

## Sources of Nutrient Pollution The Water Quality Challenge of Our Time

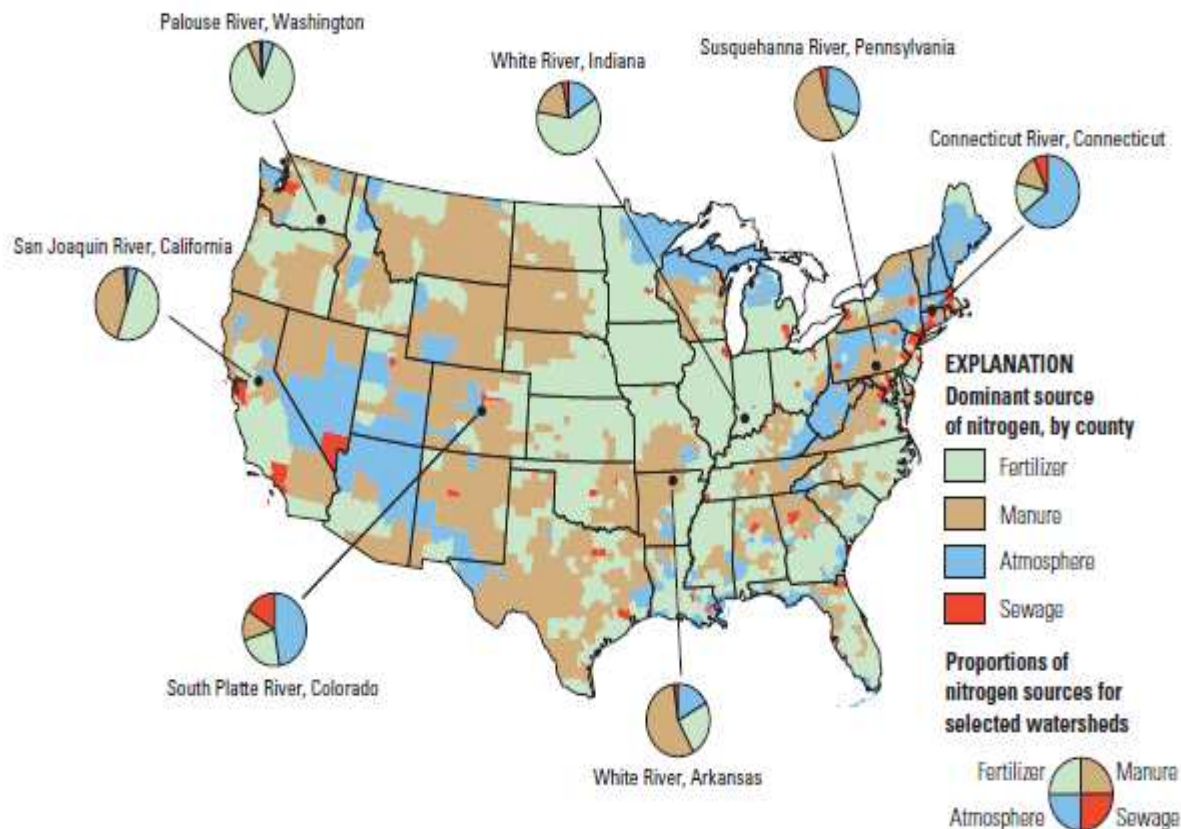
**The Healthy Waters Coalition:** A diverse cross-section of municipal water and wastewater, conservation, state agencies, agriculture and forest organizations have come together to urge Congress to develop a Farm Bill that improves both our nation's water resources and the health of our agricultural working lands. America's clean water resources and agricultural practices are inextricably linked. In fact, over the next five years agricultural policies and practices will have the single greatest impact on our lakes, rivers and estuaries. According to State water quality reports, 80,000 miles of rivers and streams, 2.5 million acres of lakes, reservoirs and ponds, 78% of the assessed continental U.S. coastal areas and more than 30% of estuaries are impaired due to excessive levels of nitrogen and phosphorus (nutrients). In all, the U.S. Environmental Protection Agency attributes excess nutrients as the direct or indirect cause of impairments in over 50% of impaired river and stream miles; over 50% of impaired lake acres; and nearly 60% of impaired bay and estuarine square miles. In the majority of these waters, nutrient run-off from agricultural lands is the dominant source of the nutrient impairments. Congress has an opportunity in the upcoming Farm Bill reauthorization to make important strides toward reducing nutrient contamination in our waters.

Several sources contribute to nutrient pollution in our waters, including:

- Air deposition from mobile and industrial sources (cars and industry)
- Publicly-owned treatment works discharging wastewater
- Urban stormwater run-off
- Agricultural sources (chemical fertilizer and manure)

While each source contributes varying levels of nutrients, USGS data indicate that agricultural sources dominate:

*Sources of Nutrients in the United States (USGS Circular 1350)*

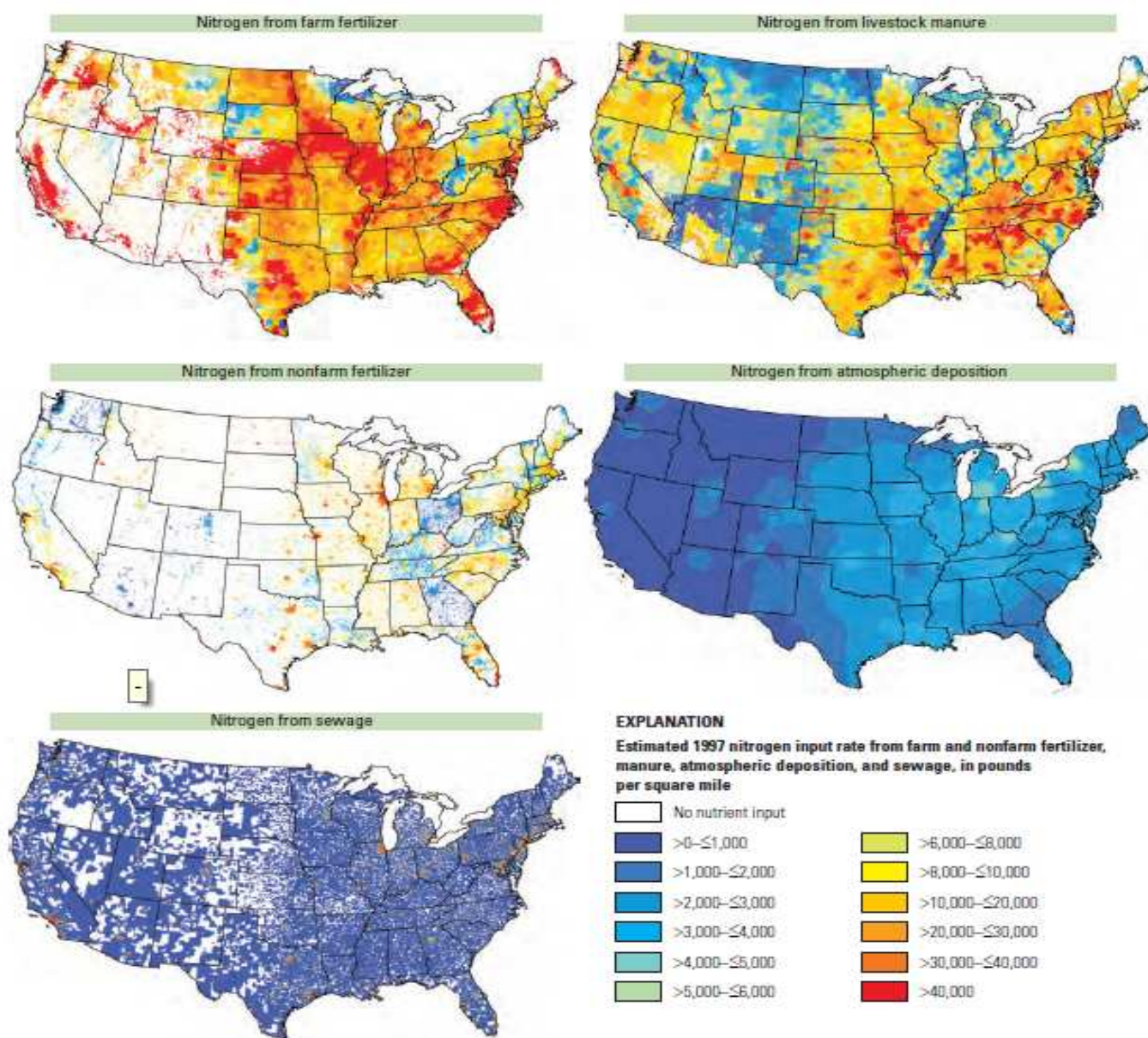


Agricultural run-off is the dominant source of nutrient impairment for specific watersheds of national importance significantly impaired for nutrients and that experience a state of hypoxia (often referred to as a deadzone) in which aquatic life cannot be sustained due to low levels of oxygen:

- *The Gulf Mexico:* Agricultural run-off accounts for 70% to 80% of the nutrient loadings; urban stormwater and wastewater treatment account for approximately 10%; air deposition and natural land account for the balance (USGS Circular 1270)
- *The Chesapeake Bay:* Agricultural run-off accounts for 40% to 45% of the nutrient loadings, wastewater treatment plants account for 20% to 25%; urban stormwater accounts for 11% to 30%; air deposition accounts for 21%; natural lands account for the balance (EPA, 2009)

*Relative Nitrogen Loadings from Various Sources (USGS Circular 1350)*

These USGS maps indicate that on average, wastewater contributes less than 1,000 lbs/square mile of nitrogen while agricultural sources contribute 30,000- 40,000 lbs/square mile nationally.



We urge Congress to take action in this next Farm Bill to address the nutrient challenge.

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