

A FASTER ROAD TO WATER QUALITY RESTORATION

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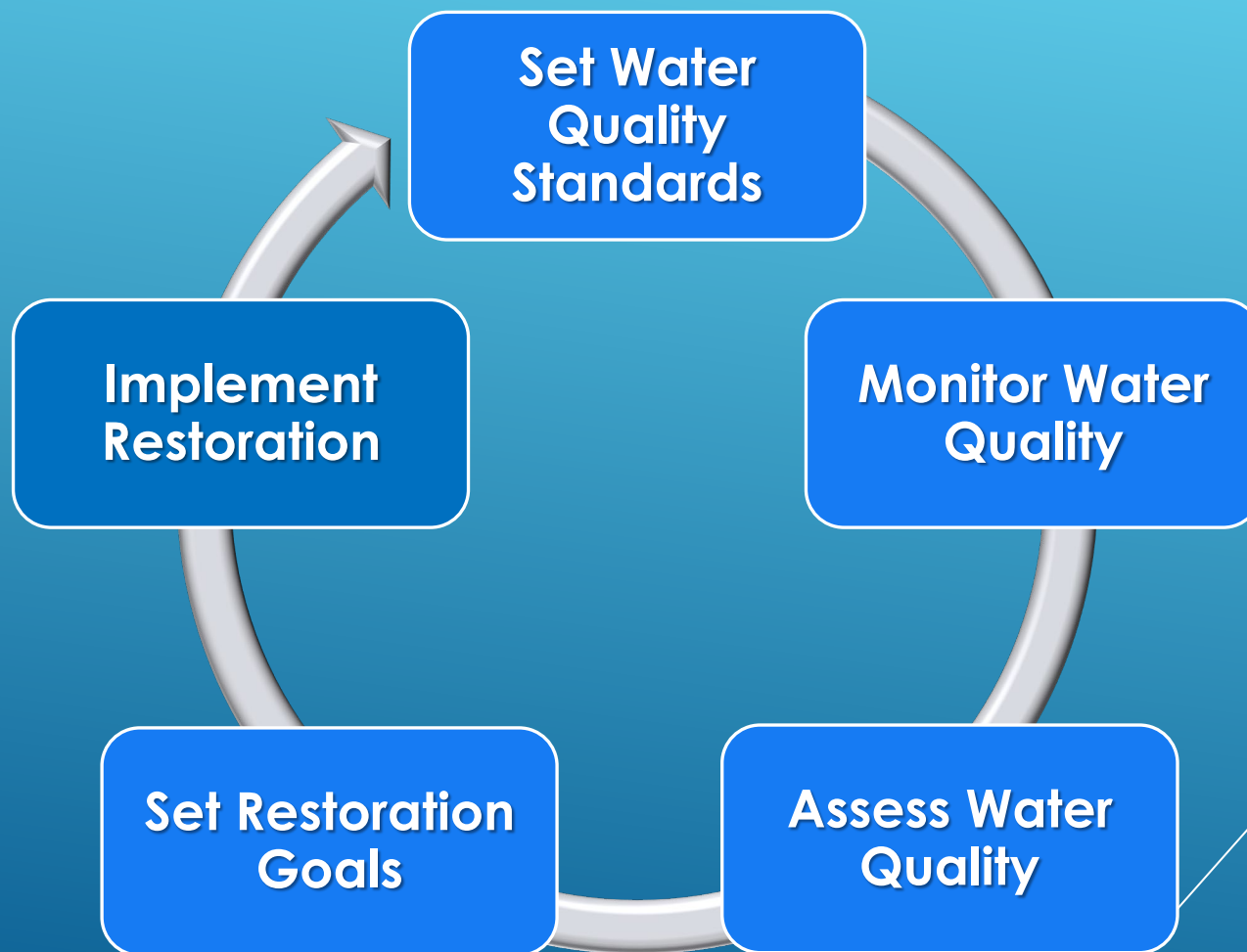
The logo for Janicki Environmental, Inc. features a stylized wave graphic with a light blue top and a light green bottom. The text "Janicki Environmental, Inc." is written in a bold, black, sans-serif font across the middle of the wave.

Janicki Environmental, Inc.

FLORIDA'S WATER QUALITY RESPONSIBILITIES

- ▶ Section 303(d) of the Federal Clean Water Act
- ▶ Florida statute 403.067 established the Florida Watershed Restoration Act in 1999
- ▶ Surface Water Quality Standards Rule 62-302, F.A.C.
- ▶ Impaired Waters Rule (IWR) 62-303, F.A.C.

DEP - DIVISION OF ENVIRONMENTAL ASSESSMENT AND RESTORATION WATERSHED MANAGEMENT APPROACH



WATER QUALITY RESTORATION PROCESS

DEP Regulatory Process



There are Pros and Cons to be considered

WATER QUALITY RESTORATION PROCESS

Stakeholder Driven Process



BENEFITS OF AN ALTERNATIVE RESTORATION PLAN

- ▶ Provides a faster path to restoration
- ▶ Allows stakeholders to control their destiny
- ▶ Avoid TMDL-related regulatory requirements (RAP)
- ▶ Acknowledges proactive efforts
- ▶ Stakeholders receive credit for pollutant reductions
- ▶ Provides time for good targets to be developed
- ▶ Enhances public relations
- ▶ Innovative Technologies

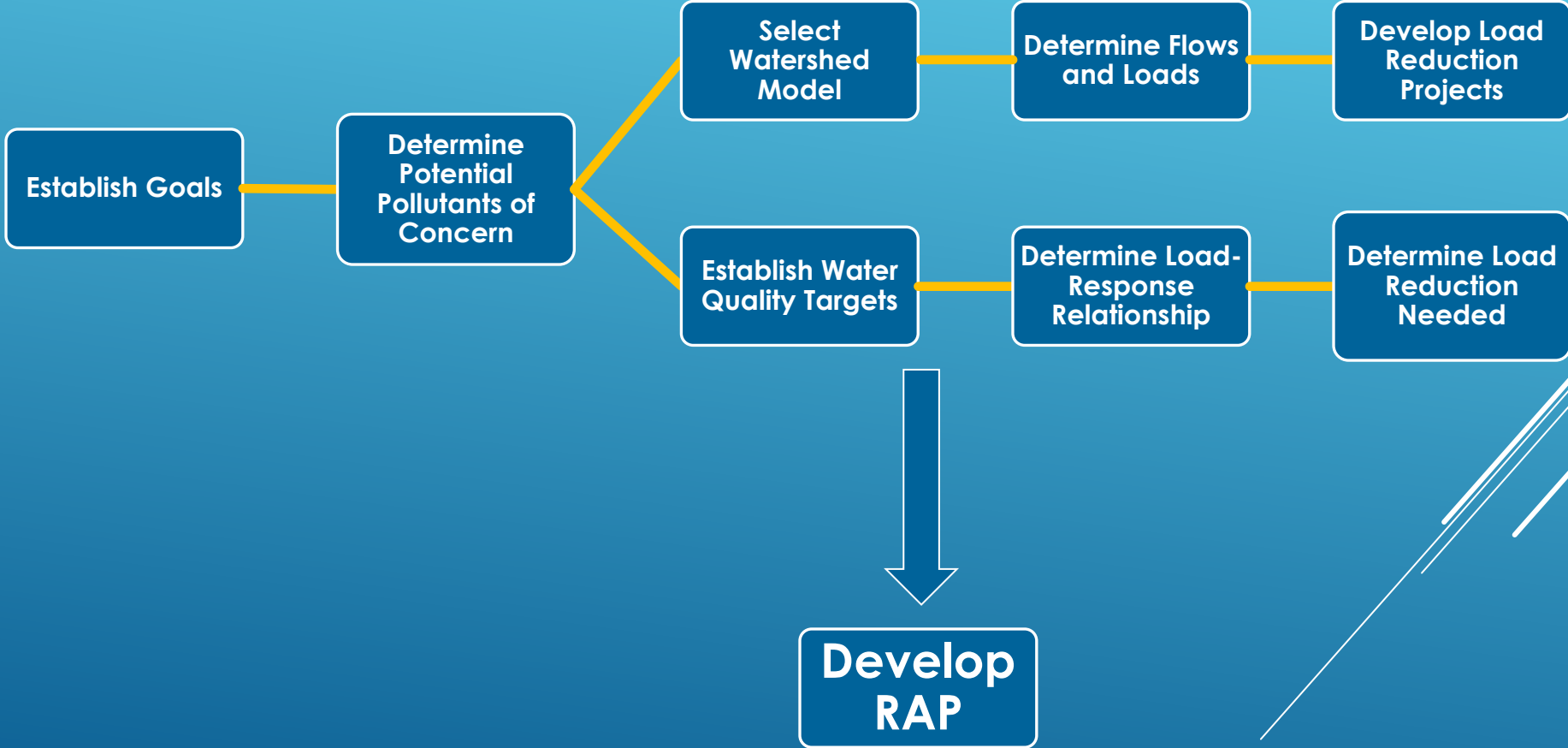
REASONABLE ASSURANCE PLANS

Primary requirements of a Reasonable Assurance Plan:

- a restoration goal
- a list of projects and/or activities
- commitment to corrective actions
- an implementation schedule
- funding commitments
- requires EPA approval

TECHNICAL FRAMEWORK

IMPORTANCE OF TRANSPARENCY AND DOCUMENTATION



WATER QUALITY TARGETS

- Reasonable Assurance Plan provides focus for the management actions to restore and protect a waterbody
- Establishment of water quality criteria that protect critical aquatic resources is a necessary element of the Reasonable Assurance Plan
- Utilizes the Best Science

LOADING TARGETS

- A primary objective in establishing a Reasonable Assurance Plan is to define the nutrient loading targets that are needed to restore and protect a waterbody's health

LOADING TARGETS

- Definition of nutrient loading targets generally follows one of three alternative approaches
 - Empirical Modeling
 - Mechanistic Modeling
 - Reference Period

TREATABLE LOADS

- ▶ Total nutrient loads are the sum of:
 - ▶ Runoff
 - ▶ Baseflow
 - ▶ OSDS
 - ▶ Point Sources
 - ▶ Atmospheric Deposition
- ▶ Need to translate the % load reduction in terms of the portion of the total nutrient loads that can be treated locally as part of the RAP

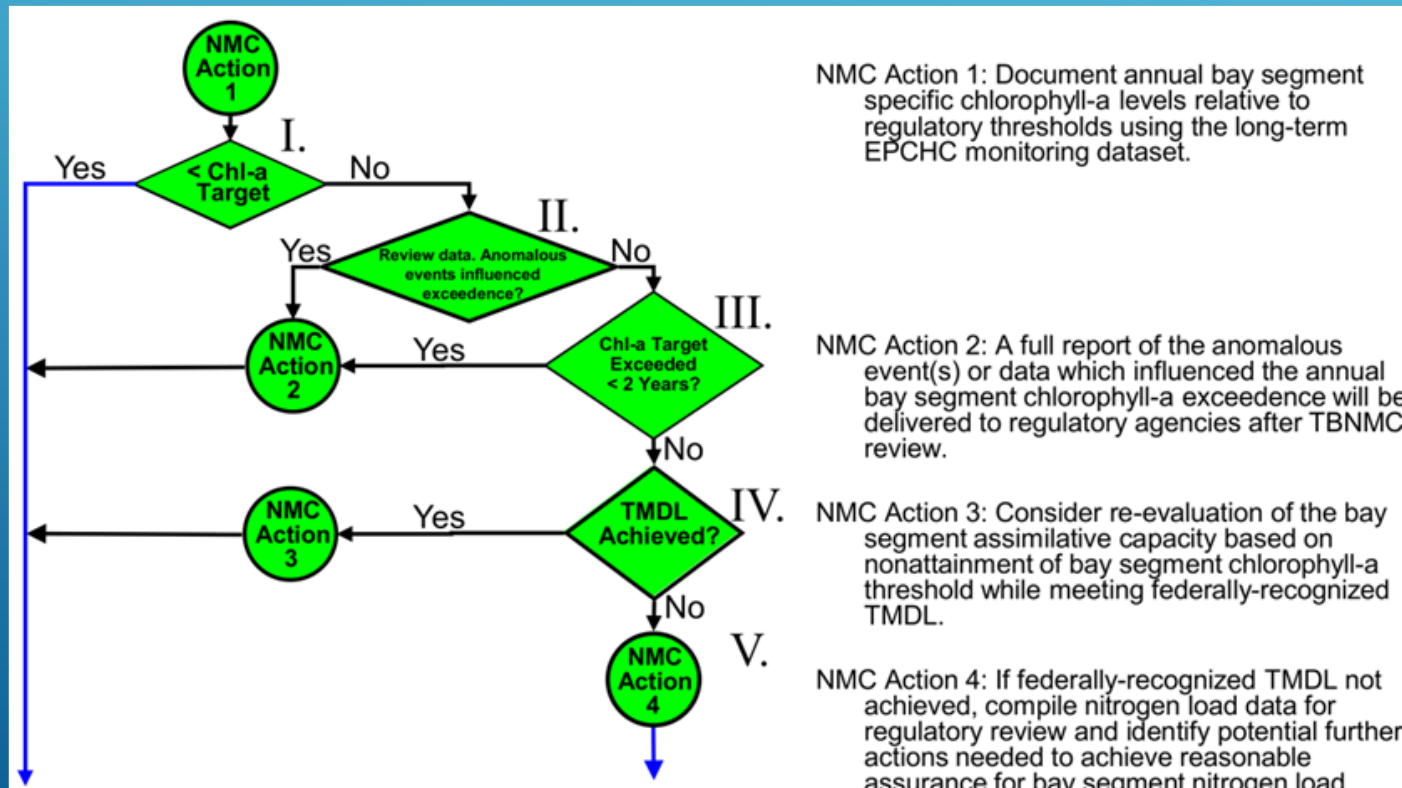
MONITORING COMPLIANCE AND REPORTING

- Annual
 - Ambient water quality monitoring
- 5-Year Updates
 - Nutrient loading
 - Seagrass
 - Project Tracking
 - Progress in existing projects
 - Identification of new projects

Year	Old Tampa Bay	Hillsborough Bay	Middle Tampa Bay	Lower Tampa Bay
1974	No	No	No	Yes
1975	No	No	No	Yes
1976	No	No	No	Yes
1977	No	No	No	No
1978	No	No	No	Yes
1979	No	No	No	No
1980	No	No	No	No
1981	No	No	No	No
1982	No	No	No	No
1983	No	No	No	No
1984	Yes	Yes	No	Yes
1985	No	No	No	Yes
1986	No	No	Yes	Yes
1987	No	Yes	No	Yes
1988	Yes	Yes	Yes	Yes
1989	No	Yes	Yes	Yes
1990	No	Yes	Yes	Yes
1991	Yes	Yes	Yes	Yes
1992	Yes	Yes	Yes	Yes
1993	Yes	Yes	Yes	Yes
1994	No	No	No	No
1995	No	No	No	Yes
1996	Yes	Yes	Yes	Yes
1997	Yes	Yes	Yes	Yes
1998	No	No	No	No
1999	Yes	Yes	Yes	Yes
2000	Yes	Yes	Yes	Yes
2001	Yes	Yes	Yes	Yes
2002	Yes	Yes	Yes	Yes
2003	No	Yes	Yes	Yes
2004	No	Yes	Yes	Yes
2005	Yes	Yes	Yes	No
2006	Yes	Yes	Yes	Yes
2007	Yes	Yes	Yes	Yes
2008	Yes	Yes	Yes	Yes
2009	No	Yes	Yes	Yes
2010	Yes	Yes	Yes	Yes
2011	No	Yes	Yes	Yes
2012	Yes	Yes	Yes	Yes
2013	Yes	Yes	Yes	Yes
2014	Yes	Yes	Yes	Yes
2015	No	Yes	Yes	Yes
2016	Yes	Yes	Yes	Yes

ADAPTIVE MANAGEMENT

- Develop a series of “what ifs” and responses



LESSONS LEARNED

- ▶ Time and project commitments are necessary



- ▶ Technical support is beneficial

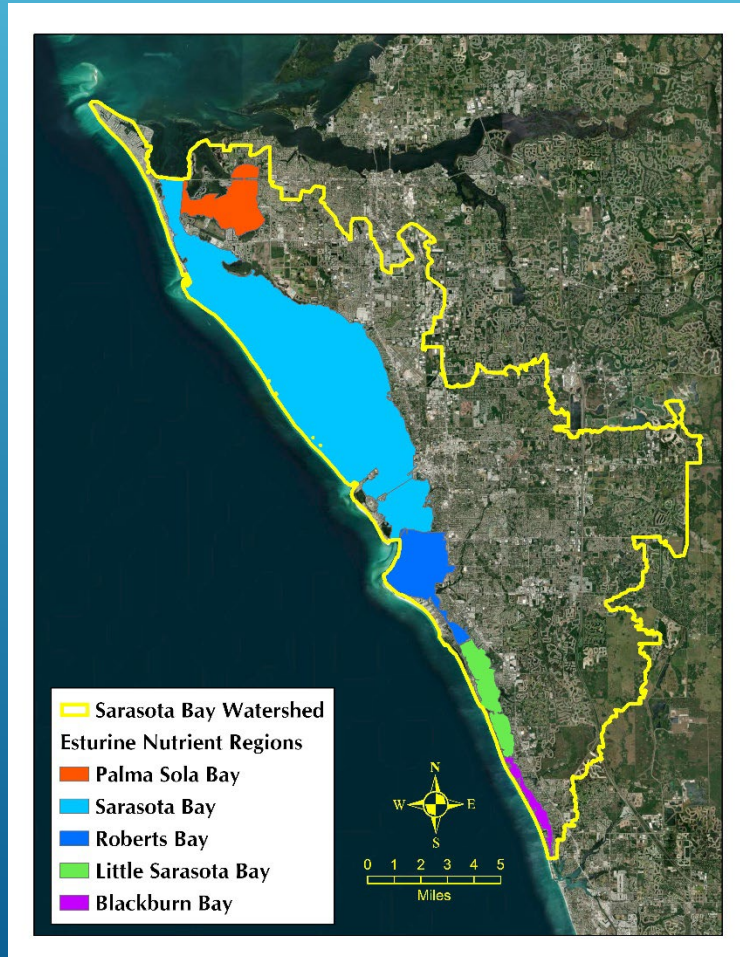
- ▶ Data limitations often affect management decisions



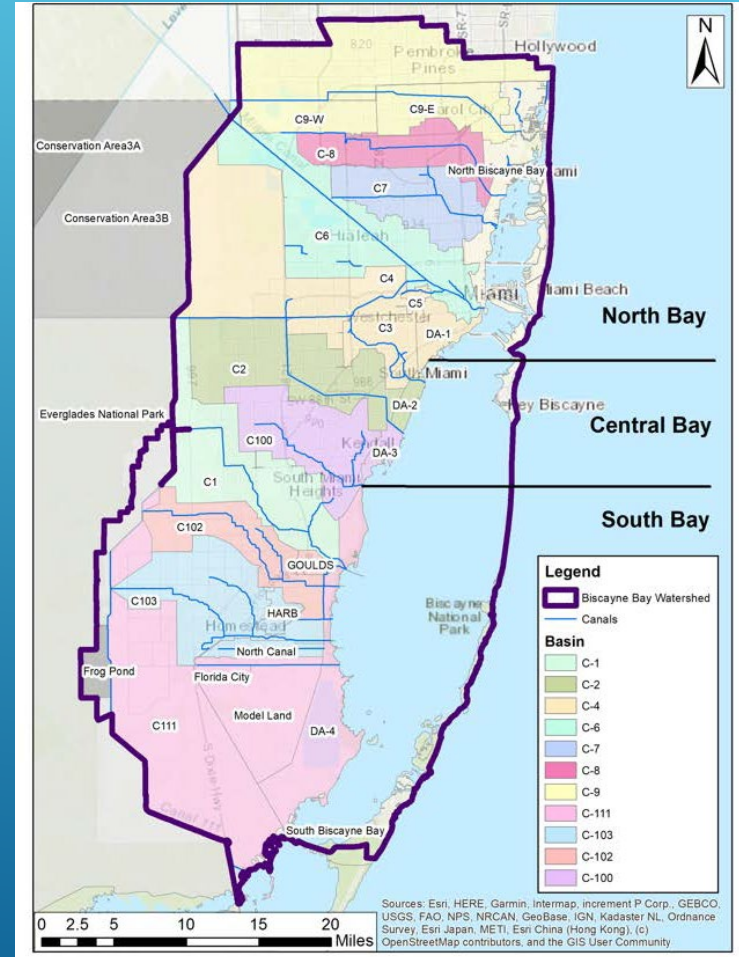
- ▶ Local leadership and control of the process is valuable

CURRENT RAP DEVELOPMENT

SARASOTA BAY



BISCAYNE BAY



DISCUSSION

- **THANK YOU**