

# Status of North Dakota Air Quality

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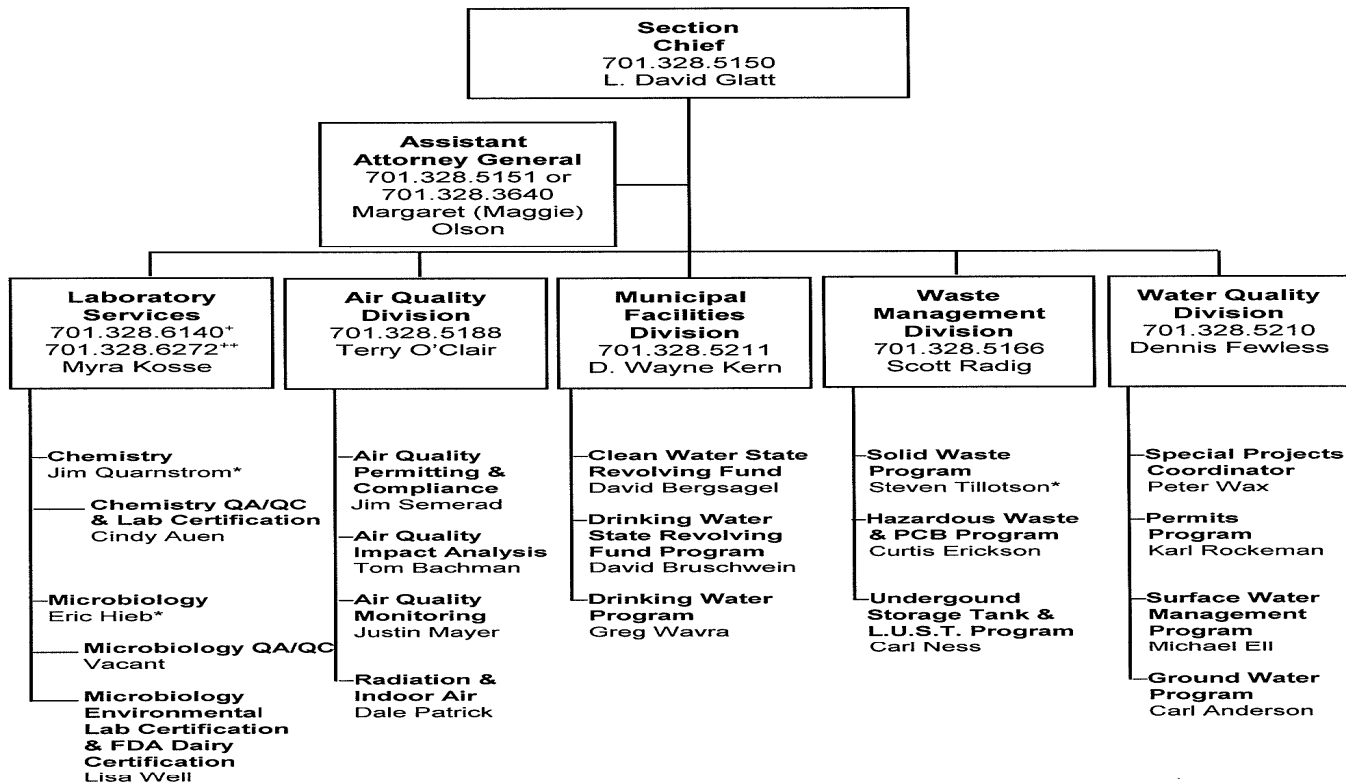
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# Discussion Objectives

- Brief Program Background
- Current State of Air Quality
- Future Regulatory Challenges

**North Dakota Department of Health  
Environmental Health Section**



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+Chemistry Phone #  
++Microbiology Phone #

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# Clean Air Act - (CAA)

- State Implementation Plans
- Permitting
  - Emission Limits/Controls
  - Record Keeping
- Monitoring
  - Ambient Air Quality Monitoring Network
- Modeling
- Compliance Inspections
- Enforcement

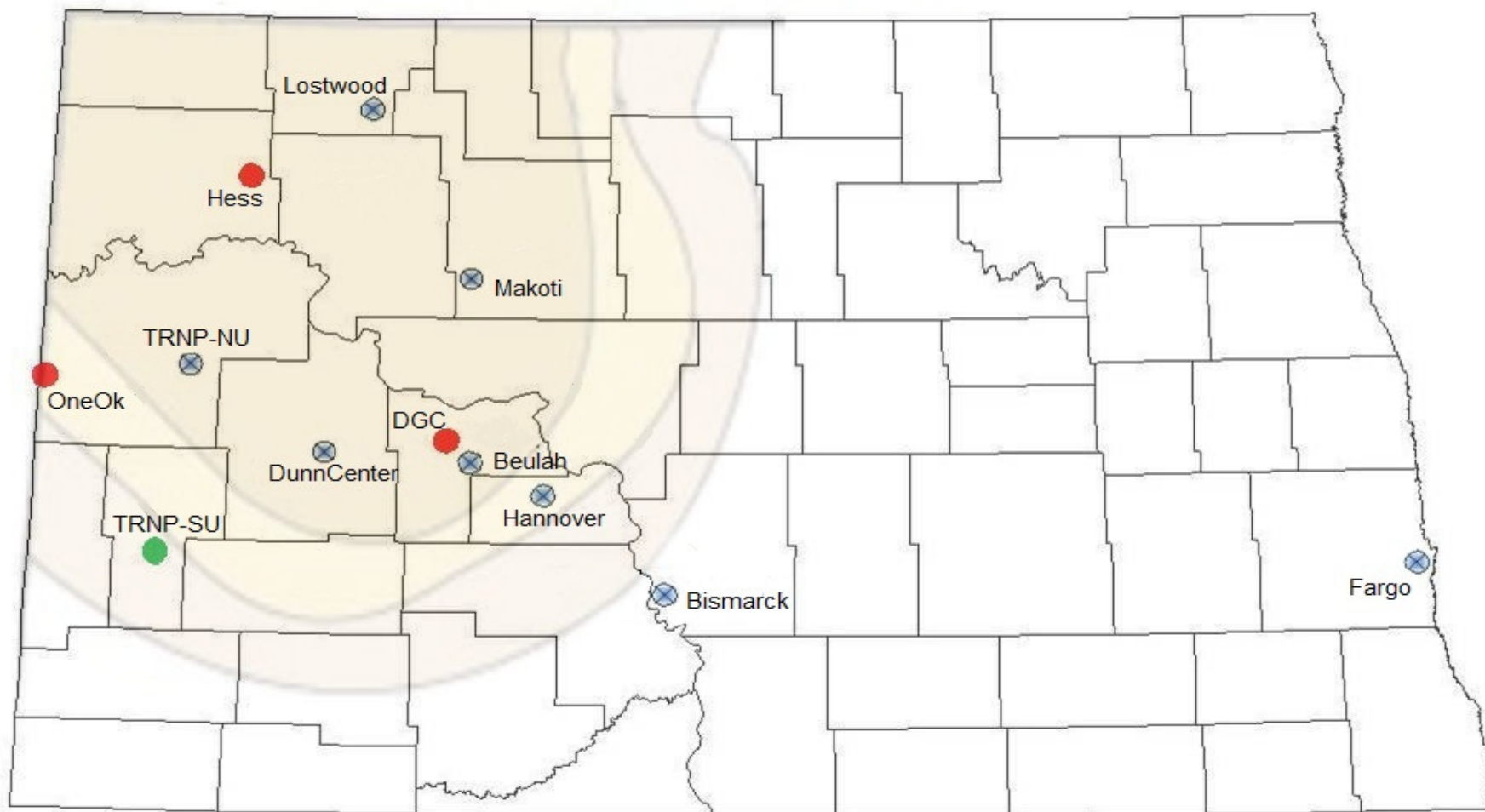
# North Dakota Air Quality Monitoring Network

Shaded Area: ND Oil Formation

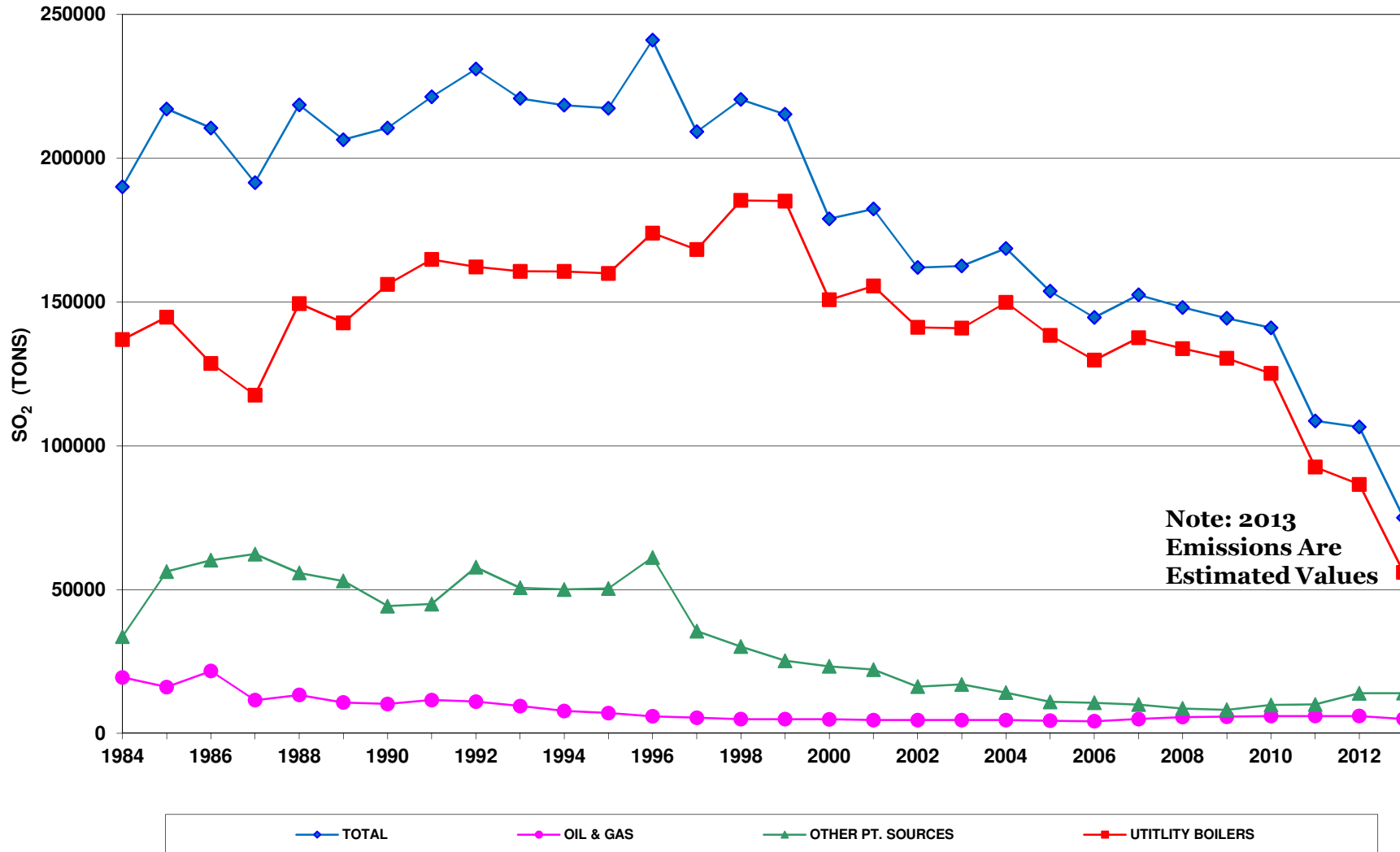
Red Points: Industry Sites

Blue X's: ND Ambient Network

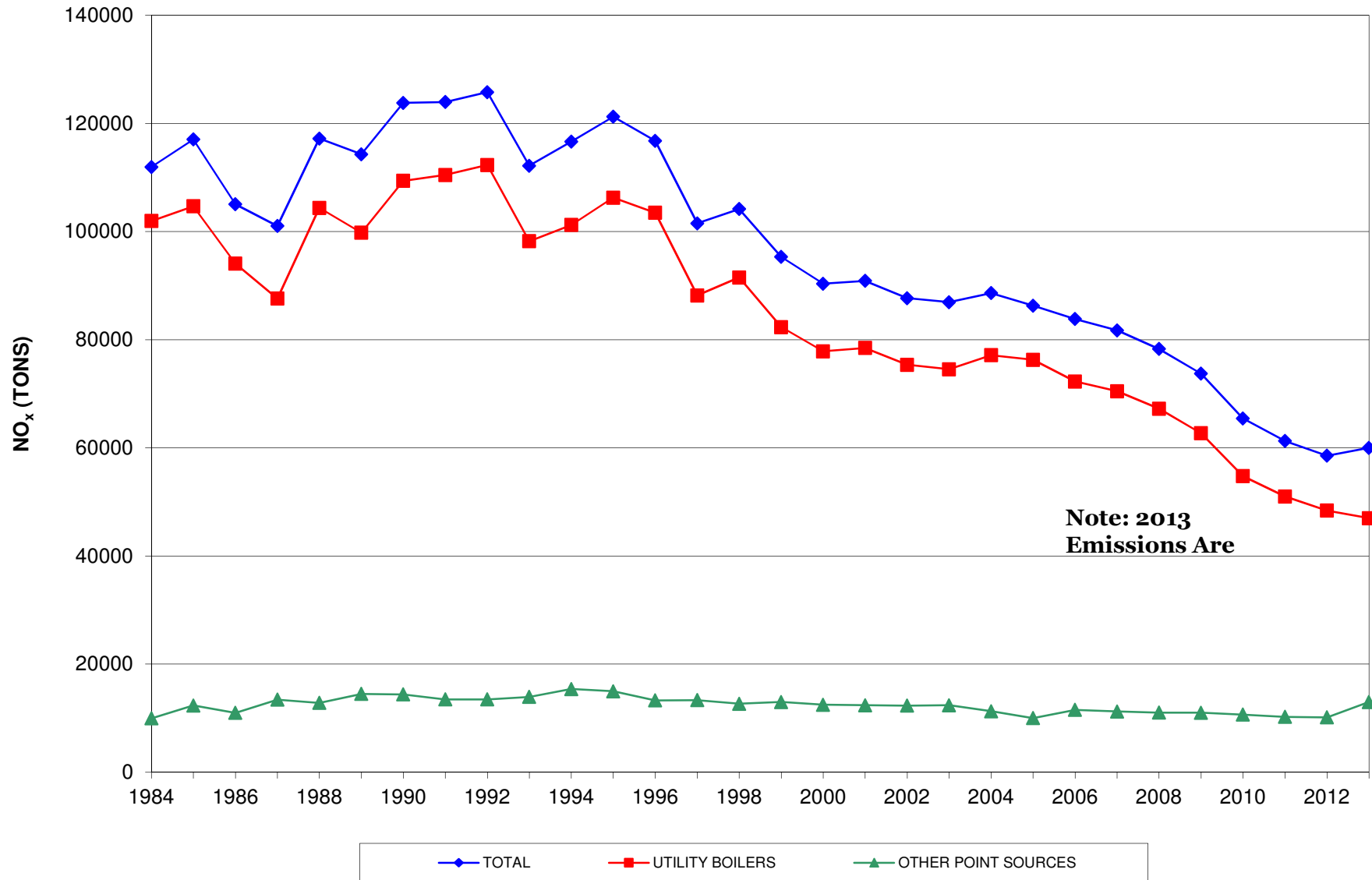
Green Point: National Park Service Operated Site



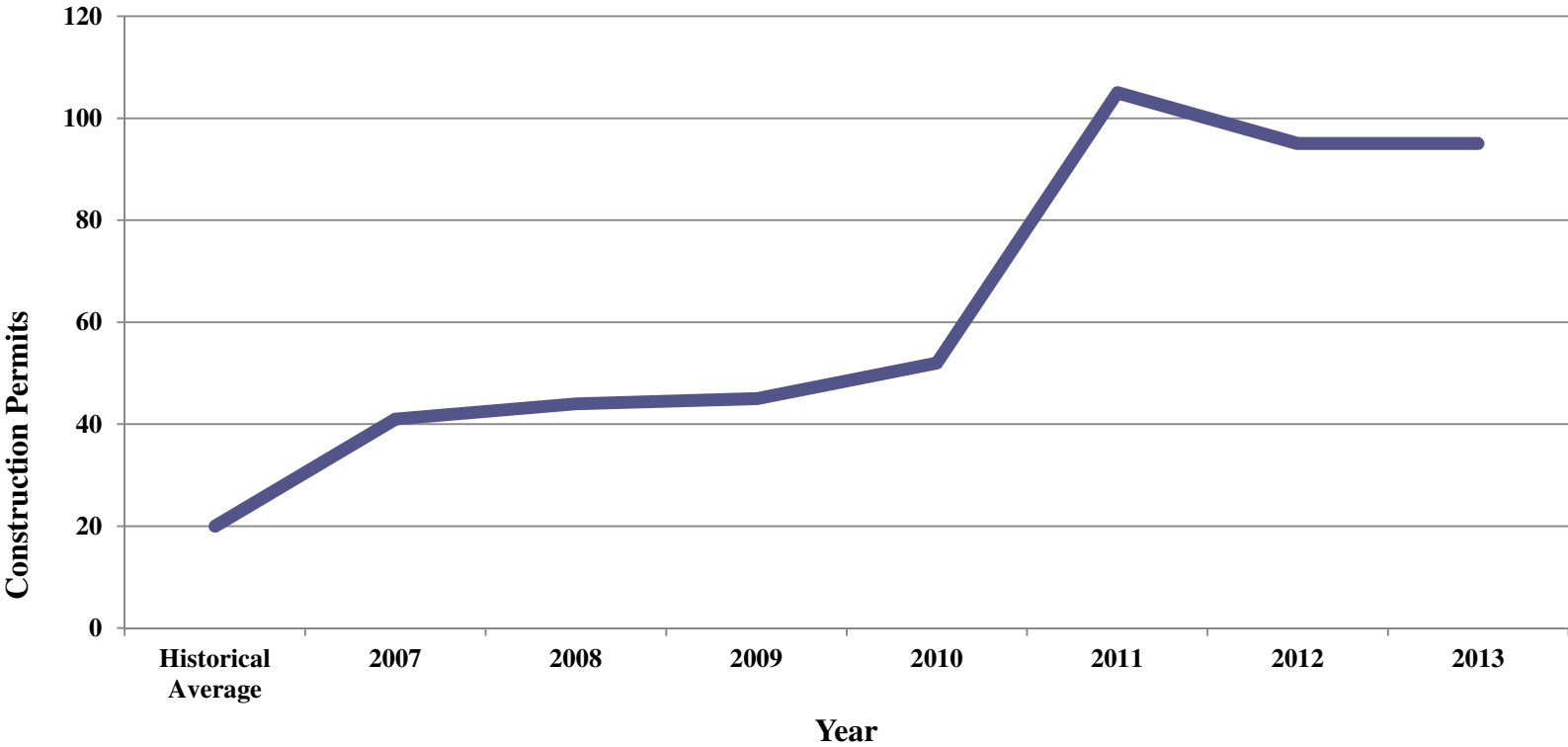
# NORTH DAKOTA POINT SOURCE SO<sub>2</sub> EMISSIONS



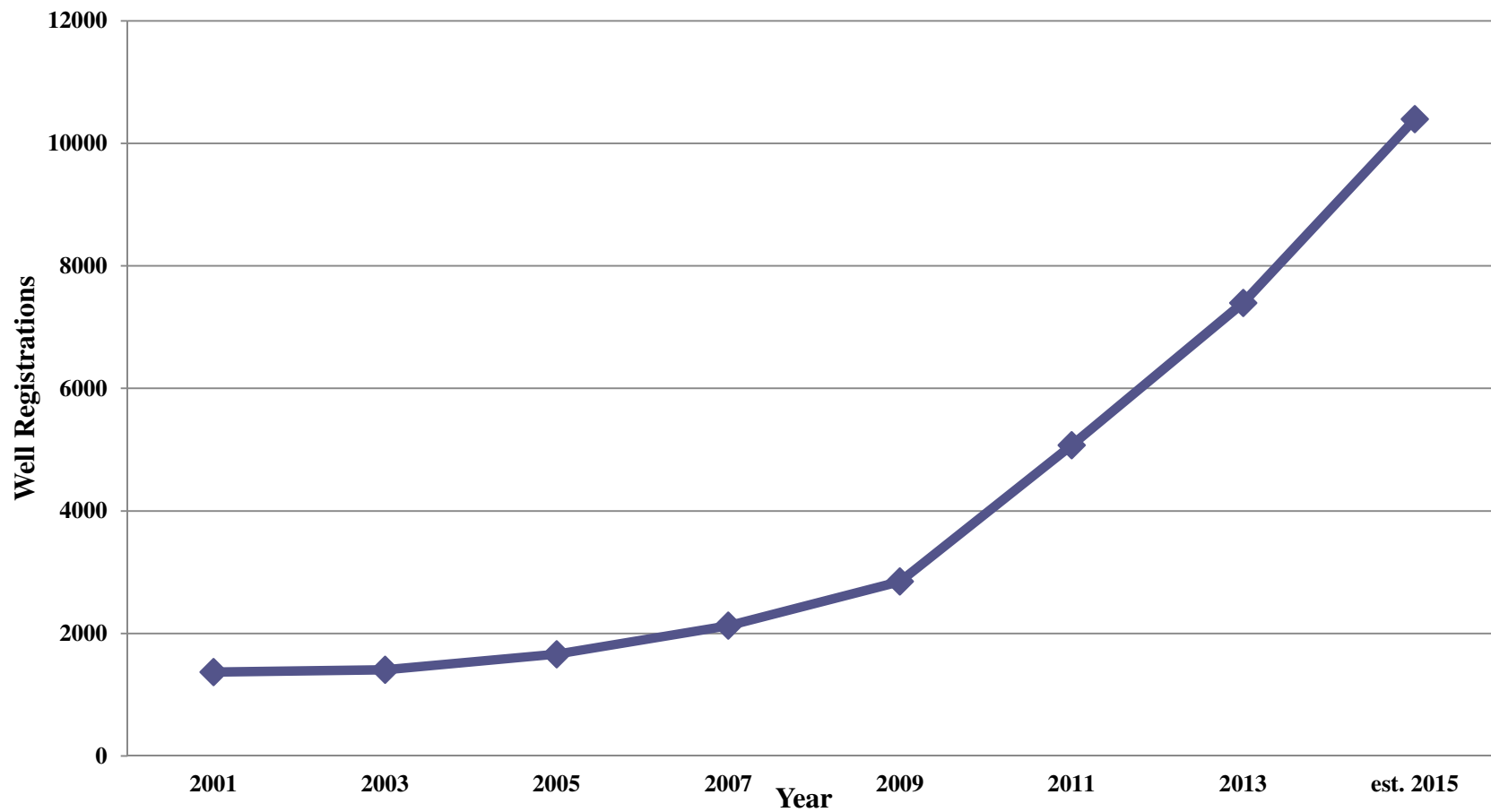
# NORTH DAKOTA POINT SOURCE NO<sub>x</sub> EMISSIONS



### Air Quality Industrial Construction Permits



### Air Quality Well Permit Registrations





# Oilfield Development

- What does monitoring indicate?
  - Remain in Compliance with NAAQS
  - Some monitors indicate slight rise in particulates
  - NO<sub>x</sub> will require additional investigation
- Methane and Sulfur Dioxide Concentrations
  - Additional Monitoring by NPS



# Regulatory Landscape

- 1 Hour SO<sub>2</sub>
  - Federal Designation Responsibilities
  - Concerns:
    - Time to complete designations
    - Potential Rule Development?
    - Modeling
      - Garbage In/Garbage Out
      - Ground Truth Results
      - State Discretion and State Lead
    - Modeling vs. Monitoring (how much is enough?)



# Regulatory Landscape

- Regional Haze
  - Awaiting SIP amendment decision
  - Potential Appeal to US Supreme Court
    - State Discretion
    - How much latitude should state have in model input parameters?



# Green House Gas Regulation (??)

- Energy Producing States -
- Energy Export
- Regional Impact
- Available and Applicable Technology
- Bridge from the Present to Future???
- How to implement SIP's across state lines
- Reliability and Economic Impacts
- What is the “IT” we are trying to achieve?

### Enforcement Penalties\* and Number of Cases

