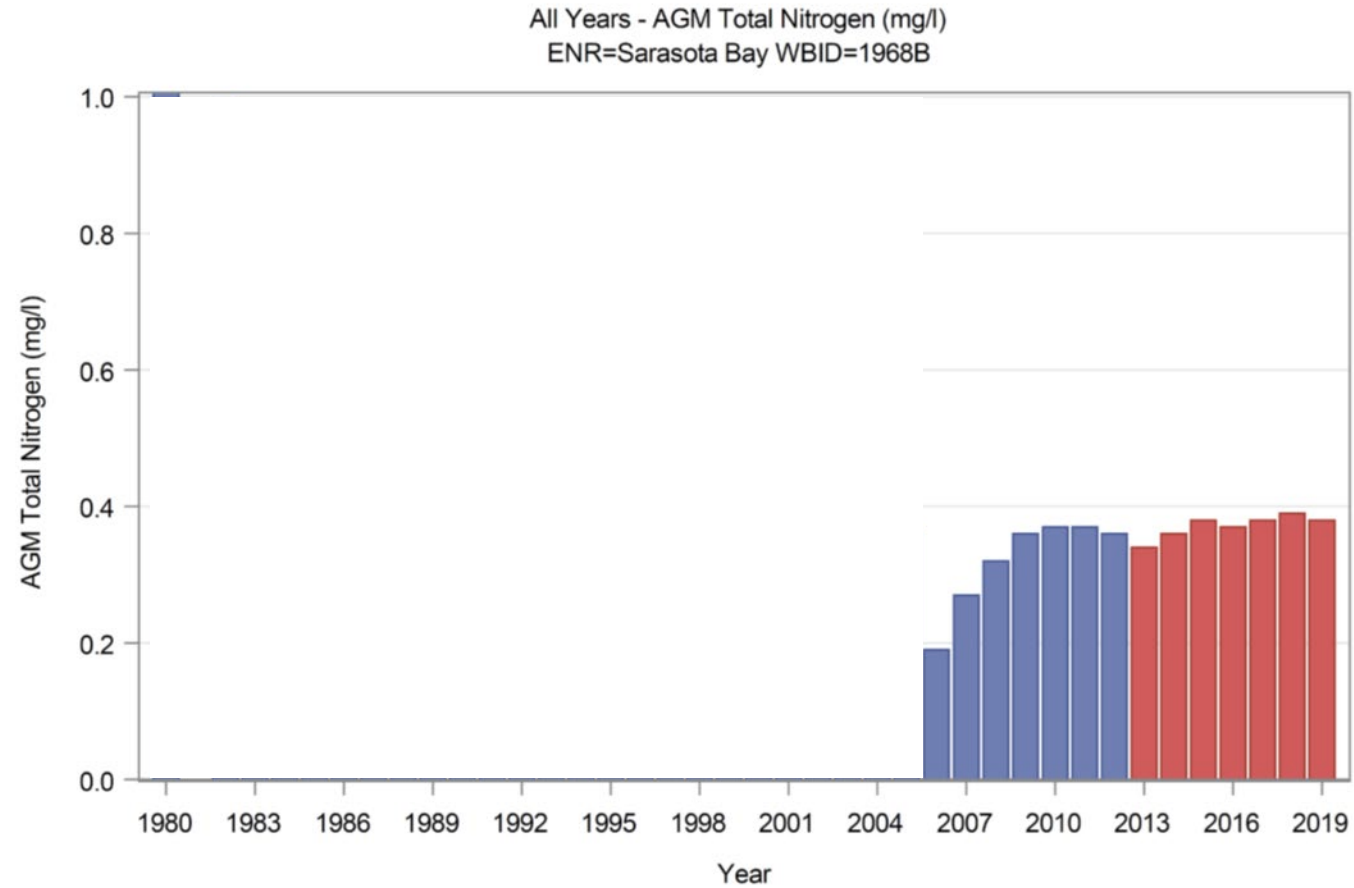
Cost in Millions		
Entity	Past projects	Future projects
Manatee County	\$102.3	\$162.7
Sarasota County	\$161.7	\$553.1
City of Bradenton	\$33.1	\$24.0
City of Sarasota	\$101.5	\$192.7
Town of Longboat Key	\$3.2	\$24.8
Total	\$401.8	\$957.3

Past project estimates do not include upgrade of cities of Bradenton and Sarasota WWTPs to AWT (ca.30 years ago)

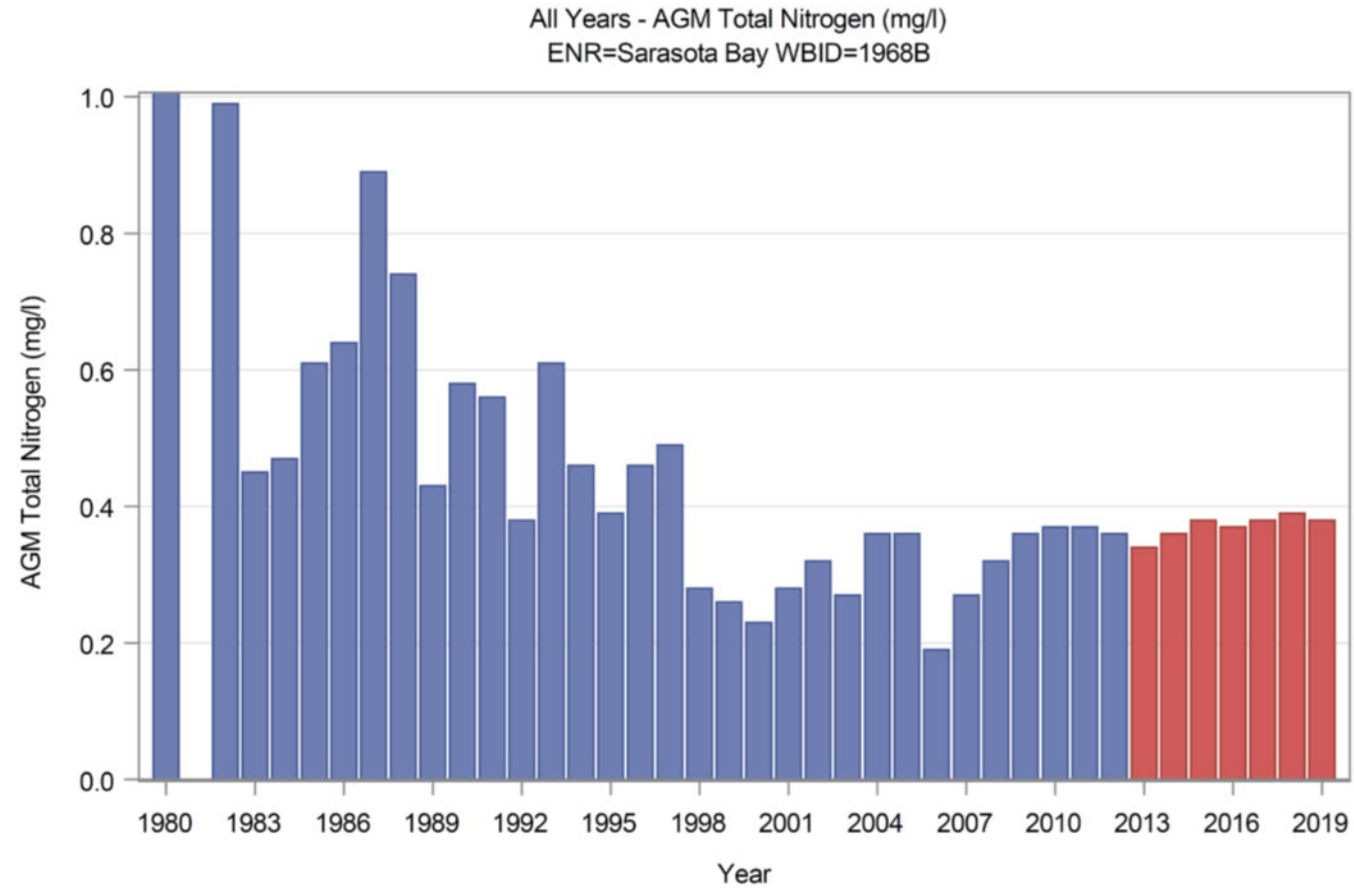
Past and future project cost estimates do not include the costs of water quality and natural resources monitoring, many habitat restoration projects, and financial support of local government staff (or SBEP).



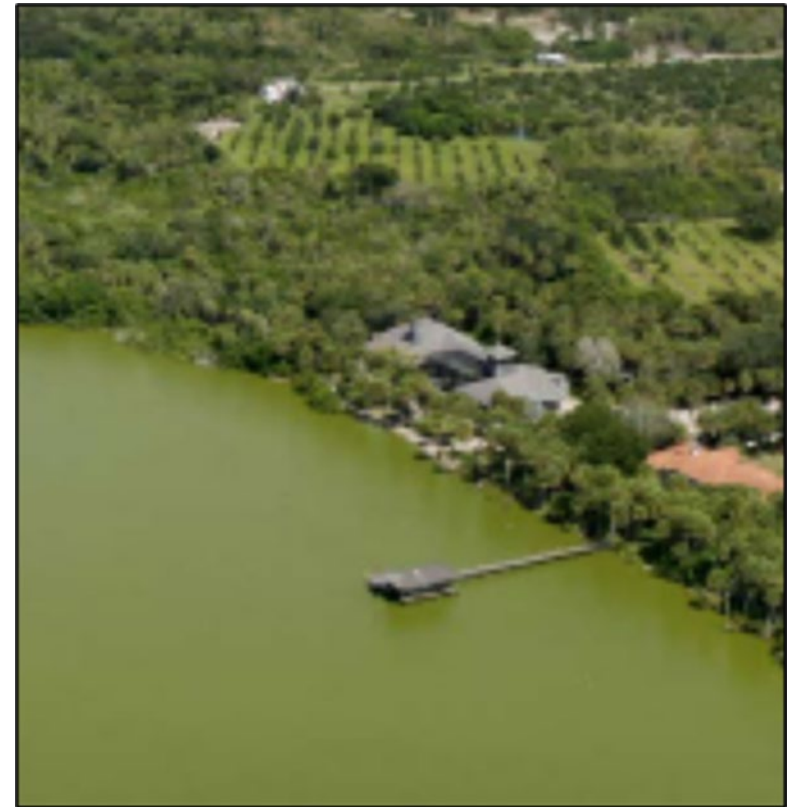
Is it realistic to be optimistic?



Look what we've already done!



Which future do we want?





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