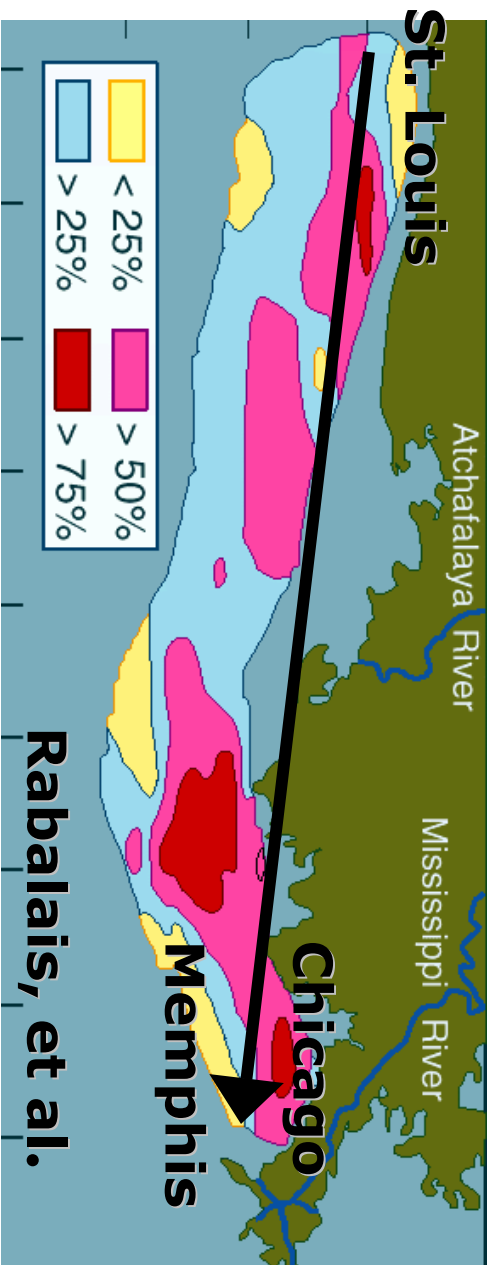




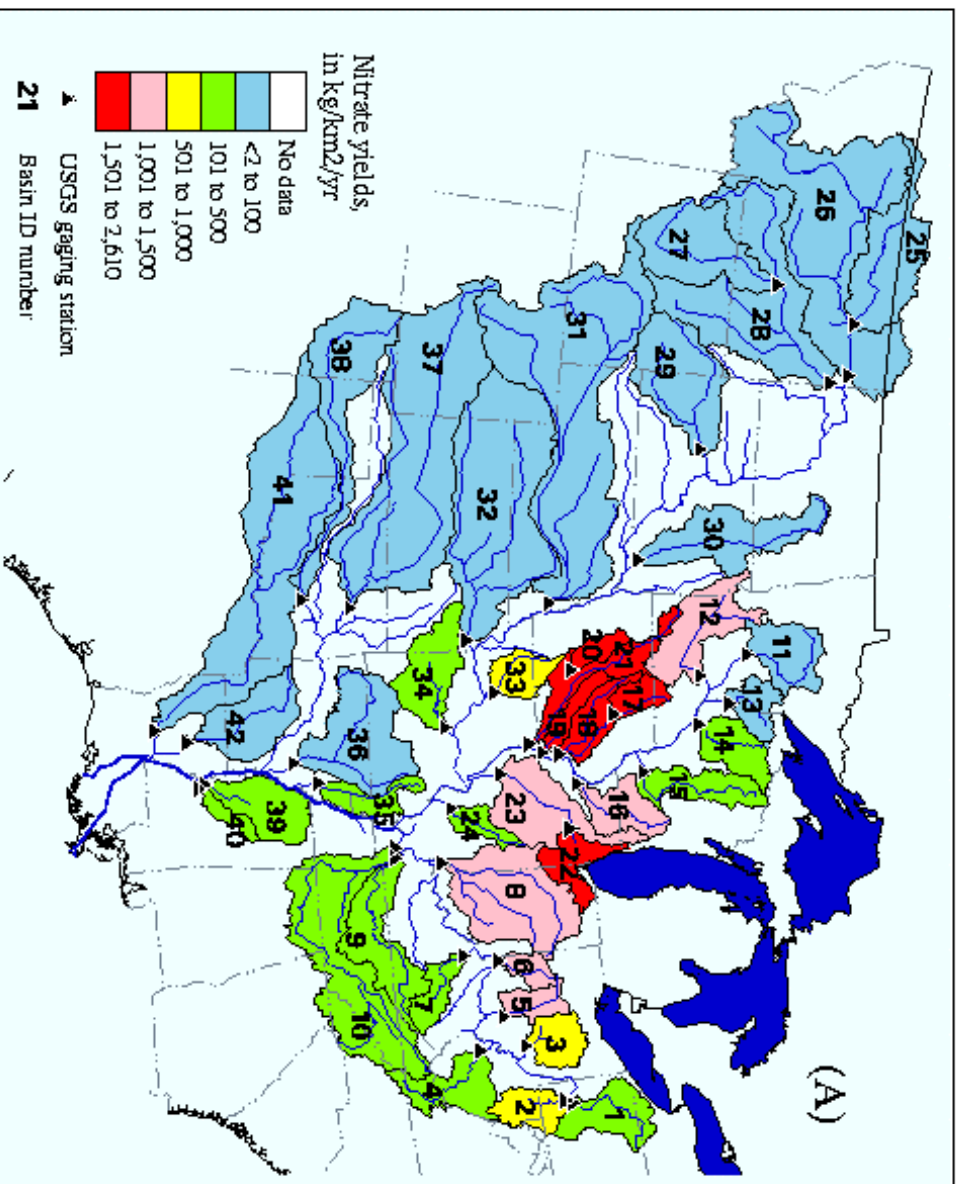
**Wetland Restoration for
Water Quality Improvement
in Agricultural Watersheds**

**Iowa Conservation Reserve
Enhancement Program**

Extent of Hypoxia in the Gulf



Frequency of Occurrence 1985 - 1999



Nitrogen Uptake for Corn

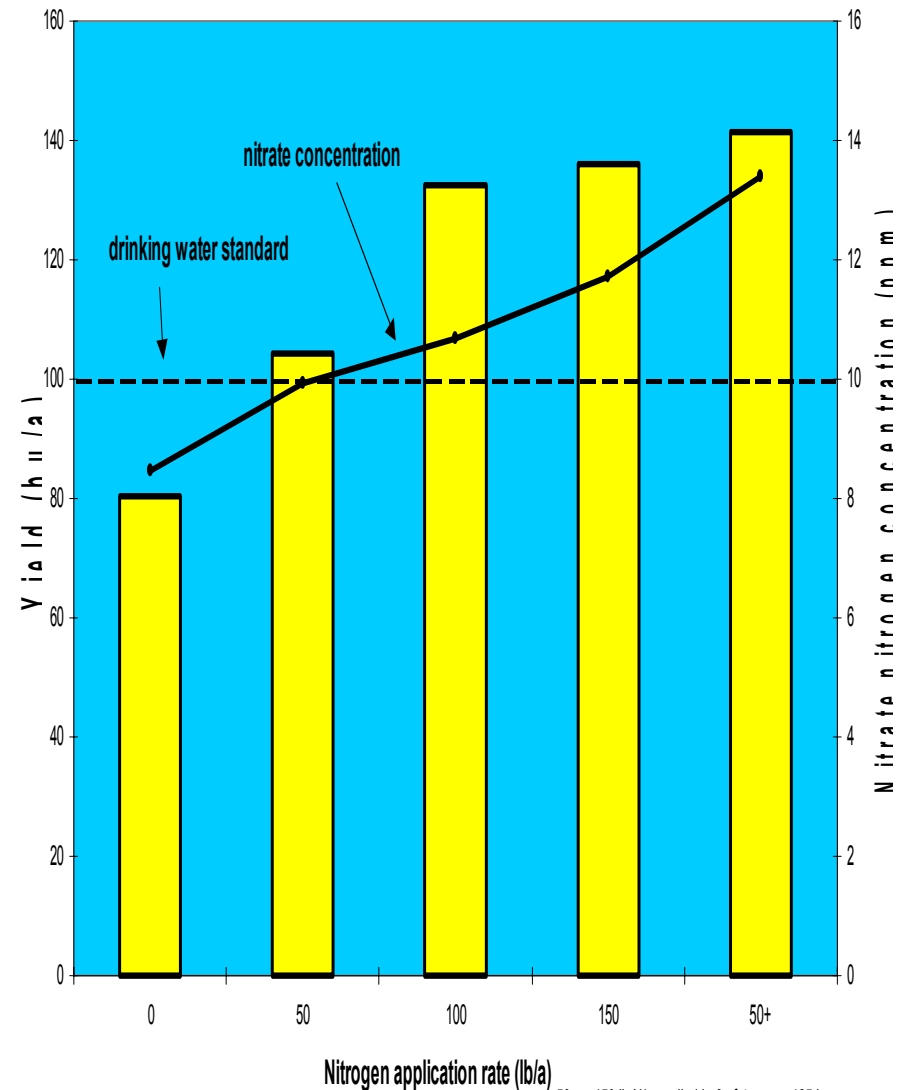
	<u>lb N per acre</u>
Grain (160 bushel per acre)	136
Stover (4.5 tons per acre)	70
Roots	34
Total	240

Water: 18" equals 4,000,000 lbs per acre

➔ Average NO₃-N concentration of 60 mg/L

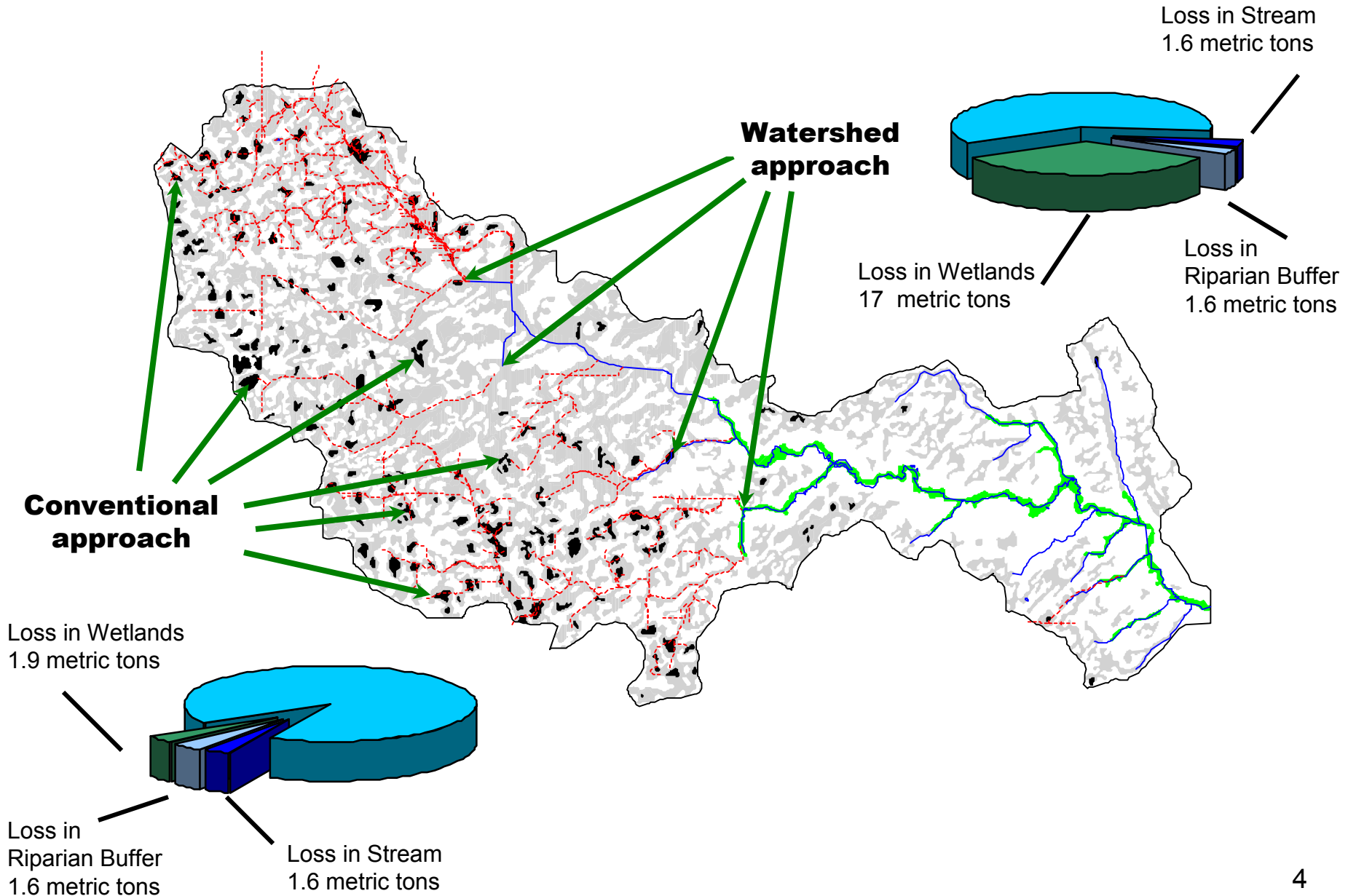
Baker 2001

Corn Yield and Flow weighted Nitrate Nitrogen Concentration of Tile Water collected from a Corn/Soybean Rotation, 1990-93.

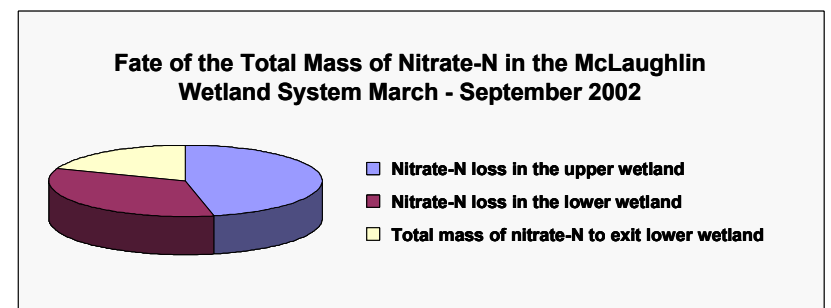
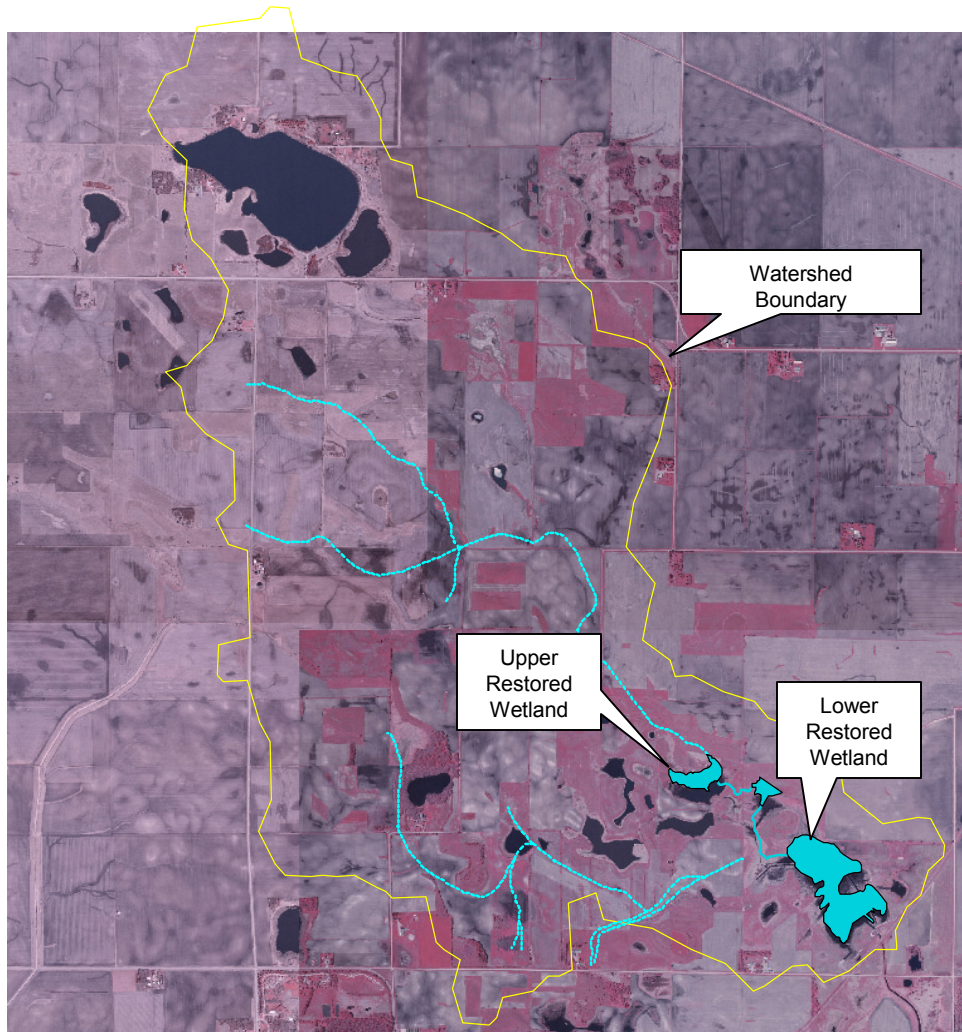


50+ = 150 lb N/a applied in 3 of 4 years; 125 in one year.

Annual Nitrate Budget



McLaughlin Wetland System 3080 Acre Watershed



Iowa CREP

- **Federal Commitments:**
 - **Annual payment for 15 years**
 - **150% of Soil Rental Rate**
 - **50% cost-share**
 - **40% Practice Incentive Payment**
 - **Maintenance payment**
- **State Commitments:**
 - **Additional 10% cost-share**
 - **One-time payment for 30-year or permanent easement**
 - **Water quality monitoring**
 - **Additional technical assistance**

GIS Data Used in the Siting of Potential CREP Wetlands

