



**Major Sources:**

1. Powerplant emissions
2. Vehicle emissions
3. Septic tank leakage
4. Manure/livestock runoff
5. Agricultural emissions
6. Fertilizer runoff (e.g. lawns and fields)
7. Wastewater effluent
8. Food and feed imports

**Major Effects:**

- Acid rain
- Acid lakes and streams
- Ozone and smog
- Climate change & ozone depletion
- N saturation in forests
- Over-enrichment of coastal waters
- Groundwater contamination

**Note:** Many nitrogen sources also produce other pollutants such as sulfur dioxide, carbon dioxide, and phosphorous. This rendering shows only the movement of nitrogen through the watershed to clearly illustrate its many sources and effects.

**NITROGEN POLLUTION:  
FROM THE SOURCES  
TO THE SEA**