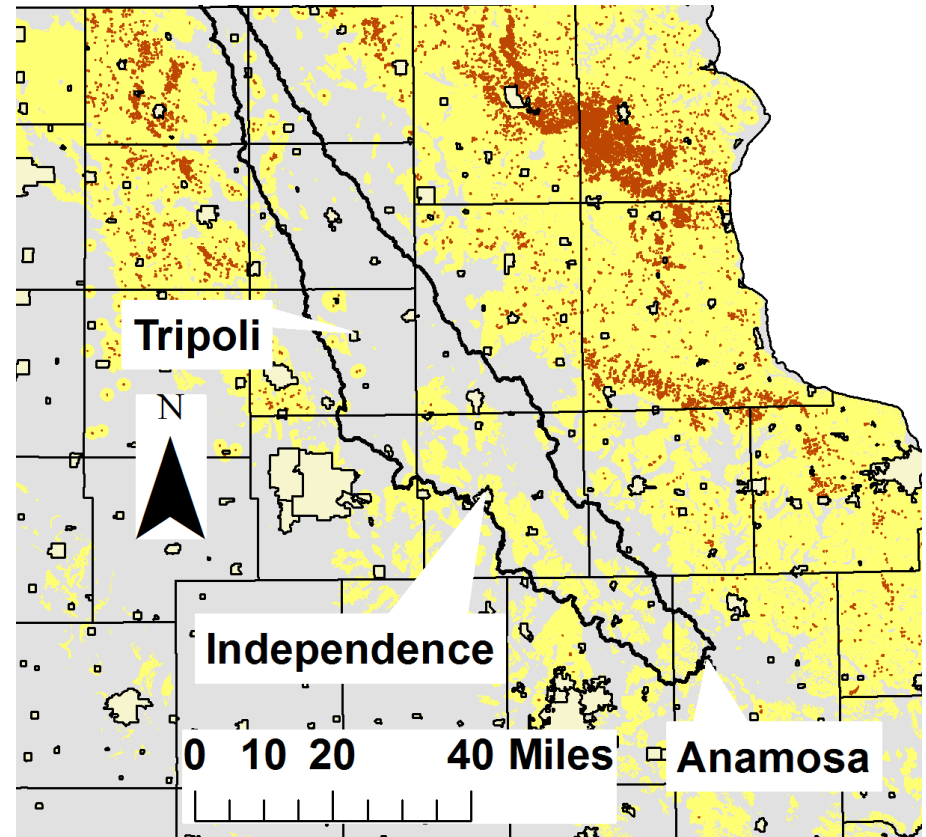
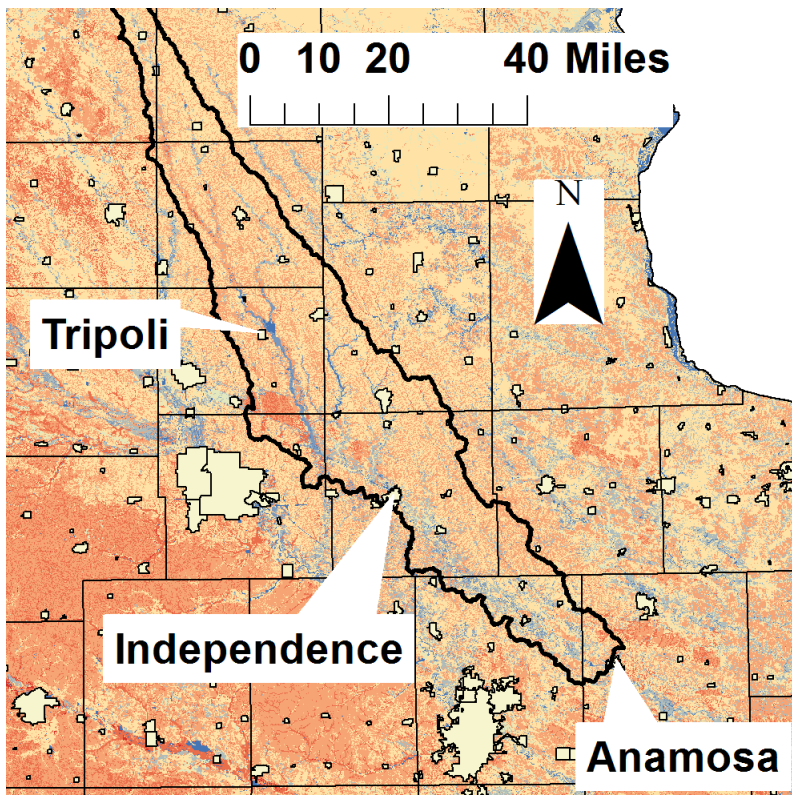


The Iowa Watershed Approach

Percent Clay



- Not a potential karst area
- Within 1000 feet of a known sinkhole
- Area greater than 1000 feet up to 5280 feet from a known sinkhole

The Iowa Watershed Approach

Water Quality Monitoring

Monthly grab sampling at 20 sites in 2015 (June~Nov) and 21 sites in 2016 (April-Oct):

Dissolved reactive phosphorus

Total phosphorus

Chloride

Sulfate

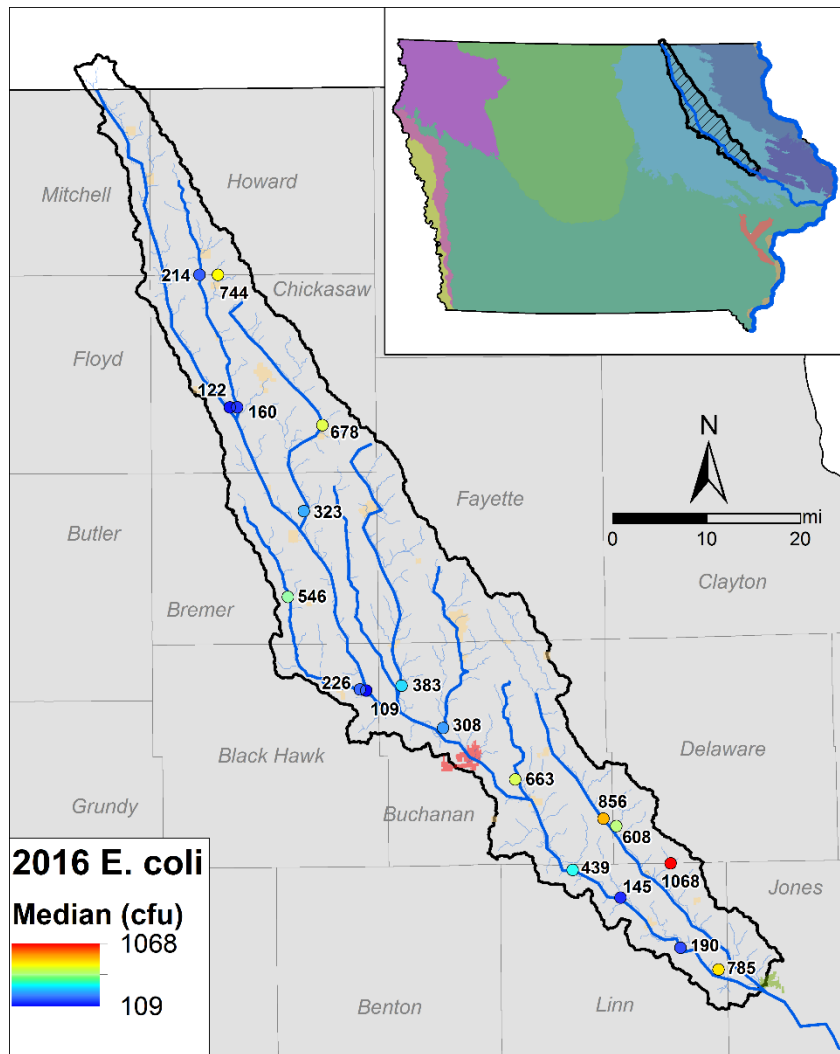
E. coli

Total suspended solids

Nitrate



The Iowa Watershed Approach



2016 monthly samples (Apr-Oct):

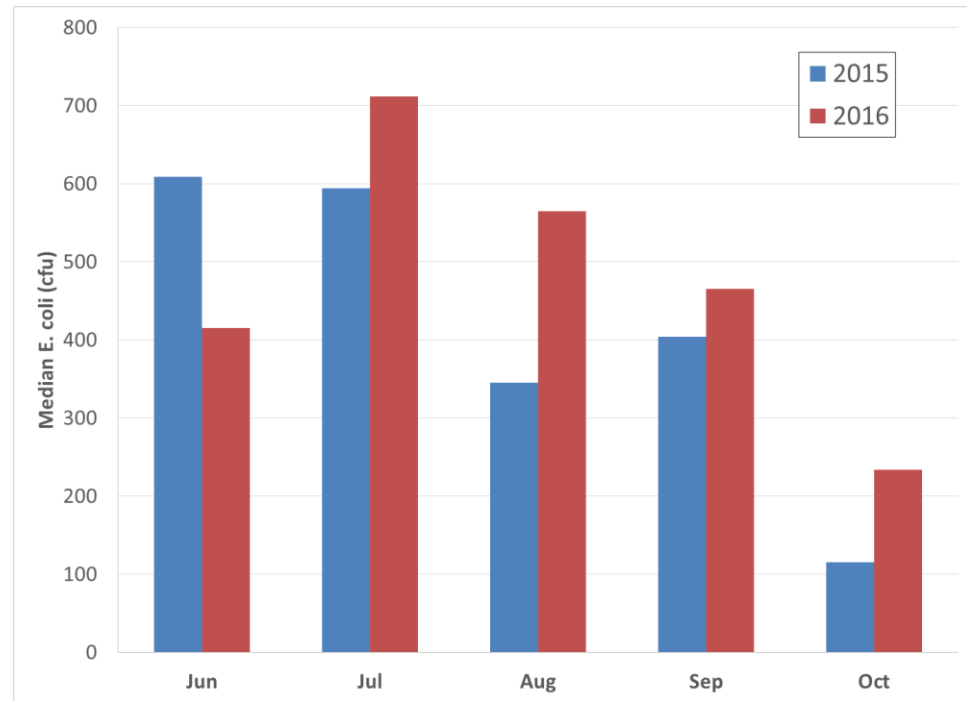
Min: <5 (Linn 22, 4/18)

Avg: 787

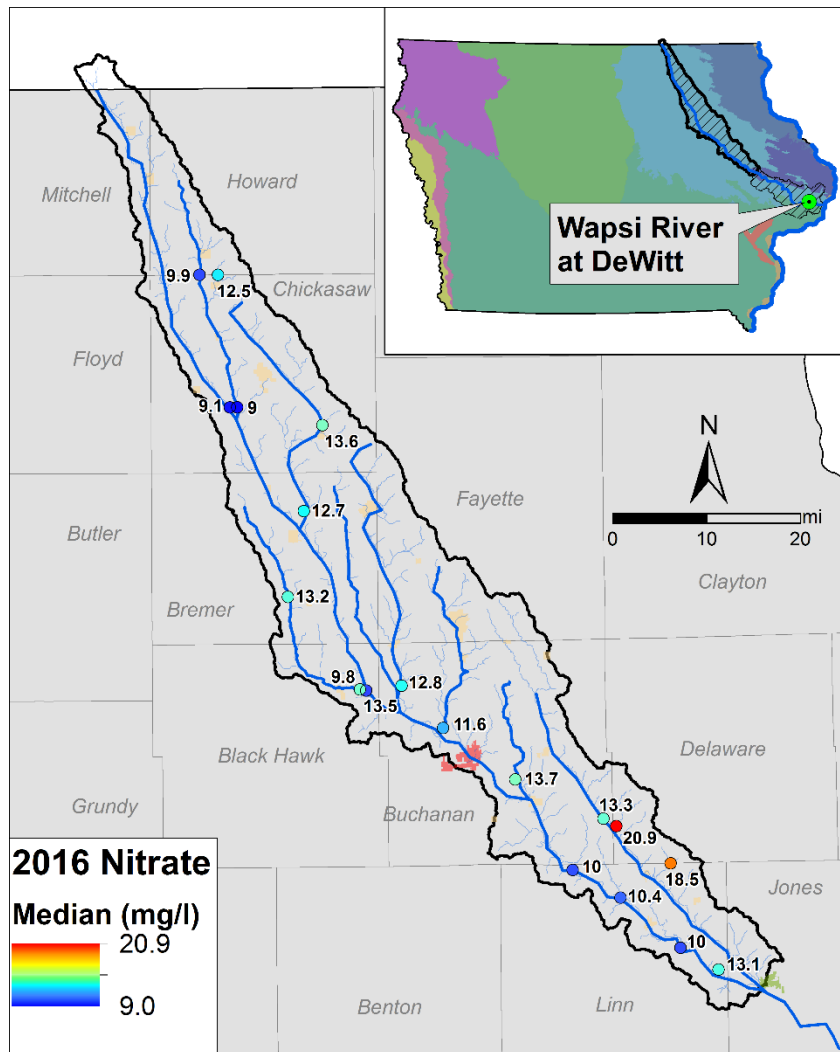
Median: 327

Max: 14,136 (Bremer 8, 7/18)

EPA recommendation: 0



The Iowa Watershed Approach



2016 monthly samples (Apr-Oct):

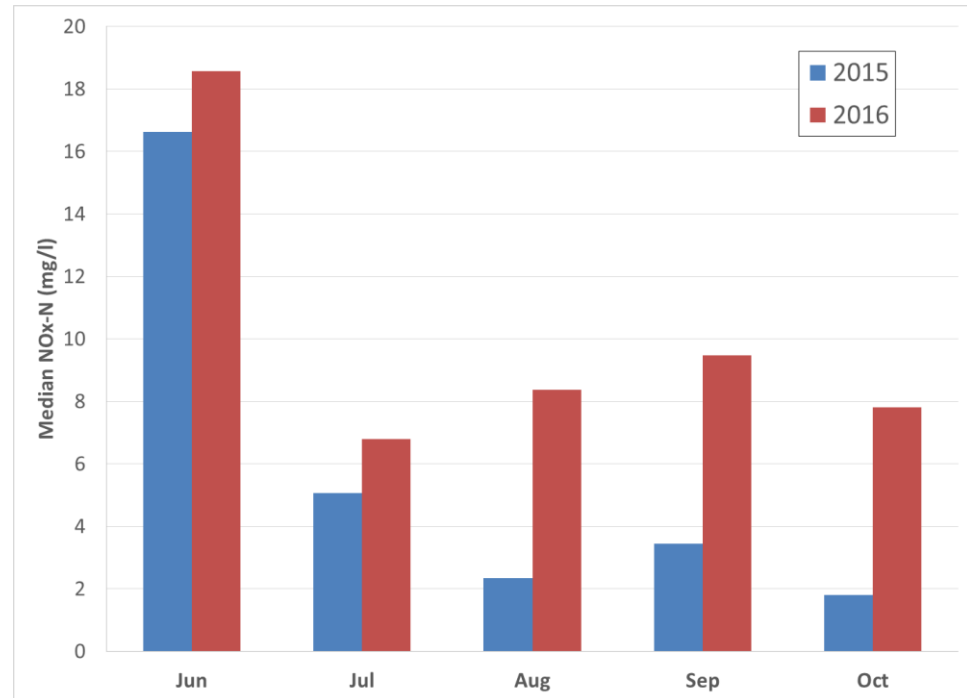
Min: 0.2 (Linn 22, 9/19)

Avg: 12.6

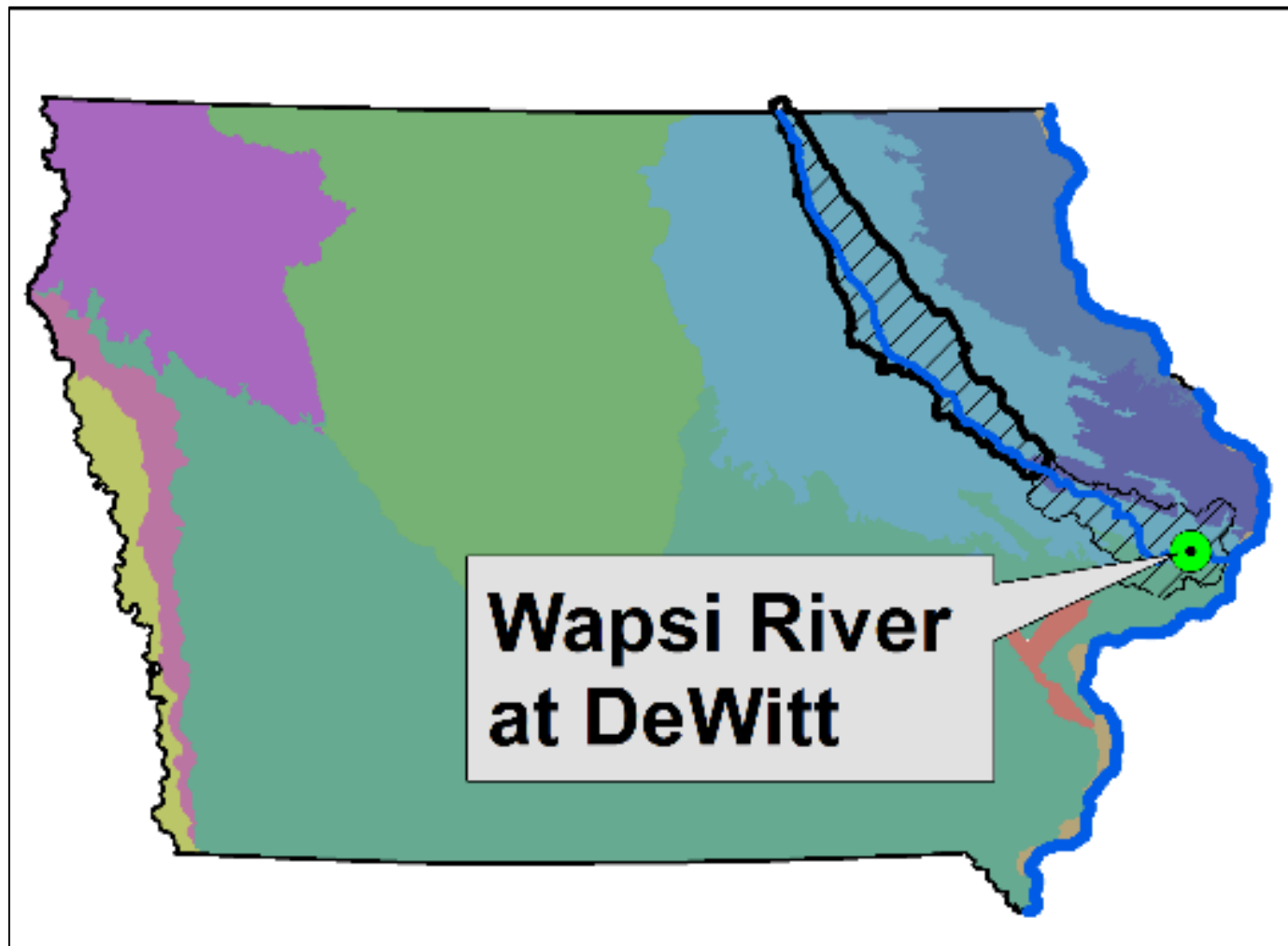
Median: 12.1

Max: 25.7 (Bremer 12A, 6/13)

EPA MCL: 10



The Iowa Watershed Approach



The Iowa Watershed Approach

Wapsi River at DeWitt: 2015

NOx-N load: 38.1 M lbs

NOx-N yield: 25.5 lb/ac

(~33.8 lb/ cropped ac)

Fraction of state's area: 4.2%

Fraction of state's load: --

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