



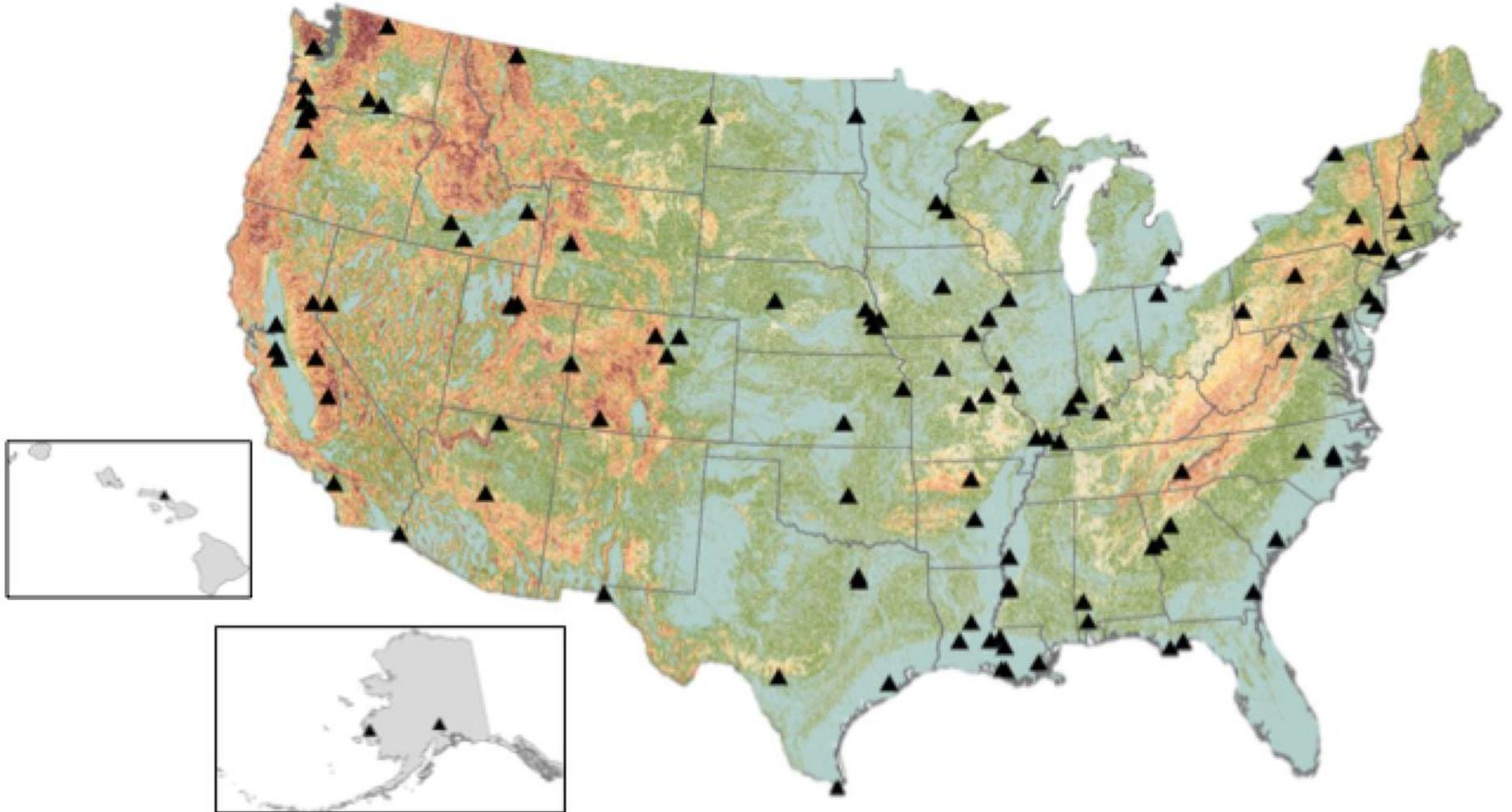
Watershed Monitoring and Modeling



National Water Quality Program
National Water Quality Assessment Project

U.S. Department of the Interior
U.S. Geological Survey

USGS National Water Quality Network



National Water Quality Network

- 18 to 24 samples per year
- Streamflow at site or nearby
- Nutrients, pesticides, major ions, and suspended sediment
- Loads and concentrations published annually

Tracking Water Quality

Tracking Water Quality of the Nation's Rivers and Streams

The USGS National Water-Quality Assessment (NAWQA) Project is characterizing the status and trends of the Nation's surface-water quality through a National Water Quality Network. This website provides data on national ambient water-quality conditions. The data are reported systematically and updated annually. [Learn more...](#)

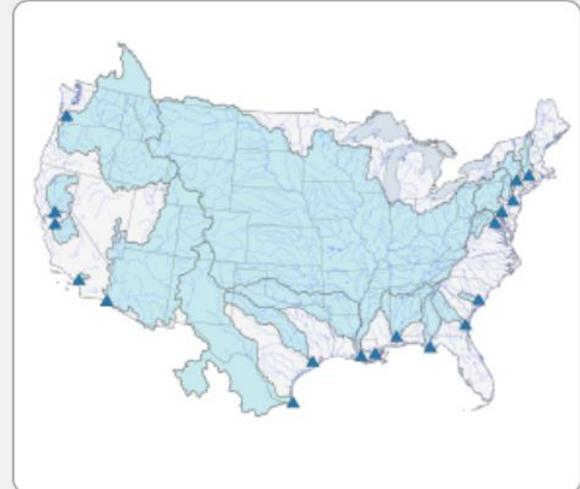
Rivers and Streams Across the United States
Water Quality Summaries



Mississippi River Basin
Relative Nutrient Loading from Tributaries



Coastal Rivers
Nitrate Loads and Yields



Mississippi River at Thebes, IL

Station ID: 07022000

[Download Data](#)

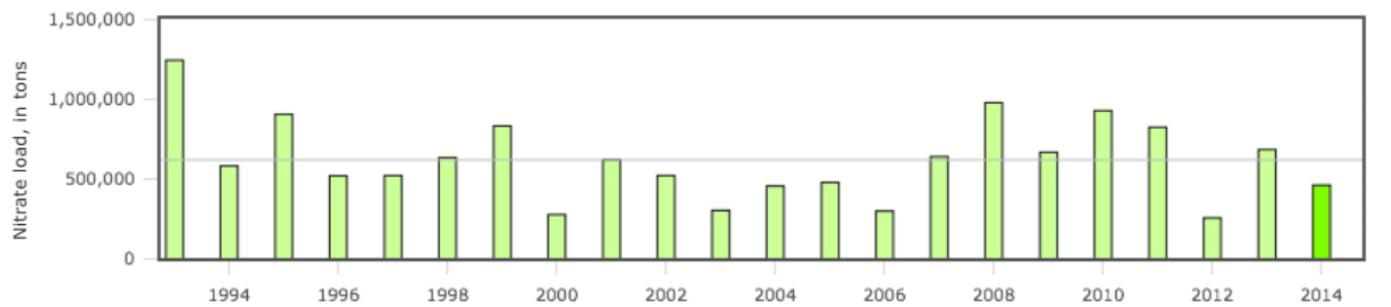
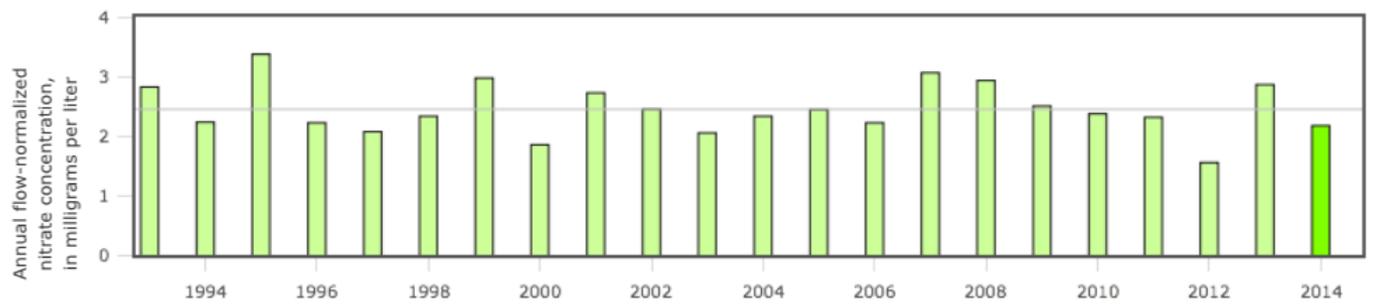
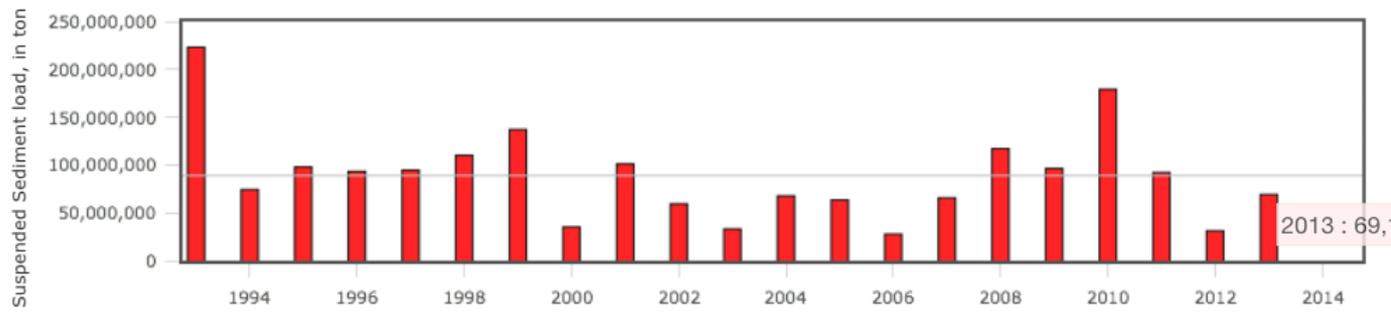
[Back to Map](#)

← Summary Graphs

- Select All
- Streamflow
 - Annual
 - Hydrograph\Flow duration
- Total Nitrogen
 - Sample concentrations
 - Annual concentrations
 - Annual load
- Nitrate
 - Sample concentrations
 - Annual concentrations
 - Annual load
- Total Phosphorus
 - Sample concentrations
 - Annual concentrations
 - Annual load
- Suspended Sediment
 - Sample concentrations
 - Annual concentrations
 - Annual load

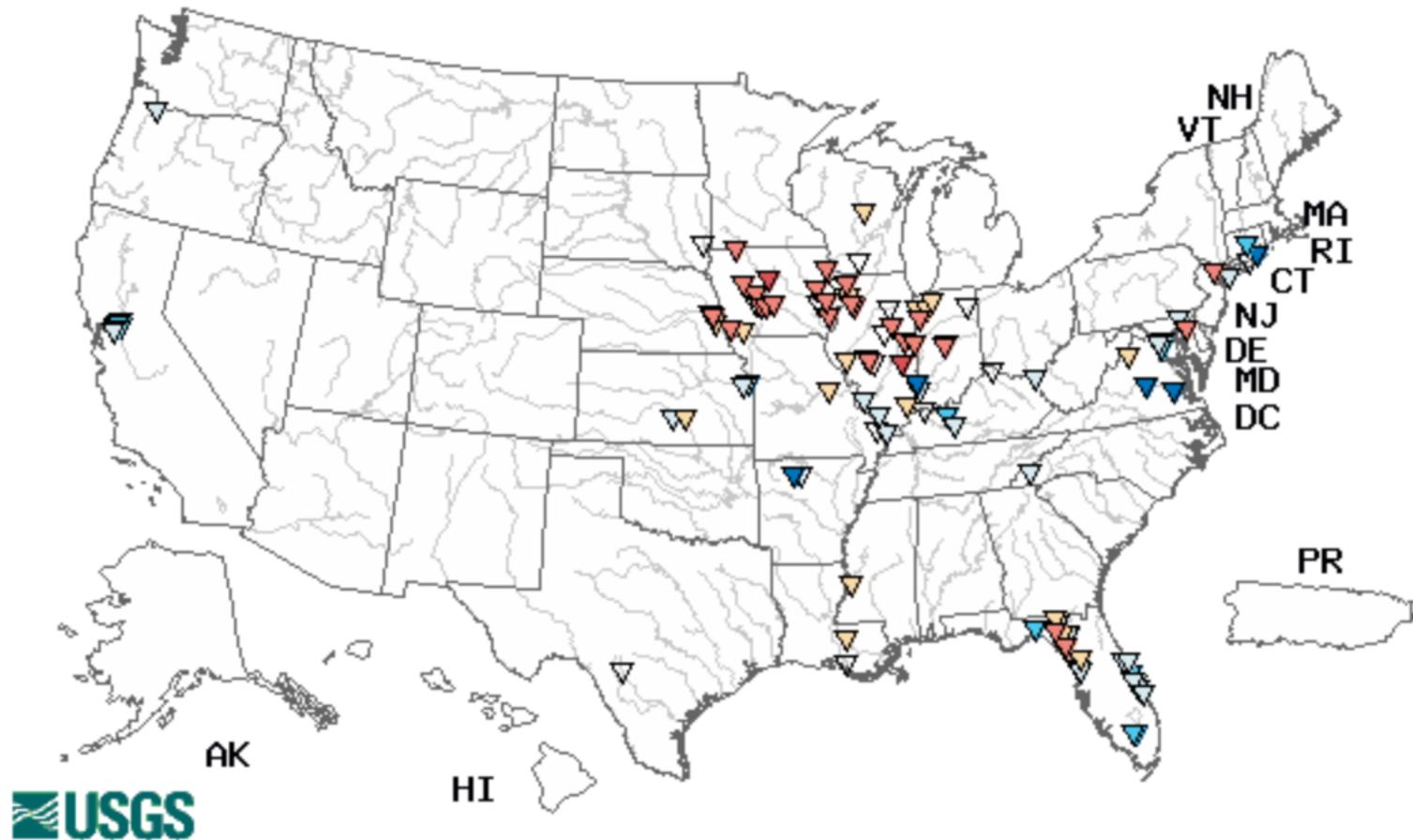
[Sample concentrations ?](#)
[Annual concentrations ?](#)
[Annual load ?](#)

[Real-time Information](#)
[NWISWeb](#)
[Water Watch](#)



Increase in near real-time nitrate monitoring

September 11, 2016 19:30ET

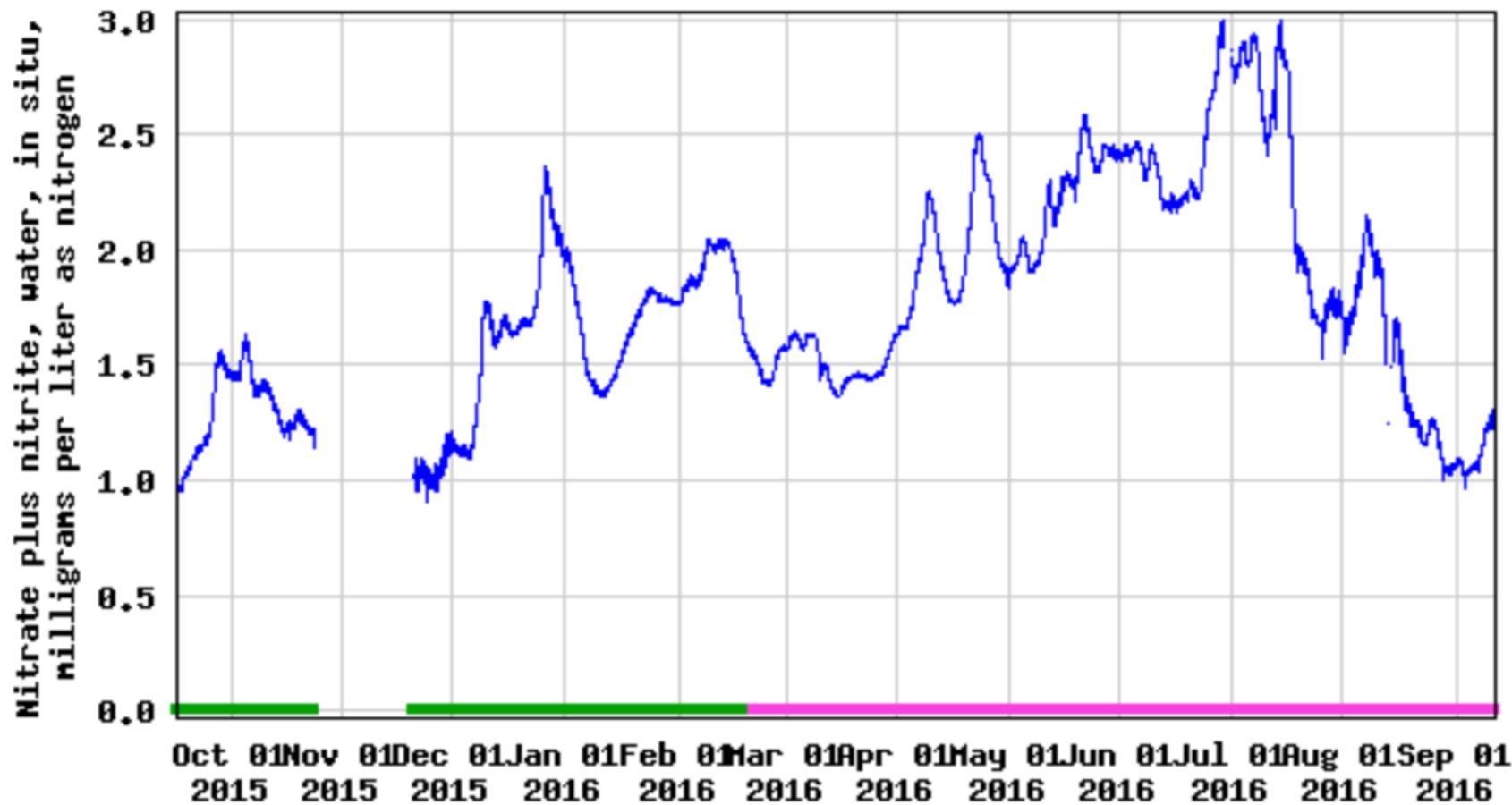


Explanation							
<.1	.1-.29	.3-.99	1-2.99	3-9.99	10-29.9	>30	No Data



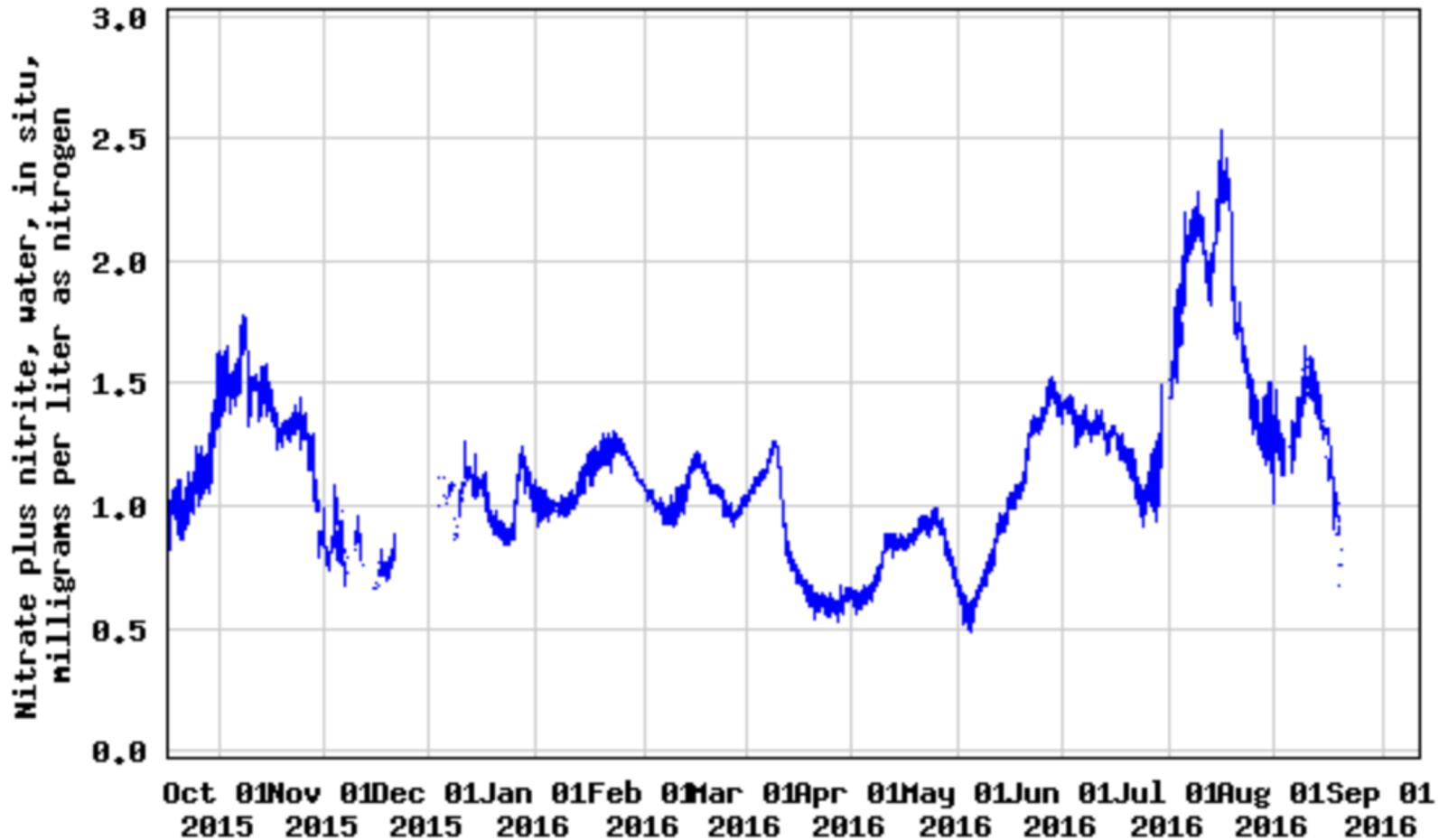
Real-time Nitrate at Baton Rouge

USGS 07374000 Mississippi River at Baton Rouge, LA



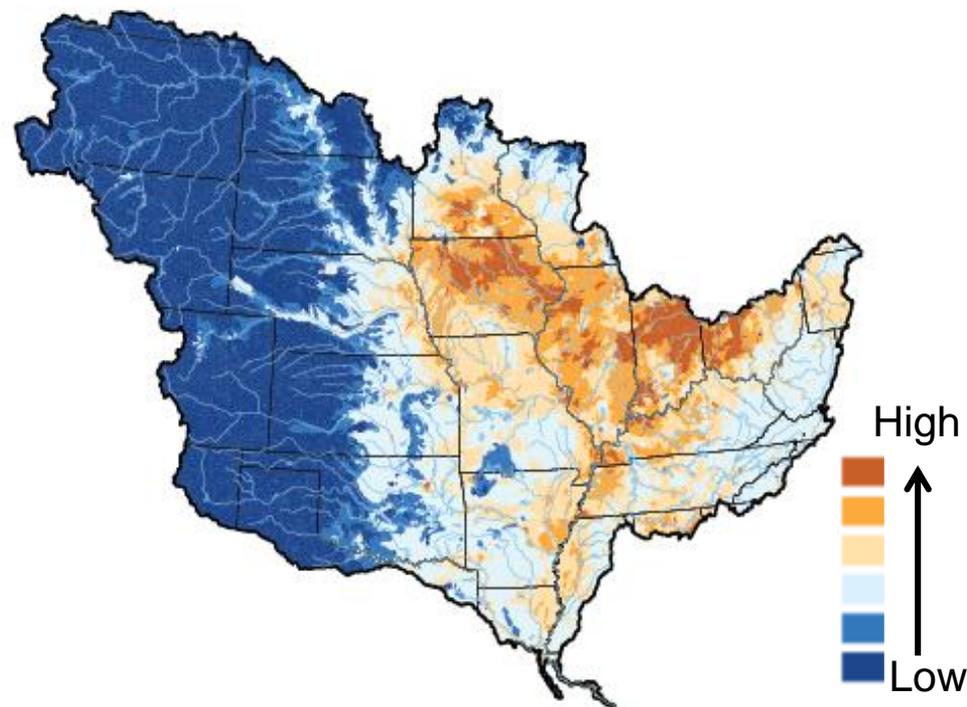
Real-time nitrate at Morgan City

USGS 07381600 Lower Atchafalaya River at Morgan City, LA



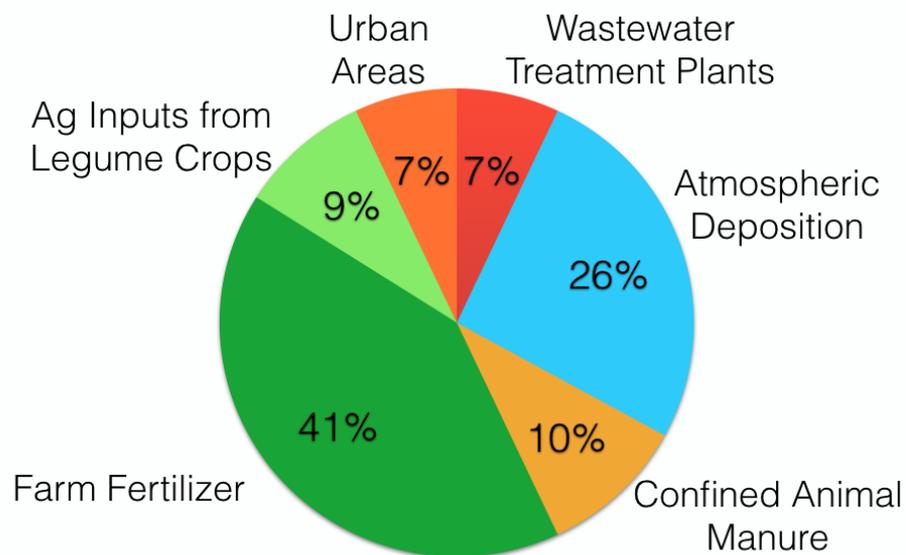
Monitoring to Modeling—Nutrient and sediment loading to the Gulf of Mexico from the Mississippi River Basin

Areas with the Highest Yields of Nitrogen transported to the Gulf

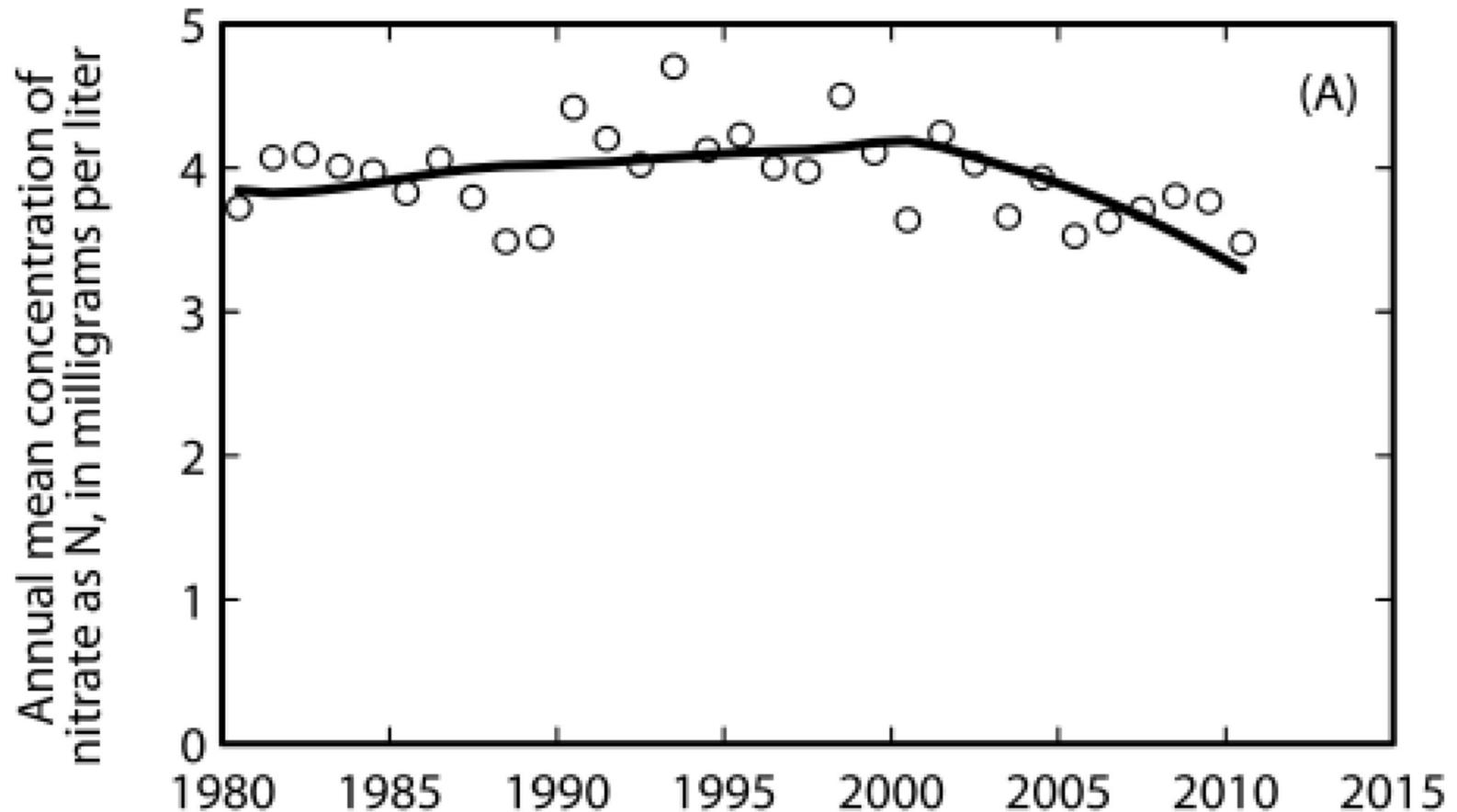


Sources of Nitrogen to the Gulf

Sources of Nitrogen Delivered to the Gulf of Mexico



Trends in Nitrate Concentrations at Illinois River at Valley City, 1980 to 2010

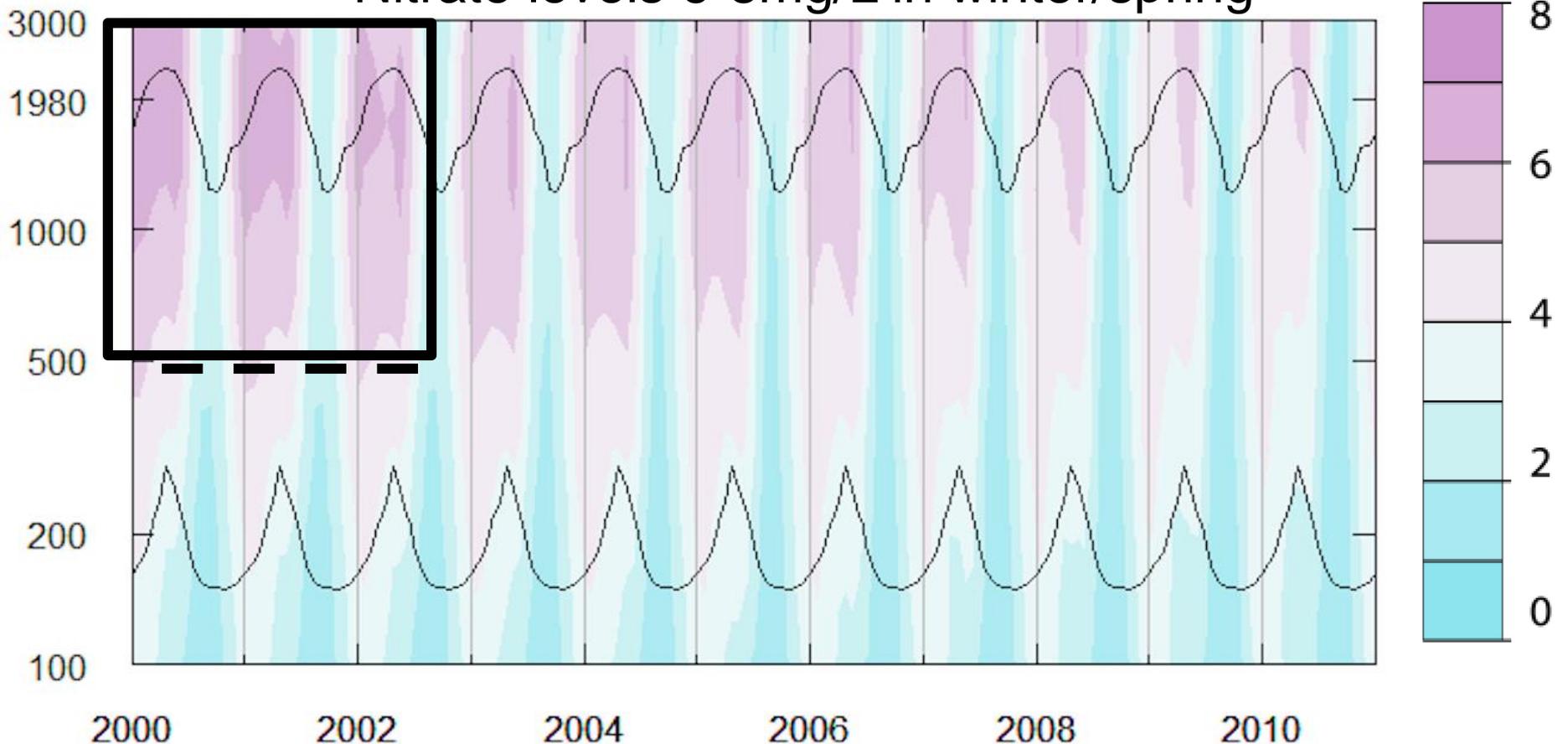


How does nitrate vary over time at different flows at Illinois River at Valley City from 2000 to 2010?

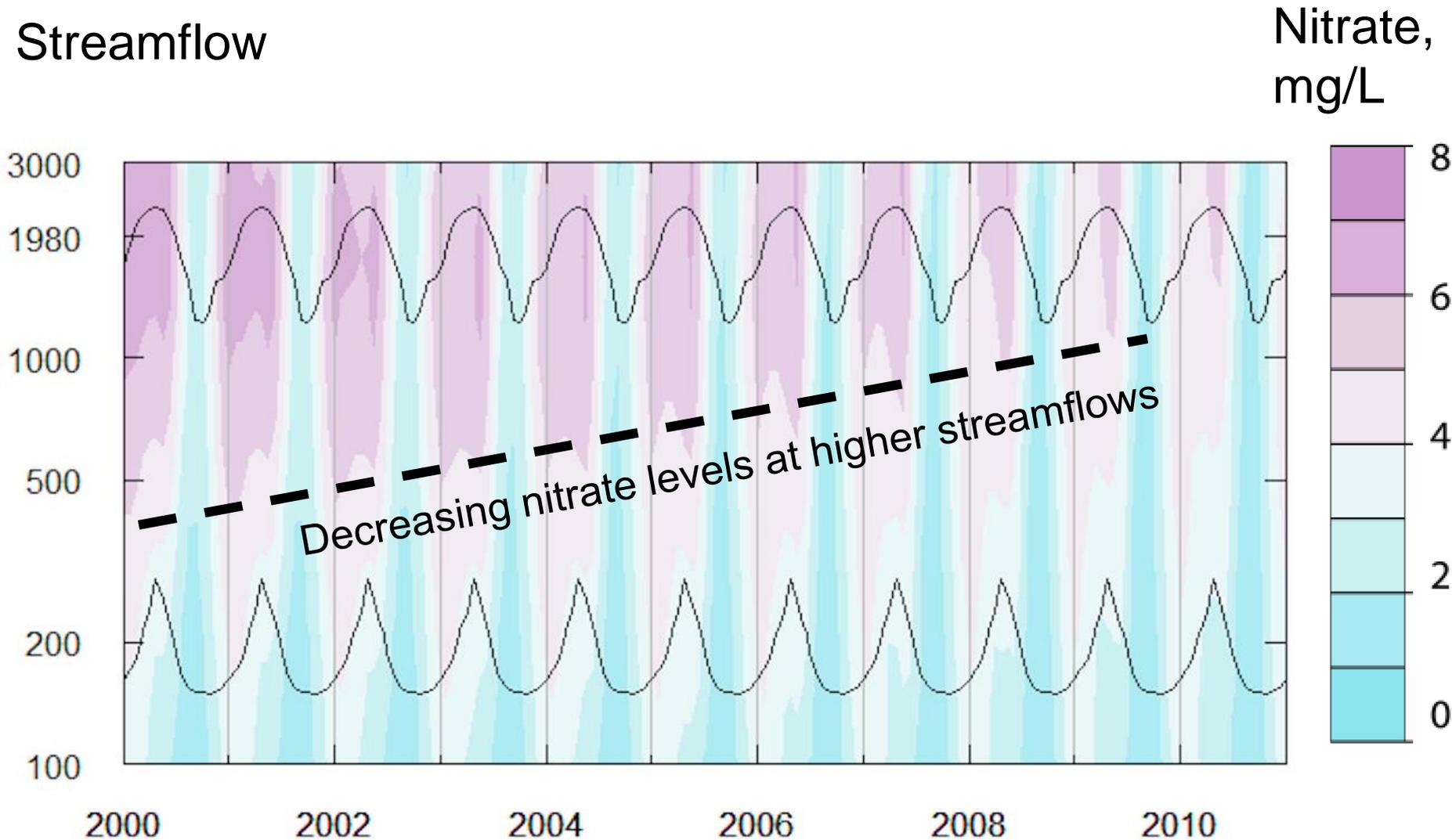
Streamflow

Nitrate, mg/L

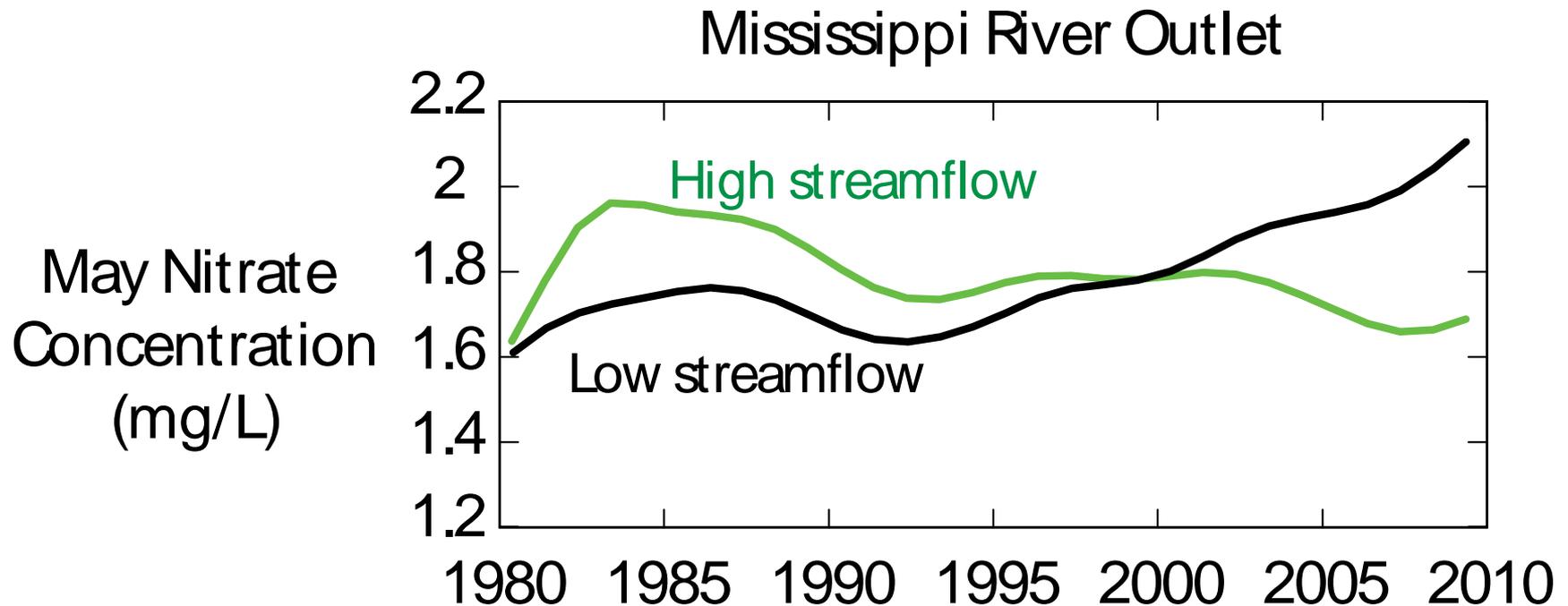
Nitrate levels 6-8mg/L in winter/spring



Nitrate levels at medium to high streamflow decreased from 2000 to 2010



Increasing nitrate at low flows at outlet of Mississippi River



Linking watershed and hypoxia modeling with State Strategies

