

# Before Presentation

- **Web pages to open for backup/questions:**
  - <https://tetrattech-wtr-wne.shinyapps.io/baytrendsmap/>
  - <https://github.com/tetrattech/baytrendsmap>
- **Open ppt file:**
  - baytrendsmap (202#-##-##-dist).pptx
- **Web page for presentation (test before meeting, close window and reopen for smoothest presentation)**
  - <https://baytrends.chesapeakebay.net/baytrendsmap/>
- **Open Presentation Script**
  - Baytrendsmap script.docx
    - Map edits to show.

# baytrendsmap

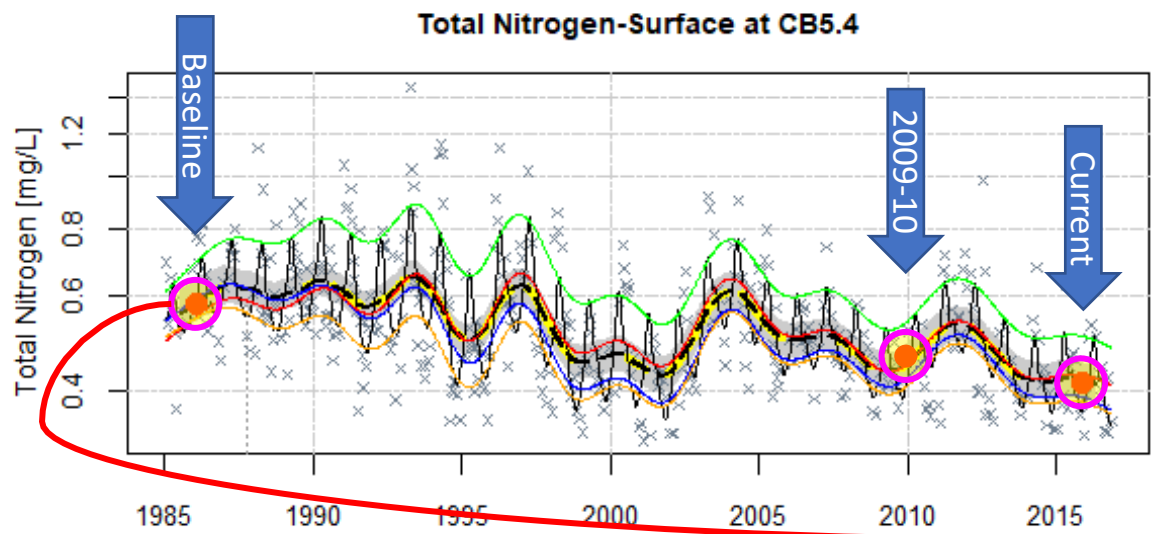
v1.1.0

- post process baytrends output
- hosted at  
<https://baytrends.chesapeakebay.net/baytrendsmap>

December 14, 2020

# Reason

- Shiny app developed to create maps on-the-fly from output of the baytrends package.
- Only need a web browser.
- Consistent size and options.

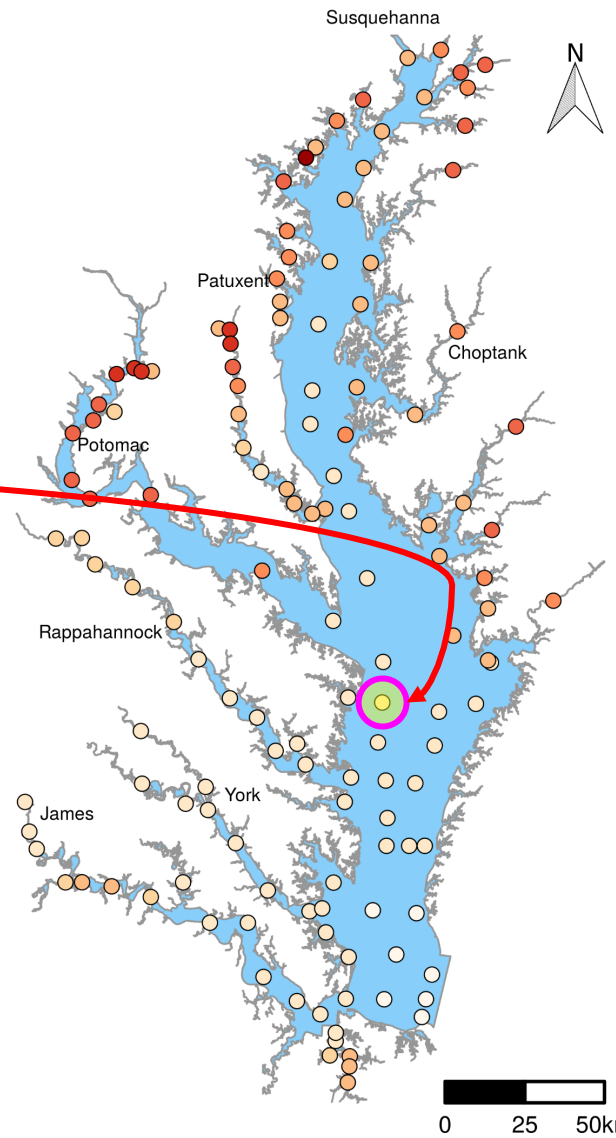


× Uncen.	— Fit.GAM	■ Sign.	● B/C x	— 4/1	— 10/1
○ Cens.	— Avg.GAM	■ Conf.Int.	— 1/1	— 7/1	

**Change**

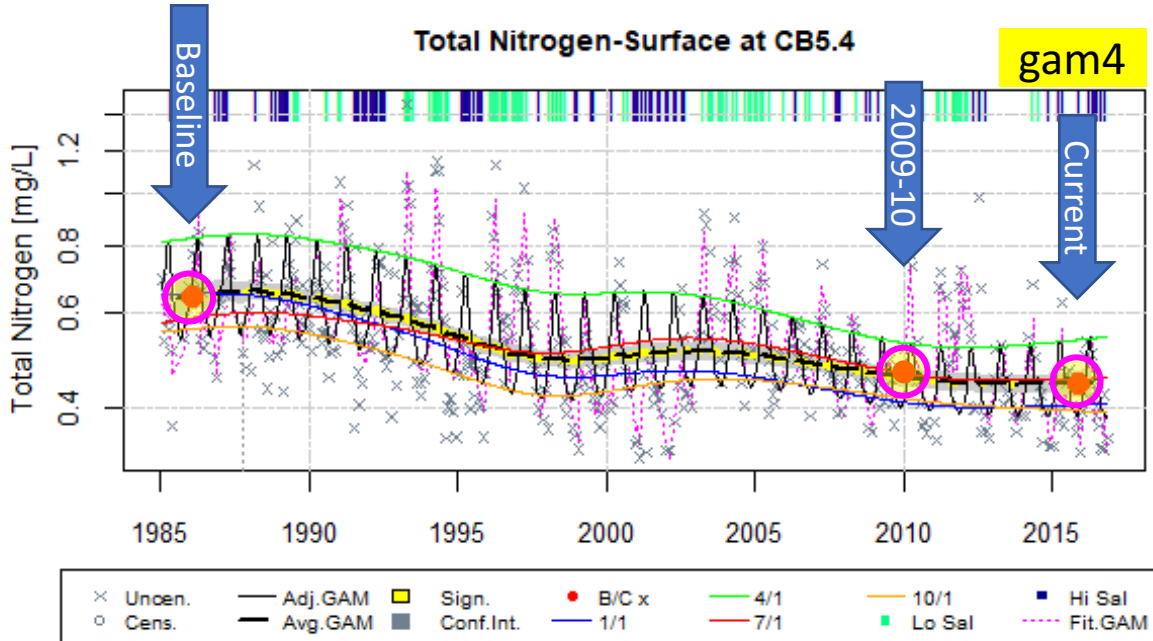
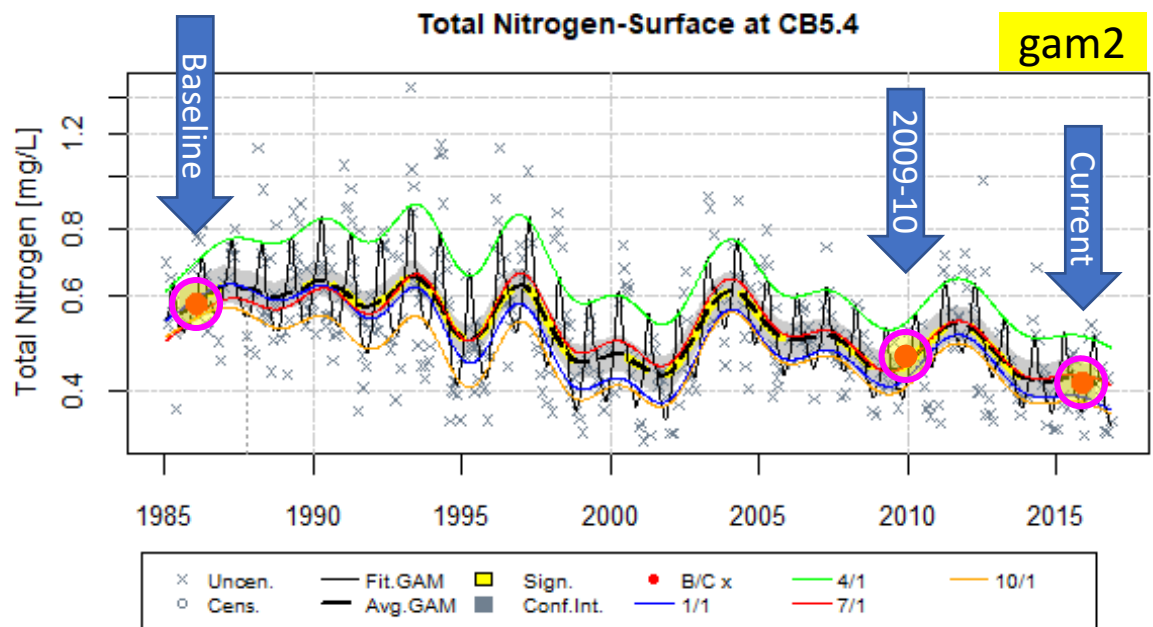
- Obs.
- %
- p-val.

Total Nitrogen [mg/L]  
Surface | Annual



**Baseline mean**

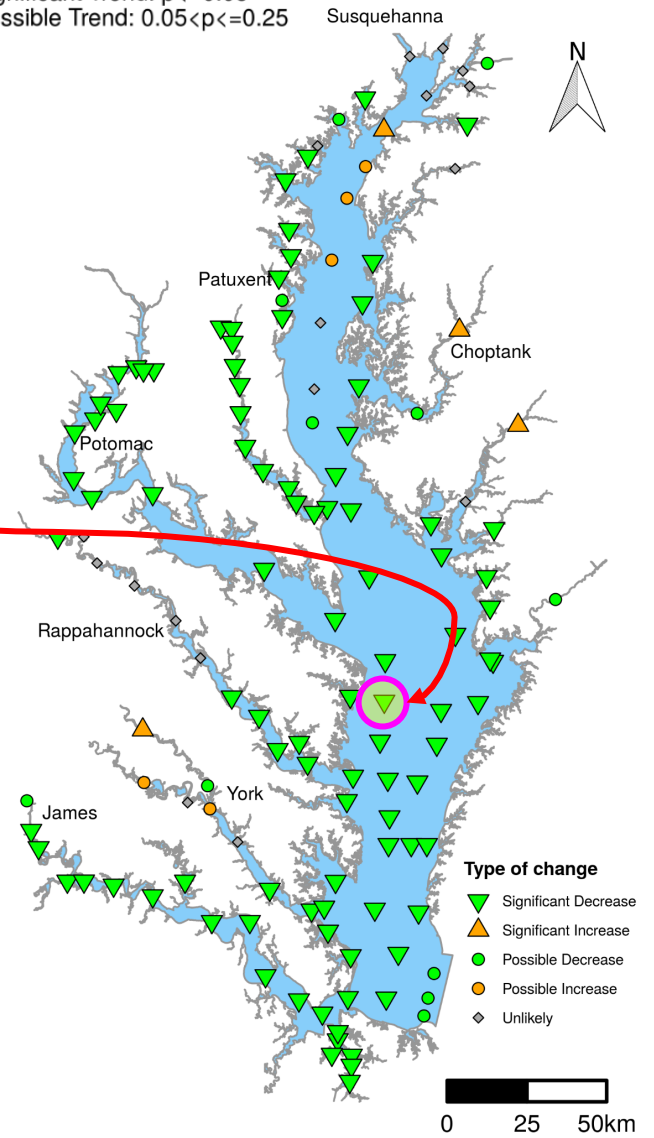
○ [0.2,0.4]	○ (0.8,1]	○ (1.5,2]	○ (3,5]
○ (0.4,0.8]	○ (1,1.5]	○ (2,3]	○ (5,8]



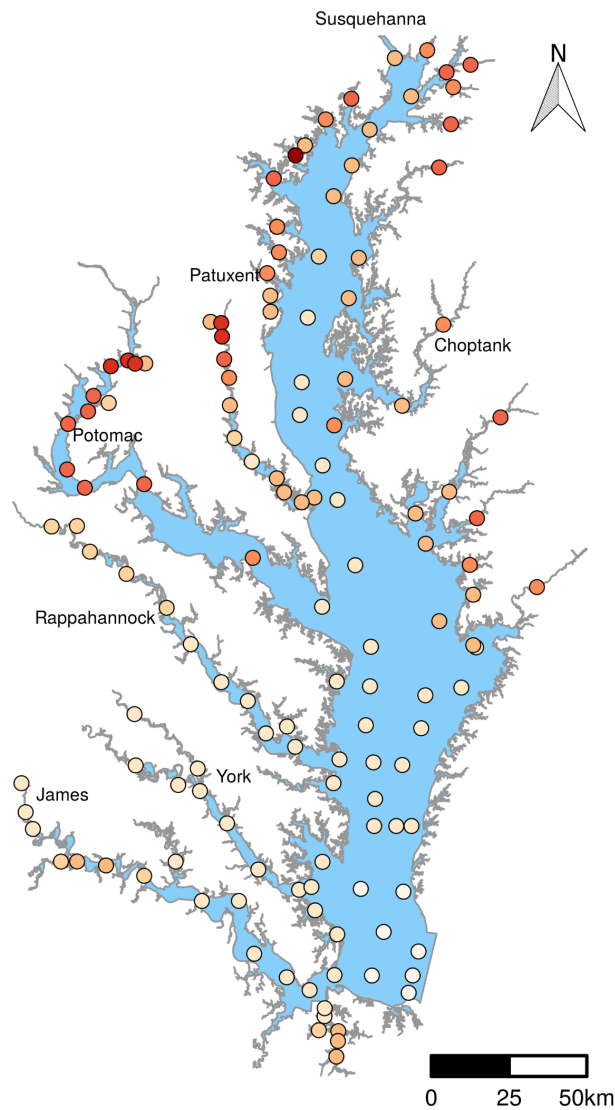
Total Nitrogen [mg/L]  
 Non-linear Trend (Full Period)  
 Annual | Surface  
 Significant Trend:  $p < 0.05$   
 Possible Trend:  $0.05 < p < 0.25$

Change  
 □ Obs.  
 □ %  
 □ p-val.

Change  
 □ Obs.  
 □ %  
 □ p-val.

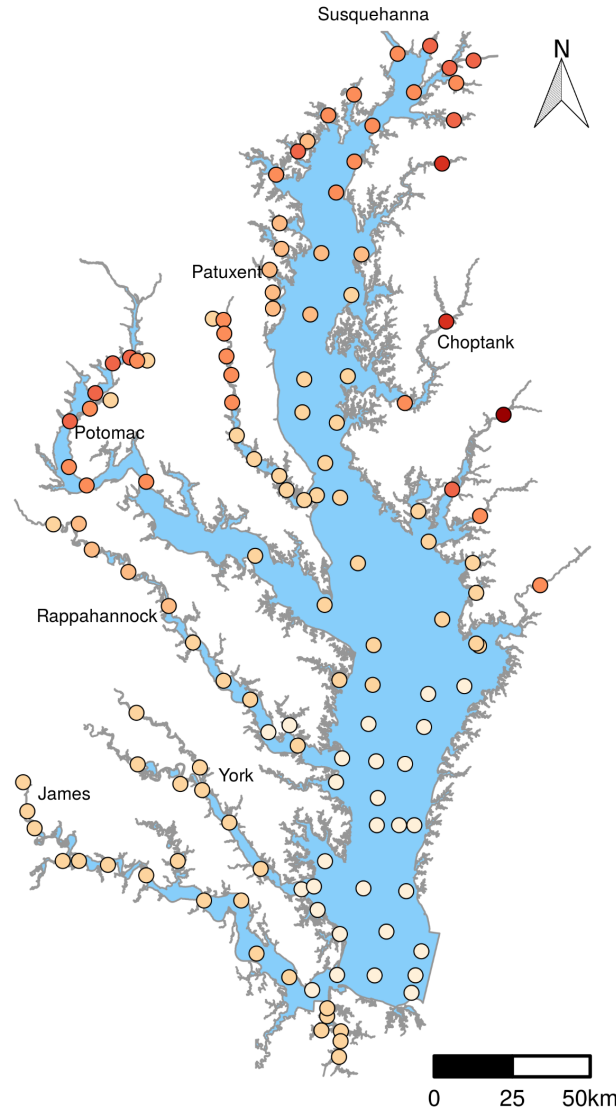


p-value thresholds (possible, significant) = 0.25, 0.05



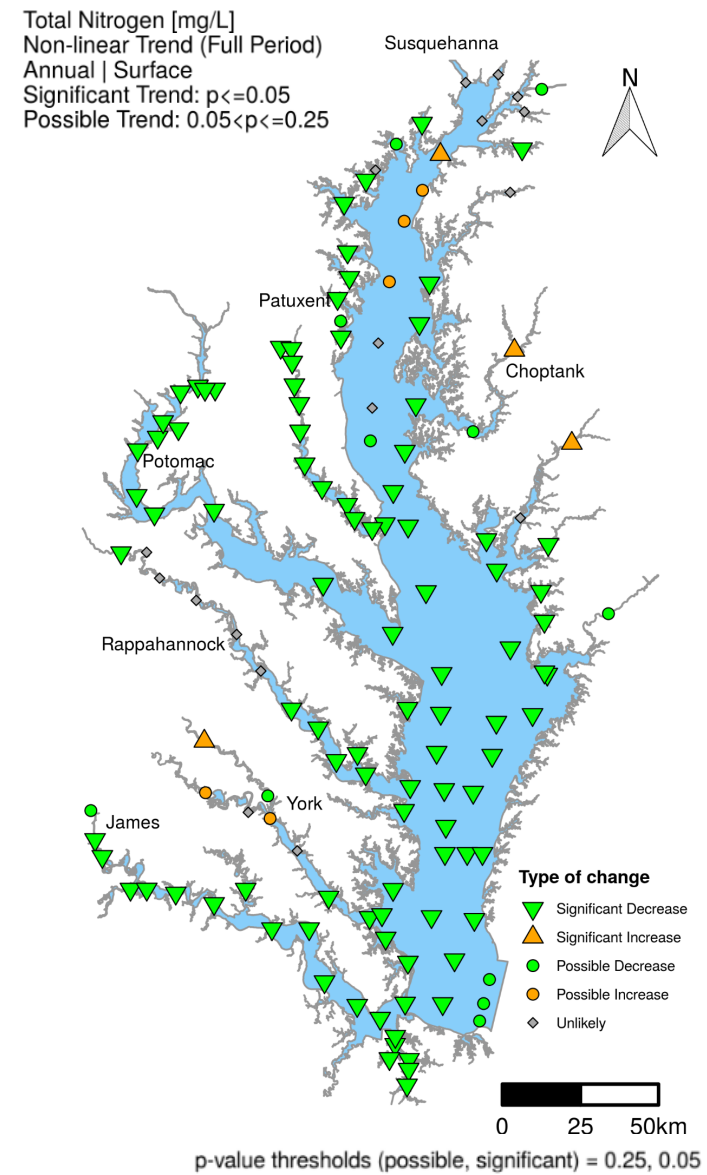
**Baseline mean**

○ [0.2,0.4]	○ (0.8,1]	○ (1.5,2]	○ (3,5]
○ (0.4,0.8]	○ (1,1.5]	○ (2,3]	○ (5,8]



**Current mean**

○ [0.2,0.4]	○ (0.8,1]	○ (1.5,2]	○ (3,5]
○ (0.4,0.8]	○ (1,1.5]	○ (2,3]	○ (5,8]



## Choose baytrends Output

### 1a. Load final file

Choose file to load

- Non-linear Trend (Full Period)
- Non-linear Trend (2009-2010 to 2017-2018)
- Non-linear Trend with Flow Adjustment (Full Period)
- Non-linear Trend with Flow Adjustment (2009-2010 to 2017-2018)

Load 'Official' File

Maximum file size is 100 MB.

### 1b. Load user file

Select CSV input file

Choose file to upload

Browse...

No file selected

## Number of stations

Final File	Parameter	Layer	Surface (Bottom)				
		Season	All Annual	Spring1 Mar-May	Summer1 Jun-Sep	Summer2 Jul-Sep	SAV1 Apr-Oct
Non-linear Trend (Full Period)	Chlorophyll a (Corrected) [ug/L]		135	135		135	
	Secchi Depth [m]		131	131	131		67
	Total Nitrogen [mg/L]		135 (127)				
	Total Phosphorus [mg/L]		135 (127)				
	Dissolved Oxygen [mg/L]				143 (135)		
	Water Temperature [deg C]		136 (127)	136 (127)	136 (127)		71 (63)
Non-linear Trend (2009-2010 to 2017-2018)	Chlorophyll a (Corrected) [ug/L]		136	136		136	
	Secchi Depth [m]		131	131	131		67
	Total Nitrogen [mg/L]		136 (127)				
	Total Phosphorus [mg/L]		136 (127)				
	Dissolved Oxygen [mg/L]				144 (135)		
	Water Temperature [deg C]		136 (127)	136 (127)	136 (127)		71 (63)
Non-linear Trend with Flow Adjustment (Full Period)	Chlorophyll a (Corrected) [ug/L]		135	135		135	
	Secchi Depth [m]		131	131	131		67
	Total Nitrogen [mg/L]		135 (127)				
	Total Phosphorus [mg/L]		135 (127)				
	Dissolved Oxygen [mg/L]				143 (135)		
	Water Temperature [deg C]		136 (127)	136 (127)	136 (127)		71 (63)
Non-linear Trend with Flow Adjustment (2009-2010 to 2017-2018)	Chlorophyll a (Corrected) [ug/L]		136	136		136	
	Secchi Depth [m]		131	131	131		67
	Total Nitrogen [mg/L]		136 (127)				
	Total Phosphorus [mg/L]		136 (127)				
	Dissolved Oxygen [mg/L]				144 (135)		
	Water Temperature [deg C]		136 (127)	136 (127)	136 (127)		71 (63)

# Live Demo

- <https://baytrends.chesapeakebay.net/baytrendsmap>
- What to show
  - Import data
  - Filter data
  - Create maps
    - Map options
      - Title
      - Colors
      - Intervals
      - Output file format
    - Update and Save buttons



# Map Changes

- Title
- Color
- Create own break points

# baytrendsmap

v1.1.0 (source code)

<https://github.com/tetrattech/baytrendsmap>

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