

TESTIMONY OF

David Glatt, Director of North Dakota Department of Environmental Quality

Good morning Chairman Nelson and members of the House Appropriations Committee. My name is David Glatt, Director for the North Dakota Department of Environmental Quality (NDDEQ). The NDDEQ is responsible for the implementation of many of the environmental protection programs in the state. I am here today to testify in support of SB 2024.

My testimony will highlight the following:

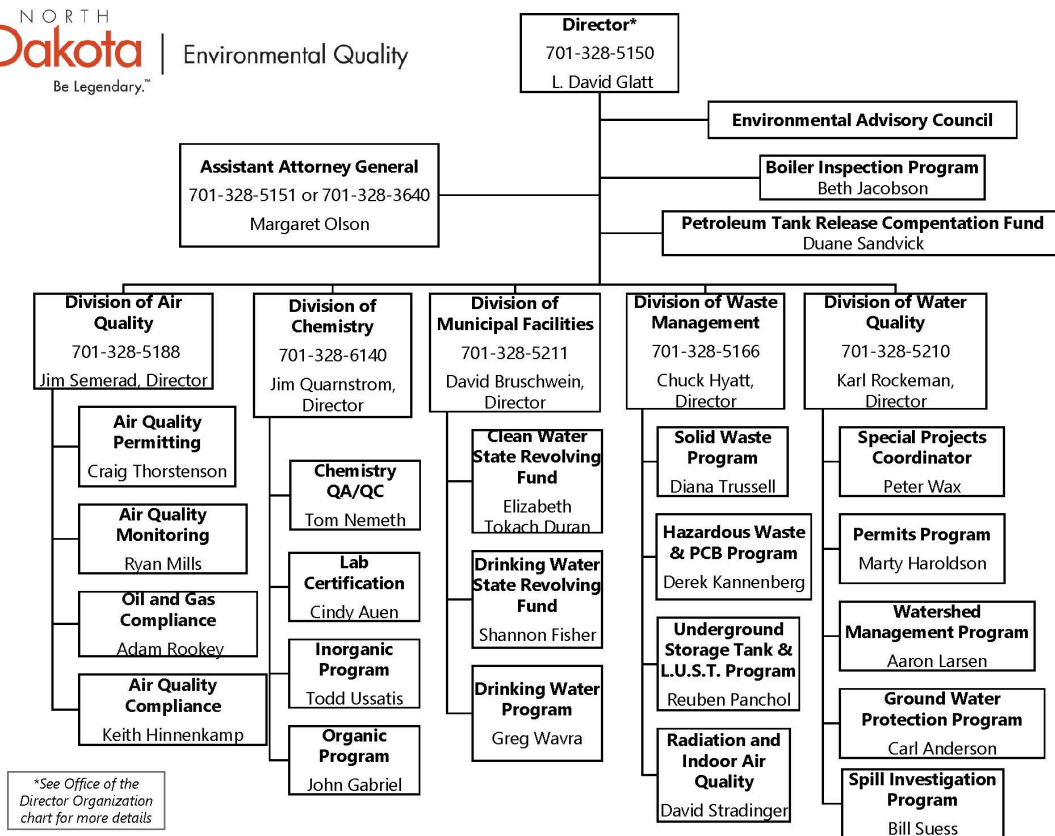
- Agency Overview
- Budget Explanation
- Challenges and Initiatives

Beth Jacobson, Grants and Contracts Administrator/Financial Officer for the NDDEQ, will present the NDDEQ budget and associated information.

North Dakota Department of Environmental Quality

The NDDEQ is responsible for safeguarding North Dakota's air, land and water resources. In cooperation with the general public, industry and government at all levels, the NDDEQ implements protective programs and standards to help maintain and improve environmental quality. To guide us, we follow a vision that acknowledges the role of sustainability and the desire for a high-quality environment for current and future generations. We accomplish our environmental stewardship by administering five divisions that employ 165 FTEs comprised of engineers, scientists of various disciplines, chemists, technicians and administrative support. All employees work to ensure accessibility to the public, transparency in their decisions and responsiveness in their actions.

The following figure provides an organizational overview of the NDDEQ. It identifies key program areas in the divisions of Air Quality, Water Quality, Municipal Facilities, Waste Management and Chemistry.



Effective October 2020

North Dakota Department of Environmental Quality Organizational Chart

COVID-19 Response in 2020

2020 provided unprecedented challenges for our staff and citizens of the state. Despite all of the challenges, the DEQ continued to ensure that public and environmental health was protected. Through our staff's efforts at all levels, we ensured that your water was safe to drink, continued compliance with ambient air quality standards, and made sure industry met its permit obligations. We continued to meet our inspection, enforcement and monitoring commitments to the federal EPA. We look forward to a time where we can resume "normal" operations. The NDDEQ has utilized CRF funding to initiate a COVID-19 municipal wastewater testing project. The project intent is to determine if COVID virus concentrations in wastewater are able to provide early warning to health officials of an increasing potential of clinical cases.

Office of the Director (12.5 FTEs)

The Office of the Director works to provide policy direction along with various other administrative and technical functions to ensure that the NDDEQ provides cost effective service to the citizens of the state. To assist in this function, the NDDEQ consults with the Environmental Advisory Board, which is comprised of 13 members representing industry, agriculture, environmental and other state agencies involved with elements of natural resources.

The Office of the Director also oversees two programs that were moved from the North Dakota Insurance Commissioners office. They are the North Dakota Boiler Inspection Program and the North Dakota Petroleum Tank Release Compensation Fund.

North Dakota Boiler Inspection Program

The Boiler Inspection Program consists of 4 inspectors located in Bismarck and Fargo. The directive of the program is to conduct inspections of commercial, multiple dwelling and government building boilers to ensure their integrity and safety. During this legislative session the NDDEQ has proposed to increase inspection fees to ensure the program can meet budgeted expenses. Originally brought forward as a standalone bill the inspection fee increase is now incorporated into the NDDEQ appropriation bill.

North Dakota Petroleum Tank Release Compensation Fund (NDPTRCF)

The NDPTRCF was established in 1989 in response to the U.S. Environmental Protection Agency requirement that all underground storage tank owners have proof of financial responsibility. The NDPTRCF is managed by a 5-member board and can provide up to \$1,000,000 to offset remedial action expenses at qualified tank facilities. The NDDEQ has been tasked to ensure program solvency and to adopt new above ground storage tank regulations.

Division of Air Quality (35 FTEs)

The Division of Air Quality implements the federal Clean Air Act (CAA), working in cooperation with the US Environmental Protection Agency (EPA). Through our cooperative efforts working with the regulated community in compliance assistance, permitting, inspection and enforcement, we continue to be one of a handful of states in compliance with federal ambient air quality standards. DEQ team member actions helped to maintain North Dakota air quality through efforts in the following programs.

Air Permitting and Compliance Program

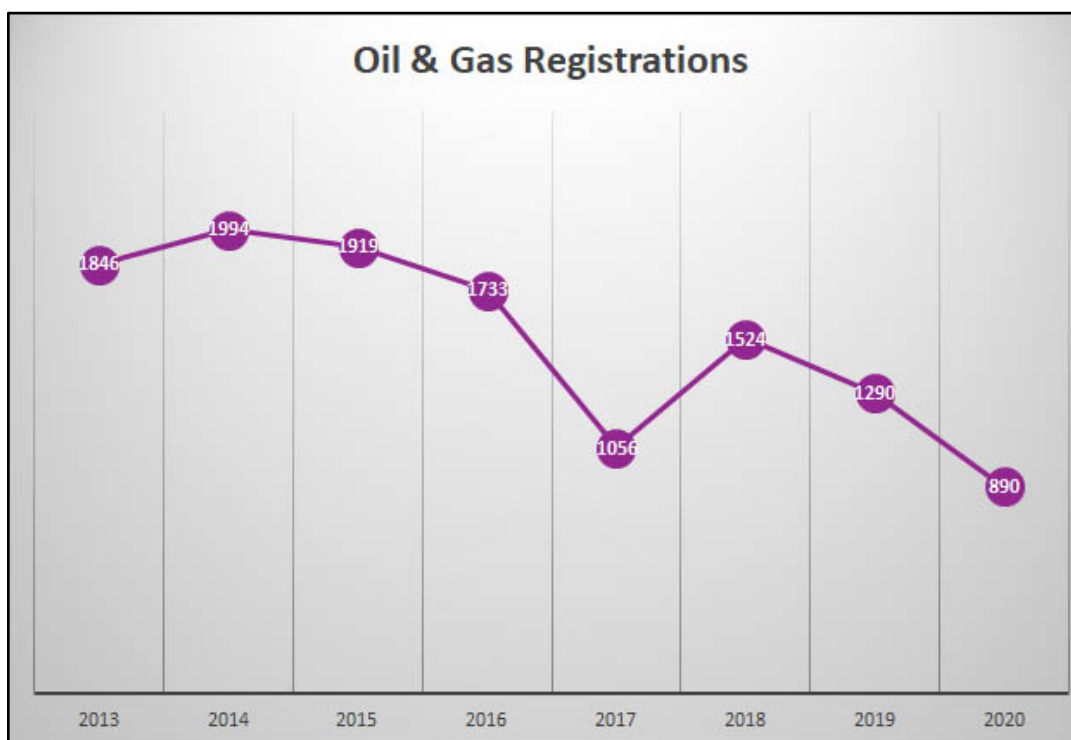
The Air Quality Permitting and Compliance Program develops and oversees air quality control permits. It conducts air quality impact analyses by applying approved computer models, develops state air quality implementation plans and inspects a wide range of air emission sources to ensure compliance. This program requires a high level of expertise to evaluate the application of environmental regulations, design and operation of control devices, and the implementation of best management practices throughout the state. New to our Air Program is the federal program referred to as OOOO/OOOOa. The 66th legislative assembly approved the new program during the last legislative session. It will require inspection, repair of noted deficiencies and submissions of reports from oilfield operations. The DEQ estimates that over 15,000 reports will be submitted annually to our agency for review. The last assembly granted the 10 FTE's with appropriate data handling computer software and field monitoring devices to operate the program. The DEQ was also involved with the development and approval of an air quality permit for the proposed Meridian Refinery to be located near the Theodore Roosevelt National Park. This air quality permit is considered one of the most stringent applied to a refinery in the United States.

Data Collection and Analysis Program

The Data Collection and Analysis Program maintains a 24-hour/7-days-per-week ambient air quality monitoring network in North Dakota. Information from these monitors indicates that North Dakota is one of a handful of states that complies with all national ambient air quality standards. Additional duties include compliance inspections of industry-maintained monitors and analysis of data generated by the air quality monitors. These monitors have proven useful in detecting smoke from out of state fires, which can impact visibility and public health.

Division of Air Quality - Oilfield Impacts

I have included along with my testimony an updated energy impact report. The report outlines the ongoing impacts oilfield development continues to have on every program within the NDDEQ. I will highlight some of the division-specific impacts we experience daily. For a complete accounting of the impacts, I direct you to the report.



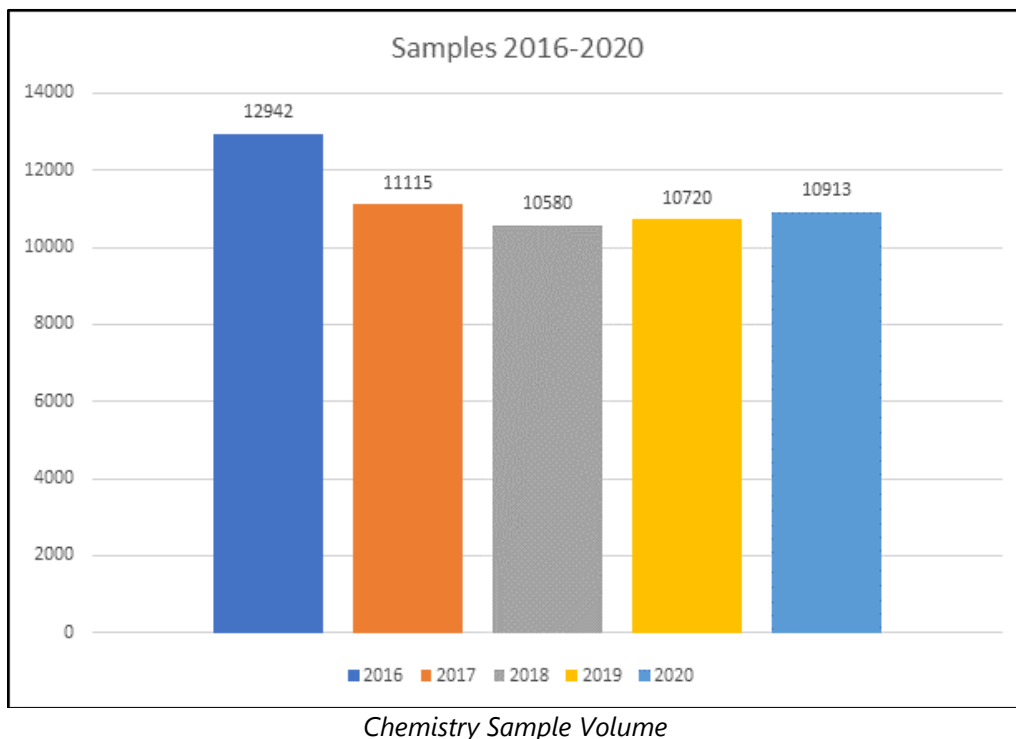
Air Quality Oil & Gas Registrations

Division of Chemistry (16 FTEs)

The Division of Chemistry provides organic and inorganic laboratory analysis services to all NDDEQ programs, some municipal facilities, and private individuals, pursuant to federal requirements or individual concerns. In addition, the division provides emergency analytical services in cases of accidental contaminant releases to the environment. Because quality and verifiable data is a requirement for the proper evaluation of environmental and public health, the division also conducts laboratory certification services for all outside environmental laboratories that submit compliance or assessment data to the NDDEQ.

One challenge for the laboratory is the ongoing effort to maintain method and quality assurance certification as detection limits continue to move downward. This requires learning the new methods and the utilization of complex analytical instruments. The laboratory has maintained EPA SDWA certification, brought online new technologies such as the LC/MS/MS where direct injection of samples can be accomplished, reducing preparation time. In addition, the laboratory is working towards a voluntary national laboratory certification.

The attached figure presents total sample volume over the years as processed by the Chemistry division. Each sample may represent the completion of several tests or analytes.



Division of Municipal Facilities (31 FTEs)

State Revolving Loan Fund Programs

The Division of Municipal Facilities is responsible for administering two low-interest state revolving loan funds to help maintain municipal water and wastewater treatment infrastructure. By maintaining treatment, collection, and distribution infrastructure, municipalities can better comply with the federal and state regulatory requirements protecting public and environmental health.

Working in cooperation with the Bank of North Dakota Public Finance Authority, the Clean Water State Revolving Fund (CWSRF) has loaned \$824 million for wastewater treatment and collection facilities since the program's inception in 1990. The Drinking Water State Revolving Fund (DWSRF) has loaned \$698 million for municipal drinking water treatment and distribution infrastructure since program inception in 1998. SRF program staff review and approve engineering plans and specifications, conduct on-site construction inspections, and evaluate funding needs through an intended use plan.

Drinking Water Program

The Drinking Water Program implements the federal Safe Drinking Water Act (SDWA) at the state level. The SDWA requires oversight of treatment facilities, operator training and certification, inspections, drinking water monitoring, and compliance assistance and enforcement. Recent national headlines highlighting lead in the drinking water of Flint, Michigan, and cyanobacteria toxins in the drinking water of Toledo, Ohio, emphasize the need and obligation to implement a robust, multi-program regulatory structure to protect public health and the environment. The Drinking Water Program has been actively involved in the lead in schools program and in monitoring PFOA/PFOS compounds in water supplies of the state.

Division of Waste Management (34 FTEs)

The Division of Waste Management implements regulatory and nonregulatory programs to ensure the proper handling, transportation, and disposal of nonhazardous and hazardous waste. It also regulates the operation, construction, and monitoring of underground fuel storage tanks.

Solid Waste Program

The Solid Waste Program permits the storage, transportation, handling and disposal of nonhazardous waste materials. Special waste, industrial, municipal and inert landfills are regulated through an extensive permitting process. Each landfill must comply with clearly defined design, operational, monitoring and closure requirements. The DEQ inspects these facilities routinely to assess compliance with applicable rules.

Hazardous Waste and Polychlorinated Biphenyl (PCB) Program

The Hazardous Waste Program regulates the handling, storage, transportation and disposal of hazardous waste generated within the state. Following the federal Resource Conservation and Recovery Act (RCRA), the program conducts routine inspections, provides oversight for remedial actions, permits facilities and initiates enforcement actions as needed. Regulated entities include industry, utilities, universities and federal facilities.

PCB oversight has focused on the proper handling and cleanup of spilled materials containing PCBs. PCBs were once widely used as dielectric and coolant fluids in electrical apparatuses and created environmental problems due to their persistence and impacts on organisms in the ecosystem. Older electrical transformers have historically been the source of PCB-containing oil.

Underground Storage Tank (UST) and Leaking Underground Storage Tank (LUST) Programs

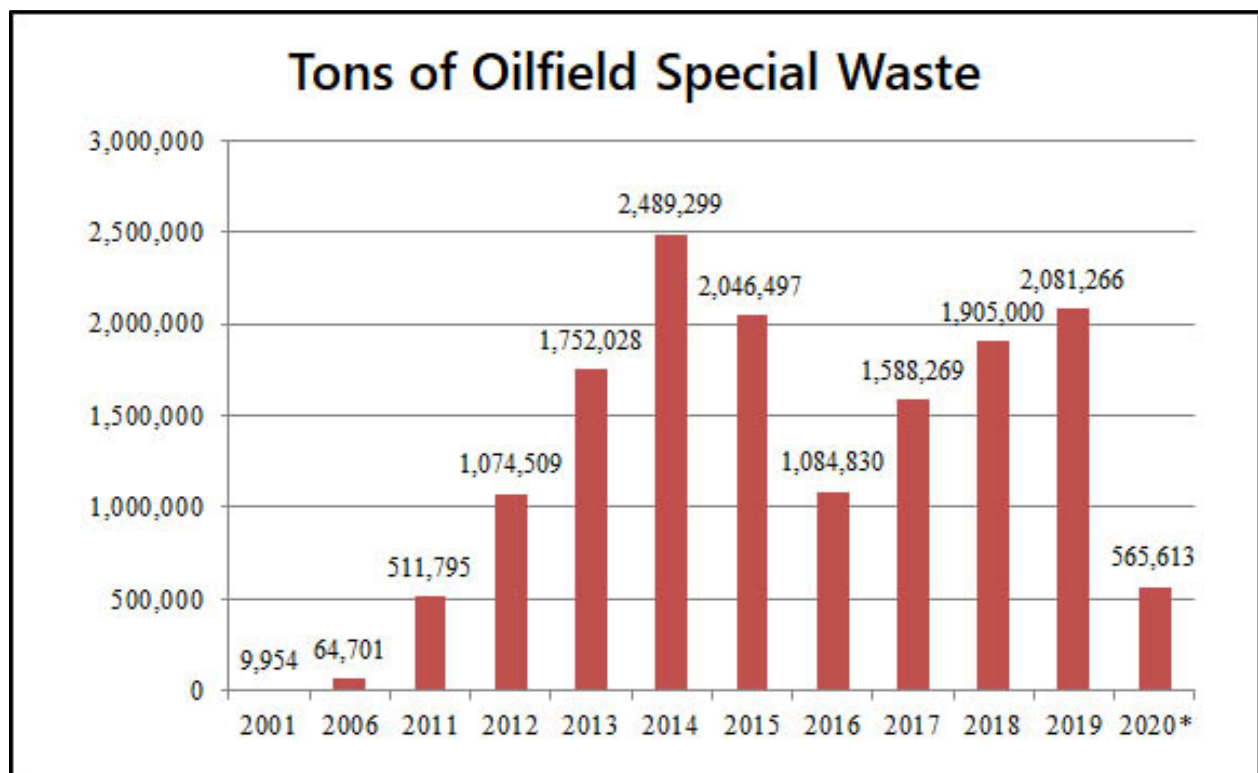
The UST Program regulates the underground storage of hydrocarbon products in tanks with volumes of more than 1000 gallons. The program specifies construction, reporting, monitoring, operator training and routine leak testing requirements. The NDDEQ also conducts on-site monitoring and witnesses tank removals. In cases of leaking underground storage tanks, the NDDEQ provides oversight of cleanup activities.

The LUST Program provides federal funding to hire remediation consultants to address environmental contamination at sites where the responsible party/owner is financially unable, recalcitrant or absent. This federal program requires a 10 percent match, which is provided by the North Dakota Petroleum Tank Fund.

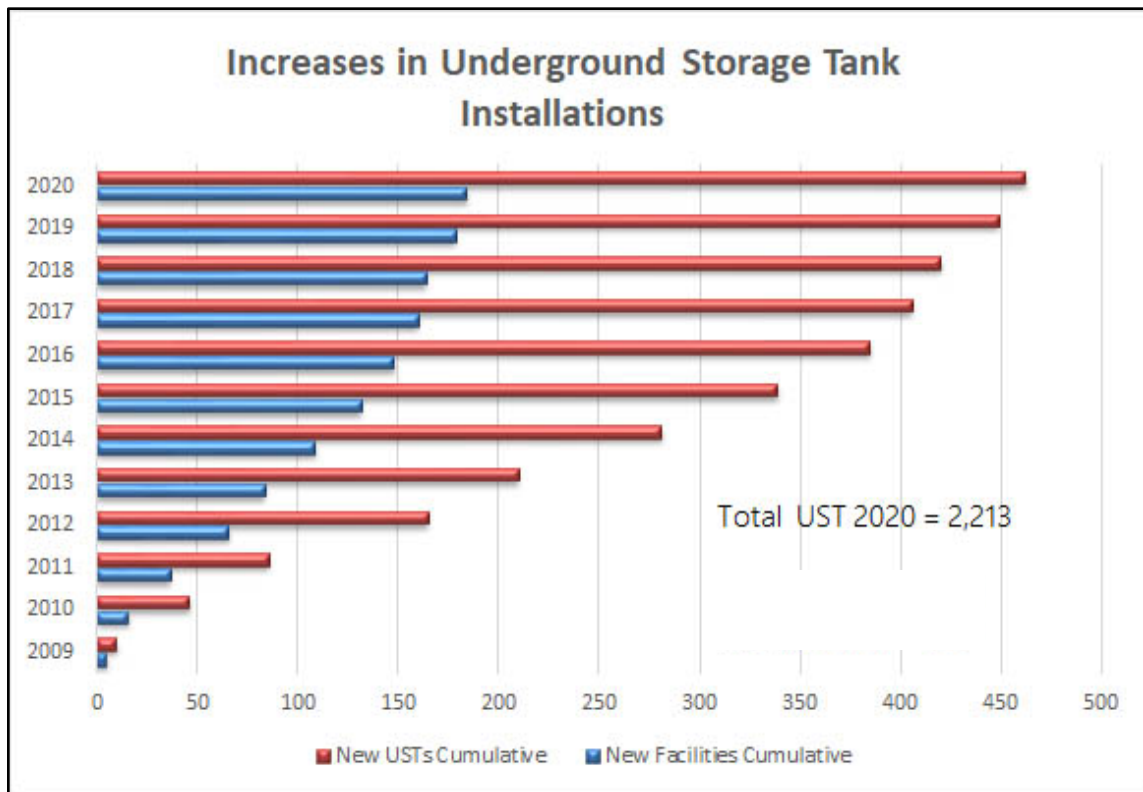
Radiation and Indoor Air Quality Program

Through an agreement with the Nuclear Regulatory Commission and implementing state-only rules such as Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM), the Radiation Control Program ensures the safe use, handling, storage, shipment and disposal of radioactive materials. Radioactive materials are evident in many areas of our lives, including x-ray machines, nuclear isotopes used in medical treatments and research, and meters of various types. This program requires staff to obtain extensive training to ensure protection of the general public and themselves, from undue exposure to radioactive sources.

In addition, the Indoor Air Program implements our radon gas, asbestos and lead programs designed to identify risks, prevent exposure and provide best management practices for these parameters in indoor air environments. This is accomplished through public education, training and licensing of qualified abatement contractors, and field inspections.



Tons of Oilfield Special Waste Generated



Accumulative Increases in New Underground Storage Tank Installations

Division of Water Quality (37 FTEs)

The Division of Water Quality implements programs to maintain and improve surface water and groundwater resources for beneficial use. Beneficial use is defined as water for consumption, recreational, industrial, aquatic habitat and agricultural uses.

Permit Programs

Through an EPA/State primacy agreement, the NDDEQ implements several permit programs designed to protect surface water quality, protect beneficial uses and ensure compliance with state water quality standards. The major programs are:

- **North Dakota Pollutant Discharge Elimination System (NDPDES)**
Establishes discharge and treatment standards for municipal and industrial waste discharges.
- **Stormwater Permit Program**
Requires the implementation of best management practices to reduce sediment/contaminant runoff from construction sites and paved surfaces.
- **Confined Animal Feedlot Operations**
Identifies the design, operation and nutrient management requirements for large, medium and small animal feeding operations. Large and medium facilities must receive permits to operate from the NDDEQ.

Watershed Management Program

The NDDEQ implements monitoring and assessment programs to determine the quality and beneficial use impairments of surface waters. Water quality and aquatic life samples are analyzed to ascertain the extent of manmade impacts on surface water. Impacts are addressed in TMDL (Total Maximum Daily Load) plans, which identify the impairment; pinpoint the problem; and initiate land use, industrial or agricultural changes that will improve water quality over time.

Our Nonpoint Source Pollution Program can provide cost-share dollars (60 percent federal/40 percent local) to modify operation or design practices to assist in selected activities which reduce water quality impacts. Water quality reports identify areas of concern and trends. One recent report is the Nutrient Reduction Plan identifying priority watersheds where efforts to reduce nutrient inputs may decrease algal blooms and their impacts on beneficial use of surface water. Nonpoint program projects have included NoTill demonstrations, CAFO design upgrades and water education programs.

Groundwater Protection Program

To protect subsurface water, the NDDEQ implements the Underground Injection Control (UIC) Program, Source Water Protection Program, and the Groundwater Assessment and Remediation programs.

UIC permits regulating the subsurface disposal of industrial waste, completing ambient groundwater quality assessments in the oilfield, agricultural sampling programs, and active contaminant remedial action oversight help the NDDEQ in its efforts to maintain or improve water quality.

Special Projects Coordinator

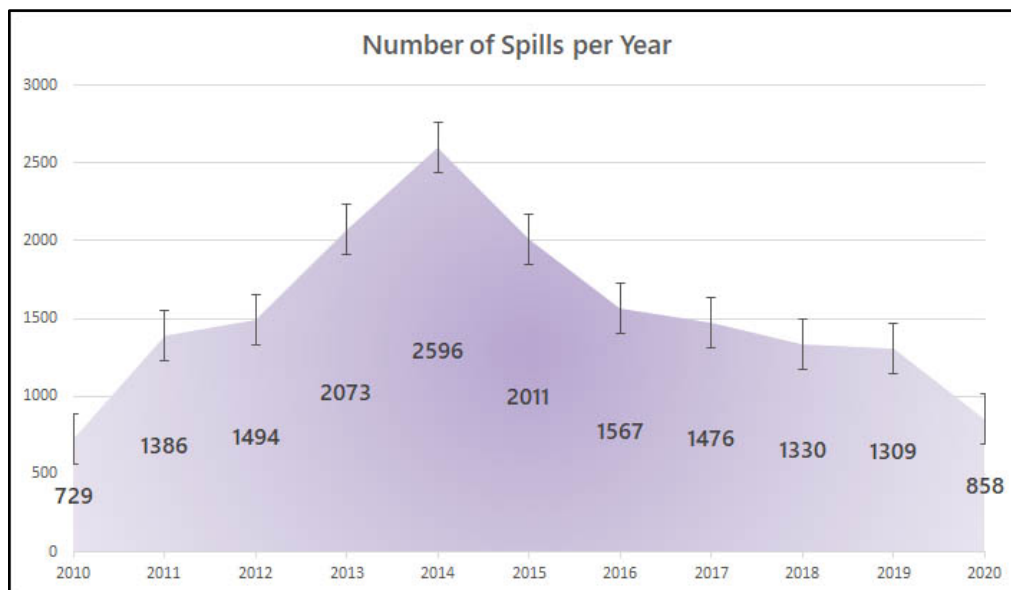
The NDDEQ Special Project Coordinator maintains water quality standards, reviews projects for water quality certifications, responds to dredge and fill requests, and works in a team environment to address special large projects such as the Red River Water Supply or Fargo Diversion.

Spills Investigation Program

The NDDEQ coordinates a multi-division effort to respond to, assess and oversee cleanup of environmental accidents and spills. The 24/7 spill team responds to releases into the environment that can impact soils, surface and groundwater quality. Although spills can occur from municipal, industrial or agricultural activities across the state, most recent spill response efforts have taken place in oil development counties.

Division of Water Quality - Oilfield Impacts

As stated earlier, a vast majority of spill response activity has occurred in oil development-impacted areas. Although the number of spills has declined in recent years, which can be attributed to better facility design, containment structures and changes in reporting requirements, spill reports remain at more than twice the pre-Bakken development years.

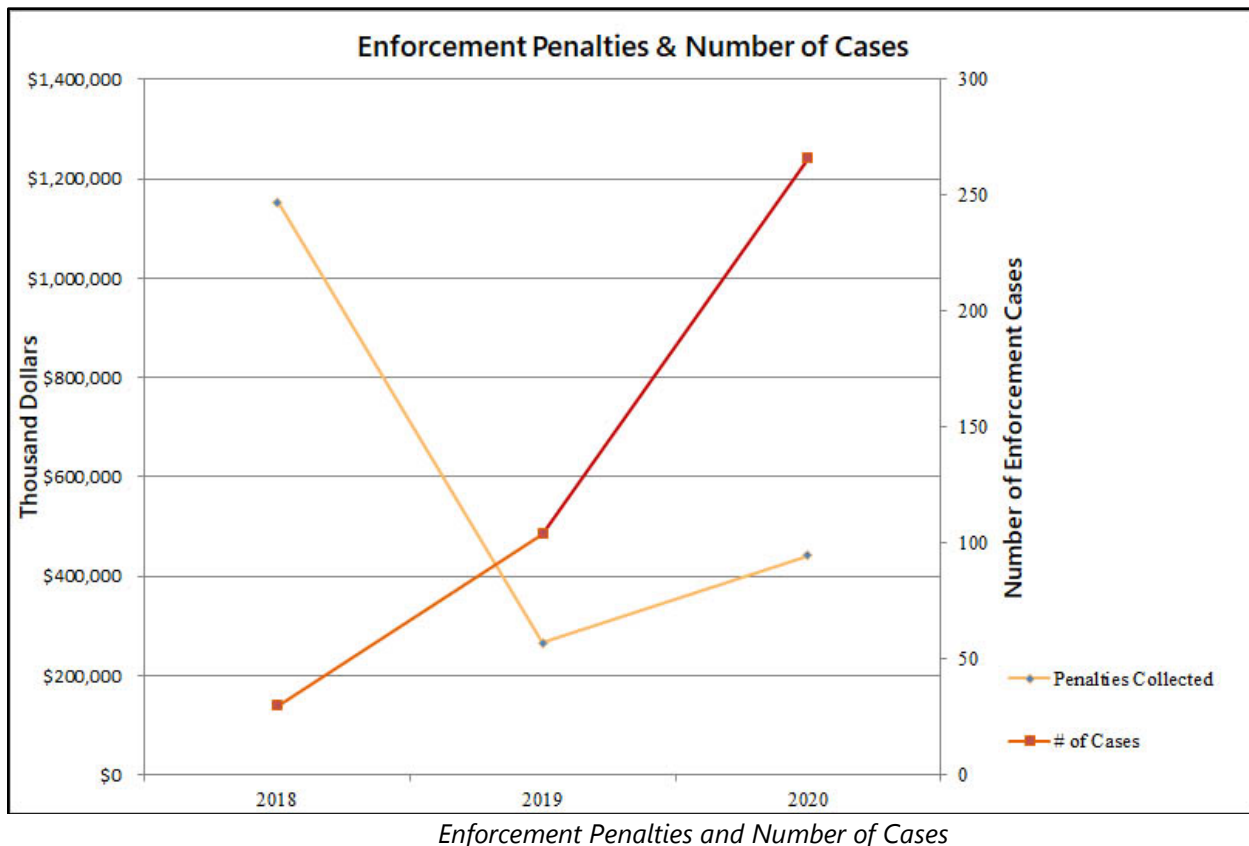


Number of Spills by Year

(In 2017, the reporting threshold was raised from 1 to 10 barrels for oil and brine releases that remain on oil production sites built after 2000.)

Legal Compliance/Enforcement

The NDDEQ strives to reach high compliance rates in all programs and activities. This is pursued through public outreach, educational training opportunities and compliance assistance at all agency levels. However, there are instances when the agency is forced to utilize enforcement actions, including pursuing court action, penalty collection or development of consent agreements.



It is important to note that the legal counsel assigned to the NDDEQ has also been active in defending challenges to NDDEQ permit decisions in state court, cooperating with federal agencies in pursuing alleged environmental violations in North Dakota, state rule development, and working with outside legal counsel as we challenge federal regulations which have the potential to impact state decision making authority.

This concludes the first part of our testimony. I will follow up later with additional information regarding DEQ challenges and initiatives. I will now introduce Beth Jacobson, Grant and Contract Administrator/Financial Officer, to continue the NDDEQ testimony on appropriations.



State "Superfund"

- Many sites are not eligible for federal cleanup funding, or funding is not sufficient.
- Cost recovery is very difficult when there is no responsible party.
- All other Region 8 states and MN have alternative cleanup funds.



A Carbon-Constrained Future?



- Regenerative agriculture
- Science-based carbon accounting
- Industry collaboration



Challenge: New Federal Administration agenda relating to environmental issues.

Challenge: Legal fee increase typically observed when a new administration begins to implement a new agenda which do not follow sound science or the law.

Initiative: Establishment of an Accounting Division within the NDDEQ.

This concludes our testimony and we stand for questions from the committee.