

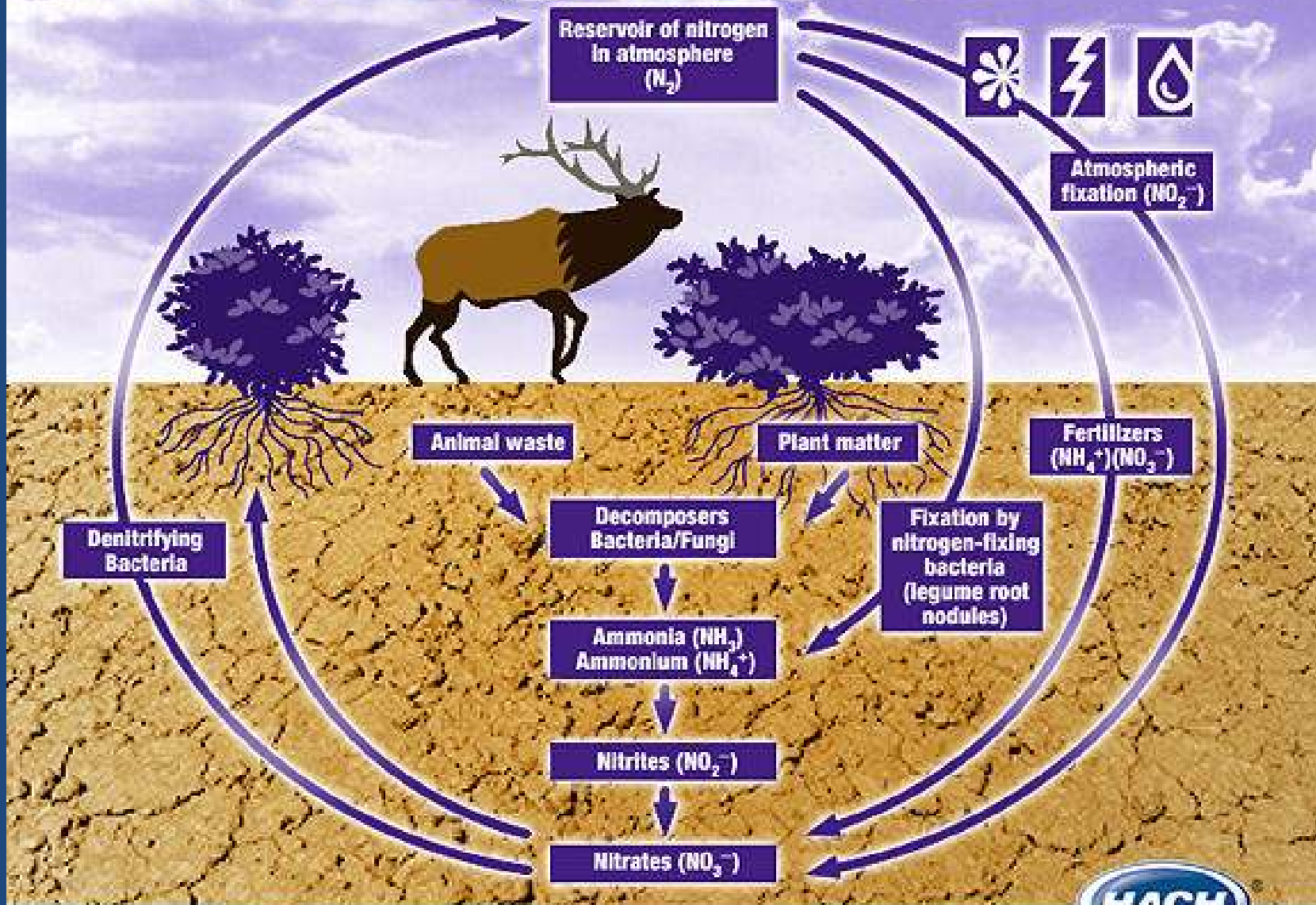
Lone Peak High School



West Fork Watershed Project

Finding Nitrate in Our Water

The Nitrogen Cycle




Be Right™

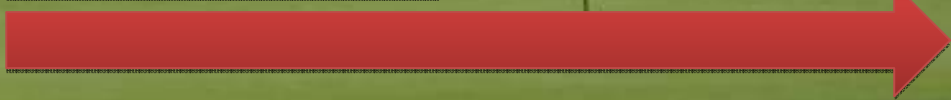
Big Sky Golf Course – Suspected Main Contributor to High Nitrate Levels



Big Sky Golf Course – Suspected Main Contributor to High Nitrate Levels



Water that leaches into the ground and eventually leads to the underground water table.



Water that stays on the surface and runs directly into streams.

Our Hypothesis

- Higher concentration in the West Fork due to:
 - Using fertilizer
 - Watering grounds with treated sewer water
 - Defective septic systems...in the areas of the West Fork watershed.

Sampling Sites

- Upper Middle Fork – Lone Moose Meadows
- North Fork – Lone Mountain Ranch
- Lower Middle Fork – The Big Sky Golf Course
- South Fork – Grey Drake
- West Fork – Walking bridge West of the Conoco

Legend

StreamSamplingSites (Nitrate)

- Less than 0.31
- 0.31 - 0.35
- 0.35 - 0.44
- 0.44 - 0.53
- 0.53 and Greater

WF_Streams

Gallatin

• Septic

— Contours

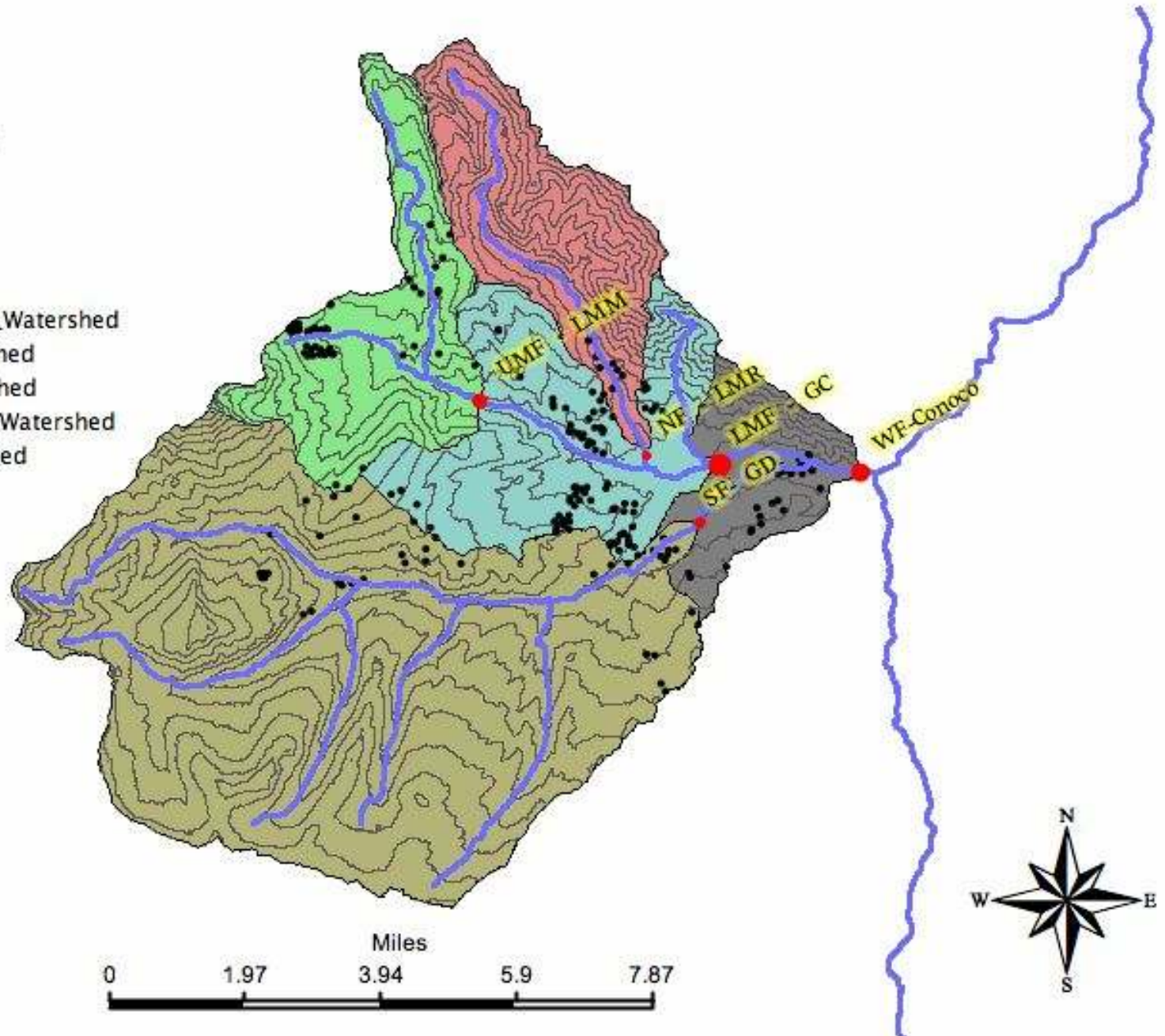
UpperMiddleFork_Watershed

SouthFork_Watershed

NorthFork_Watershed

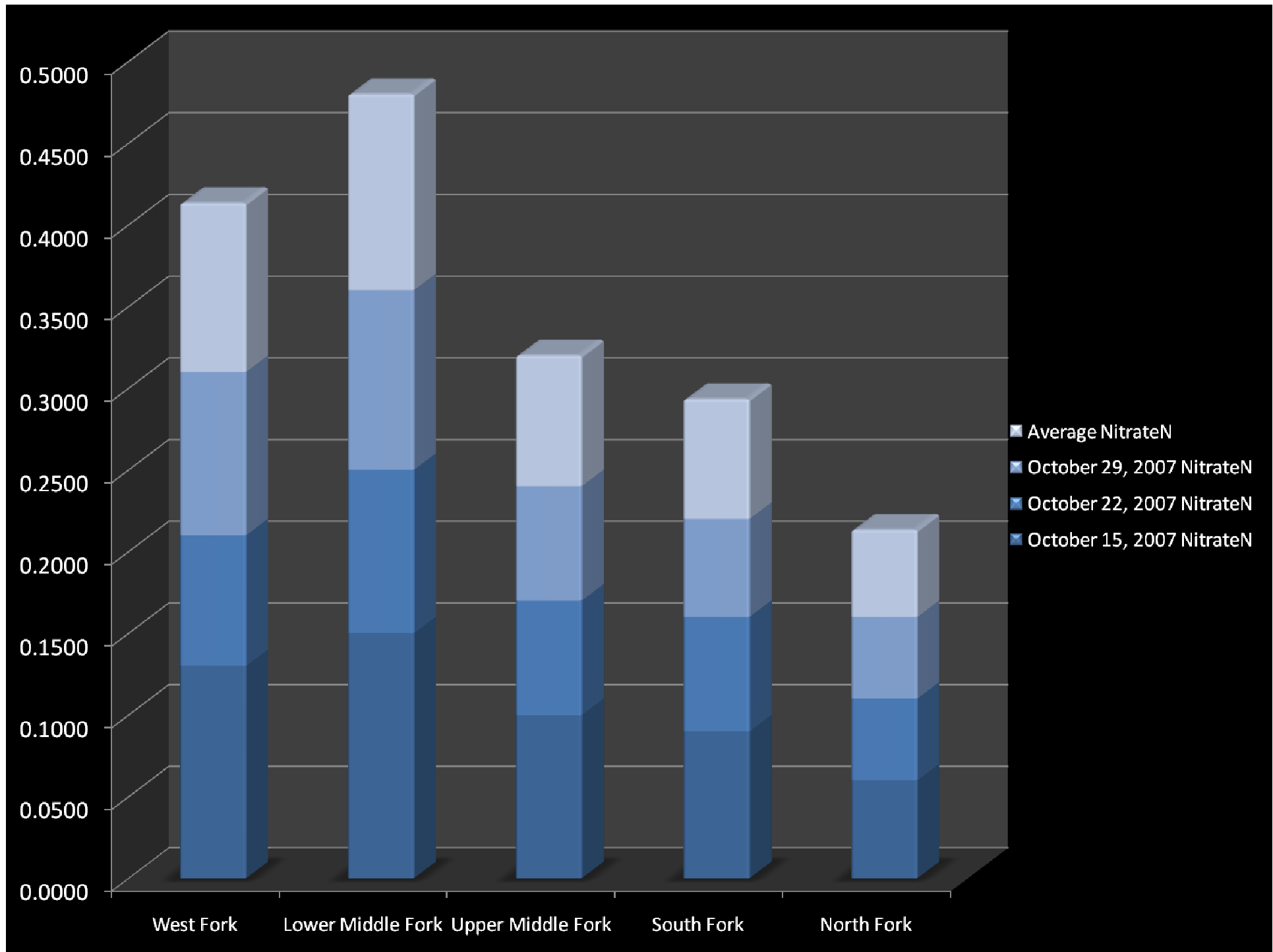
LowerMiddleFork_Watershed

WestFork_Watershed



Our Procedure in the Field





Conclusions

- Highest nitrate levels are in the Lower Middle Fork

Main Contributors:

- Golf course fertilization and watering methods
 - Homes using fertilizer
- Lowest nitrate levels are in the North Fork

Thank You!

- Kristin Gardner -

- Blue Water Task Force -

- East Slope Outdoors -