

# Hypoxia, Aquatic Life



# Drinking Water



Toledo, OH



Des Moines, IA

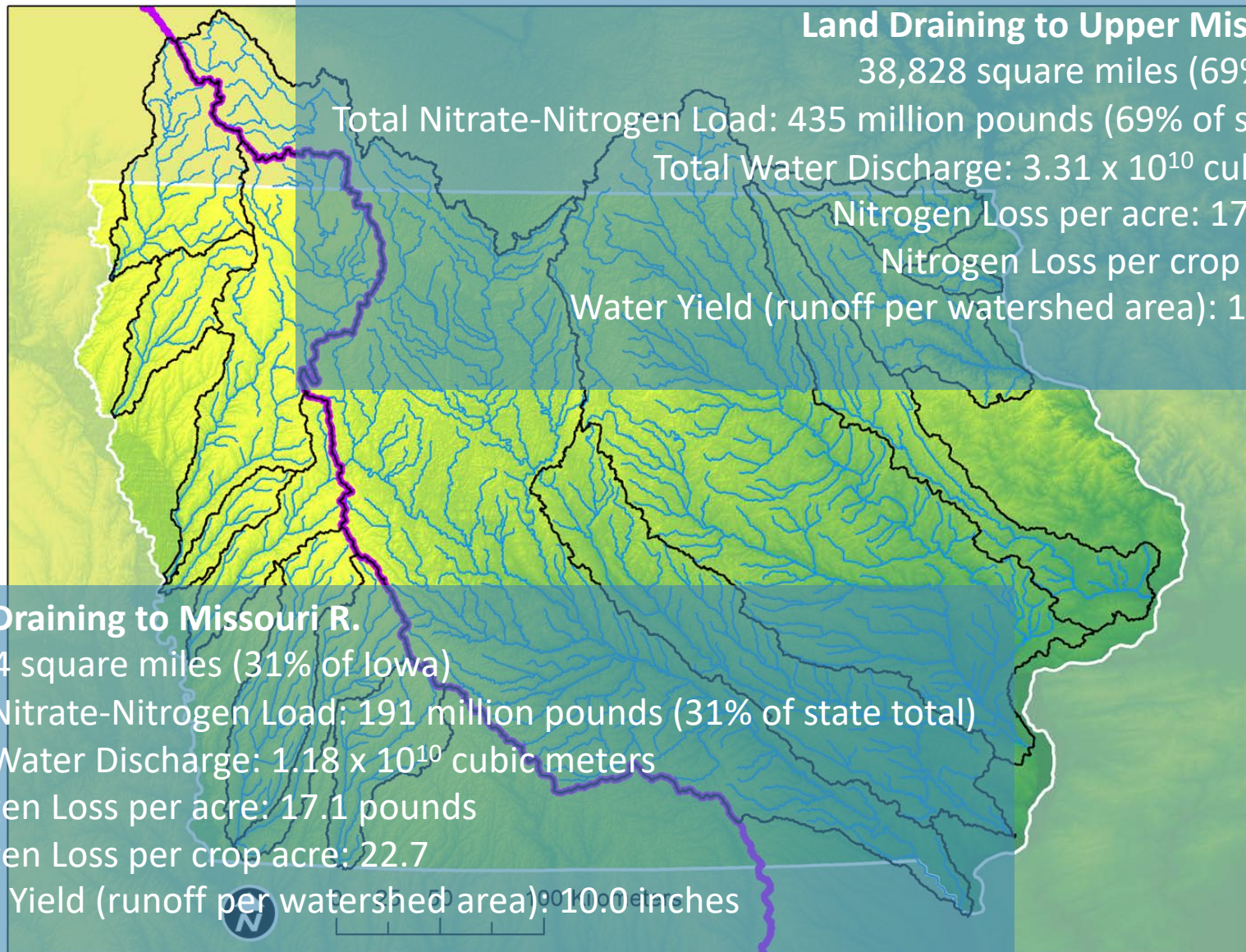




## 2020 Stream Nitrate Data







**Land Draining to Upper Mississippi R.**

38,828 square miles (69% of Iowa)

Total Nitrate-Nitrogen Load: 435 million pounds (69% of state total)

Total Water Discharge:  $3.31 \times 10^{10}$  cubic meters

Nitrogen Loss per acre: 17.5 pounds

Nitrogen Loss per crop acre: 27.0

Water Yield (runoff per watershed area): 13.0 inches

**Land Draining to Missouri R.**

17,444 square miles (31% of Iowa)

Total Nitrate-Nitrogen Load: 191 million pounds (31% of state total)

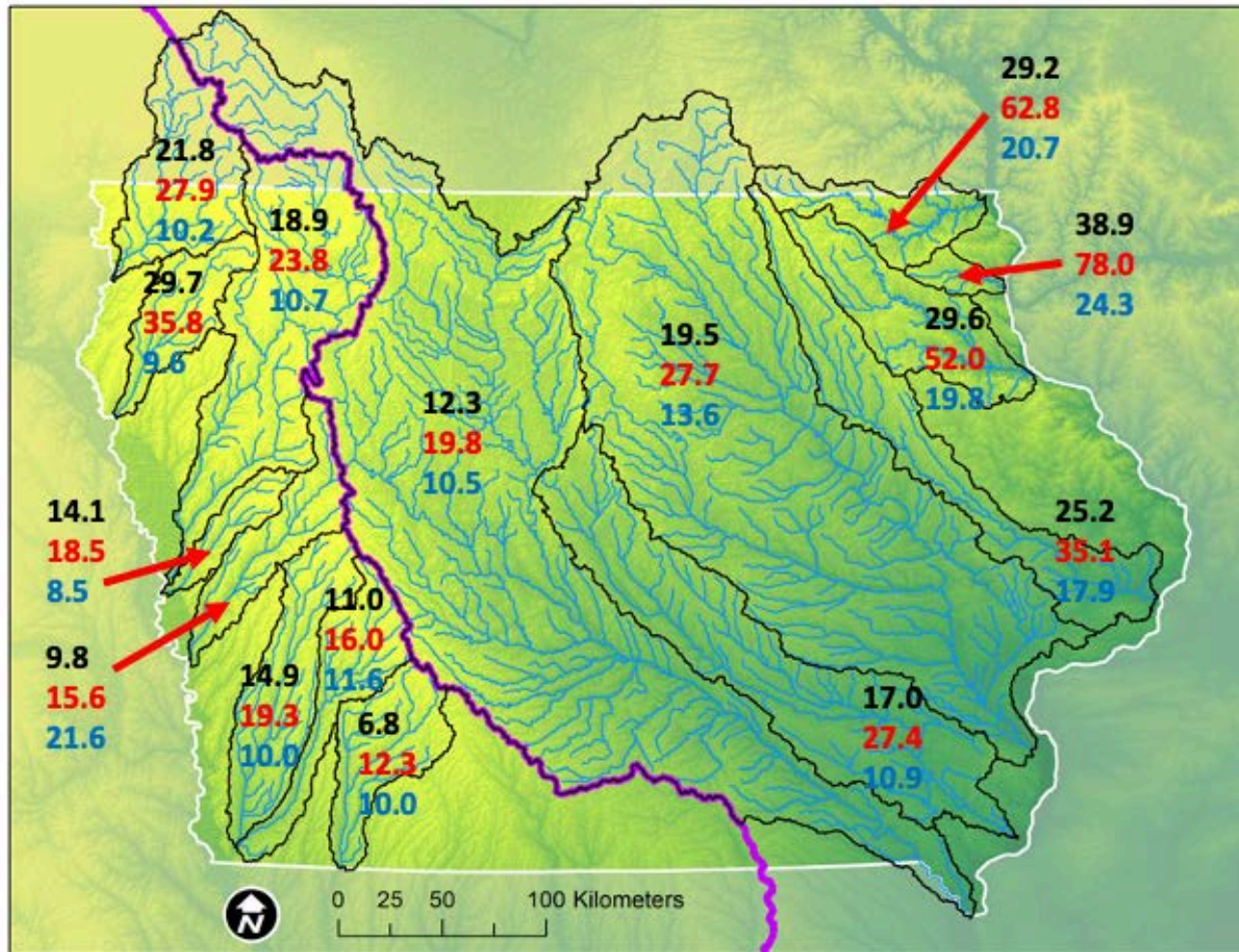
Total Water Discharge:  $1.18 \times 10^{10}$  cubic meters

Nitrogen Loss per acre: 17.1 pounds

Nitrogen Loss per crop acre: 22.7

Water Yield (runoff per watershed area): 10.0 inches



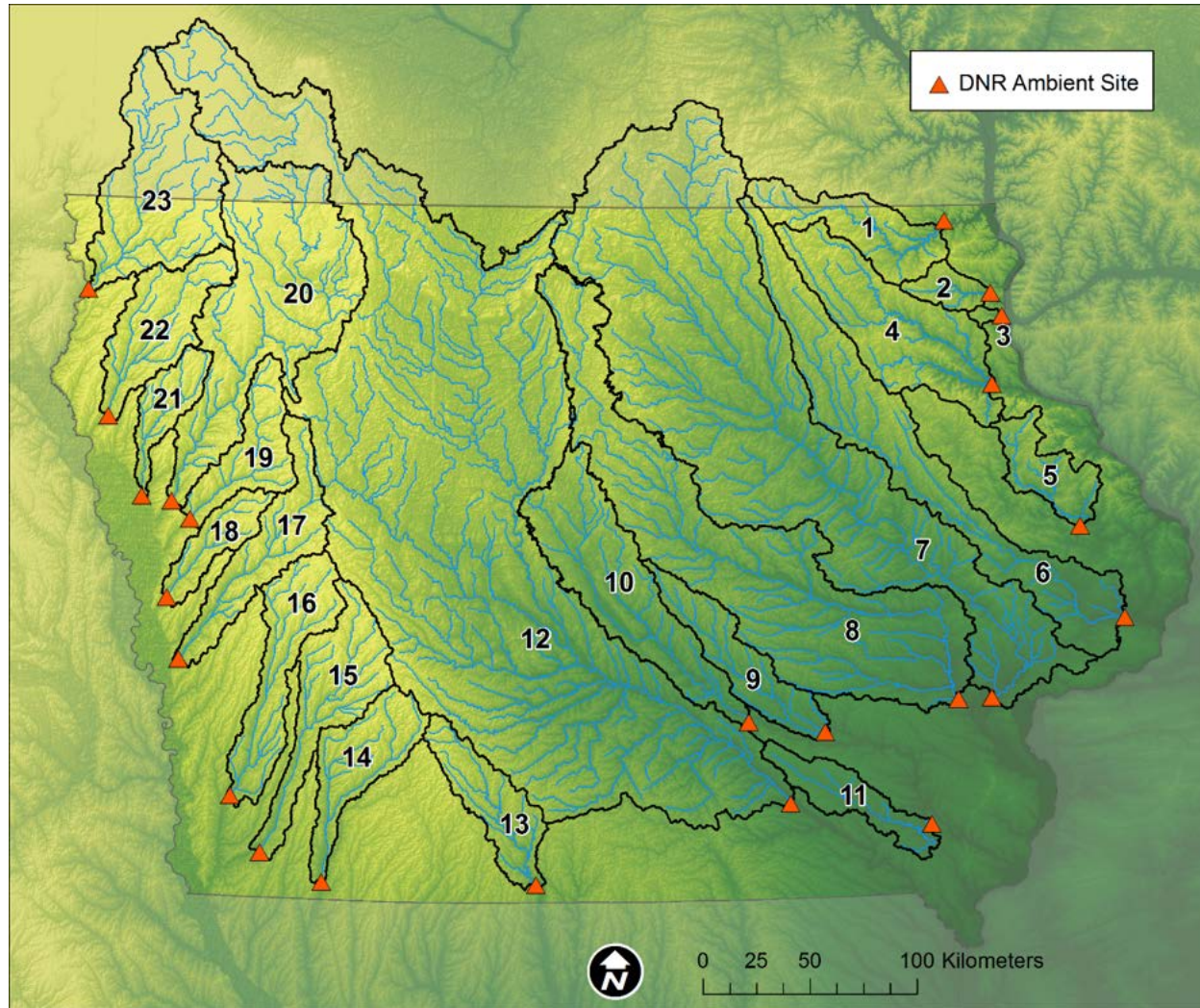


Black: lbs/acre

Red: lbs/crop-acre

Blue: Runoff (inches)





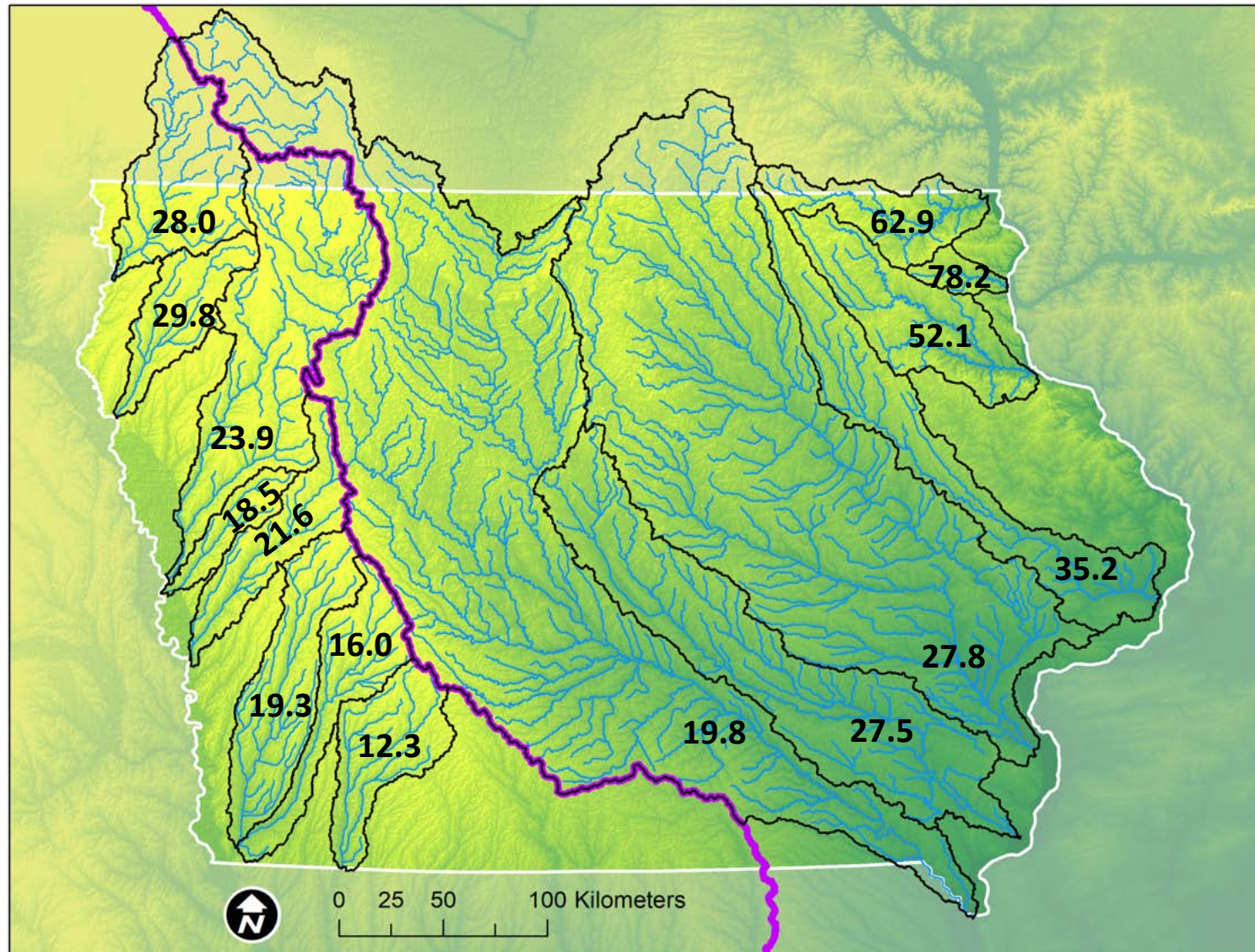
## DNR Ambient Water Monitoring Data: 1999-2016

**DNR** IOWA DEPARTMENT OF  
NATURAL RESOURCES

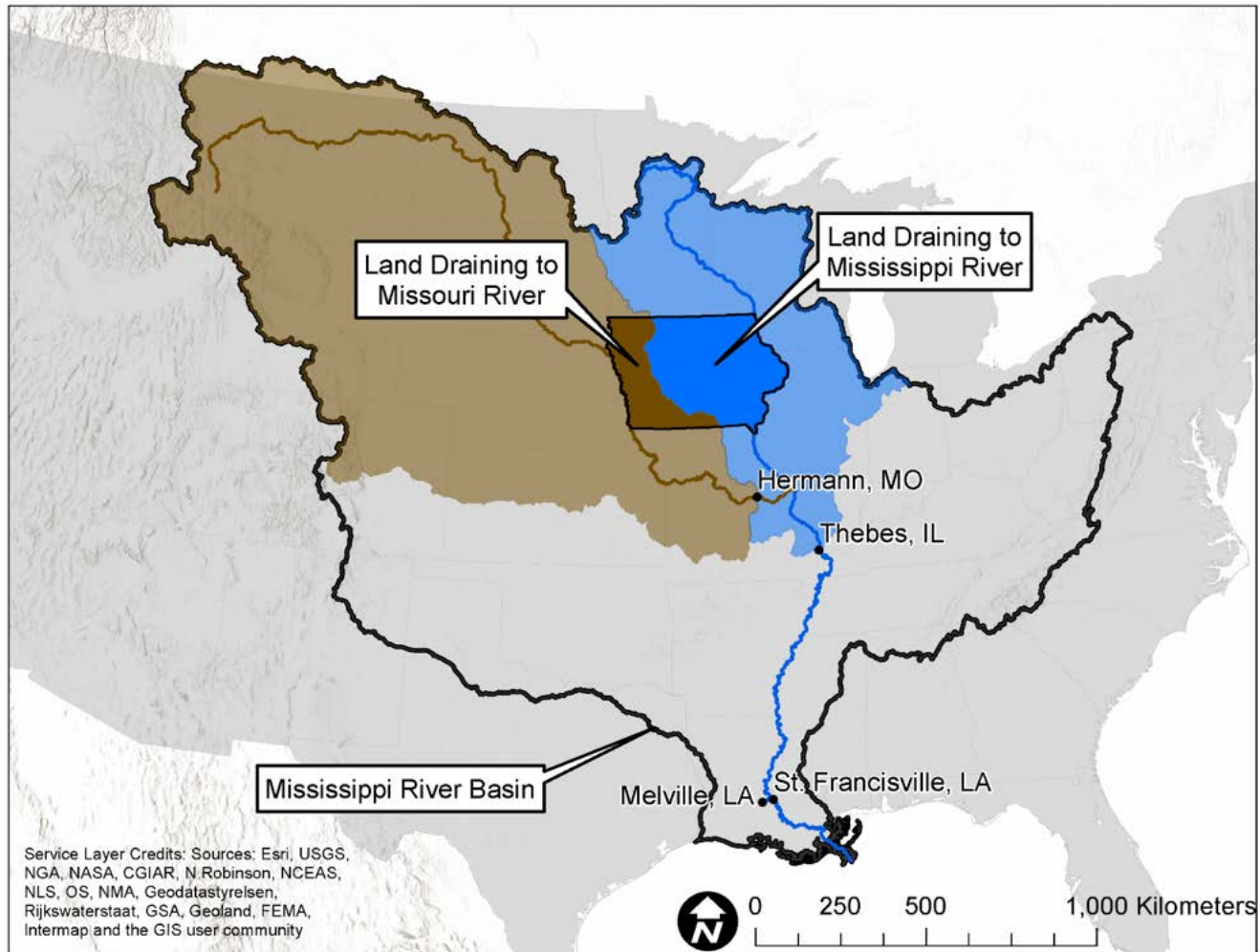




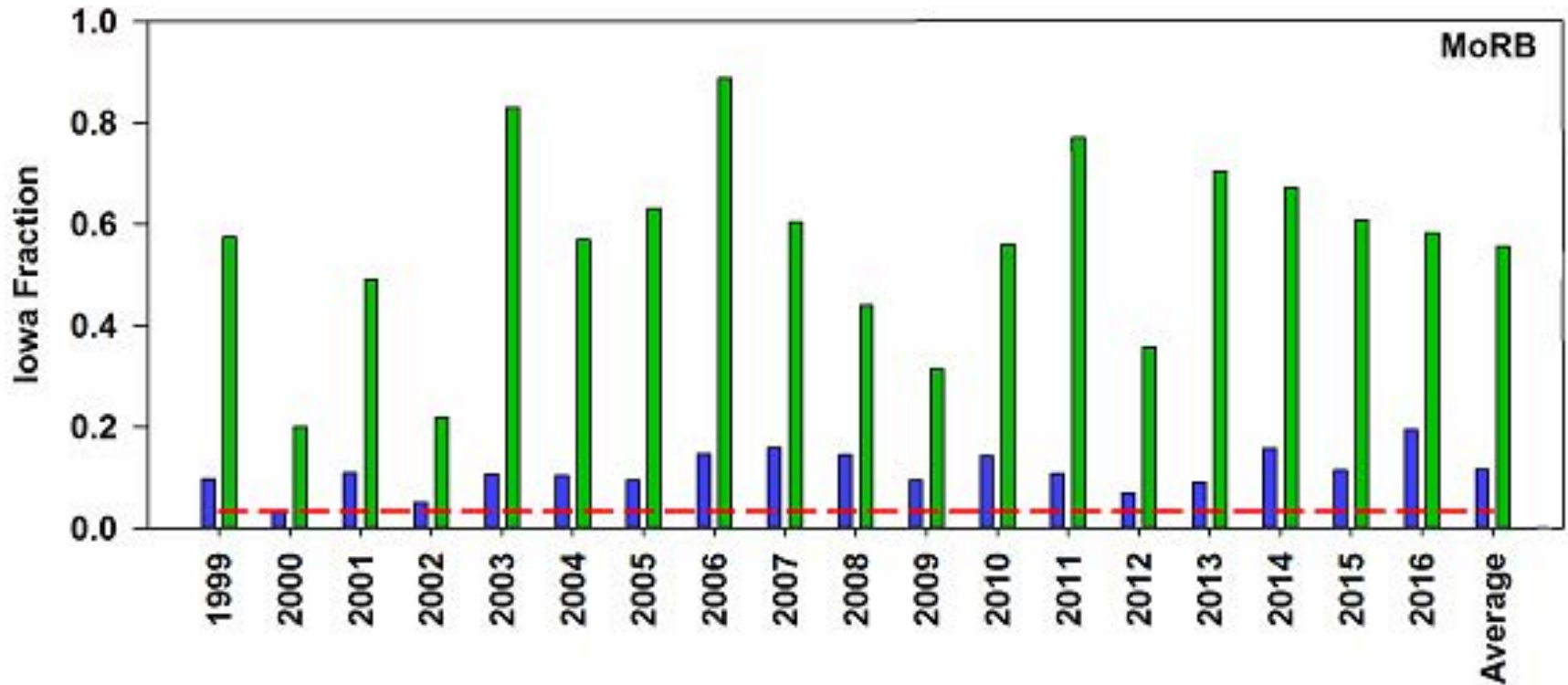
## N loss per crop acre in 2020 (lbs/acre)







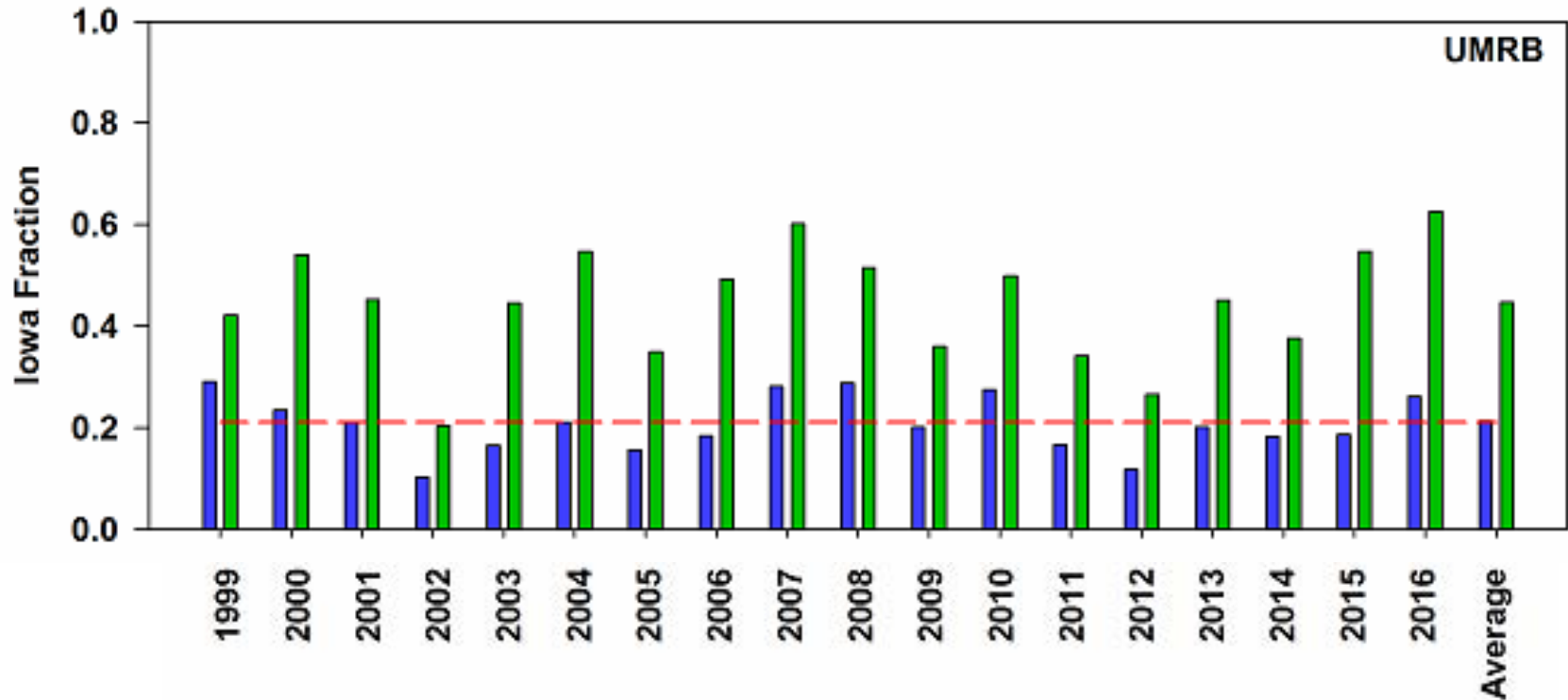
# Missouri



**3.3% of the land**  
**12% of the water**  
**55% of the nitrate**

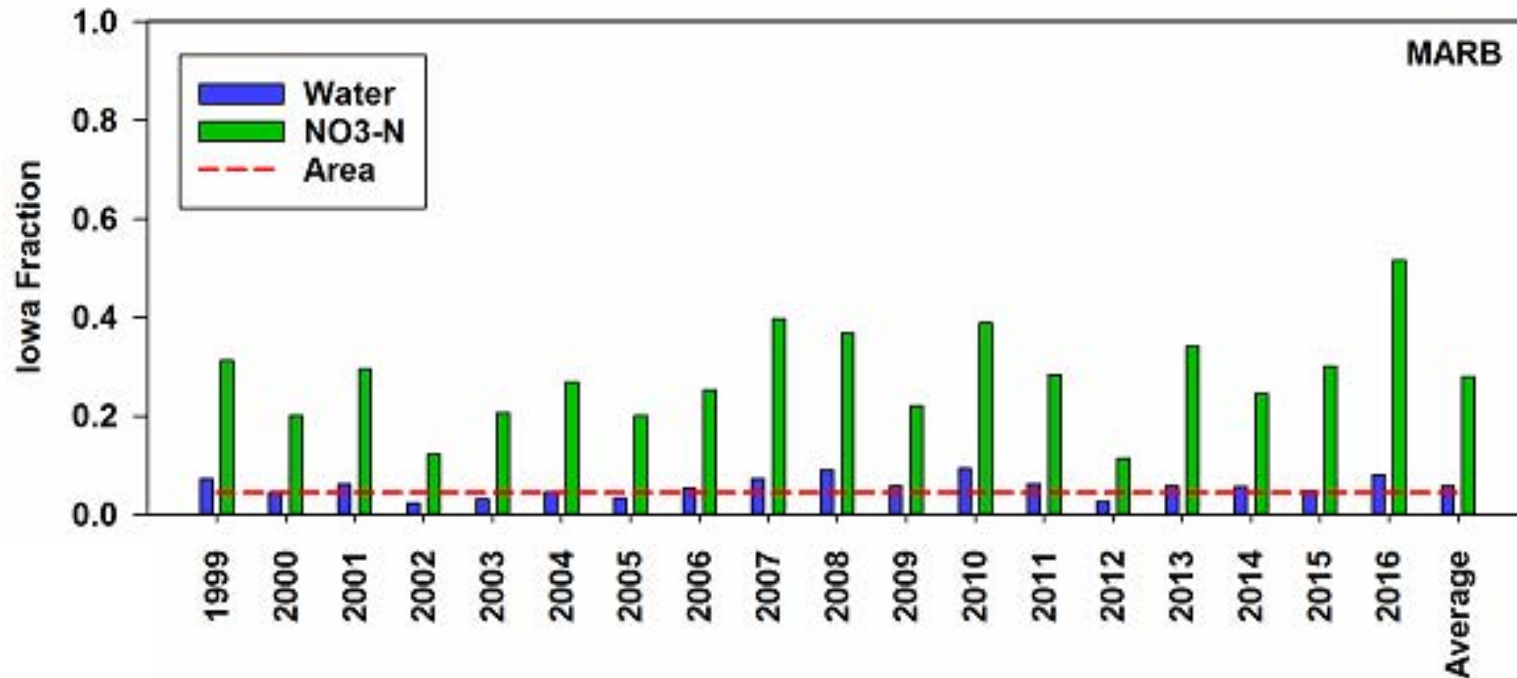


## Upper Mississippi



**21% of the land**  
**21% of the water**  
**45% of the nitrate**

## Mississippi-Atchafalaya-Gulf of Mexico



4.5% of the land  
5.9% of the water  
29% of the nitrate



# How Much Nitrogen Leaves Iowa?

