SK/GAM Comparison Maps

Kyle Hinson
Overview

• These slides represent a comparison of findings among three statistical analyses completed (two iterations of the GAM method and the Seasonal Kendall method).

• The ability to detect trends at different levels of significance (i.e. different p values) were evaluated for the tidal main stem of the Chesapeake Bay for chl-a, DO, water clarity, TN, and TP.

• Specific stations are also outlined to show the differences in capturing linear and non-linear trends among the models.
Secchi Trends - Main Stem

Seasonal Kendall Trend Significance

GAM Linear Trend Significance

GAM Nonlinear Trend Significance

Trend p Values
- <= 0.05
- > 0.05 - 0.1
- > 0.1
Surface Total Nitrogen Trends - Main Stem

Seasonal Kendall Trend Significance

GAM Linear Trend Significance

GAM Nonlinear Trend Significance

Trend p Values

- <= 0.05
- > 0.05 - 0.1
- > 0.1
Surface Total Phosphorus Trends - Main Stem

Seasonal Kendall Trend Significance

GAM Linear Trend Significance

GAM Nonlinear Trend Significance

Trend p Values
- \( \leq 0.05 \)
- \( > 0.05 - 0.1 \)
- \( > 0.1 \)
tp at CB2.1-S

Date range from 2000 to 2015.