

19-03 - North Dakota Trust Lands Survey and Boundary Identification Project

Application Details

Funding Opportunity: 14877-Outdoor Heritage Fund May 2021 - Round 19
Funding Opportunity Due Date: Sep 2, 2021 11:59 PM
Program Area: Outdoor Heritage Fund
Status: Under Review
Stage: Final Application

Initial Submit Date: Aug 10, 2021 4:48 PM
Initially Submitted By: Derek Lowstuter
Last Submit Date: Sep 3, 2021 11:18 AM
Last Submitted By: Derek Lowstuter

Contact Information

Primary Contact Information

Active User*: Yes
Type: External User
Name: Salutation Derek William Lowstuter
First Name Middle Name Last Name
Title:
Email*: dlowstuter@nd.gov
Address*: 12387 71st Ave NE

Bismarck North Dakota 58503
City State/Province Postal Code/Zip

Phone*: 701-955-8526 Ext.
Phone
###-###-####
###-###-####

Fax: ###-###-####

Comments:

Organization Information

Status*: Approved
Name*: ND Department of Trust Lands
Organization Type*: State Government
Tax Id:
Organization Website: <https://www.land.nd.gov/>

Address*:

1707 N 9th ST

Phone*:

Bismarck North Dakota 58501-5523
City State/Province Postal Code/Zip
701-328-1926 Ext.

#####

Fax:

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Benefactor:

Vendor ID:

PeopleSoft Supplier ID:

Comments:

Budget

Objective of Grant

Objective of Grant:

To improve management and recreational accessibility of North Dakota Trust Lands through increased geospatial accuracy and physical boundary identification.

Summary

Grant Request:	\$90,000.00
Matching Funds:	\$90,000.00
Total Project Costs:	\$180,000.00
You must have at least 25%match	
Percentage of Match:	50.0%

Project Expenses

Project Expense Description	OHF Request	Match Share (Cash)	Match Share (In-Kind)	Match Share (Indirect)	Other Project Sponsor's Share	Total Each Project Expense
Tract surveying and boundary marking	\$90,000.00	\$90,000.00	\$0.00	\$0.00	\$0.00	\$180,000.00
	\$90,000.00	\$90,000.00	\$0.00	\$0.00	\$0.00	\$180,000.00

Budget Narrative

Budget Narrative:

True to our roots, North Dakotans don't shy away from a good challenge. President Theodore Roosevelt admitted that he would not have been president were it not for his transformative experiences in North Dakota. Equal parts statesman and outdoorsman, Roosevelt recognized that "The conservation of natural resources is the fundamental problem. Unless we solve that problem, it will avail us little to solve all others."¹ However, he knew that "[c]onservation means development as much as it does protection. I recognize the right and duty of this generation to develop and use the natural resources of our land"²

1. Theodore Roosevelt, address to the Deep Waterway Convention, Memphis, Tenn. (Oct. 4, 1907)(<https://www.trcp.org/2011/10/14/the-fundamental-problem/>)

2. Theodore Roosevelt, "The New Nationalism," speech at Osawatomie, Kan. (Aug. 31, 1910)(<https://www.trcp.org/2011/07/14/conservation-protection/>)

The surveys budgeted in this Project will assist NDDTL in both conserving and using Trust Lands to the benefit of North Dakota residents and visitors. N.D.C.C. ♦ 15-08-04 allows surveys to be made when necessary and allows for a continuing appropriation for expenses. General funds will NOT be used for the match contributed by NDDTL.

Please see the attached proposal from AE2S for details on how the surveys are to be conducted and recorded. The proposal outlines the extensive physical and digital deliverables to be provided. The initial RFP included five surveys that were selected by NDDTL staff to represent many of the conditions and locations for the surveys to be conducted. Ten surveyors responded to the RFP. A committee of NDDTL staff reviewed the proposals and selected Advanced Engineering and Environmental Services, Inc. (AE2S).

NOTE ON IMPROVEMENTS ON TRUST LANDS:

NDDTL does not own fencing on leased tracts. Lessees fully own and maintain fences on the land they lease. Cross fencing for intensive livestock management is encouraged. Rotational grazing systems with short periods of exposure and long periods of rest have the potential to improve soil, water, and habitat outcomes. Lessees can request that NDDTL staff mark the location of tract boundaries to assist with fence layout. However, due to limitations in the current State GIS data, unless there is a physical survey marker present from a previous survey the boundaries and corners can only be marked within 80 feet of the true locations. This is not much on a landscape scale, but an 80-foot strip of land over the mile-long side of a section is almost 10 acres; more than enough for adjacent lessees or landowners to disagree on. These requests to mark boundaries consume considerable NDDTL staff time and result in approximate locations.

Permanent improvements on Trust Lands, such as pipelines and watering facilities, remain property of the State. However, financial assistance is available to offset investment in these livestock infrastructure projects.

Both permanent and nonpermanent improvements are significant investments from private, state, and federal funding sources. It is crucial that these improvements are properly located and their location accurately documented. Previous OHF-supported projects have demonstrated the value of grazing systems in managing rangeland for improved economic and ecological outcomes. For example, the NDDTL has partnered with Ducks Unlimited and the North Dakota Natural Resources Trust on the Grassland Enhancement Pilot Project. The updated digital tract information and clear physical markings this Project provides will make it easier for NDDTL staff, lessees, and other conservation partners to site these improvements.

Bid Attachments

Description	File Name	Type	Size	Upload Date
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No files attached.

Match Funding

Match Amount	Funding Source	Match Type
\$90,000.00	ND Department of Trust Lands	Cash
\$90,000.00		

Description

Directives

Major Directive*:

Directive A
Choose One

Additional Directive:

Directive B, Directive C
Choose All That Apply

Type of Agency*:

State Agency
Choose One

Abstract/Executive Summary

Abstract/Executive Summary*:

The North Dakota Department of Trust Lands (NDDTL) is committed to our mission to prudently and professionally manage assets of the permanent trusts to preserve the purchasing power of the funds, maintain stable distributions to fund beneficiaries, and manage all other assets and programs. The NDDTL is proactively improving processes while fostering meaningful connections with citizens and industry partners to enhance the development and use of Trust Lands. Trust Lands are any property owned by the state of North Dakota and managed by the Board of University and School Lands (Board). This North Dakota Trust Lands Survey and Boundary Identification Project (Project) will directly improve NDDTL's ability to manage its surface assets and provide additional clarification of the location of Trust Lands by updating geospatial data and boundary markings. The NDDTL respectfully requests \$90,000 of funding from the Outdoor Heritage Fund (OHF) with the NDDTL providing matching funds of \$90,000 for a total project cost of \$180,000. 100% of these funds will go directly to surveying and physically marking Trust Lands.

Having an accurate geospatial representation of Trust Lands will improve the economic, ecological, and recreational management of these tracts. Advanced data and boundary markings will assist with these improvements by:

- A. Improving recreational use of Trust Lands through clarification of property boundaries and walking access points (or vehicular access where prior approval has been granted)
- B. Improving accuracy of digital geospatial data available to state agencies and sportsmen.
- C. Enhancing wildlife habitat through accurate grazing plans and invasive pest management.
- D. Supporting consistent siting of agricultural improvements, such as livestock water sources and fences.
- E. Supporting consistent siting of energy sector infrastructure and helping guide reclamation efforts.
- F. Identifying uncompensated encroachment from adjacent land use and development.
- G. Identifying changes in tract acreages due to accretion for tracts adjacent to rivers.

This project has the support of multiple in-state wildlife and geographic information systems (GIS) partners:

- North Dakota Game and Fish Department,
- North Dakota Wildlife Federation,
- North Dakota Natural Resources Trust
- North Dakota Department of Water Resources
- North Dakota Information Technology Department - GIS

Project Duration

Project Duration*:

The NDDTL anticipates expending 100% of the funding within three years. This timeframe is feasible for both the contracted surveyor and NDDTL staff.

Narrative

Narrative

Briefly summarize your organization's history, mission, current programs and activities. Include an overview of your organizational structure, including board, staff and volunteer involvement.

Organization Information*:

The Board is responsible for managing Trust Lands, in accordance with Title 15 of the North Dakota Century Code. The Commissioner of University and School Lands (Commissioner) is appointed to act on the Board's behalf. NDDTL serves as the administrative agency of the Board.

In 1889, the United States Congress passed the Enabling Act to provide for the division of Dakota [Territory] into two states, and to enable the people of North

Dakota, South Dakota, Montana, and Washington to form constitutions and state governments, and to be admitted into the union on an equal footing with the original states, and to make donations of public lands to such states." Act of February 22, 1889, Ch.180, 25 Statutes at Large 676. This Act granted sections 16 and 36 in every township to the new states "for the support of common schools." Id. ♦ 10. In cases where portions of sections 16 and 36 had been sold prior to statehood, indemnity or "in lieu" selections were allowed.

The mission of the Board is to prudently and professionally manage assets of the permanent trusts to preserve the purchasing power of the funds, maintain stable distributions to fund beneficiaries, and manage all other assets and programs entrusted to the Board in accordance with the North Dakota Constitution and applicable laws.

The NDDTL Surface Management Division manages over 700,000 acres of land held in trust for multiple beneficiaries, the largest being the Common School Trust Fund (K-12 Public Education). An investment in managing Trust Lands is an investment in education for North Dakota students. Income from these Trust Lands is generated from agricultural leasing, encumbrance consideration, and aggregate royalties. The objective of surface management is to obtain a fair market return from Trust Lands while maintaining or improving their condition and value.

Please see the attached 2017-2019 Biennial Report for more detailed information on NDDTL and the Board.

Describe the proposed project identifying how the project will meet the specific directive(s) of the Outdoor Heritage Fund Program.

Identify project goals, strategies and benefits and your timetable for implementation. Include information about the need for the project and whether there is urgency for funding. Indicate if this is a new project or if it is replacing funding that is no longer available to your organization. Identify any innovative features or processes of your project.

Note: if your proposal provides funding to an individual, the names of the recipients must be reported to the Industrial Commission/Outdoor Heritage Fund. These names will be disclosed upon request.

If your project involves an extenuating circumstance to [exempted activities](#) please explain.

Purpose of Grant*:

NDDTL is requesting financial support to leverage current efforts improving boundary identification and recreational access for Trust Lands while enhancing the geospatial information available to state agencies and the public.

Uncertainty over tract boundaries has resulted in lost opportunities to better manage Trust Lands for economic and environmental goals. This uncertainty has also led to instances of conflict and confusion regarding leasing and appropriate access in the state. Advances in technology and policy changes regarding land access have allowed NDDTL to begin addressing these issues. However, the benefits of this project warrant a state investment larger than what NDDTL can fund alone.

This Project will principally address OHF Directive A by improving/clarifying access for sportsmen. It will also address Directive B by facilitating stewardship practices enhancing farming and ranching, and Directive C by facilitating the conservation of wildlife habitat through active livestock management and improved geospatial information.

Land management in North Dakota is guided by the Public Land Survey System (PLSS) and is based on the National Map Accuracy Standards of 1947. This translates to features on a 1:24,000 scale providing section lines within 40 feet of where they are supposed to be with 90% confidence. The PLSS data on the State GIS Hub were digitized by hand from these paper maps, which were usually certified to a 1:48,000 scale. This means that the current publicly available data has an accuracy of +/- 80 feet, 90% of the time. This accuracy has historically been "good enough," but can easily cause confusion when digital and physical features are not aligned.

Trust Lands are spread throughout the state due to the locations of the land granted under the Enabling Act. A thorough, accurate survey and marking of Trust Lands will be of tremendous benefit to the management of Trust Lands, other public lands, and private lands in North Dakota. A network of surveyed markers on tracts spread throughout the state would serve as reference points in the field and while working in front of a computer.

Powerful geospatial applications for land access and management require accurate data to be effective. Improving data quality on tract boundaries will allow current and future land management technologies to be used more accurately and affordably.

Trust Lands are open to non-vehicular access by the public for recreational purposes (unless lessee posting is authorized by NDDTL). Less than 1% of Trust Lands are closed and/or have restricted access. Hunting and fishing are allowed with the appropriate Game and Fish Department licenses. Other outdoor activities, such as hiking, wildlife viewing, foraging, and flower-picking for personal enjoyment are also welcome. This project will help sportsmen and other outdoor recreationists locate and access Trust Lands suitable for these activities through visible boundary markers and improved GIS data.

Please list the counties that would be impacted by this project:

Counties*: Statewide

Is This Project Part of a Comprehensive Conservation Plan?* No

If Yes, Please Provide Copy of Plan:

Does Your Project Involve an Extenuating Circumstance?: No

Please Explain:

Provide a description of how you will manage and oversee the project to ensure it is carried out on schedule and in a manner that best ensures its objectives will be met. Include a brief background and work experience for those managing the project.

Management of Project*:

The NDDTL will dedicate staff time to coordinate with AE2S to ensure adequate completion of survey deliverables. The project will be managed by Mike Humann (Surface Division Manager), Joseph Stegmiller (Field Inspector Supervisor and GIS specialist), and Derek Lowstuter (Land Management Specialist). Mr. Humann has been with NDDTL for 34 years - working directly with lessees, sportsmen, and public and private partners. Mr. Stegmiller has been with the NDDTL for 5 years and directs nearly all GIS-related projects in the NDDTL. Derek Lowstuter managed the OHF-funded Windbreak Renovation Initiative grant program through the NDSU-North Dakota Forest Service before joining the NDDTL Surface Division in the spring of 2020. Multiple NDDTL Surface Division and administrative staff will review deliverables and provide guidance to AE2S and ensure information is available to the State GIS hub. However, this staff time is not being written into the project as match because it will coincide with other day-to-day NDDTL activities and workflows.

Indicate how the project will be funded or sustained in future years. Include information on the sustainability of this project after OHF funds have been expended and whether the sustainability will be in the form of ongoing management or additional funding from a different source.

Sustainability*:

N.D.C.C. 15-08-04 allows surveys to be made when necessary and allows for a continuing appropriation for expenses. The NDDTL has begun systematically surveying Trust Lands tracts based on requests from lessees and for those tracts where notable discrepancies exist between current geospatial information and physical features. Unfortunately, the NDDTL is only able to survey a handful of tracts each year with current funding levels. Increasing survey allocations would divert funds otherwise going to Trust beneficiaries and NDDTL operations. Survey work will continue even if funding is not awarded for this proposal, albeit at a much smaller scale. Financial support from the OHF would drastically increase the scale and speed of the improved management and access of Trust Lands.

Indicate how the project will be affected if less funding is available than that requested.

Partial Funding*:

The funds identified for the Project will allow NDDTL to survey approximately 20 sections of land (80 tracts or 12,800 acres) - based on estimated costs for individual surveys. The final number of surveyed tracts will likely be higher due to efficiencies in surveying more tracts concurrently. If the grant proposal is partially funded, the NDDTL would reduce the number of surveys completed. However, reducing the number or scope of surveys would increase the relative cost of each Trust Land tract surveyed due to surveyor travel time and time spent locating suitable nearby established survey points.

If you are a successful recipient of Outdoor Heritage Fund dollars, how would you recognize the Outdoor Heritage Fund partnership? * There must be signage at the location of the project acknowledging OHF funding when appropriate. If there are provisions in that contract that your organization is unable to meet, please indicate below what those provisions would be.

Partnership Recognition*:

If funds are awarded to NDDTL, information on the Project and OHF's generous support will be featured on the NDDTL website. OHF will also be recognized through mailings, phone calls, emails, and face-to-face interactions when working with lessees. Additional recognition can be provided in the NDDTL Biennial Report which is posted on the NDDTL website.

Do you have any supporting documents, such as maps or letters of support that you would like to provide? If so, please provide them in a single file.

Supporting Documents*: Yes

If Yes, Please Provide Copies in a Single File: OHF Supporting Documentation.pdf

Awarding of Grants - Review the appropriate sample contract for your organization. [Sample Contract](#)

Can You Meet All the Provisions of the Sample Contract?: Yes

If there are provisions in that contract that your organization is unable to meet, please indicate below what those provisions would be:

Provisions Unable to Meet:

Tasks

Task	Start Date	Completion Date
Survey 80 tracts of Trust Land	10/01/2021	10/01/2024

Description of Tasks

Please Describe Tasks:

NDDTL contracted with a local engineering firm to survey and mark Trust Lands throughout the state as NDDTL lacks the staff capacity and equipment to adequately pursue this project internally. Contracting with a private company is the most cost-effective way to achieve the project goals. AE2S has been contracted to perform "on demand" surveying for NDDTL for the next five years.

A number of tracts have been selected for surveying. Additional tracts are identified during field seasons.

Deliverables

Deliverables

Deliverable	Quantity	Unit of Measurement, if applicable
Trust Land area surveyed	12800.000	acres
Trust Land tracts surveyed	80.000	tracts

Certification

Certification

Certification: Yes

Name: Derek Lowstuter
First Name Last Name

Title: Land Management Specialist
Title

Date: 08/10/2021

Internal Application Number

#/ID:

Attachments:

- Letters of support
 1. Terry Steinwand, Director - North Dakota Game & Fish Department
 2. John Bradley, Executive Director - North Dakota Wildlife Federation
 3. Rod Bassler, GIS Coordinator - Department of Water Resources
 4. Bob Nutsch, State GIS Coordinator - North Dakota Information Technology Department
 5. Keith Trego, Executive Director - North Dakota Natural Resources Trust
- 2017-19 Biennial Report
- On Demand Survey RFP response from winning bidder



July 20, 2021

Jodi A. Smith, Commissioner
North Dakota Department of Trust Lands
1707 N. 9th ST
Bismarck ND 58501

RE: North Dakota Trust Lands Survey and Boundary Identification Project

Dear Ms. Smith:

The North Dakota Game and Fish Department's (Department) mission is to protect, conserve and enhance fish and wildlife populations and their habitats for sustained public consumptive and non-consumptive use. Increasing access and opportunity for hunting, fishing, and recreational shooting in North Dakota is a primary objective of the Department's R3 Strategy - Recruitment, Retention and Reactivation of the next generation of hunters, anglers, and conservationists.

The Department in writing in support of the North Dakota Department of Trust Lands (NDDTL) Survey and Boundary Identification Project. Removing uncertainty over boundaries on Trust lands will alleviate conflicts between lessees and the NDDTL, allow for improved livestock management and conservation program opportunities and will help hunters and other outdoor recreationalists locate and access Trust lands through updated GIS spatial information and boundary markers.

The efforts of the NDDTL Survey and Boundary Identification Project compliment the Department's mission and R3 Strategy. We recommend this proposal for the upcoming Outdoor Heritage Fund grant round.

Sincerely,

A handwritten signature in blue ink that reads "Terry Steinwand". The signature is fluid and cursive, with the first name "Terry" and last name "Steinwand" clearly visible.

Terry Steinwand
Director

Governor
Doug Burgum

Director
Terry Steinwand

Deputy Director
Scott A. Peterson



NORTH DAKOTA WILDLIFE FEDERATION

Karlene Fine, Executive Director
North Dakota Industrial Commission
ATTN: Outdoor Heritage Fund
600 East Boulevard Ave., Dept. 405
Bismarck, ND 58505

Dear Karlene Fine,

The North Dakota Wildlife Federation rises in support of the Outdoor Heritage Fund Grant Application submitted by the North Dakota Department of Trust Lands. The North Dakota Wildlife Federation (NDWF) is a grassroots organization of sportsmen and women who protect and enhance North Dakota's wildlife, habitat, and access. For over 80 years, NDWF has promoted hunting, fishing, trapping, bird watching and other wildlife-related activities through education, programs, and on the ground projects.

Our members have long advocated for better signage identifying School Trust Land boundaries. With advances in technology and policy changes from the Legislature regarding private land access, the time is ripe to improve management, boundary identification, and access on School Trust Lands and enhance the geospatial information available to state agencies and the public.

The project will principally address Outdoor Heritage Fund Directive B by supporting stewardship practices enhancing farming and ranching. More importantly to our members, it will also address Directives A and C by clarifying access for sportsmen and facilitating the conservation of wildlife habitat through active livestock management and improved geospatial information.

Having an accurate geospatial representation of School Trust Lands managed by the NDDTL will improve the management of these tracts. Upgraded data and boundary markings will support consistent siting of agricultural improvements, help guide reclamation efforts from the energy sector, and enhance wildlife habitat through accurate grazing plans and noxious weed control. Lastly, the updated data and boundary markings will improve recreational use of School Trust Lands by clarifying property boundaries and suitable walk-in access points.

Uncertainty over tract boundaries has resulted in lost opportunities to better manage School Trust Lands for economic, environmental, and recreational goals. This uncertainty has also led to instances of conflict and confusion regarding leasing and appropriate access in the state. This project provides the framework, accurate geospatial information, to better manage our North Dakota's School Trust Lands. We urge the Outdoor Heritage Fund Advisory Board to support this project.

Sincerely,

John Bradley
Executive Director

NORTH
Dakota | Water Commission
Be Legendary.™

Karlene Fine
Executive Director
North Dakota Industrial Commission
Attn: Outdoor Heritage Fund
600 East Boulevard Ave., Dept. 405
Bismarck, ND 58505

April 20, 2021

Dear Ms. Fine,

As the steward for North Dakota's official government survey data held here at the North Dakota State Water Commission, under the direction of the State Engineer's Office, I would like to express my support for the North Dakota Trust Lands Department survey and boundary identification project.

Their efforts with this project will impact much more than their own needs as these data will support every survey effort conducted in the state, whether it be for parcel development, oil field development, industrial development or general public needs. Virtually all ground surveys start with a section corner location or established benchmark and these data will be sought for use in these roles for decades to come.

The data that our office holds are comprised of the original survey notes and plats of the survey work conducted for the Public Land Survey System collected in the late 1800's thru today (for North Dakota). This system is the basis for all land ownership since the early 1830's in the United States. For the vast majority of these locations, only rocks with chisel marks and buried charred stakes are available to delineate the townships, sections, quarter-sections and government lots on which we base most of today's historical and newest mapped data. Any improvement to the positional accuracies of these locations is vital.

Once obtained, our office will use these data in our day-to-day operations, along with providing them to not only North Dakota agencies and entities, but to all of the federal agencies and private entities from across the nation that work in this state through the Cadastral-National Spatial Data Inventory (CAD-NSDI) dataset that is continually being updated with new and more accurate data.

If you have any further questions as to our needs for these data or our support, please feel free to contact me.

Sincerely,



Rod Bassler
GIS Coordinator / Cartographer
ND State Water Commission
(701) 328-4998
rbassler@nd.gov

April 21, 2021

Karlene Fine, Executive Director
North Dakota Industrial Commission
ATTN: Outdoor Heritage Fund
600 East Boulevard Ave., Dept. 405
Bismarck, ND 58505

Dear Karlene:

I am sending this letter in support of the North Dakota Department of Trust Land's objective of improving the management and accessibility of the North Dakota Trust Lands through increased geospatial accuracy and physical boundary identification.

Improving the accuracy of the lands managed by the Department of Trust Lands will not only improve the data for the business needs of that department, but also will support other efforts such as the on-going Statewide Parcel Project. In addition, other state agency business processes will benefit from these efforts to improve the accuracy of the trust lands, for example, the Game and Fish PLOTS maps.

Sincerely,



Bob Nutsch
Geospatial Program Manager
Information Technology
State of North Dakota



Keith Trego
Executive Director
1605 E Capitol Avenue, Ste. 101
Bismarck, ND 58501-2102
(701) 223-8501
Fax: (701) 223-6937

April 19, 2021

Karlene Fine, Executive Director
North Dakota Industrial Commission
ATTN: Outdoor Heritage Fund Program
State Capitol – Fourteenth Floor
600 East Boulevard Ave., Dept. 405
Bismarck, ND 58505

Dear Ms. Fine:

The North Dakota Natural Resources Trust's (NDNRT) mission is to preserve, enhance, restore, and manage wetlands and associated wildlife habitat, grasslands, and riparian areas in the state of North Dakota.

From its inception, the NDNRT has played a role as facilitator between agricultural and conservation interests. The OHF proposal submitted by the Department of Trust Lands is an excellent example of the type of partnership the NDNRT supports and promotes. More accurate boundary and infrastructure identification and marking will be beneficial to both lessees and the general public. It will contribute to better long term management through enhanced weed control and more effective grazing system development. These improvements will provide more profitable grazing for lessees and enhanced wildlife habitat for the public.

In addition, enhanced Trust Land boundary information will allow physical marking of Trust Lands. This effort will greatly benefit the state's outdoor recreation industry. Access to land for hunting, fishing, hiking, photography or a myriad of other outdoor uses is of great value and consistent with the OHF board's long term emphasis on access as a consideration for use of OH funds. We are pleased to support the ND Department of Trust Lands thoughtful and innovative OHF proposal and urge your support for funding.

Best regards,

Keith Trego, Executive Director

To preserve, enhance, restore, and manage wetlands and associated wildlife habitat,
grasslands, and riparian areas in the state of North Dakota.



DEPARTMENT OF
TRUST LANDS

BIENNIAL REPORT

2017-2019

DEPARTMENT OF TRUST LANDS

2017-2019 BIENNIAL REPORT

Dear Governor Burgum and Secretary Jaeger:

As the United States expanded west of the Mississippi River in the early 1800's, our federal government made the decision to provide grants of land to each new state to provide assets that could be used to generate a perpetual source of revenue to support public education.

Funding for education remains at the forefront of many conversations across North Dakota, whether it be for children in overcrowded schools or for additional funding for our major universities. Since statehood, Article IX of the North Dakota Constitution has entrusted the management of acquired and grant land to the Board of University and School Lands (Board) for the support of the trusts benefitting public education and other beneficiaries.

The Board continues to balance generating revenue for each of the trusts while increasing the compatibility of trust activities with the economic future of North Dakota. The Board's innovative approach is consistent with the fiduciary duty, and includes:

- A comprehensive asset management framework that balances short-term revenue generation with long-term value maintenance and enhancement
- Collaborative planning approaches to decision making that engage external stakeholders
- Conservation projects that enhance revenue potential, offer ecosystem services, and allow multiple uses

This approach assists the Board in producing larger, more reliable revenues for trust beneficiaries, accommodating public interests and concerns, and enhancing the overall decision-making environment within which trust management occurs.

The assets managed under the Board's guidance have grown markedly, supporting beneficiaries and designated purposes. During the 2017-2019 biennium, the Board distributed more funds to K-12 public schools than any other biennium in North Dakota's history.

Presented herein is the 2017-2019 Biennial Report of the Commissioner of University and School Lands on behalf of the Board of University and School Lands. This report represents an overview of the asset management responsibilities of the Board, Commissioner, and Department of Trust Lands under the authority of the Enabling Act, North Dakota Constitution, and North Dakota Century Code.

Respectfully submitted,

Jodi Smith, Commissioner

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DEPARTMENT OF TRUST LANDS' MISSION AND HISTORY

Mission

The mission of the Board of University and School Lands is to prudently and professionally, manage assets of the permanent trusts in order to preserve the purchasing power of the funds, maintain stable distributions to fund beneficiaries, and manage all other assets and programs entrusted to the Board in accordance with the North Dakota Constitution and applicable state law.

Vision

The Department of Trust Lands is known nationally for superior management of its land and mineral assets, unclaimed property, energy grant distributions, and investment portfolio.

History

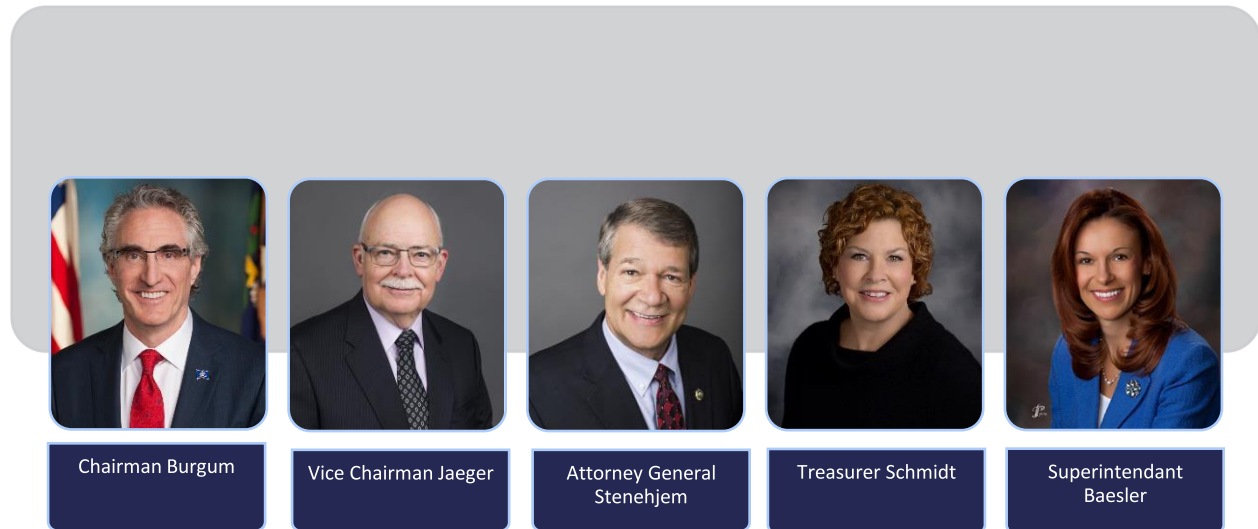
In 1889, Congress passed the [Enabling Act](#) "to provide for the division of Dakota [Territory] into two states, and to enable the people of North Dakota, South Dakota, Montana, and Washington to form constitutions and state governments, and to be admitted into the union on an equal footing with the original states, and to make donations of public lands to such states." *Act of February 22, 1889, Ch. 180, 25 Statutes at Large 676*. Section 10 of this Act granted sections 16 and 36 in every township to the new states "for the support of common schools." In cases where portions of sections 16 and 36 had been sold prior to statehood, indemnity or "in lieu" selections were allowed. In North Dakota, this grant of land totaled nearly 2.6 million acres.

The Enabling Act provided further land grants to the State of North Dakota for the support of colleges, universities, the state capitol, and other public institutions. Revenues are generated through the prudent management of trust assets, which assets include approximately 706,600 surface acres and nearly 2.6 million mineral acres. Article IX, Section 2 of the North Dakota Constitution that the "net proceeds of all fines for violation of state laws and all other sums which may be added by law, must be faithfully used and applied each year for the benefit of the common schools of the state and no part of the fund must ever be diverted, even temporarily, from this purpose or used for any purpose other than the maintenance of common schools as provided by law."

To Thomas Jefferson (Jefferson) education for all the children of the United States was the key to creating a strong democracy. Jefferson's idea was to look for a way to fund education by using the land to generate funding. With approval of the Enabling Act in 1889, Congress granted North Dakota the ability to become a state. The Board of University and School Lands (Board) is part of that Act, making it an agency that predates statehood.

The Enabling Act, the North Dakota Constitution, and statutes passed over the last 130 years, have defined the role of the Board and its beneficiaries.

The Board – consisting of the Governor, Secretary of State, Attorney General, Superintendent of Public Institution, and State Treasurer – invests the revenues generated from the trust lands into a diverse portfolio of financial assets. Educational and other institutions are the primary beneficiaries of the various permanent trust funds, pursuant to Article IX of the North Dakota Constitution.



The Commissioner of University and School Lands (Commissioner) is appointed to act on the Board's behalf. In 2011, the Board adopted the name "Department of Trust Lands" as the common reference for the office of the Commissioner. Prior to that time, it was informally called the "State Land Department."

The North Dakota Department of Trust Lands (Department) serves as the administrative agency of the Board and Commissioner. Along with being responsible for the management and stewardship of educational trusts, the Department oversees mineral acres and other assets utilized for the benefit of public schools and other institutions in North Dakota. The Department operates the state's Unclaimed Property Division and the Energy Infrastructure and Impact Office.

Over the years, several constitutional amendments and legislative changes have affected the economic landscape. Despite these changes, the Board and Department have maintained stable investment returns, expanding income sources, and sensible maintenance of real property, with trust beneficiaries and all North Dakota residents benefiting from the efforts of the Board and the Department.

As detailed in statute (N.D.C.C. chs. 15-01, 15-05, 15-08.1, 61-33), the Board has:

- Full control of the selection, appraisal, rental, sale, disposal, and management of:
 - Lands donated or granted for the support and maintenance of the common schools
 - Lands which fall to the state by escheat
 - Lands donated or granted for the maintenance of other state institutions
 - Lands acquired as a result of mortgage foreclosure when loans granted by the trust funds default
- Responsibility for the investment of the permanent funds derived from the sale of any trust lands

- Full control of property that falls to the state by escheat and of the proceeds of all gifts and donations to the state for the support or maintenance of the common schools
- Ability to provide refunds in the event of an error
- Authority to award and distribute energy infrastructure and impact grants
- Authority to lease lands for the production of oil, gas, coal, cement materials, sodium sulfate, sand and gravel, road material, building stone, chemical substances, metallic ores, or colloidal or other clays and may make and establish rules and regulations for development and drilling operations
- Authority to manage minerals acquired or conveyed to the State via the Bank of North Dakota (BND) or State Treasurer
- Responsibility to manage the state possessory interests in oil, gas, and related hydrocarbons in the sovereign lands lying within the ordinary high water mark of navigable lakes and streams

INVESTMENT MANAGEMENT

Revenue has stabilized and continues to provide increased distributions from the trusts. In the 2017-2019 biennium, distributions by the trusts totaled \$288,264,000, paying 11.5% of public education funding per student in North Dakota.

PERMANENT TRUST FUNDS

The Board manages the trust land and minerals in addition to their proceeds, for the exclusive benefit of supporting the common schools (primary education) and the institutions for which the lands were granted. Additionally, the Board manages other funds for the state and other beneficiaries. In accordance with Article IX of the North Dakota Constitution, the trust funds must be managed to preserve purchasing power and to maintain stable distributions to trust beneficiaries.

Revenues are generated through the prudent management of permanent trust assets, including land, minerals, and investments. The surface acres are leased to ranchers and farmers, who assist in their care; mineral acres are leased for oil, gas, coal, and aggregate development. All revenues generated are deposited into the trust funds and are invested in a diversified portfolio of financial assets.

REVENUE AND DISTRIBUTION HISTORY

Article IX, Section 2 of North Dakota Constitution provides:

Distributions from the common schools trust fund, together with the net proceeds of all fines for violation of state laws and all other sums which may be added by law, must be faithfully used and applied each year for the benefit of the common schools of the state and no part of the fund must ever be diverted, even temporarily, from this purpose or used for any purpose other than the maintenance of common schools as provided by law. Distributions from an educational or charitable institution's trust fund must be faithfully used and applied each year for the benefit of the institution and no part of the fund may ever be diverted, even temporarily, from this purpose or used for any purpose other than the maintenance of the institution, as provided by law.

For the biennium during which this amendment takes effect, distributions from the perpetual trust funds must be the greater of the amount distributed in the preceding biennium or ten percent of the five-year average value of trust assets, excluding the value of lands and minerals. Thereafter, biennial distributions from the perpetual trust funds must be ten percent of the five-year average value of trust assets, excluding the value of lands and minerals. The average value of trust assets is determined by using the assets' ending value for the fiscal year that ends one year before the beginning of the biennium and the assets' ending value for the four preceding fiscal years. Equal amounts must be distributed during each year of the biennium.

Educational and institutional trust distributions are based upon the growth in value of the trusts' financial assets over time, rather than on the amount of interest and income earned by each trust during the year. Biennial distributions from the permanent trust funds must be 10 percent of the five-year average value of trust assets, excluding the value of lands and minerals. Equal amounts are distributed during each year of the biennium. With the substantial growth in trust assets over the past 10 years, distributions to beneficiaries have significantly increased.

The key to a successful endowment type investment program is to maintain spending levels at sustainable rates. That was the objective of the constitutional spending formula implemented in 2009. It was advanced with the specific purpose of balancing the Board's dual mandates to preserve the purchasing power of the trusts and maintain stable distributions to beneficiaries.

In reviewing the historical annual distributions from the Common Schools Trust Fund (CSTF) and the amount of income and assets available to make those distributions, there are two distinct time periods that should be considered:

- Statehood through FY 2009: In most of the years leading up to 2009, "interest and income" including investment income and dividends, surface rentals, and mineral rentals were distributed to the common schools. Revenues from mineral royalties and bonuses, easements, unclaimed property, etc., were deposited into the corpus and could not be distributed.

The exception was through a constitutional measure during 1980 through 1984 when a portion of the mineral lease bonuses collected were distributed, resulting in higher payout rates.

- FY 2010 to present: Since Fiscal Year (FY) 2010, distributions have been based on the growth in value of the trust fund over time as determined under the formula found in Article IX, Section 2 of the North Dakota Constitution. Revenues from all sources are deposited into the fund and the total financial value determines distributions.

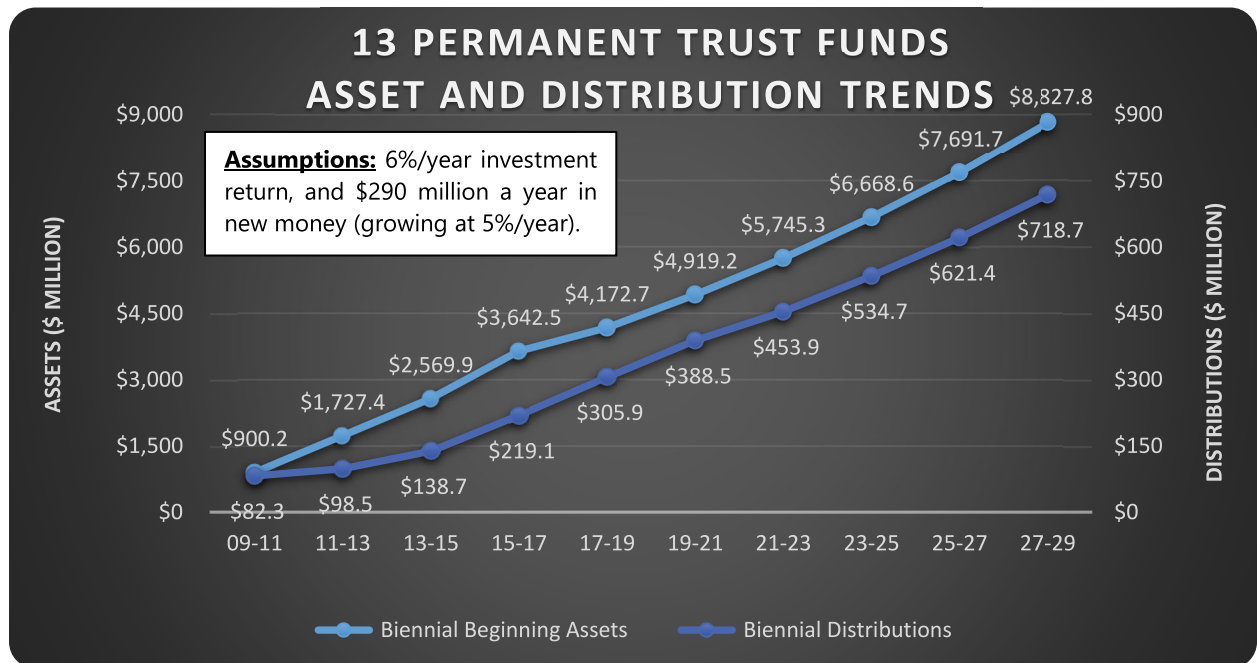
Over time, the formula will generate a yearly distribution rate of between 4.0-4.5%, although the exact rate for each year depends on the amount of new money flowing into the fund and investment returns. The more money flowing into the CSTF, the lower the distribution percentage will be since the statutory 5% distribution payout is based on a trailing five-year average balance of the fund (meaning the faster the fund grows the lower the percentage payout, especially since it is calculated biennially instead of annually).

The chart below shows CSTF distributions compared to the fund's beginning financial assets from FY 2009 through FY 2019. For many of the previous 40 years, distributions were made at

unsustainable rates. The combination of constitutional language, legislative appropriation of distributions, and an objective to increase distributions made it difficult to manage the spending rate. In 1995, the Board adopted an asset allocation leading toward a total return investing and the percentage of assets approach to distributions. At that time, the Board adopted a 20-year forward looking asset allocation plan to decrease the distribution rate below 5% and increase exposure to equities to more than 50% to balance the dual mandates to preserve the purchasing power of the trust and maintain stable distributions to beneficiaries.

Legislative action in 2001 resulted in an unanticipated bump to the permanent trust funds' distributions of 20%, undoing the Board's plan to reduce the distribution rate. The disruptive distribution led the Board to further investigate a total return and percent of assets approach to investing and distributions.

In 2003, the Board accepted investment consultant DiMeo-Schneider's asset allocation study, leading to its 2005 legislative resolution and 2006 ballot measure amending Article IX distributions. That law became effective July 1, 2009.



The Board manages other funds for the state and other beneficiaries. Two funds are private purpose trust funds; the Indian Cultural Education Trust and Theodore Roosevelt Presidential Library and Museum Endowment Fund. The remaining funds of the Department are governmental funds.

Indian Cultural Education Trust

The Indian Cultural Education Trust was created in 2003 to generate income to benefit Indian culture (N.D.C.C. ch. 15-68). Present assets are managed for the benefit of the Mandan, Hidatsa, and Arikara Nation Cultural Education Foundation. This trust's assets are managed, and distributions determined, in the same manner as the permanent trust funds.

Theodore Roosevelt Library and Museum Endowment Fund

The Theodore Roosevelt Presidential Library and Museum Endowment Fund (TR Fund) was created to generate income to be used for the operation and maintenance of the library and museum, after the Theodore Roosevelt Presidential Library Foundation has raised or secured binding pledges of \$100 million. The TR Fund is managed through an agreement between the Office of the North Dakota Governor and the Board. In May of 2019 the first deposit, totaling \$15 million, was made to the Board for the Theodore Roosevelt Presidential Library and Museum Endowment.

Capitol Building Fund

The Capitol Building Fund was established by N.D.C.C. § 48-10-02 pursuant to Article IX of the North Dakota Constitution. Section 12 of the Enabling Act authorized the land grant for “public buildings at the capital of said states.” N.D.C.C. § 48-10-02 defines the fund, outlines its purposes, and assigns management of the land and the fund’s investment to the Board. Unlike the permanent trust funds created under Article IX, this fund is fully expendable and is subject to legislative appropriation each biennium.

Strategic Investment and Improvements Fund

The Strategic Investment and Improvements Fund (SIIF) is financed by the revenues earned from sovereign mineral acres, including those formerly owned by the BND and State Treasurer and minerals located under navigable rivers and lakes (N.D.C.C. ch. 15-08.1, § 61-33-07). The SIIF also receives a portion of the oil and gas production and extraction taxes (N.D.C.C. § 57-51.1-07.5). This fund may be appropriated by the legislature for one-time expenditures relating to improving state infrastructure or for initiatives to improve the efficiency and effectiveness of state government (N.D.C.C. § 15-08.1-08).

Coal Development Trust Fund

The Coal Development Trust Fund was established by N.D.C.C. ch. 57-62, pursuant to Article X, § 21 of the North Dakota Constitution. The Fund receives 30 percent of the coal severance tax. This fund is held in trust and is administered by the Board for loans to coal impacted counties, cities, and school districts as provided by N.D.C.C. § 57-62-03, and for loans to school districts pursuant to N.D.C.C. ch. 15.1-36. Any balance not loaned is invested according to Board policies.

The income earned by this fund is transferred to the State General Fund each year.

SURFACE MANAGEMENT

The Surface Management Division manages more than 706,000 surface acres owned by the various trust funds under the Board's control. The major source of income from these lands comes from agricultural leases (grassland, crop and hay land uses), with significant revenue generated from rights-of-way, surface damage agreements, and construction aggregate mining. The objective of surface management is to obtain a "fair market" return from the trust lands while maintaining or improving the condition and value.

Professional staff work day-to-day on land management projects that result in the generation of surface revenue and land improvement on trust lands. These projects include:

- Linear easements
- Oil well pad, saltwater disposal sites, pipeline and road siting and reclamation
- Developing water wells, pipelines, dams, and dugouts for livestock water and wildlife enhancement
- Grazing management plans for improving range condition and productivity
- Cooperative trash site clean-up and abandoned water well sealing
- Gravel and scoria mine site reclamation
- Noxious weed chemical and biological control
- Coal mine reclamation
- Monitoring flood affected tracts
- Seismic permitting
- Lessee and right-of-way contacts and public inquiries

There were 278 rights-of-way issued during the 2017-2019 biennium. The majority of the right-of-way requests are directly related to oil and gas development activities. Right-of-way activity continues to be much greater than during the pre-oil development activity period. This sustained high activity is expected to persist until sufficient pipelines and electrical lines have been installed to support the necessary infrastructure for new wells. Right-of-way consideration payments have generated \$7.77 million dollars for the trusts over the biennium.

During the 2017-2019 biennium the Department acquired 1.61 acres through a Williams county township road right-of-way reversion.

The trust lands have been leased by generations of North Dakotans for agricultural purposes. The land is leased in a series of auctions held each fall and spring. All auctions are open to the public and the lease goes to the highest bidder with the minimum bid set by the Commissioner based upon the Board's Fair Market Value Minimum Rent Policy. The Department manages nearly 4,800 active surface land leases. Leasing interest continues to be high with over 99 percent of the tracts offered successfully leased. The Department generated \$17.4 million in rental income through the surface lease program, an increase of \$1.5 million over the prior biennium.

The surface acres managed by the Department are inspected at least once during the five-year lease period by trained field inspectors to help with early detection of noxious and invasive weed species and to monitor land integrity. Reclamation inspections assist in determining whether a right-of-way having surface disturbance is meeting agreement vegetation standards, noxious and invasive weed control, and erosion. The surface inspection program generates approximately 1,500 tract inspections on an annual basis. These inspections are generally fall integrity inspections, reclamation inspections, livestock grazing, noxious weed, unleased tract, and posting inspections.

The table below illustrates the surface acres by county managed by the Department.

SURFACE ACRES BY COUNTY							
As of June 30, 2019							
County	Acres		County	Acres		County	Acres
Adams	17,097.52		Golden Valley	28,983.55		Ramsey	2,056.50
Barnes	2,803.32		Grant	33,517.76		Ransom	1,120.00
Benson	11,999.60		Griggs	1,741.24		Renville	1,910.12
Billings	30,927.06		Hettinger	9,892.50		Richland	513.68
Bottineau	3,271.94		Kidder	28,643.79		Rolette	6,226.08
Bowman	29,310.48		LaMoure	1,435.72		Sargent	1,128.17
Burke	16,137.16		Logan	9,421.53		Sheridan	25,826.44
Burleigh	27,891.66		McHenry	22,720.56		Sioux	23,411.56
Cass	40		McIntosh	6,209.87		Slope	23,605.98
Cavalier	556.47		McKenzie	64,586.70		Stark	6,150.13
Dickey	3,981.51		McLean	20,890.99		Stutsman	15,627.81
Divide	20,791.24		Mercer	15,129.38		Towner	8,076.00
Dunn	25,673.31		Morton	18,101.82		Walsh	160
Eddy	10,292.81		Mountrail	32,445.59		Ward	10,798.98
Emmons	13,533.97		Nelson	2,694.45		Wells	5,251.89
Foster	3,111.51		Oliver	7,588.41		Williams	38,382.45
Grand Forks	1,274.77		Pierce	13,664.93		Total	706,608.91

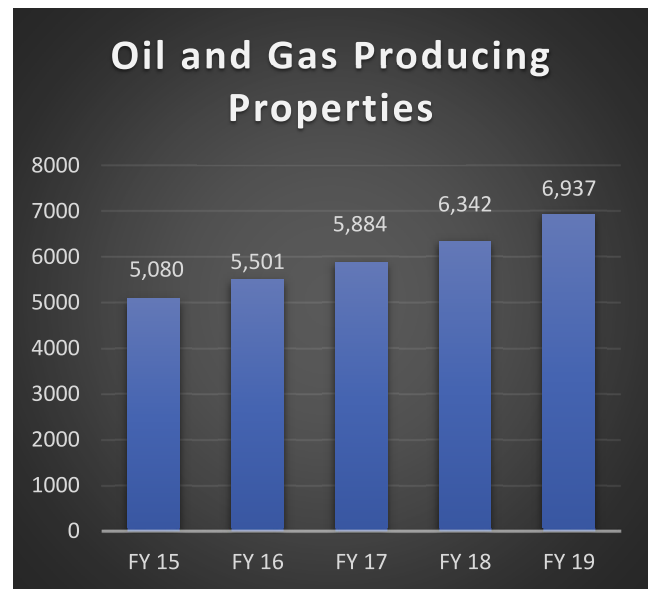
Surface Acres by Trust Fund	
As of June 30, 2019	
Trust Fund	Acres
Common Schools	631,805.68
School for the Blind	3,481.69
Capitol Building	9,994.45
School for the Deaf	4,830.44
Ellendale State College	4,912.82
State Hospital	2,206.11
ND Youth Correctional Center	3,584.42
School of Mines ¹	3,330.38
North Dakota State University (NDSU)	15,120.23
Veterans Home	2,753.69
University of North Dakota (UND)	8,897.98
Valley City State University	640
ND State College of Science	3,712.94
Mayville State University	640
Valley City/Mayville ²	6,824.08
Farm Loan Pool ³	3,714.00
Indian Cultural Education	160
Total	706,608.91
1	The benefits of the original grant to the School of Mines are distributed to the University of North Dakota.
2	Receipts from acreage held jointly by Valley City and Mayville State Universities are allocated 62.5% to Valley City and 37.5% to Mayville.
3	Receipts from this acreage are allocated to the permanent trusts that have an interest in the Board's Farm Loan Pool.

MINERALS MANAGEMENT

The Minerals Division oversees nearly 2.6 million mineral acres throughout the state. The Minerals Division's activities include analysis, title work, and administration of oil and gas leasing, as well as management of coal, potash, and other mineral leasing operations. The Minerals Division optimizes revenue contributions to the trusts and funds by ensuring effective and responsible collection of revenue from mineral assets. The main source of income is from lease bonus payments and royalties.

As of June 30, 2019, the Department managed an interest in over 44 percent of the 15,428 producing wells in North Dakota. Production from 6,937 producing properties, including both unitized fields and wells, was monitored during FY 2019, which was up from 6,342 producing properties in FY 2018.

During the 2017-2019 biennium, the Minerals Division offered 764 leases, generating \$6.3 million in bonuses. As of the end of the biennium, 718,991 acres are under 8,713 leases.

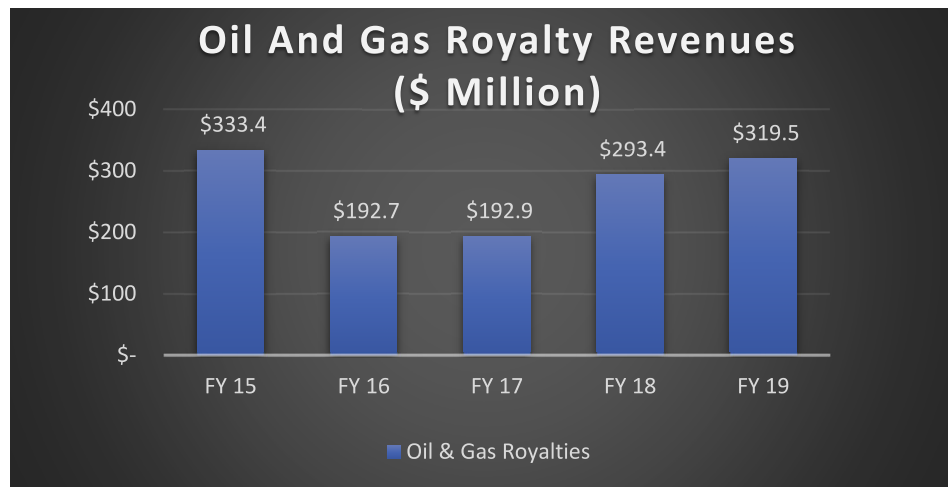


Leased Acres and Bonuses Received in 2017-2019			
	Acres	Bonus	Avg Bonus per Acre
Billings	6,832.51	\$ 781,662.80	\$ 114.40
Bottineau	240.00	\$ 7,680.00	\$ 32.00
Bowman	923.80	\$ 10,427.99	\$ 11.29
Burke	4,867.85	\$ 540,467.02	\$ 111.03
Divide	6,303.46	\$ 362,029.50	\$ 57.43
Dunn	9,168.69	\$ 2,168,526.58	\$ 236.51
Golden Valley	7,801.14	\$ 131,270.26	\$ 16.83
Hettinger	160.00	\$ 160.00	\$ 1.00
McKenzie	7,259.65	\$ 776,543.32	\$ 106.97
McLean	402.63	\$ 33,981.35	\$ 84.40
Mountrail	10,405.96	\$ 1,555,039.76	\$ 149.44
Renville	79.87	\$ 4,353.37	\$ 54.51
Slope	640.00	\$ 1,280.00	\$ 2.00
Stark	635.41	\$ 12,824.92	\$ 20.18
Ward	8,977.22	\$ 269,141.73	\$ 29.98
Williams	720.16	\$ 68,244.80	\$ 94.76
Total	65,418.35	\$ 6,723,633.40	\$ 102.78

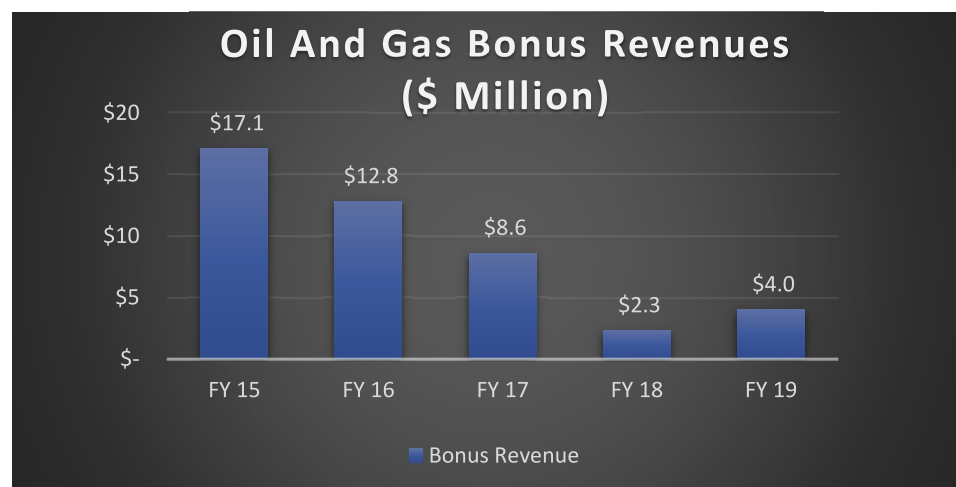
REVENUE COMPLIANCE

The Department's Revenue Compliance Division is responsible for developing and implementing procedures to assure the timely and accurate accounting of all royalties, bonuses, rentals, and other revenues received. A significant amount of time is dedicated to evaluating the accounting and collection of oil and gas royalties.

The Department collected oil and gas royalties of approximately \$293.4 million in FY 2018 and \$319.5 million in FY 2019.

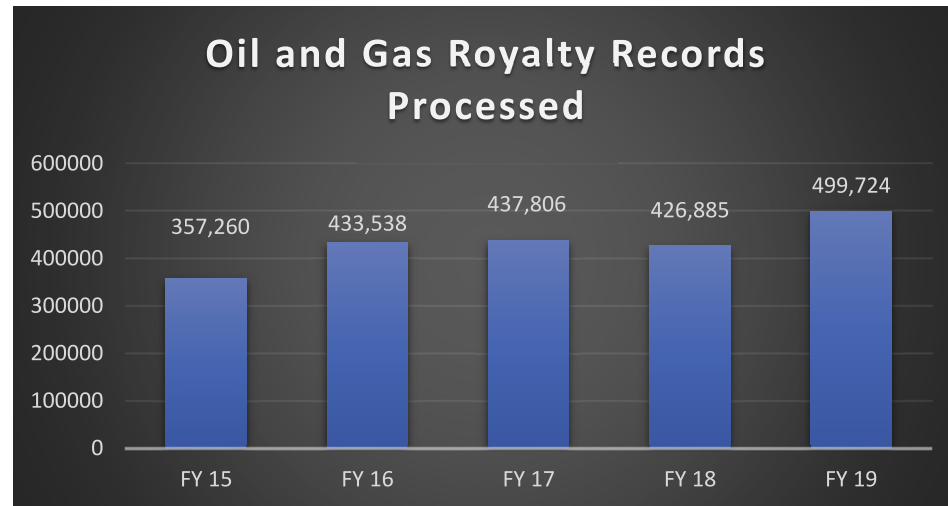


Bonus revenue received totaled \$2.3 million in FY 2018 and \$4.0 million in FY 2019 as most of the favorable oil and gas production areas were already under lease. Subsequently, as the bonus revenues declined over the past several years, the oil and gas royalties generally increased due to growth in production and increased oil and gas prices.



PAYMENT RECORDS

Royalty records include prior period adjustments and current period payments. Often, multiple transactions will occur on the same statement for the same property due to multiple tracts in the same spacing unit, reporting of various products, and prior period adjustments. Fluctuating oil prices do not have an immediate effect on the volume of royalty records processed.



COLLECTIONS

Royalty data is reviewed for discrepancies in volume, ownership, valuation, and lease terms. Reported volume data is compared with the North Dakota Industrial Commission's data to identify variances. Additionally, division orders and submitted royalty reports are reviewed to identify potential issues. These efforts have brought additional revenue to the trusts that may not have otherwise been collected. The enhanced efforts have resulted in additional royalty collections over the prior four fiscal years. The table below details the results of these efforts.

Collections				
	FY 16	FY 17	FY 18	FY 19
Additional Royalties Collected	\$ 915,778	\$ 295,678	\$ 81,436	\$ 490,829
Repaid Taxes and Deductions Taken in Error	353,256	42,580	797,882	0
Penalties Collected	486,998	306,473	293,365	564,617
Total Collections	\$1,756,032	\$644,731	\$1,172,683	\$1,055,446

FINANCIAL REPORTS

Brady Martz Certified Public Accountants and Consultants completed its review of the Department's financial statements for the year ending June 30, 2019. The draft report identified no audit findings or recommendations. The full report can be found on the Department's [website](#).

While the Department saw an increase in work, the Board saw a reduction in funding, resulting in a decrease in FTEs from 33 in the 2015-2017 biennium to 31 in the 2017-2019 biennium while managing \$5.1 billion in assets, more than 706,000 surface acres, and over 2.6 million mineral acres.

Board of University and School Lands		
Comparative Financial Position (Unaudited)		
Schedule of Net Assets		
Assets by Trust:	June 30, 2019	June 30, 2018
Common Schools	\$4,651,515,838	4,318,989,728.00
North Dakota State University	72,045,457	68,579,594
School for the Blind	12,682,481	11,304,019
School for the Deaf	21,251,342	20,736,182
State Hospital	14,603,478	14,441,234
Ellendale *	21,852,063	20,594,016
Valley City State University	12,936,711	12,290,979
Mayville State University	8,093,248	7,464,850
Youth Correctional Center	24,651,950	23,206,107
State College of Science	17,946,053	16,559,299
School of Mines **	21,883,980	20,356,806
Veterans Home	5,370,988	5,287,355
University of North Dakota	34,344,393	31,876,111
Capitol Building	6,548,608	4,723,483
Strategic Investment and Improvements	1,134,326,018	354,701,097
Coal Development	70,296,353	69,591,292
Indian Cultural Education Trust	1,285,256	1,269,705
Theodore Roosevelt Presidential Library	15,050,748	-
Total	\$6,146,684,965	\$5,001,971,857

Assets by Type:		
Cash	\$128,131,969	27,963,593.00
Receivables	50,537,931	48,389,277
Investments ***	5,808,514,418	4,825,753,950
Office Building (Net of Depreciation)	428,010	483,851
Farm Loans	9,229,151	7,106,929
Energy Construction Loans	979,447	1,040,078
Energy Development Impact Loans	11,269,205	11,973,940
School Construction Loans (Coal)	41,707,151	44,321,823
Due to/from Other Trusts and Agencies	98,115,243	36,962,784
Accounts Payable	(2,227,560)	(2,024,368)
Total	<u>\$6,146,684,965</u>	<u>5,001,971,857</u>

*** Ellendale Trust**

The following entities are equal beneficiaries of the Ellendale Trust:

Dickinson State University	School for the Blind
Minot State University	Veterans Home
Dakota College at Bottineau	State Hospital
	State College of Science - Wahpeton

**** School of Mines**

Benefits of the original grant to the School of Mines are distributed to the University of North Dakota.

***** Investments**

Includes available cash available for loans, investments, abandoned stock and claimant liability.



ENERGY INFRASTRUCTURE AND IMPACT OFFICE

The Board has authority to award and distribute energy infrastructure and impact grants from moneys deposited in the Oil and Gas Impact Grant Fund. The Energy Infrastructure and Impact Office (EIIO) is the division within the Department responsible for administering grants. EIIO has been a part of the Department since 1977 and was formally known as the Energy Development Impact Office created under N.D.C.C. ch. 57-62.

EIIO receives grant applications from cities, schools, counties, and other political subdivisions. The applications are reviewed with an Advisory Committee appointed by the Board, which makes recommendations to the Board for final approval. Each grant's Advisory Committee considers the grant criteria, eligibility, and application guidelines, and all meetings are conducted under the Open Meetings Laws.

Over the course of the past 40 years, EIIO has dispersed over \$624 million in funding. The amount of funding available to this program over the last five biennia was:

- \$8 Million in the 2009-2011 biennium
- \$135 Million in the 2011-2013 biennium
- \$240 Million in the 2013-2015 biennium
- \$140 Million in the 2015-2017 biennium
- \$40 Million in the 2017-2019 biennium

On January 1, 2019 the EIIO implemented Administrative Rules as a result of House Bill 1300, in which the Sixty-fifth Legislative Assembly directed the Board no longer be exempt from N.D.C.C. ch. 28-32. Those rules can be found at [Title 85](#) of the North Dakota Administrative Code, and include the following chapters:

- 85-02-01 Definitions
- 85-02-02 Grant Processing
- 85-02-03 Grant Award
- 85-02-04 Aged Grants

In the 2017-2019 Biennium the Legislative Assembly appropriated \$40 Million to the Williston and Dickinson Airports in Senate Bill 2013.



Section 10 of SB 2013 allowed EIO to fund operational expenses of the EIO and award contingency emergency grants with funds available from unexpended grant funds from previous awards. Ten grant rounds were held throughout the biennium. The grant round objective was to offset costs incurred for an emergency or unanticipated incident where the damage was directly related to or impacted by current oil and gas development. The Board awarded 13 grants, for a total of \$3,145,558, to political subdivisions with contingency funding.

The chart below reflects both the \$40 million for the Williston and Dickinson Airports (per SB 2013) and \$3.1 million for political subdivisions impacted by current oil and gas development were awarded during the biennium.

2017-2019 Biennium Breakdown		
Grant Round	Amount of Projects	Amount Awarded
Williston Airport - 2018	\$8,758,442	\$5,643,174
Dickinson Airport - 2018	\$3,965,326	\$1,402,065
Williston Airport - 2018	\$71,279,603	\$12,856,826
Contingency Grant - 1st Round	\$10,576,411	\$47,681
Contingency Grant - 2nd Round	\$1,710,367	\$250,000
Williston Airport - 2018	\$42,687,361	\$14,356,826
Dickinson Airport - 2018	\$25,783,150	\$3,597,935
Williston Airport - 2018	\$9,230,468	\$2,143,174
Contingency Grant - 3rd Round	\$2,481,453	\$1,007,577
Contingency Grant - 4th Round	\$15,182,289	\$1,840,300
Subtotals	\$191,654,870	\$43,145,558.00

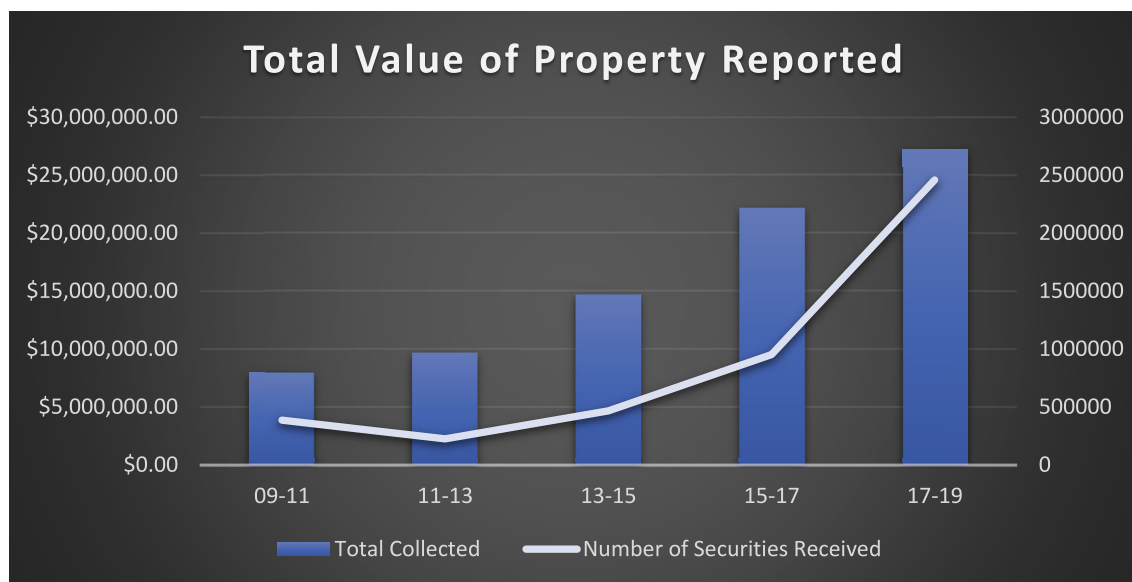
UNCLAIMED PROPERTY

The Unclaimed Property Division administers and enforces the Uniform Unclaimed Property Act (N.D.C.C. ch. 47-30.1) which has been in effect since 1975. The program's objectives are to reunite lost and abandoned property with its rightful owner and to safeguard this property from being used for personal gain by non-owners. The property is maintained to the credit of the CSTF with revenue earned on the investment of properties benefiting school funding.

In August of 2017, the Unclaimed Property Division began the Request for Proposal process to replace its existing software. On April 29, 2019 the Kelmar Unclaimed Property Software Solution (KAPS) went live. In tangent with the KAPS go live, the new unclaimed property website was launched at www.unclaimedproperty.nd.gov, advertising an additional 48,000 properties.

With the implementation of the KAPS system and in conjunction with the new website, the Division can now "fast track" eligible claims. This adds efficiency to the Unclaimed Property Division and returns funds to owners in a shorter time. Between April 30, 2019 and June 30, 2019, 152 claims were approved and paid through the fast track process. This was a 55% fast track pass rate with a total dollar value of \$27,244.84.

The 2017-2019 biennium saw a total of 8,807 properties paid, resulting in \$7,355,430.95 returned to owners. Abandoned property reported to the Department totaled \$27,239,906.13 from the receipting of 5,365 holder reports and 67 safe boxes.



On January 1, 2019 the Unclaimed Property Division also implemented Administrative Rules as a result of House Bill 1300. Those rules can be found at [Title 85](#) of the North Dakota Administrative Code and include the following chapters: 85-03-01 Definitions

- 85-03-02 Reporting Abandoned Property
- 85-03-03 Claiming Property

PROPOSAL FOR

ON DEMAND LAND SURVEYING

NORTH DAKOTA DEPARTMENT OF TRUST LANDS



10.30.2020



LOCAL
EXPERTS



RESPONSIVE
SERVICE



QUALITY
DELIVERABLES



October 23, 2020

Peggy Gudvangen
pjgudvangen@nd.gov
ND Department of Trust Lands
1707 N 9th St
Bismarck, ND 58506-5523

Re: Responsive “On Demand” Land Surveying for the North Dakota Department of Trust Lands

Dear Ms. Gudvangen:

The North Dakota Department of Trust Lands has some exciting projects in store for Billings, Burleigh, Dunn, Kidder, and Rolette Counties. Selection of a surveying team that understands the quality and responsive service you expect is critical. Choosing AE2S to provide survey services will help you accomplish your goals through:

- **Extreme Client Service.** We are all about client service, plain and simple. We are here to serve you and we’re committed to being responsive to your needs. You have outlined five immediate projects that deserve a dedicated team’s attention, as well as forecasted the need for on-demand surveying assistance as projects arise. Our staff of surveyors located across North Dakota will be on deck and ready to jump right in. In fact, we have a track record of addressing every request we get within a couple of weeks, a small part of the commitment we like to call “extreme client service.”
- **Close Proximity Provides Cost Effective and Responsive Service.** The projects identified in the RFP are located in five counties that span the state of North Dakota. The lead surveyors we have presented to you are located in offices either right in or adjacent to four of the five project areas. We understand how critical the location of our surveyors is to our ability to provide responsive service, and maybe more importantly, how travel time impacts the cost of a project. For that reason, AE2S has invested in staffing six offices across North Dakota. We are no more than two hours away from any location in ND! This short distance will enable us to provide the most responsive service for any project.
- **Confidence in Our High-Quality Deliverables.** Simply put, quality matters. You expect high-quality deliverables because the data collected makes a big difference in future decisions and solutions. We pride ourselves on our extreme attention to detail and ease of understanding of our plats. We took great appreciation in the fact that your staff used one of our deliverables as an example in the RFP. In addition to this, we also understand the importance of the underlying data. From start to finish, your data is in state plane coordinates and managed so it can easily be incorporated into GIS and other databases. Our goal is to exceed your expectations and deliver results that you have confidence in.

We’re confident that our location, quality, and commitment to responsive service is the best fit to accomplish your On-Demand Land Surveying projects. We are truly excited to continue developing a relationship and work with you on this project! Should you have any additional questions, please contact me at 701-364-9111, on my cell at 218-230-4358, or by e-mail at Nick.Stattelman@ae2s.com.

Submitted in Service,
AE2S

Nick Statteman, PLS, CFedS, PE
Survey Practice Leader

1

PAST PERFORMANCE

Advanced Engineering and Environmental Services, Inc. (AE2S)

is a specialized civil and environmental consulting engineering firm that provides professional services and our unique brand of extreme client service to municipal, rural, and industrial clients.

Surveys may seem like a simple part of many projects – but the results are very important. Often surveys are used for legal purposes or in the construction of buildings or entire

developments where accuracy is key.

Our clients benefit from our wealth of survey experience and our passion for perfection. AE2S has successfully completed surveys for projects that range from \$500 to \$5,000,000. Our repertoire includes GPS control, GIS data capture, boundary surveys, ALTA/ACSM surveys, topographic surveys, aerial photo ground control surveys, platting, and construction staking.

AE2S survey operations are unique. We believe:

- Good decisions require good information.
- We do our homework upfront to make sure you get the best results possible.
- You should have the most accurate data possible.
- You have a right to data we have collected for your projects any time you want.
- You should not have to pay us to find or re-collect data we already have.
- You should only pay one person to do a one-person job.

PROVEN EXPERIENCE

SURVEYING

Let AE2S put our wealth of survey experience to work for you. Advanced technology goes hand-in-hand with the services we provide our clients. GPS (Global Positioning Systems), Robotic Total Stations, and Civil 3D software are utilized for a “field to finish” approach for maximum accuracy and efficiency.

- Cadastral Surveys
- Boundaries and Easements
- Construction Layout
- ALTA/NSPS Surveys
- Topographic Mapping
- Photogrammetry / LiDAR Control
- Expert Witness Testimony
- Subdivision and Parcel Platting
- GIS Data Capture
- Hydrographic Surveys
- As-built Surveys
- Forensic Surveys
- 3D Laser Scanning
- Flood Elevation Certificates

MAPPING/GIS

Accurate, easy-to-use maps of your infrastructure are critical for maintenance, repair work, and the expansion of your system. AE2S surveyors and Geographic Information System (GIS) Specialists work together to produce high quality, accurate maps for our clients. All AE2S surveyors are also accomplished mappers, a key to efficiency. Our mapping and GIS expertise has been awarded with numerous honors from the American Council of Engineering Companies (ACEC), ESRI, and state land surveying societies. Some of the types of mapping we offer include:

- Pipeline Corridor Mapping
- Utility Maps
- GIS Thematic Maps
- Topographic Maps
- Digital Elevation Models (DEM)
- Ortho-Photo Maps
- 3D Scans
- 3D Physical Models
- Right-of-Way / Easements
- Presentation Maps
- Cadastral Maps

CERTIFIED FEDERAL SURVEYOR (CFedS) SERVICES

- Federal Authority Surveys
- State Authority Surveys
- Administrative Surveys
- Land Description Reviews
- Chain of Surveys
- Certificate of Inspection and Possessions
- Boundary Assurance Certificates
- Cadastral Geographic Information System (CGIS) Development and Maintenance
- Maintenance of the Public Land Surveying System (PLSS)

**1000's
of Surveys
Completed!**

PLS Licensure: ND, SD, MT, MN, WY, WI, AZ

CFedS Licensure: ND, SD, MT, MN, AZ

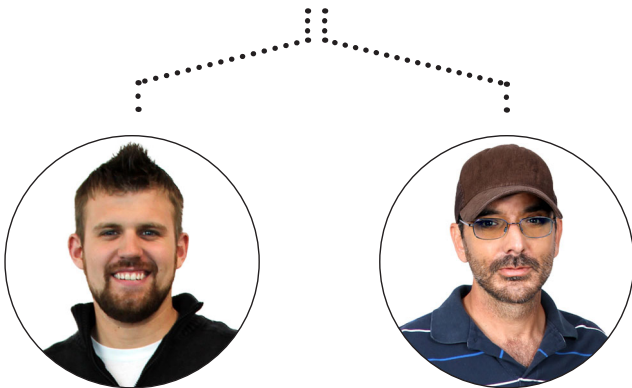
2 PROFESSIONAL PERSONNEL

The three professional land surveyors highlighted below will be the main contacts for the outlined projects as well as will be available and responsive to any on-demand projects that may arise. In addition to the members presented, AE2S has an entire survey department with the

needed expertise, should the need arise. The following pages contain the resumes of the key professional personnel dedicated to your projects. These resumes represent only a portion of the relevant project experience for each individual.



STEVEN RUDE, PLS, CFedS
Lead Surveyor



TOM LAMBRECHT, PLS
Surveyor

JW WEEKS, PLS
Surveyor

Steve Rude, PLS, CFedS

Lead Surveyor

Mr. Rude's experience includes supervising and managing survey projects of all sizes, including boundary, construction, topographic, and ALTA/ACSM surveys; preparation of subdivision plats and legal exhibits; site grading and road design; courthouse and other research; and oil and gas well location and access route surveys.

SPECIFIC RELEVANT EXPERIENCE

- **NDDTL Survey, Section 36, T147N, R96W, Dunn County, ND – Surveyor.** Conducted a field survey to determine boundaries of state-owned properties, locations of fences and other improvements, and volume of a dugout pond. Generated an Exhibit of Survey showing the results of survey.
- **Killdeer - Dunn County Floodplain Study, Dunn County, ND – Survey Manager.** Managed survey operations and data for a floodplain re-study and mapping for over 16.5 miles of three flooding sources, including a complex break-out channel flow condition to support proper floodplain management of growth within the City of Killdeer and adjoining county areas.
- **Western Area Water Supply Authority & McKenzie County Water Resources District, ND - Surveyor.** Managed survey operations and data, calculated and resolved boundaries, and generated corner records and legal exhibits for water line routes through 50 sections.
- **Red River Valley Water Supply Project, Central ND - Surveyor.** Conducted and managed field surveys and data, analyzed and resolved boundaries, and generated over 90 corner records for a 45-mile segment of a cross-country water transmission project through 54 sections across two counties.
- **Yellowstone Preserve, Livingston, MT - Survey Manager.** Conducted field surveys and managed a complex boundary and riparian survey on the Yellowstone River for a 750-lot multi-use subdivision.
- **Cherry Creek Water Line, McKenzie County, ND - Survey Manager.** Conducted field survey of 23 sections and generated corner records for a 15+ mile pipeline. Discovered lost original corners missed during prior, more recent surveys. Found and documented location of a railroad right-of-way abandoned in 1925.
- **Dry Prairie Rural Water System, Roosevelt County, MT – Surveyor.** Conducted boundary surveys for approximately 20 miles of pipeline between Wolf Point and Poplar and near Ft. Kipp.
- **Williston Area GIS Improvements, Williston, ND - Survey Manager.** Managed survey operations and data updates for GIS improvements in Williston and the Williston Extraterritorial Area. Found and rectified City GIS inaccuracies of up to 25 feet.
- **Milk River Flood Plain Study, Nashua, MT - Survey Manager.** Managed survey operations and data for a study of the Milk River floodplain near Nashua.
- **East Water & Sanitary Sewer Extension, North Water & Sanitary Sewer Extension, and Master Lift Force main, Killdeer, ND - Surveyor.** Design and construction management of water and sewer infrastructure to support development in growth areas east of the city, including the replacement and upsizing of the City's master lift station. The East Utility Extensions included over 4,000 linear feet of sanitary sewer, 5,500 linear feet of water main, and over 6,000 linear feet of sanitary force main.



EDUCATION

Bachelor of Science, Construction Engineering Technology, Montana State University

REGISTRATIONS

Professional Land Surveyor: North Dakota, Montana, Utah
Certified Federal Surveyor

CONTACT

Steven.Rude@ae2s.com
T: 701-225-9636
C: 701-690-3698

WHY STEVE?

Steve has previous experience working on ND Department of Trust Land projects. He sets the standard for quality and attention to detail. In fact, he was the surveyor for the example plat provided in the RFP.



Tom Lambrecht, PLS

Surveyor

Mr. Lambrecht has experience in the areas of surveying, mapping/GIS, computer aided design/drafting, and construction observation. Surveying experience includes control surveys, topographic surveying, and construction staking using GPS and conventional equipment. He is a member of the Society of Professional Land Surveyors in North Dakota and Minnesota.

SPECIFIC RELEVANT EXPERIENCE

- **Red River Valley Water Supply Project Land Acquisition Services, Carrington, ND - Surveyor.** Procuring easements from nearly 300 landowners to construct a pipeline which will bring water from the central part of North Dakota to the Red River Valley in the event of a drought.
- **FM Diversion Land Acquisition Management, Fargo, ND - Surveyor.** Project consisted of management of land acquisition activities, to producing Certificates of Survey and plats of new parcel boundaries, and everything in between. One major aspect of the management role of AE2S includes assuring land is acquired according to Federal acquisition procedures. Project included boundary surveys to subdivide properties and produce new parcel and easement legal descriptions.
- **Clay County (MN) Survey Services - Surveyor.** Surveying services for the Clay County, MN Surveyor position. Scope of services includes a county-wide PLSS corner monumentation project to find, rehab, or set specified PLSS corners throughout the county.
- **Red River Valley Water Supply Project Supplemental Pipeline Survey, Carrington, ND - Surveyor.** Surveying and mapping of wetland bottoms and additional contours not visible in the original LiDAR (scanning from an airplane).
- **Red River Valley Water Supply Project Permitting and Environmental Services, Carrington, ND - Surveyor.** Secured permits and environmental clearance from State and Federal agencies for the RRVWSP pipeline and related infrastructure.
- **Red River Valley Water Supply Project USFW Wetlands Surveys, Carrington, ND - Surveyor.** Cross sections and mapping of Fish & Wildlife wetlands areas.
- **Red River Valley Water Supply Project Oakes Irrigation Drainage Project, Oakes, ND - Surveyor.** Various drainage and irrigation system upgrades. Included preliminary design/hydraulic modeling of a seven-mile long open channel.
- **USDA NRCS Multiple Surveys, Various Locations throughout ND - Surveyor.** Legal boundary surveys for conservations easements throughout eastern North Dakota. The project consisted of property research, field survey to determine the property boundaries, staked out the easement boundary, prepared survey certificates of the easement area, and prepared GIS data of the easement boundary.
- **2016 Street Replacement, Crosby, ND - Lead Surveyor.** Construction staking of 50 blocks of street reconstruction.
- **2018 Street and Utility Improvements, Parshall, ND - Surveyor.** Reconstruction of four blocks of downtown Main Street. Reconstruction included sanitary sewer replacement, storm sewer installation, water main improvements, and reconstruction of curb, sidewalks, pavement, and lighting.



EDUCATION

Bachelor of Science, Land Surveying / Mapping Science, St. Cloud State University, Associate of Applied Science, Civil Engineering & Surveying Technology, North Dakota State College of Science

REGISTRATIONS

Professional Land Surveyor: North Dakota

CONTACT

Tom.Lambrecht@ae2s.com

T: 701-852-4048

C: 701-740-5325

WHY TOM?

Tom has performed numerous surveys for clients across the state of North Dakota. His close proximity to the project sites will provide "extreme client service."



JW Weeks, PLS

Surveyor

Mr. Weeks is a Registered Professional Land Surveyor with experience in land development, topographic, and boundary surveys. His principal areas of focus include residential and commercial development, utility infrastructure, roadways, subdivision platting, and boundary resolution. JW has nearly 25 years of experience in Arizona, New Mexico, Nevada, Missouri, Kansas, Iowa, Illinois, and North Dakota.

SPECIFIC RELEVANT EXPERIENCE

- **Red River Valley Water Supply Project Land Acquisition Services, Carrington, ND - Surveyor.** Procuring easements from nearly 300 landowners to construct a pipeline which will bring water from the central part of North Dakota to the Red River Valley in the event of a drought.
- **FM Diversion Land Acquisition Management, Fargo, ND - Surveyor.** Project consisted of management of land acquisition activities, to producing Certificates of Survey and plats of new parcel boundaries, and everything in between. One major aspect of the management role of AE2S includes assuring land is acquired according to Federal acquisition procedures. Project included boundary surveys to subdivide properties and produce new parcel and easement legal descriptions.
- **Clay County (MN) Survey Services - Surveyor.** Surveying services for the Clay County, MN Surveyor position. Scope of services includes a county-wide PLSS corner monumentation project to find, rehab, or set specified PLSS corners throughout the county.
- **Red River Valley Water Supply Project, Carrington, ND - Surveyor/Drone Pilot.** Surveying of 36 miles of PLSS monument recovery through Wells County as well as drone video inspection of approximately 30 miles of pipeline route.
- **Red River Valley Water Supply, ND - Surveyor.** Topographic and bathymetric survey for siting a 150 MGD intake in the Missouri River to service the Red River Valley.
- **Western Area Water Supply Project Williams Rural Water District North 200k Rural Distribution, Williston, ND - Surveyor/Drone Pilot.** Included PLSS monument recovery for 10 miles across State land including easement exhibits. Drone video inspection of approximately 10 miles of rural distribution line.
- **SEWUD-West Kulm Booster Station, Larimore County, ND - Surveyor.** Irregular Tract for Booster Station and Glass-Fused to Steel 40,000 to 50,000-gallon reservoir.
- **McDonalds, Mandan, ND - Surveyor.** Completion of an ALTA survey for a new McDonalds in Mandan, ND.
- **Social Services Building Survey, Williams County, ND - Surveyor.** Conducted a boundary and topographic survey for a new social services building.
- **GIS Upgrades, Mandan, ND - Surveyor.** Development of a new GIS, including a needs assessment, establishment of primary control, base map optimization, survey of utilities and sign inventory, scanning of paper documents, software and web-based configuration, creation of a work order management system, development of standards, and training.



EDUCATION

Longview College Elementary,
Advanced Surveying and Legal
Aspects of Surveying Coursework

REGISTRATIONS

Professional Land Surveyor: North
Dakota, Arizona

CONTACT

JWWeeks@ae2s.com
T: 701-221-0530
C: 701-955-5829

WHY JW?

JW has extensive knowledge while working in numerous states across the US and will bring this extensive experience to local communities.



3

WILLINGNESS TO MEET TIME AND BUDGET REQUIREMENTS

The North Dakota Department of Trust Lands is requesting professional services to help complete five surveying projects across North Dakota. The five project sites include Billings, Burleigh, Dunn, Kidder, and Rolette Counties. In addition, the North Dakota Department of Trust Lands is looking for a partner to be available to assist with any additional on-demand surveying needs as they arise. Our staff of 10 licensed surveyors in North Dakota will act as an extension of your staff and project teams to deliver these services with the accuracy and completeness that you expect.



Your main point of contact and the lead surveyor for our team will be Steven Rude, a Certified Federal Surveyor (CFedS) and a licensed surveyor in North Dakota with over 20 years of experience performing cadastral surveys and resolving boundary challenges for projects similar to yours. You will benefit from Steven's extensive project experience through added efficiency, a highly accurate survey, and dedication to seamless coordination and communication.

As Lead Surveyor, Steven will be on-call for your staff and has committed to providing real-time office support to all field crew members.

Steven will be backed by appropriate manpower for each project. To best maximize project budgets, Steven will assign a surveyor that is closest in proximity to each project and location. To ensure accuracy and high quality deliverables, Steven will work closely with



each field surveyor to provide quality assurance and quality control.

Kick-off Meeting

To start the project off, our team will schedule a meeting with your staff. This will lay the foundation for what your vision is for this project and discuss full scope of services needs for each project.

Record Documentation

As needed, our team will research and collect additional resources in the office or online. These documents may include supplemental data such as local or County records. AE2S has a unique survey database, organized by County, with all the data collected from past surveys. This database will be utilized whenever possible. The use of this database allows for fast, efficient, and streamlined use of all survey

data for a particular area. Bottom line, it will save you time and money!

Real-Time Data

All AE2S field surveyors will have access to real-time data, resources, and project management software located directly on their data collectors. These tools promote effective and educated decision making, help aid in adjustments, and provide real-time QA/QC in the field.

Streamlined Crews

Whenever possible, fieldwork will be completed in a single mobilization to the site. Fieldwork is generally completed using one-person crews. Two-person crews will be utilized when the added value is warranted.

Each project is unique and will require a different set of skillsets and time. Below is a snapshot of the estimated time each of the identified projects will take. Generally most AE2S survey projects are completed within 2-4 weeks from the start date.

Project 1

This project is unique in the fact that it may be difficult to access. We plan on accessing the site using a UTV. With the nearest road over a mile south and crossing private property, this project may be challenging and unique.

- **Estimated hours: 40 field, 20 office**

Project 2

This project will require considerable field work to delineate public rights-of-way along the west and south sides as well as existing parcels within the section.

- **Estimated hours: 40 field, 20 office**

Project 3

Since the purpose of this survey is to identify a possible crop encroachment, we propose that the Highway 22 corridor would not be surveyed to save time and money. It would be shown in its approximate location based on publicly-available information.

- **Estimated hours: 10 field, 13 office**

Project 4

To help with the fence line location, we plan on marking the line in question with painted lath at inter-versible points.

- **Estimated hours: 30 field, 19 office**

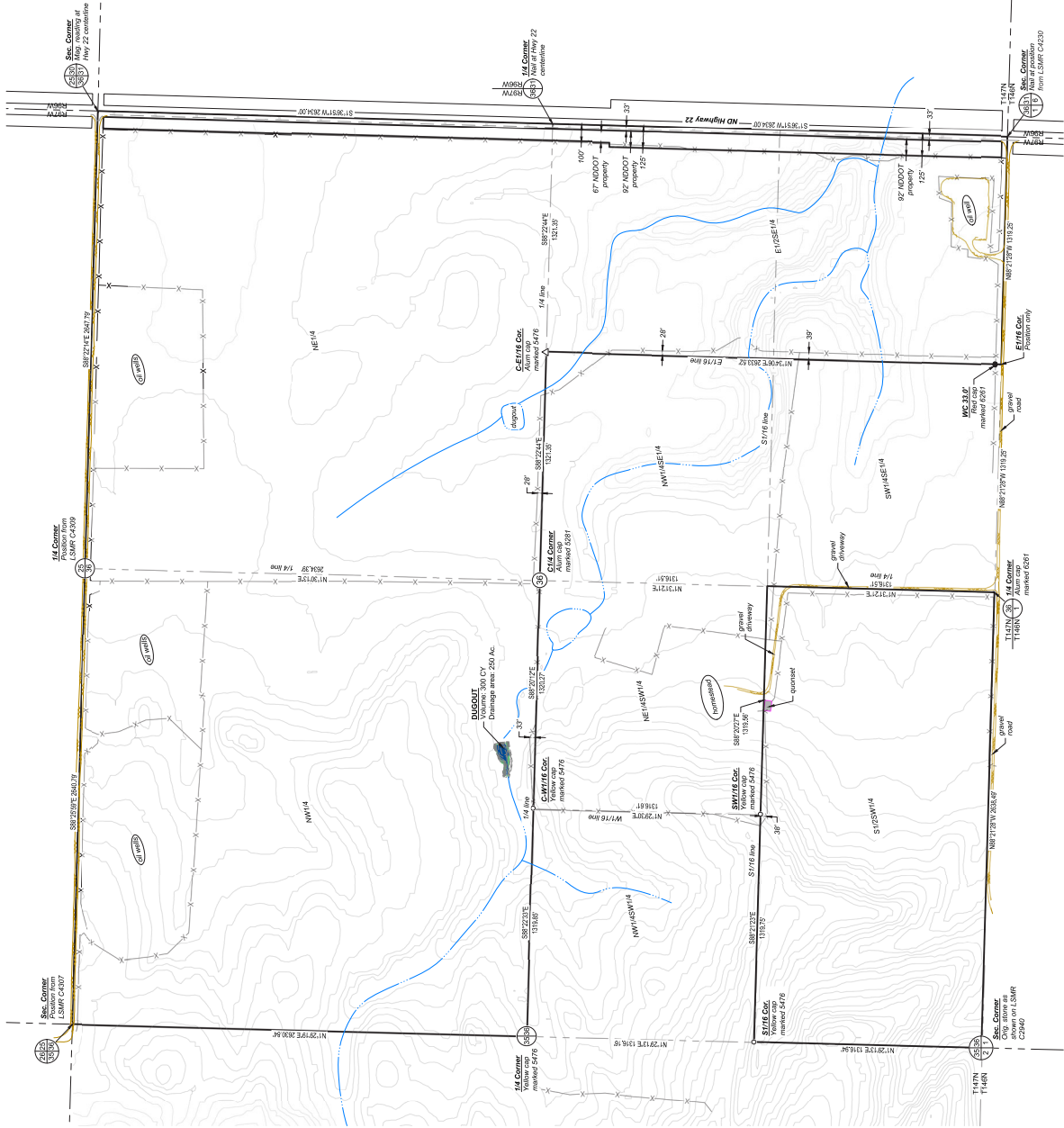
Project 5

Since the purpose of this survey is to identify possible building encroachments which appear to be near the east and south section lines, we propose to limit the survey to those lines in order to reduce cost.

- **Estimated hours: 30 field, 18 office**

EXHIBIT OF SURVEY

SECTION 36, T147N, R96W, 5th P.M., DUNN COUNTY, NORTH DAKOTA



4

LOCATION

Local Surveyors Committed to Responsive Service

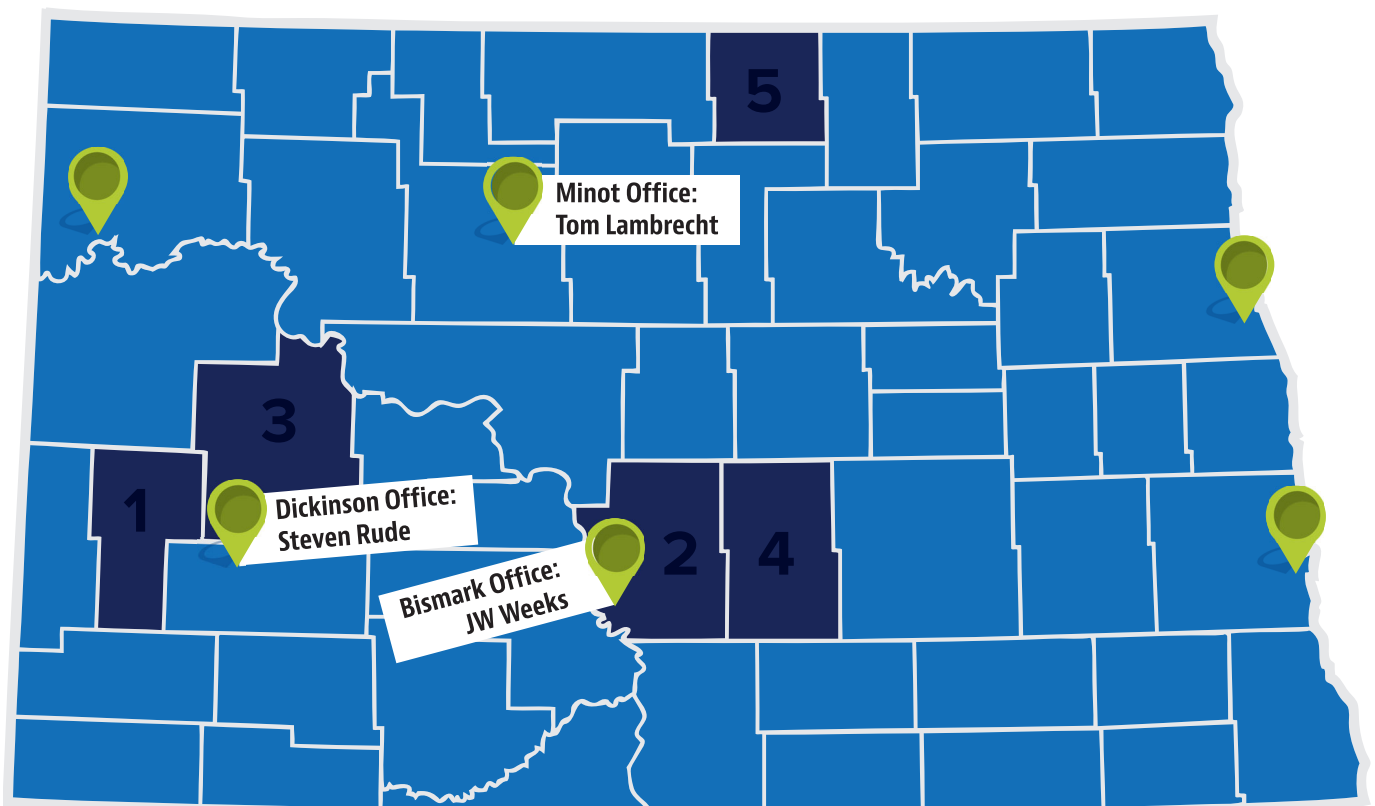
EXTREME CLIENT SERVICE

AE2S was founded in North Dakota and we have proudly served the communities that we call home for nearly 30 years. We have six offices located across the state of North Dakota including Bismarck, Dickinson, Fargo, Grand

Forks, Minot, and Williston. We are committed to responding in a timely manner, being ready to jump right in when you need us, and truly delivering on every task - a commitment we like to call “**extreme client service.**”



Our staff are located in counties either right in or adjacent to four of the five identified project areas. We are **no more than two hours away** from any location in ND! This short distance will enable us to provide the most responsive service for any project.



5

RECENT, CURRENT, AND PROJECTED WORKLOAD

Committed to Responsive Service

A Team That Performs

AE2S understands what it takes to successfully serve the ND Department of Trust Lands. We are committed to making your projects a priority and meeting schedules. In addition to the noted project team, we have an experienced pool of qualified staff available to jump in, should the need for additional manpower arise.

Team Availability

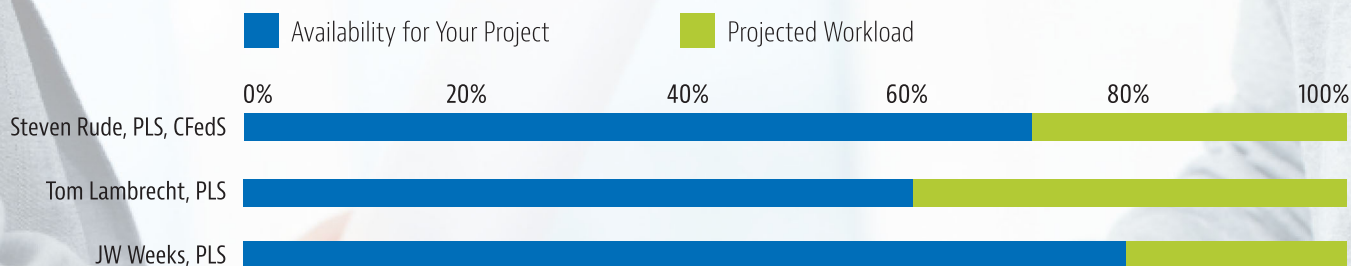
Our team regularly balances multiple projects and utilizes industry-leading software to help manage projects and stay on track in terms of budget, quality, and schedule. The team we have assigned to you is committed to prioritizing our time to provide extreme client service.



COMMITTED TO TIMELY RESPONSES

We are committed to being responsive, whenever you need us. We make it a point to respond quickly. In addition upon request we have a track record of successfully addressing a new project no later than a couple of weeks, and most often, within a couple of days.

KEY PERSONNEL AVAILABILITY



The Key Personnel identified above are supported by a bench of **additional surveyors across our North Dakota offices** ready to jump right in. We are committed to you and will prioritize schedules to exceed your expectations.

6

RELATED EXPERIENCE

The AE2S team has a strong history of professional land surveying services projects. We have worked closely with clients and have extensive experience working with large-scale projects as well as those serving smaller communities. The following pages include a small sampling of the land surveying services projects we've completed for our clients.

**RECENT WORK FOR YOU**

Note we did not include the recent related work we have done for the ND Department of Trust Lands. A snapshot of this work is shown in the next section.

Central and Eastern North Dakota

RRVWSP LAND ACQUISITION SERVICES

Taking the First Step

Garrison Diversion Conservancy District is the beginning preliminary design on a 167-mile long pipeline to transport water from Western North Dakota to Eastern North Dakota. The pipeline is part of an effort to eliminate the feared recurrence of a drought in Eastern North Dakota resembling the drought of the 1930s. AE2S, as a sub-consultant to Black & Veatch, performed an integral part of the Land Acquisition aspect of the project.

The Right Combination of People and Tools

AE2S was tasked with providing map exhibits to be included with the option agreement to be presented to landowners along the pipeline route. Before offers

can be made to landowners, an option agreement with a clear and accurate exhibit containing land information and acreage must be created. The involvement of AE2S included courthouse research, mapping of ownership for over 300 properties, incorporation of design information with ownership data into a Geographical Information System (GIS), calculation of acreage, and creation of easement exhibits. The project schedule demanded that AE2S perform in a quick and accurate manner. Professional Land Surveyors on the team interpreted land descriptions and utilized coordinate geometry and GIS tools to assure that land owners ultimately receive fair value for the easement rights granted for the pipeline project.

Working as a Team

The team also overcame the challenges of sharing near real-time information with the various other teams such as land agents and environmental scientists by posting data daily to the GIS, combining the research information, ownership data, and pipeline design elements. With a solid land acquisition GIS, the first steps of this paramount project are complete, paving the way to ultimately developing a sustainable future for Eastern North Dakota.



PROJECT COSTS
~\$5.1 Million

CLIENT
Garrison Diversion
Conservancy District

CLIENT CONTACT
Kip Kovar
District Engineer
kipk@gdcd.org
701-652-3194

KEY PROJECT ELEMENTS

- GIS-based
- Easements and Platting
- Land-Owner Interaction
- Federal, State, and Local Agencies Involved
- Large and Diverse Project Team

McKenzie, Williams, and Divide Counties, North Dakota

WESTERN AREA WATER SUPPLY PROJECT

In 2011, AE2S began cadastral and boundary surveys for multiple water main projects in northwestern North Dakota. These projects continue to expand through the present day, and the current water supply system now engulfs large portions of McKenzie, Williams, and Divide Counties where hundreds of miles of pipeline have been constructed, resulting in hundreds of miles of easement creation. To date, AE2S has performed the cadastral and boundary surveying on over 400 sections in 30 townships for these projects.

It's easy to recognize that such an expansive survey area would inevitably encounter an equally expansive variety

of boundary situations. These surveys bordered along township lines, county lines, the Fort Buford Military Reservation Boundary, and the North Dakota-Montana state line. In some areas, lands were originally divided by the 3-Mile Method and the Mile Post system within the Public Land Survey System (PLSS). Knowing the time periods and methods of the original surveys was vital to the proper retracement of these surveys and re-establishment of original monuments.

To complete a survey effort of this magnitude, one must have an intricate knowledge of the ins and outs of everything survey-related in a PLSS state. We utilized our vast understanding of the

PLSS and State bylaws, as well as County ordinances, policies, procedures, and recording systems to complete surveys and deliver certificates of survey in accordance with all federal, state, and individual county requirements.

Understanding each county's individual requirements was crucial to proper and efficient completion of each phase of the Western Area Water Supply Project. After completing this amount of work in multiple counties, AE2S realizes the importance of each county to have their own specific needs and ordinances to best suit their past, present, and future activities.



PROJECT COSTS
\$470 Million

CLIENT
Western Area
Water Supply
Authority

CLIENT CONTACT
Tami Madsen
Chief Operations Officer
tami.madsen@wawsp.com
701-774-6605

KEY PROJECT ELEMENTS

- Cadastral and Boundary Surveying on Over 400 Sections in 30 Townships
- PLSS and State Bylaw Understanding Utilization

Cass County Joint Water Resources District and FM Diversion Authority FM DIVERSION LAND ACQUISITION

Background

The proposed Fargo-Moorhead Area Diversion Project consists of the construction of a 30-mile long diversion channel, a 20-mile long embankment, and a variety of associated infrastructure located in North Dakota and Minnesota. The Project will divert flood water around the Fargo-Moorhead metropolitan area. The Land Acquisition portion of the project includes acquiring property rights (either fee title transfer or various easement agreements) on thousands of parcels of land in 17 different townships and a total of 137 different sections. The project crosses the six rivers including the Red, Sheyenne, Wild Rice, Maple, Rush, and Lower Rush Rivers, and also contains three interstate highway crossings and numerous state and county highway and railroad crossings.

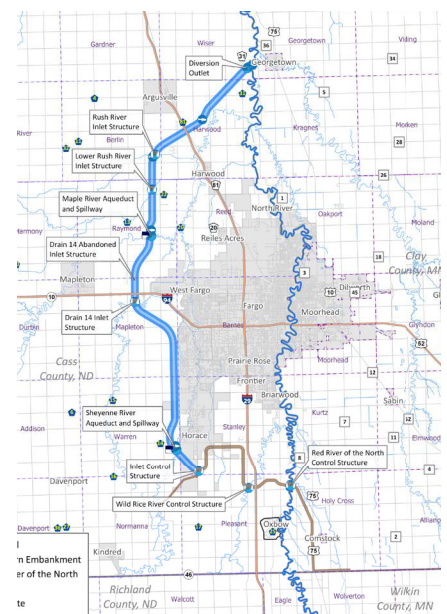
AE2S Responsibilities

AE2S's responsibilities for the Project range from managing the land acquisition process to producing Certificates of Survey and plats of new parcel boundaries and everything in between.

One of the key services provided by AE2S is conducting boundary surveys to subdivide properties and produce new parcel and easement legal descriptions. AE2S is responsible for

conducting boundary surveys to support the acquisition of about 7,100 acres of fee title parcels and nearly 2,000 acres of temporary construction easement (TCE) obtainment distributed throughout 300+ current parcels. In addition, AE2S is responsible for any surveying needs for flowage easements on approximately 7,000 acres of land in Minnesota, and 190 parcels along the Red River, Buffalo River, and Wolverton Creek for environmental monitoring easements.

The survey of the parcels impacted by the ¼-mile wide diversion channel includes the breakdown of 52 sections in nine townships, as well as Interstate Highway 29, ND State Highway 81, and BNSF Railroad right-of-way surveys. The channel route also contains boundaries along the Red and Sheyenne Rivers and crossings at the Rush, Lower Rush, Maple, and Sheyenne Rivers. The boundary surveys will produce Certificates of Survey and plats with nearly 1,000 new legal descriptions for the subdivided parcels and easements, making AE2S a key contributor to the land acquisition and surveying process.



OVERALL COST
\$2.8 Million

CLIENT
Cass County Joint
Water Resources
District

CLIENT CONTACT
Rodger Olson
Manager
Olsonrodger@aol.com
701-238-8345

KEY PROJECT ELEMENTS

- Includes Acquiring Thousands of Parcels of Land
- 17 Different Townships
- 137 Different Sections
- Acquire Land According to Federal Acquisition Procedures

Fargo-Moorhead Metro COG

SURVEY CONTROL AND BASE MAPPING FOR GIS

Vast Expanse of Mapping

The project involved parcel mapping of over 145 square miles of land in Cass County, ND and Clay County, MN. Phase I of the base map project was an extension of the existing Fargo-Moorhead GIS. The project included areas outside of the Fargo-Moorhead City limits and encompassed the Cities of Glyndon and portions of Dilworth in MN and the Cities of Horace and portions of Harwood in ND.

Accuracy Makes It Valuable

High precision coordinates were established on approximately 120 section

corners within the project area utilizing GPS. Missing section corners were reestablished and mapped. All parcel data within the project limits such as deed descriptions and plat information were mapped via coordinate geometry. Over 6,000 parcel identification numbers were researched and placed within the correct lot on the map to serve as a GIS link to database information. The next year, AE2S was again chosen to perform another GPS survey and GIS base mapping. Phase II of the project included over 60 square miles of GIS mapping and placement of over 100 section corners with high precision GPS techniques.

Valuable Tool

The GIS base map encompasses the entire Fargo-Moorhead Metropolitan area when combined with MCOG's existing GIS base mapping. With the solid foundation in place, staff is able to keep the GIS current with ongoing maintenance. The Metro COG base map serves as a valuable tool for planning metropolitan growth.



PROJECT COSTS
\$158,000

CLIENT
Fargo-Moorhead
Metro COG

CLIENT CONTACT
Mark Sloan, GISP
Information Services
Director
mark.sloan@co.clay.mn.us
218-299-7518

KEY PROJECT ELEMENTS

- GIS Base Map
- Multi-City Coordinate System Rectification
- Public Land Corner System

7

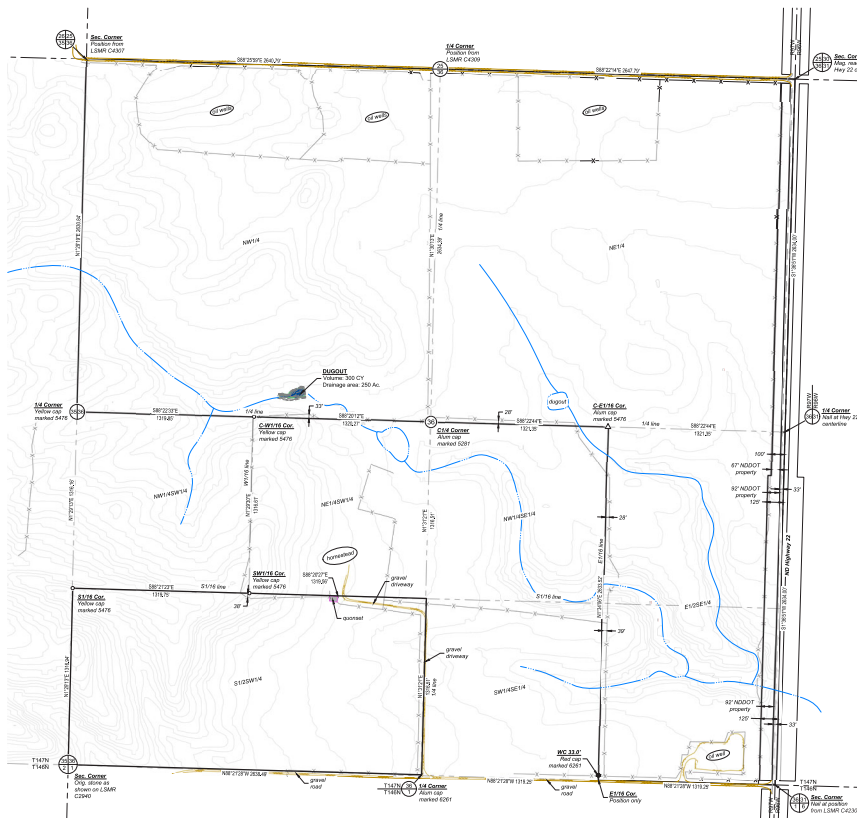
RECENT WORK FOR THE AGENCY

Prior Experience Provides Ability to Meet Your Expectations

AE2S recently completed a survey for Section 36, T147N, R96W, Dunn County for the North Dakota Department of Trust Lands. The project included conducting a field survey to determine boundaries of state-owned properties, locations of fences and other improvements, and volume of a dugout pond.

In addition to this project, our surveying staff has completed several easement surveys/drawings across ND Trust State Land for the Western Area Water Supply Project, Red River Valley Water Supply Project, FM Diversion and other regional projects.

Note - we have no potential conflicts of interest in the proposed project.



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COST ESTIMATES

With any land survey cost estimate, there are some typical assumptions. The assumptions for your projects are as follows:

- a. Field work being conducted in favorable weather and ground conditions.
- b. Average condition of existing boundary evidence.
- c. Permission for access across adjoining properties if necessary.
- d. Use of off-road vehicles on state-owned lands where terrain and ground conditions permit.
- e. **Hourly rates will be between \$137 and \$151, depending on selected personnel.**

SUMMARY OF PROPOSED FEES

FEE

NORTH DAKOTA DEPARTMENT OF LAND TRUSTS SURVEYS

PROJECT	Subtotal
Project 1	\$9,500
Project 2	\$9,500
Project 3	\$3,600
Project 4	\$7,500
Project 5	\$7,600
TOTAL PROFESSIONAL FEE	\$37,700