

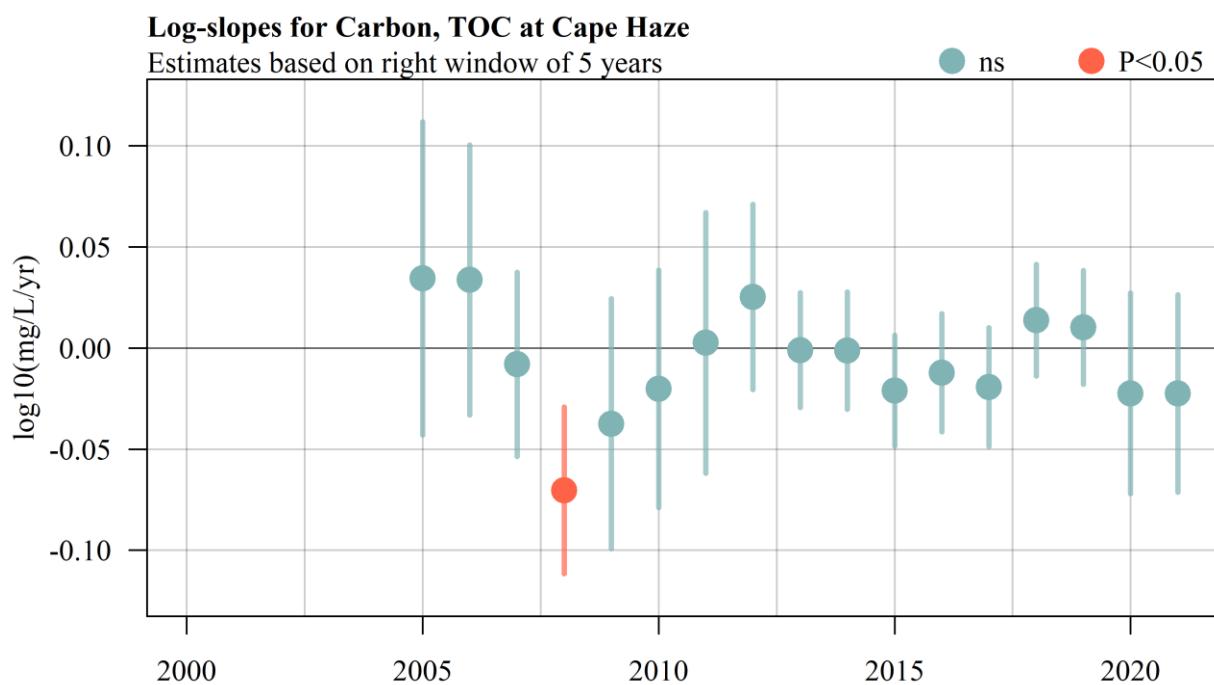
## **5-year trend slopes**

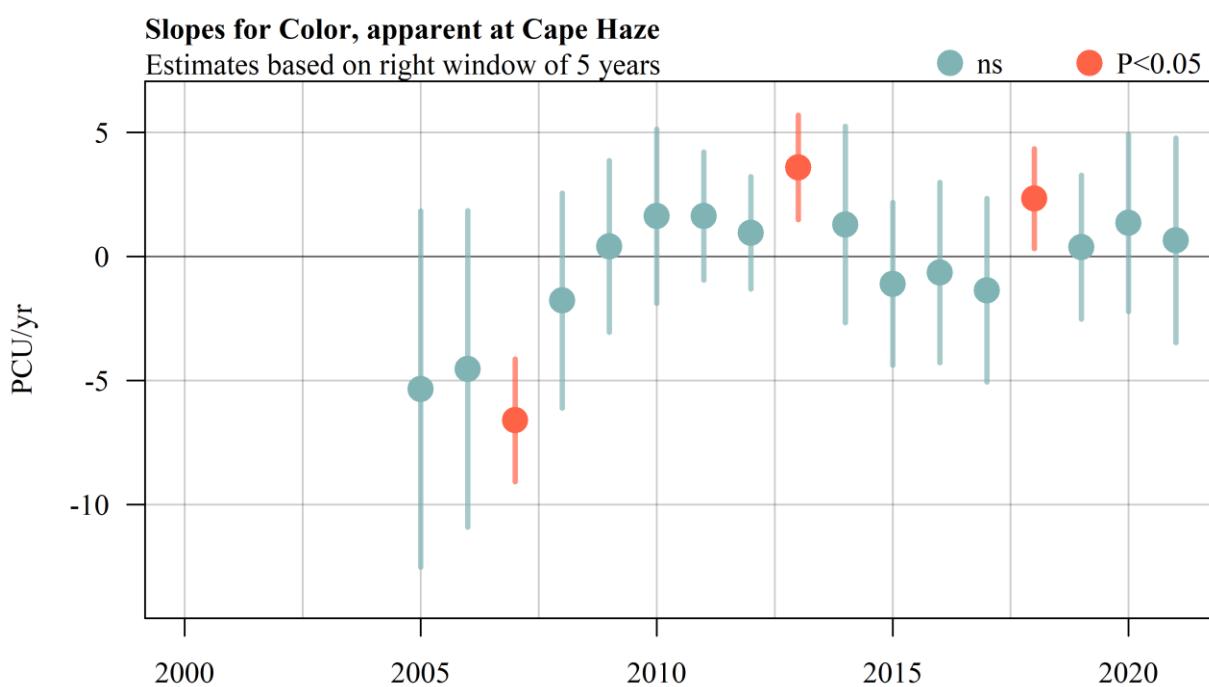
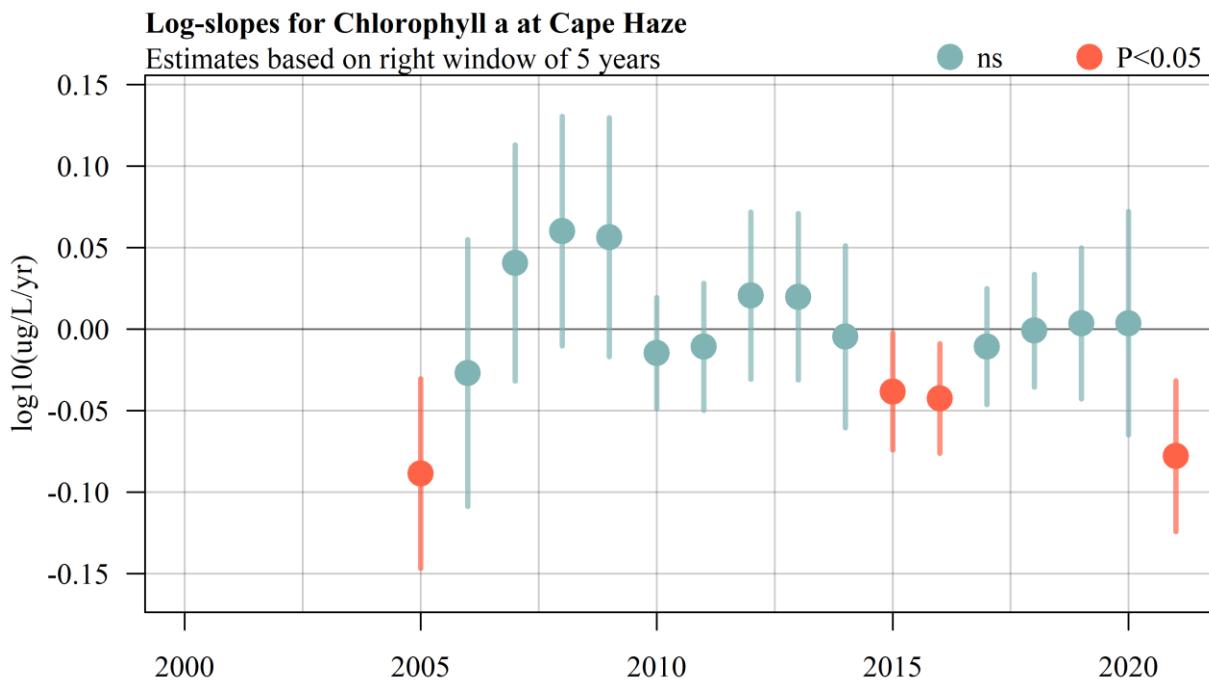
Supplementary figures for “Water Quality Trends and Eutrophication Indicators in a Large Subtropical Estuary: A Case Study of the Greater Charlotte Harbor System in Southwest Florida” (<https://doi.org/10.1007/s12237-025-01488-2>).

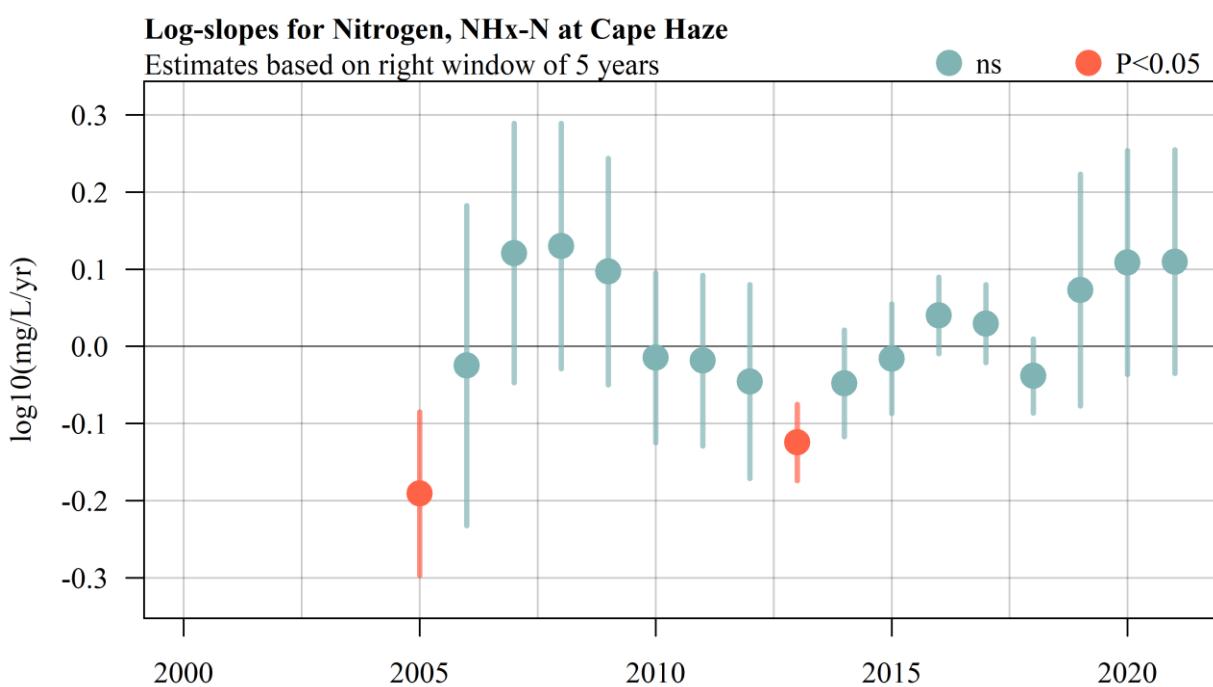
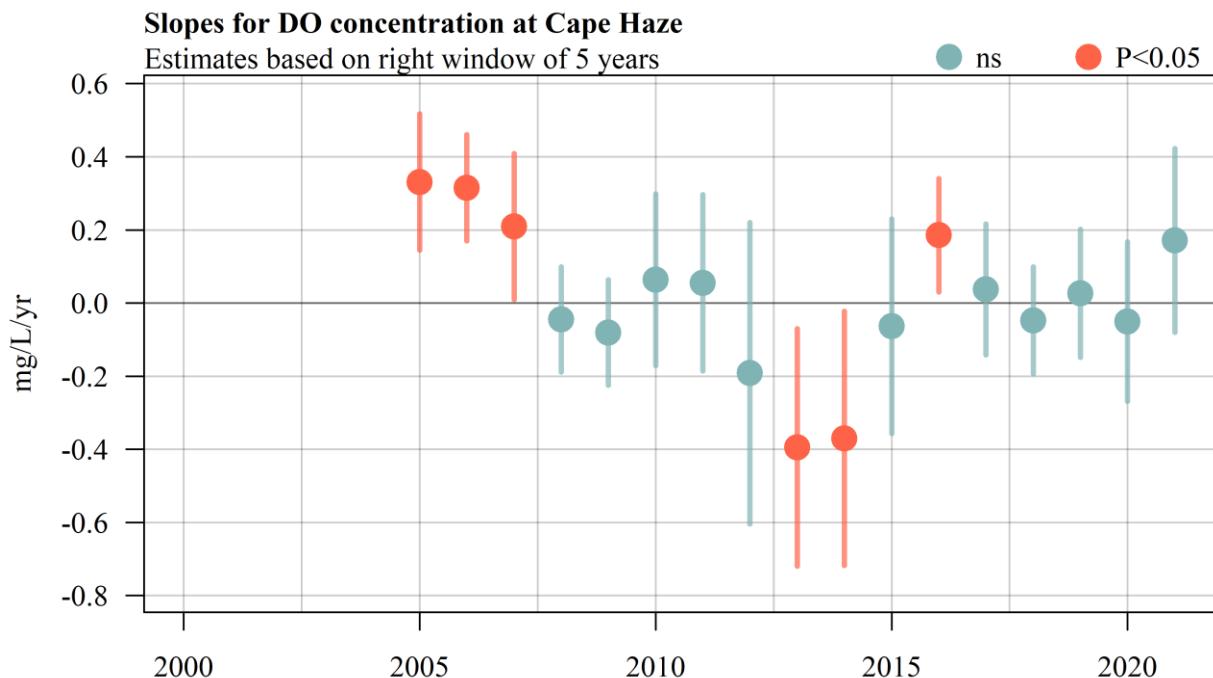
This document contains visualizations of estimated trend slopes over 5-year, right-justified sliding windows with 95% CIs, for 11 water quality parameters at each of 13 monitoring strata. Each slope estimate appears above the terminal year of the corresponding 5-year window (e.g., the 2017–2021 slope estimate is assigned to 2021).

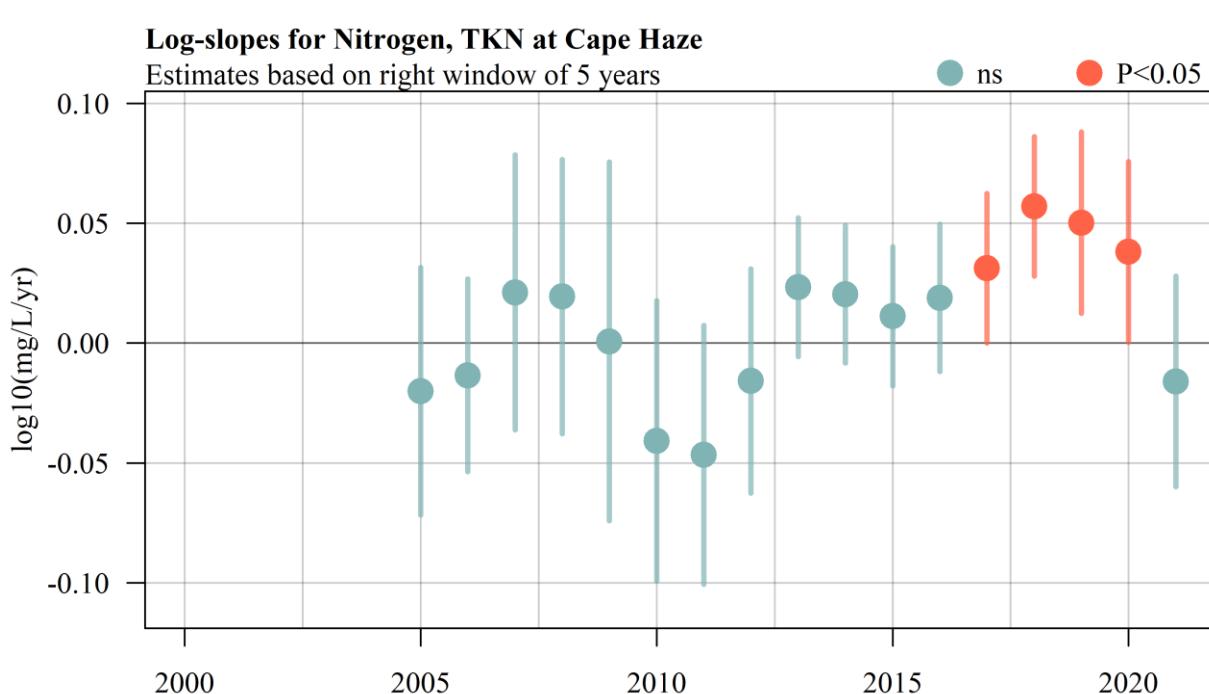
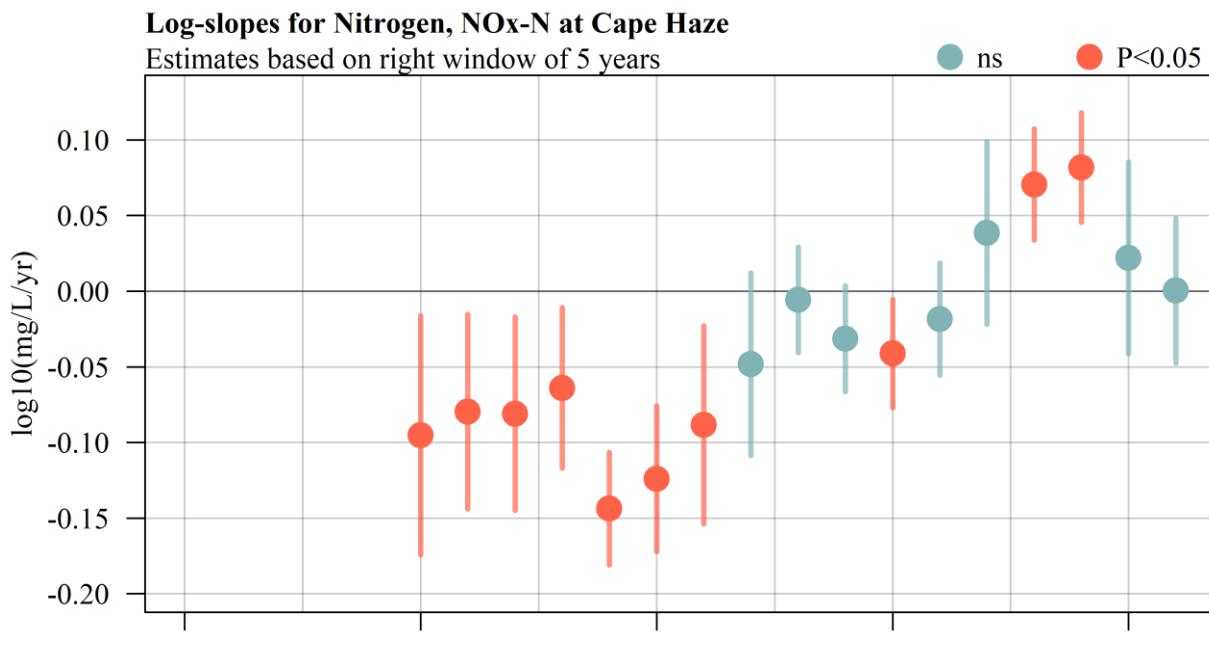
No trend slopes for Cape Haze, BOD

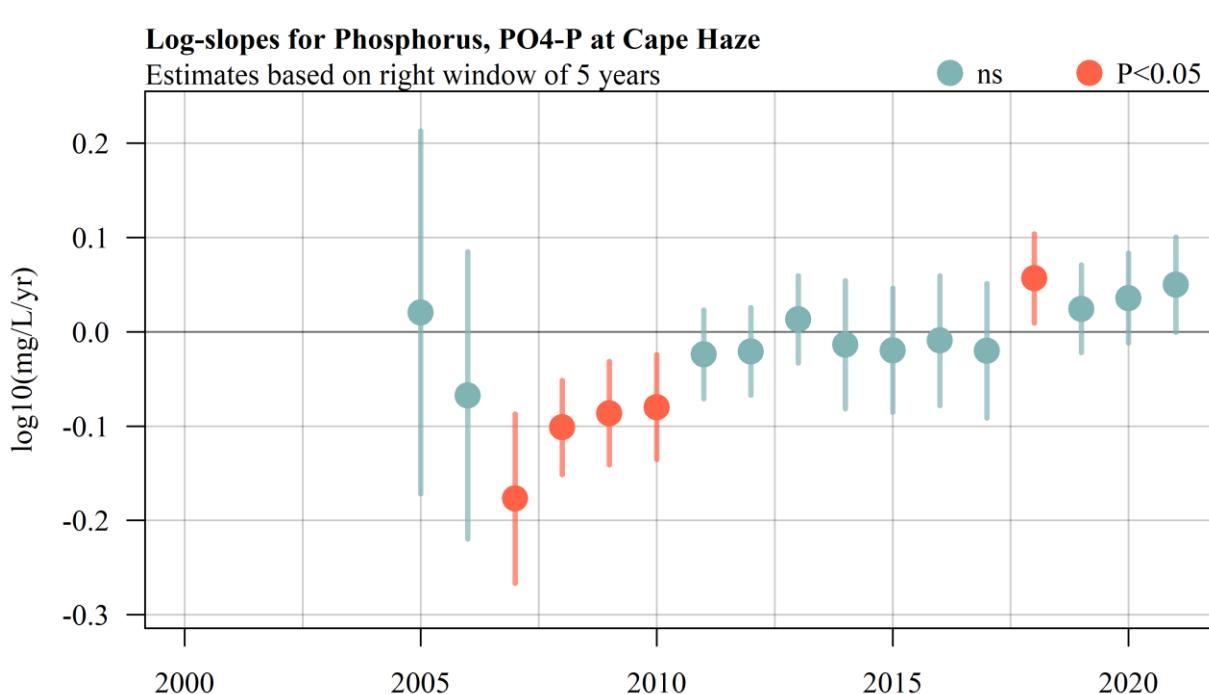
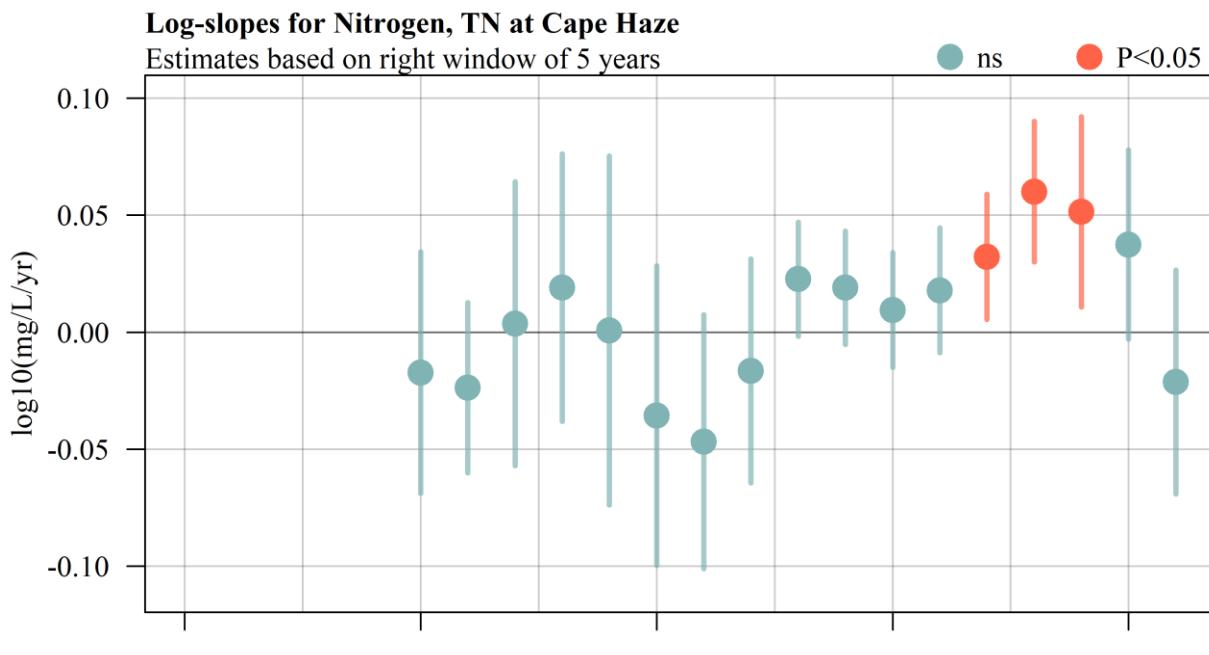
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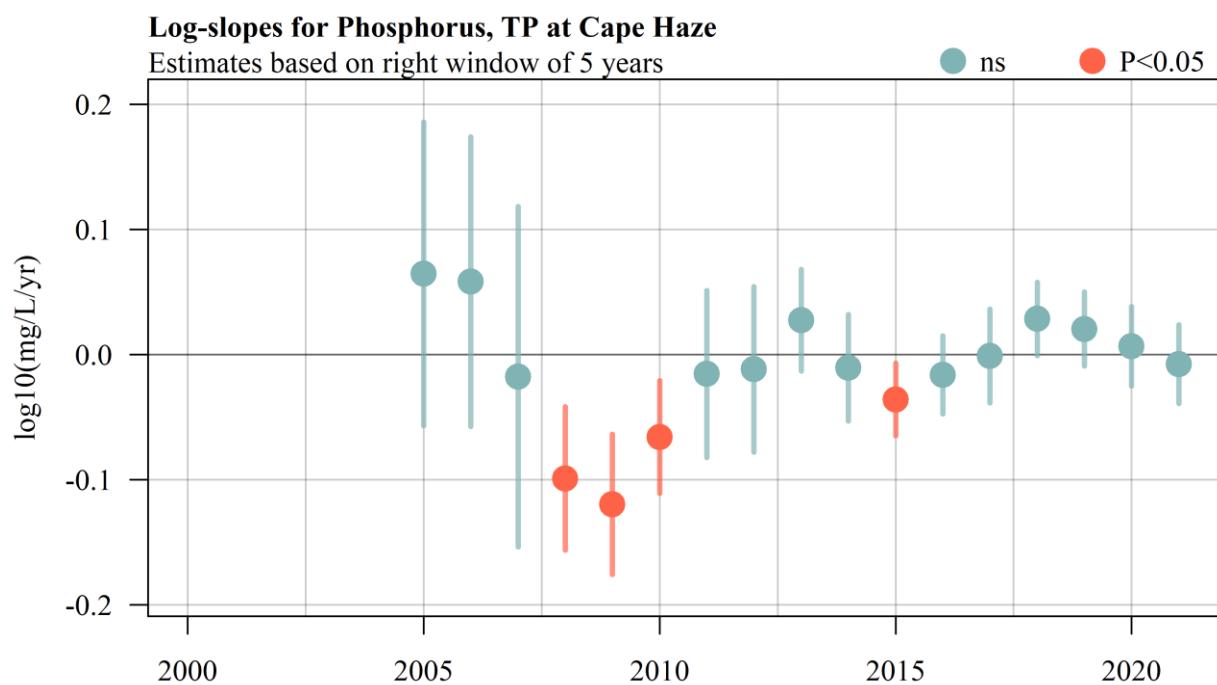






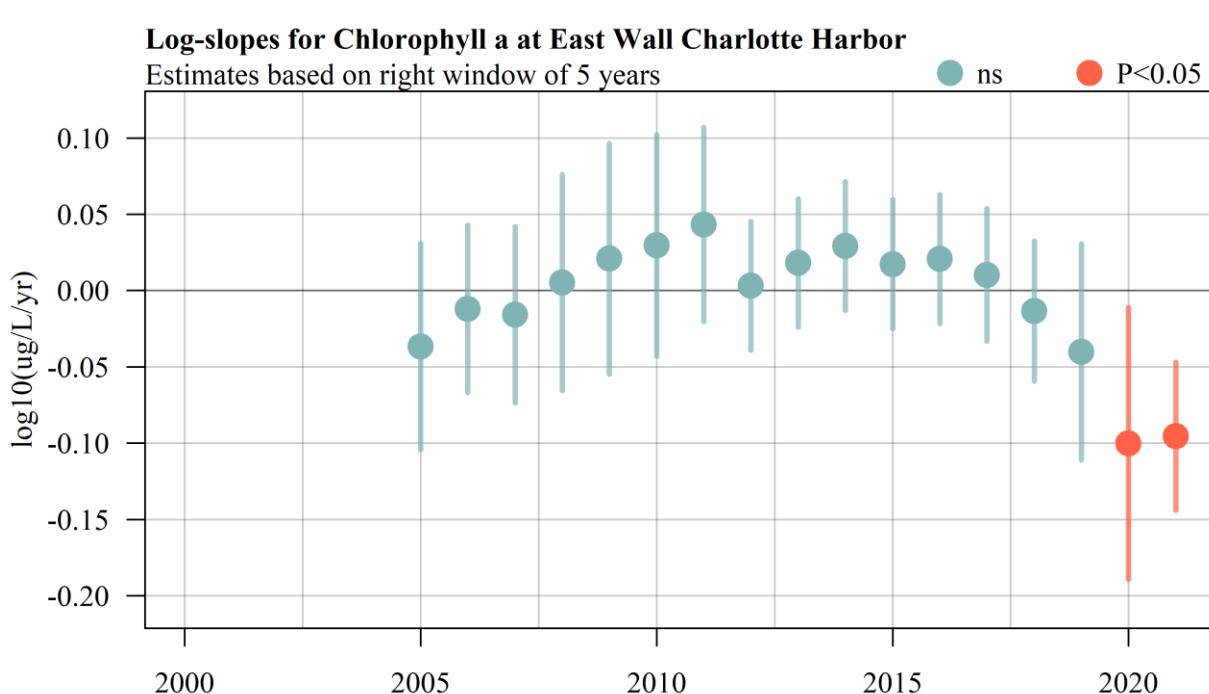
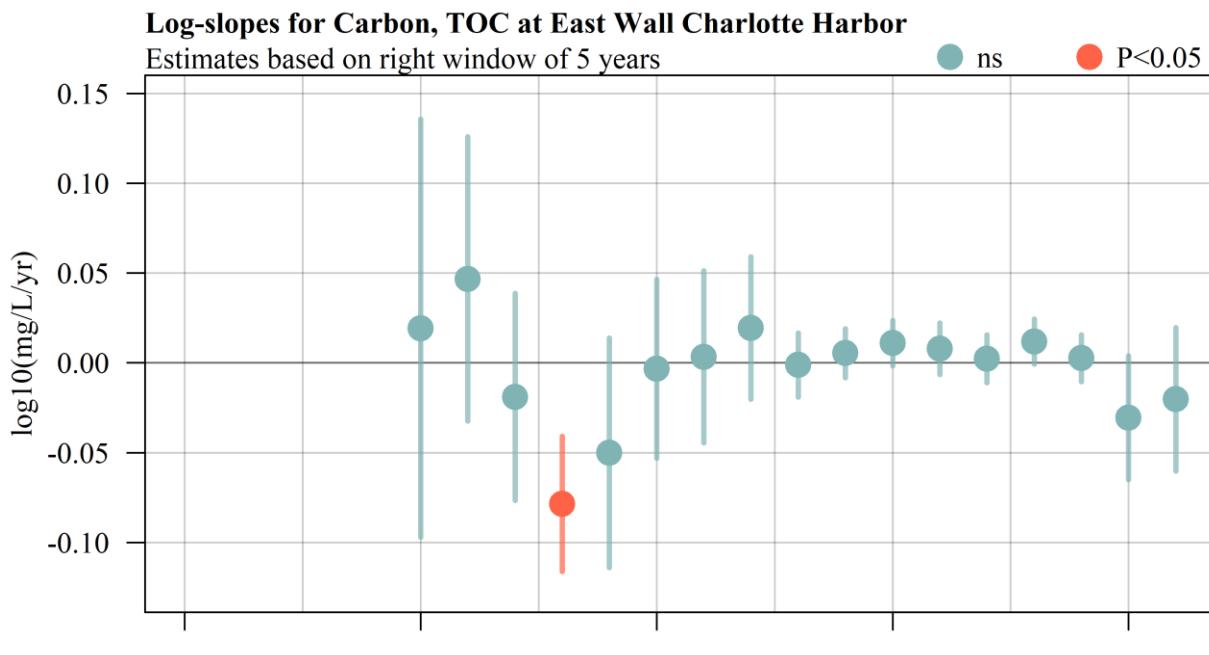


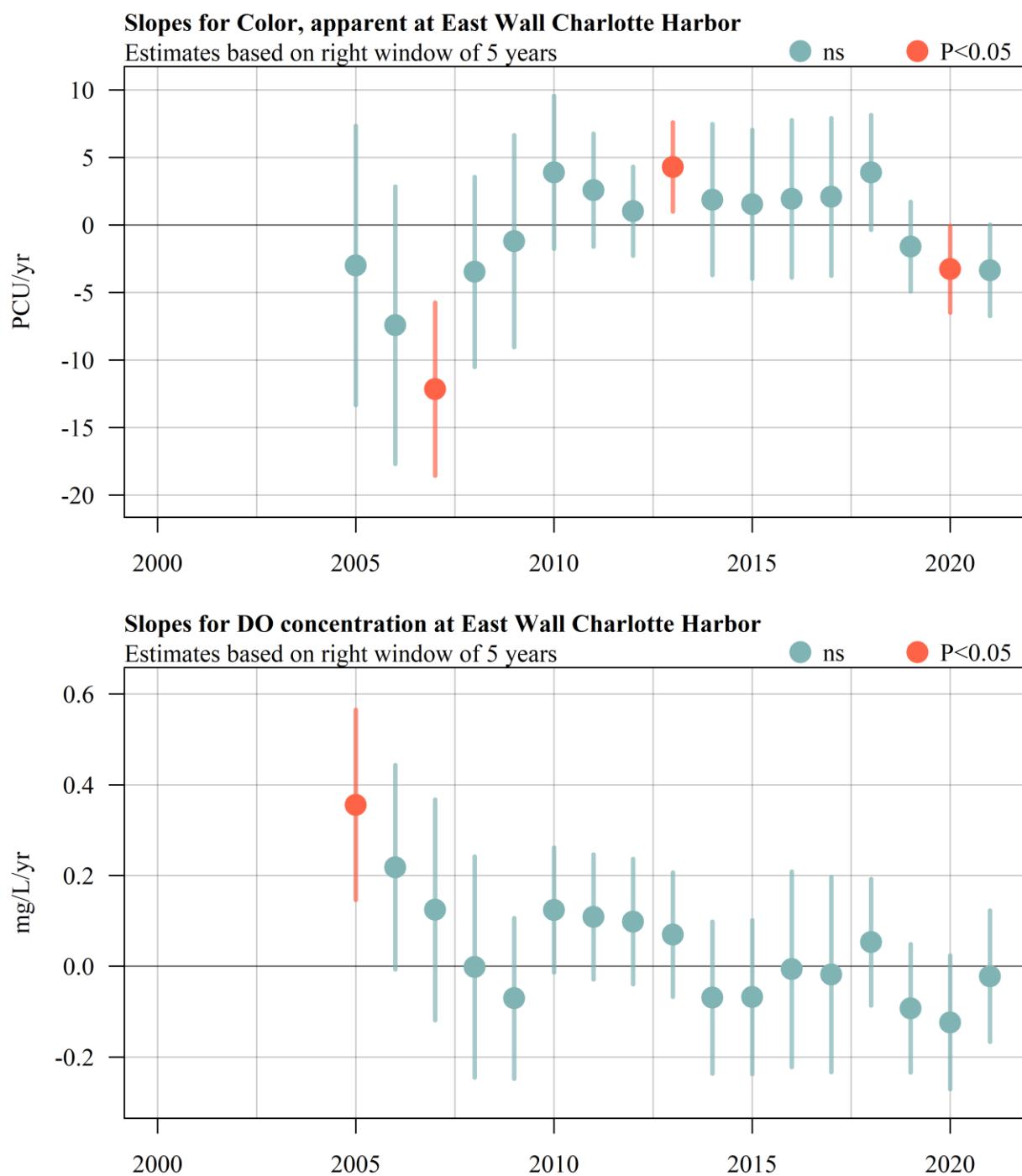


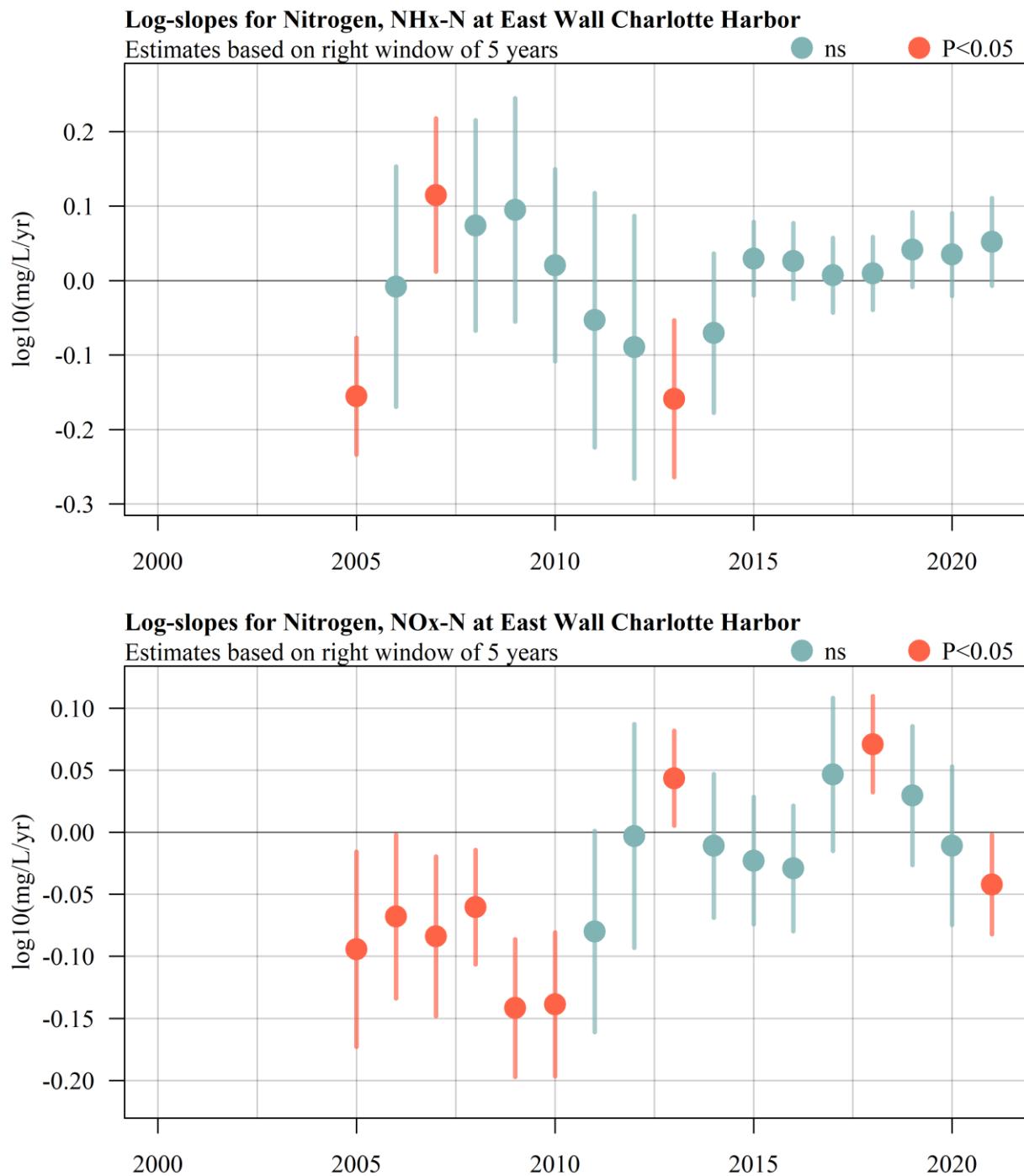


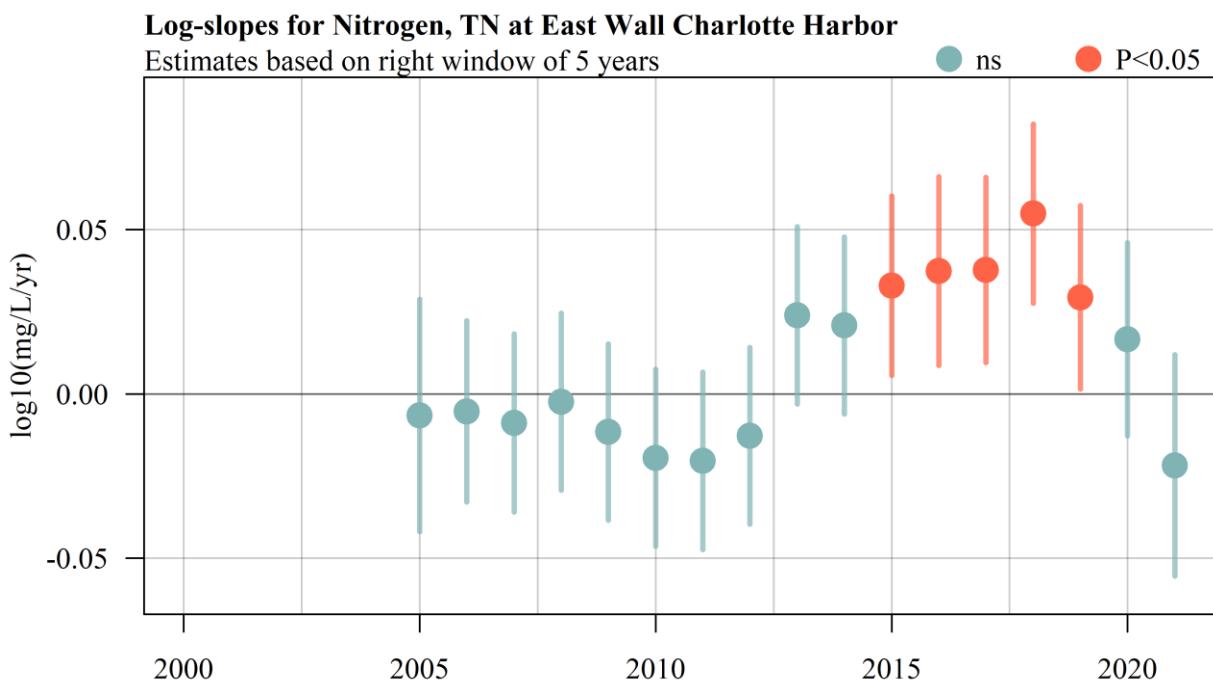
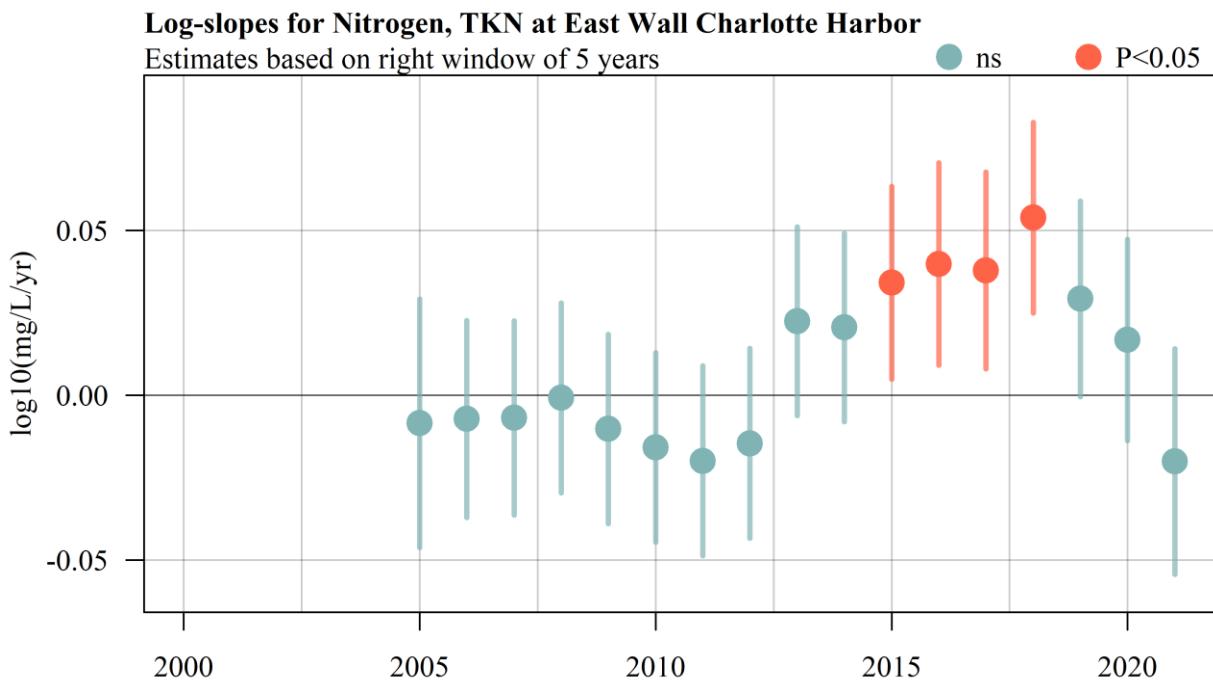
No trend slopes for East Wall Charlotte Harbor, BOD

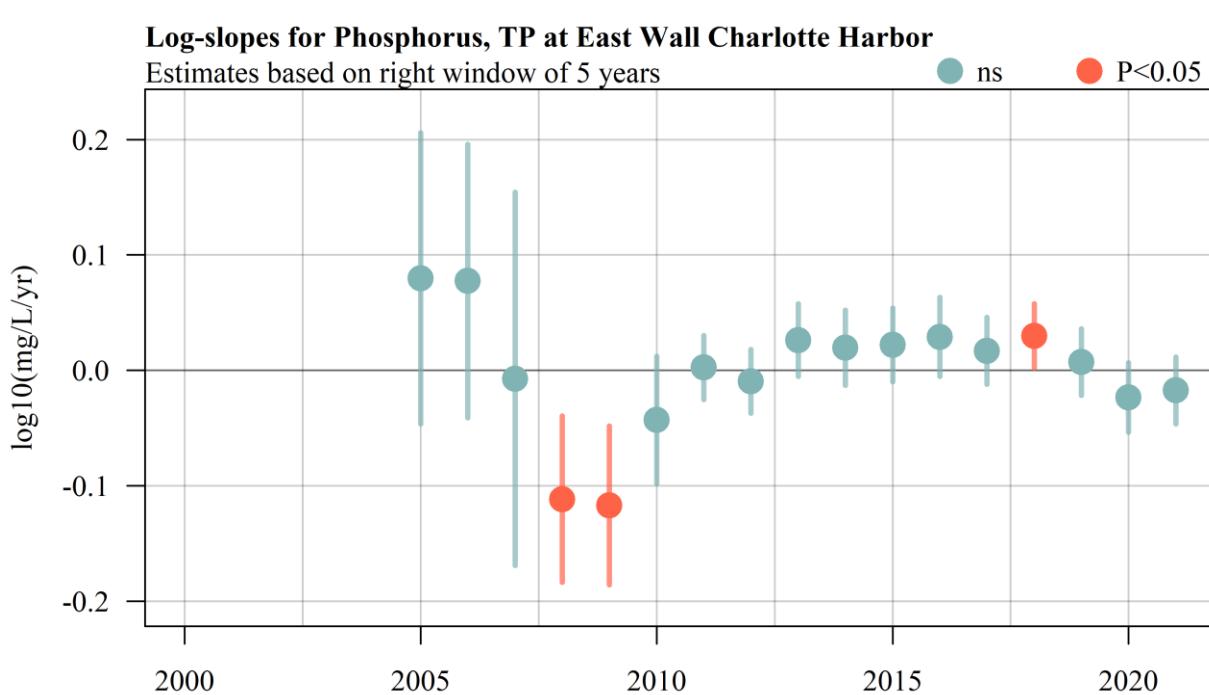
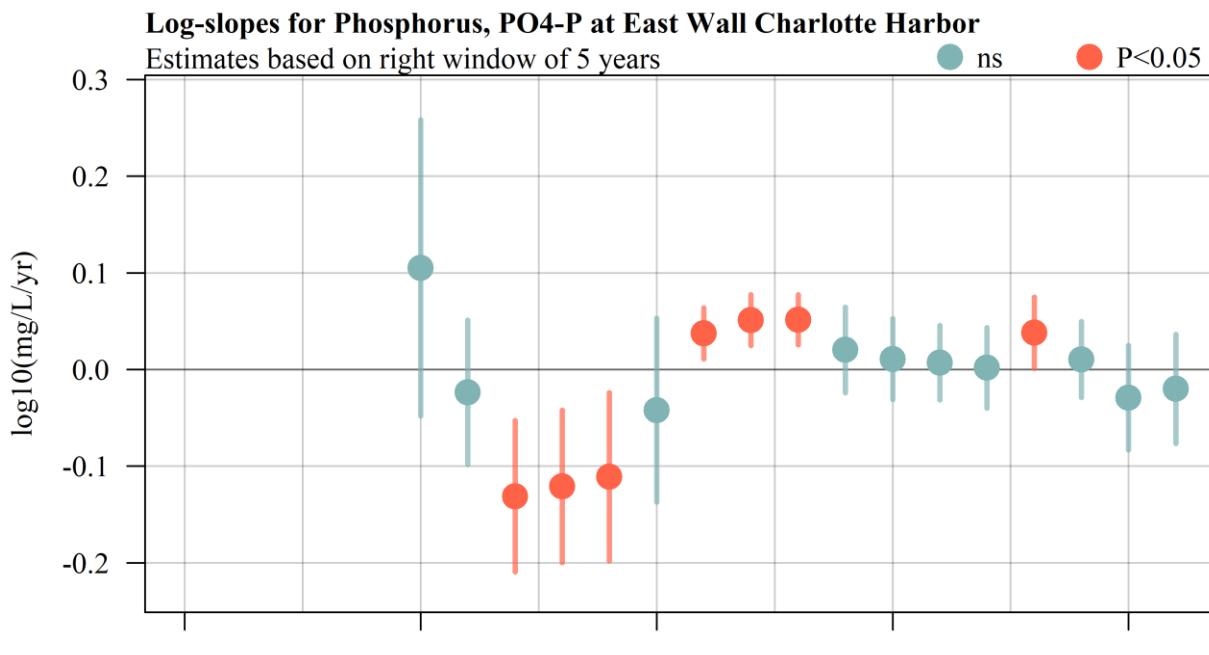
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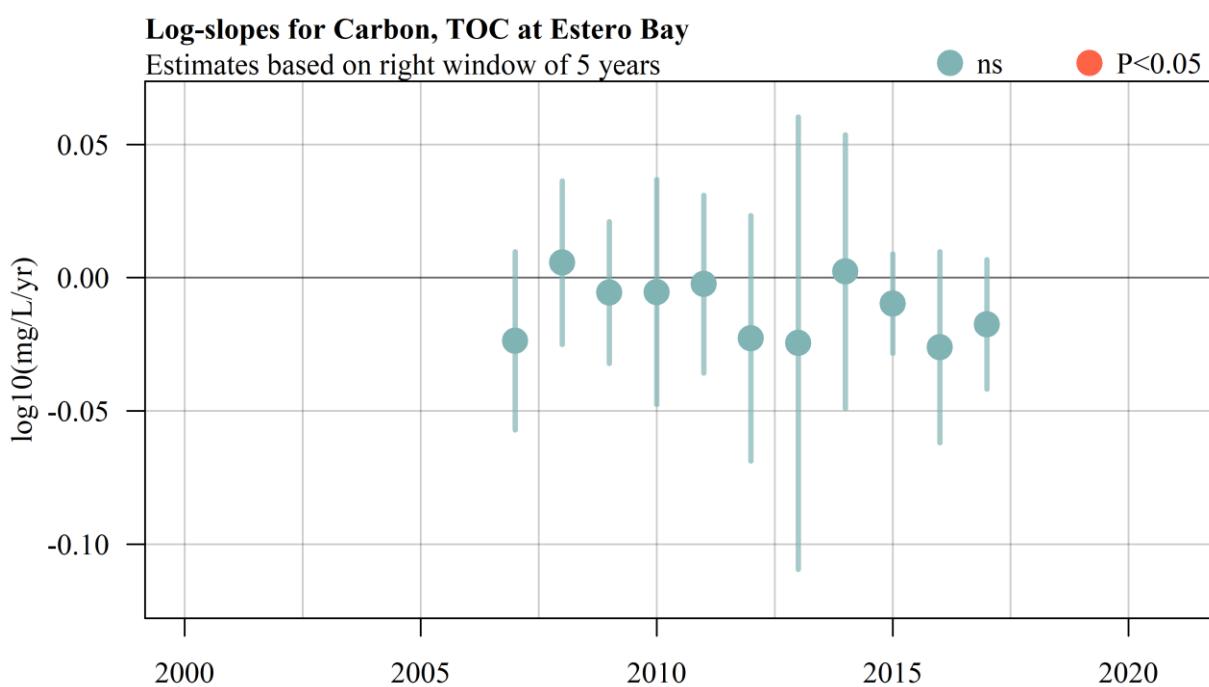
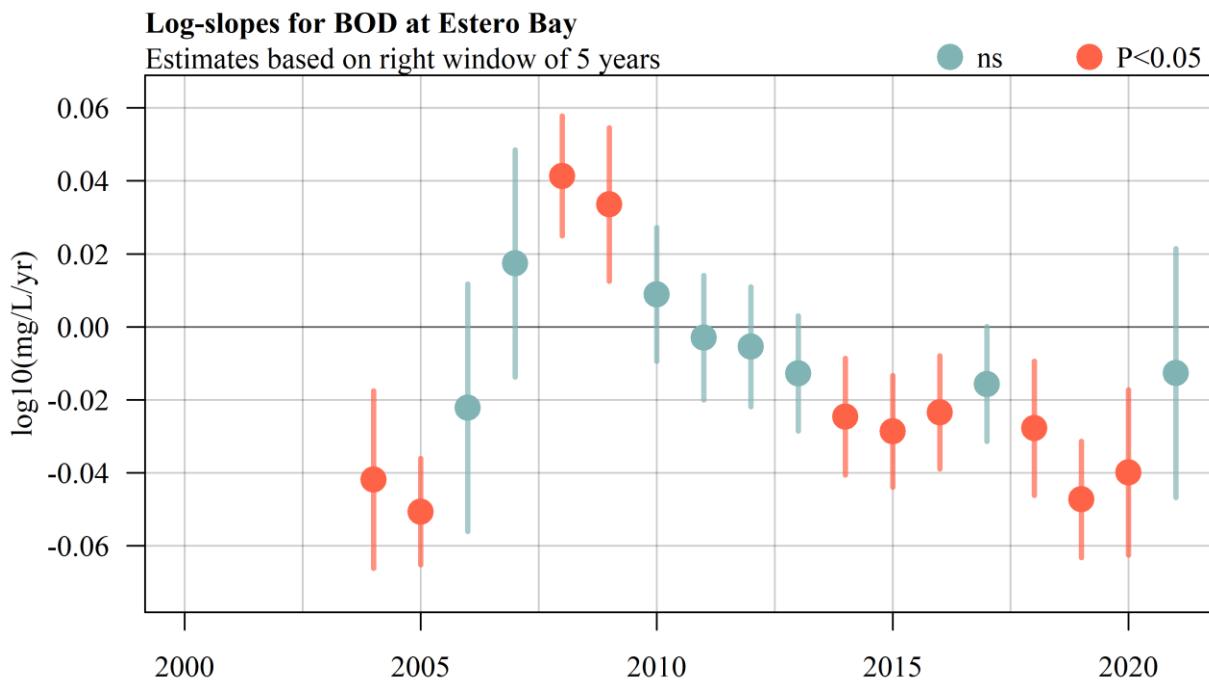


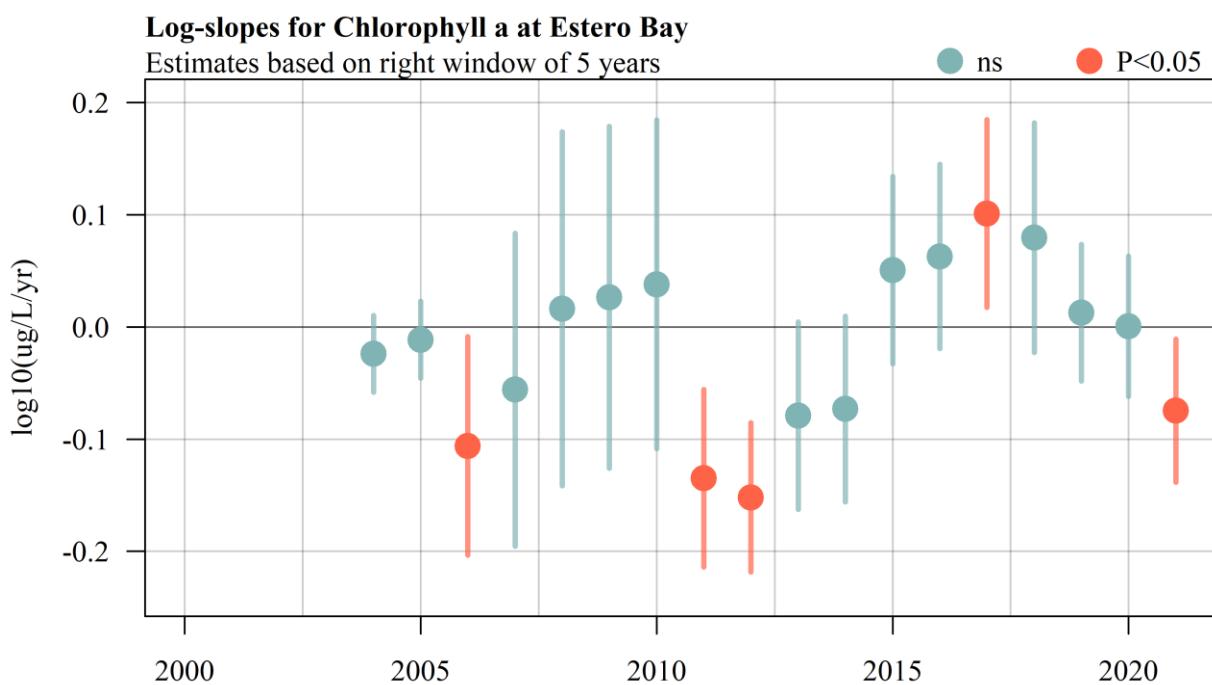






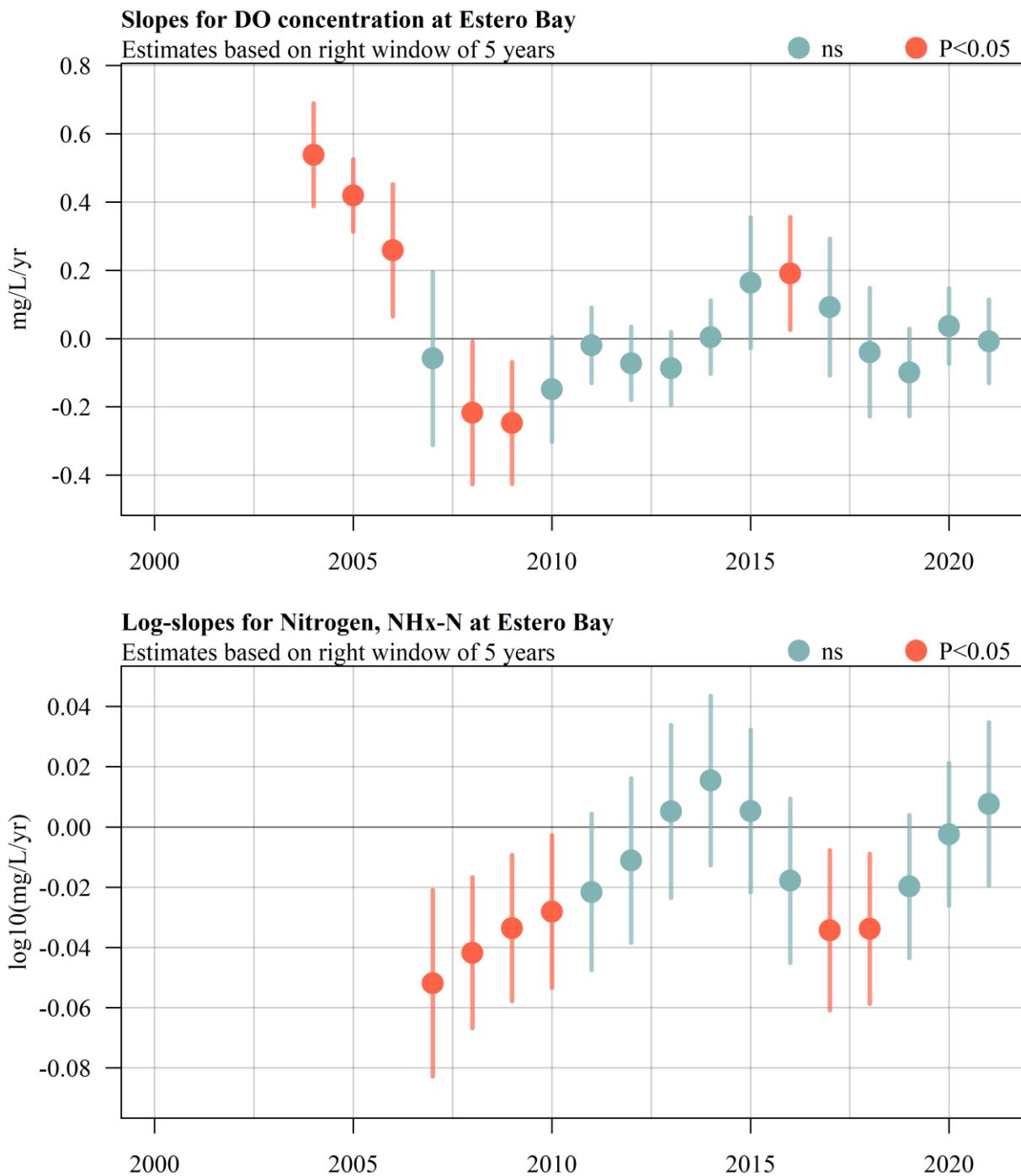


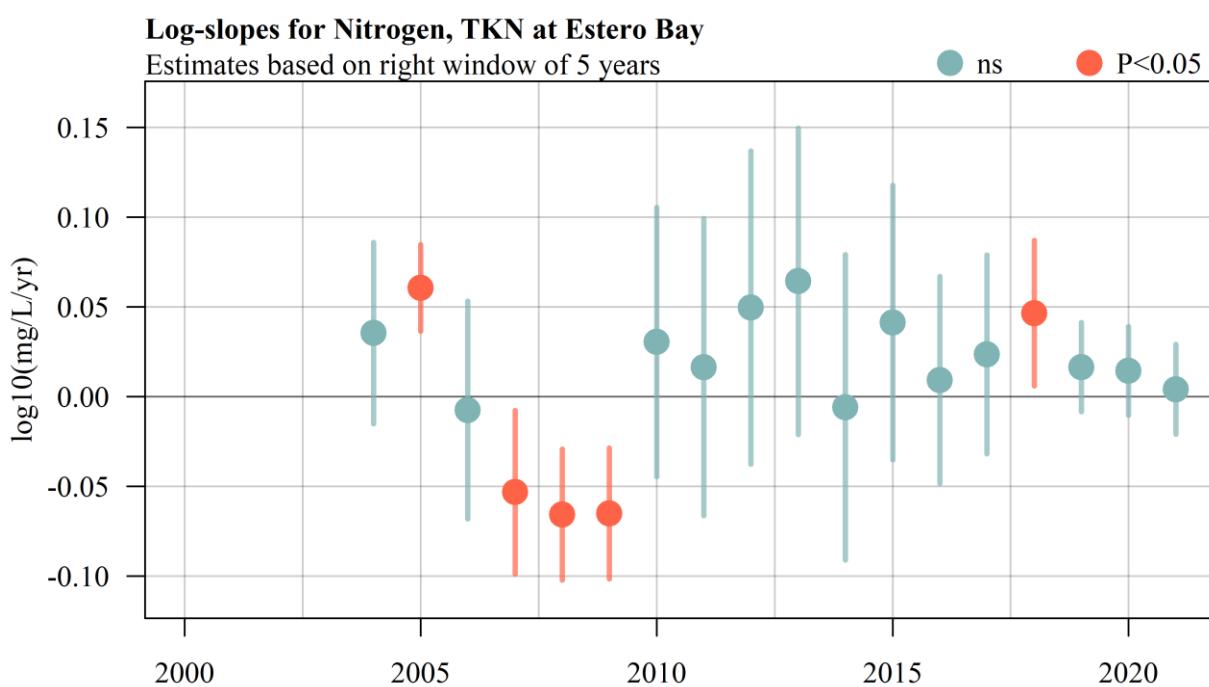
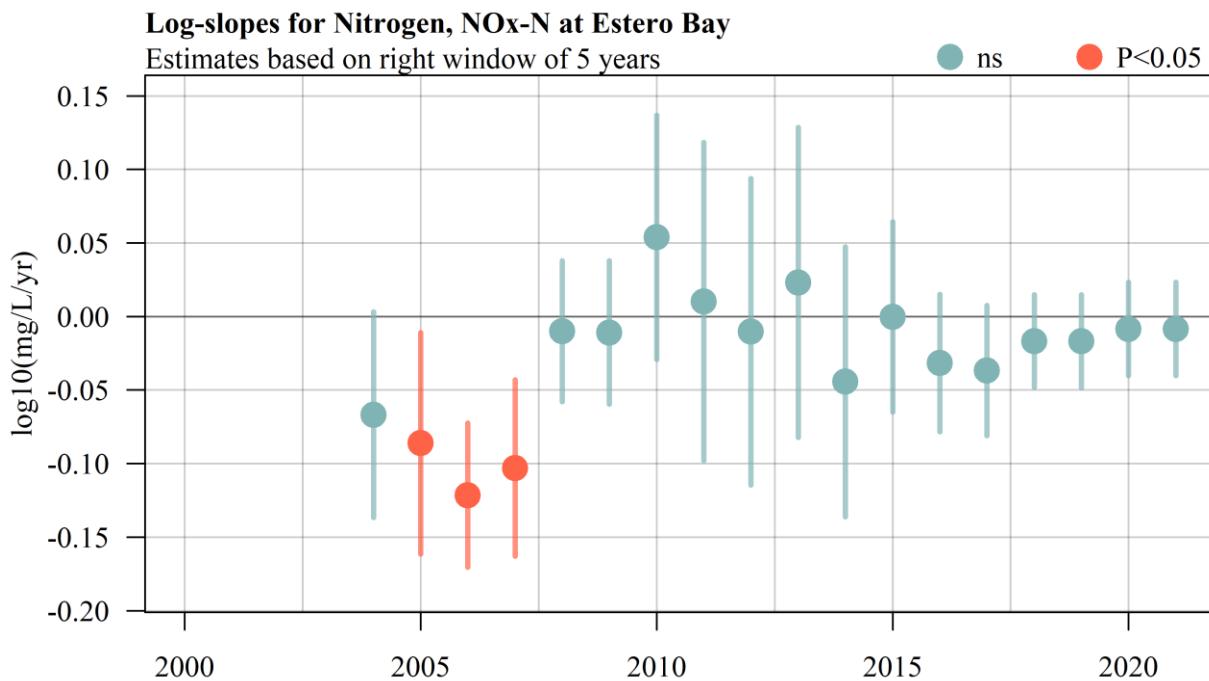


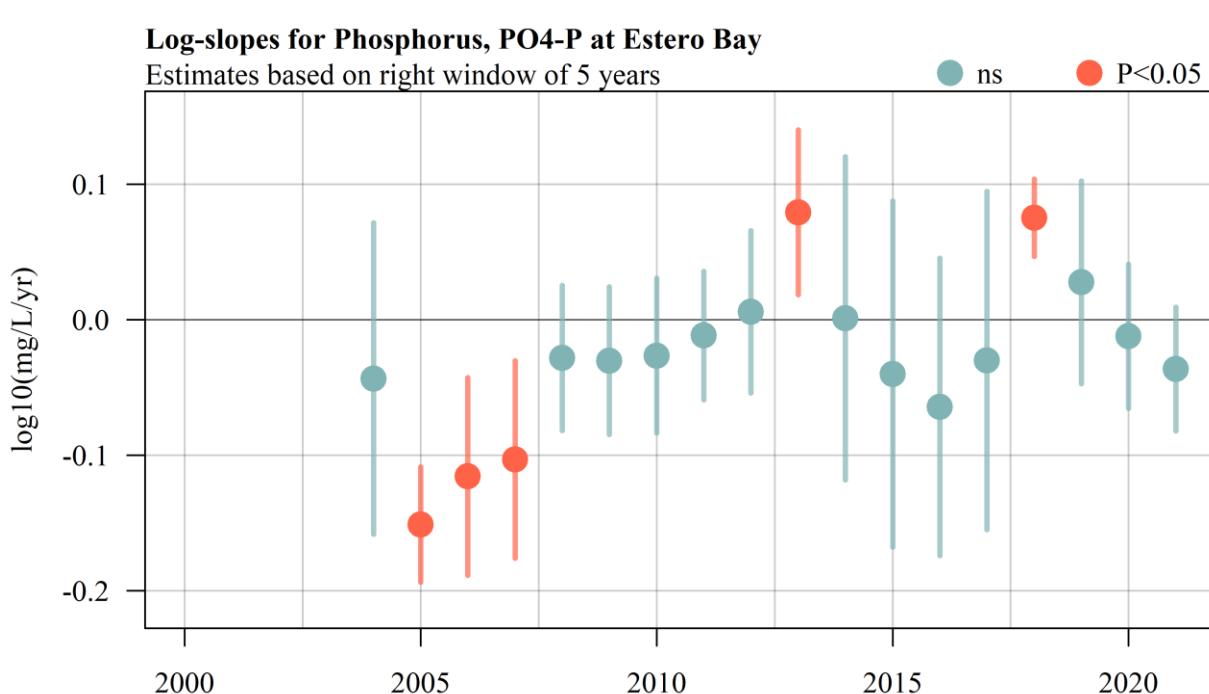
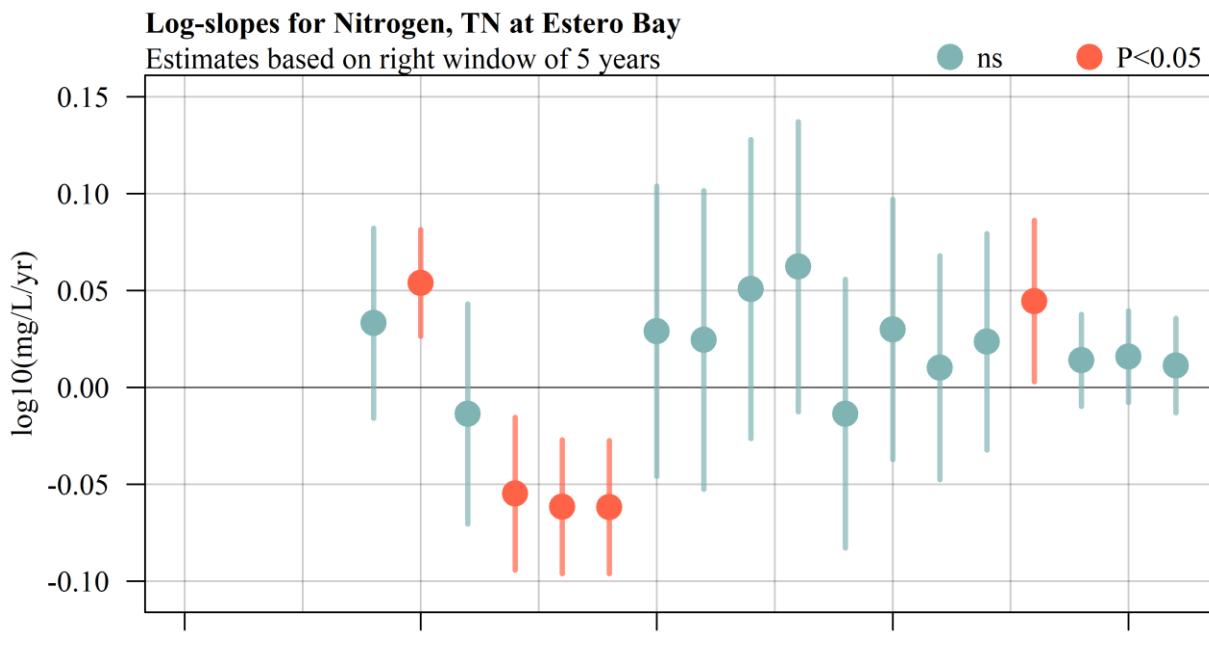


No trend slopes for Estero Bay, Color, apparent

(insufficient data)





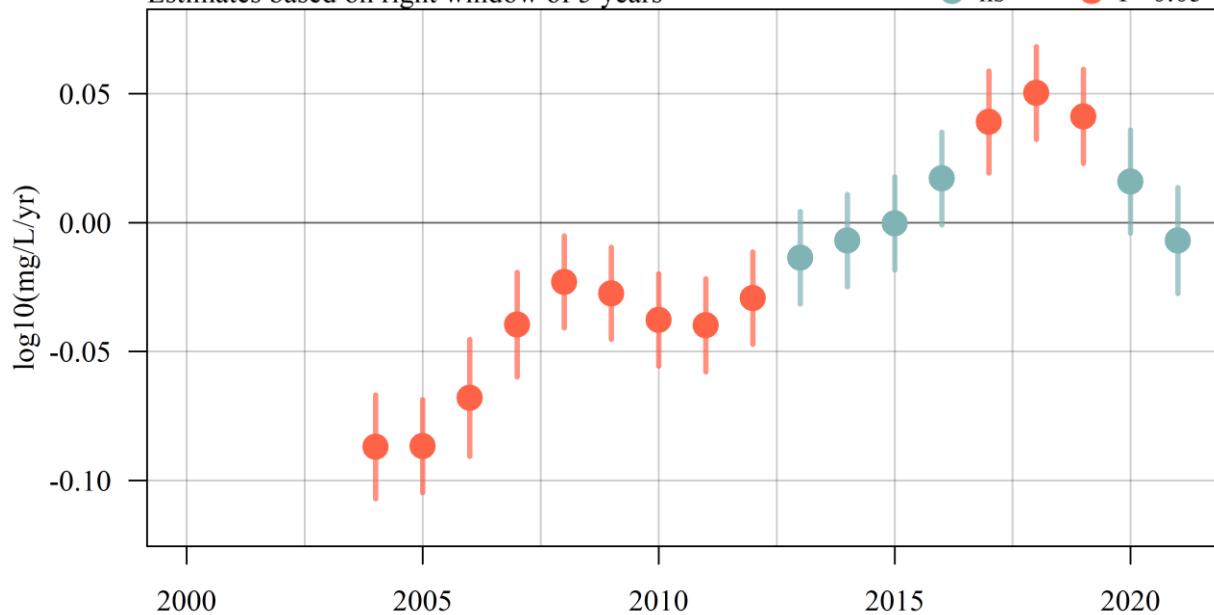


### Log-slopes for Phosphorus, TP at Estero Bay

Estimates based on right window of 5 years

ns

P<0.05

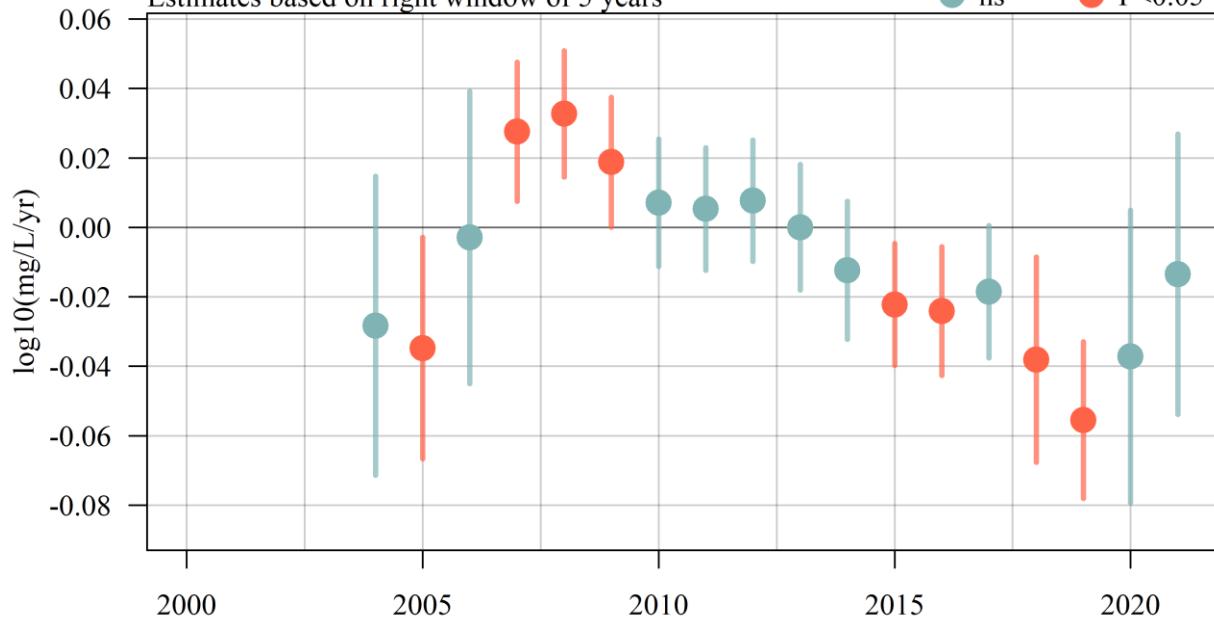


### Log-slopes for BOD at Lower Charlotte Harbor

Estimates based on right window of 5 years

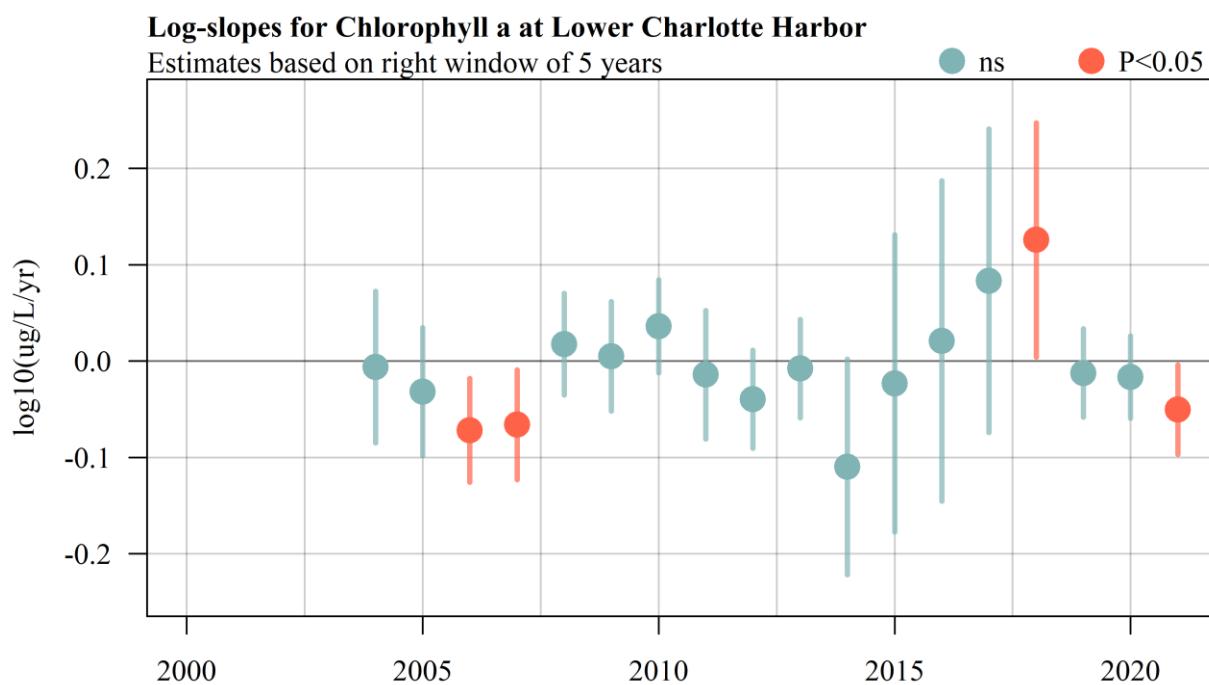
ns

P<0.05



No trend slopes for Lower Charlotte Harbor, Carbon, TOC

(insufficient data)

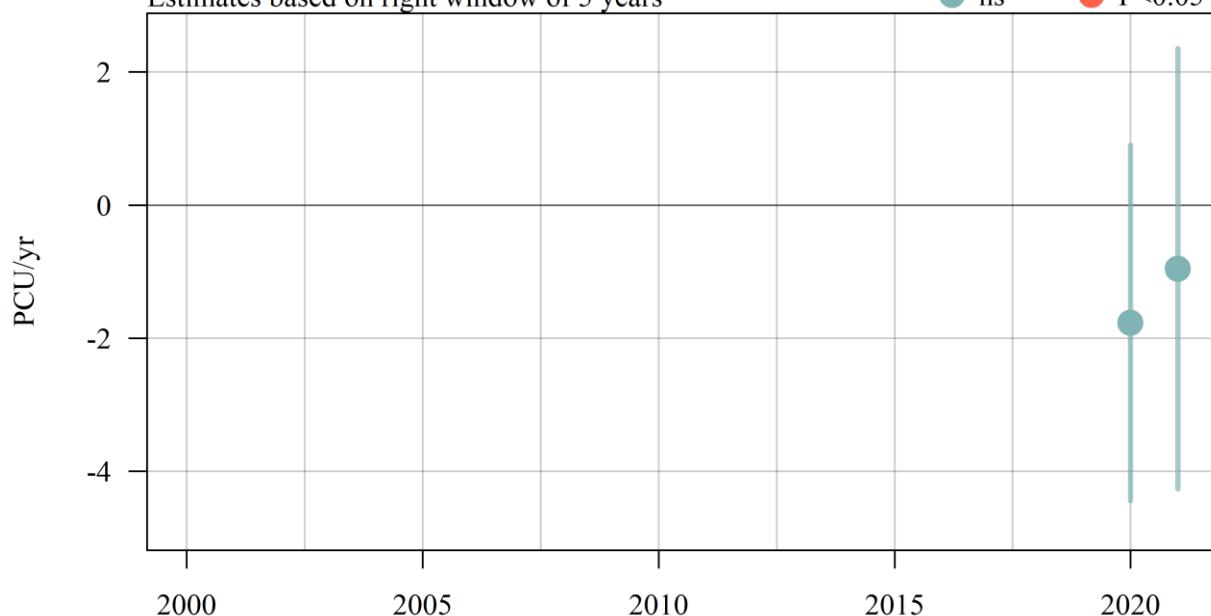


### Slopes for Color, apparent at Lower Charlotte Harbor

Estimates based on right window of 5 years

ns

P<0.05

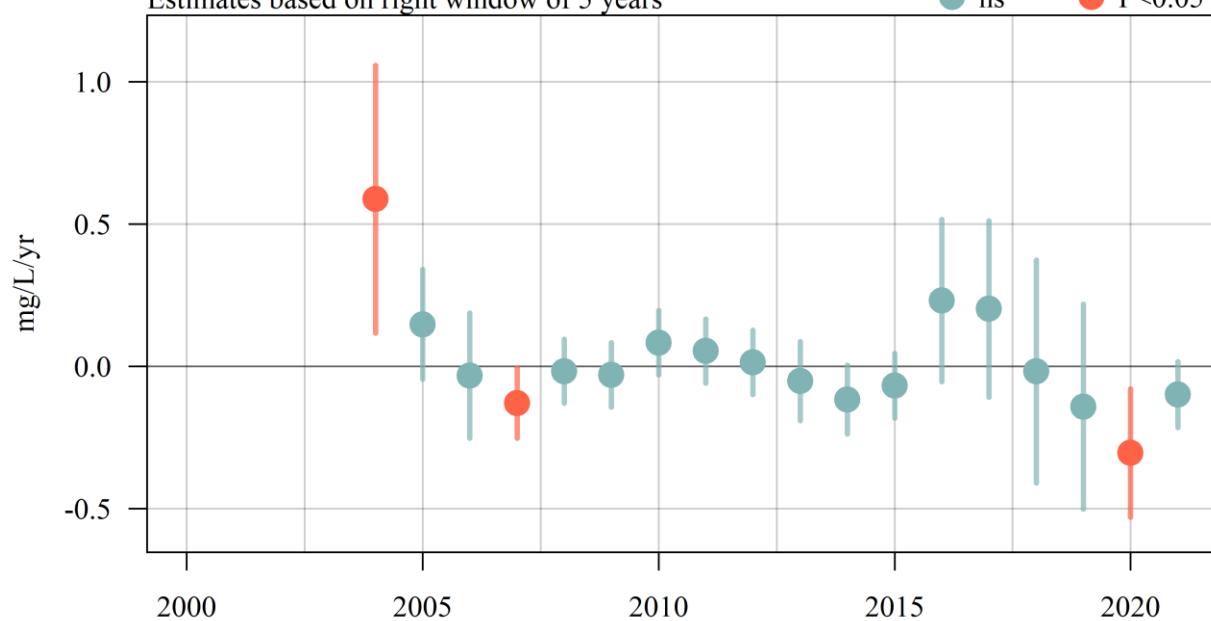


### Slopes for DO concentration at Lower Charlotte Harbor

Estimates based on right window of 5 years

ns

P<0.05

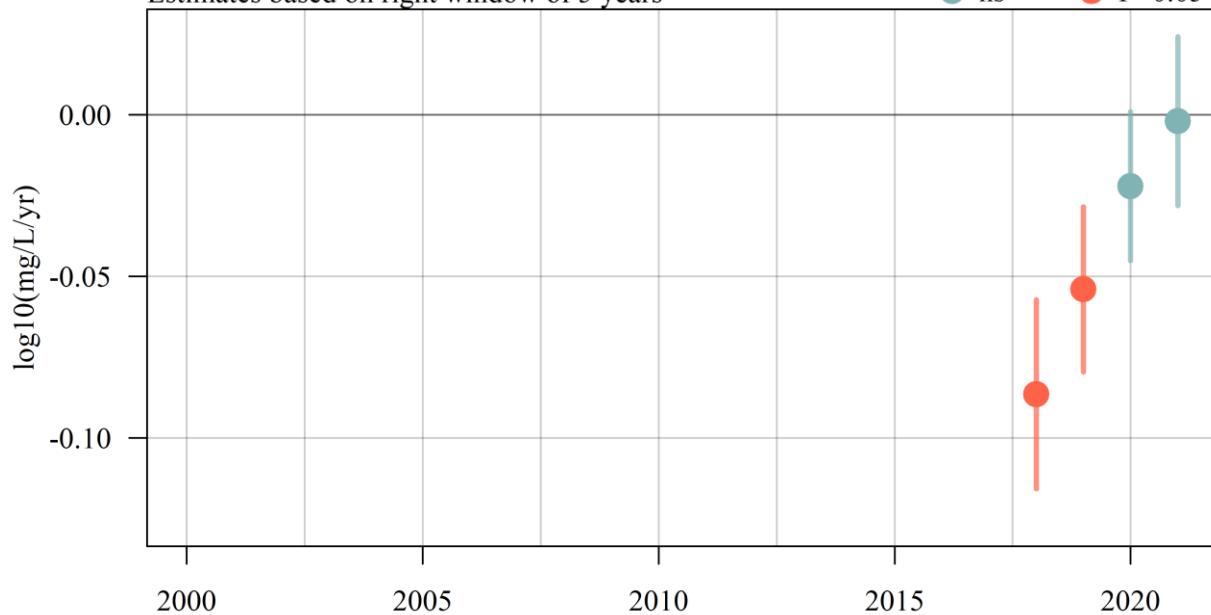


### Log-slopes for Nitrogen, NHx-N at Lower Charlotte Harbor

Estimates based on right window of 5 years

ns

P<0.05

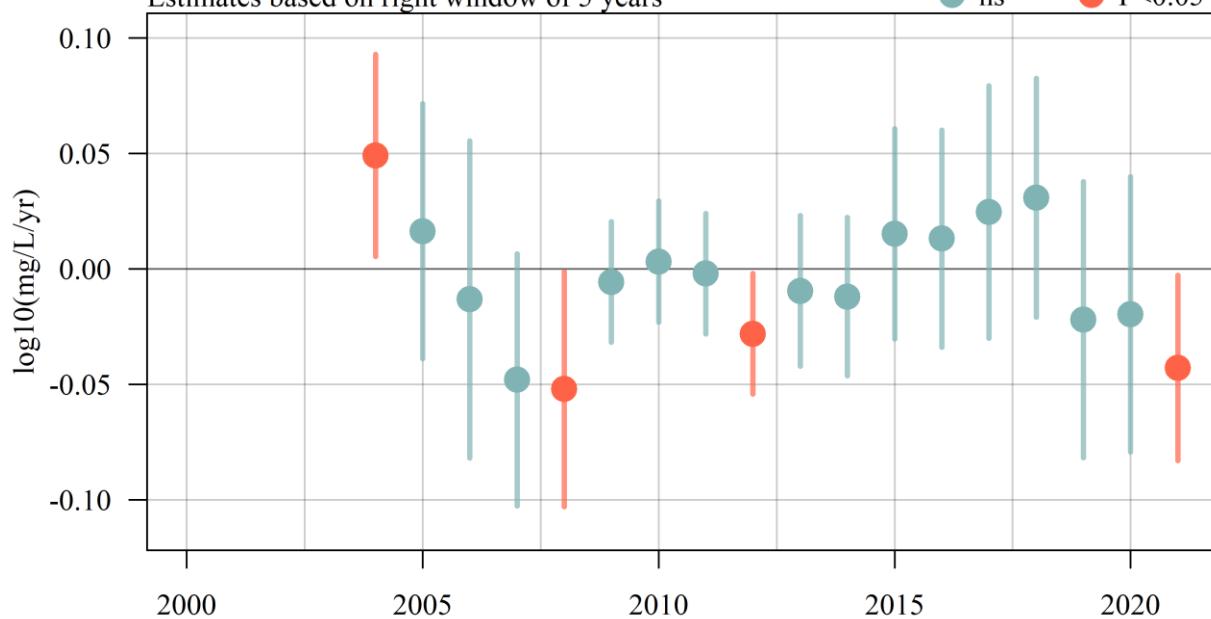


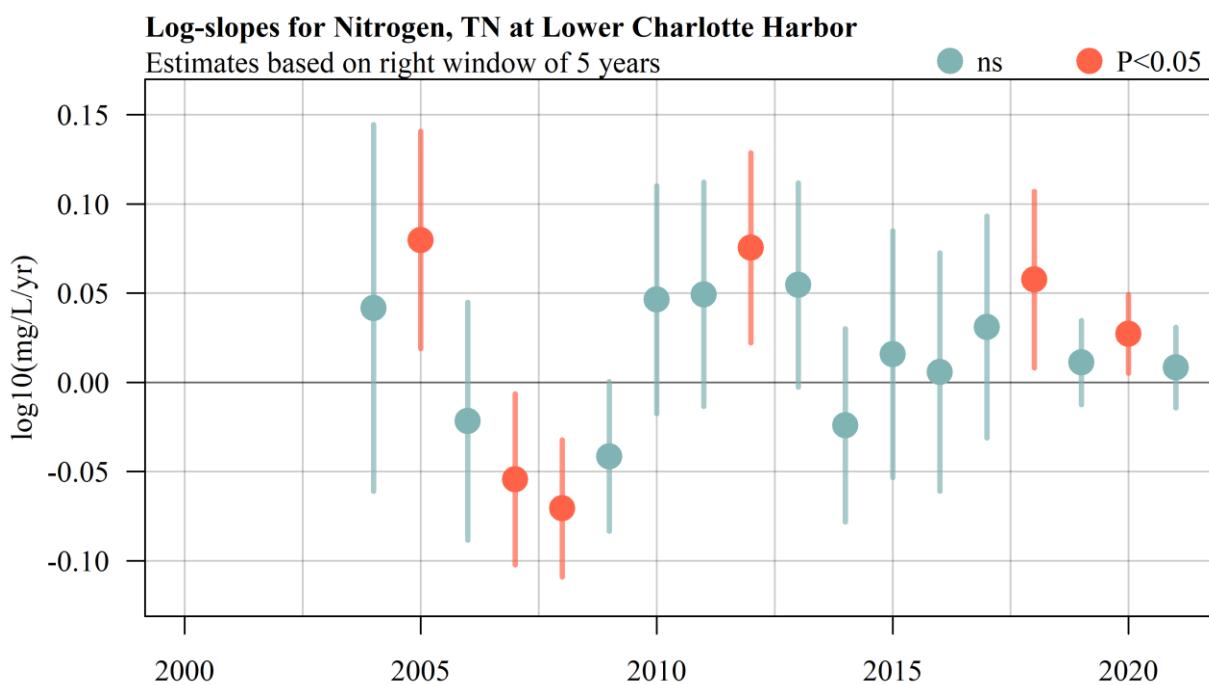
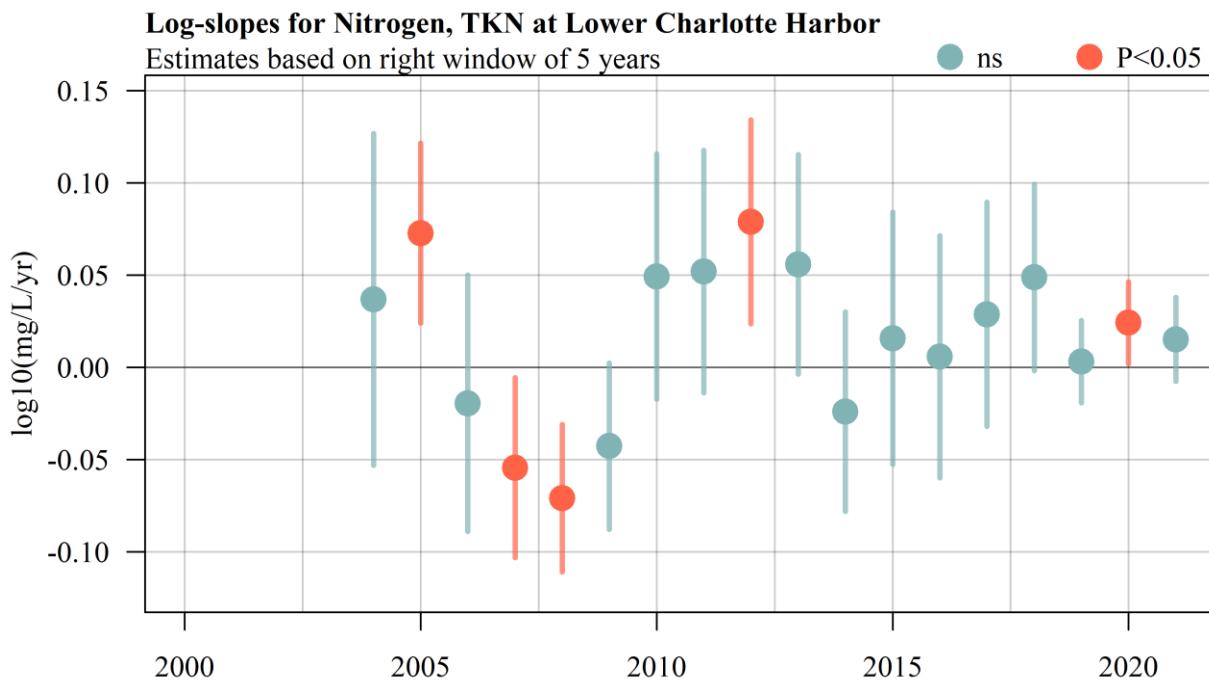
### Log-slopes for Nitrogen, NOx-N at Lower Charlotte Harbor

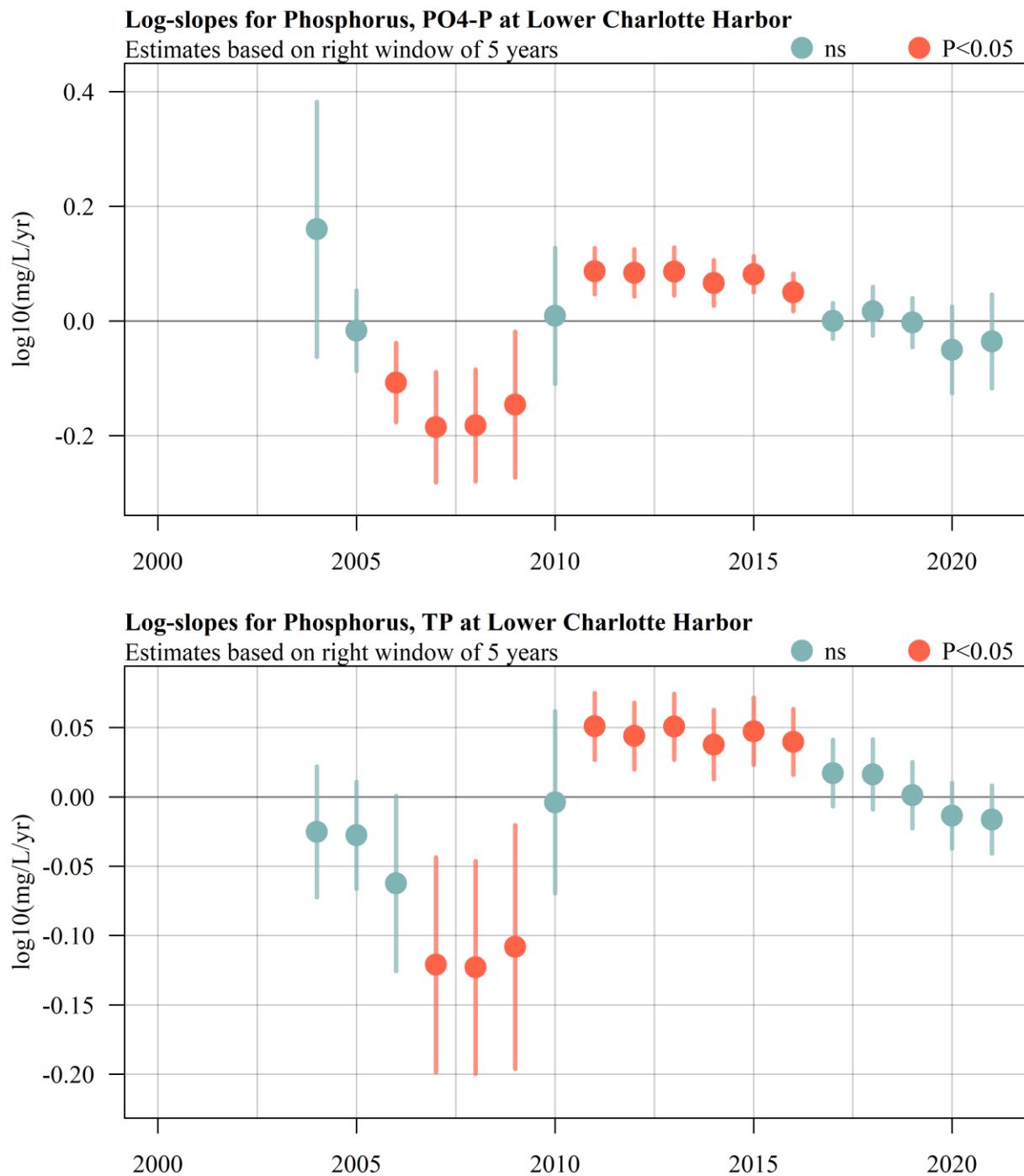
Estimates based on right window of 5 years

ns

P<0.05

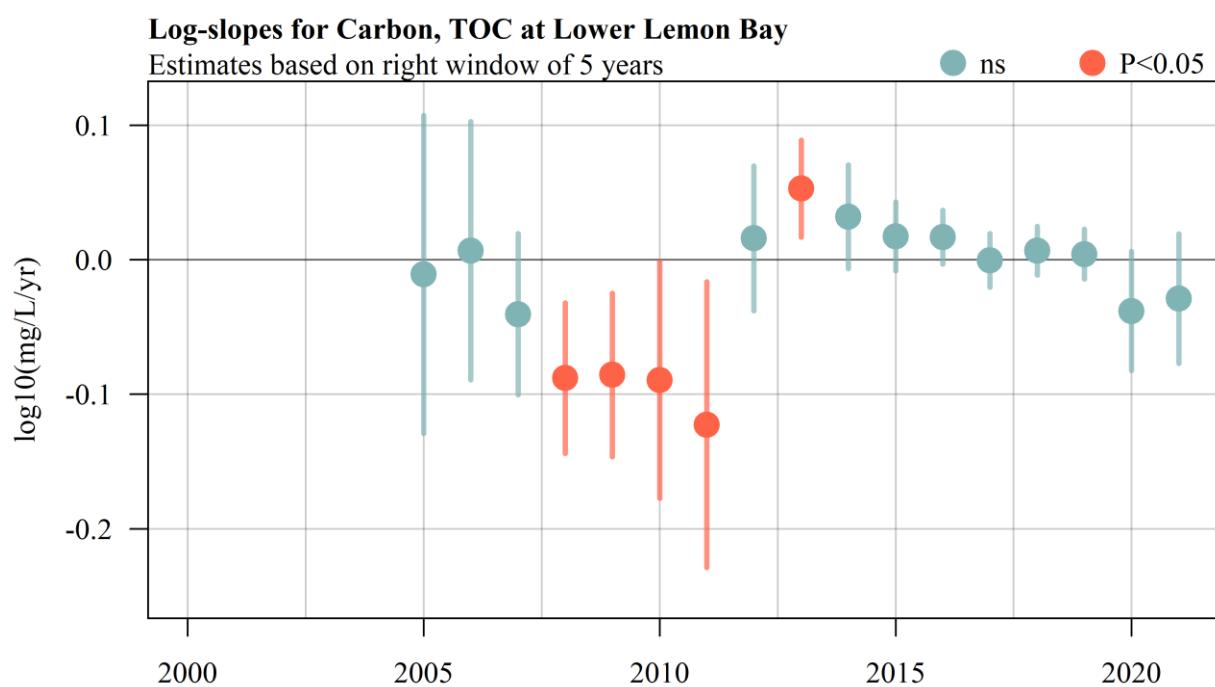


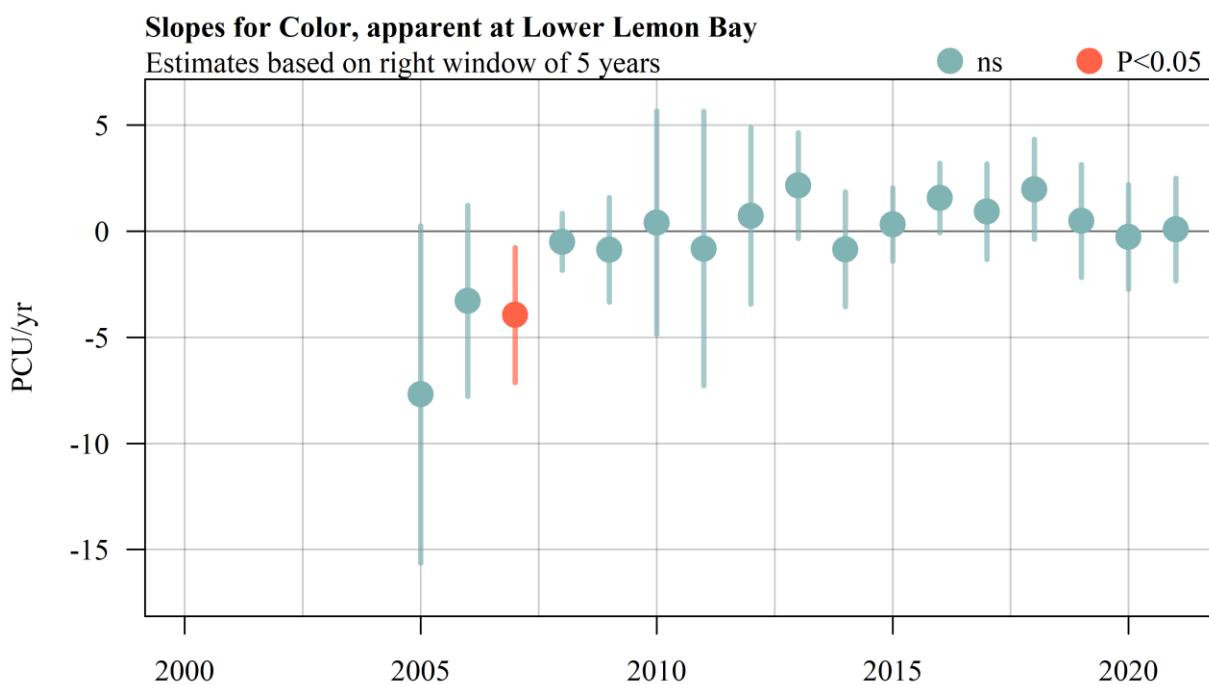
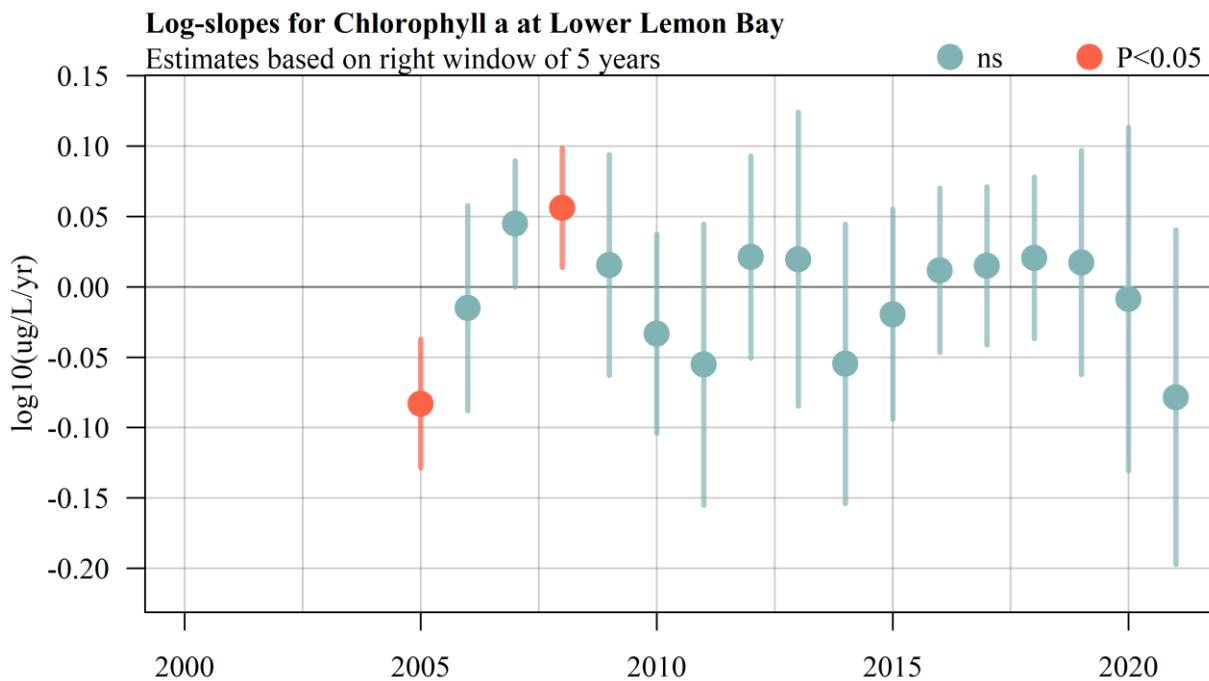




No trend slopes for Lower Lemon Bay, BOD

(insufficient data)



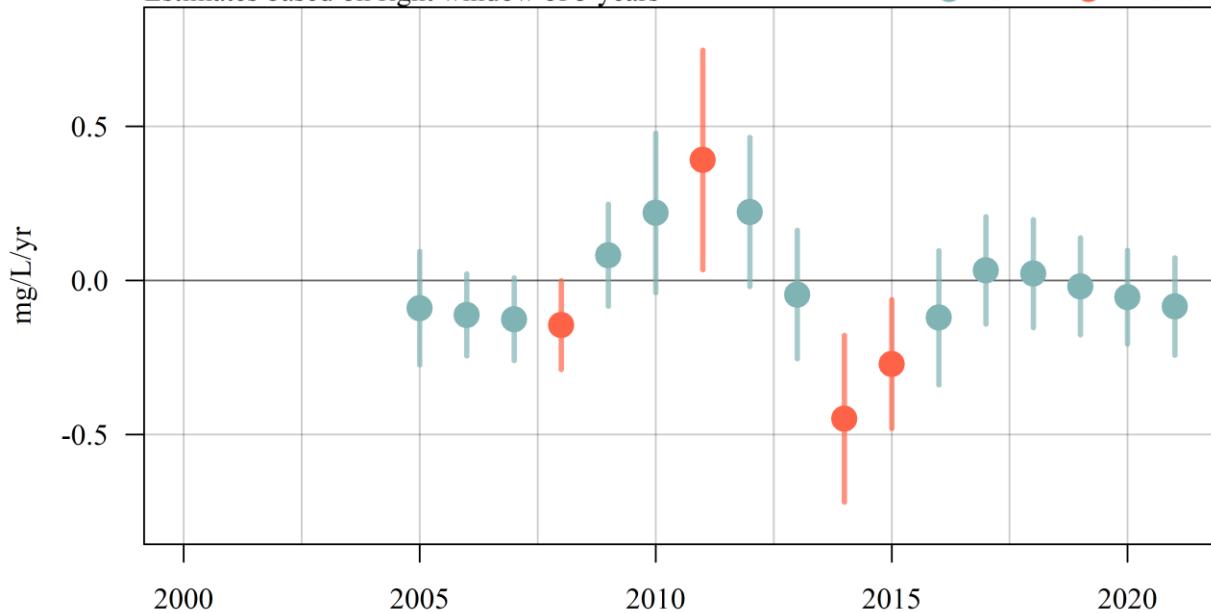


### Slopes for DO concentration at Lower Lemon Bay

Estimates based on right window of 5 years

ns

P<0.05

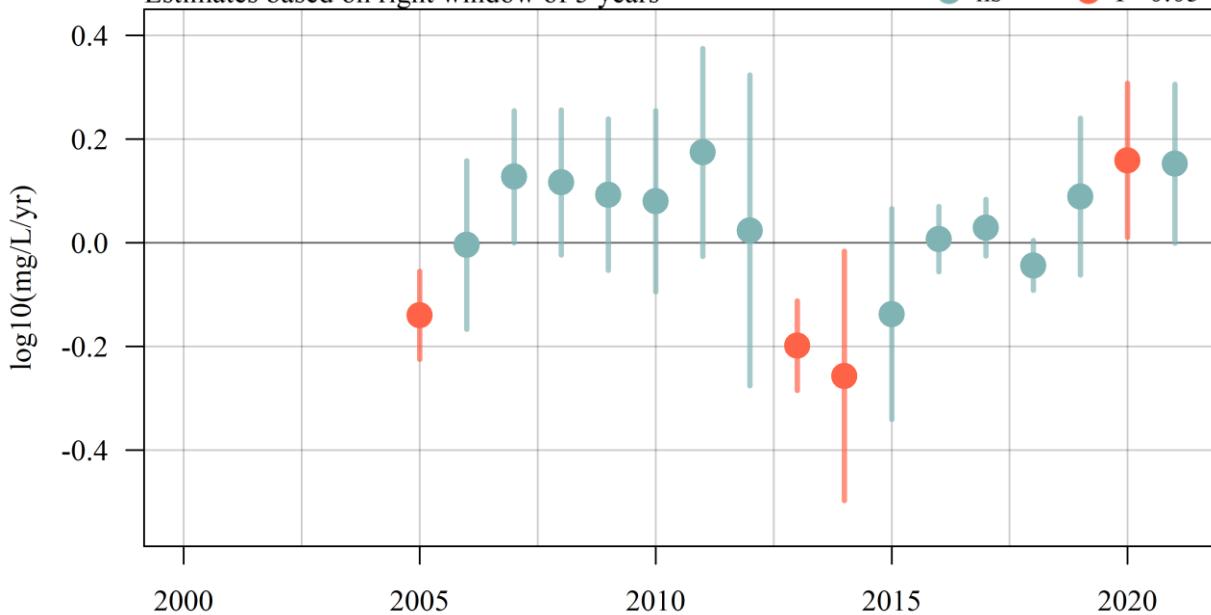


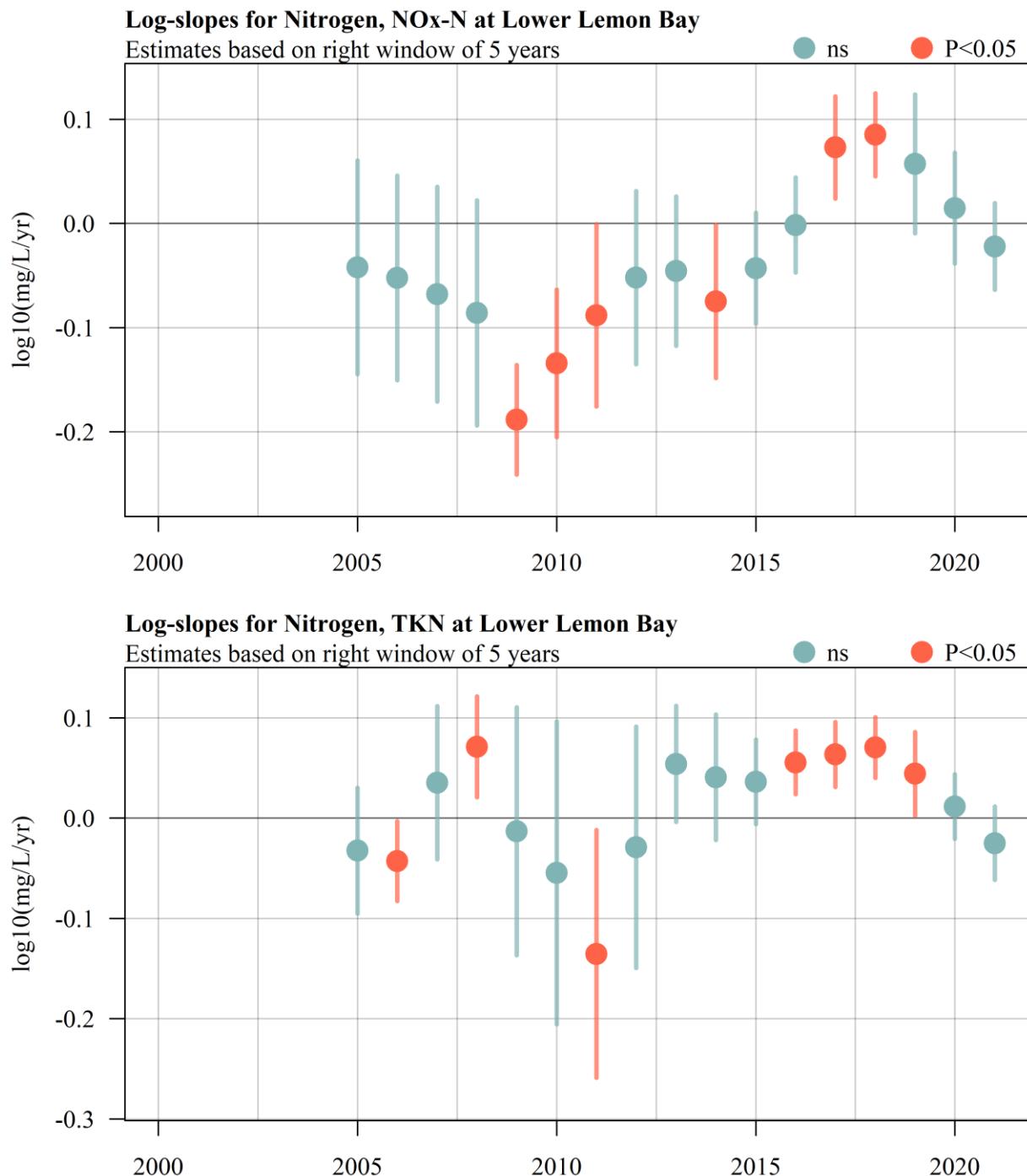
### Log-slopes for Nitrogen, NHx-N at Lower Lemon Bay

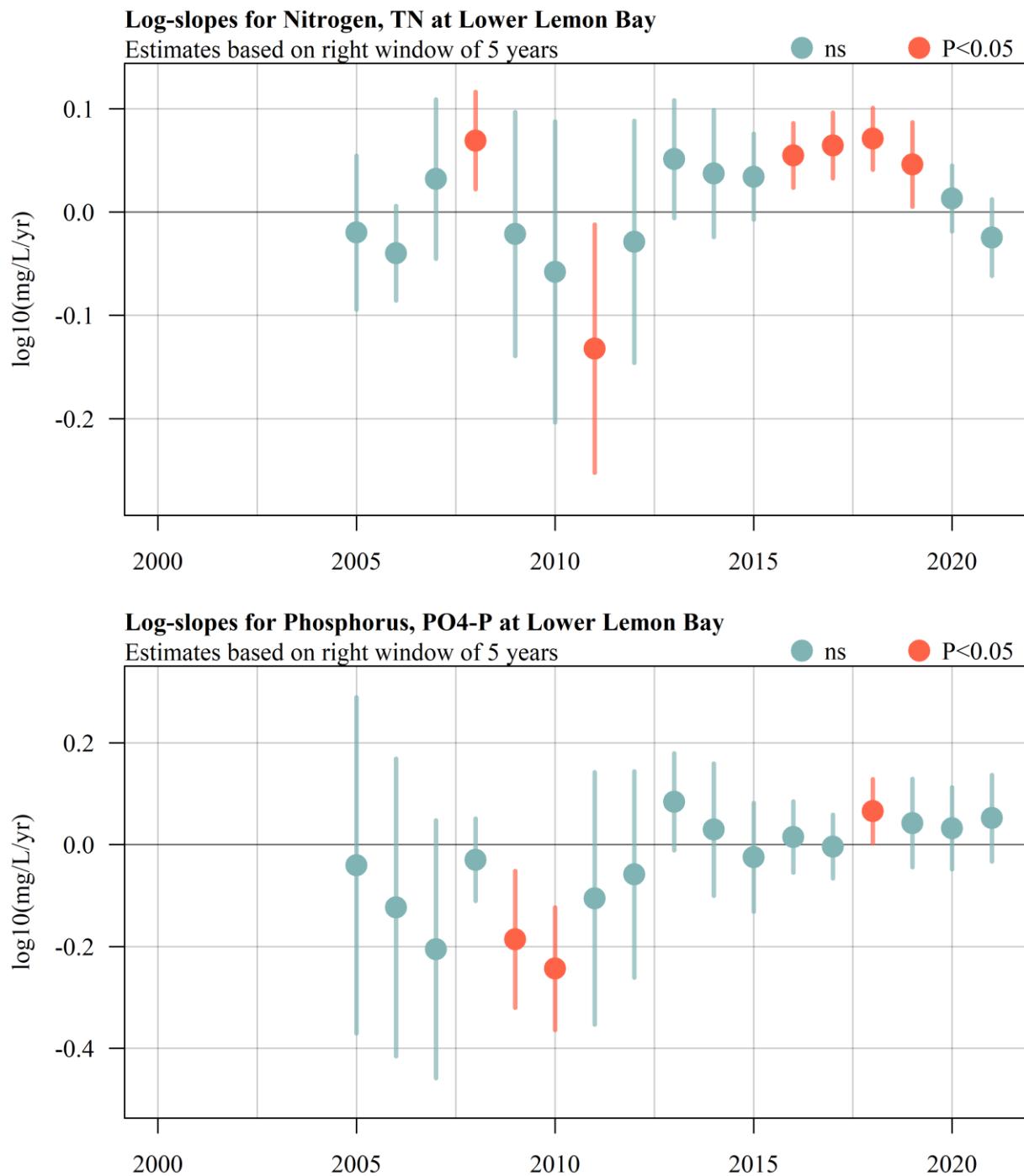
Estimates based on right window of 5 years

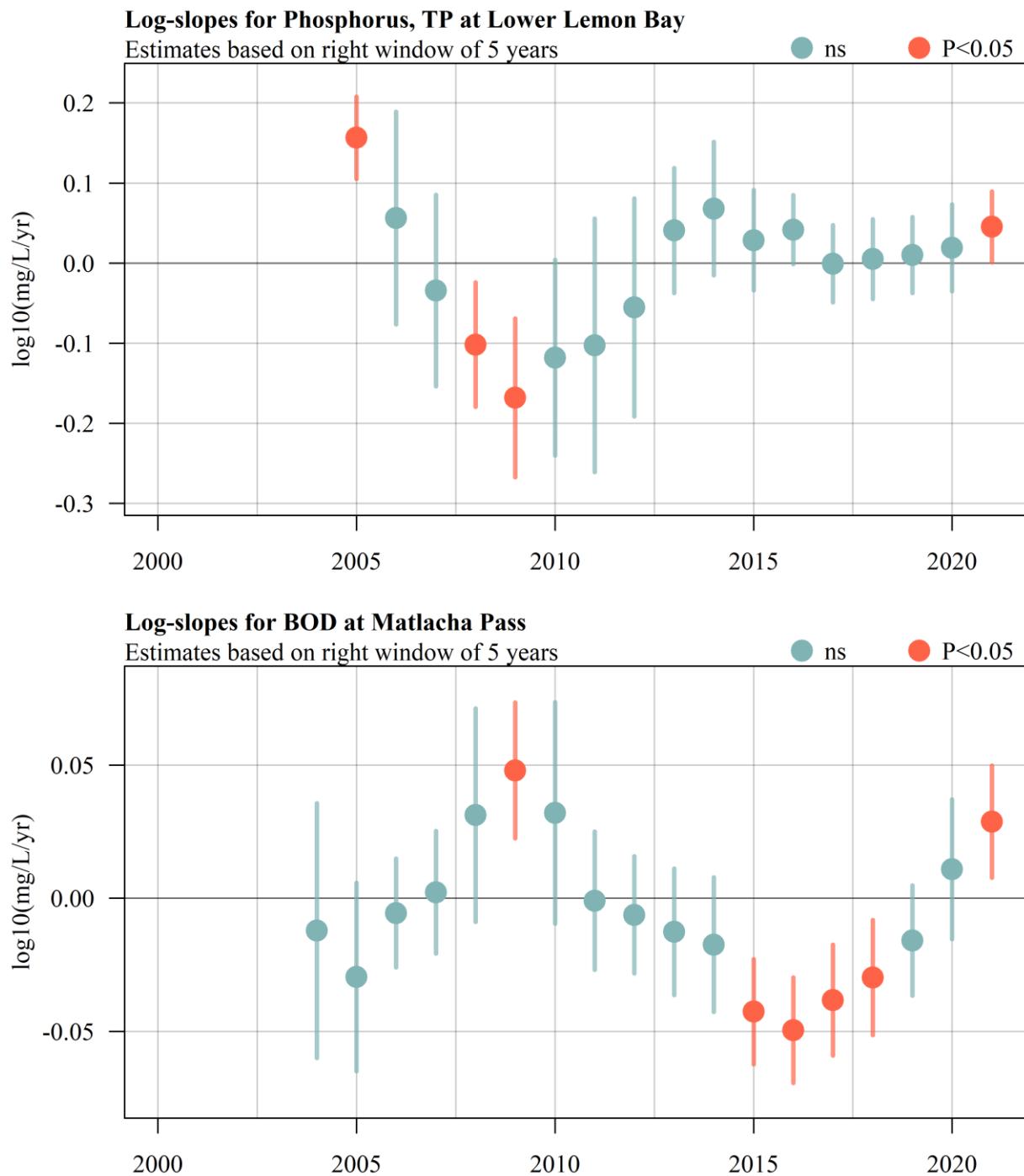
ns

P<0.05







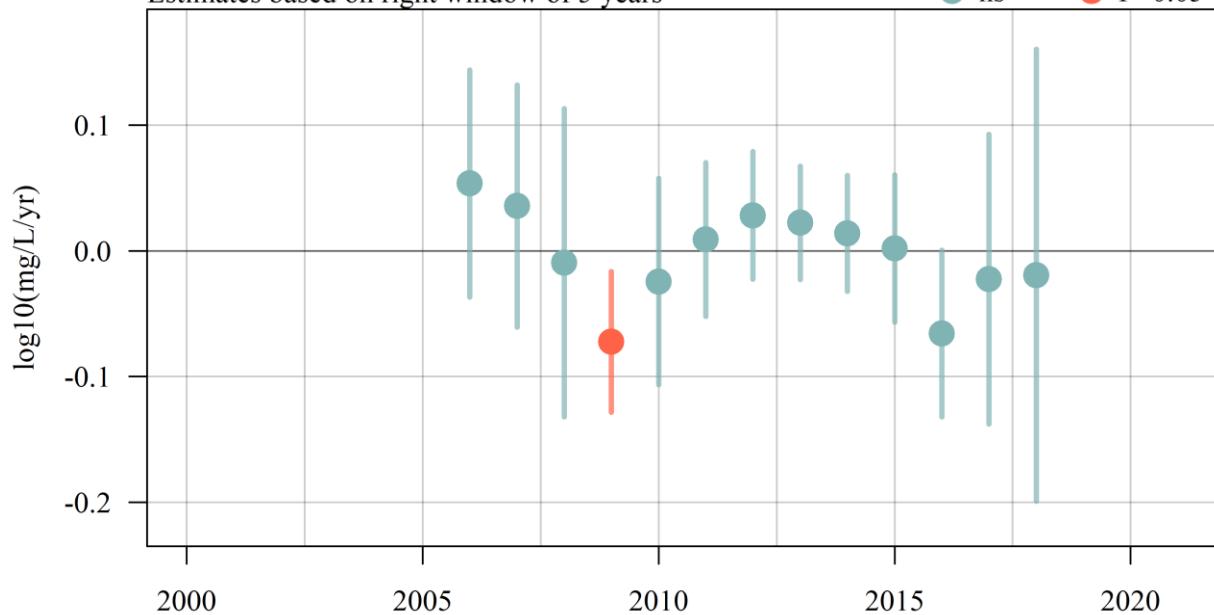


### Log-slopes for Carbon, TOC at Matlacha Pass

Estimates based on right window of 5 years

ns

P<0.05

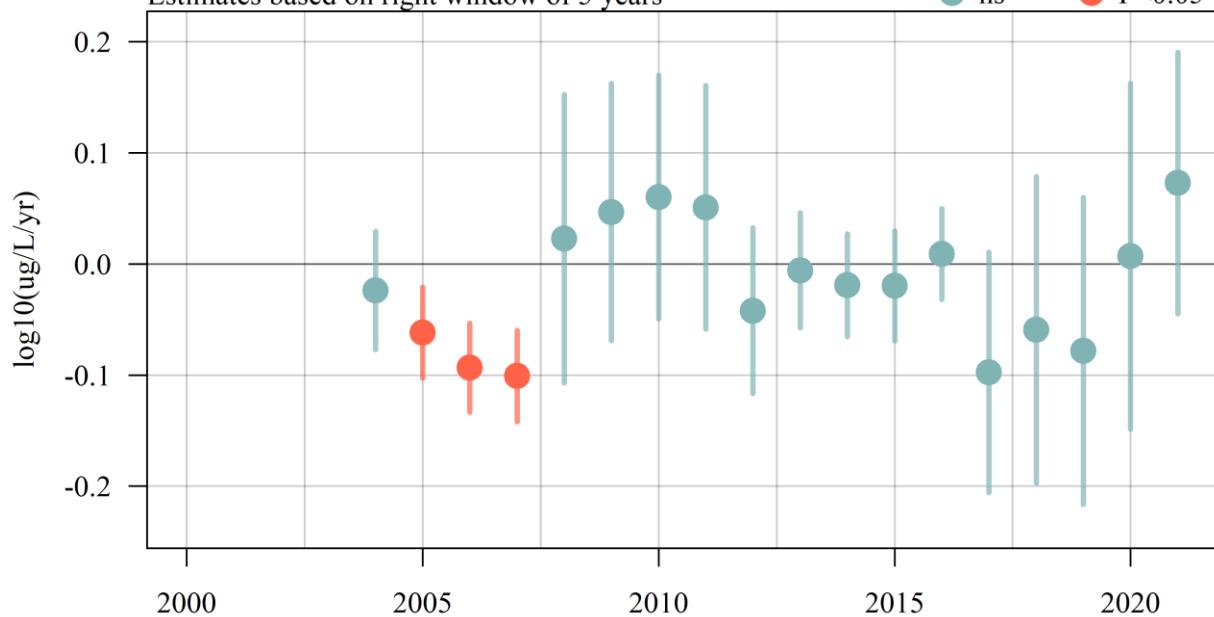


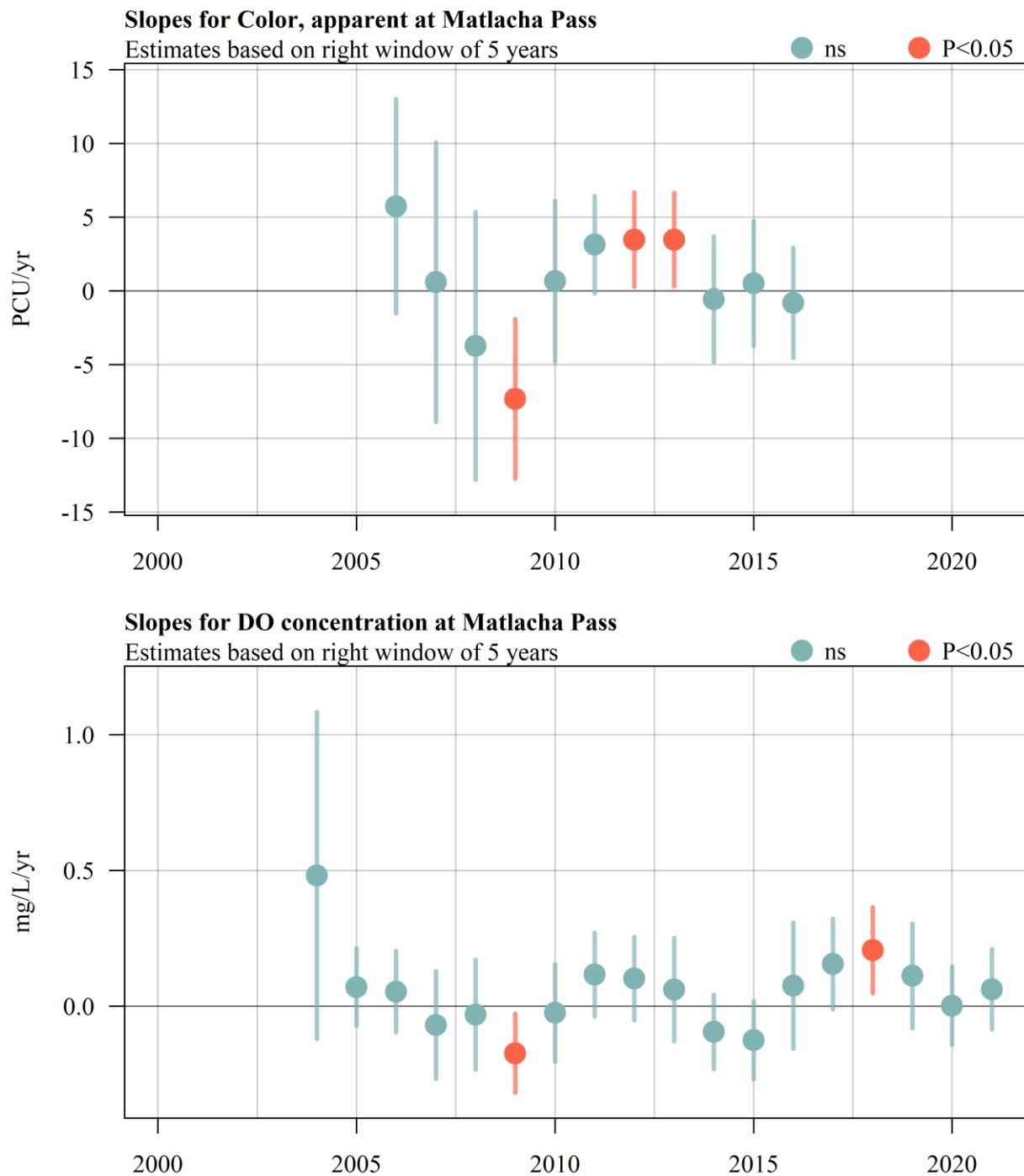
### Log-slopes for Chlorophyll a at Matlacha Pass

Estimates based on right window of 5 years

ns

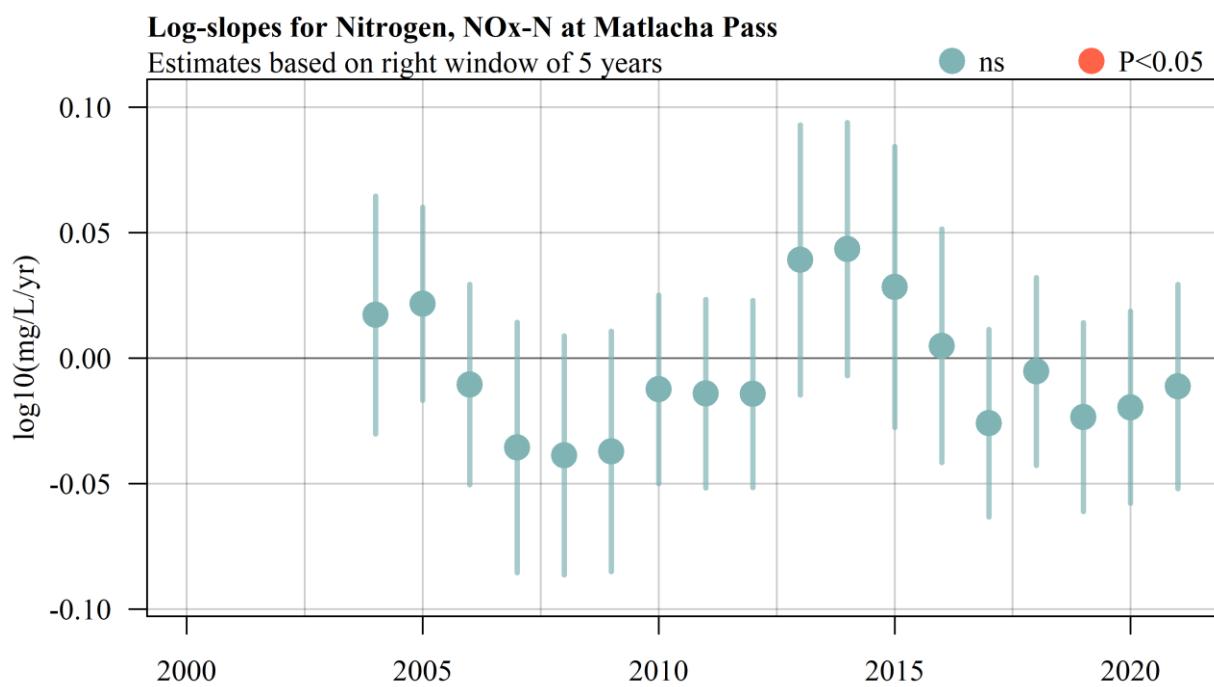
P<0.05

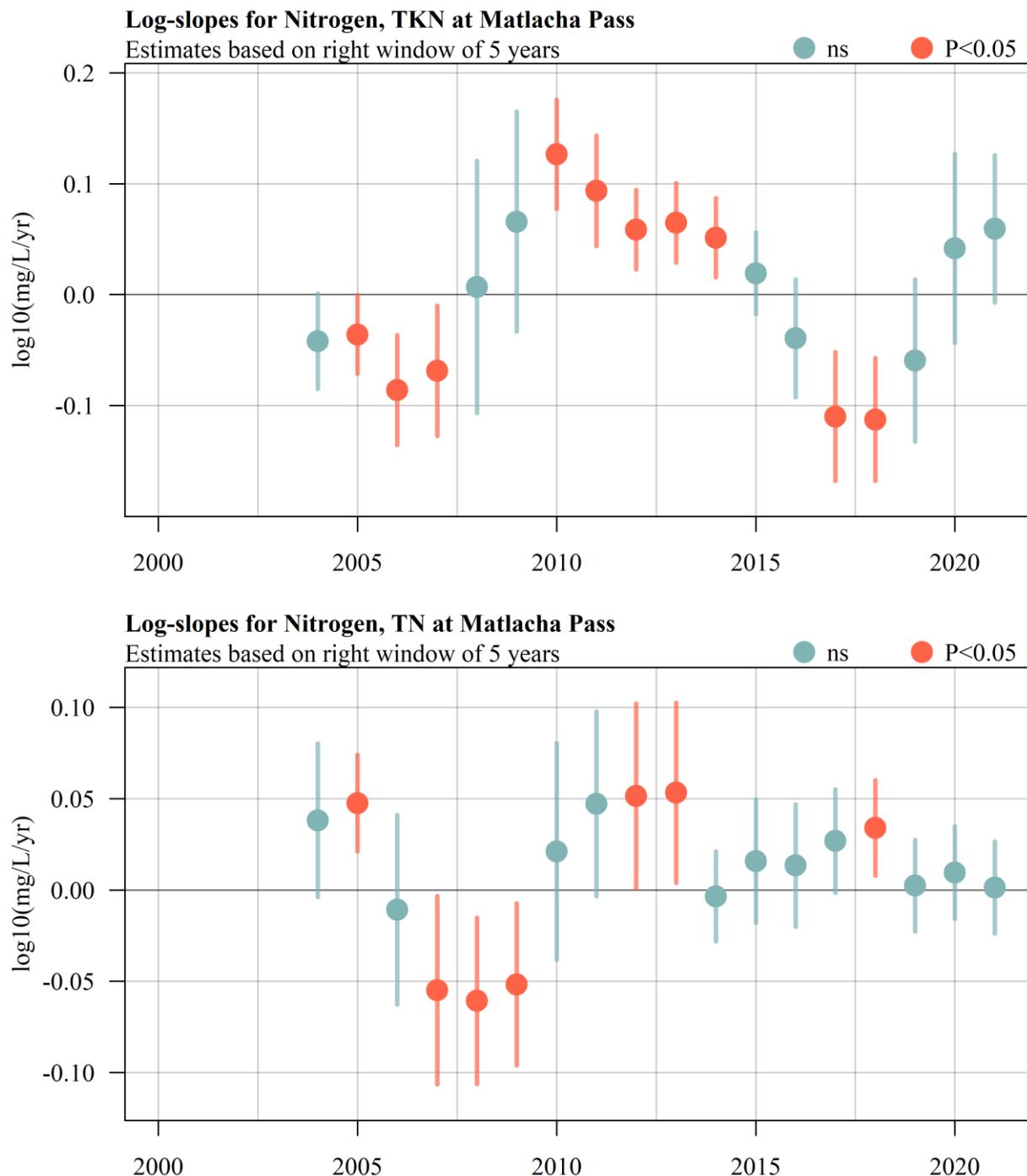


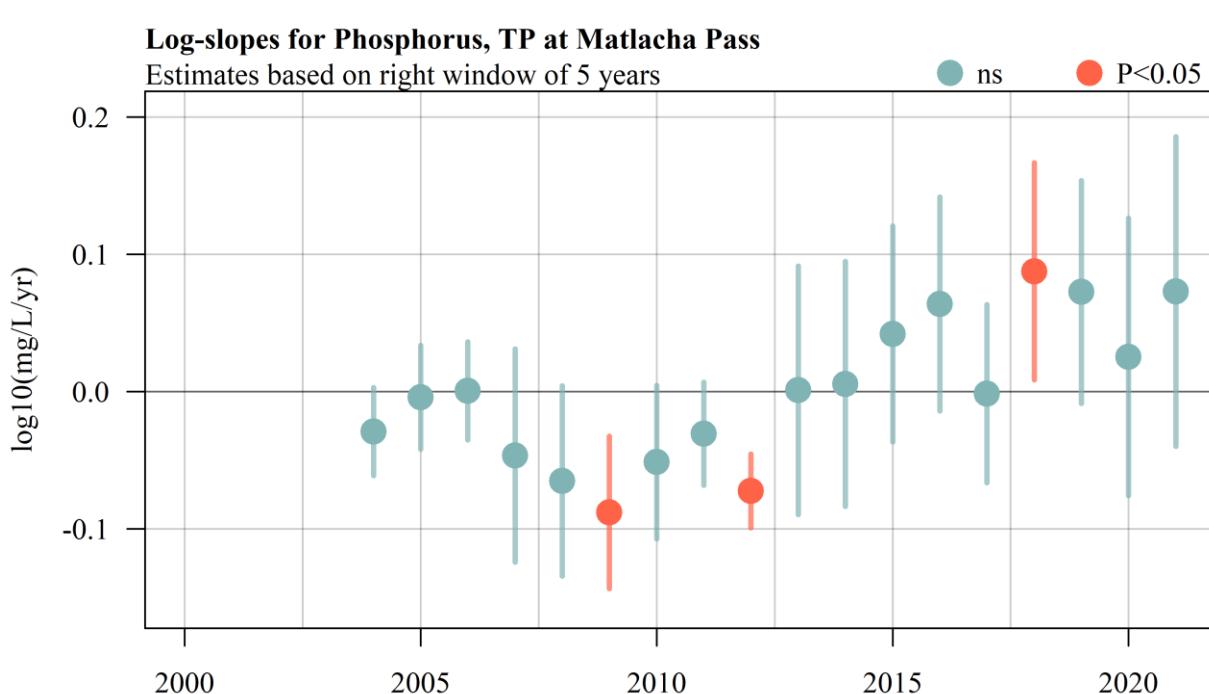
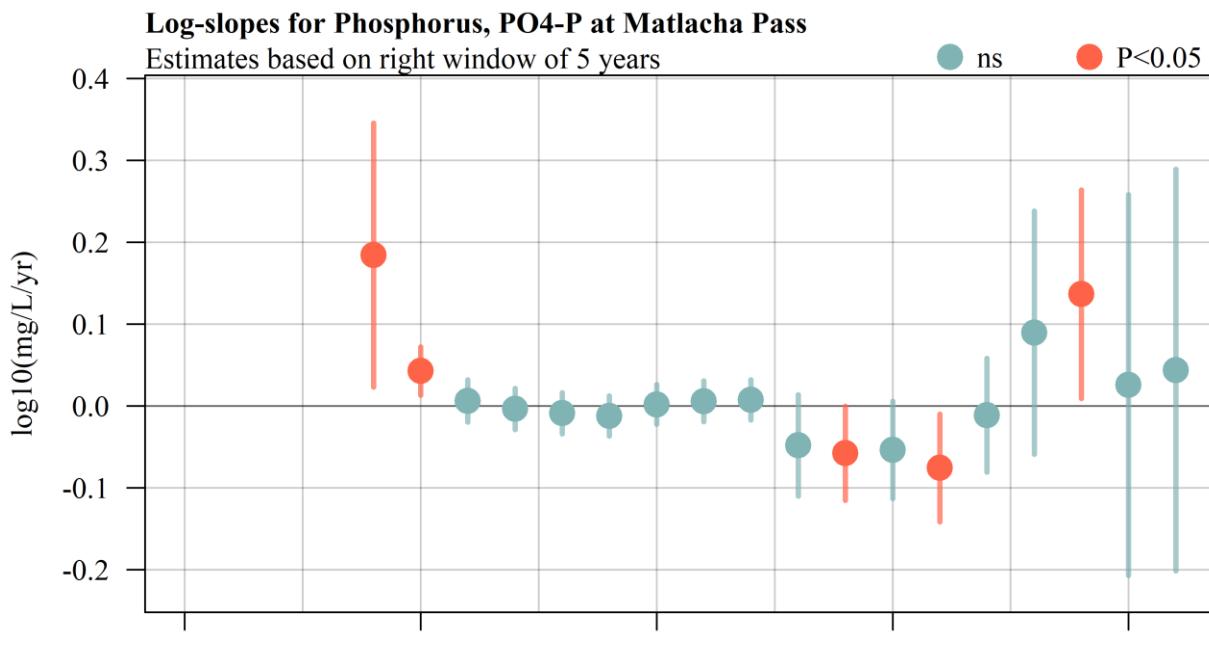


No trend slopes for Matlacha Pass, Nitrogen, NHx-N

(insufficient data)





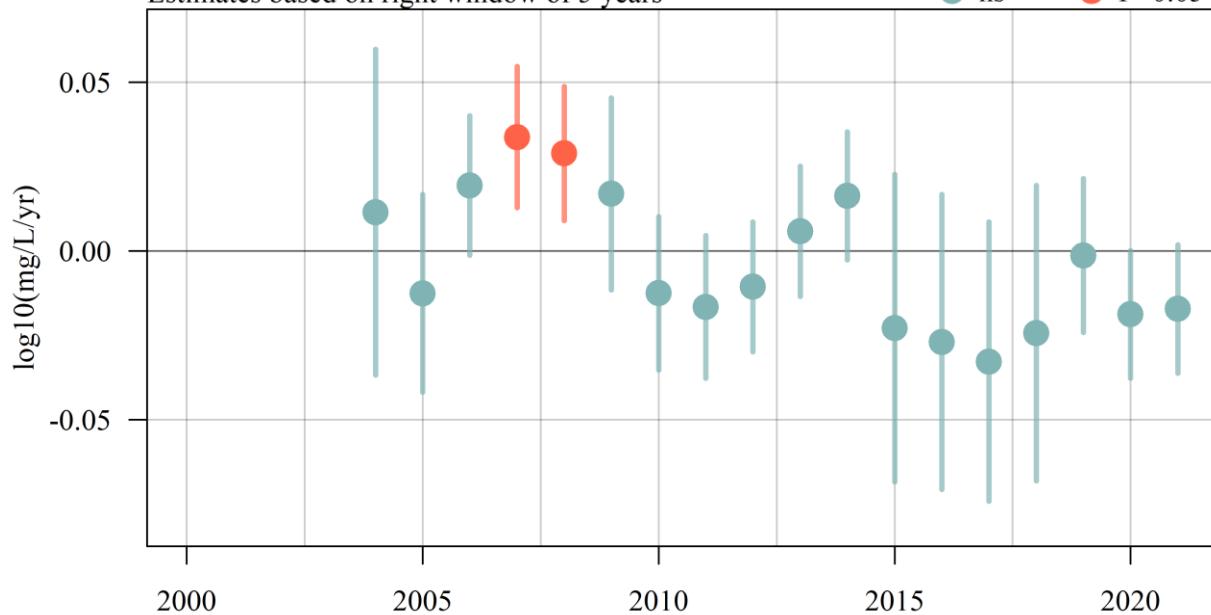


### Log-slopes for BOD at Pine Island Sound

Estimates based on right window of 5 years

ns

P<0.05

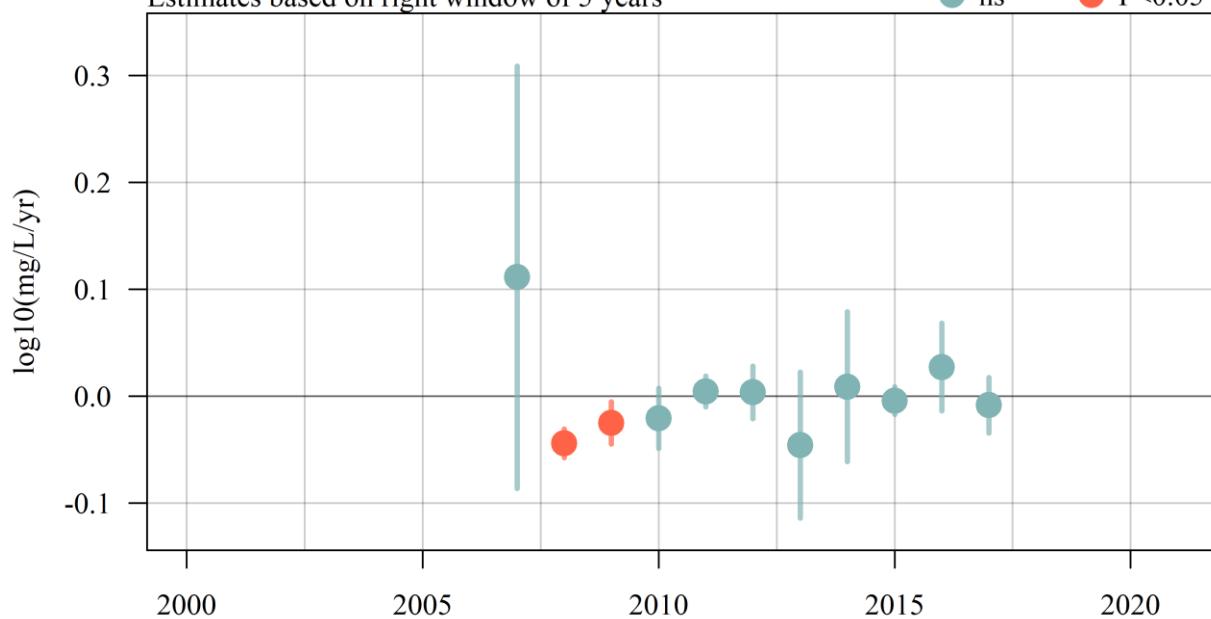


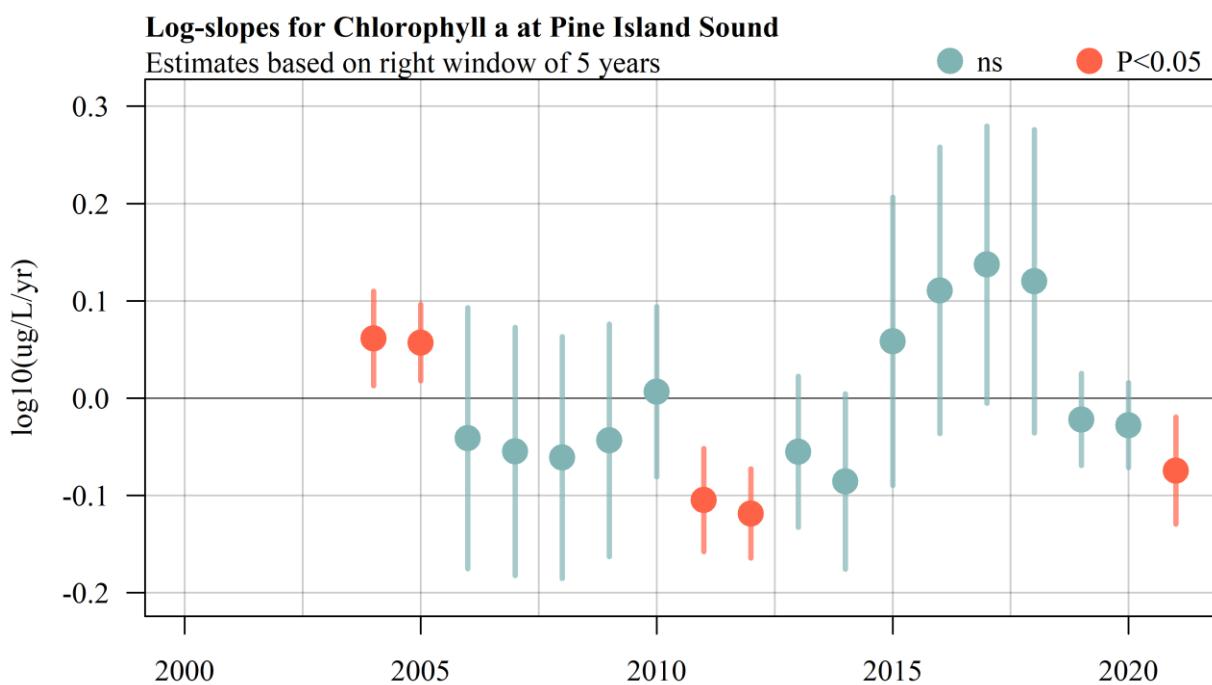
### Log-slopes for Carbon, TOC at Pine Island Sound

Estimates based on right window of 5 years

ns

P<0.05





No trend slopes for Pine Island Sound, Color, apparent

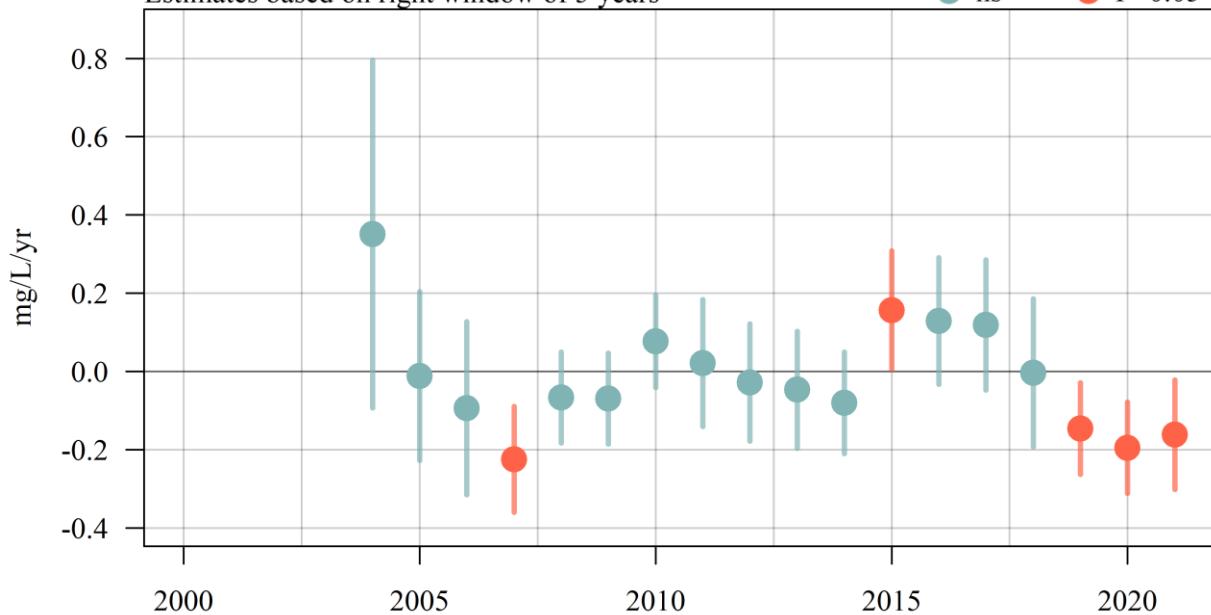
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### Slopes for DO concentration at Pine Island Sound

Estimates based on right window of 5 years

ns

P<0.05

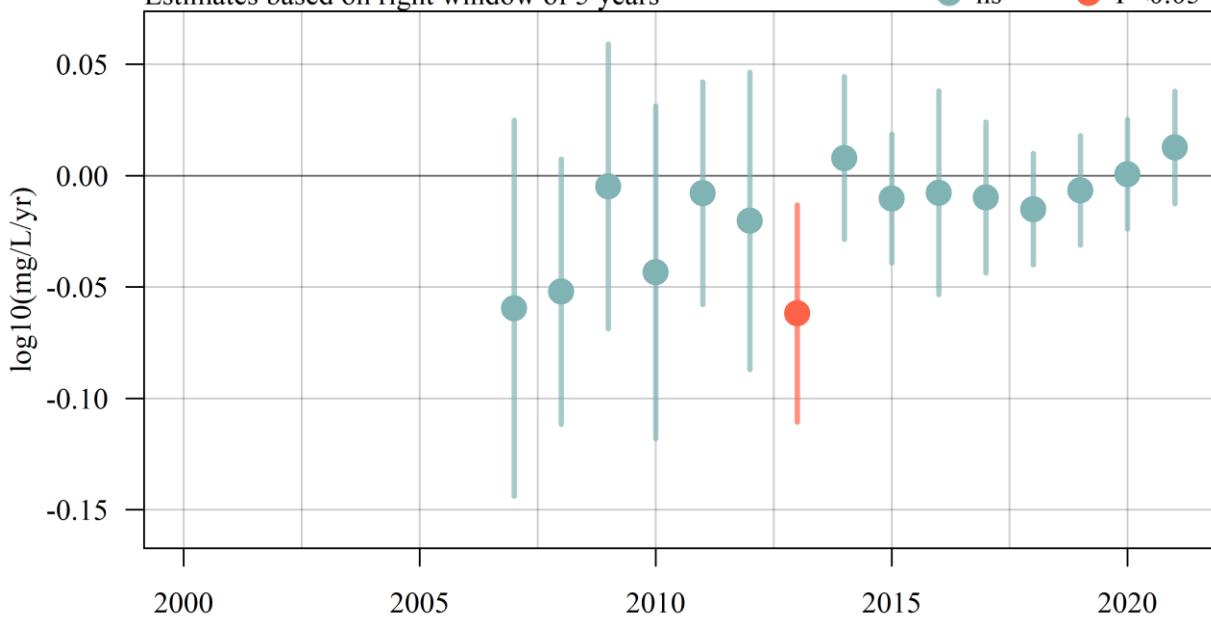


### Log-slopes for Nitrogen, NHx-N at Pine Island Sound

Estimates based on right window of 5 years

ns

P<0.05

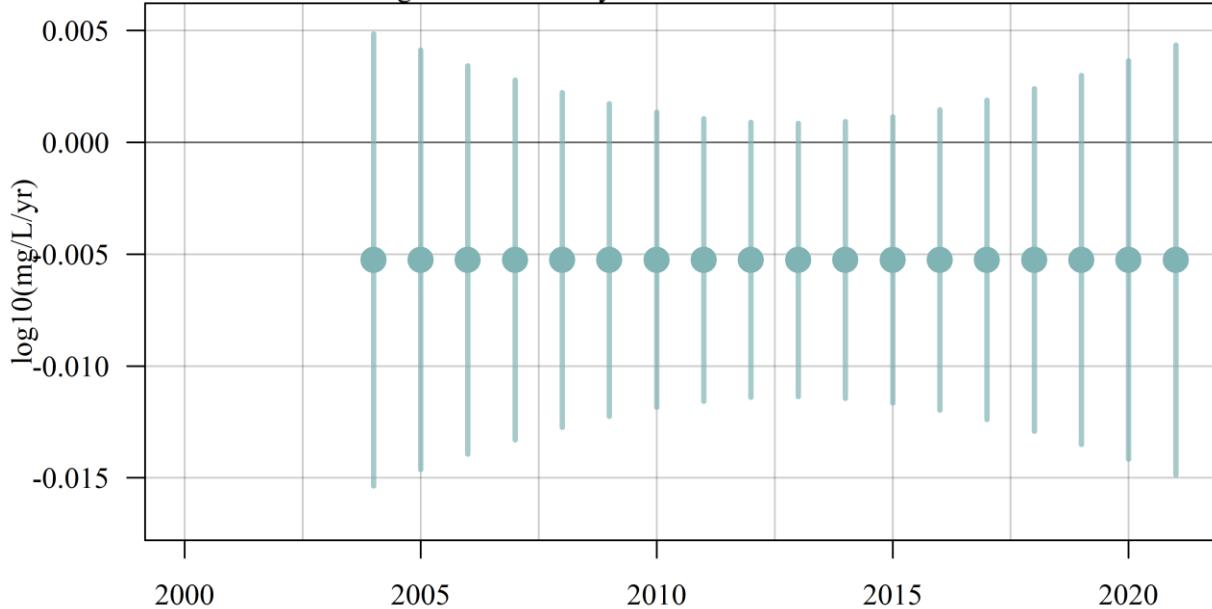


### Log-slopes for Nitrogen, NOx-N at Pine Island Sound

Estimates based on right window of 5 years

ns

P<0.05

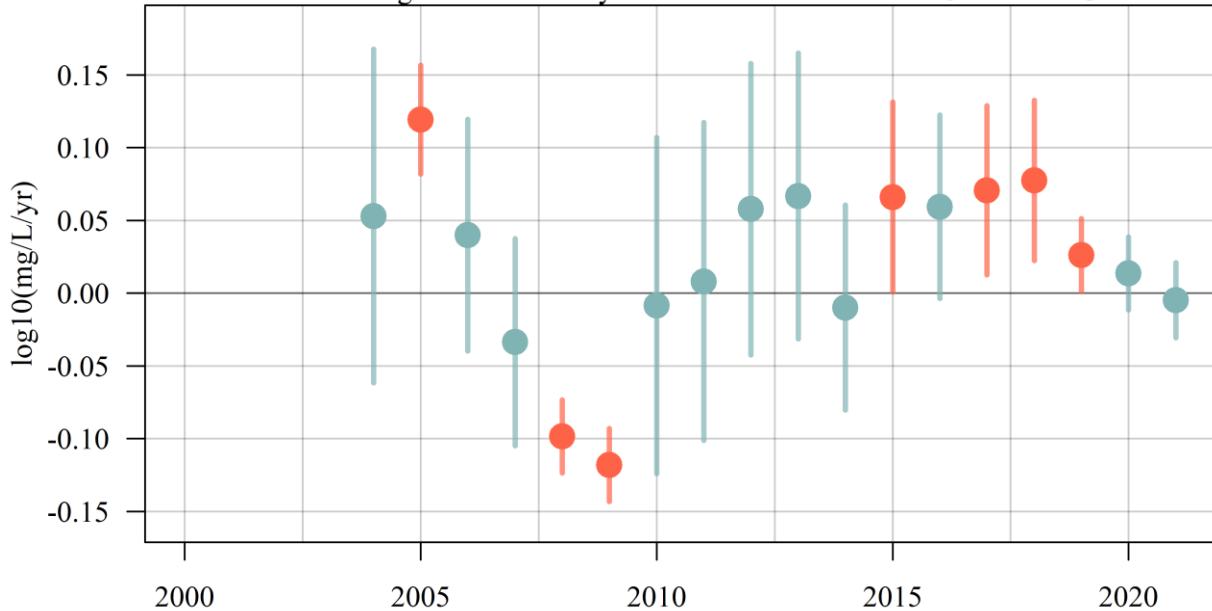


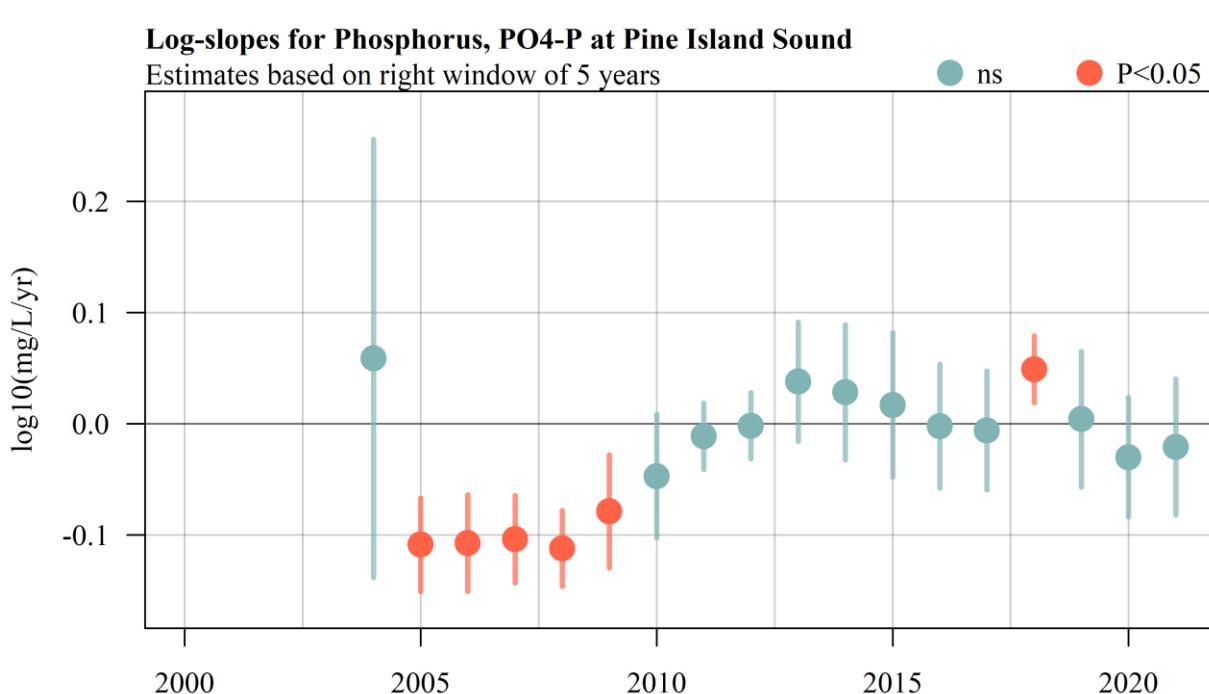
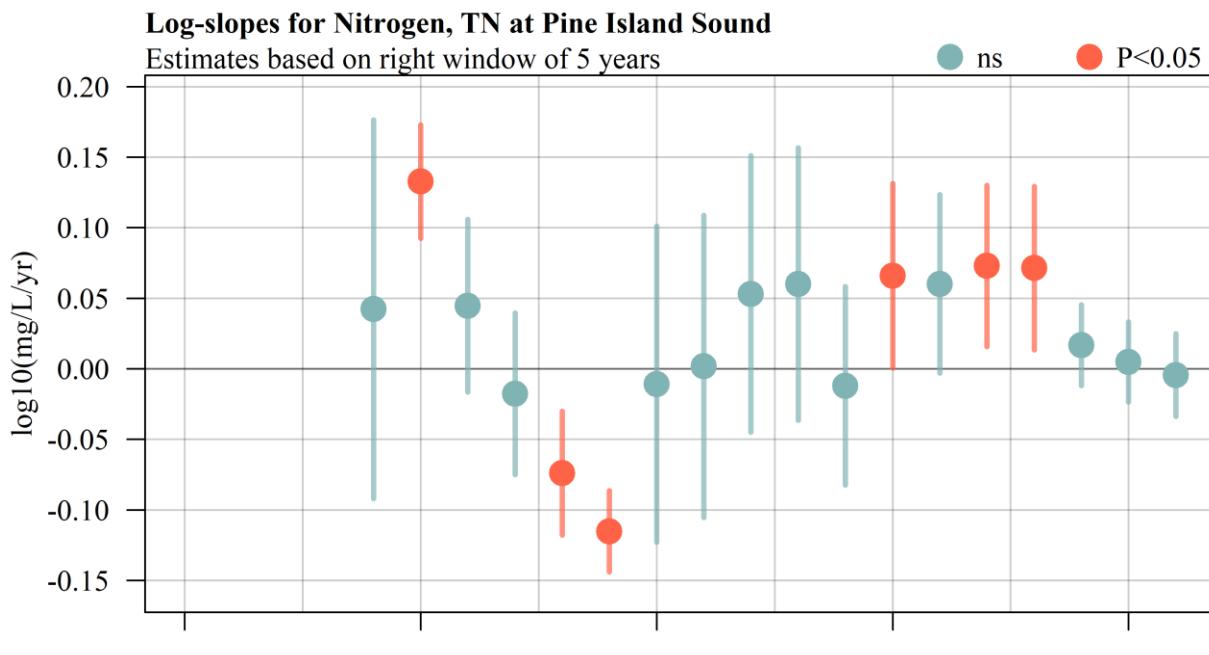
### Log-slopes for Nitrogen, TKN at Pine Island Sound

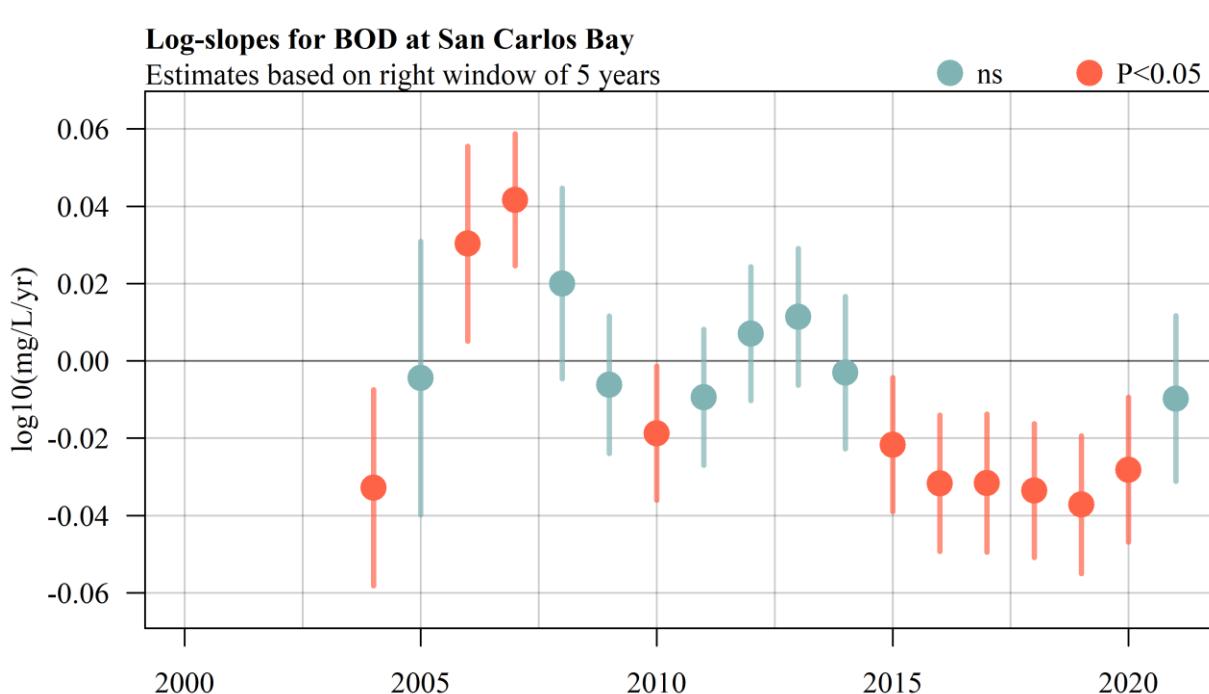
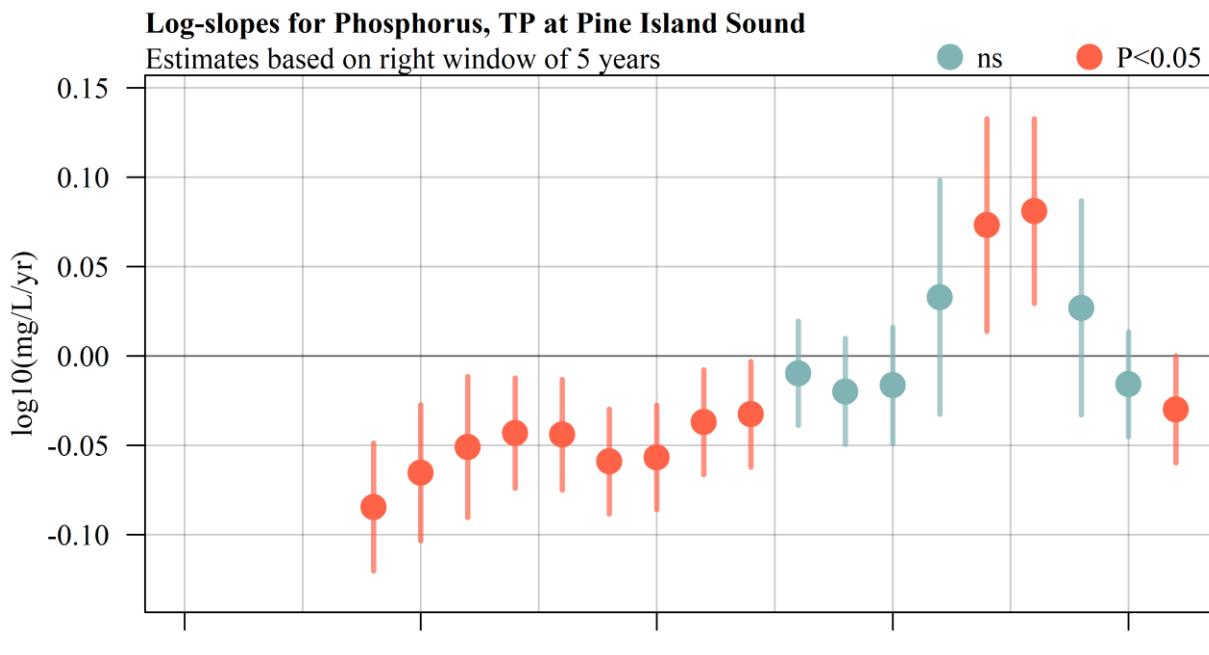
Estimates based on right window of 5 years

ns

P<0.05





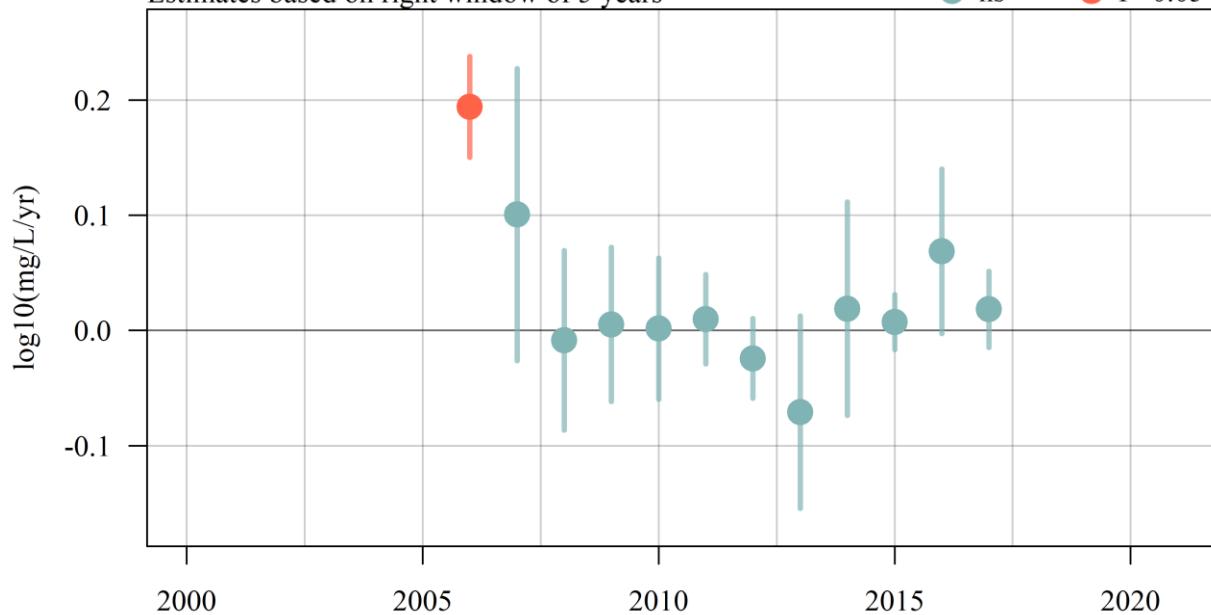


### Log-slopes for Carbon, TOC at San Carlos Bay

Estimates based on right window of 5 years

ns

P<0.05

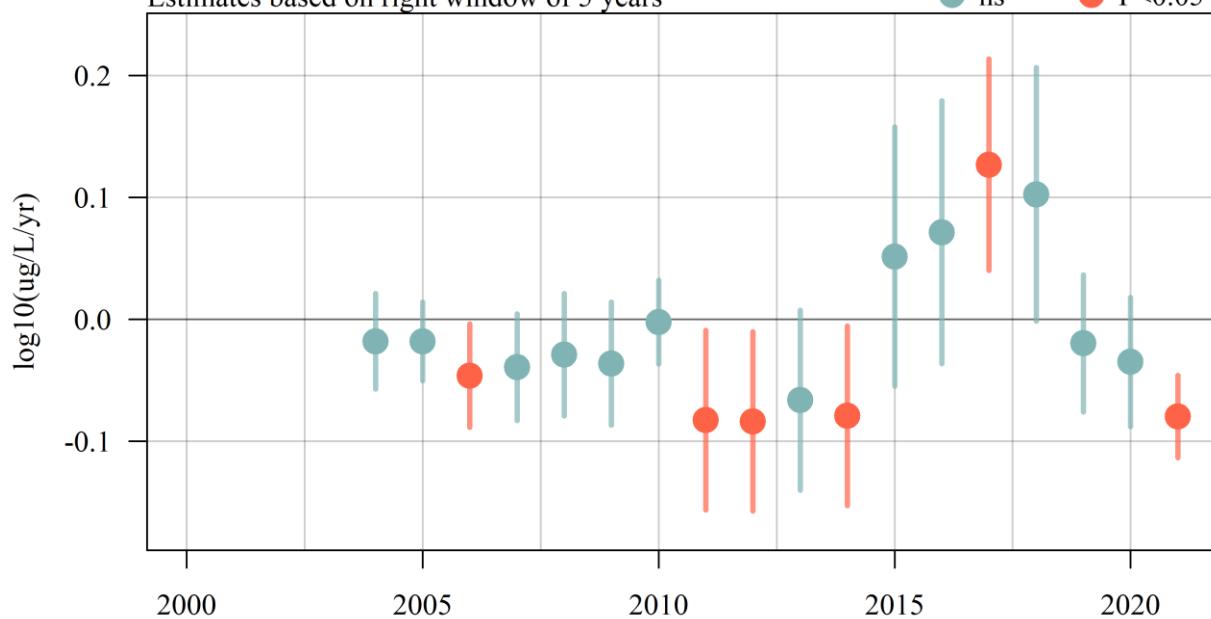


### Log-slopes for Chlorophyll a at San Carlos Bay

Estimates based on right window of 5 years

ns

P<0.05



No trend slopes for San Carlos Bay, Color, apparent

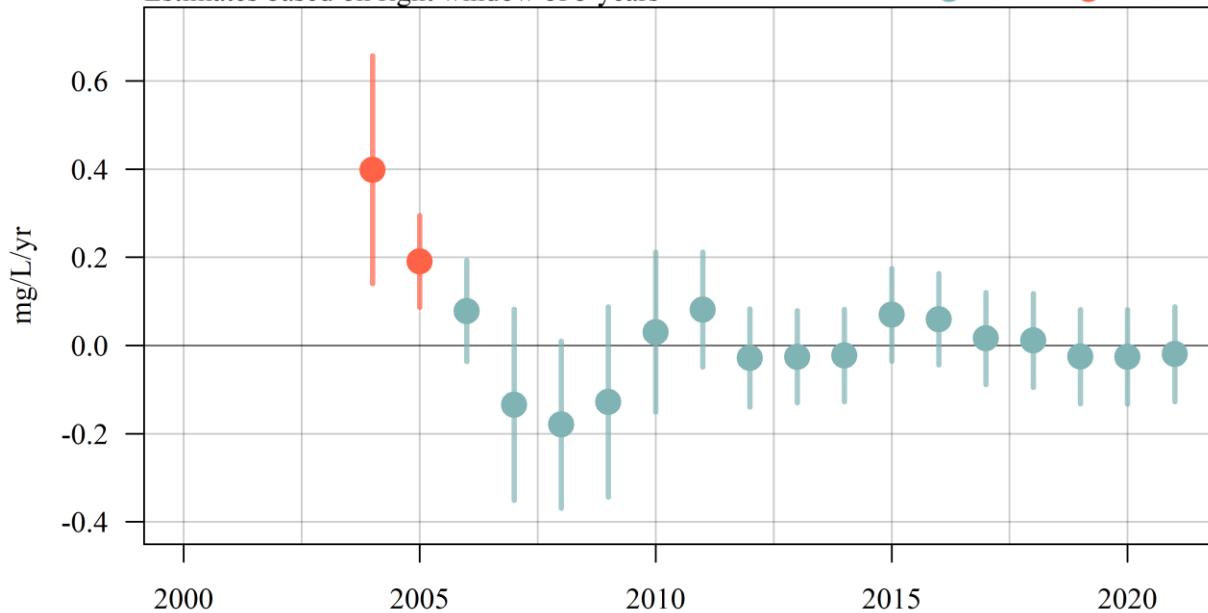
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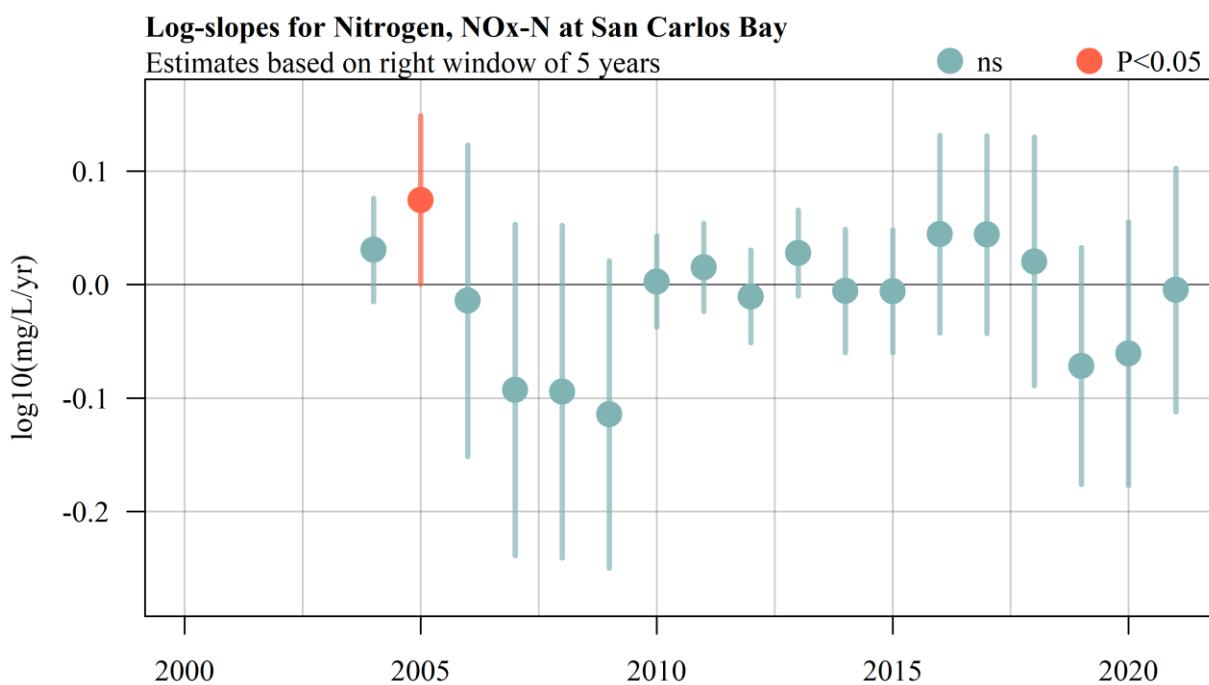
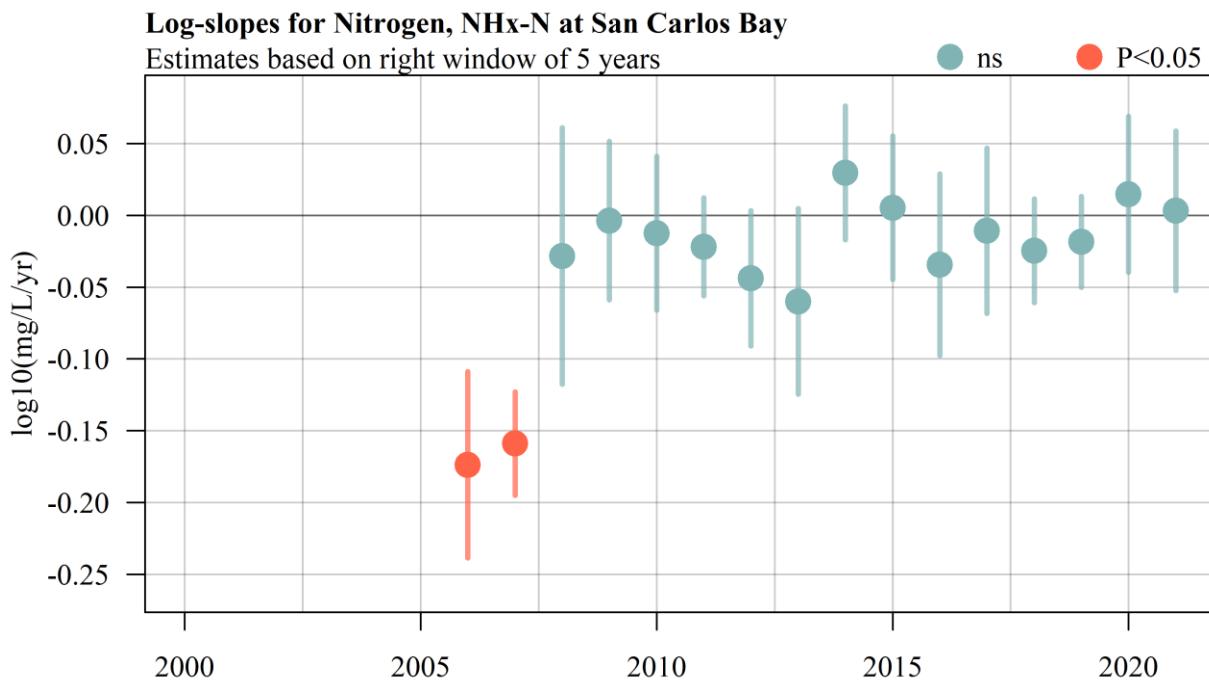
### Slopes for DO concentration at San Carlos Bay

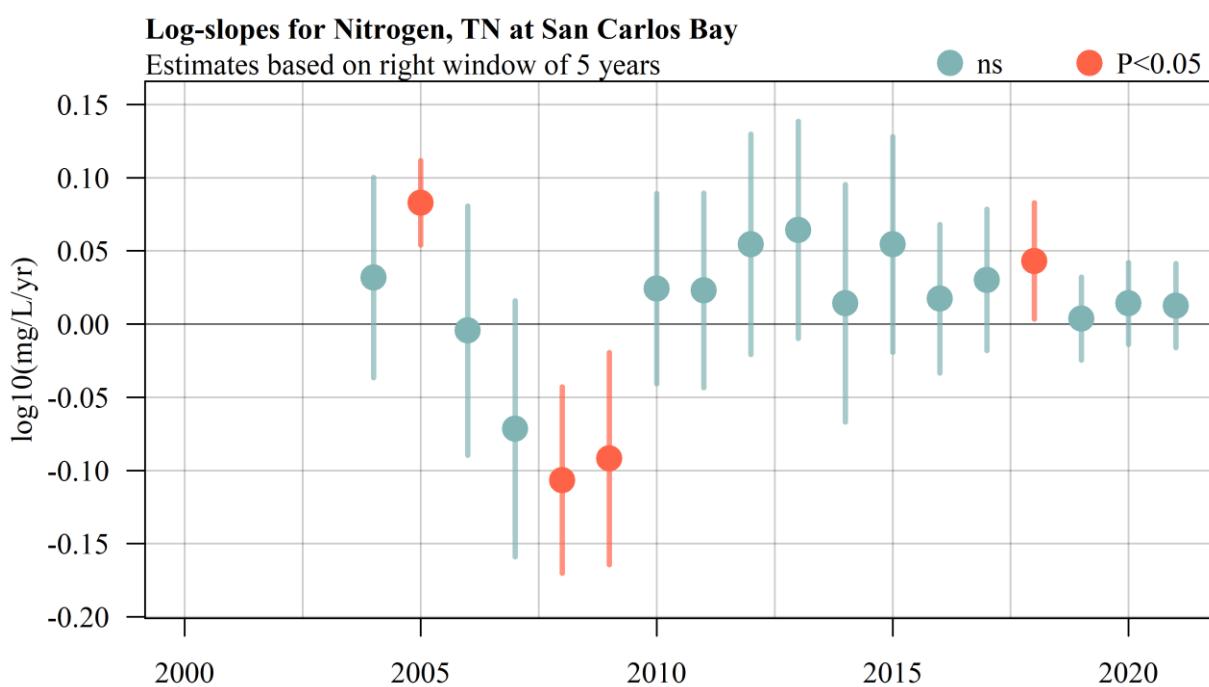
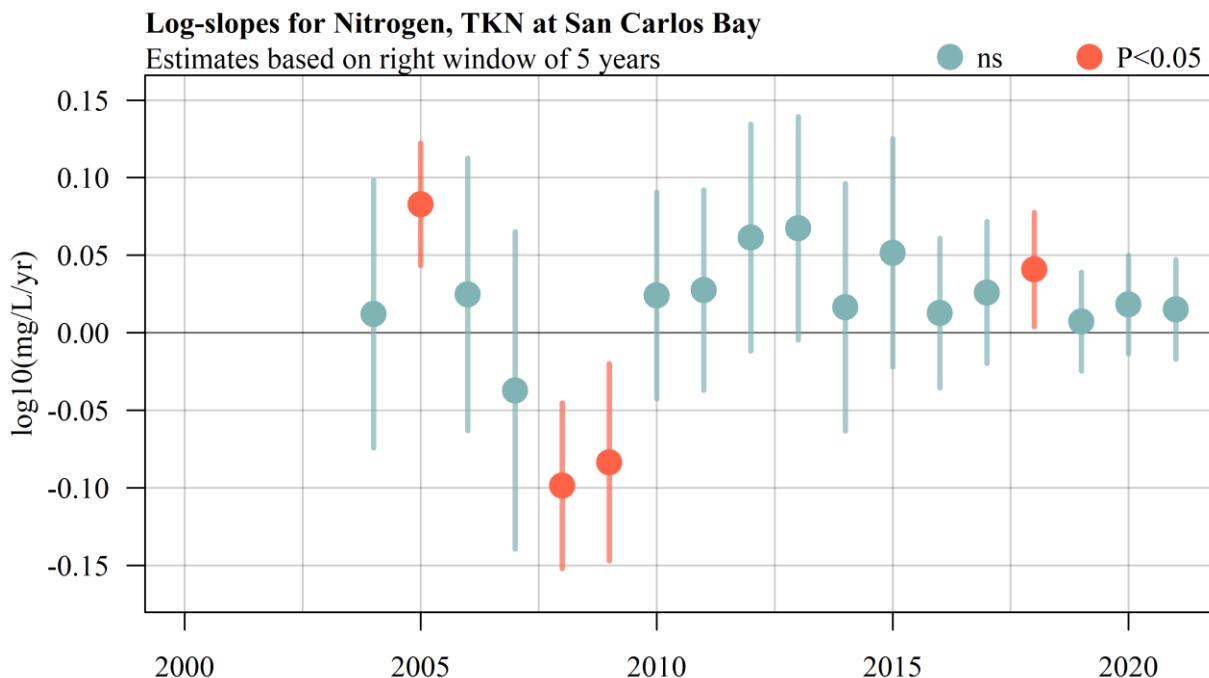
Estimates based on right window of 5 years

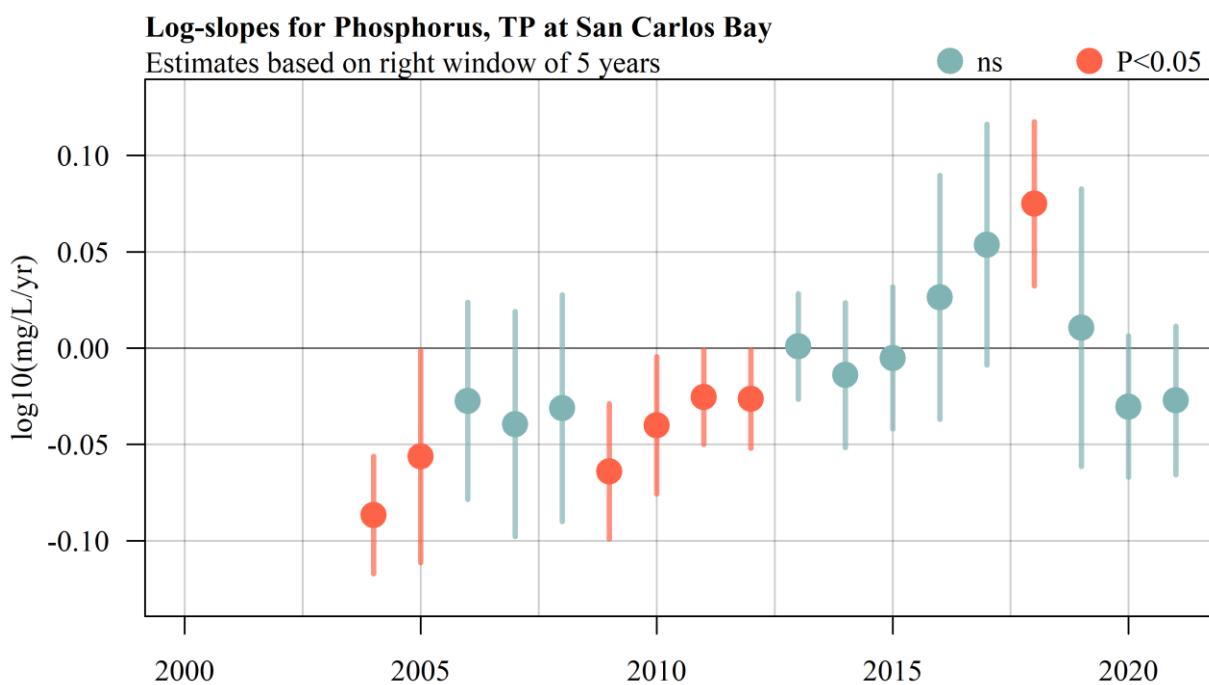
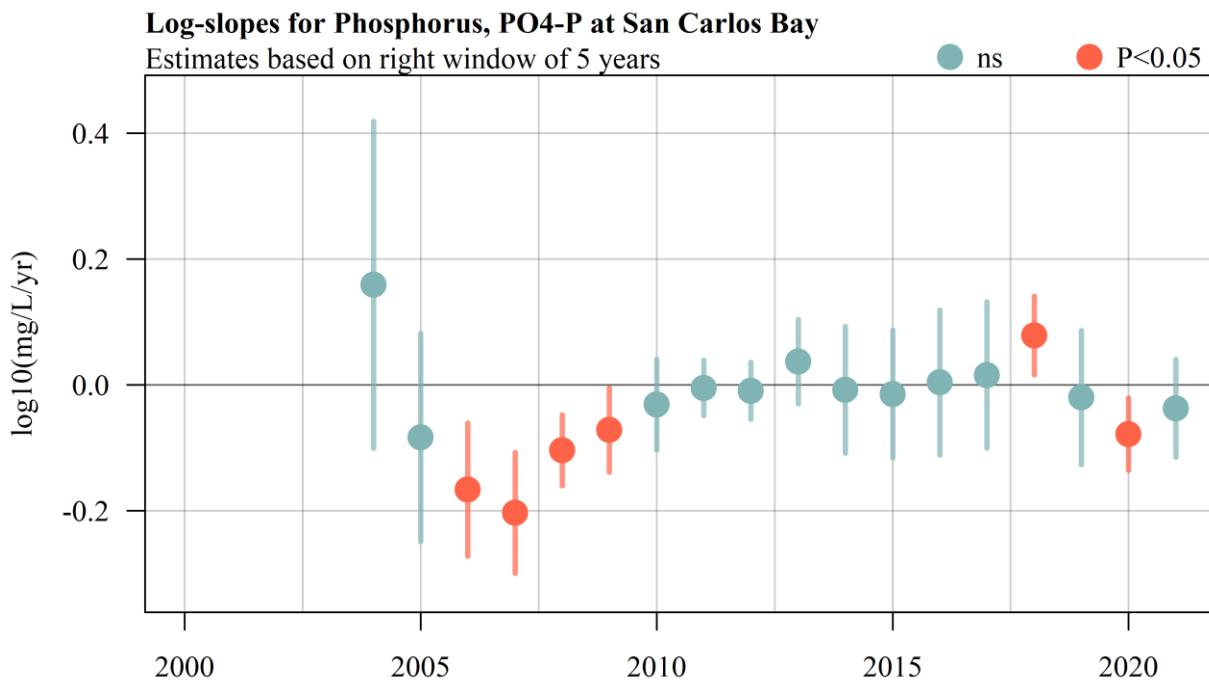
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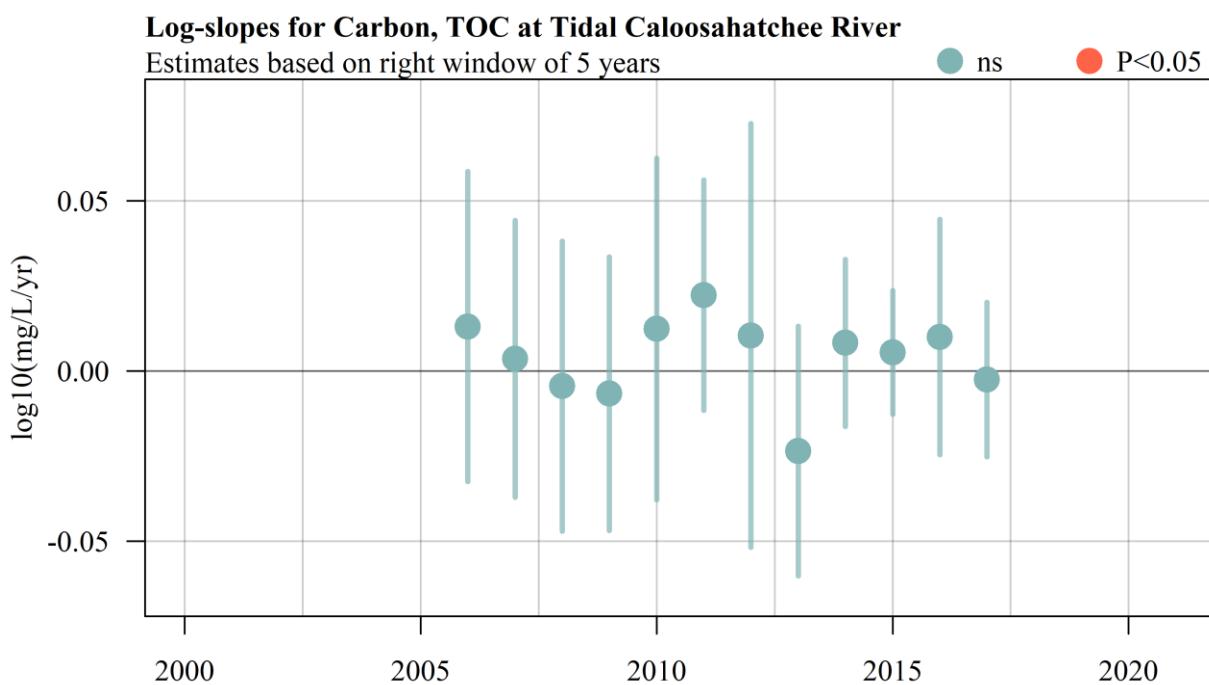
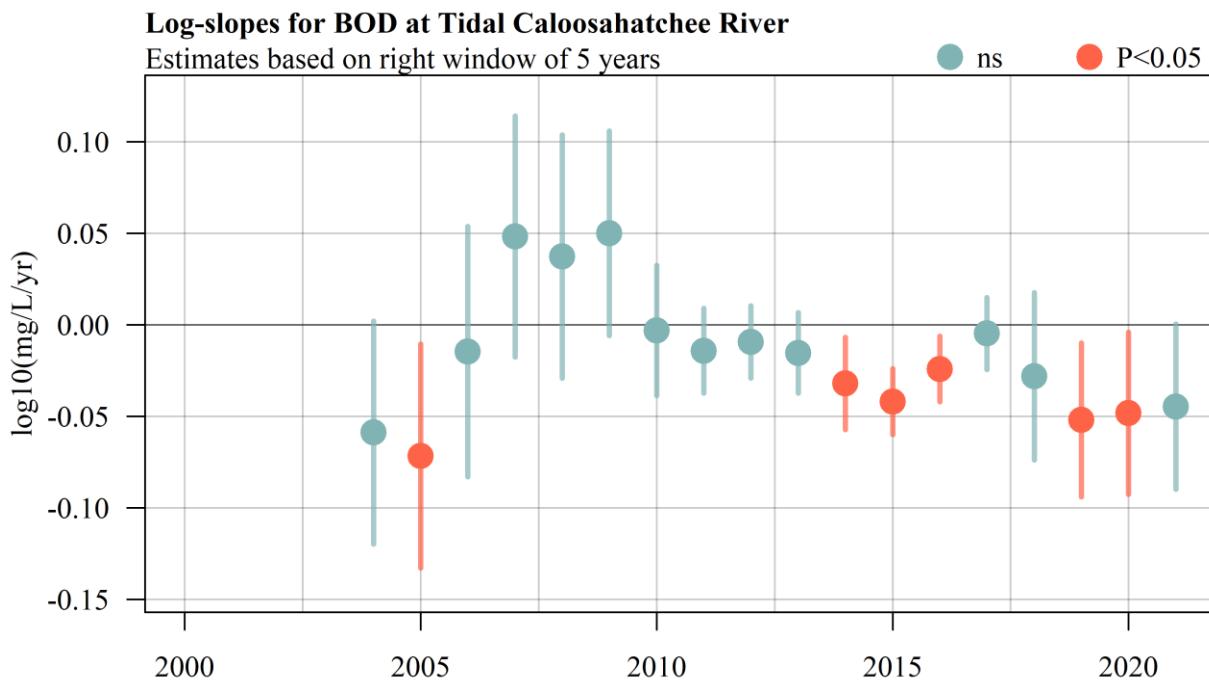
P<0.05

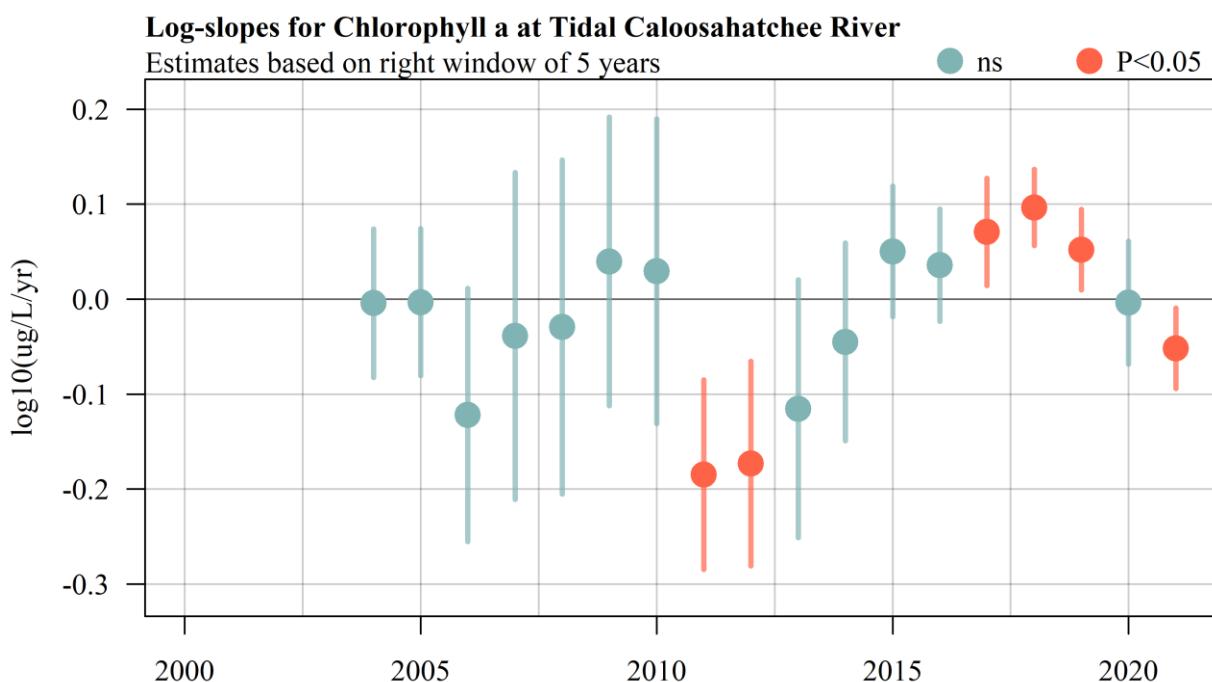












No trend slopes for Tidal Caloosahatchee River, Color, apparent

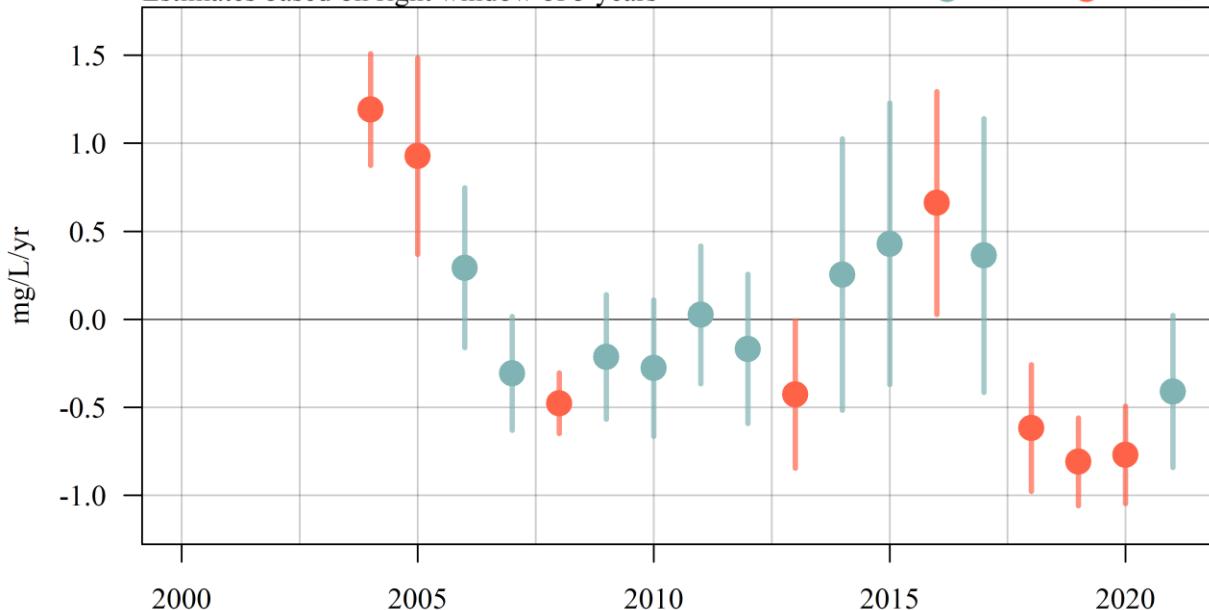
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### Slopes for DO concentration at Tidal Caloosahatchee River

Estimates based on right window of 5 years

ns

P<0.05

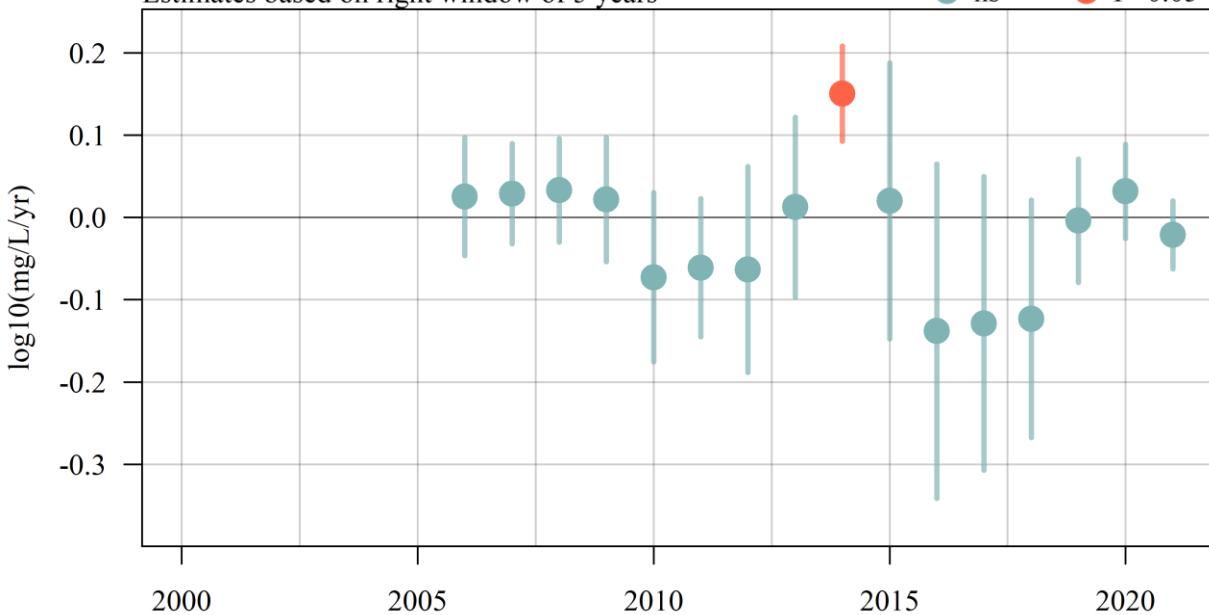


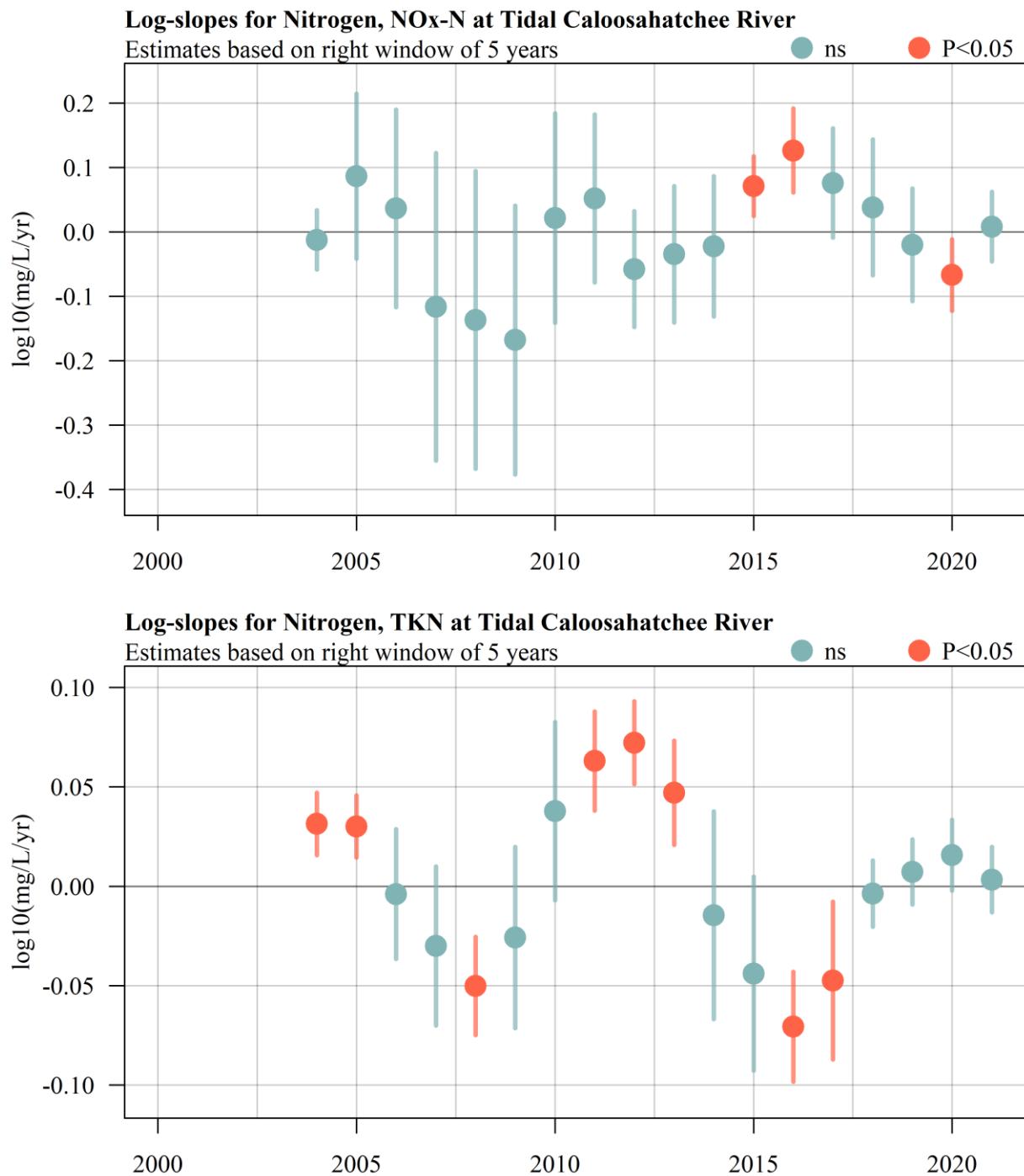
### Log-slopes for Nitrogen, NHx-N at Tidal Caloosahatchee River

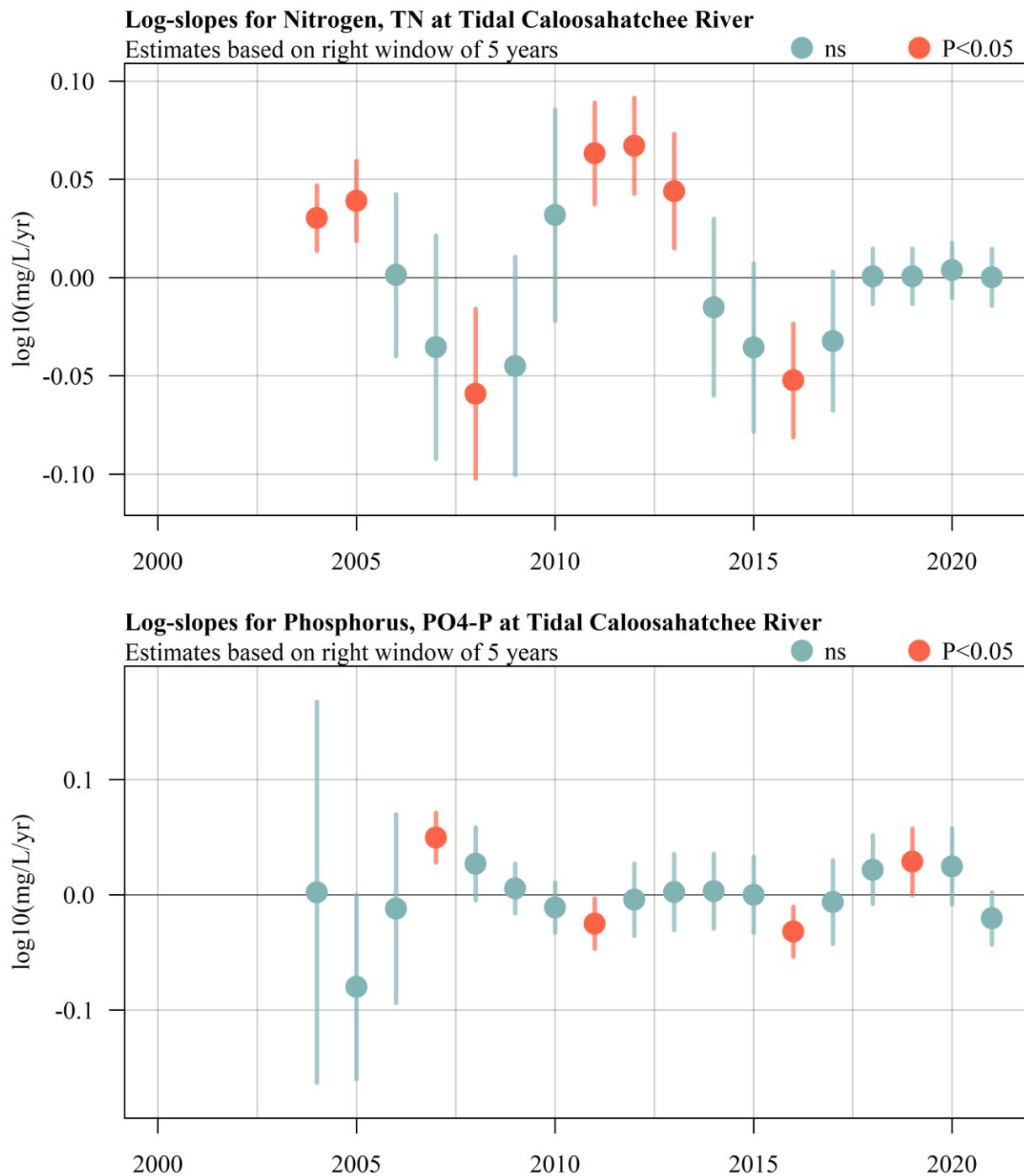
Estimates based on right window of 5 years

ns

P<0.05





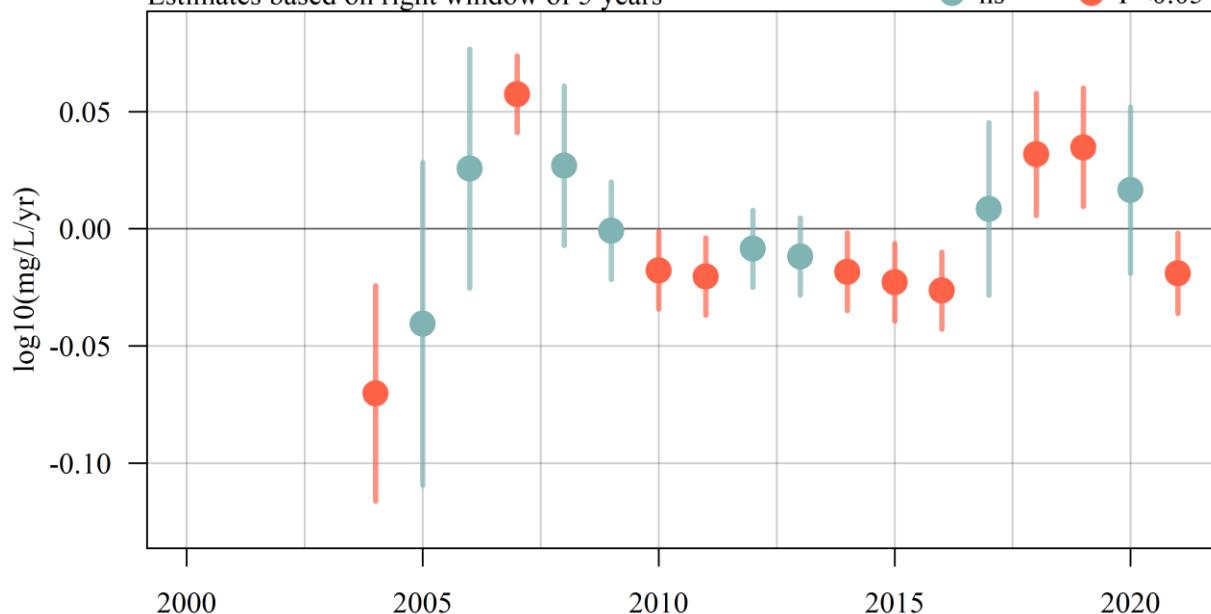


### Log-slopes for Phosphorus, TP at Tidal Caloosahatchee River

Estimates based on right window of 5 years

ns

P<0.05

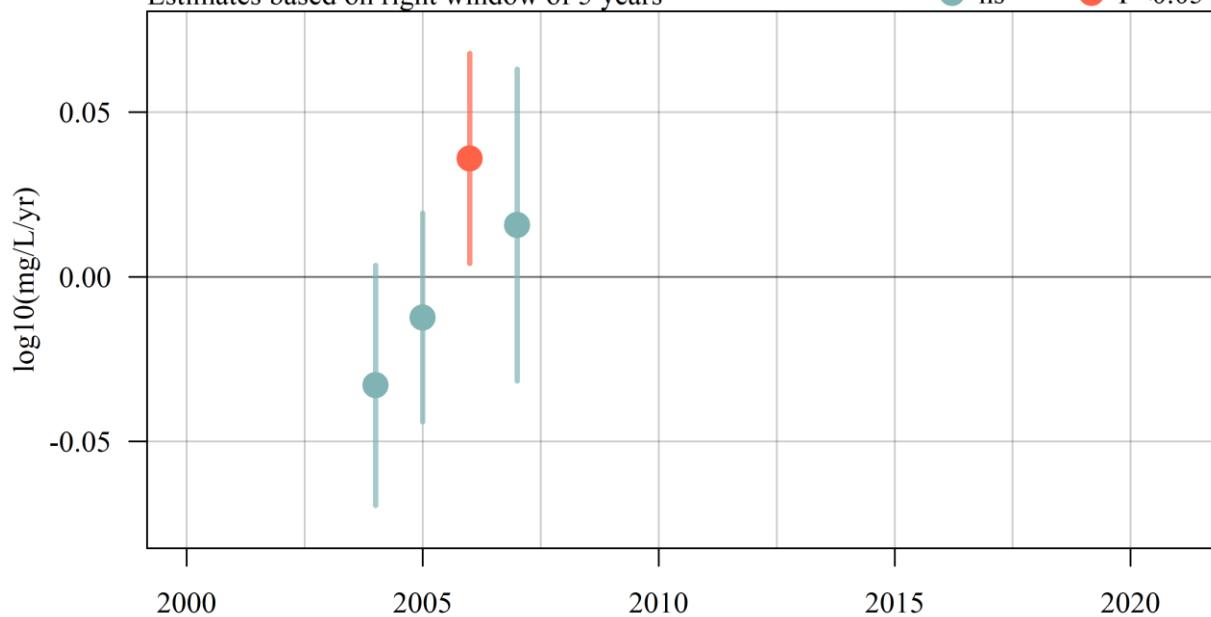


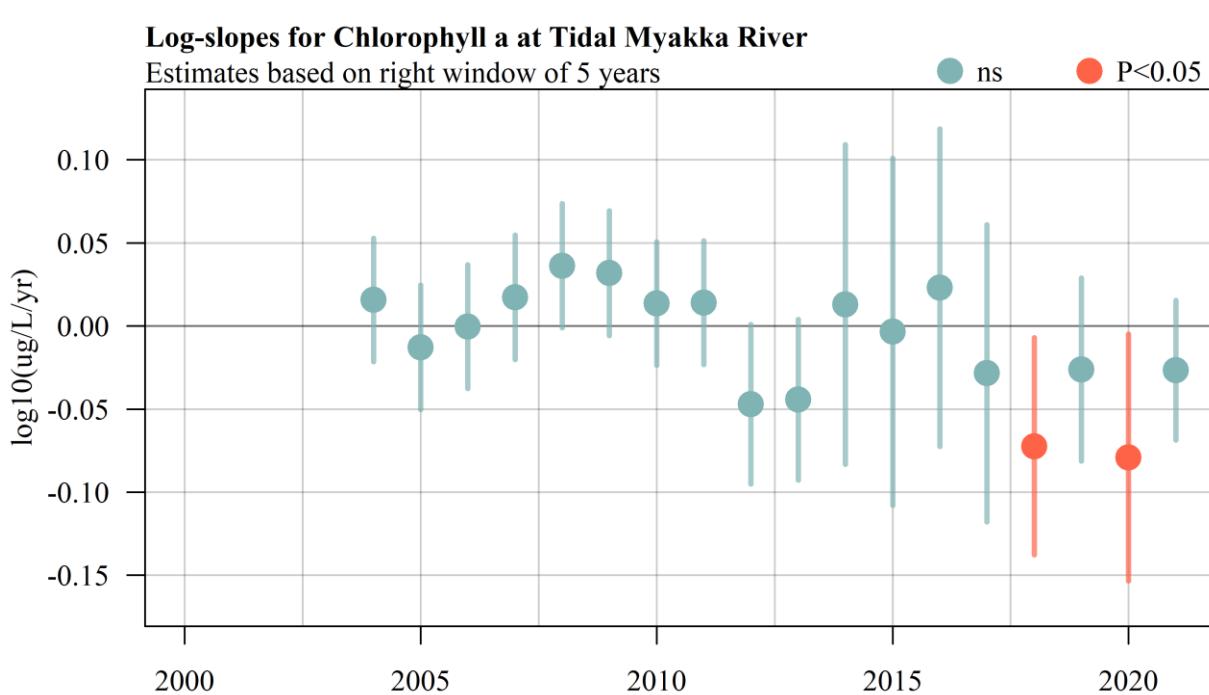
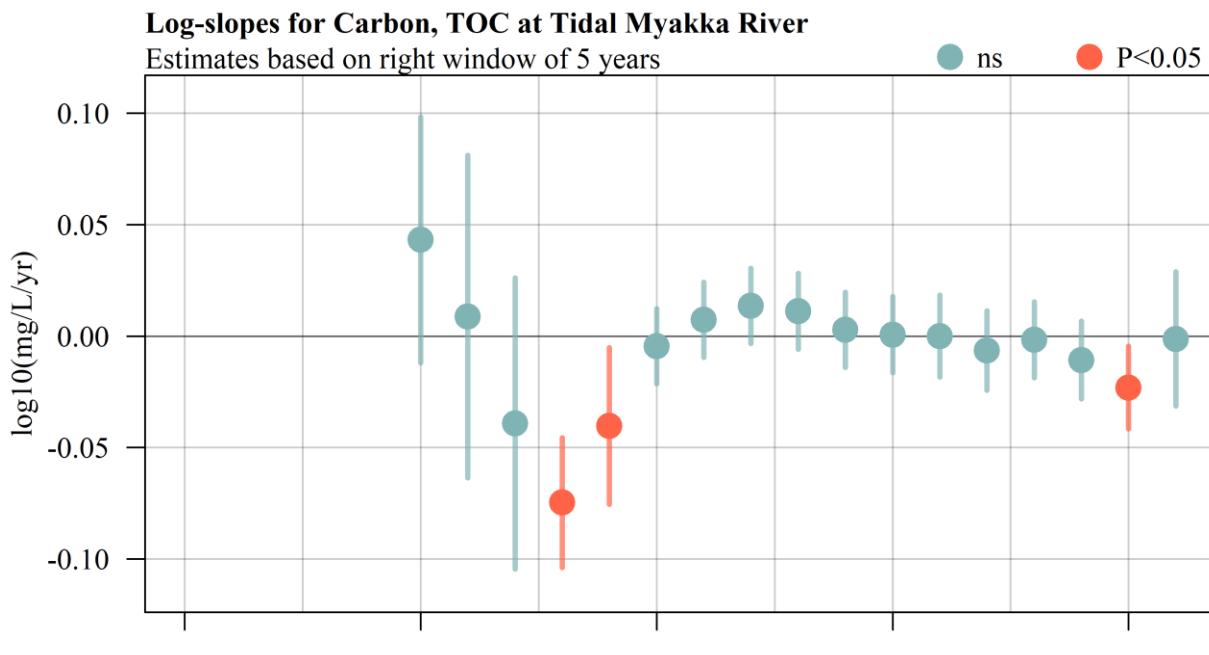
### Log-slopes for BOD at Tidal Myakka River

Estimates based on right window of 5 years

ns

P<0.05



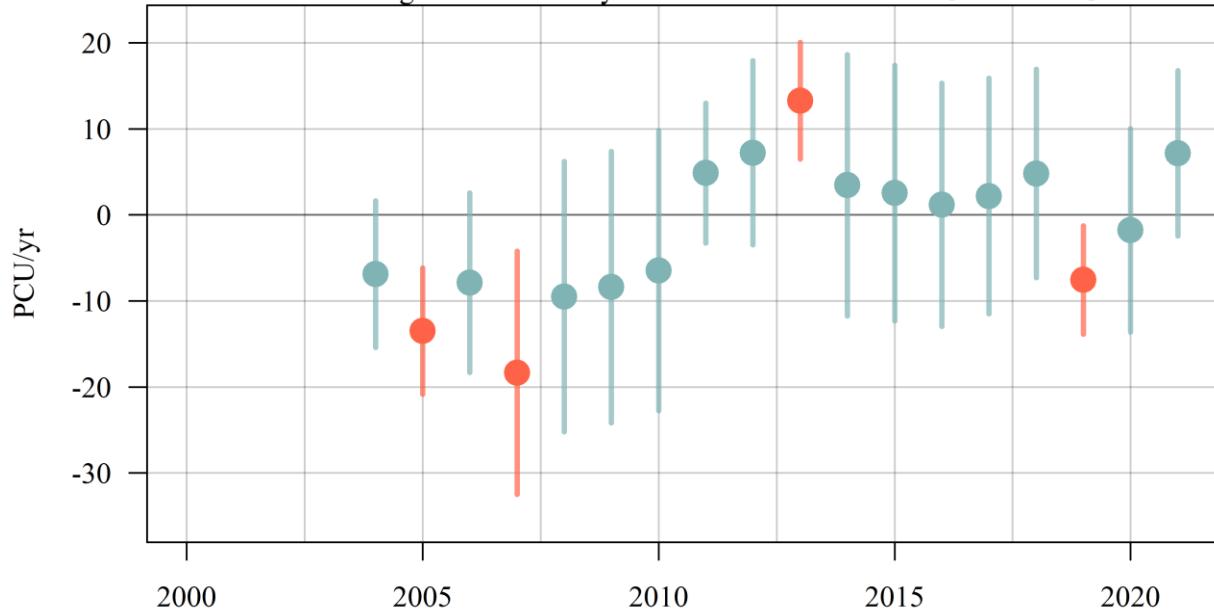


### Slopes for Color, apparent at Tidal Myakka River

Estimates based on right window of 5 years

ns

P<0.05

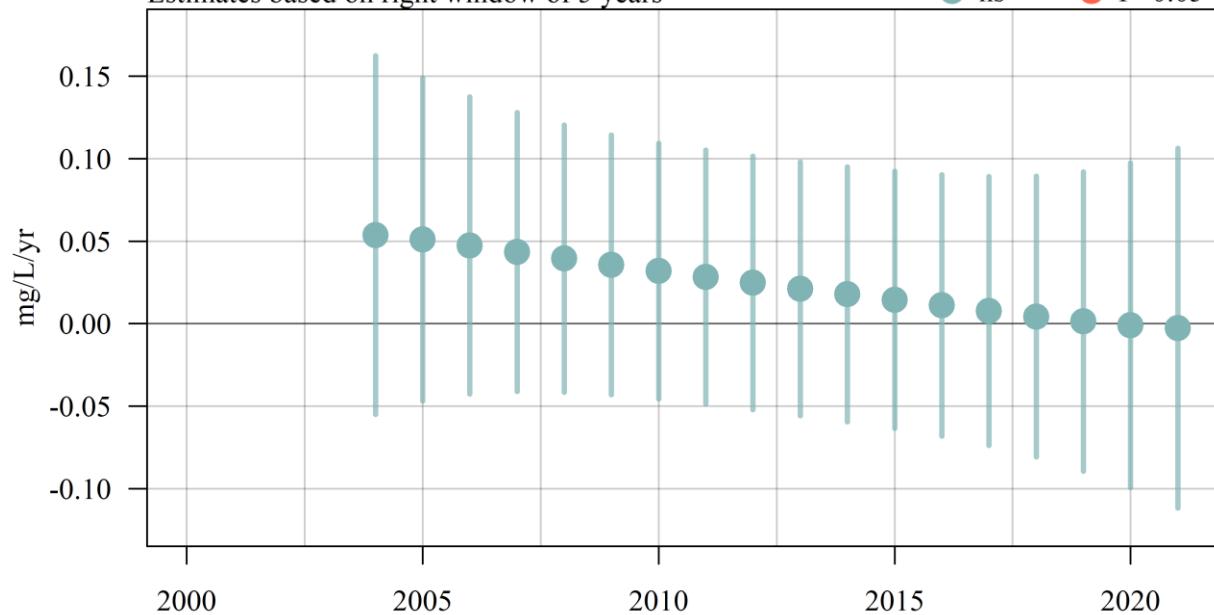


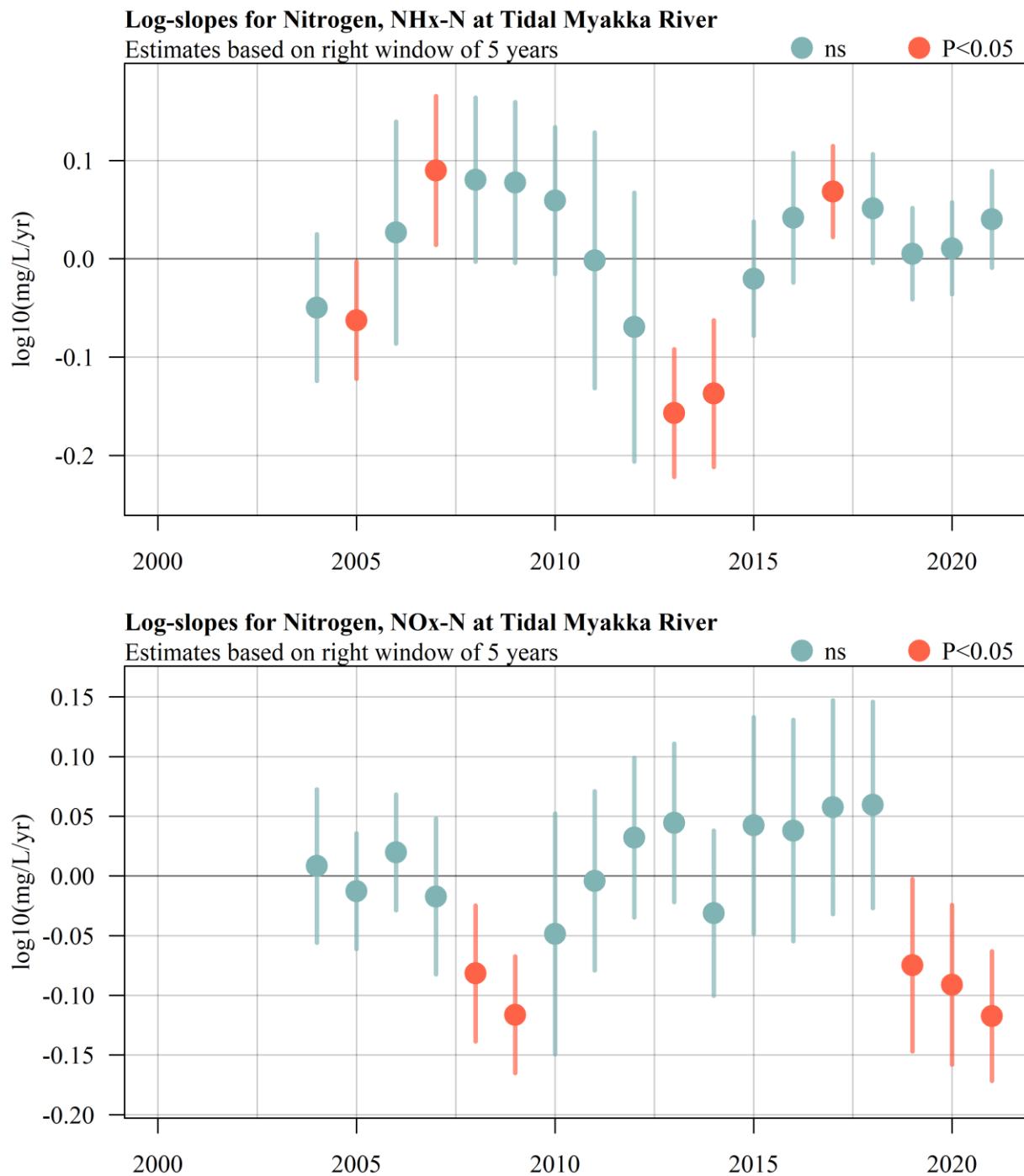
### Slopes for DO concentration at Tidal Myakka River

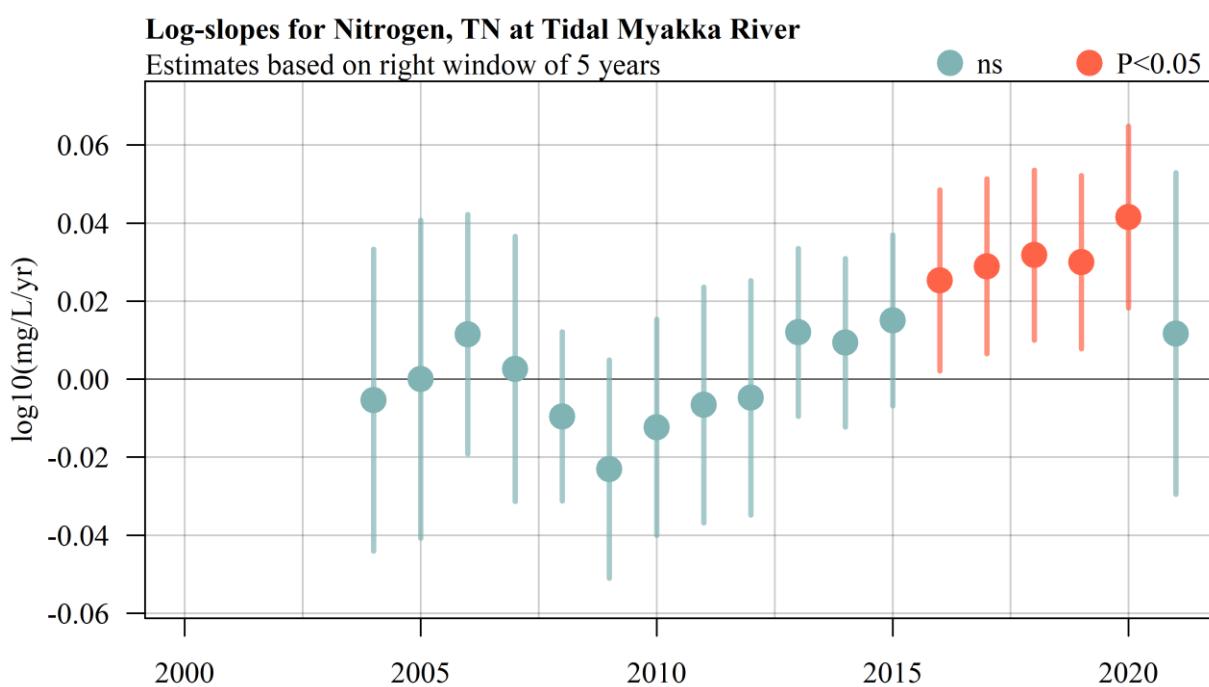
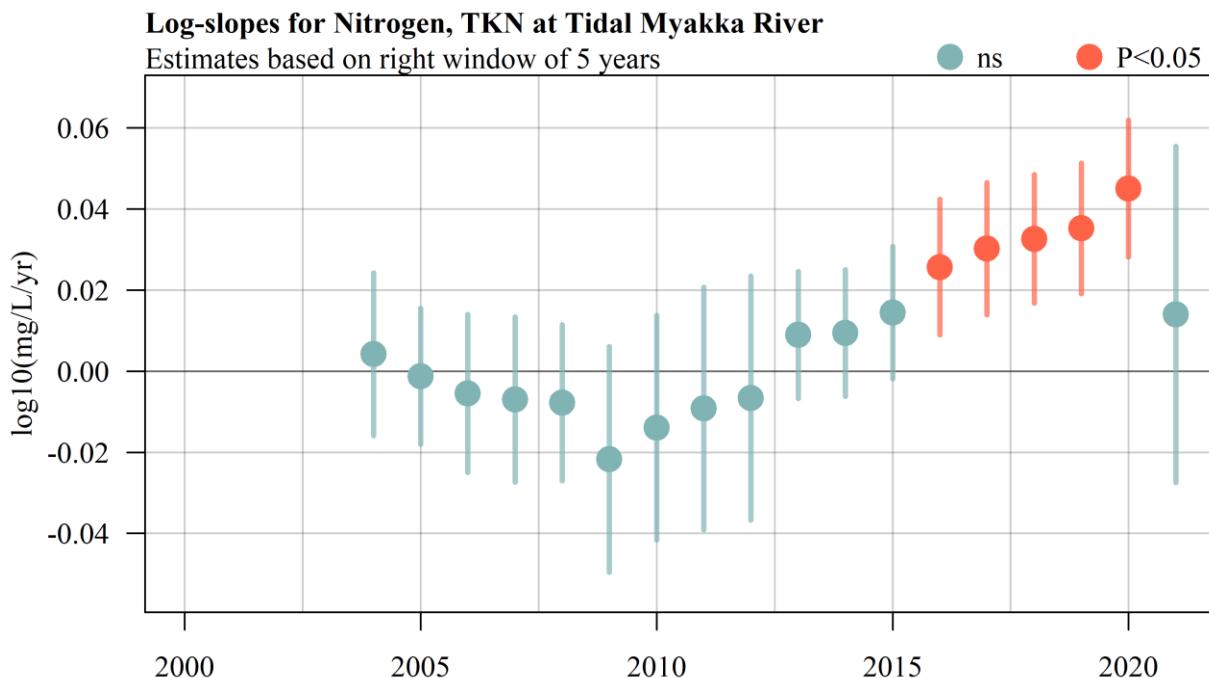
Estimates based on right window of 5 years

ns

P<0.05





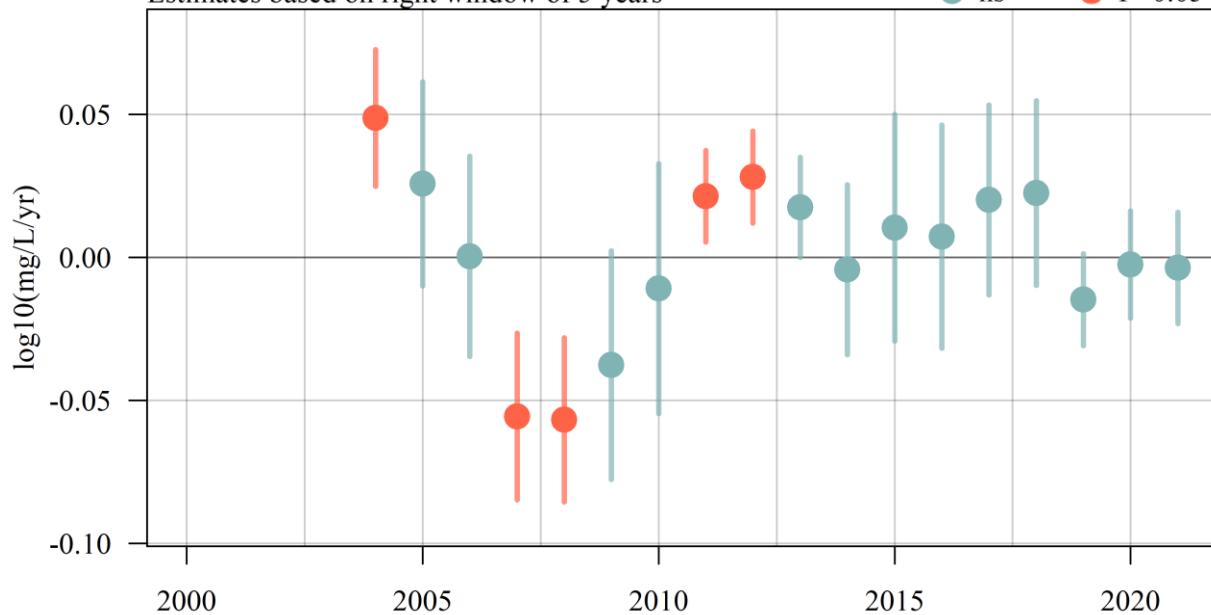


### Log-slopes for Phosphorus, PO4-P at Tidal Myakka River

Estimates based on right window of 5 years

ns

P<0.05

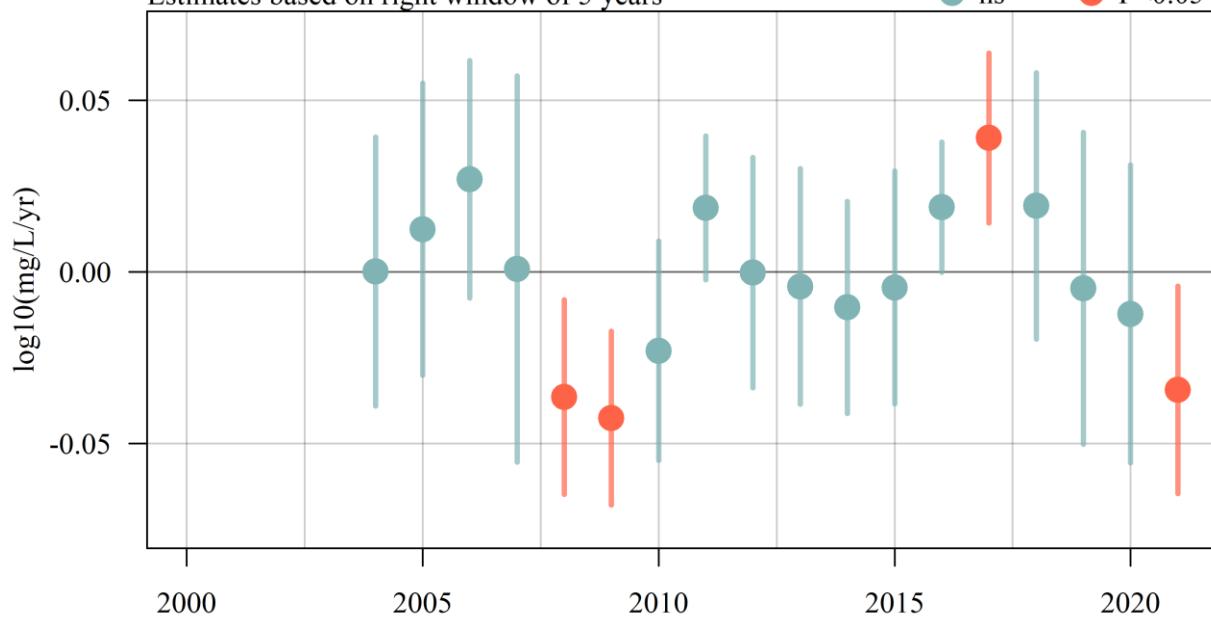


### Log-slopes for Phosphorus, TP at Tidal Myakka River

Estimates based on right window of 5 years

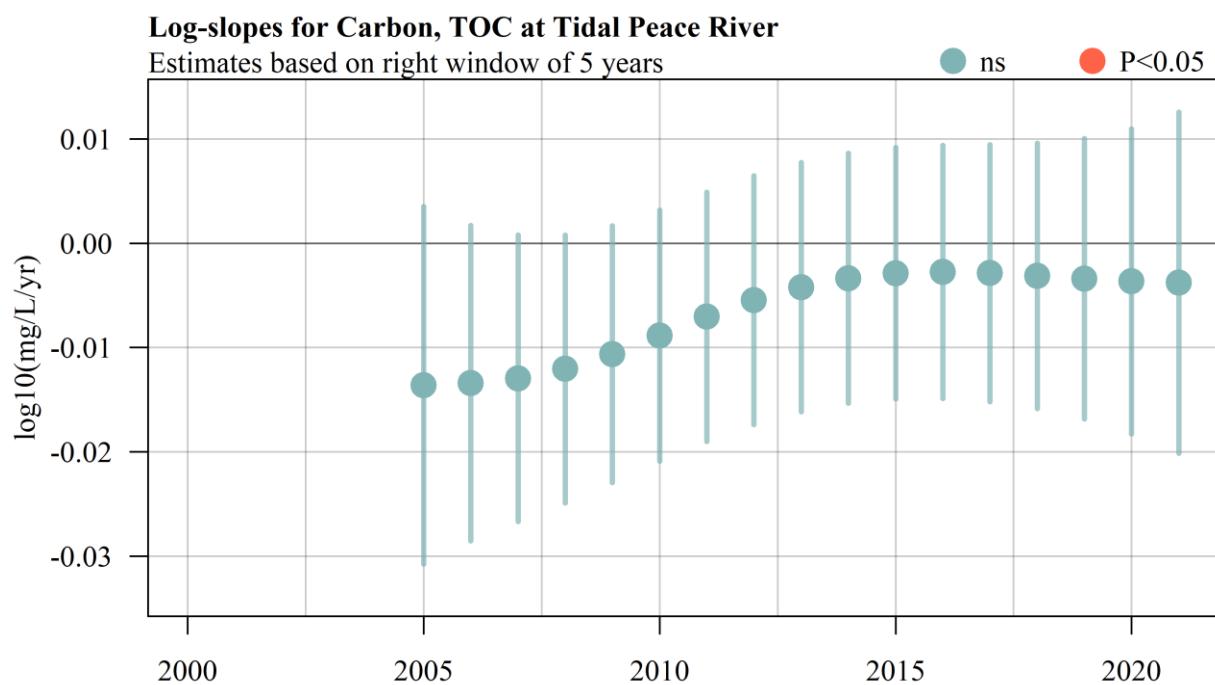
ns

P<0.05



No trend slopes for Tidal Peace River, BOD

(insufficient data)

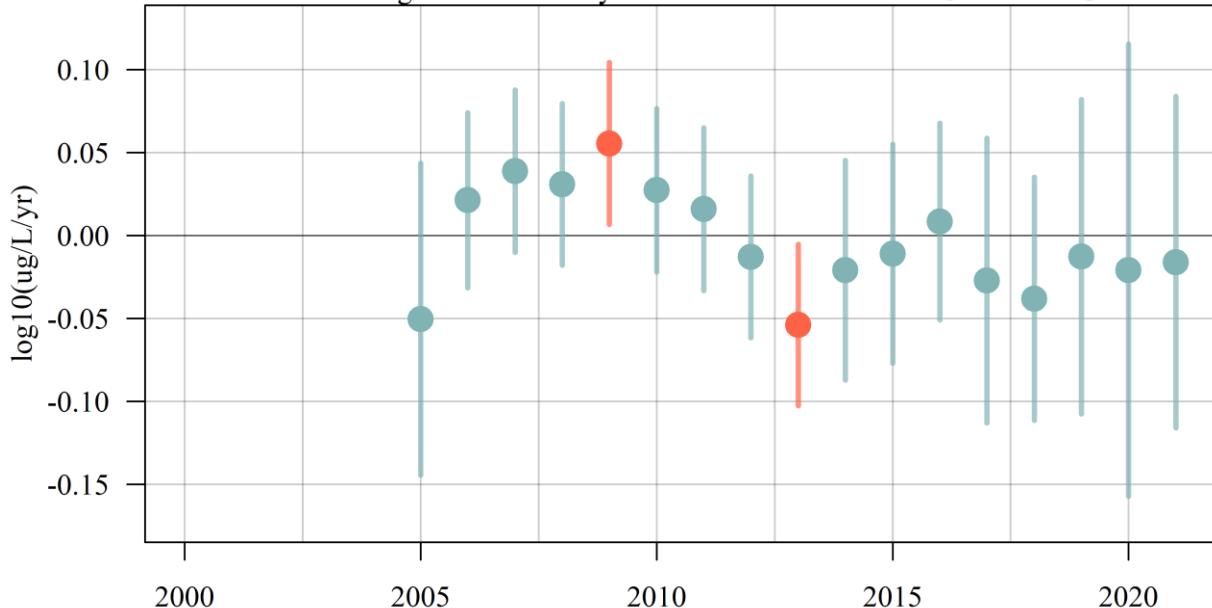


### Log-slopes for Chlorophyll a at Tidal Peace River

Estimates based on right window of 5 years

ns

P<0.05

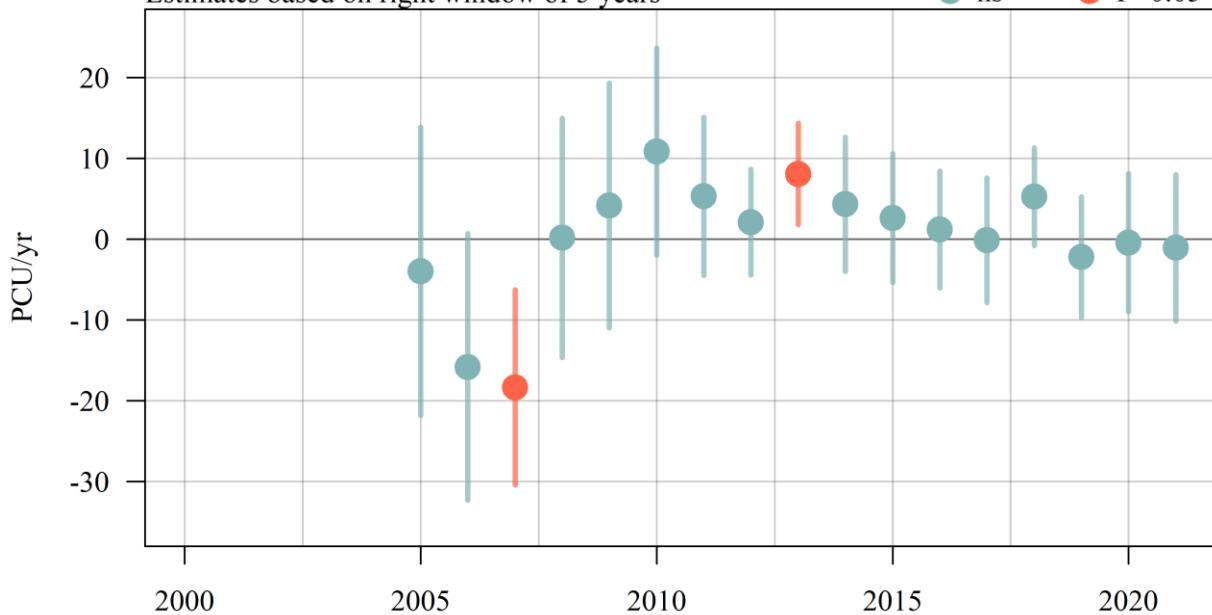


### Slopes for Color, apparent at Tidal Peace River

Estimates based on right window of 5 years

ns

P<0.05

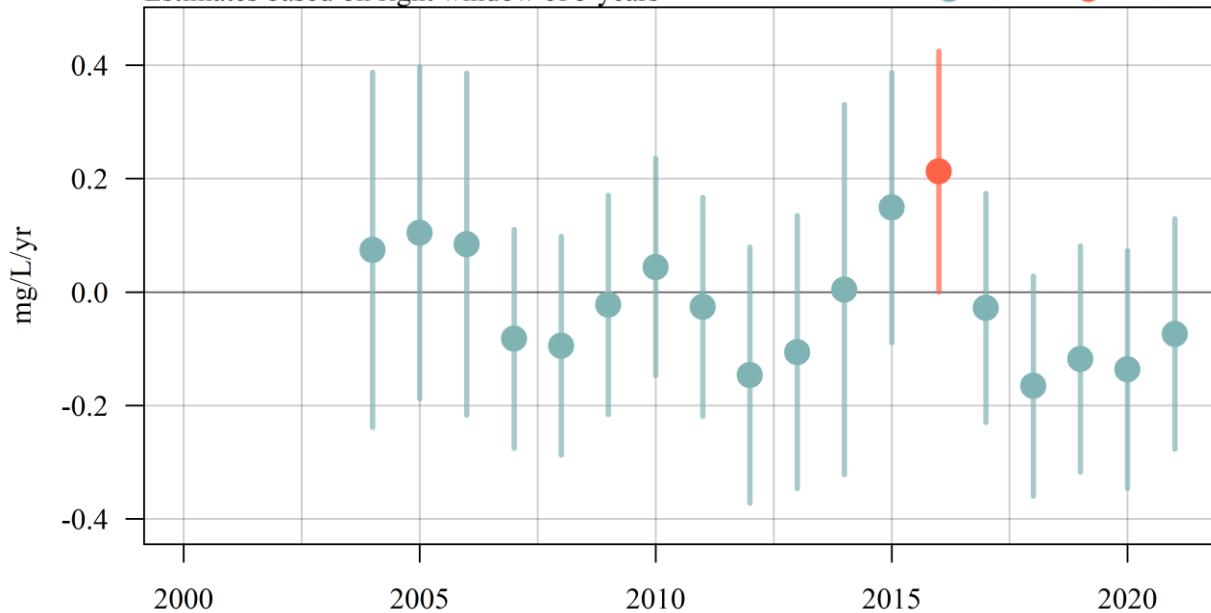


### Slopes for DO concentration at Tidal Peace River

Estimates based on right window of 5 years

ns

P<0.05

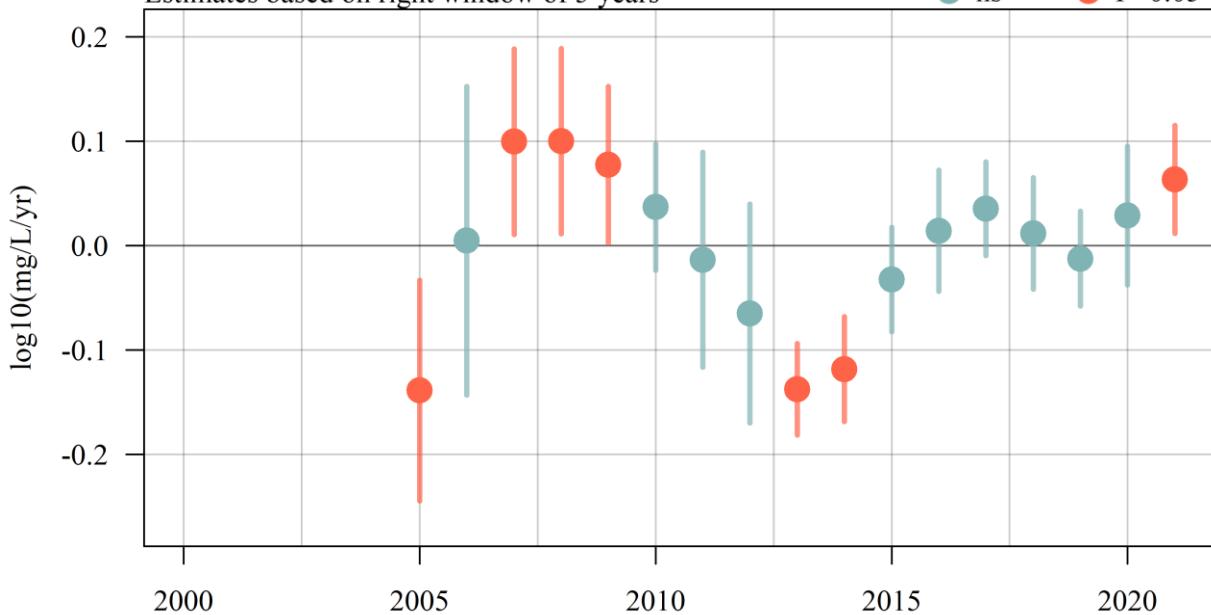


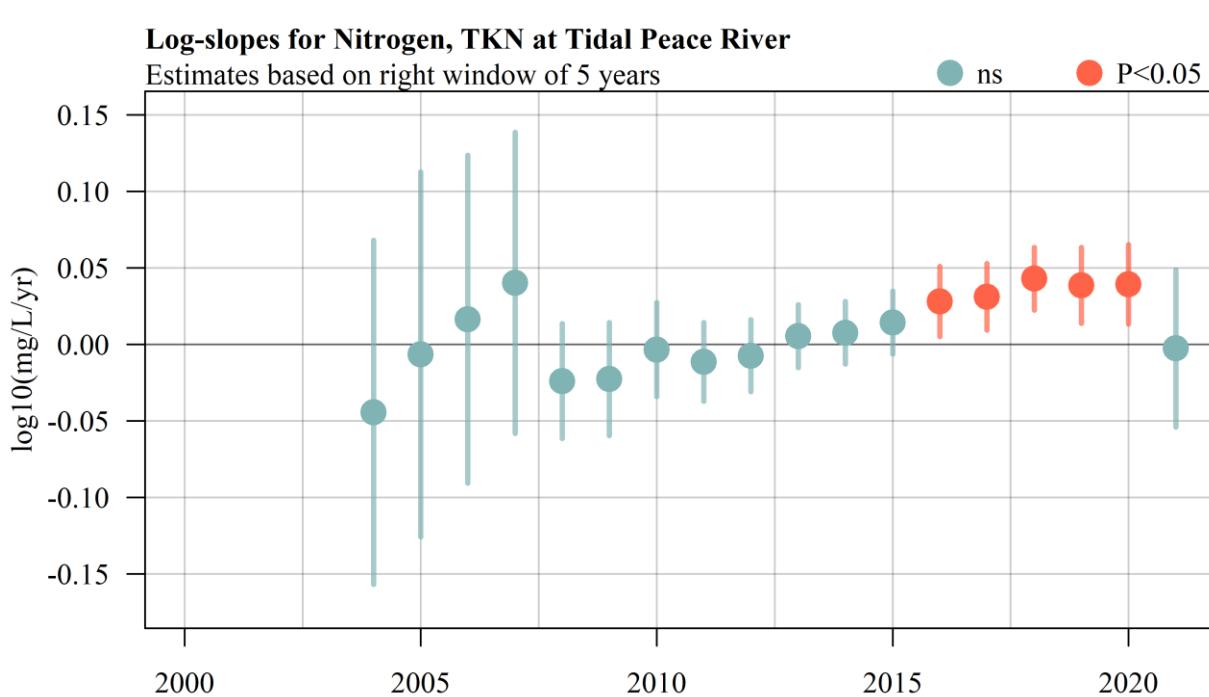
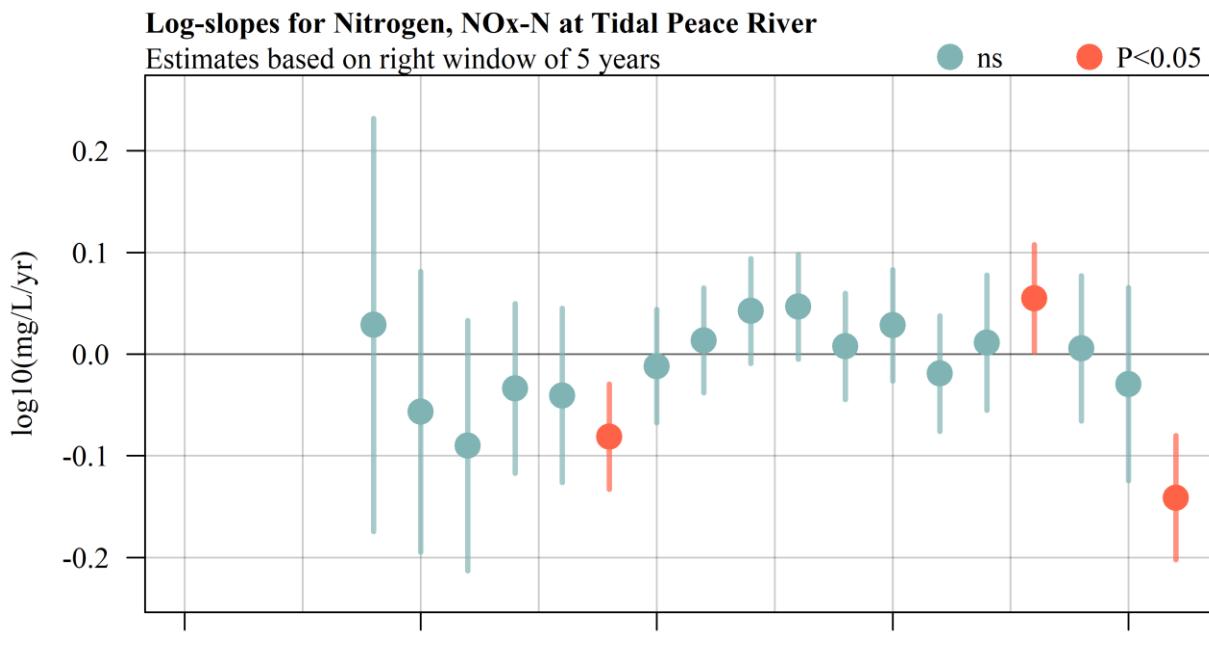
### Log-slopes for Nitrogen, NHx-N at Tidal Peace River

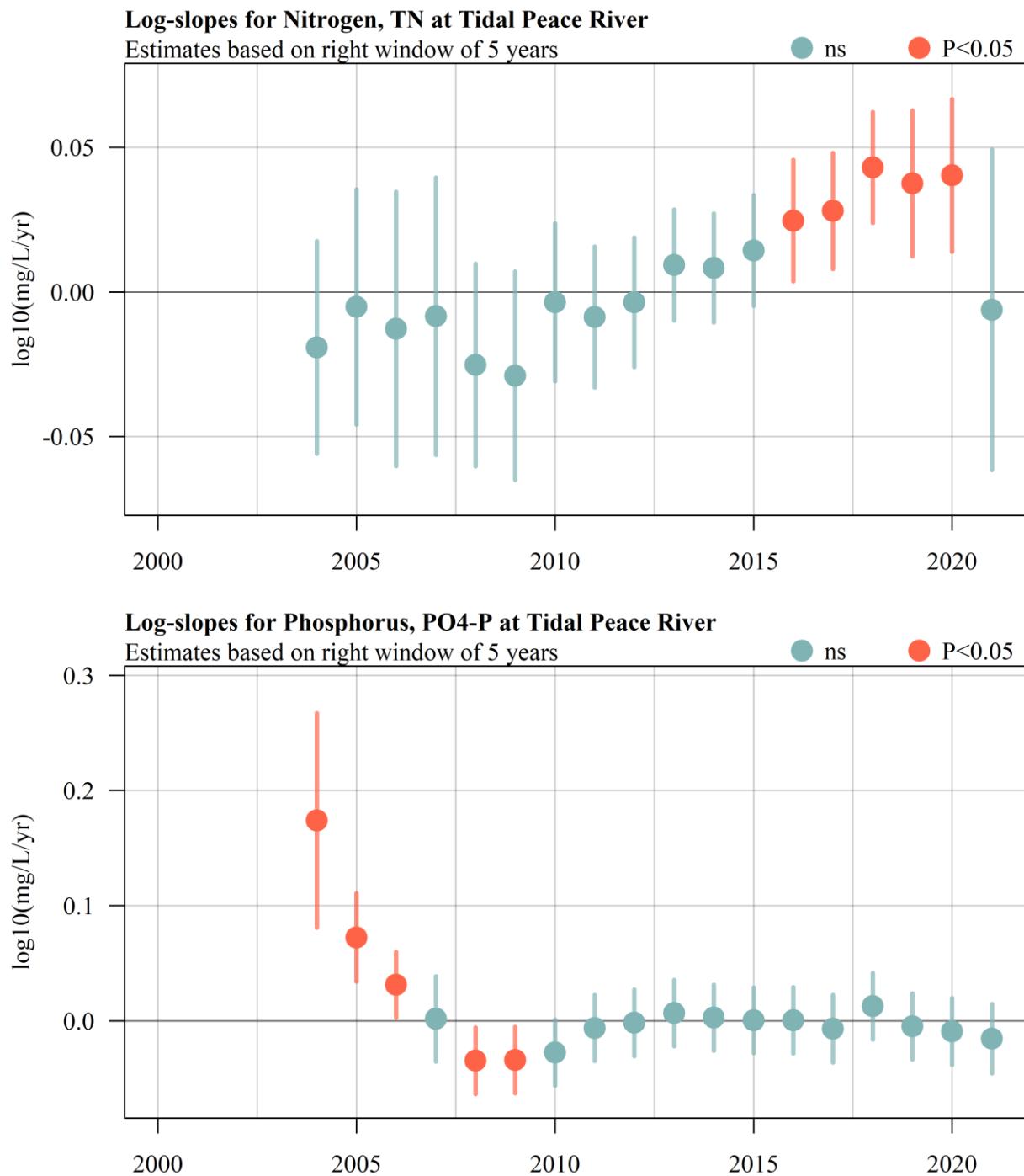
Estimates based on right window of 5 years

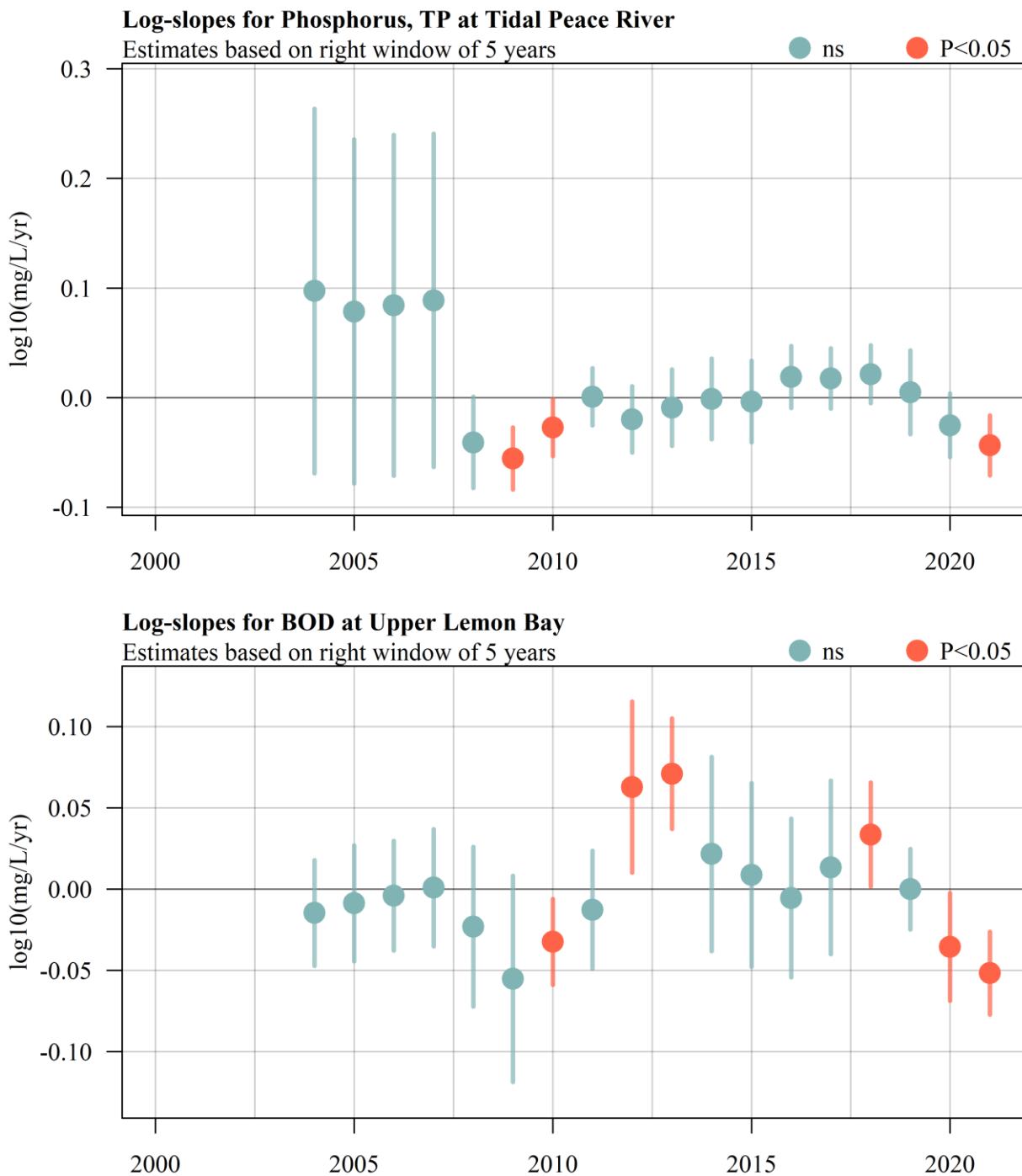
ns

P<0.05



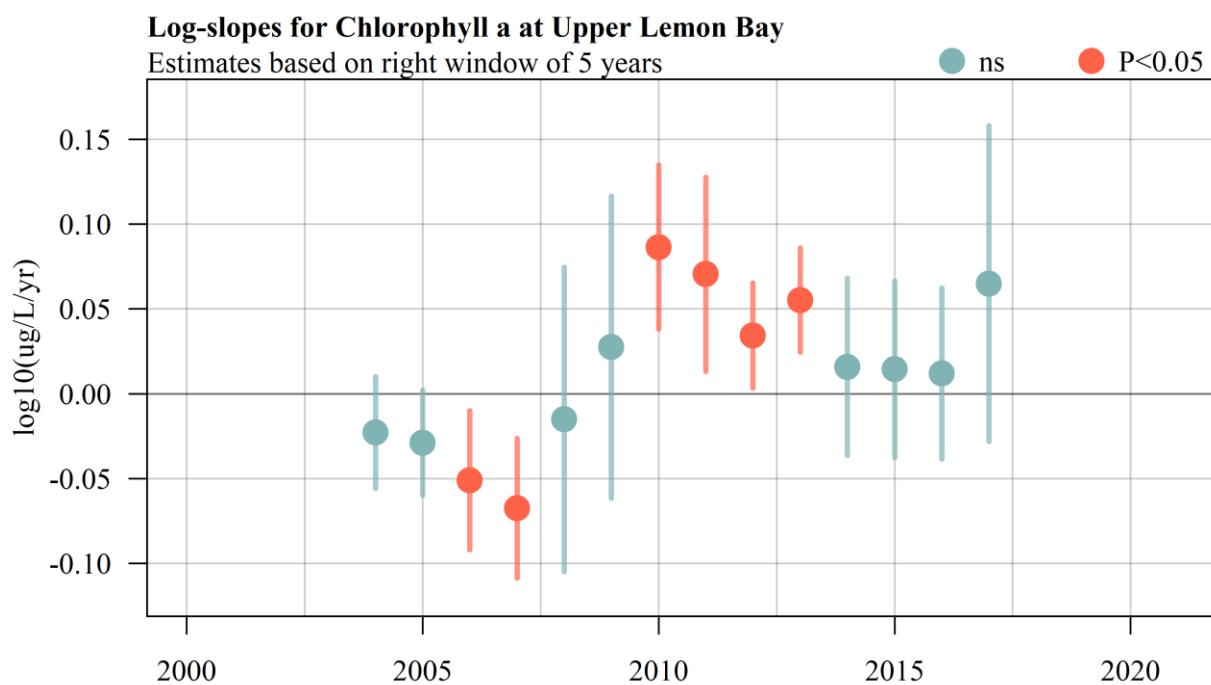


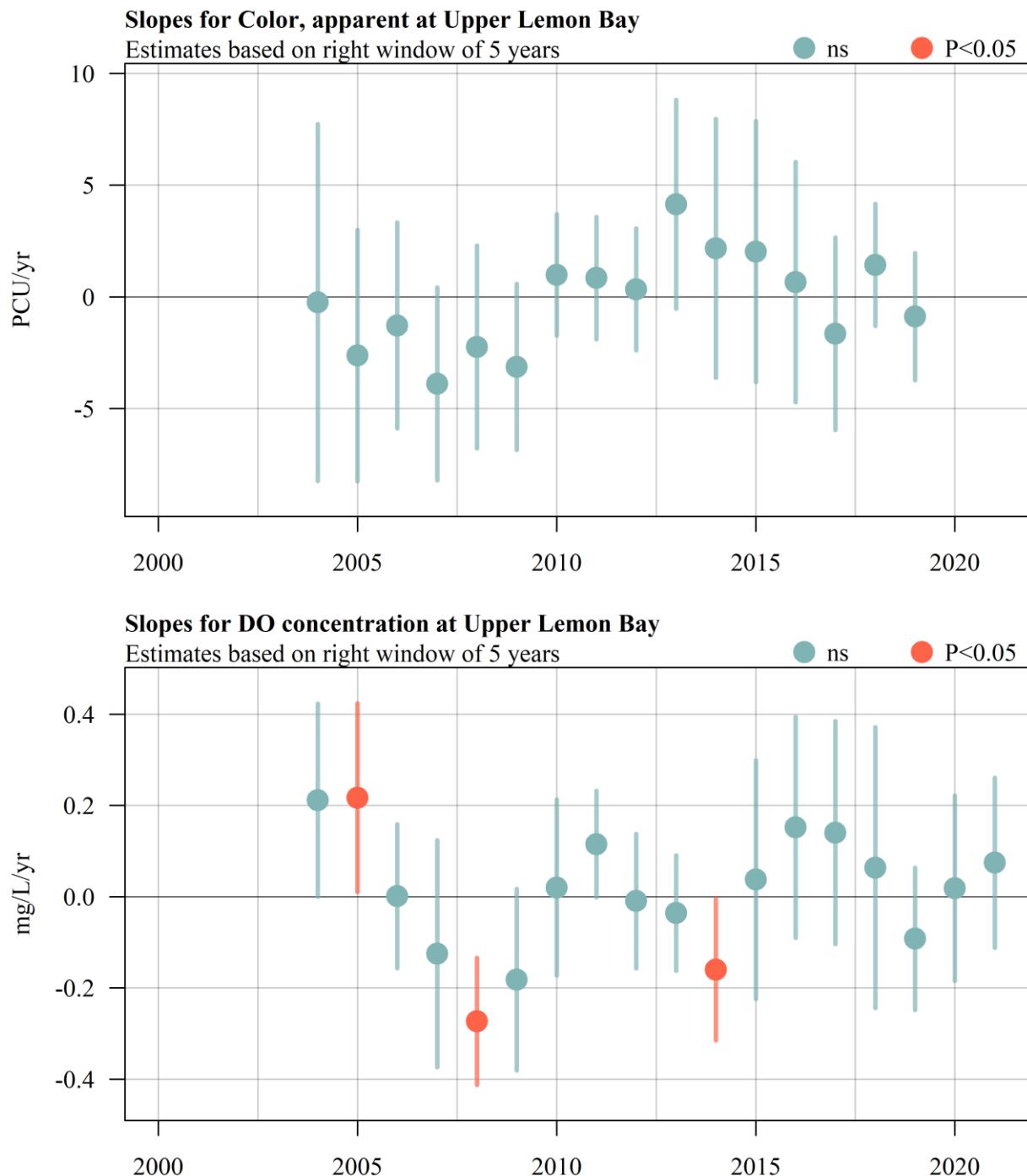


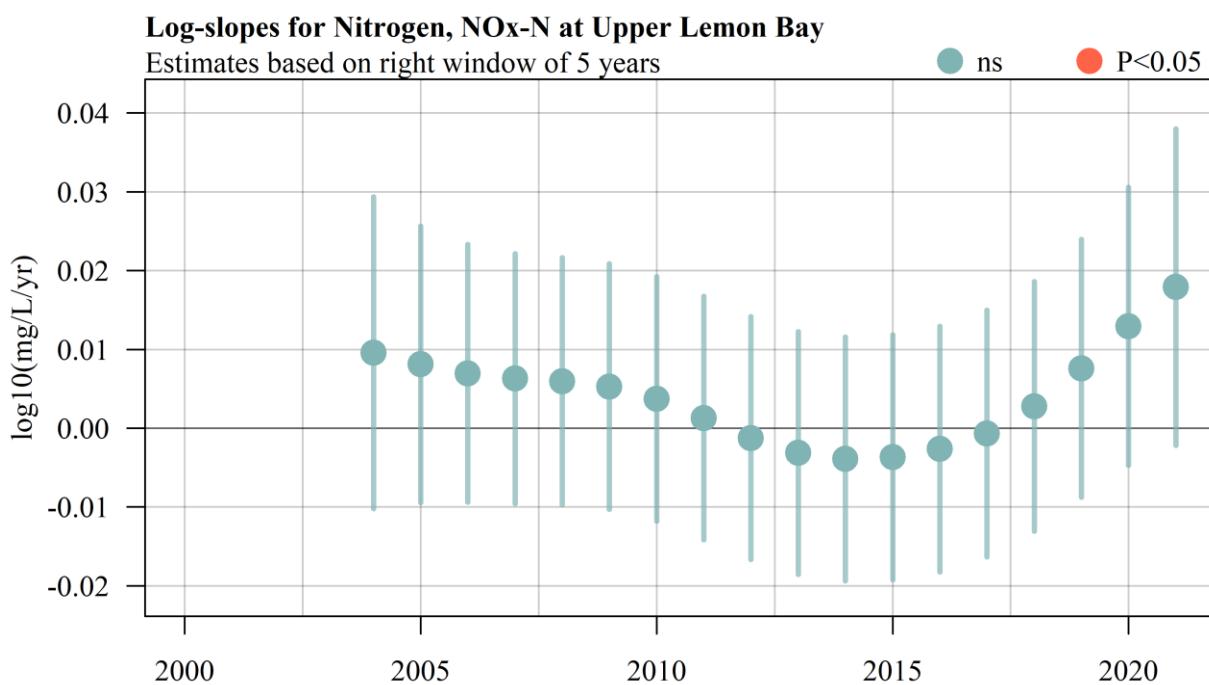
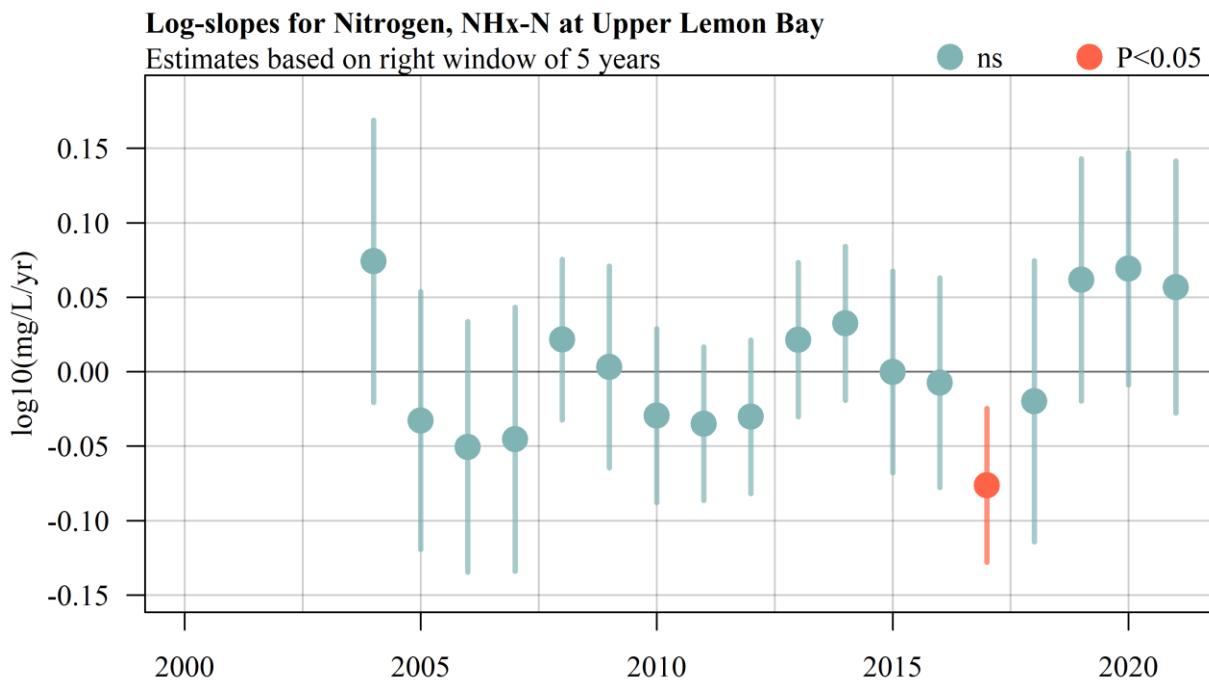


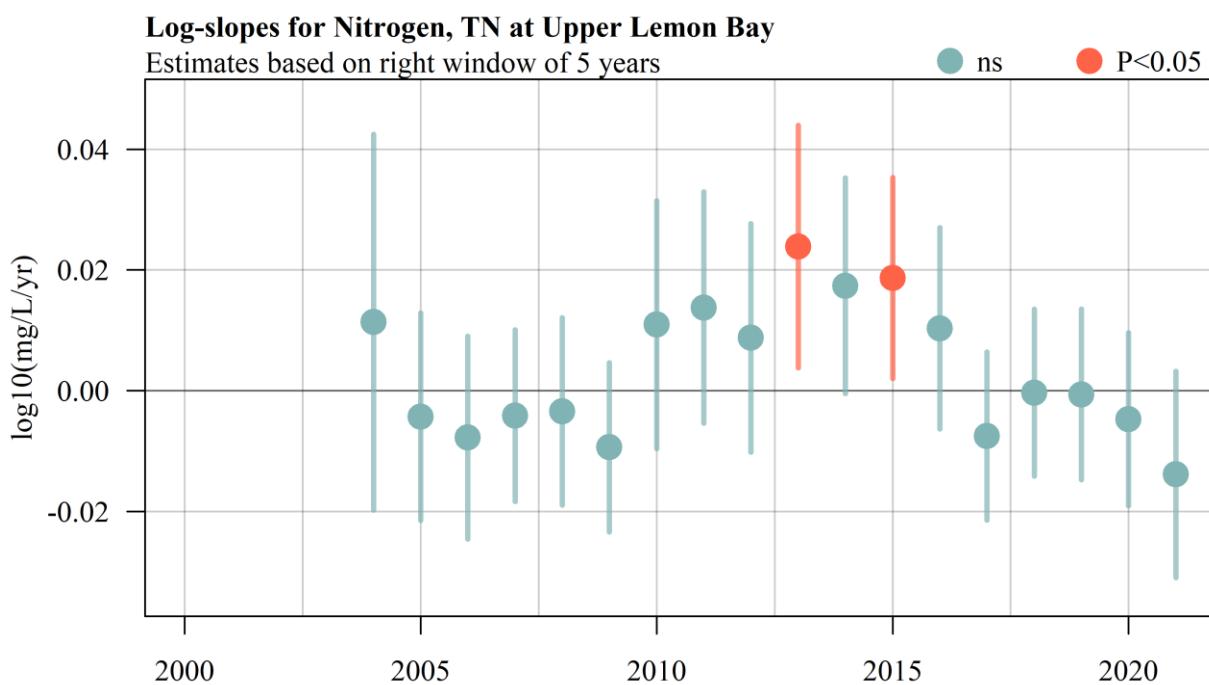
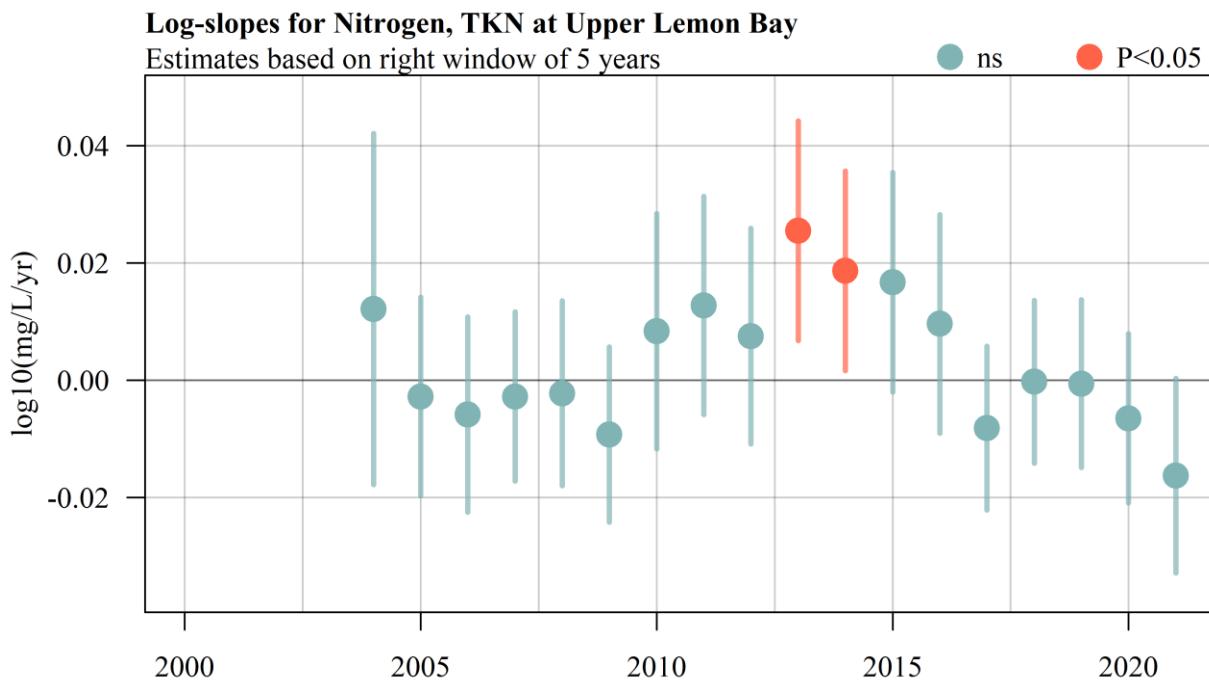
No trend slopes for Upper Lemon Bay, Carbon, TOC

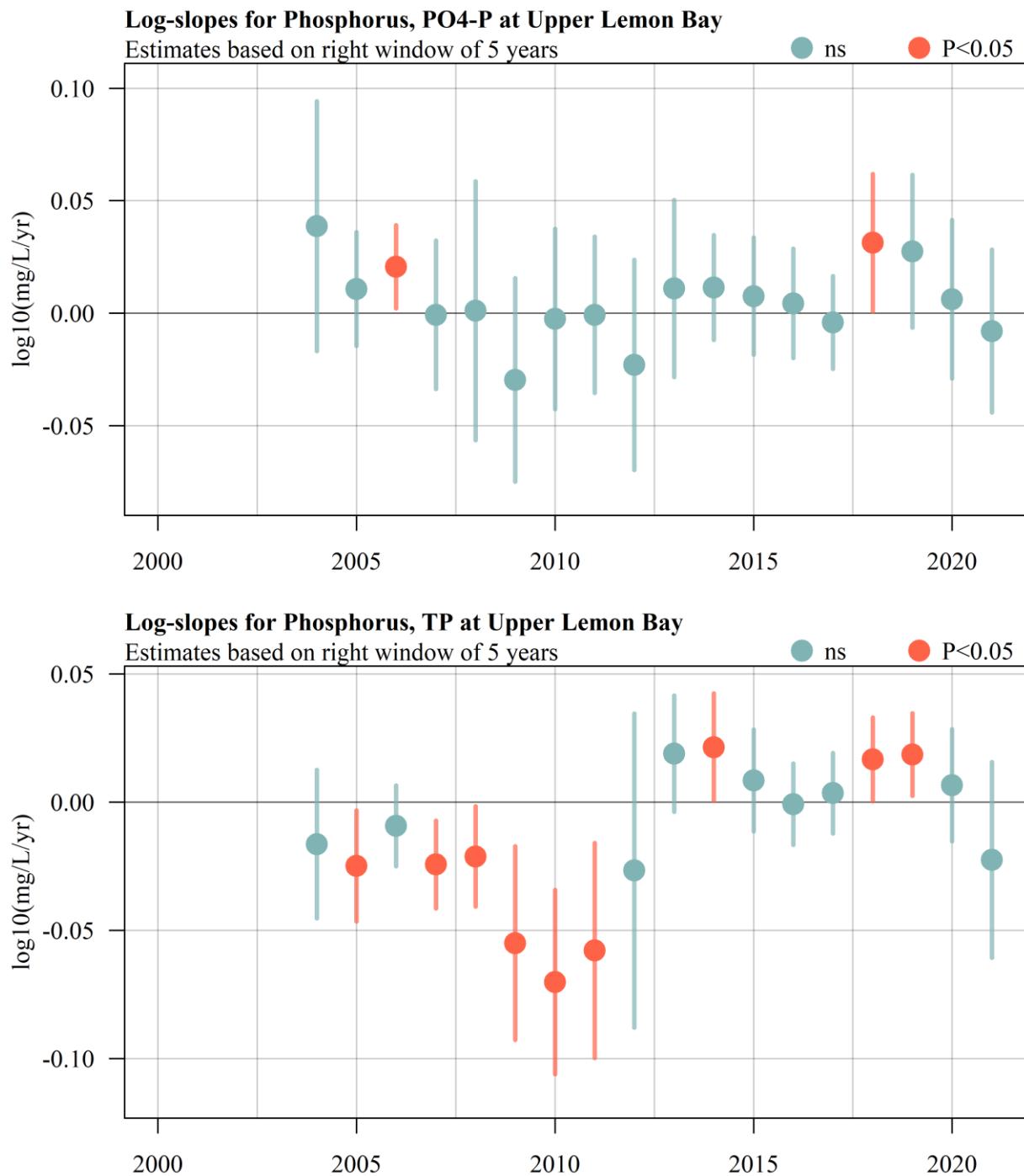
(insufficient data)





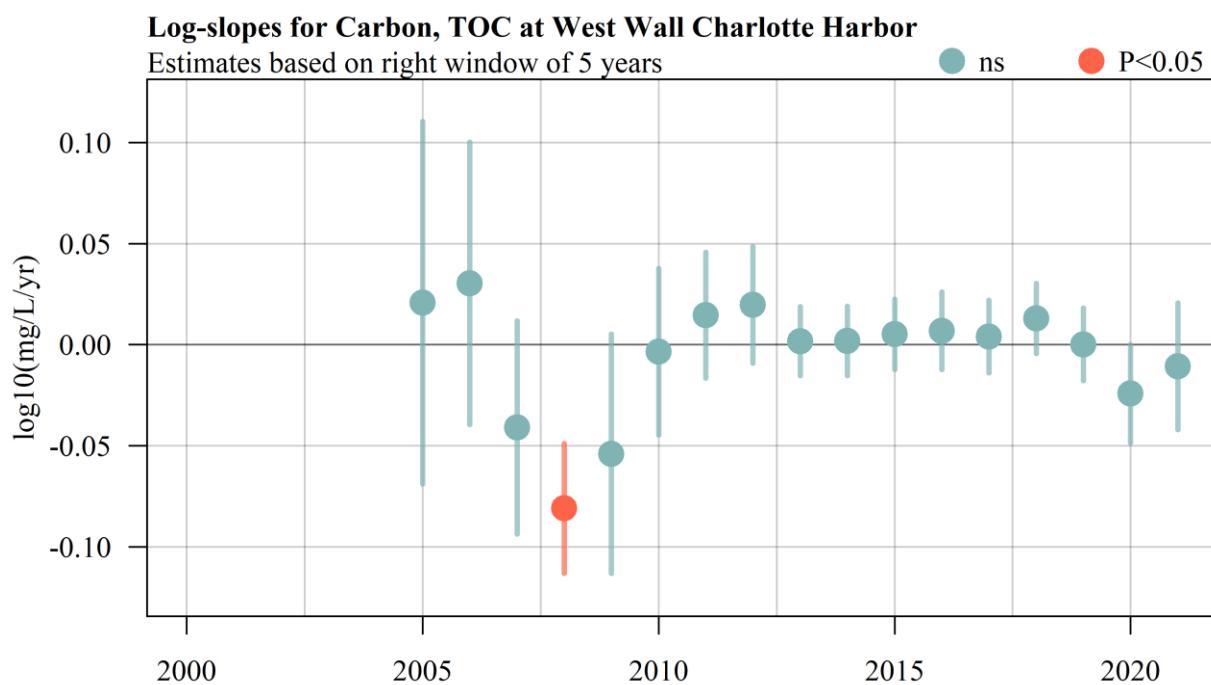


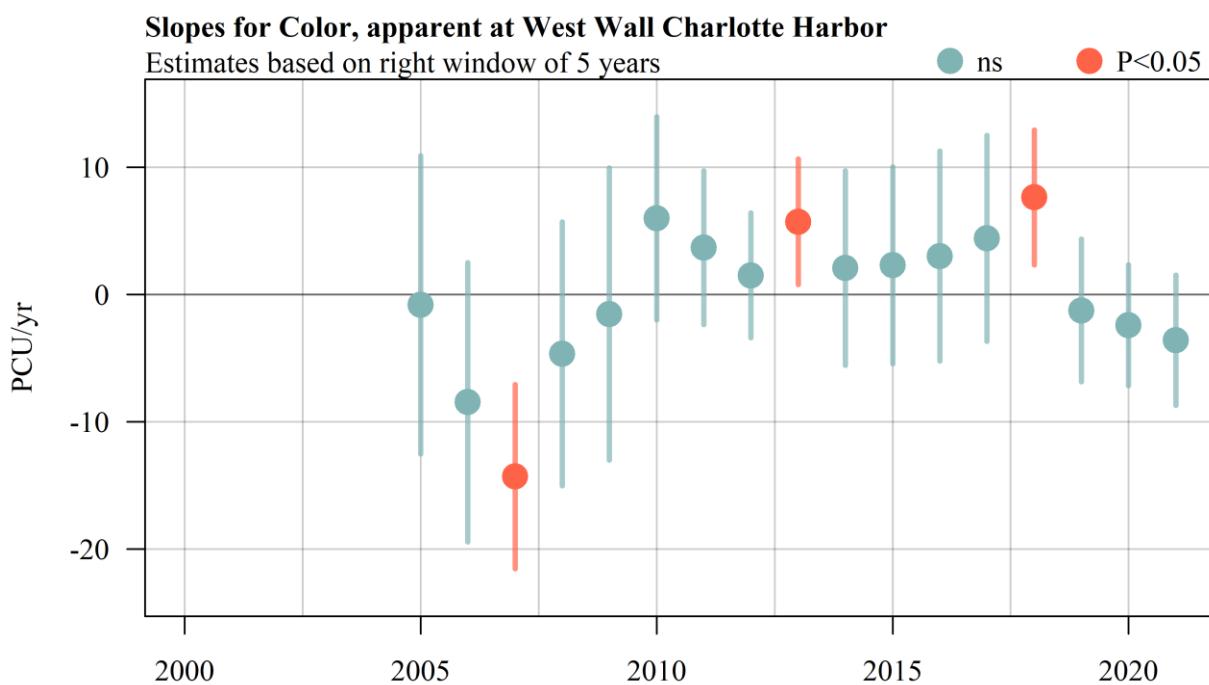
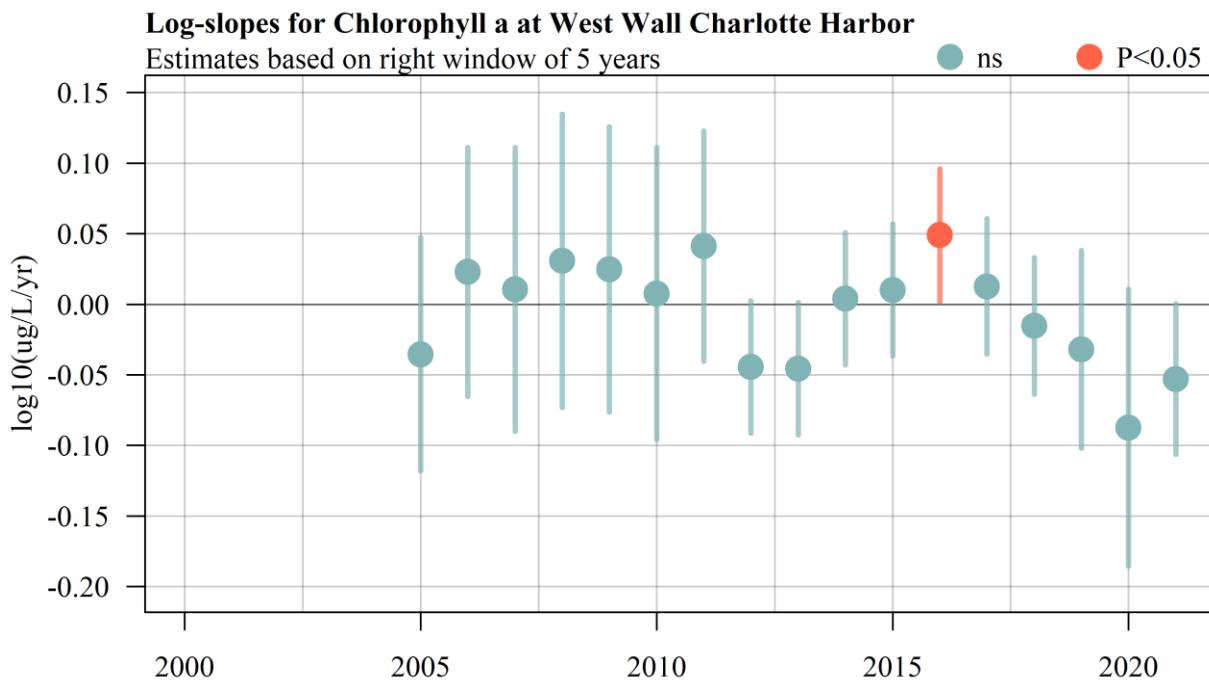




No trend slopes for West Wall Charlotte Harbor, BOD

(insufficient data)



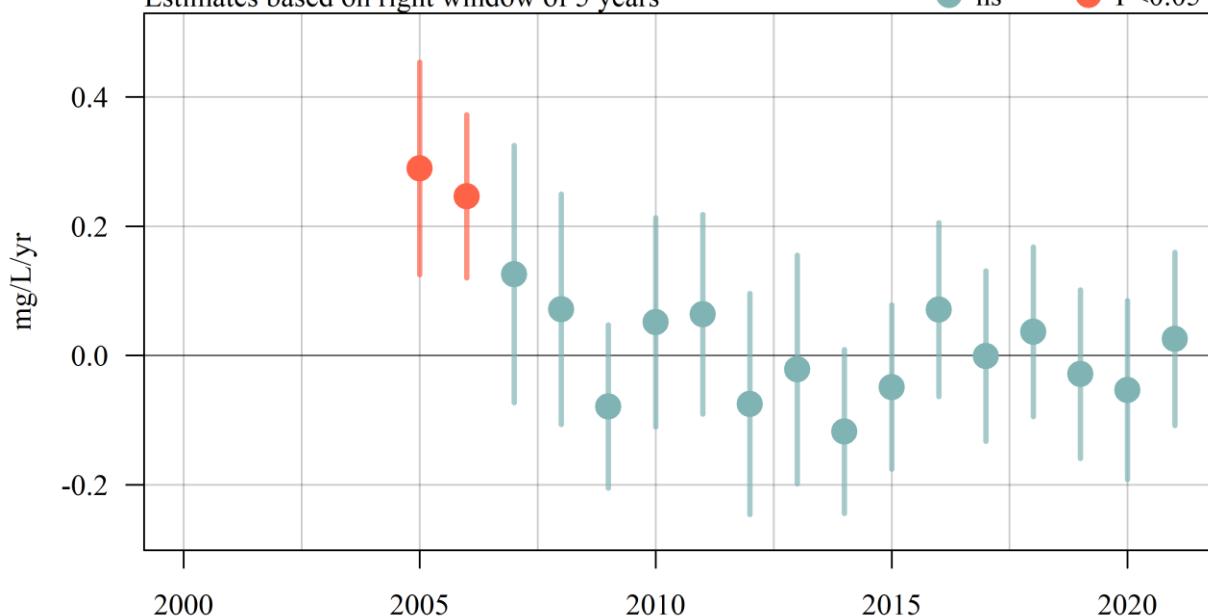


### Slopes for DO concentration at West Wall Charlotte Harbor

Estimates based on right window of 5 years

ns

P<0.05

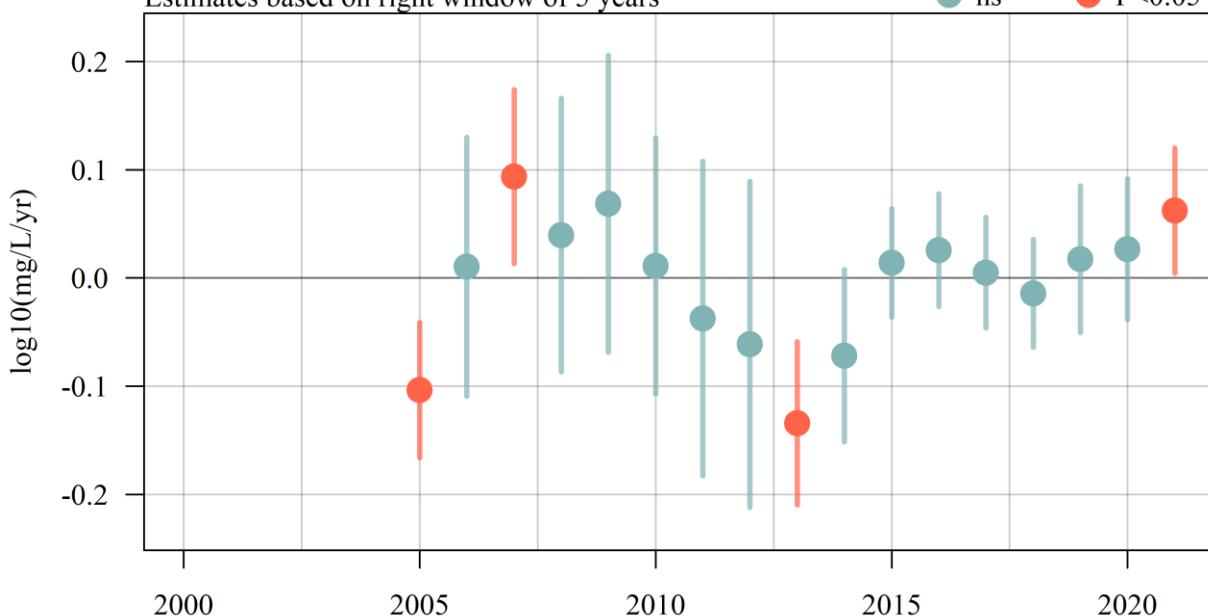


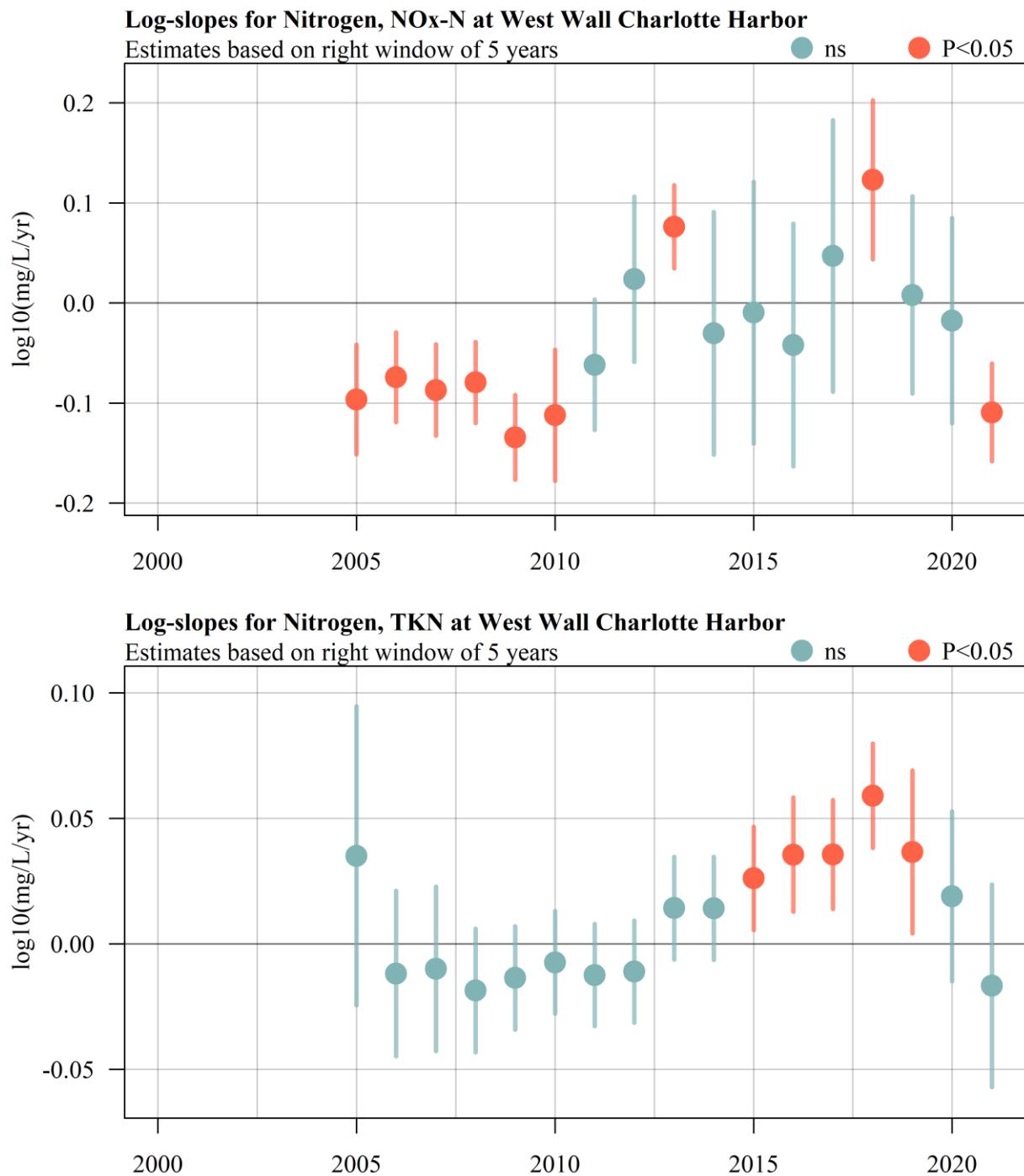
### Log-slopes for Nitrogen, NHx-N at West Wall Charlotte Harbor

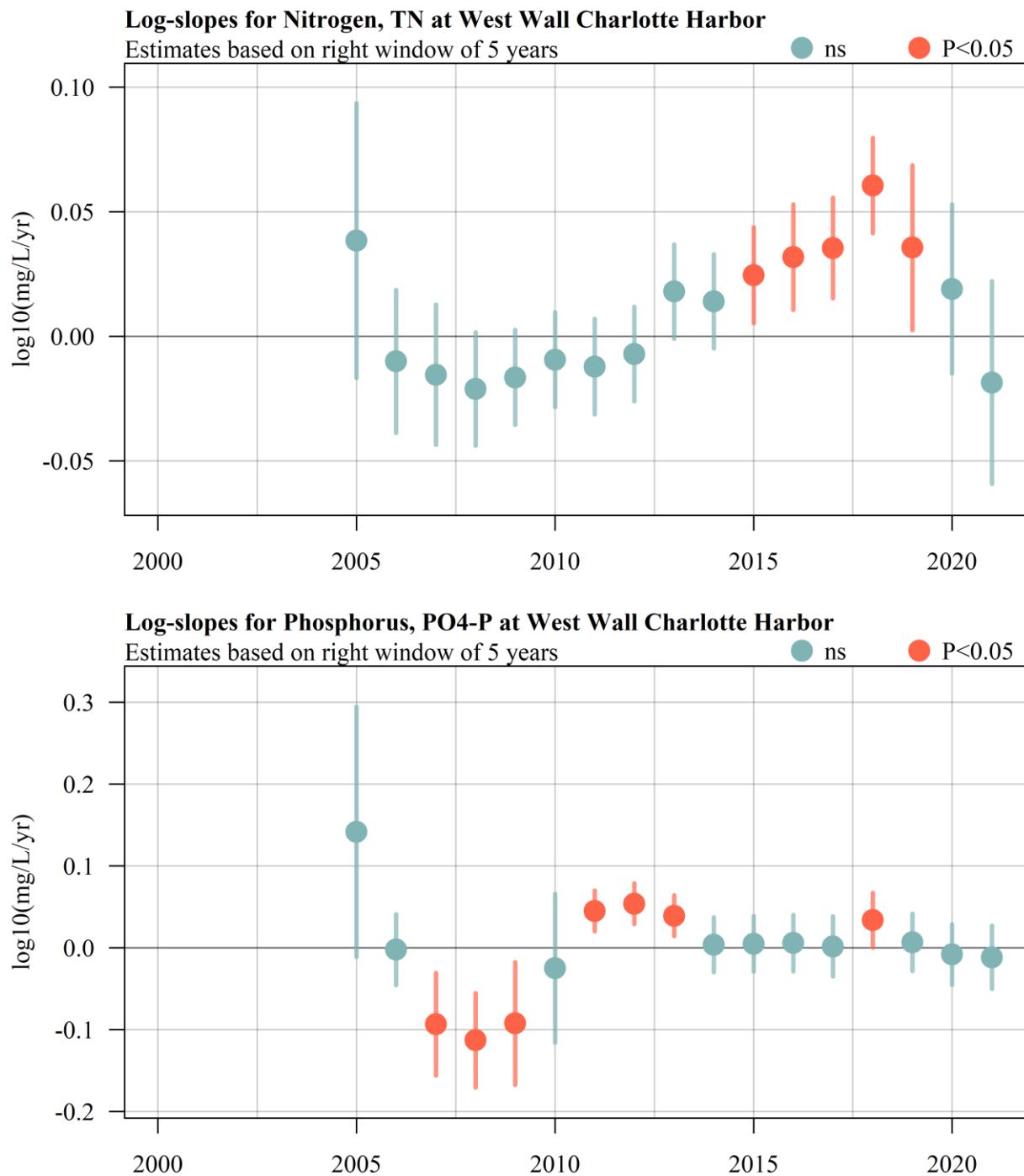
Estimates based on right window of 5 years

ns

P<0.05







### Log-slopes for Phosphorus, TP at West Wall Charlotte Harbor

Estimates based on right window of 5 years

ns

P<0.05

