

# Surveyor General Report 2022



Ontario





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# Message from the Surveyor General

2022 continued to be a year of change in the Office of the Surveyor General. We started to rebound from the pandemic with our team returning to our offices in May. While working remotely presented unique challenges it also allowed us to incorporate staff working in locations across Ontario and elsewhere. We continued to add surveyors to our ranks from outside the ministry and province, including from Glovertown, Newfoundland!

Having adapted our office processes to the digital reality of remote work, we have embraced the opportunity to modernize the delivery of our services in line with the digital initiatives of the government. While this has allowed us to deliver on projects throughout the pandemic, our demanding workload continues to be a challenge. To address this, we've reviewed the way we operate to identify improvements and implement a process to prioritize and assess new work to ensure our deliverables and commitments continue to support economic activity in the province.

We've enjoyed many accomplishments and successes in 2022. OSG staff have been instrumental in a number of recent initiatives, from providing detailed, descriptive mapping to jurisdictional changes to providing staff resources to several of the ministry's lands-related projects.

We continue to assess our vast collection of historic surveys and other records including geographic names files and township plans to make them accessible digitally.

Looking ahead, OSG has also begun a strategic review to better understand our role, our mandate and the services we provide across the ministry, government and to the public. The knowledge gained through this review will assist in assessing the benefits of the services we provide while also considering future services that could be delivered as part of our role in managing Ontario's vast Crown lands.

I am continually impressed by the expertise, experience, and commitment to public service that the team of dedicated professionals within the Office of the Surveyor General demonstrates daily and I invite you to read the report to learn more about our team and their incredible work.

Sincerely,

**W. Bruce Clark**

BSc, OLS, OLIP





# Powering remote Indigenous communities and supporting economic development

Access to sufficient, reliable, economical and sustainable energy is fundamental to Ontario's socio-economic development. In support of expanding access to sustainable energy, the Office of the Surveyor General (OSG) reviewed the submitted plans for two significant energy development projects to ensure they met all requirements for commercial licenses.

The [Wataynikaneyap Power Transmission Project](#) aims to connect remote First Nation communities to Ontario's power grid. This is an expansive project and involves building or upgrading 1,800 km of electrical transmission corridors. Crown Land Survey staff, led by Technologist Mike Bar, aided in the progression of this project through the review of 52 descriptive mapping sheets for the primary submission and an additional 41 map sheets for the License of Occupation. This project is expected to generate significant economic benefits to First Nations communities by alleviating energy supply limitations due to outdated infrastructure, including diesel power generation capacity. The project will improve energy capacity to support future developments like the Ring-of-Fire and other regional economic development opportunities.

The [East-West Tie Transmission Line Project](#) involves providing reliable electricity to the northwest within a 450 kilometer corridor north of Lake Superior. Construction of the project began in September 2019 and was completed on March 31, 2022. OSG Crown Land Survey technologists, Mike Bar and Alex Gawlina, played a key role in reviewing the 7 survey plans in support of this vital energy infrastructure project.

A smiling woman with long dark hair is holding up a set of keys in her right hand. She is wearing a light-colored jacket. The background is blurred, showing what appears to be a brick wall and a window.

## Supporting progress in Ontario

The Office of the Surveyor General (OSG) is supporting Ontario's action plan to make lands available for residential development to alleviate the housing crisis. OSG worked closely with the Ministry of Municipal Affairs and Housing to facilitate the regulation of certain land within central Ontario.

We continue to support the priorities of the government throughout various initiatives by providing detailed descriptive maps and plans which compile important geographic and spatial information. In 2022, OSG provided descriptive plans for a variety of priorities including the development of power infrastructure, expansion of housing availability and support for northern development and the mining sector

# Crown land surveys



Assisting our ministry's Regional Operations Division, other ministries, private sector surveyors, and the public with survey inquiries and requests for information.

**180**

hours of research for clients outside of the ministry

**600**

hours of research for the Ministry of Natural Resources

**780**

hours on research relating to survey advice to MNRF's districts and the public

**40%**

of survey advice requests are from surveyors

**28%**

of survey advice requests are from other ministries and the public.



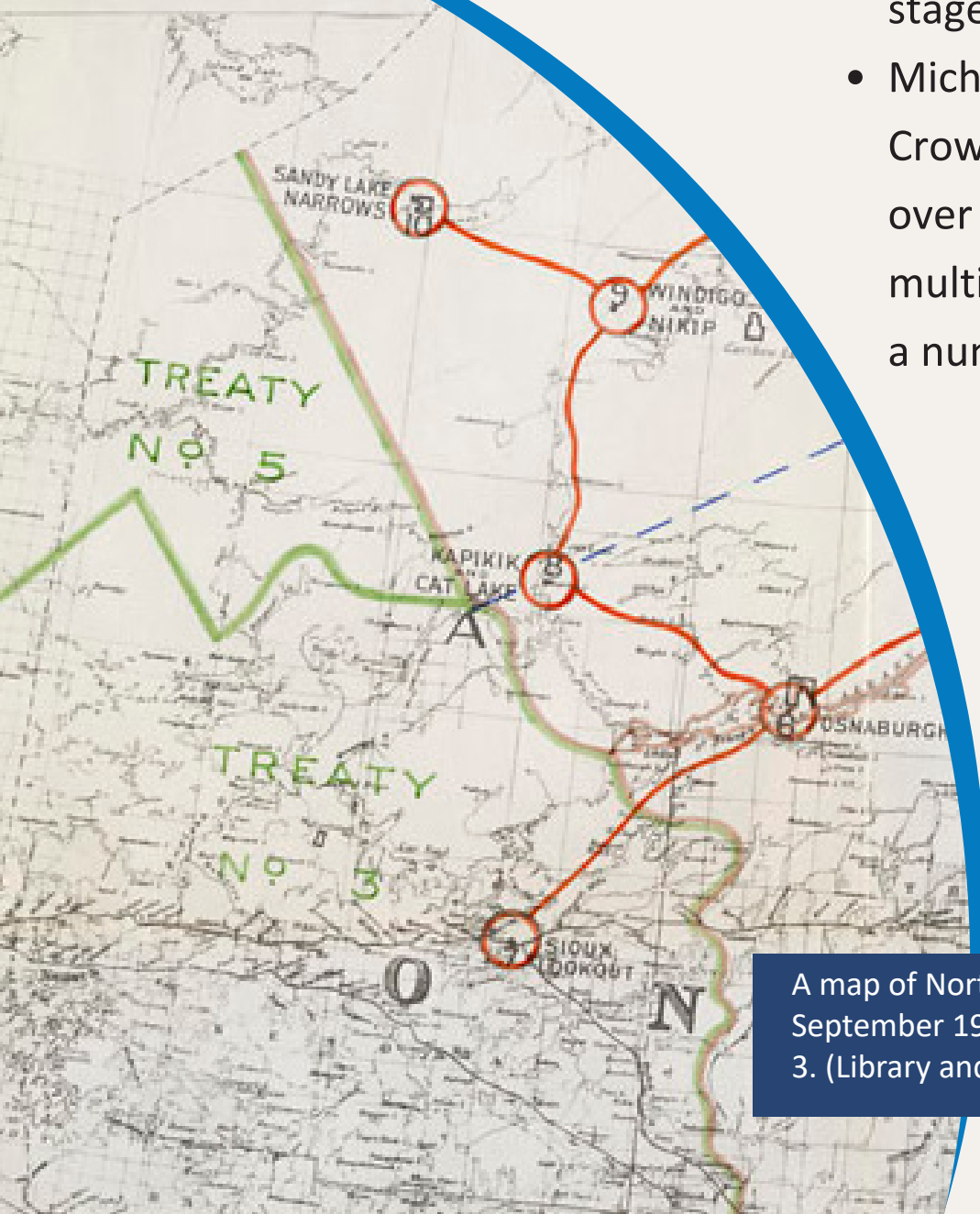
**What's the most popular  
research topic among Surveyors?**

**Roads**



# Provided surveying support to Indigenous Affairs Ontario related to settling claims with First Nations.

- Supported 15 claims at various stages of negotiations.
- Michael Matthews, Senior Crown Land Surveyor, spent over 200 hours supporting multi ministry consultation on a number of Treaty 3 claims.



A map of Northern Ontario Treaties from September 1930 featuring Treaty 5 and Treaty 3. (Library and Archives Canada)

An aerial photograph of a residential neighborhood. The image shows several houses with dark roofs, surrounded by lush green trees. A paved road runs through the center, and a driveway with two cars is visible on the right. The scene is captured from a high angle, looking down on the houses and trees.

## Provided advice to District Offices regarding Land Titles Absolute applications with respect to Crown interests as adjoining landowner.

- Completed 50 Land Titles First applications totaling 575 hours of surveyors and technologists' time.



# Algonquin park lease project

- December 31, 2022, marked the end of a multi-year effort by Ontario Parks to extend the lease term for all cottage lots in Algonquin Provincial Park to 2038.
- Algonquin Park is Ontario's oldest provincial park. Though its history as a national park dates back to 1893, the park was officially established in 1913. There are currently 297 privately leased cottage lots within the park.
- To qualify for a lease extension, all cottagers were required to meet certain eligibility requirements, including a Crown Location reference plan and a surveyor's real property report from a licenced Ontario Land Surveyor. For many of the cottage locations this marked the first time the survey fabric had been renewed in 60-100 years. Given the age of the original Crown surveys, the condition of survey evidence, the complex rail history, and historic flooding of several lakes within the park from its earliest logging days, this was no small challenge for the survey community.
- Renewal efforts were driven by the need for boundary certainty and clear parcel descriptions that meet the present-day requirements of the [Land Titles Act](#) and the [Registry Act](#).



## OSG supported this work and our ministry partners with:

- cost-saving preliminary field work
- extensive research of historical Crown records and advice to surveyors in interpreting field and documentary evidence
- technical review of every survey to ensure the Crown's interests were protected while considering what was fair to the cottagers
- authoring new legal parcel descriptions for all lease renewals
- GIS expertise and mapping of all cottage lot infrastructure to support the management of cottage lots

OSG's Crown Technologists Thomas Guilbeault, Alex Gawlina, Data Support Officer Drew Gertridge and Crown Land Surveyor Roger Grose worked diligently to ensure Ontario Parks was able to meet its obligations and ensure that the survey community had the support needed to help Algonquin cottagers meet their lease renewal requirements.

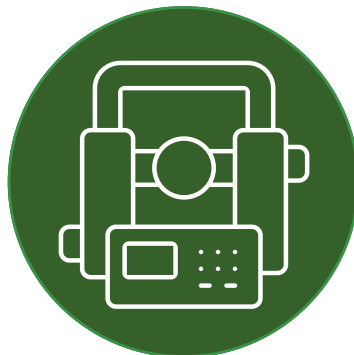


# Crown survey records

Thanks to significant funding and support from the ministry's modernization initiative, the Paper Record Digitization Project team, and numerous partners, OSG, led by Project Manager Karen Hoover, continued to expand Ontario's digital Crown Survey Records collection.

Not only are these records historically important to the province, but they continue to support the legal and business needs of the ministry, our partner ministries, Ontario Land Surveyors and industry stakeholders.

The latest digital additions include:



## 21,534

Crown location survey records across 92 townships, the oldest original records dating to 1797

## 21 Volumes

(over 10,500 bound pages) of historic survey instructions dating back to the early 1800s

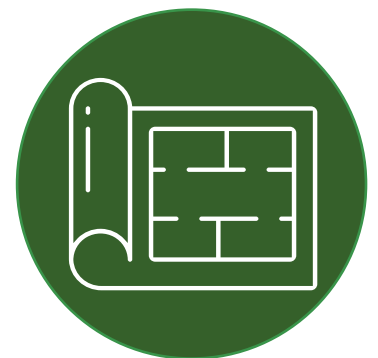


## 843

municipal re-survey files including field notes, survey reports and supporting evidence

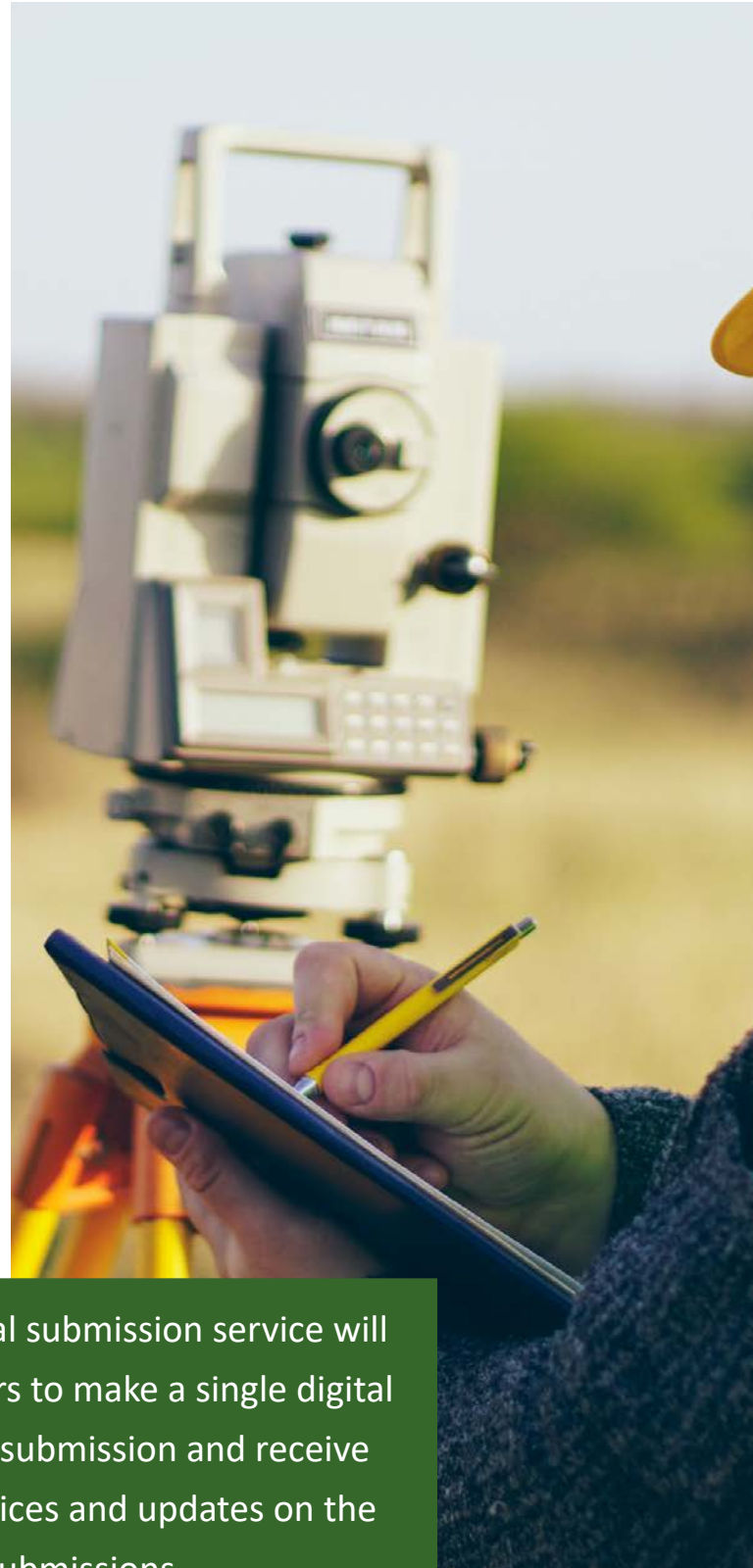
## 1007

historic internal survey opinion and advice files



# Digital survey submissions pilot

- In 2019, Ontario and Teranet introduced the option for electronic submission of survey plans (ePlans) in the land registration system.
- Surveyors find ePlans to be faster and more convenient than filing hardcopy plans at a land registry office and as a result, effective November 10, 2022, this option has been expanded to include direct electronic submission of Crown Land Survey Plans.
- To further streamline and modernize the Crown Land Survey Plan approval process, OSG is piloting a digital submission service using the SharePoint Online platform.



The new digital submission service will allow surveyors to make a single digital Crown survey submission and receive automatic notices and updates on the status of the submissions.

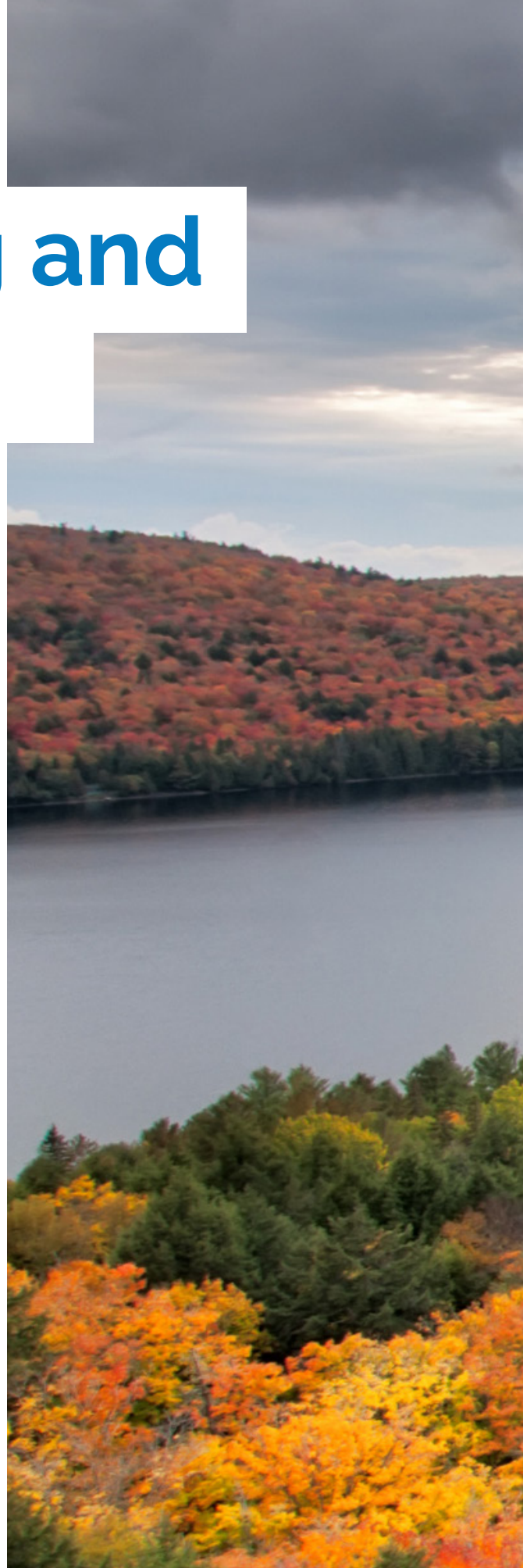
# Parcel mapping and georeferencing

Everyone has looked at a map.  
Some people notice mistakes on maps  
but who fixes these errors?

OSG's Parcel Mapping and Georeferencing Unit  
are responsible for correcting and maintaining  
multiple layers of data including:

- Provincial boundaries
- Geographic Township limits and the Lot Fabric within
- Multiple layers used for the mapping of lands managed by the ministry

The team works closely with ministries of Municipal Affairs and Housing, Mines, Environment, Conservation and Parks, Agricultural, Food and Rural Affairs and Indigenous Affairs Ontario to make sure data layers are accurate and current.

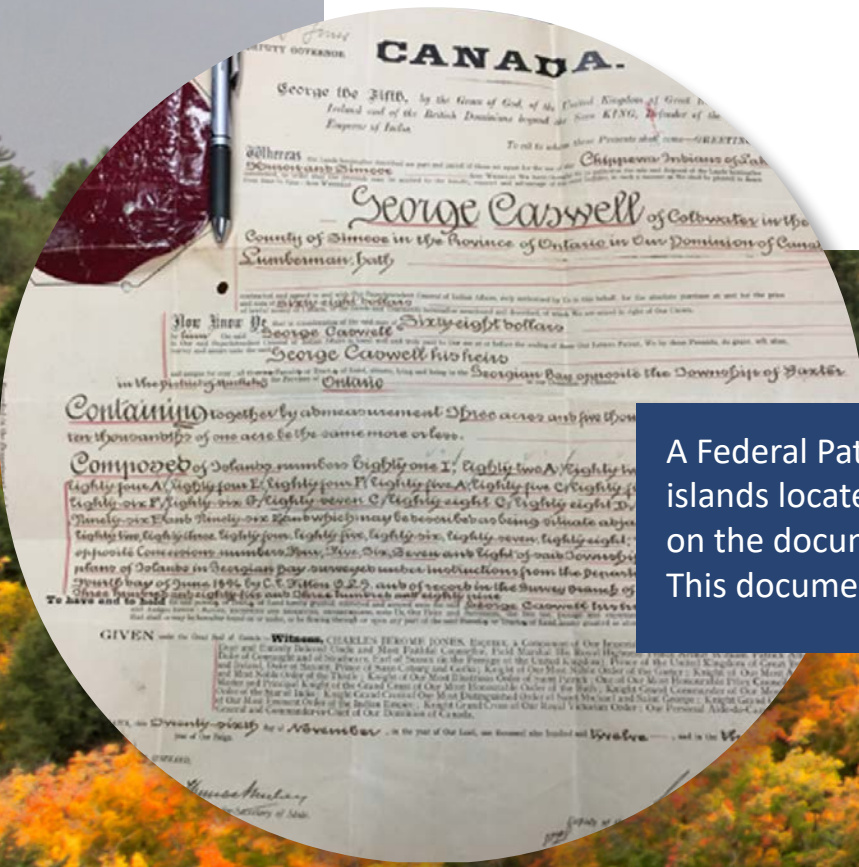




# Crown parcel specialist

The Crown Parcel Specialist, Donna Gertridge, works with Teranet and Municipal Property Assessment Corporation (MPAC) to ensure Ontario Parcel data products are maintained.

The most interesting parts of the job involve the research of a piece of land. This can mean looking at a newly issued land use permit, a federal patent from 1912, or documents much older.



A Federal Patent document issued for islands located in Georgian Bay. The red seal on the document is from King George V. This document is part of our Land Files.

The background of the page features a light gray topographic map with contour lines, primarily visible on the left side and bottom edge.

# Geodetic activities

The Office of the Surveyor General's geodetic team collaborates with municipal, provincial and federal governments to improve and maintain the control network of highly accurate survey points. This provides positional reference for surveying, mapping and infrastructure construction across Ontario.

The Control Survey Information Exchange (COSINE) database is the official source of control survey information for Ontario. [COSINE Online](#) provides users with access to geodetic control data.

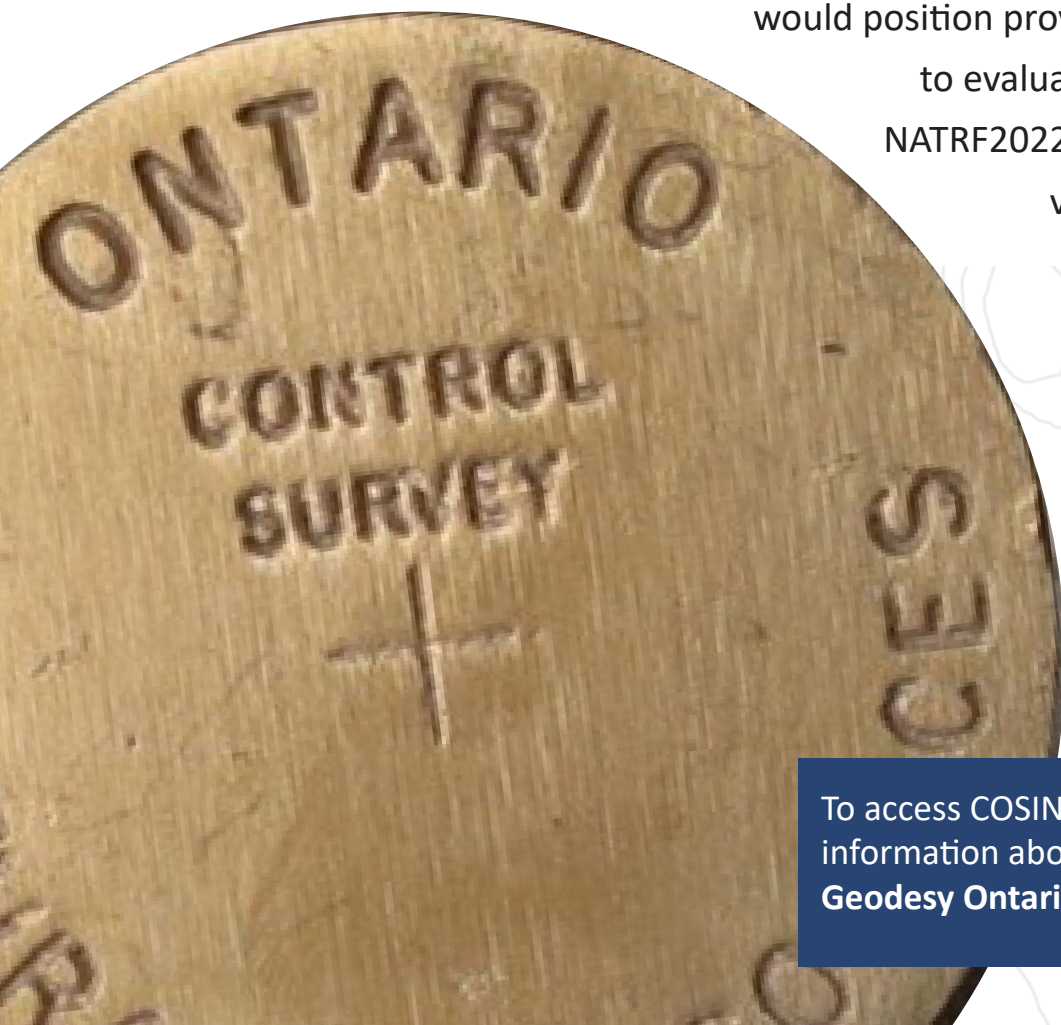
COSINE provides precise coordinate and elevation information for more than 125,000 horizontal control monuments and vertical benchmarks provided by ministries, federal departments, municipalities, conservation authorities and agencies across Ontario. This geodetic control provides the 3-dimensional spatial reference for all positional activities in the province, including surveying.

The geodetic team of Morgan Goadsby, Hassan Ibrahim and Rob Hamer continues to work with other agencies to improve our geodetic reference system, focused on the future implementation of new horizontal and vertical reference systems in Canada.

These systems are promoted by the United States National Geodetic Survey for North America and include:

- North American Terrestrial Reference Frame 2022 (NATRF2022) horizontal datum
- North American-Pacific Geopotential Datum 2022 (NAPGD2022) vertical datum

The implementation of one datum by all geodetic agencies in Canada would lead to the adoption of a specific version of NAD83-CSRS horizontally and CGVD2013 (with a specific version of the Canadian Gravimetric geoid) vertically. This would position provincial and national agencies to evaluate and potentially adopt the NATRF2022 horizontal and NAPGD2022 vertical datums in the future.



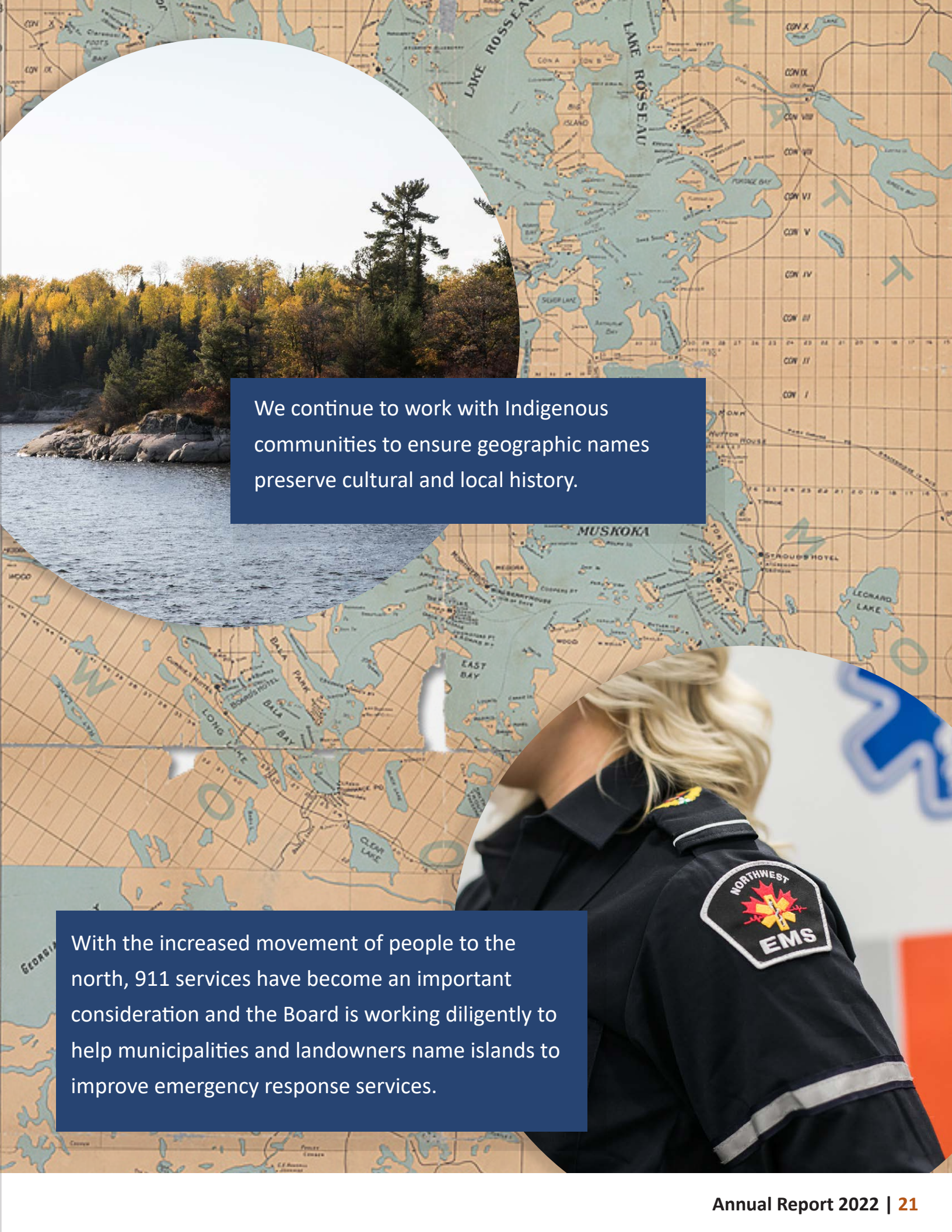
To access COSINE Online, or for more information about geodetic activities, visit **Geodesy Ontario** or email [geodesy@ontario.ca](mailto:geodesy@ontario.ca)

# Ontario geographic names board

- The Ontario Geographic Names Board manages and defines over 220,000 geographical names of places and geographic features in Ontario. In 2022 the Board considered 21 cases at three meetings.
- A number of name applications were circulated to the public through online questionnaires to capture the thoughts, opinions and emotions of people who have a close personal connection to the geographic features

## **In 2022, the geographic names team of Jennifer McMurray, Morgan Goadsby, Yves Blanchard and Dennis Fraser:**

- Participated virtually in the Geographical Names Board of Canada Annual General Meeting
- Developed interactive maps and online questionnaires for public consultation on name proposals
- Promoted the questionnaires through the ministry's social media channels and encouraged citizens to provide feedback
- Continued to develop new naming policies and procedures in collaboration with stakeholders and other jurisdictions that reflect current trends and needs
- Maintained the database of 60,000 official geographic names for official mapping



We continue to work with Indigenous communities to ensure geographic names preserve cultural and local history.

With the increased movement of people to the north, 911 services have become an important consideration and the Board is working diligently to help municipalities and landowners name islands to improve emergency response services.