

Status of North Dakota Air Quality

L. David Glatt, P.E.

North Dakota Department of Health

Environmental Health Section

701-328-5150

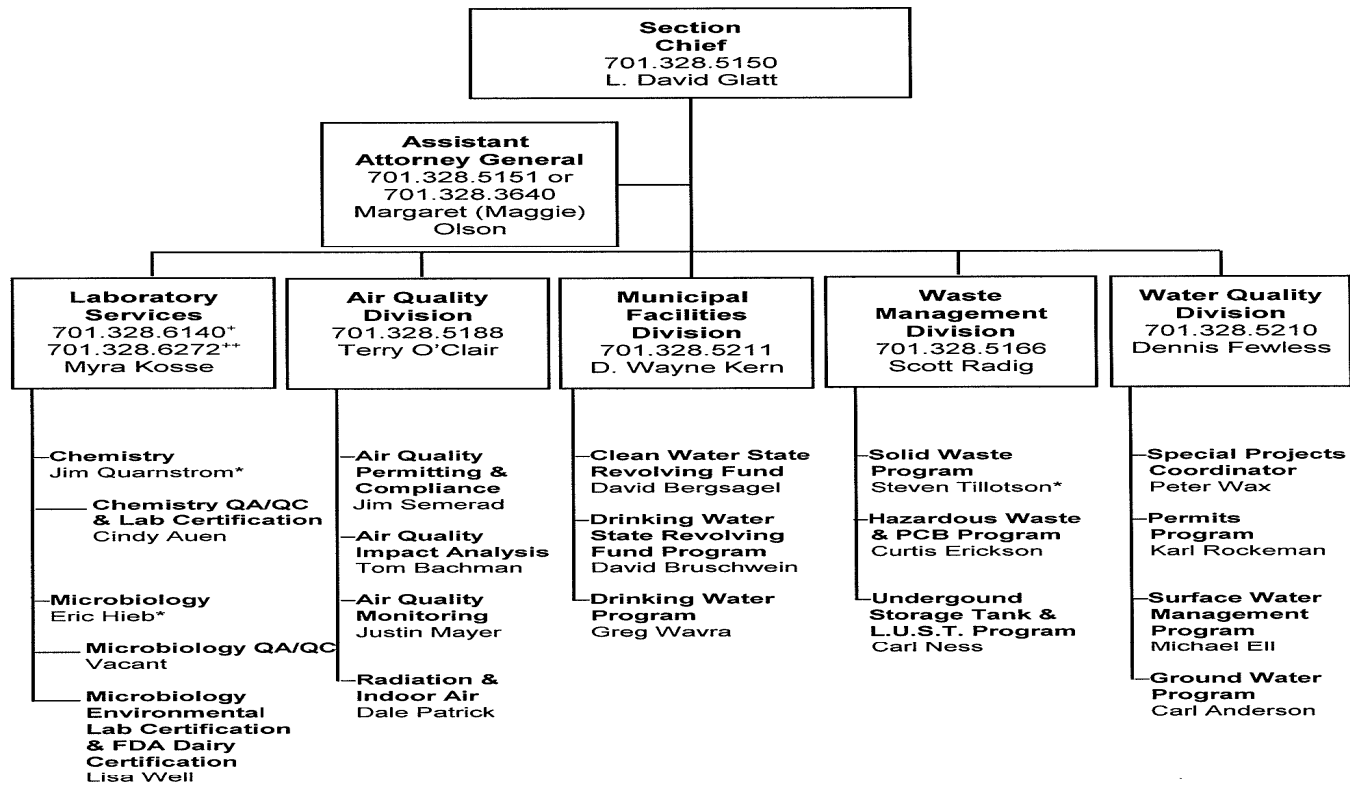
dglatt@nd.gov



Discussion Objectives

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

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



*Assistant Director
+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

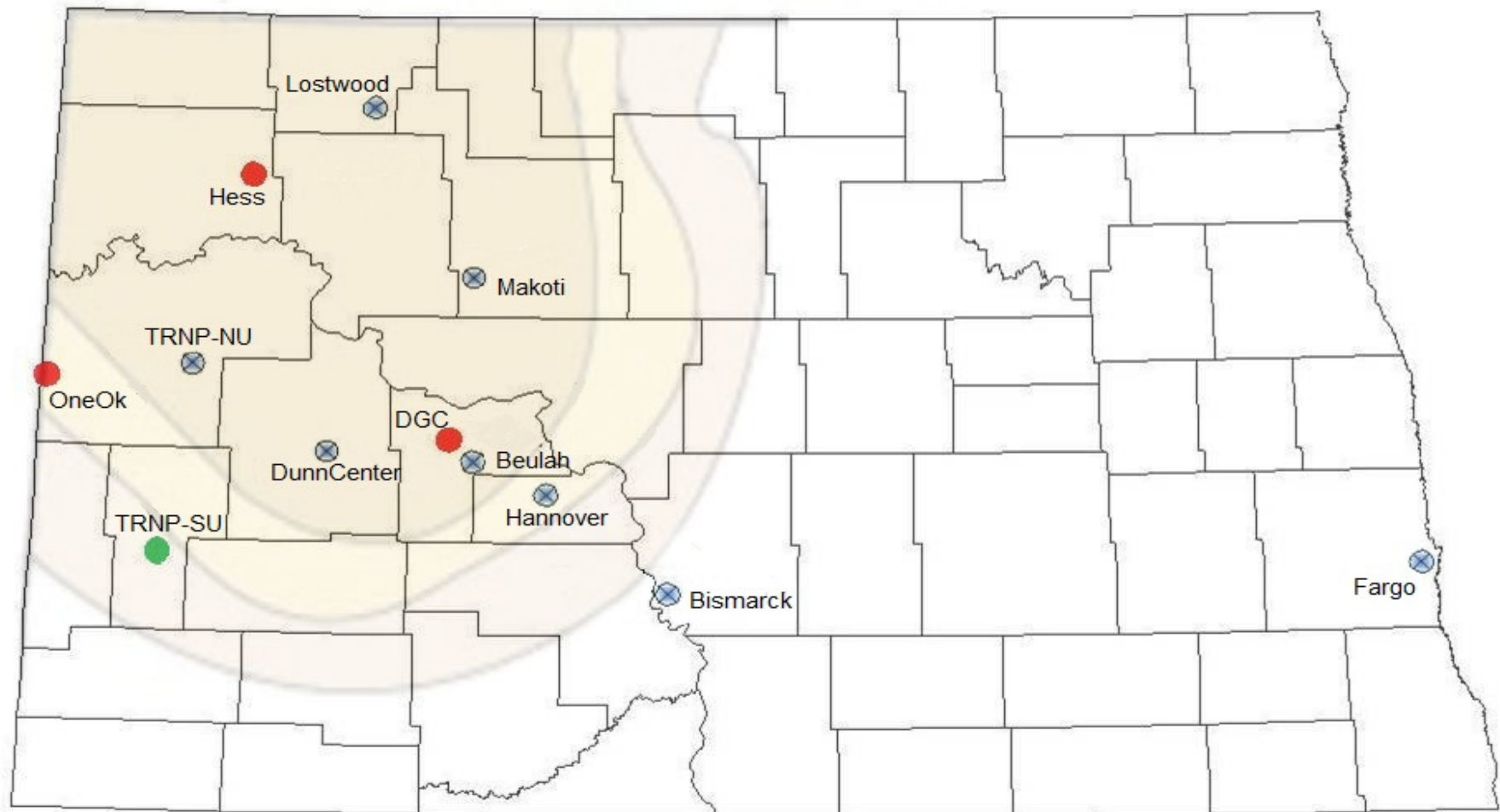
North Dakota Air Quality Monitoring Network

Shaded Area: ND Oil Formation

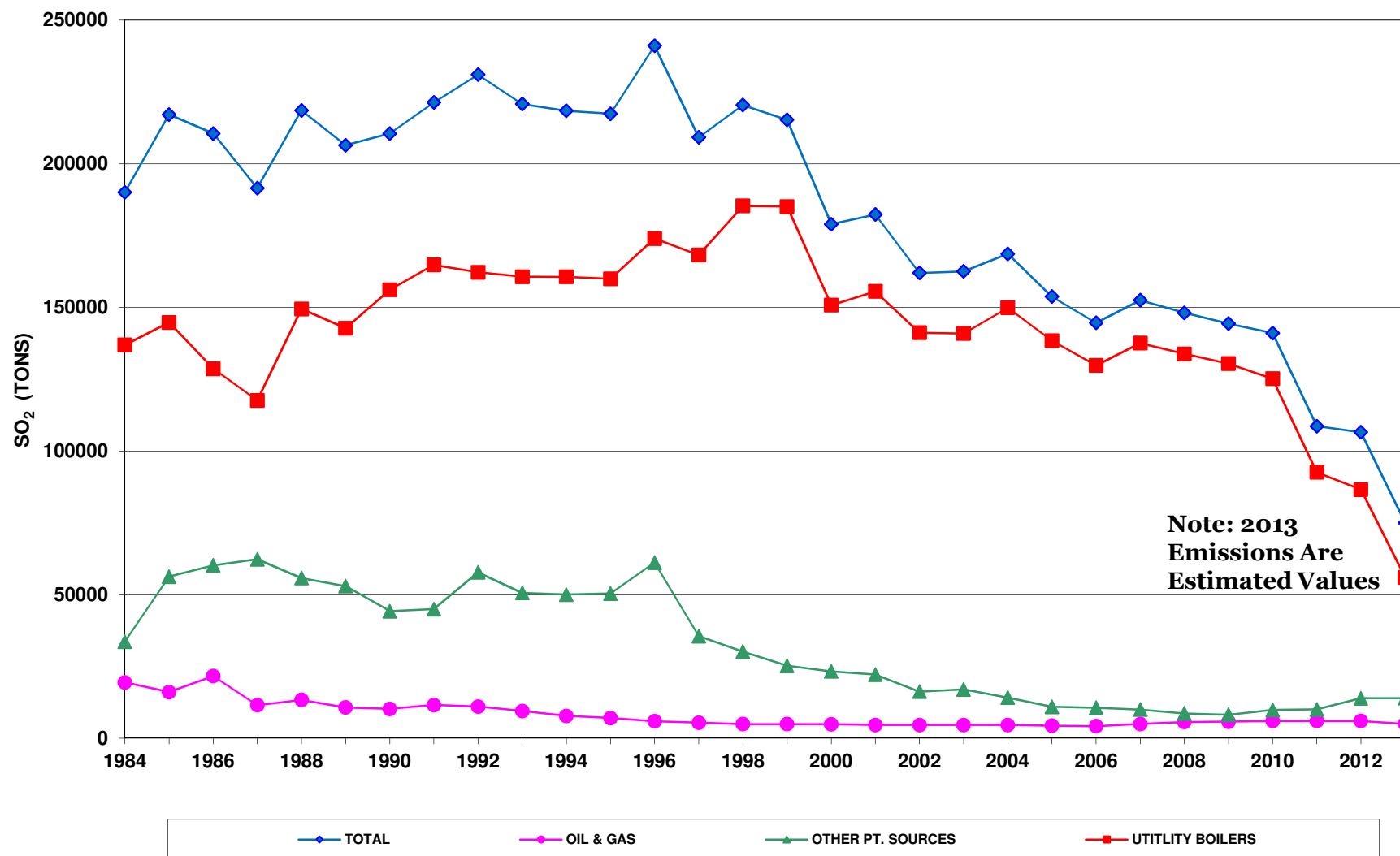
Red Points: Industry Sites

Blue X's: ND Ambient Network

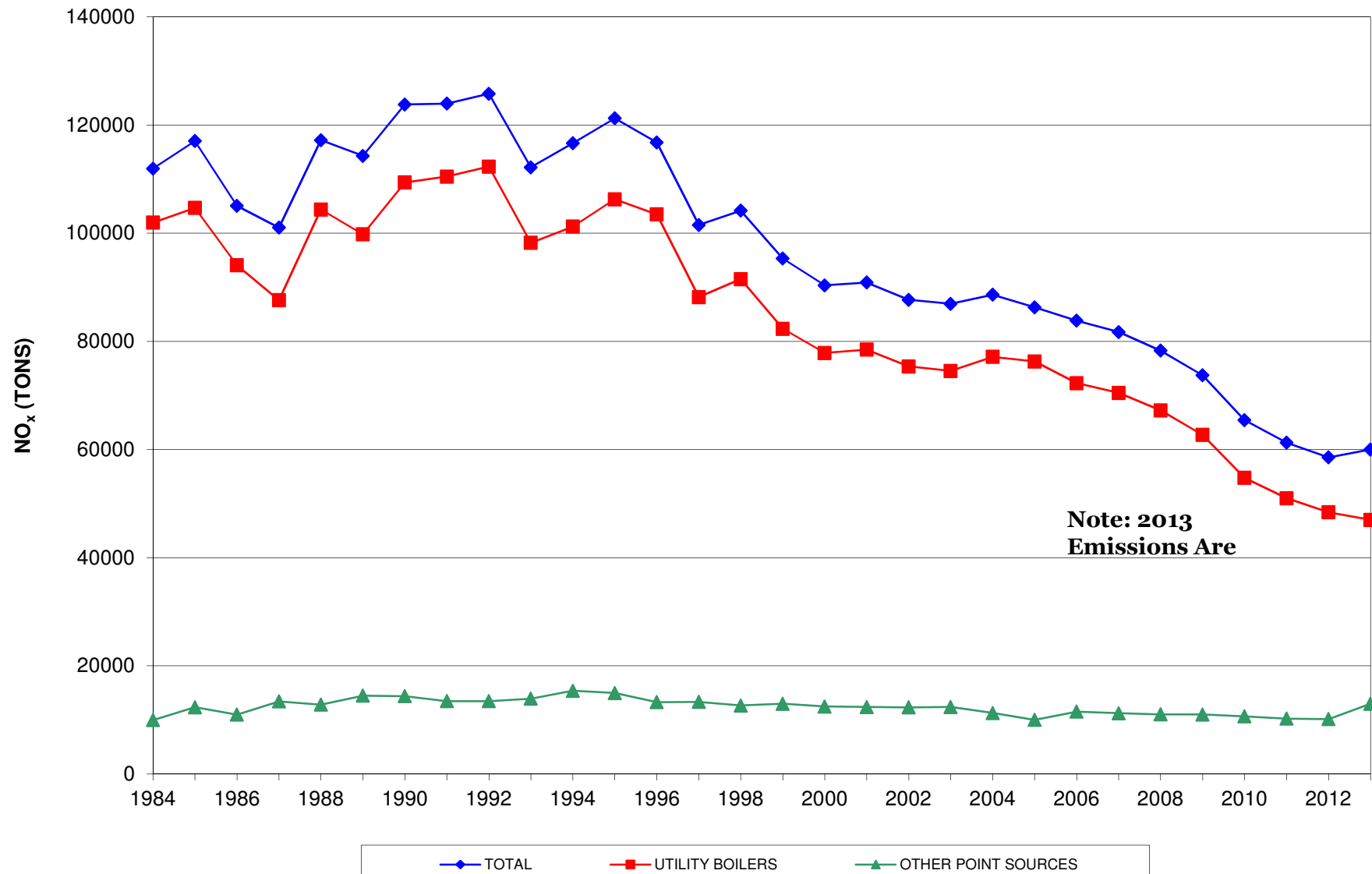
Green Point: National Park Service Operated Site



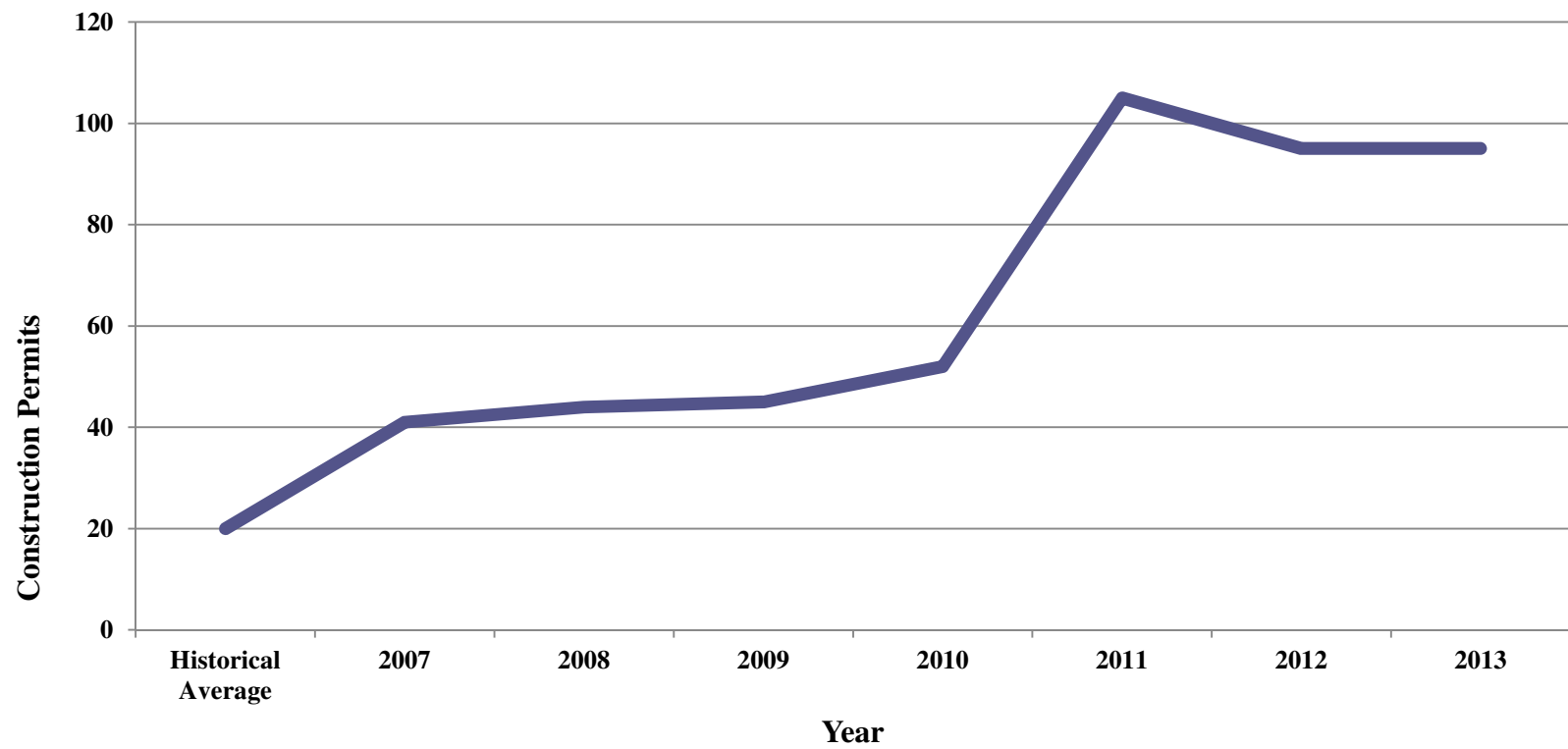
NORTH DAKOTA POINT SOURCE SO₂ EMISSIONS



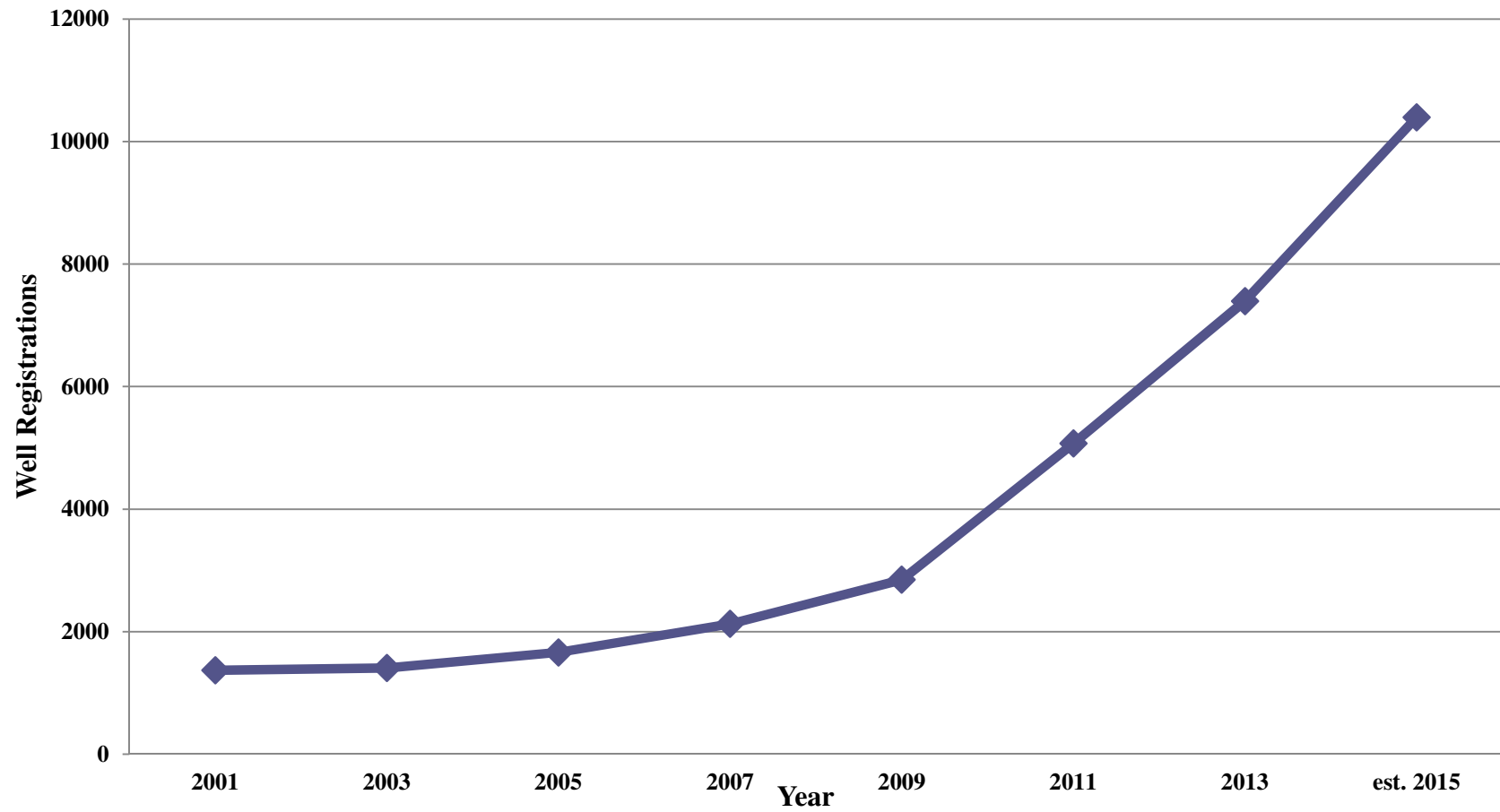
NORTH DAKOTA POINT SOURCE NO_x EMISSIONS



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
 - NOx will require additional investigation
- Methane and Sulfur Dioxide Concentrations
 - Additional Monitoring by NPS



Regulatory Landscape

- 1 Hour SO₂
 - 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

