

Water Quality Monitoring Update for the Indian River Lagoon

IRL BMAPs Annual Meeting

5/27/2015

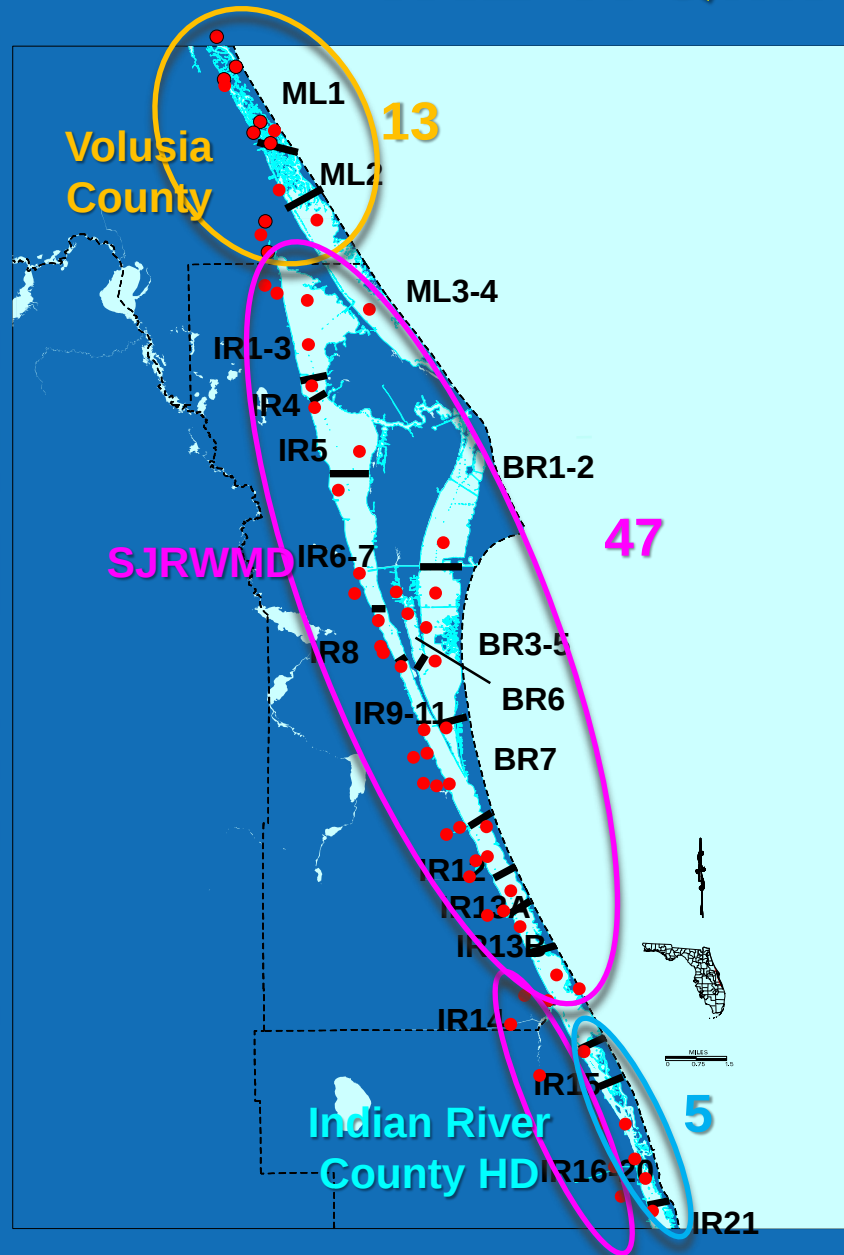
Cocoa, Florida

Margaret Lasi, Ph.D.

Environmental Scientist V

St. Johns River Water Management District

IRL-WQMN (2014/15)



65 stations

- 40 lagoon
- 25 tributaries

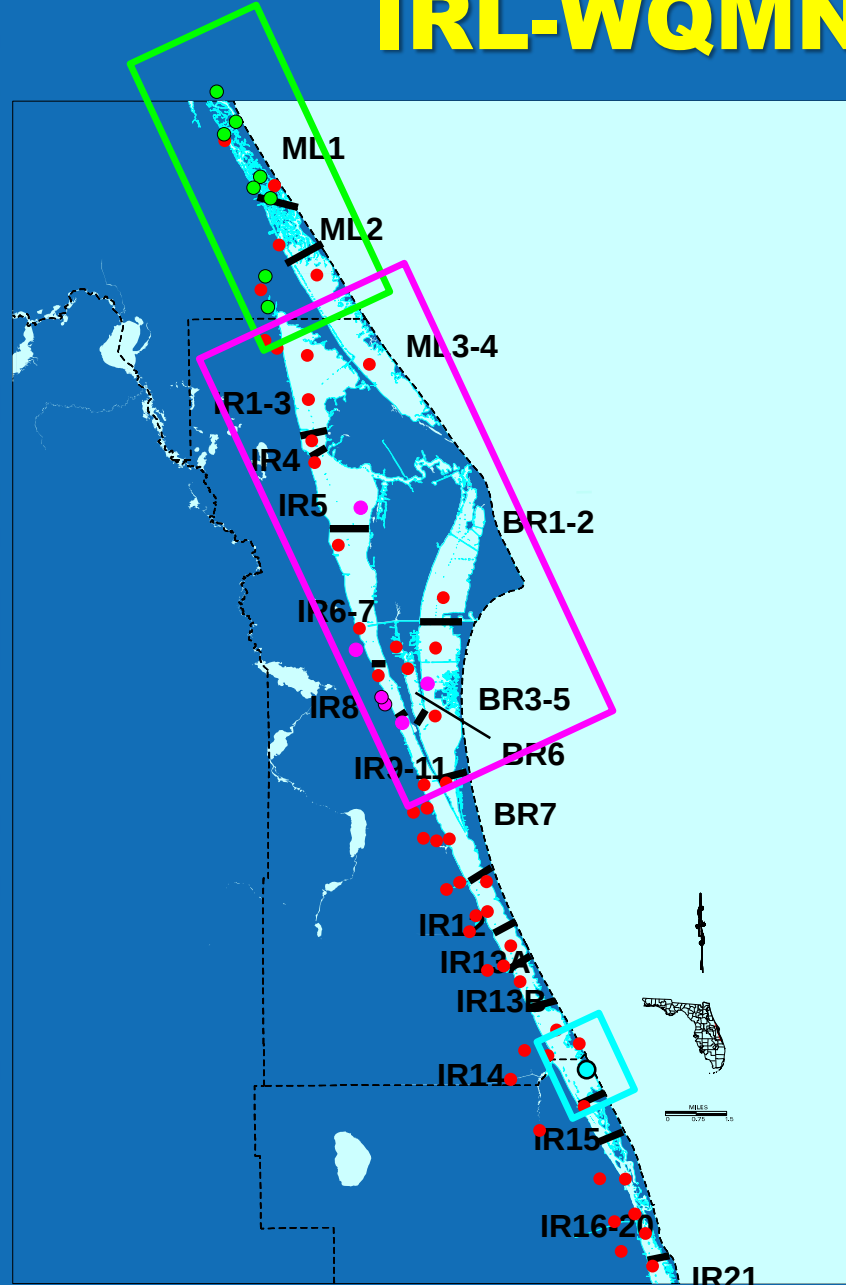
Multi-agency

SJRWMD: lead, lab analyses & data custodian

Sampling frequencies

- 57 monthly
 - 2 bimonthly
 - 6 quarterly
- } v.c.

IRL-WQMN (2014/15)



~ Recent Additions

Aug 2013 – SJRWMD
Superbloom Area

- 3 Cocoa canal sites
- 3 lagoon sites

Sebastian Inlet
Wet/Dry Deposition
(CASTNET-SJRWMD)

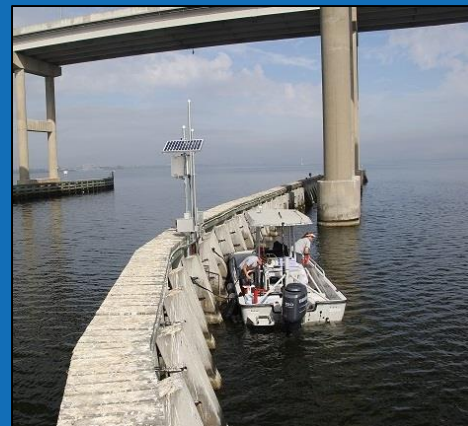
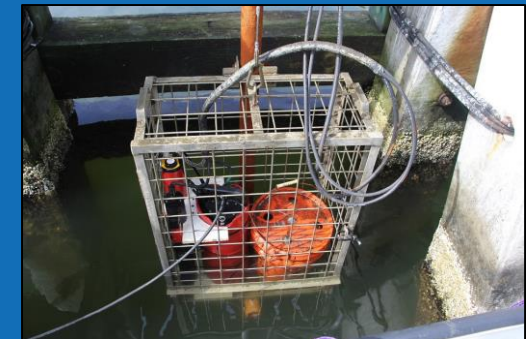
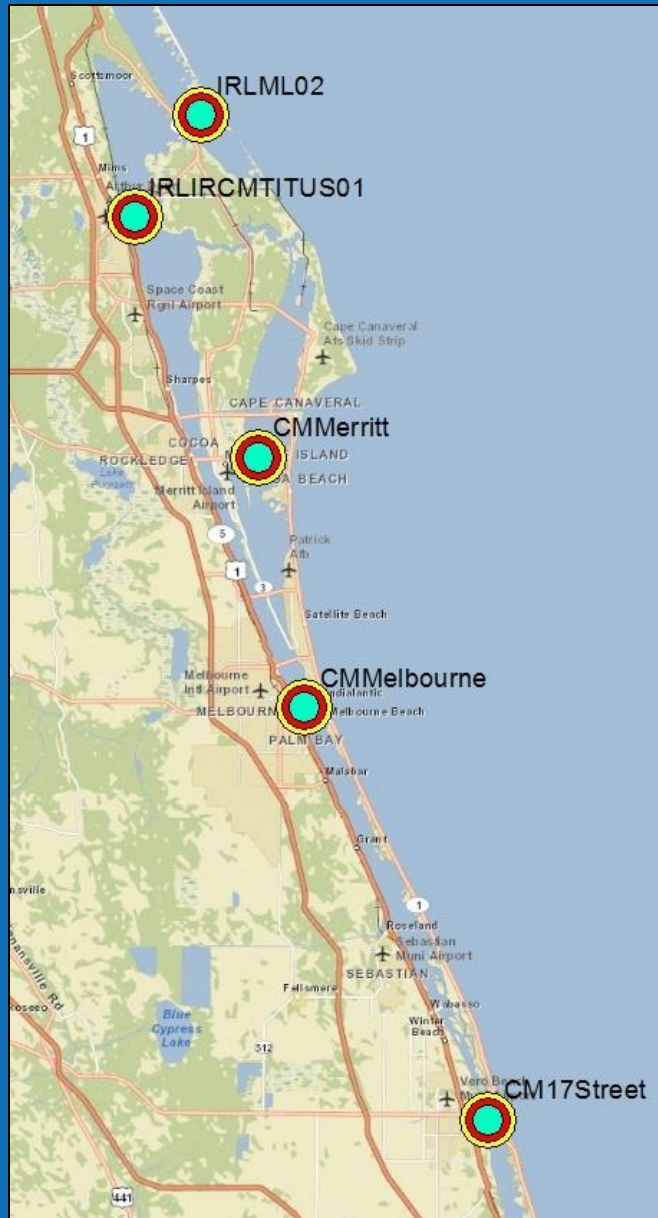
May 2014 – VC-EMD
Mosquito L./Turnbull

- 4 lagoon sites
- 2 stream sites

SJRWMD continuous monitoring – 2014

Real-time data

- Five locations
- on telemetry



SJRWMD continuous monitoring – 2014

Parameters Measured



YSI EXO2 (hourly)

- Conductivity/Salinity
- Temperature
- Chlorophyll-a
- BGA-PE **NEW**
- pH
- Dissolved Oxygen
- fDOM



Cycle PO₄ (every 2 hrs)

- US EPA method 365.5
- MDL 0.02 mg/L
- Accuracy 0.014 mg/L

SUNA – Submersible UV Nitrate Analyzer (hourly)

- In Situ UV Spectroscopy (ISUS) technology developed at MBARI
- MDL 0.03 mg/L
- Accuracy 0.056 mg/L

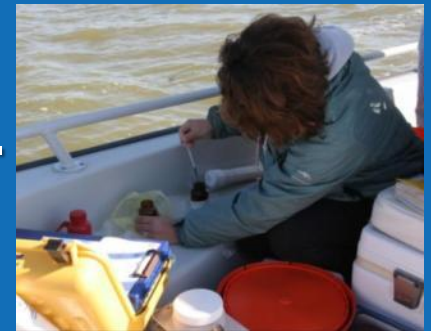
Other Lagoon Monitoring Phytoplankton (since 1997)

SJRWMD- Univ. Florida (Dr. Ed Phlips)
10 stations



5 Biweekly

- South Mosquito L.
- Titusville
- Cocoa
- Central Banana R.
- Melbourne



Event (bloom) Sampling

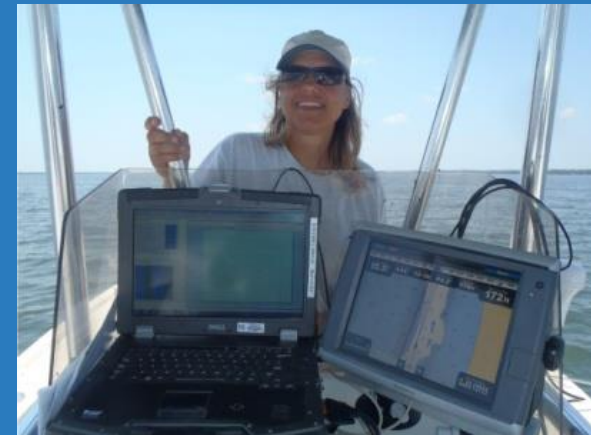
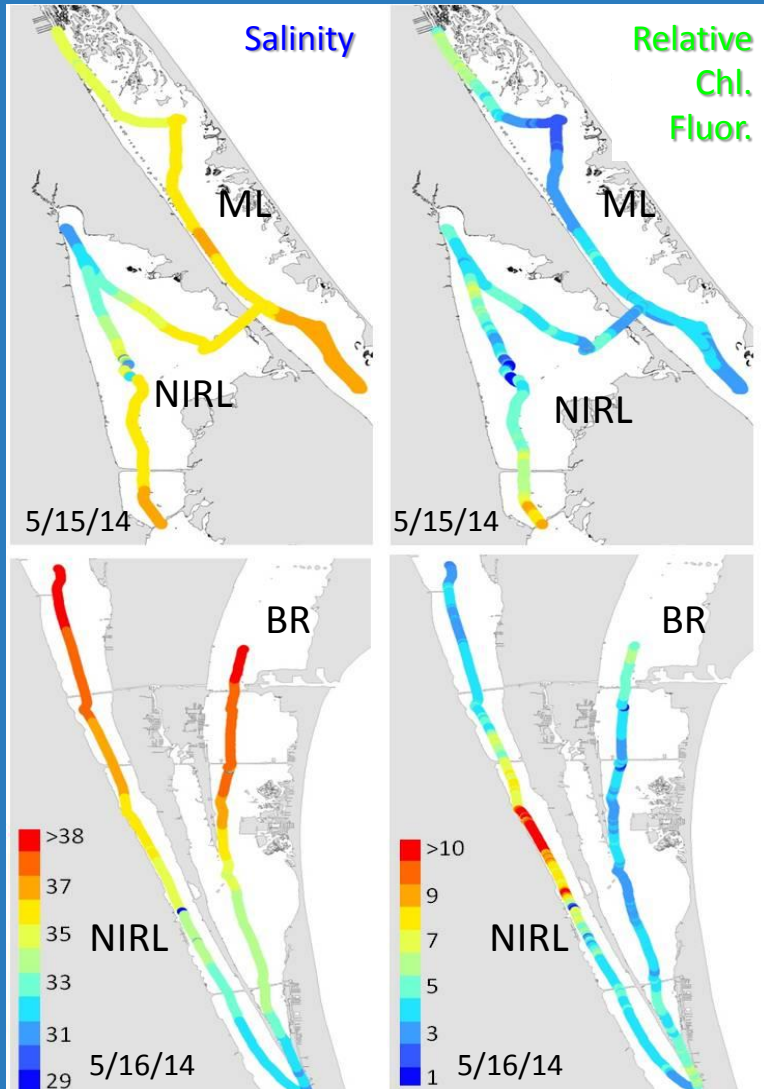
- SJRWMD/Univ. Florida
- FWRI-FWC



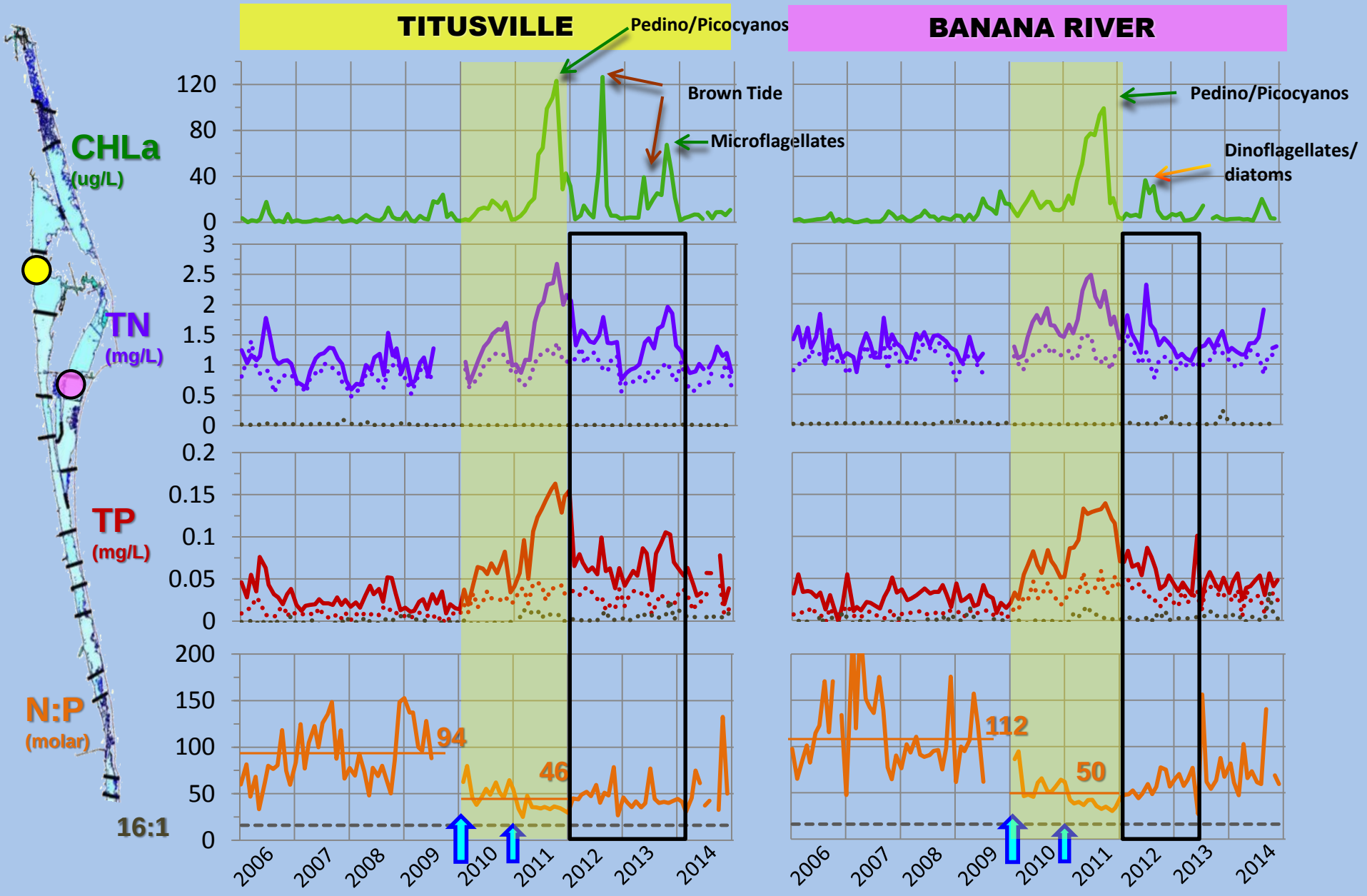
IRL Phytoplankton Flow-through

- FWC/FWRI (HAB group)

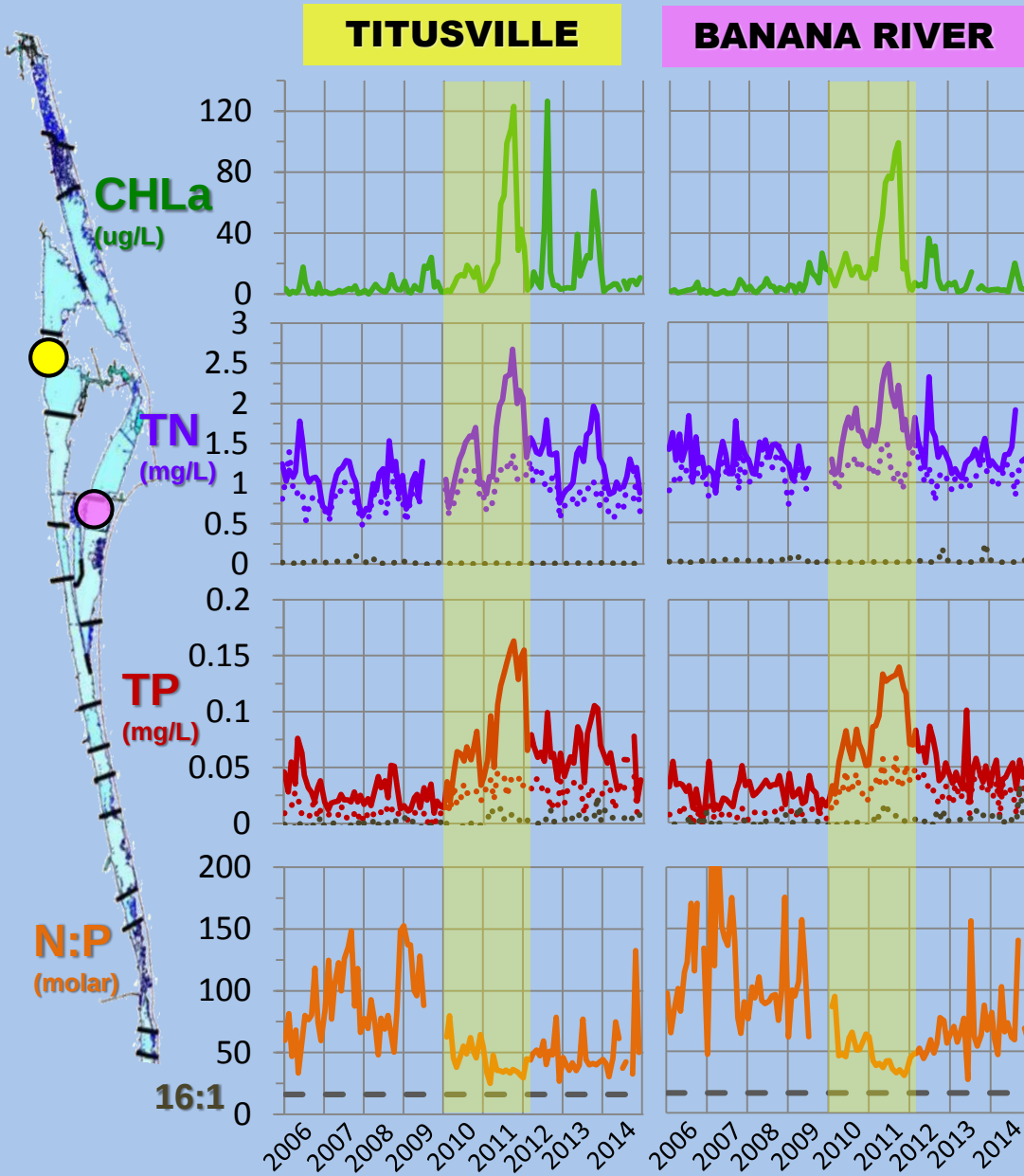
- Since 2013
- Continuous (over space)
- Focused in northern IRL region
- Seasonal: May/Jun – Sep/Oct
- Parameters: Salinity & Chlorophyll



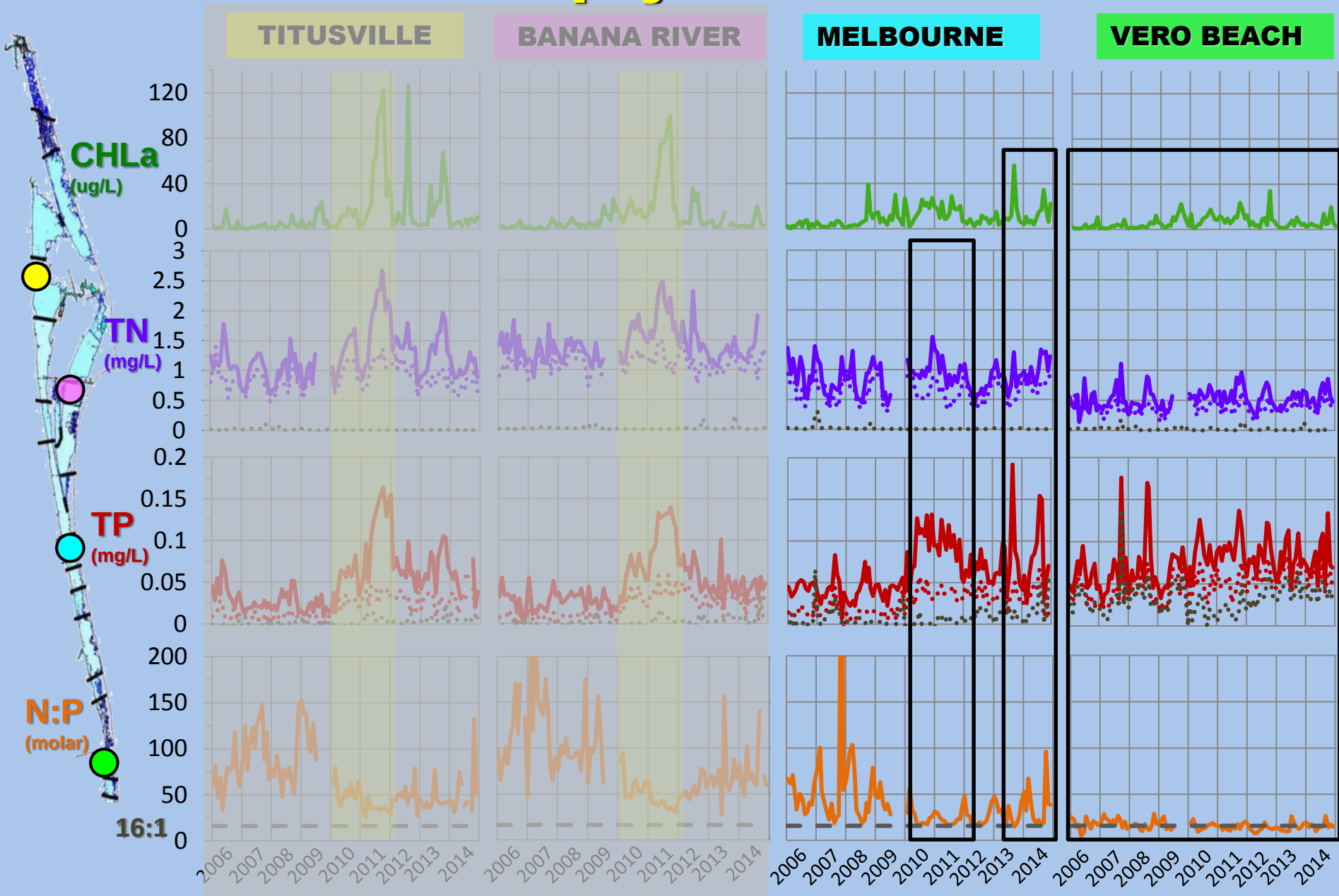
Chlorophyll and nutrients



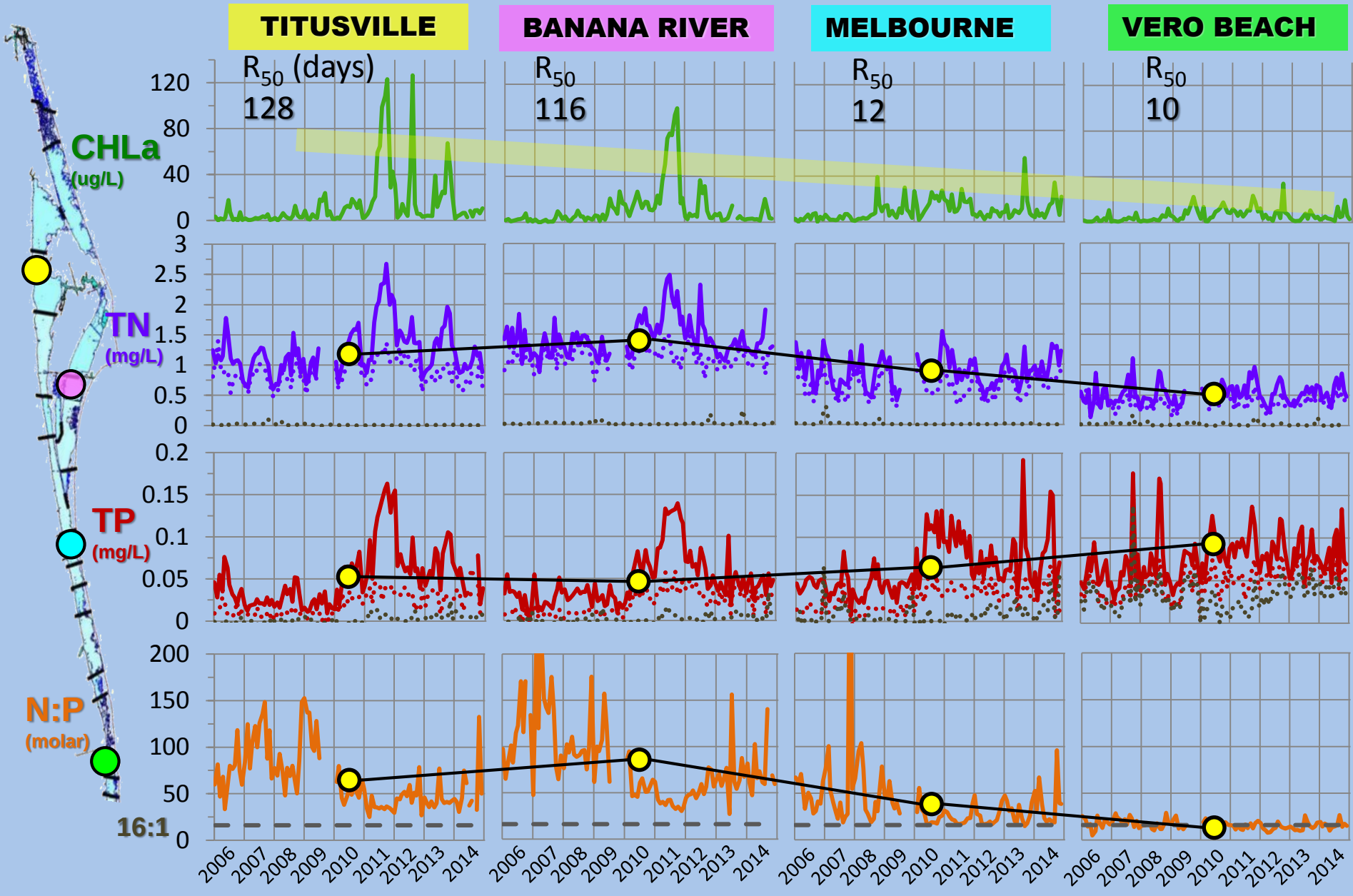
Chlorophyll and nutrients



Chlorophyll and nutrients



Chlorophyll and nutrients



Thank You



Questions?