



**L1301 Transmission Line
Decommissioning Project**

EA Registration

March 16, 2023

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L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

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Abbreviations

AC CDC	Atlantic Canada Conservation Data Centre
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EPP	Environmental Protection Plan
km	kilometre
km ²	square kilometre
kV	kilovolt
m	metre
NL	Newfoundland and Labrador
NLDECC	Newfoundland and Labrador Department of Environment and Climate Change
NLDFFA	Newfoundland and Labrador Department of Fisheries, Forestry, and Agriculture
NL ESA	Newfoundland and Labrador <i>Endangered Species Act</i>
NL Hydro	Newfoundland and Labrador Hydro
NOC	National Occupational Classification
PAANL	Protected Areas Association of Newfoundland and Labrador
PCP	Pentachlorophenol
PMRA	Pest Management Regulatory Agency
PUB	Public Utilities Board
SAR	Species at Risk
SARA	<i>Species at Risk Act</i>
TLH	Trans Labrador Highway
The Project	L1301 Transmission Line Decommissioning Project
WRMD	Water Resources Management Division



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

INTRODUCTION

1.0 INTRODUCTION

Newfoundland and Labrador Hydro (NL Hydro) has received approval from the Public Utilities Board (PUB) to decommission the L1301 transmission line. This undertaking requires Registration under the *Environmental Assessment Regulations* of the *NL Environmental Protection Act*. This document serves as the Registration and is being submitted to the Newfoundland and Labrador Department of Environment and Climate Change (NLDECC) – Environmental Assessment (EA) Division.

1.1 NAME OF UNDERTAKING

L1301 Transmission Line Decommissioning Project (the “Project”).

1.2 PROPONENT INFORMATION

NL Hydro is the people’s Crown utility with both regulated and unregulated operations across the province, including major power generation assets in Churchill Falls, Muskrat Falls, Bay d’Espoir, and Holyrood. NL Hydro provides power to more than 200 communities across Newfoundland and Labrador (NL).

Proponent contact information is provided in Table 1.1.

Table 1.1 Proponent Contact

Proponent		
Name:	Newfoundland and Labrador Hydro	
Address:	Hydro Place, 500 Columbus Drive, St. John’s, NL A1B 0C9	
Company Representative:	Gail Collins, Vice President, People and Corporate Affairs	
Website	hydro@nlh.nl.ca (general inquiries)	
Principal Proponent Contacts		
Name:	Ken Sparkes	Andre Marshall, P. Eng.
Title:	Environmental Specialist, Environmental Services	Transmission Engineer, Engineering Services
Telephone:	709-737-1204 c. 709-690-8694	709-778-6634 c. 709-693-7075
Email:	KenSparkes@nlh.nl.ca	AndreMarshall@nlh.nl.ca



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INTRODUCTION

1.3 THE UNDERTAKING

1.3.1 Project Overview

L1301 (previously known as TL240) is a de-energized 138 kV wood pole transmission line that was completed in 1977, with a total length of approximately 269 km. L1301 connects Churchill Falls Terminal Station 1 to Muskrat Falls Terminal Station 1, near the Muskrat Falls Hydroelectric Generating Facility (Appendix A). NL Hydro is planning to dismantle, remove, and dispose of the L1301 transmission line (the Project), and received approval to complete this work from the PUB on September 12, 2022, in Order No. P.U.29(2022).

1.3.2 Purpose / Need / Rationale for the Project

With the completion of the Muskrat Falls to Happy Valley Interconnection in 2021, the L1301 transmission line is no longer required to deliver power to communities in eastern Labrador. Since that interconnection in 2021, L1301 has been inactive and is no longer maintained. L1301 has no forecasted use in the transmission plan for Labrador and its removal will not adversely affect the reliability of service NL Hydro provides. NL Hydro is, therefore, now planning to decommission and remove the inactive 269-km 138 kV wood pole transmission line.

It is anticipated that the decommissioning activities would occur over five years and will involve the dismantling, removal and disposal of material.

1.4 APPROVAL OF THE UNDERTAKING

Given decommissioning projects are regulated under the NL *Environmental Protection Act*, pursuant to section 27 of the NL *Environmental Assessment Regulations*, the Project requires an Environmental Registration Document for submission to the NLDECC –EA Division. This is confirmed through correspondence with the EA Division on September 1, 2022, which advised NL Hydro that the Project is an undertaking requiring environmental review.

Other permits and authorizations that may be required for the Project are listed in Table 1.2.

Table 1.2 Permits and Authorizations Required for the Project

Permit	Responsible Authority	Notes
Federal		
Letter of Advice	Fisheries and Oceans Canada	NL Hydro currently holds a Letter of Advice from Fisheries and Oceans Canada (DFO) regarding transmission line maintenance.
Provincial		
Release of the Undertaking under the NL <i>Environmental Assessment Regulations</i>	NLDECC – EA Division	This Registration document represents the “application” for this regulatory process.



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Table 1.2 Permits and Authorizations Required for the Project

Permit	Responsible Authority	Notes
Consent to the Abandonment of Transmission Line	Public Utilities Board	Application approved by PUB in September 2022.
Wildlife Permit (to remove / relocate raptor nests)	NL Department of Fisheries, Forestry, and Agriculture (NLDFFA) – Wildlife Division	NL Hydro applies and receives annually
Permit for Alterations to a Body of Water	NLDECC – Water Resources Management Division (WRMD)	NL Hydro will acquire permits for alterations to water bodies for this Project.
Access to Highway Permit	NL Department of Transportation and Infrastructure and/or Digital Government and Service NL	
Road Construction Permitting	NL Department of Transportation and Infrastructure	May be required if new access roads are required
Permit to Cut Crown Timber	NLDFFA - Forest Management	A permit is required for cutting of timber on crown land
Note: Subject to NL Hydro’s treated wood testing results, a municipal “waste disposal authorization” may be required.		

1.5 ENGAGEMENT AND CONSULTATION

To decommission or abandon L1301 assets, NL Hydro filed an application with the PUB on July 18, 2022, requesting written consent for the abandonment of L1301, as required under Section 38 of the *Public Utilities Act*. Section 38 of the Act also required NL Hydro to provide written notice to incorporated municipal bodies that may have interest in the transmission line. NL Hydro provided written correspondence to the Town of Happy Valley-Goose Bay, the Town of North West River, and the Sheshatshiu Innu First Nation in June 2022. The Town of Happy Valley-Goose Bay responded advising it had no objection with the decommissioning of L1301. NL Hydro representatives also had conversations with representatives of those communities regarding the decommissioning plans. During these consultations, local MHA Perry Trimper offered his support for the decommissioning of L1301 and suggested that raptor nests be retained as a mitigation measure.

As part of the filing, the abandonment application was also provided to other stakeholders, including:

- Newfoundland Power Inc.
- the Consumer Advocate, Dennis Browne, K.C.
- A group of Island Industrial customers:
 - Corner Brook Pulp and Paper Limited
 - Braya Renewable Fuels (Newfoundland) GP Inc.
 - Vale Newfoundland and Labrador Limited
- The communities of:
 - Sheshatshiu
 - Wabush
 - Labrador City



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- Iron Ore Company of Canada
- Teck Resources Limited
- Praxair Canada Inc.

Following an exchange of information between NL Hydro and the Labrador Interconnected Group (the communities of Sheshatshiu, Happy Valley-Goose Bay, Wabush, and Labrador City), the PUB approved the L1301 abandonment application in Order No. P.U. 29(2022), dated September 12, 2022.



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

DESCRIPTION OF THE UNDERTAKING

2.0 DESCRIPTION OF THE UNDERTAKING

2.1 LOCATION

The Project is located in central Labrador, in the Churchill River watershed. The 269-km 138 kV transmission line extends from Muskrat Falls Terminal Station 1 to Churchill Falls Terminal Station 1 (Figure 2-1). L1301 is generally located parallel to the recently constructed 315kV Labrador Transmission Assets under the Lower Churchill Project.

2.2 PROJECT DECOMMISSIONING ACTIVITIES

Decommissioning activities will involve the dismantling, removal, and disposal of L1301, including the poles, lumber cross arms and braces, insulators, conductor, and other associated hardware. Specific components to be removed are approximately:

- 2,372 wood poles (treated with pentachlorophenol [PCP]); poles will be cut at the ground line and butts will be left in the ground
- 1,200 lumber cross arms (4" x 10" x 29', treated with PCP)
- 2,400 lumber cross braces (4" x 6" x 21', treated with PCP)
- 25,000 insulators (porcelain and glass)
- 750 km (590,000 kg) of aluminum alloy conductor (to be brought to a recycling facility)

The Project consists of the following activities:

- The dismantling of insulators, conductors and associated hardware through the use of heavy equipment which will be brought to site along existing access roads. It is anticipated that existing clearings and laydown areas will be used for staging heavy equipment and storage and handling of materials prior to transport; no new laydown areas will be constructed.
- The removal of poles, lumber cross arms and braces. It is anticipated that poles will be cut at ground level. The base of each pole will be left in place.
- Proper disposal of the components by the contractor in accordance with NL Hydro's standard environmental management processes and applicable requirements.

Given the L1301 line is generally located parallel to the recently constructed 315kV Labrador Transmission Assets, the access required to support Project activities is largely in place. Access may require fording at some locations, which will be completed under permit for fording through NLDECC WRMD. Incidental clearing along the access roads and right-of-way is anticipated in some isolated sections of the line. If required, cutting back of overgrown vegetation will be completed manually or with heavy equipment such as a road-side brush cutter or excavator, and will be conducted in accordance with NL Hydro's Environmental Protection Plan (EPP) for this Project. It is anticipated that work will be conducted in a "load and go" manner. Stockpiling of materials for disposal will be limited, of short duration, and will not require the clearing of new areas.



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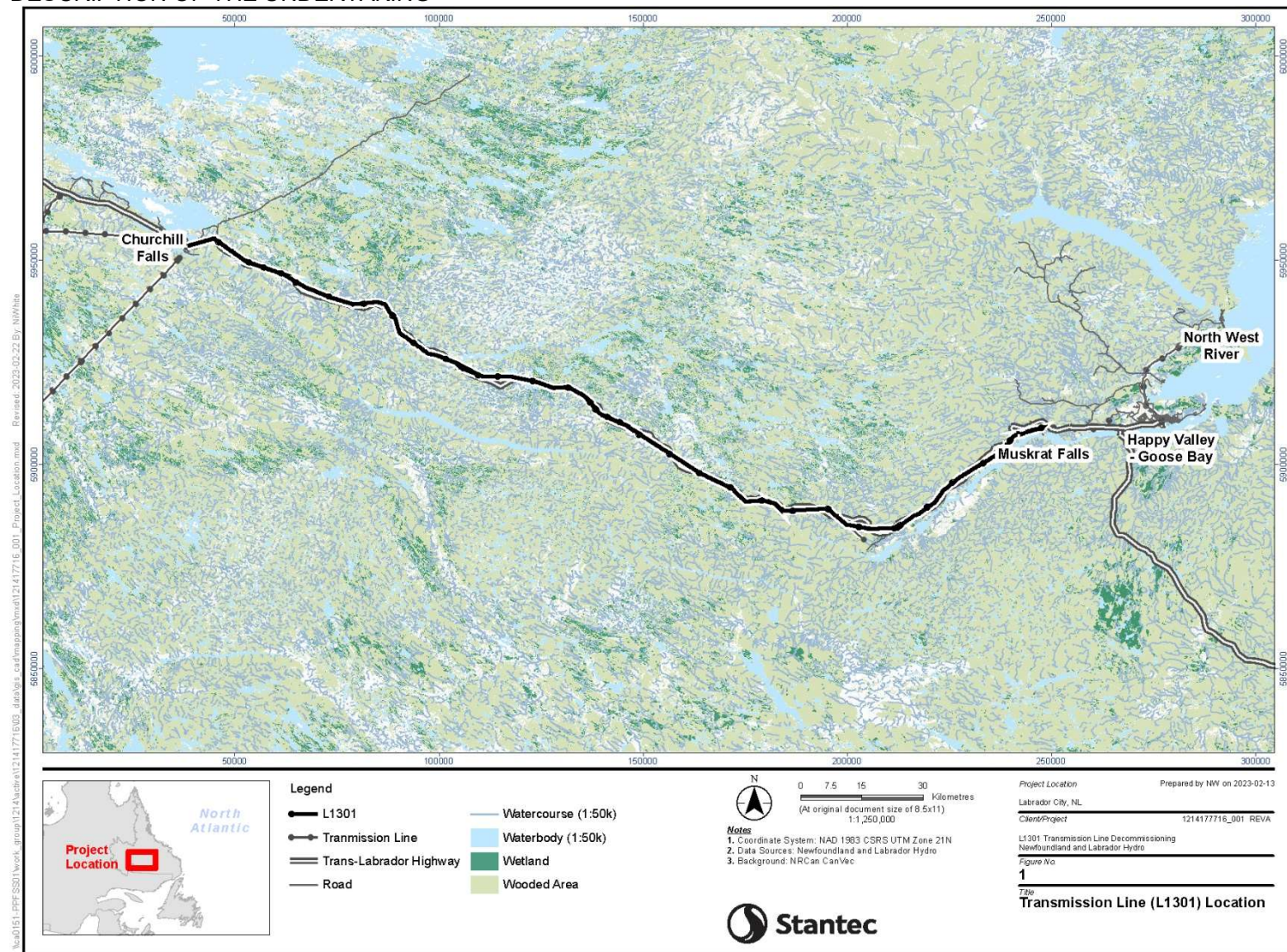


Figure 2-1 Location of L1301



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Project activities will primarily be completed by contractors. The following equipment will be required to complete the Project activities:

- Two excavators
- Four pick-up trucks
- Three tracked boom vehicles
- Four dump trucks
- Two tractor-trailers

Following the dismantling and removal of the components noted above, material will be recycled and disposed of. It is anticipated that approximately 20% of the line will be dismantled and disposed of per year. NL Hydro will commit to implementing an EPP for the Project consistent with their standard EPP template (see Appendix B).

2.3 WASTES, DISCHARGES AND EMISSIONS

The management of industrial and domestic waste generated during a decommissioning project is an important aspect of environmental management of the work site. Work areas will be kept clean and in a sanitary condition. Wastes generated by the Project will include the wood poles and other infrastructure removed as part of the decommissioning activities and NL Hydro will work with the contractor to determine the appropriate waste management requirements for treated wood and other decommissioned infrastructure.

The wood poles used for L1301 were treated with PCP prior to construction of the transmission line. PCP is registered as a heavy-duty wood preservative in Canada. It has been used throughout North America since the 1930s as a preservation treatment for railway ties, utility poles and piling, and other outdoor construction materials. Use of PCP in Canada has been under review by the Pest Management Regulatory Agency (PMRA) in recent years and PMRA announced in September 2022 that the use of PCP-treated products is to be phased out by October 4, 2023, after which time the sale, import and installation of wood treated with PCP is prohibited. Wood treated with PCP that was installed and in service as of October 4, 2023, will not be required to be replaced or removed. Through its involvement with Electricity Canada, NL Hydro and industry partners are pursuing a legal remedy, pursuant to Section 41 of the *Pest Control Products Act* (S.C.2002, c.28), that would allow use or re-use of existing inventories of PCP treated materials for a period of time beyond October 4, 2023. If successful, NL Hydro intends to retain some PCP treated materials from this Project that are in suitable condition for re-use.

In the absence of approval to use existing PCP treated products beyond October 4, 2023, decommissioned treated wood poles will be disposed of following applicable guidelines. It is anticipated that work will be “load and go”; stockpiling will be limited, of short duration, and will not require the clearing of new areas. With the use of PCP treated materials not presently authorized after October 4, 2023, treated poles cannot be reused and will be disposed of at an approved landfill. NL Hydro investigated the alternative of transporting treated wood to an approved recycling facility out-of-province; however, this alternative was cost-prohibitive. Treated wood waste will be tested to determine the appropriate disposal method as per Guidance Document GD-PPD-075.1: Treated Wood Waste Disposal



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(NL Department of Environment and Conservation 2015). Limited sampling completed to date indicates that the treated materials do not exceed the threshold for landfill disposal.

Conductor and hardware will be recycled and insulators will be delivered to a recycling facility for recovery of metal components. Hazardous waste materials will not be generated in large quantities and will be disposed of through conventional waste-oil and hazardous waste disposal streams in accordance with NL Hydro's standard environmental management processes. Personnel will take the necessary precautions to prevent and reduce the spillage, misplacement, or loss of fuels and other hazardous material. Fuels and other hazardous materials will be handled only by persons who are trained and/or qualified in handling these materials in accordance with manufacturer's instructions and government laws and regulations.

During Project activities, air emission sources will include the use of mobile equipment and vehicles. Equipment will have exhaust systems regularly inspected and mufflers will be operating properly, as required by NL Hydro's Environmental Protection Plan. Equipment will meet the requirements of the provincial *Air Pollution Control Regulations* under the *Environmental Protection Act*.

There are no liquid discharges anticipated as part of the Project.

2.4 SCHEDULE

The Project is proposed to be executed over five years, beginning in 2023 and concluding in 2027. Work is planned to take place between May and October each year, with approximately 50 km of the transmission line taken down and disposed of each year. Work will commence on the Churchill Falls end of the line and progress eastward. However, NL Hydro maintains flexibility in its schedule and planning will incorporate environmental factors (e.g., osprey fledging, caribou movement).

2.5 ALTERNATIVES

L1301 is now serving no purpose as it is no longer required to deliver reliable electrical service to any of NL Hydro's customers, and the line has no forecasted use in the transmission plan for Labrador. The line is near end-of-life and if left standing, it would pose a safety risk unless it were maintained (the structures would eventually deteriorate and the line would fall to the ground). The line serves no purpose and decommissioning is approved under the *Public Utilities Act*.

2.6 EMPLOYMENT

2.6.1 Occupations

It is anticipated that approximately 25 staff members will be involved in the Project. The occupations (with NOC code breakdown) required for this Project are listed in Table 2.1. Decommissioning will primarily be completed by contractors, with NL Hydro construction management representatives and an environmental monitor also on site.



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Table 2.1 Project Occupations

National Occupational Classification Code	Occupation	Number of Staff
72201	Journeyman PLTs (skilled trade)	4
72202	Apprentice PLTs (skilled trade)	6
72021	Labourers	6
72021	Heavy equipment operators	4
72011	Foremen (Supervisors)	2
22232	Safety Professional	1
72024	Traffic Controllers	2

2.6.2 Diversity and Inclusion

NL Hydro is committed to supporting its employees and contractors, ensuring the principles of inclusion and equality are integrated company-wide and within the workplace.

2.7 ENVIRONMENTAL MANAGEMENT

NL Hydro is committed to sustaining a diverse and healthy environment for all residents of NL, both now and in the future, by following their Environmental Policy and Guiding Principles. Being environmentally and socially responsible means managing risk and reducing NL Hydro's impact on the environment. NL Hydro works hard to maintain a high level of environmental responsibility, compliance, and performance through the implementation of their ISO 14001 registered Environmental Management System.

Environmental protection planning is an integral part of how NL Hydro operates. NL Hydro's EPP will be implemented for activities associated with decommissioning, consistent with NL Hydro's Environmental Policy and Guiding Principles and ISO 14001 Environmental Management System. The EPP includes erosion and sedimentation control, wildlife management, avifauna management, fish and fish habitat protection, spill prevention, and contingency plans (as necessary). Once decommissioning is completed, areas adversely affected by decommissioning activities will be restored to a state that resembles natural conditions (e.g., new access points).



3.0 ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS

3.1 ATMOSPHERIC ENVIRONMENT

3.1.1 Environmental Setting

The Project is in the Low Subarctic Forest, Mid Subarctic Forest, and the High Boreal Forest Ecoregions of Labrador. The climate in these regions is characterized by intense, low-pressure systems in the fall, winter, and early spring seasons, with strong winds, heavy snowfall, and rain commonly occurring in the Churchill River valley. Inland areas experience shorter summers and longer, more severe winters compared to areas farther east. Occurrences of fog and strong winds also decrease with distance inland from the coast. This part of Labrador generally experiences a transition between the Arctic and the sub-Arctic climates (Nalcor Energy 2009; Government of Canada 2020).

Air quality in the Project site is considered to be representative of a pristine environment (Nalcor 2009). There are limited anthropogenic sources of greenhouse gas, light, and noise emissions in the area apart from the Trans Labrador Highway (TLH) and access roads that run parallel to L1301.

3.1.2 Potential Resource Conflicts

Project activities will generate short-term (i.e., over five years between May and October each year) localized air contaminant emissions due to use of equipment and vehicles during decommissioning activities. Equipment and vehicles will be maintained in good working order to reduce the amount of emissions generated. Potential conflicts with the atmospheric environment are anticipated to be short-term and localized in nature.

3.2 WATER RESOURCES

3.2.1 Environmental Setting

L1301 is located in the Churchill River watershed, which drains an area of approximately 94,000 km². There are a number of major watercourses within this watershed, including the Churchill River, Pinus River, Fig River, Metchin River, Lower Brook, and Upper Brook (Government of NL n.d.).

3.2.1.1 Churchill River

The Churchill River is 856 km long and flows east from Smallwood Reservoir into Lake Melville. Flow in the river is regulated by outflows from the Churchill Fall Generating Station, with local flow contributions from snow melt and rainfall. It is the longest river in Labrador and has high hydroelectric potential due to its heavy flow and large drop from the Labrador Plateau (Government of NL n.d.; Marsh 2015).



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Seventeen fish species have been documented in the Churchill River through environmental studies above Muskrat Falls. Dominant species in the river include longnose sucker (*Catostomus catostomus*), white sucker (*Catostomus commersonii*), lake whitefish (*Coregonus clupeaformis*), brook trout (*Salvelinus fontinalis*), land-locked Atlantic salmon (*Salmo salar ouananiche*), and northern pike (*Esox lucius*). Anadromous (sea-run) Atlantic salmon were found to not occur above Muskrat Falls, which acts as a barrier to fish passage both before and after construction of the hydroelectric facility (Nalcor 2009). L1301 does not cross Churchill River but does run parallel to the new transmission line in certain portions, separated by a minimum distance of 0.65 km at its nearest point.

3.2.1.2 Other Watercourses

There are several major watercourses in proximity to the Project, which are listed in Table 3.1. L1301 crosses over three major watercourses: Pinus River; Metchin River; and Cache River; these are tributaries, feeding into Churchill River. Given their connectivity, fish species documented in Churchill River are likely also present in these rivers. There are 174 stream segments that intersect with L1301 (1:50k CanVec hydrology network) and 2,149 stream segments located within 2.5 km of L1301.

Table 3.1 Distance of L1301 to Major Watercourses

Major Watercourse Name	Distance from L1301 (km)	Comment
Pinus River	0	Crosses near confluence with Churchill River
Metchin River	0	Crosses north / south and empties into Churchill River
Cache River	0	Crosses north / south and empties into Churchill River
Goose River	11.5	North of L1301
McKenzie River	6.5	South of L1301
Peter's Brook	12.1	North of L1301
Elizabeth River	17.5	South of L1301
Traverspine Brook	14.0	Southeast of L1301
Upper Brook	12.0	Southeast of L1301*
Lower Brook	6.1	North of L1301

* Possibly crosses with L1301 and empties into Churchill River

3.2.1.3 Water Supply

L1301 is in proximity to unprotected Groundwater Zone 1 - varied zones of protection in which specific activities are prohibited (Happy Valley-Goose Bay) and Churchill Falls - Water Supply Domestic Unprotected Surface Water Natural Drainage Area – the entire catchment basin (or drainage area), which includes all areas of influence above the intake.



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ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS

3.2.2 Potential Resource Conflicts

Decommissioning activities will involve the removal of transmission line components, including the use of heavy equipment and excavation near water. Desktop studies identified three major watercourse crossings and 174 crossings with stream segments; however, the exact location and number of crossings will be verified prior to decommissioning activities and monitored as the work progresses. The Project site does not overlap with scheduled salmon rivers (Government of Canada 2022).

Project activities could lead to adverse effects on water quality, fish and fish habitat, and fish health and survival. Decommissioning activities could result in a change in the quality of surface water runoff to fish habitat through sedimentation and the introduction of deleterious substances (e.g., grease, fuel) from machinery. Sedimentation / erosion associated with fording or riparian vegetation clearing could affect water quality through changes in pH, trace metals, and total suspended solids.

Introduction of sediments and contaminants into fish habitat could also adversely affect fish health and survival. Suspended sediment could cause a reduction in visibility, which could hinder the ability to locate prey. Fish Injury, mortality, and an increase to susceptibility to disease can also occur through gill damage. Changes to predation rates, food availability, shade, protective cover, and nutrient / energy inputs could also occur if the removal of riparian vegetation is required (Zalewski et al. 2001). Fish health and survival can also be adversely affected if fish passage to essential habitat (e.g., for rearing, spawning) is blocked during decommissioning (Dunham et al. 1997; Khan and Colbo 2008).

The timing of Project activities could influence the environmental effects on fish health and survival if they occur during sensitive periods (e.g., sedimentation during spawning, incubation, or hatching period of a fish species). Work will be conducted to respect DFO timing windows to protect fish and avoid direct mortality of fish larvae or eggs (DFO 2019). NL Hydro has established, authorized ford sites.

With the implementation of NL Hydro's EPP and risk-based environmental monitoring, the release of potential contaminants and sediments into watercourses will be reduced. Work will be done in a way that limits harmful elements from entering waterbodies, including but not limited to materials like sediment, gasoline, and oil. Work crews will also be responsible for implementing appropriate erosion control measures to mitigate areas where terrain stabilization measures are required to protect aquatic habitat. Stream crossings that require fording will be conducted in a manner to limit disturbance and sediment / contaminant release into the water. NL Hydro will acquire permitting for alterations to water bodies as required for the Project. Potential conflicts with the aquatic environment are anticipated to be short-term (i.e., over five years between May and October each year) and localized in nature.



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3.3 TERRESTRIAL ENVIRONMENT

3.3.1 Environmental Setting

Vegetation in the Project area is typical of boreal and taiga ecosystems and is dominated by black spruce (*Picea mariana*), which can tolerate the region's intense weather and nutrient-poor conditions. The most common habitats found here are lichen woodlands and black spruce coniferous forests. Lichen woodlands are open, wooded areas of widely spaced black spruce with an understory of light-coloured lichens (*Cladonia species*) and shrubs such as Labrador tea (*Rhododendron groenlandicum*). Black spruce forests are more common in moist areas with an understory of sphagnum moss and often border bogs. Closed-crown forests and river terraces are more prevalent in areas closer to the Muskrat Falls Generating Station. Other tree species that may occur in the Project area include tamarack (*Larix laricina*), white spruce (*Picea glauca*), balsam fir (*Abies balsamea*), and several hardwood species (PAANL 2008a, 2008b, 2008c).

L1301 crosses through several wetland areas, which consist primarily of bogs and fens, with poor drainage and a thick layer of peat. In these areas, shrubs and mosses are frequently found where bogs and fens are more typical of sphagnum moss and grasses and sedges, respectively. In Labrador, bogs and fens are commonly formed in narrow ridges or “strings” of hummocky vegetation with alternating of numerous pools. Scattered patches of permafrost are found in some bogs (PAANL 2008a, 2008b, 2008c). Bogs and wetlands habitats are essential as they can filter groundwater, provide nesting, rearing, and foraging areas for bird species and are important foraging areas for large mammals.

The range of two woodland caribou populations, the George River Caribou – Eastern Migratory Population and the Boreal Caribou Population, overlap with the Project, with the latter listed as Threatened on Schedule 1 under the federal *Species at Risk Act* (SARA). Woodland caribou are important and culturally significant to Indigenous people in Labrador and also provide food, cultural, recreational, and economic benefits to other residents and non-residents. They are also a primary food source for many predators. Caribou from the migratory George River herd traverse great distances every year from their calving and summering grounds above the tree line to their wintering regions in Central Labrador, where they overlap with a portion of L1301. Of the three local (non-migratory) populations of boreal caribou in Labrador, caribou from the Lac Joseph and Red Wine Mountain populations have the potential to overlap with the Project, whereas the traditional range of caribou from the Mealy Mountain population occurs farther to the east. The Red Wine Mountain population, in particular, spend the entire year below the tree line in an area that includes the Churchill River watershed, and will travel relatively short distances between their summer and winter ranges (Nalcor Energy 2009; Notzl et al. 2013). Regardless of their movements, the range for both migratory and non-migratory populations in Labrador should be considered Sensitive Wildlife Areas and land use proposals referred to the Wildlife Division for consideration (D. Delaney, personal communication via email, Dec. 1, 2022).

Other large mammals occur in Central Labrador, including moose (*Alces alces*), black bear (*Ursus americanus*), and a variety of furbearers, small mammals, bats, and birds. Raptor species including osprey (*Pandion haliaetus*) and bald eagle (*Haliaeetus leucocephalus*), have been known to nest near



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ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS

waterbodies, in tall conifer trees, and large rocks (Nalcor Energy 2009), with several osprey nests identified along the L1301 route in previous NL Hydro maintenance surveys (Appendix A).

In addition to woodland caribou, a review of the Atlantic Canada Conservation Data Centre (AC CDC) database identified the following rare or at-risk species within a 2.5-km buffer along L1301 (Table 3.2; Figure 3-1; AC CDC 2023). For species designated as rare or at risk, individual species and/or their dwellings are provided protection provincially, under the Newfoundland and Labrador *Endangered Species Act* (NL ESA) and/or on Schedule 1 of SARA.

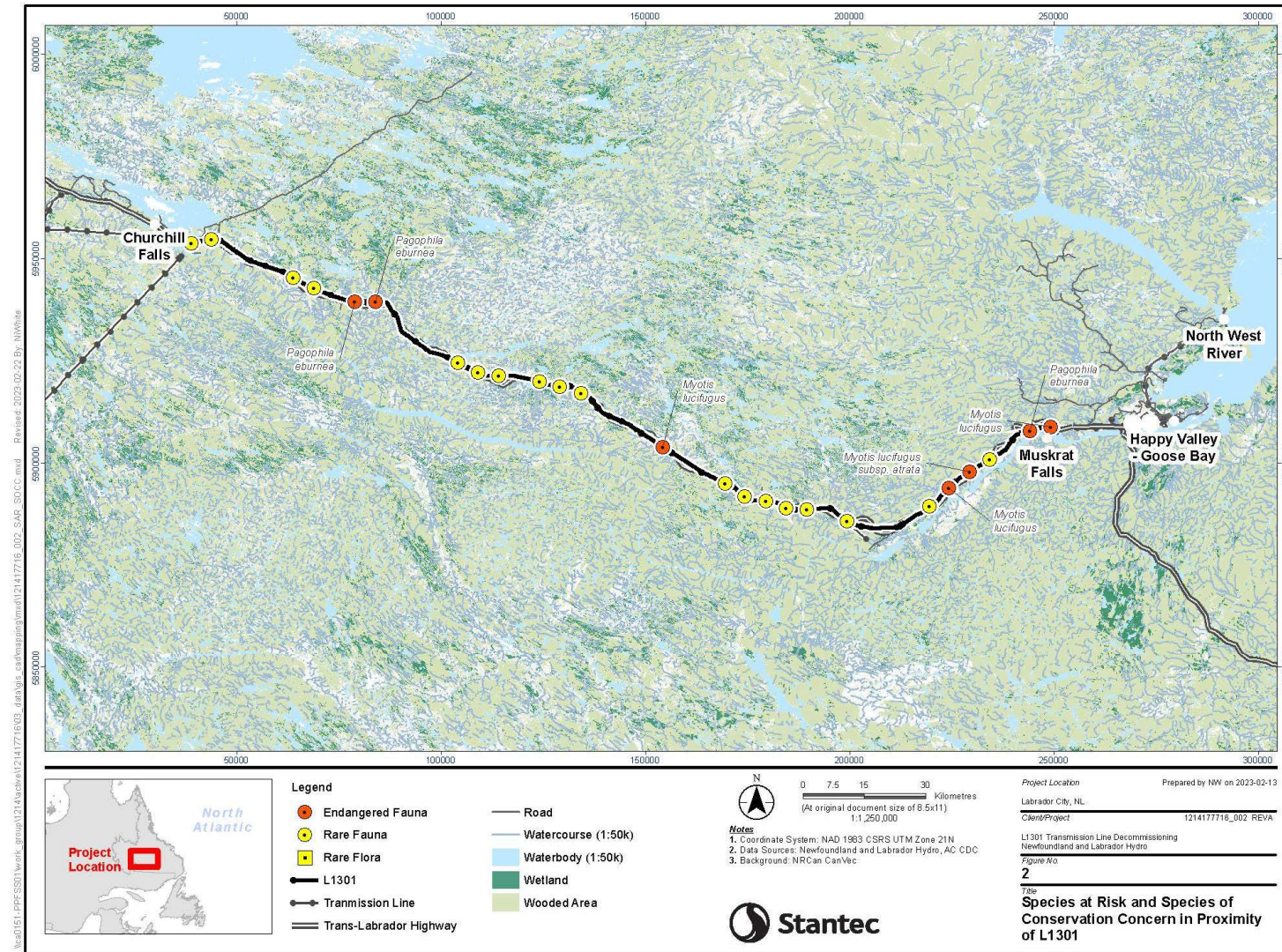
Table 3.2 At Risk Species Along L1301 Identified from AC CDC Database Search

Common Name	Species	NL ESA Status	SARA Status
Short-eared Owl	<i>Asio flammeus</i>	Vulnerable	Special Concern
Gray-cheeked Thrush	<i>Catharus minimus</i>	Vulnerable	Not listed
Common Nighthawk	<i>Chordeiles minor</i>	Threatened	Special Concern
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Not listed	Special Concern
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Threatened	Special Concern
Rusty Blackbird	<i>Euphagus carolinus</i>	Vulnerable	Special Concern
Harlequin Duck	<i>Histrionicus histrionicus</i>	Vulnerable	Special Concern
Little Brown Myotis	<i>Myotis lucifugus subsp. atrata</i>	Not listed	Endangered
Ivory Gull	<i>Pagophila eburnea</i>	Endangered	Endangered
Bank Swallow	<i>Riparia riparia</i>	Not listed	Threatened



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS



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Figure 3-1 Species At Risk and Species of Conservation Concern Along L1301 Identified from AC CDC Database Search



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS

3.3.2 Potential Resource Conflicts

Project activities will include the dismantling of transmission line components and potential use of laydown areas for heavy equipment, which could result in habitat loss for species. The use of equipment, personnel, and transportation along access roads will also result in temporary disturbance from noise, light, dust emissions, and additional habitat loss if vegetation clearing is required. Additionally, activities that require working on bogs or wetlands could cause disturbance by heavy equipment, resulting in damages to the wetland environment and adverse effects to wildlife using the habitat (e.g., nesting bird species).

With the implementation of mitigation measures outlined in NL Hydro's EPP, risk-based environmental monitoring, and flexibility in scheduling and planning, adverse effects for environmental factors including osprey fledging, migratory bird breeding periods, caribou movement, and species at risk (SAR) will be reduced.

Specifically, to reduce disturbance to bogs and wetlands, an assessment will be done prior to moving equipment across to determine an adequate travel route and to identify the presence of wildlife. The use of corduroy or skids will be used if required.

Raptor nests (primarily osprey) are known to be present on transmission structures at the Project site. Nest locations and nest status (i.e., active, inactive-viable, inactive-nonviable) will be assessed by NL Hydro each spring / summer as necessary to plan mitigation and monitoring requirements. Nest assessment results will inform the annual decommissioning plan such that potential impacts to nesting activity can be reduced, particularly during the June 1 to August 15 nesting period. NL Hydro's standard operating procedures (see Appendix C) for working within 800 m of a raptor nest will apply to decommissioning activities and NL Hydro will provide environmental monitoring as needed.

NL Hydro plans to retain active (i.e., those that contain adults, eggs, or chicks) and inactive-viable (i.e., has a well-defined bowl and a well-consolidated nest structure) raptor nests where safe to do so. Inactive-nonviable nests may be removed subject to permit requirements. Where possible, required nest relocations will be planned to avoid periods when eggs or chicks are present.

For active and inactive-viable nests, NL Hydro will confirm the preferred nest retention approach on a site-by-site basis considering nest condition and location, transmission structure condition, relocation constraints, and timing. NL Hydro will decommission the transmission structures to the extent possible in conjunction with the nest retention effort. Primary options include:

1. Retain the nest in its existing location without disturbance; add support to the nest if required and feasible; decommission the transmission structure to the extent possible (e.g., remove one pole, cross bracing, hardware, guys)
2. Retain the nest in the existing structure by relocating the nest to a platform on the same pole or the adjacent pole; decommission the transmission structure to the extent possible
3. Relocate the nest to a platform near the structure location (this approach may use a decommissioned pole in good structural condition); decommission the transmission structure



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

ENVIRONMENTAL SETTING AND POTENTIAL RESOURCE CONFLICTS

Provincial and federal regulations will be followed, and special protection measures will be implemented if SAR species are encountered at the Project site. Timing of work in the vicinity of SAR species will be modified to avoid disturbance of SAR species when present.

Potential conflicts with the terrestrial environment, including species at risk are anticipated to be short-term (i.e., over five years between May and October each year) and localized in nature.

3.4 SOCIO-ECONOMIC ENVIRONMENT

3.4.1 Environmental Setting

Labrador's population is spread among small coastal communities and larger centres in areas in Upper Lake Melville, which includes the communities of Happy Valley-Goose Bay, Sheshatshiu, North West River, and Mud Lake, and Western Labrador, which includes Labrador City and Wabush. Approximately one-third of Labrador residents are of Indigenous descent, including Innu, Inuit, and Southern Inuit. Land and resource use activities in Labrador include snowmobiling, hunting, boating, firewood cutting, angling, and berry picking. Activities in the Churchill River valley typically occur in areas near the TLH and are enjoyed by both Indigenous and non-Indigenous users year-round. Innu land and resource use for subsistence and traditional purposes is also focused in areas near the TLH, which includes the establishment of camps and opportunistic harvest of caribou and other species (Nalcor 2009).

Resource development in Labrador includes mineral extraction and tourism, with small amounts of forestry and agriculture. In Central Labrador, the tourism industry is of particular importance for those who are associated with outfitting.

3.4.2 Potential Resource Conflicts

Project activities will be ongoing for a limited amount of time (i.e., over five years between May and October each year) and within a limited area (approximately 50 km each year along L1301 route). Potential resource conflicts for the socio-economic environment are not anticipated for the duration of this Project.



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

FUNDING

4.0 FUNDING

The Project budget is estimated at \$9,250,000 and will be funded by NL Hydro.



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

PROJECT-RELATED DOCUMENTS

5.0 PROJECT-RELATED DOCUMENTS

See Appendices A to C.

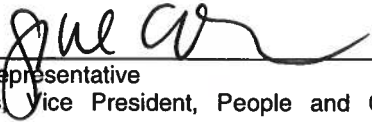


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SIGNATURE

6.0 SIGNATURE

Date March 15/23



Company Representative
Gail Collins, Vice President, People and Corporate
Affairs



L1301 TRANSMISSION LINE DECOMMISSIONING PROJECT

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7.0 REFERENCES

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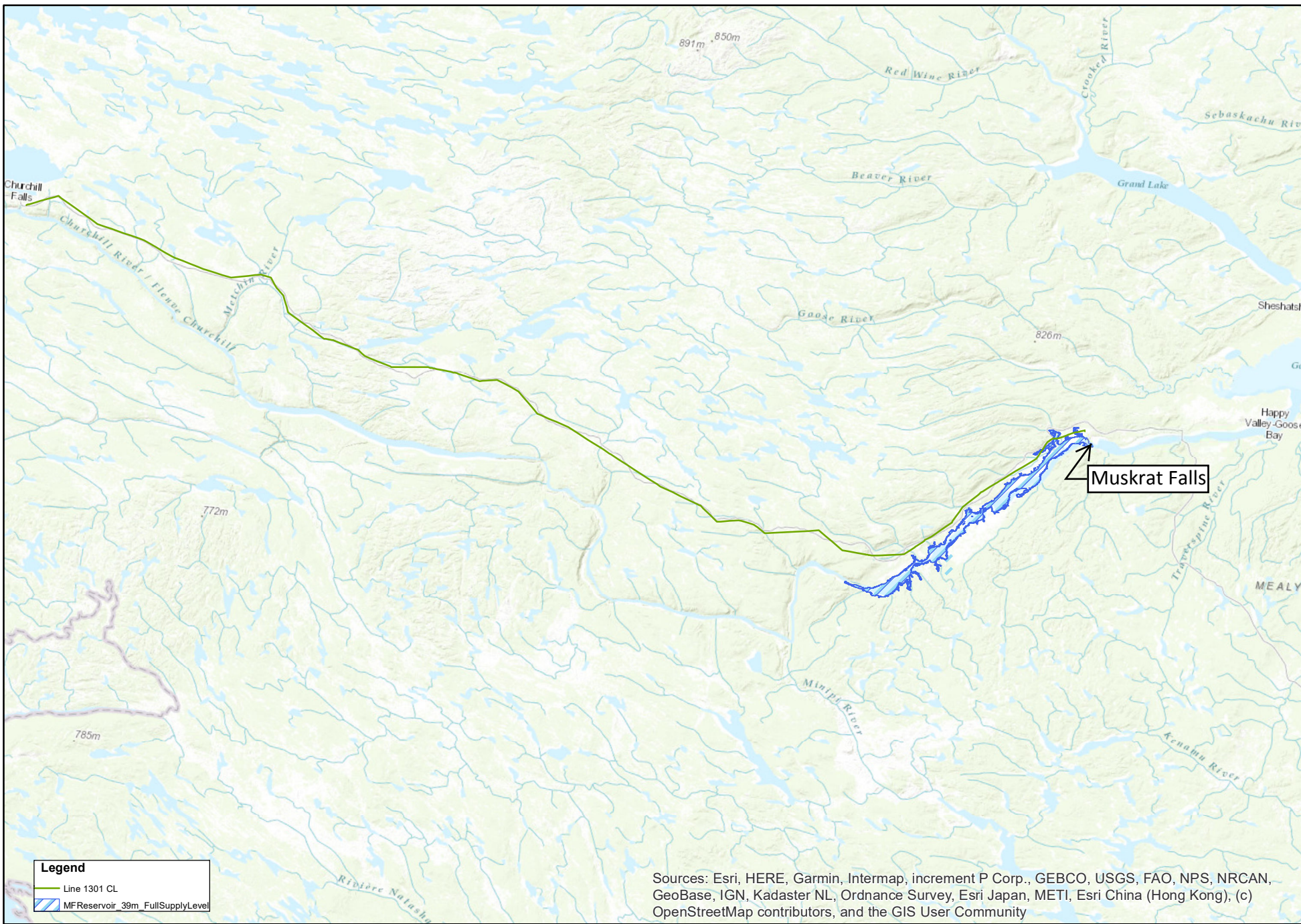
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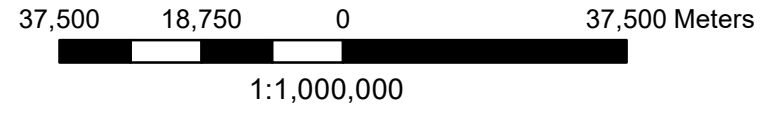


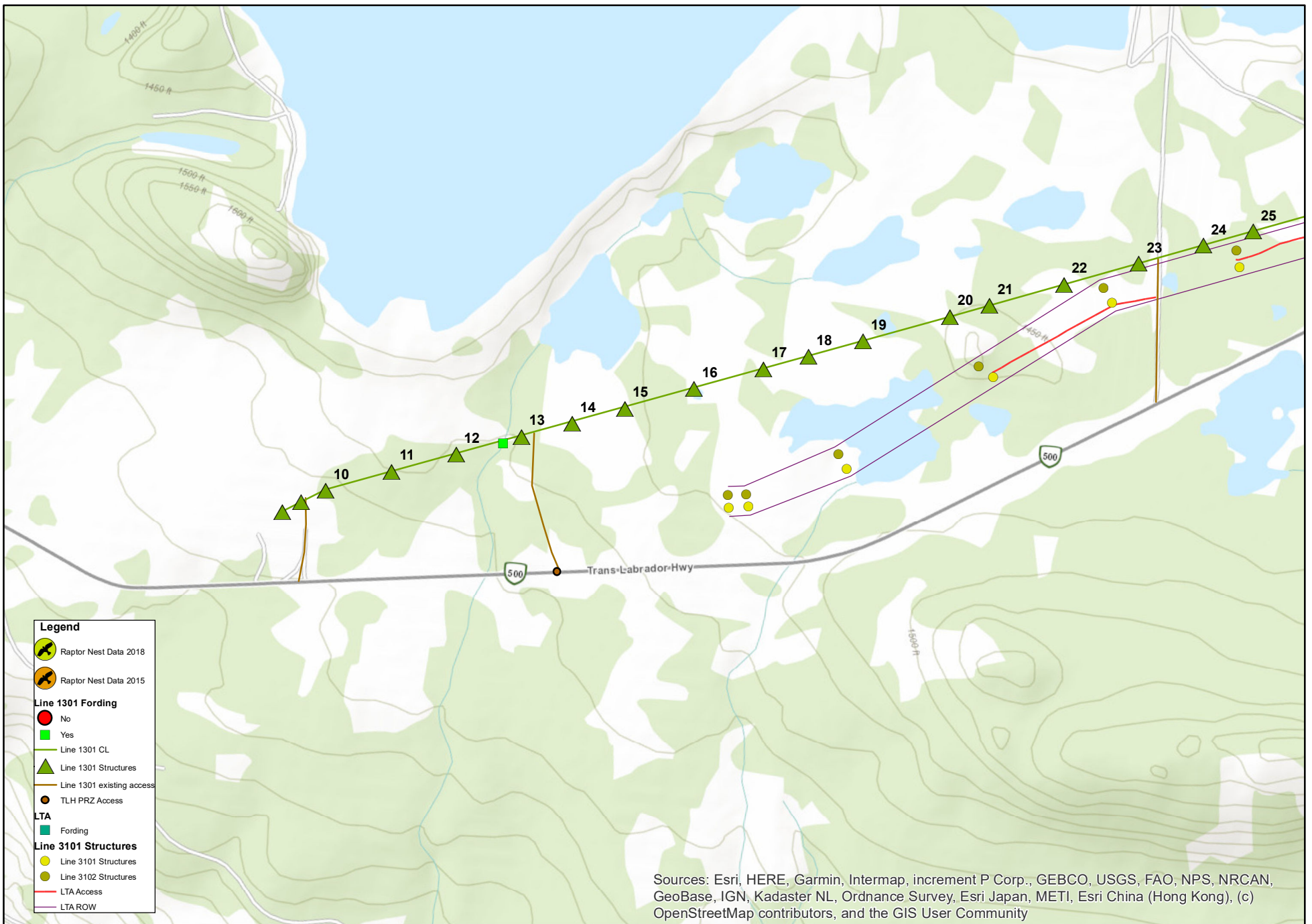
APPENDIX A

L1301 Mapbook

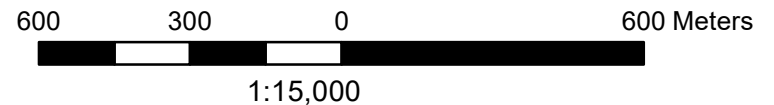


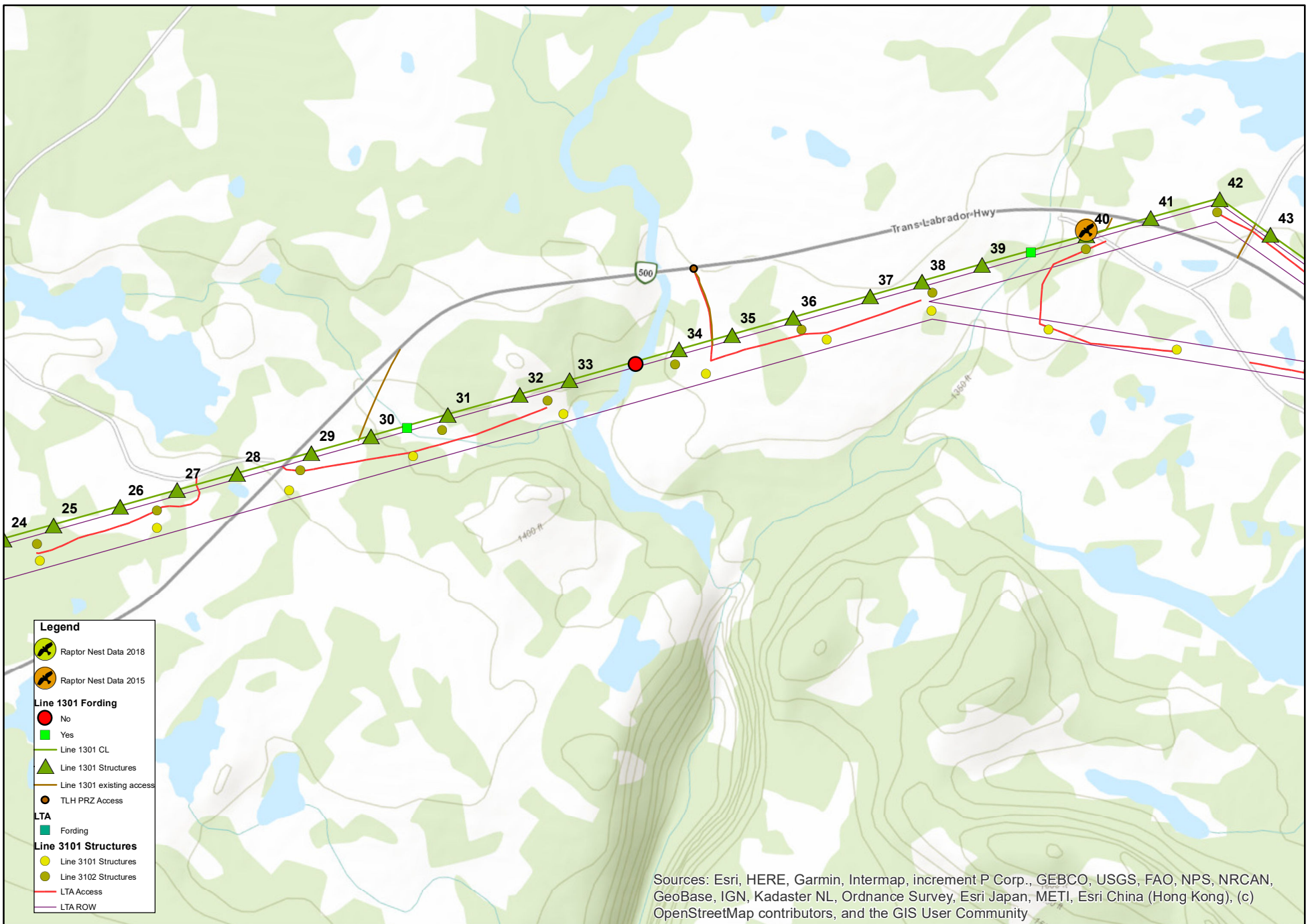
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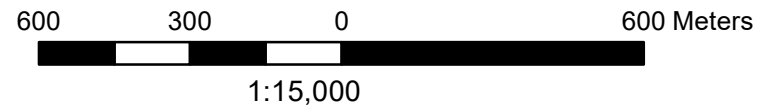


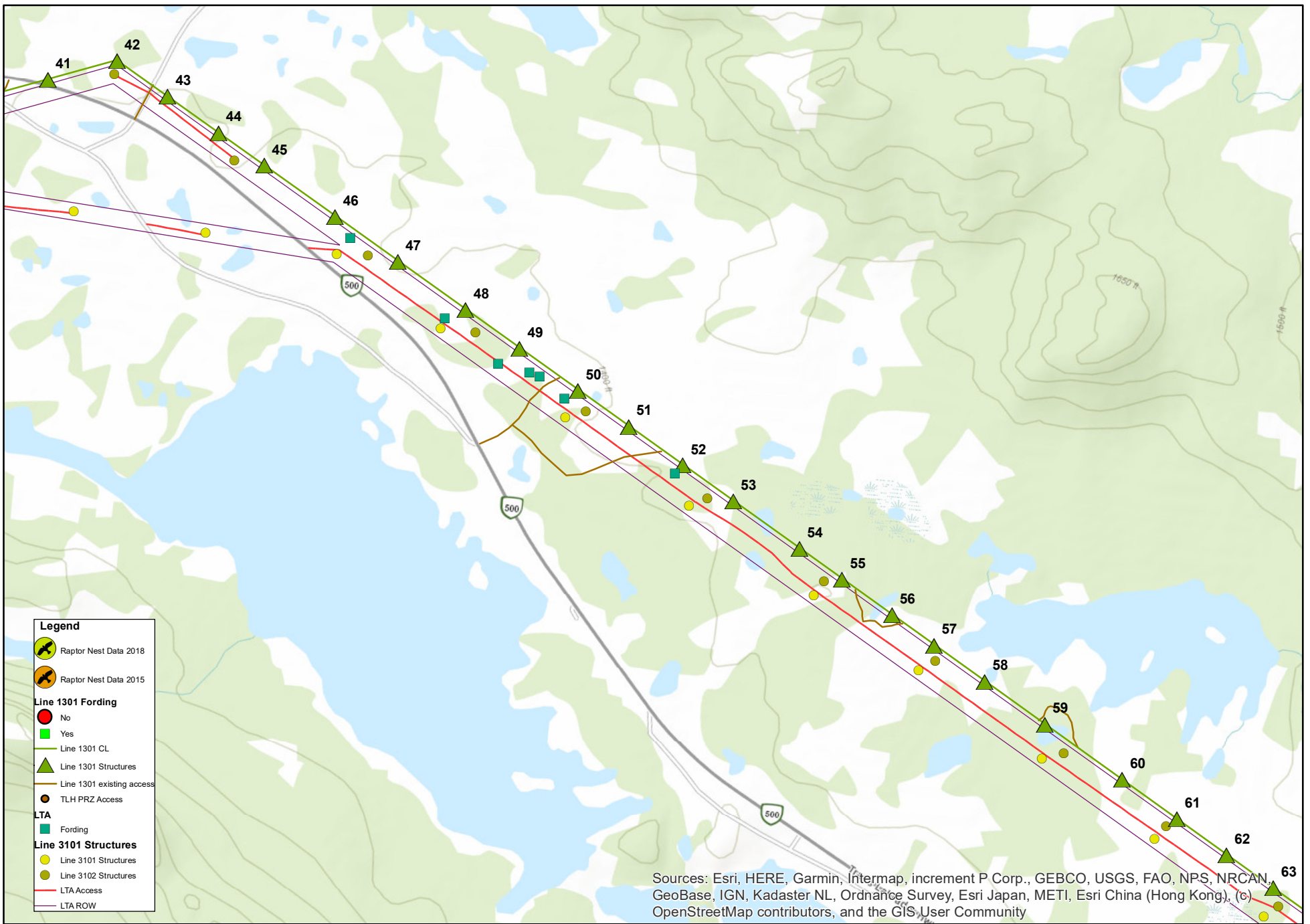
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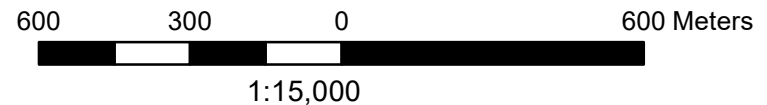


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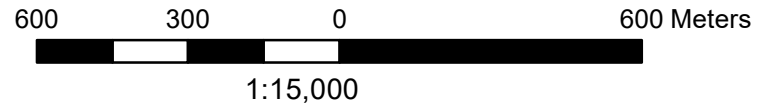


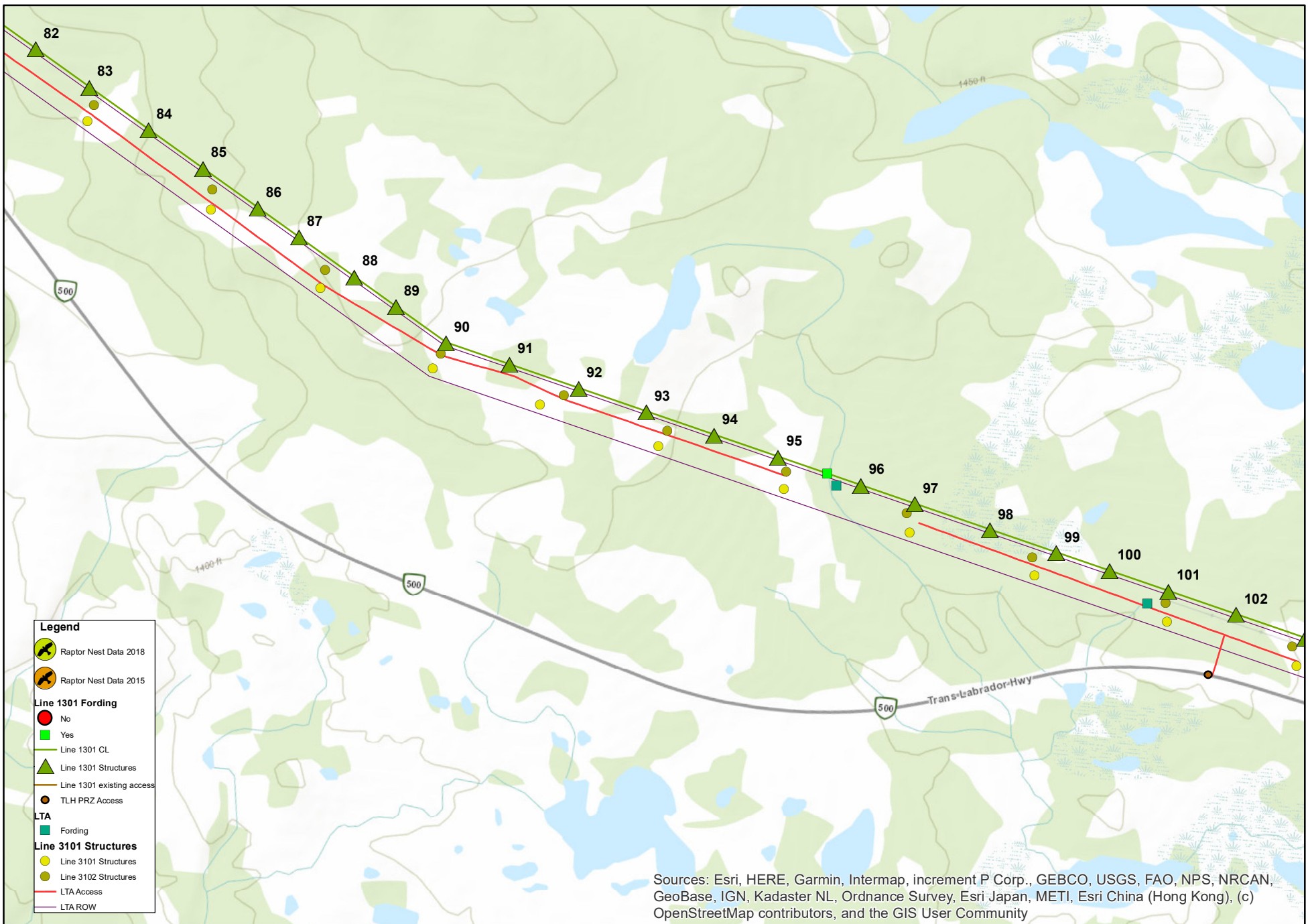
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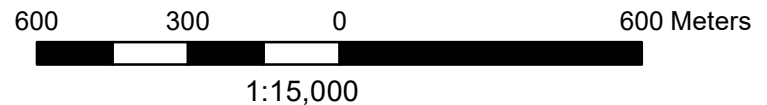


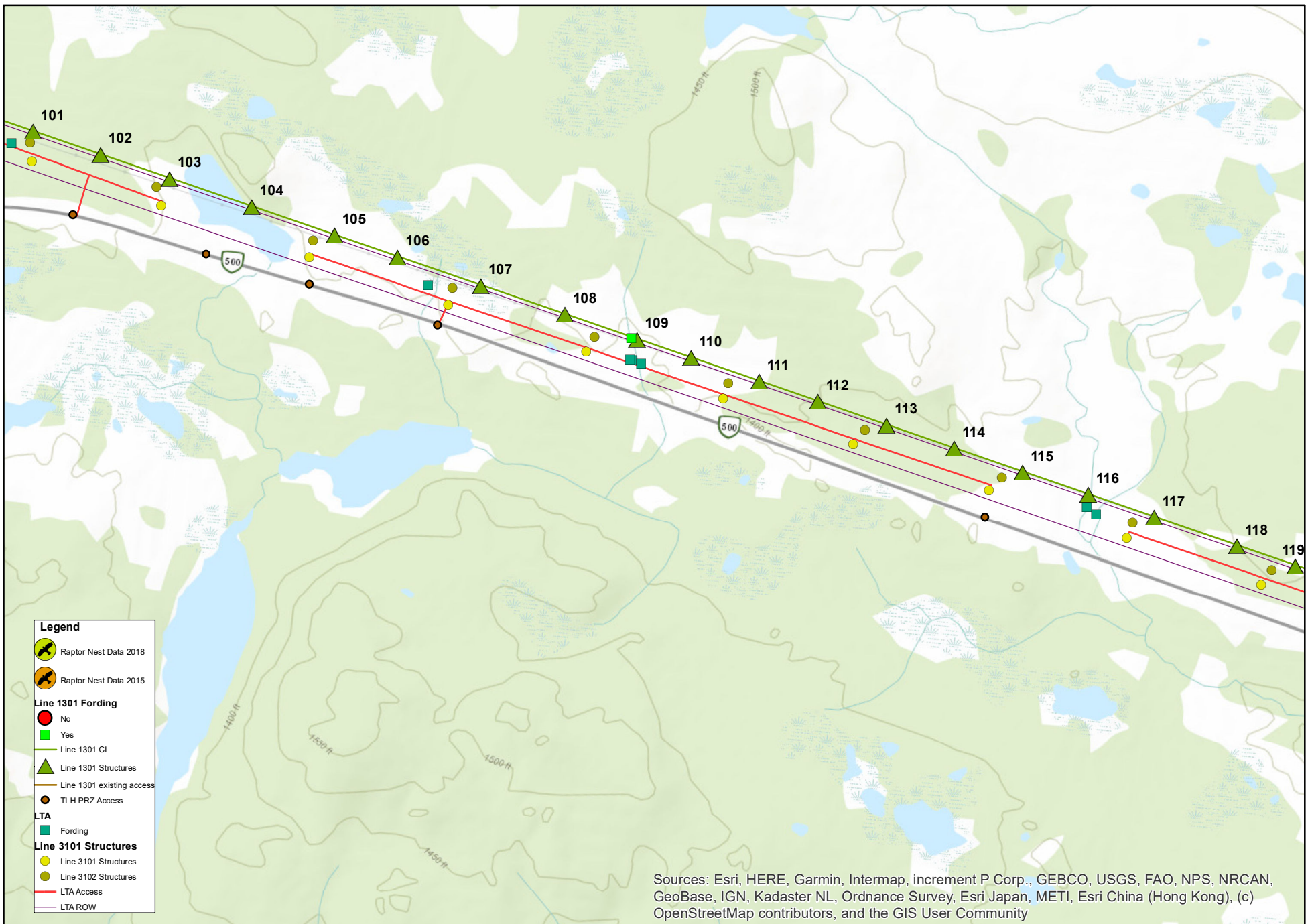
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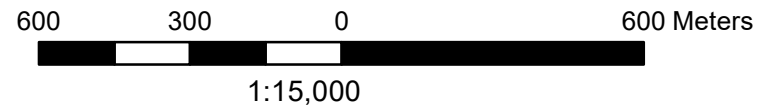


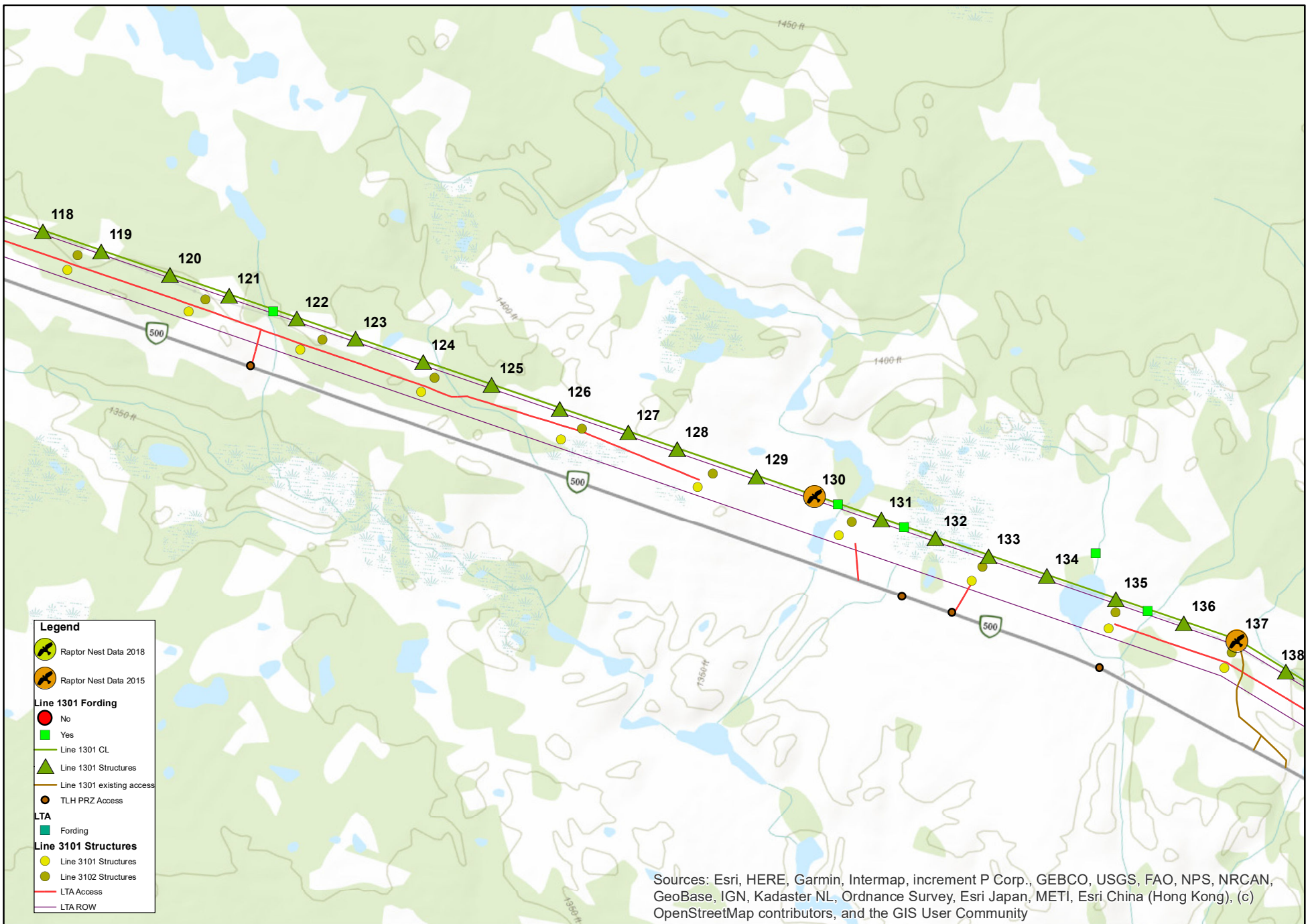
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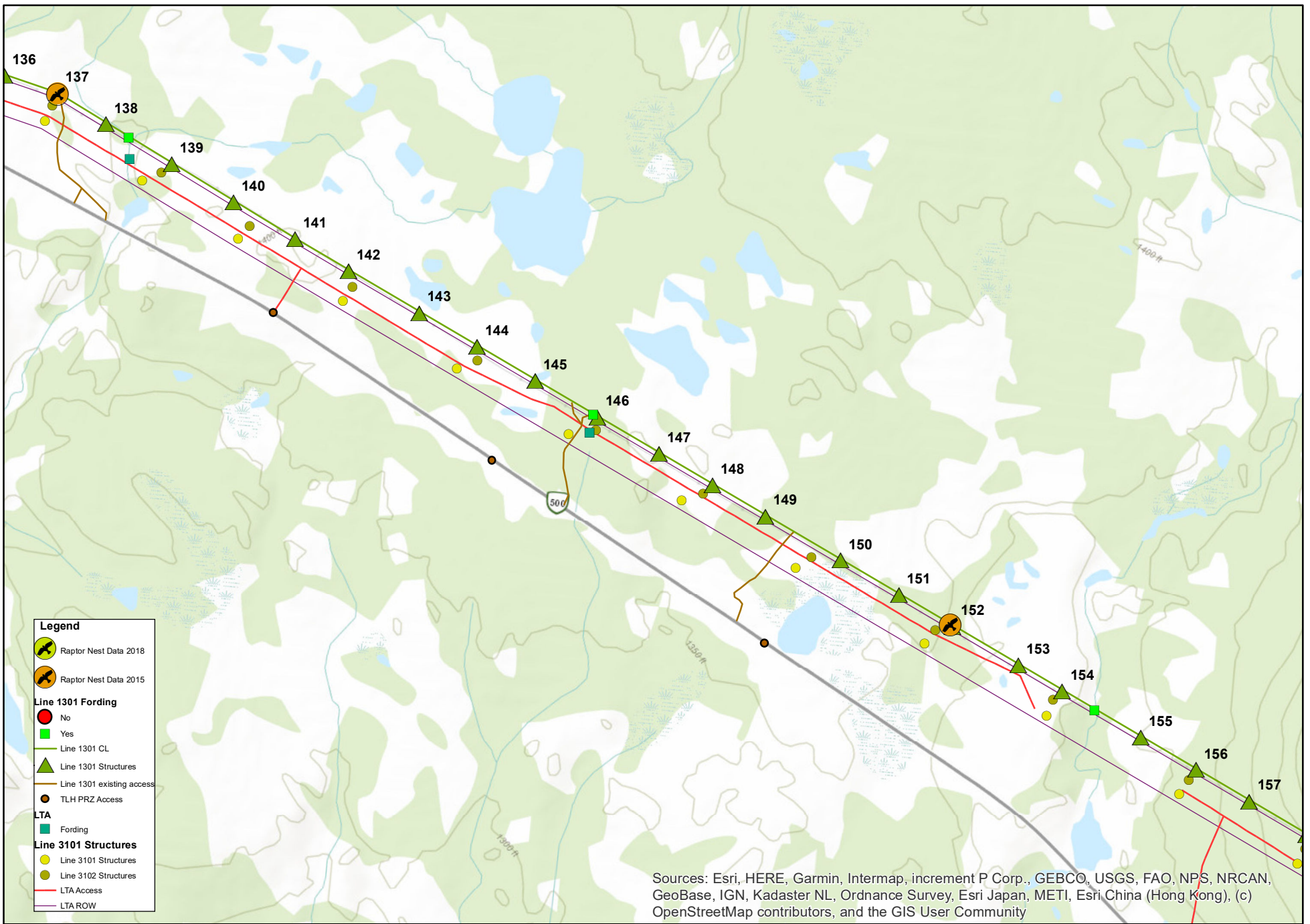


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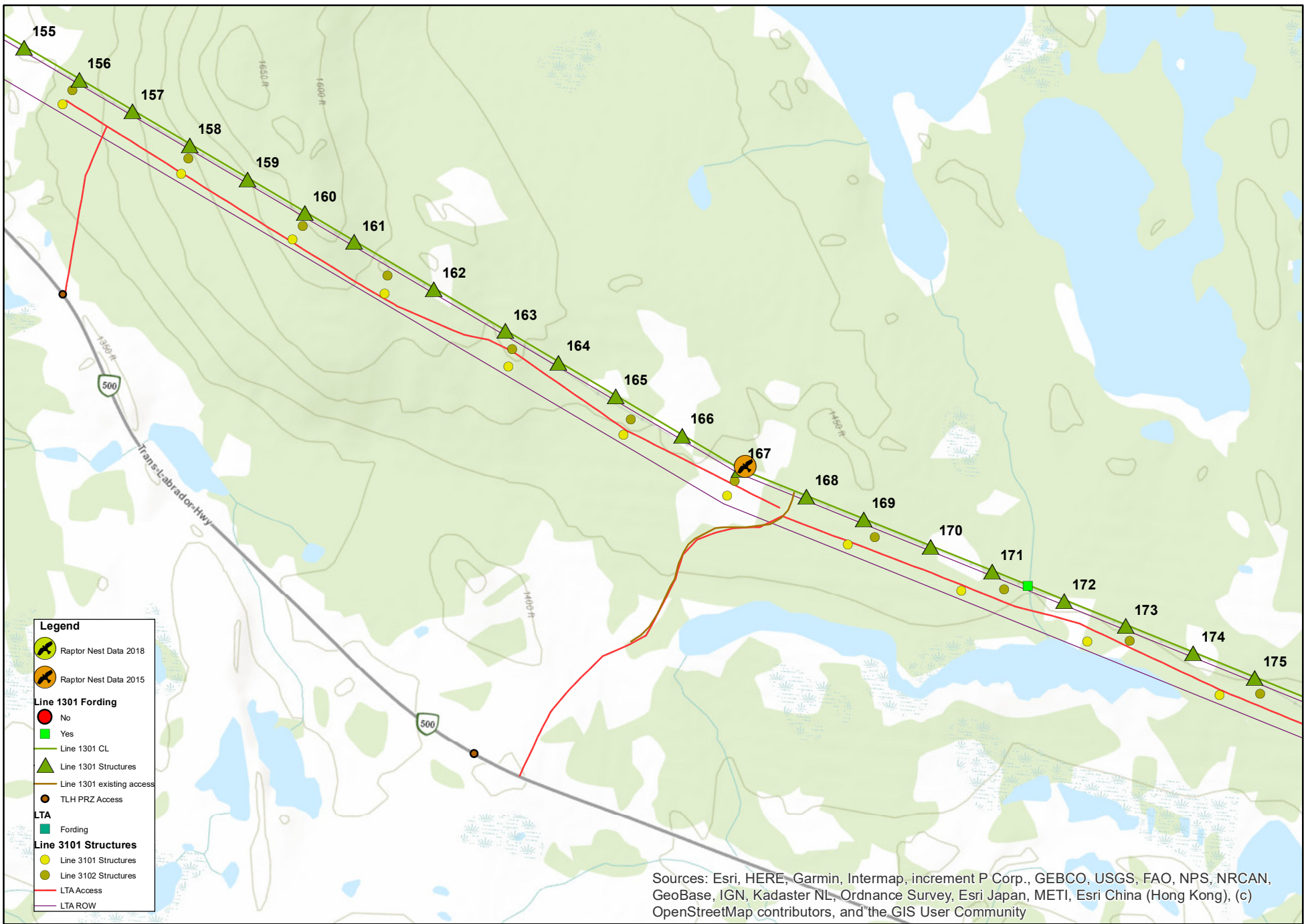


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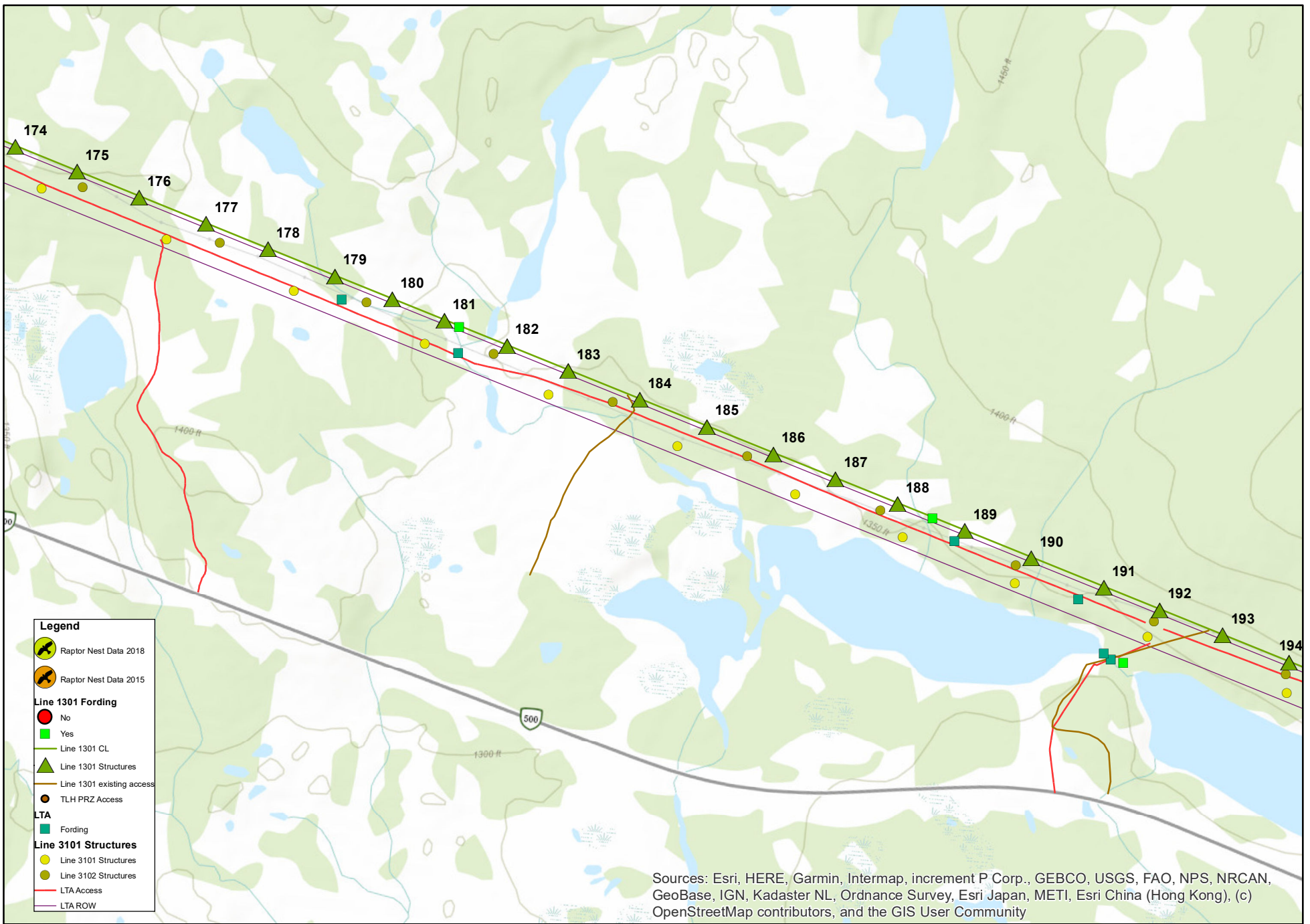


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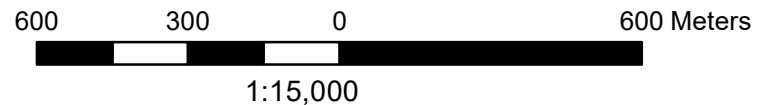
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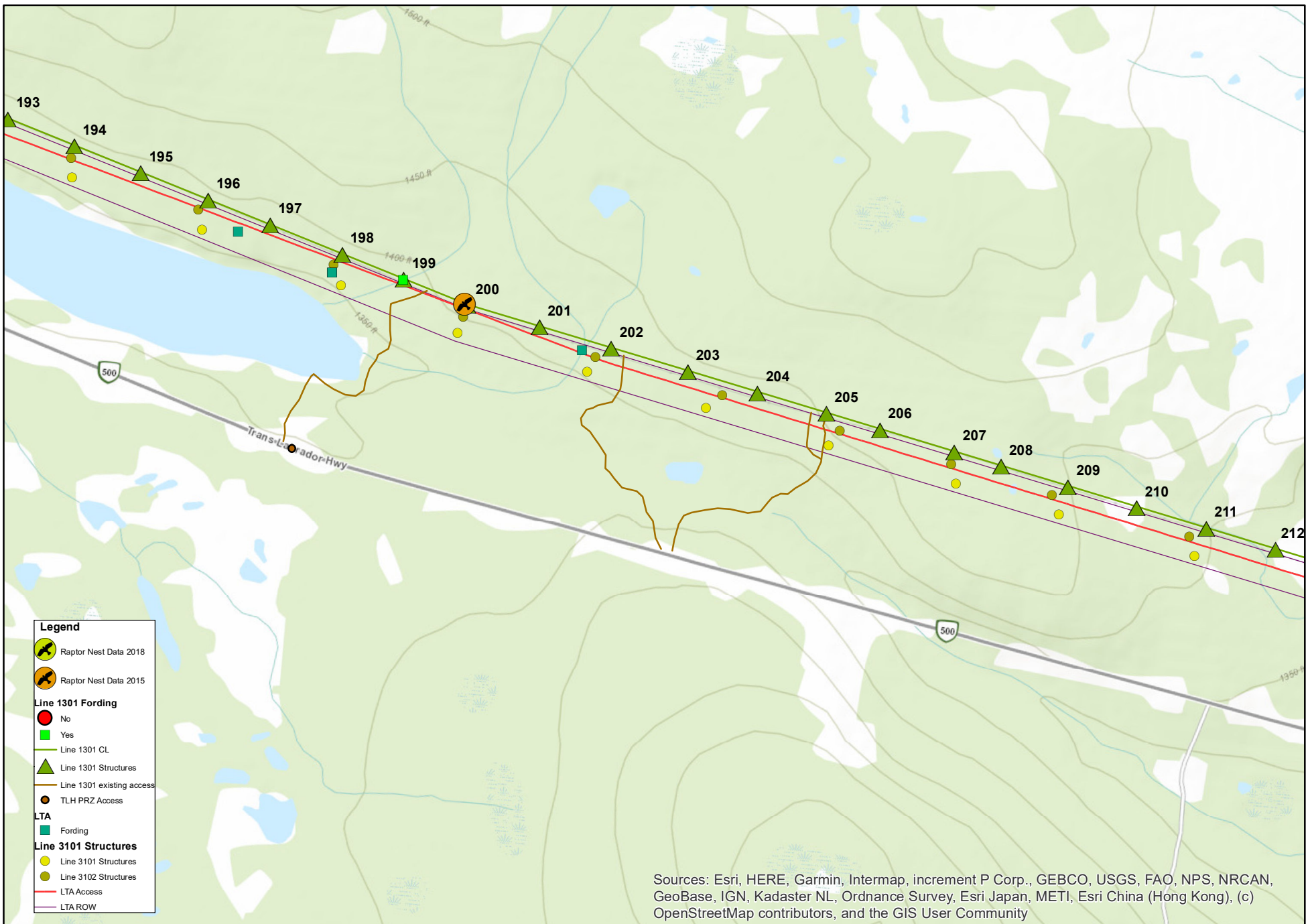
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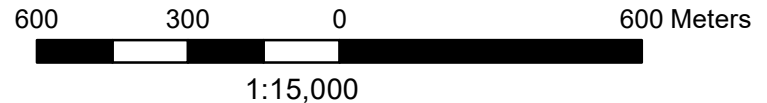


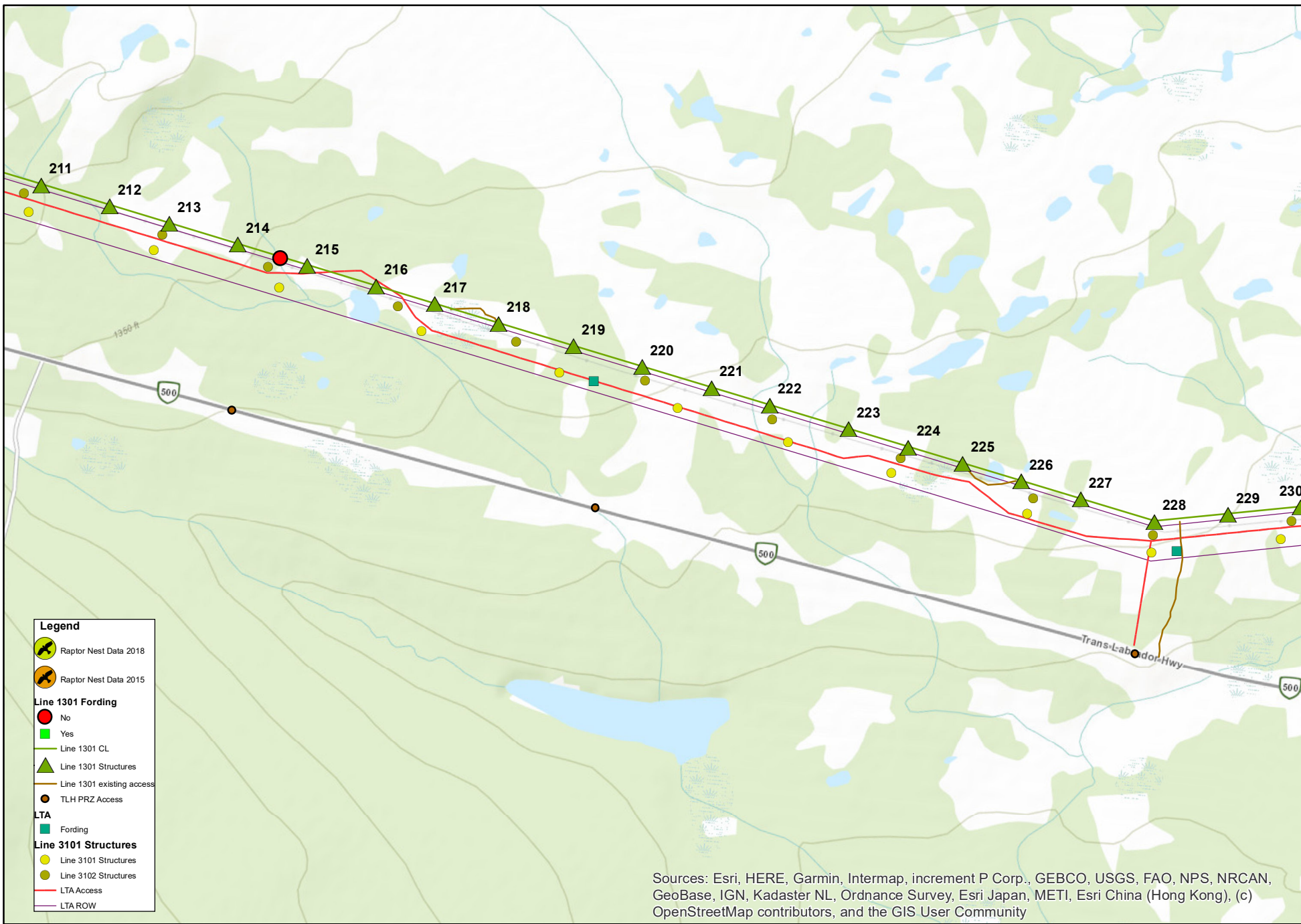
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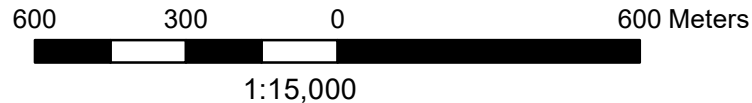


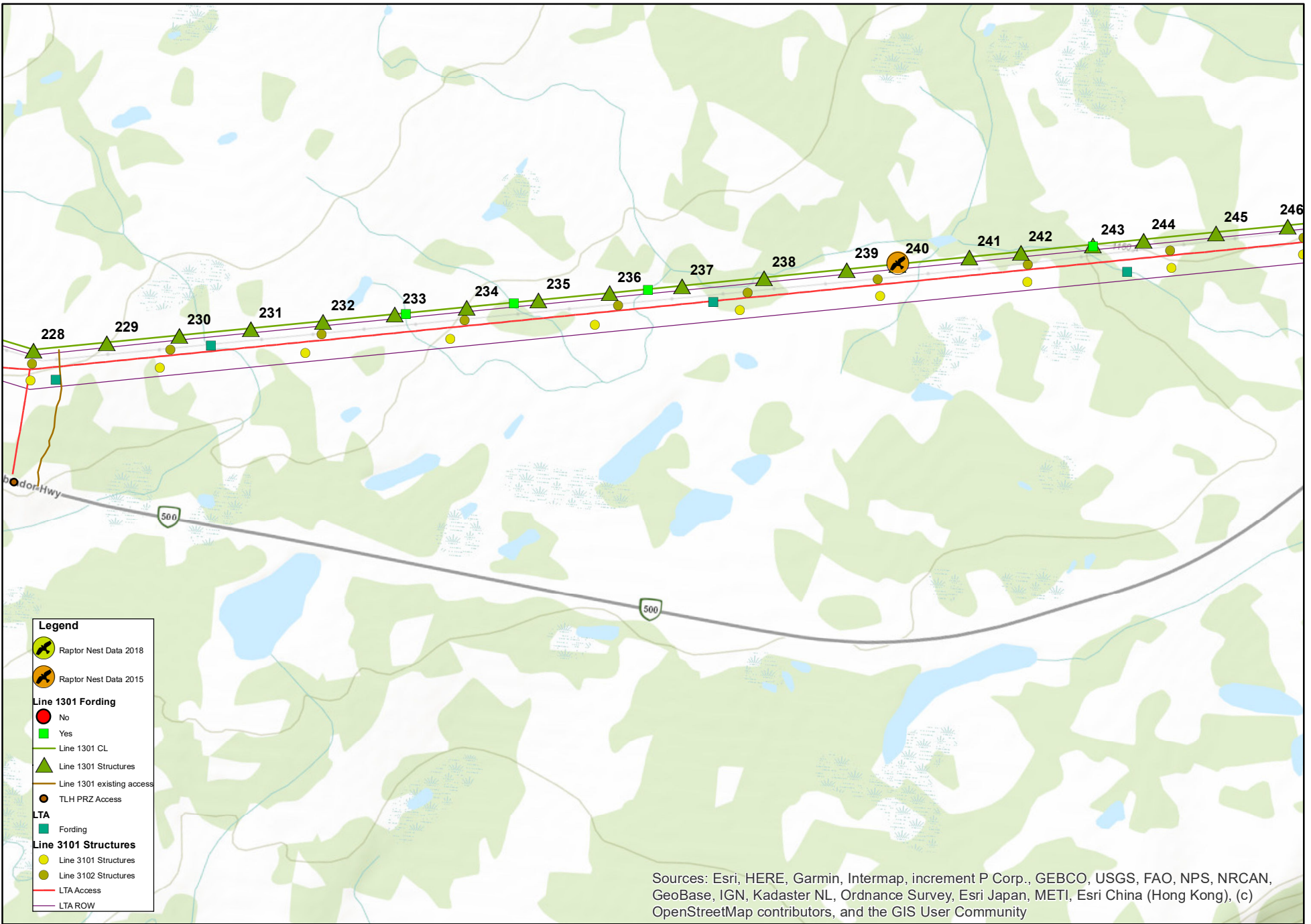
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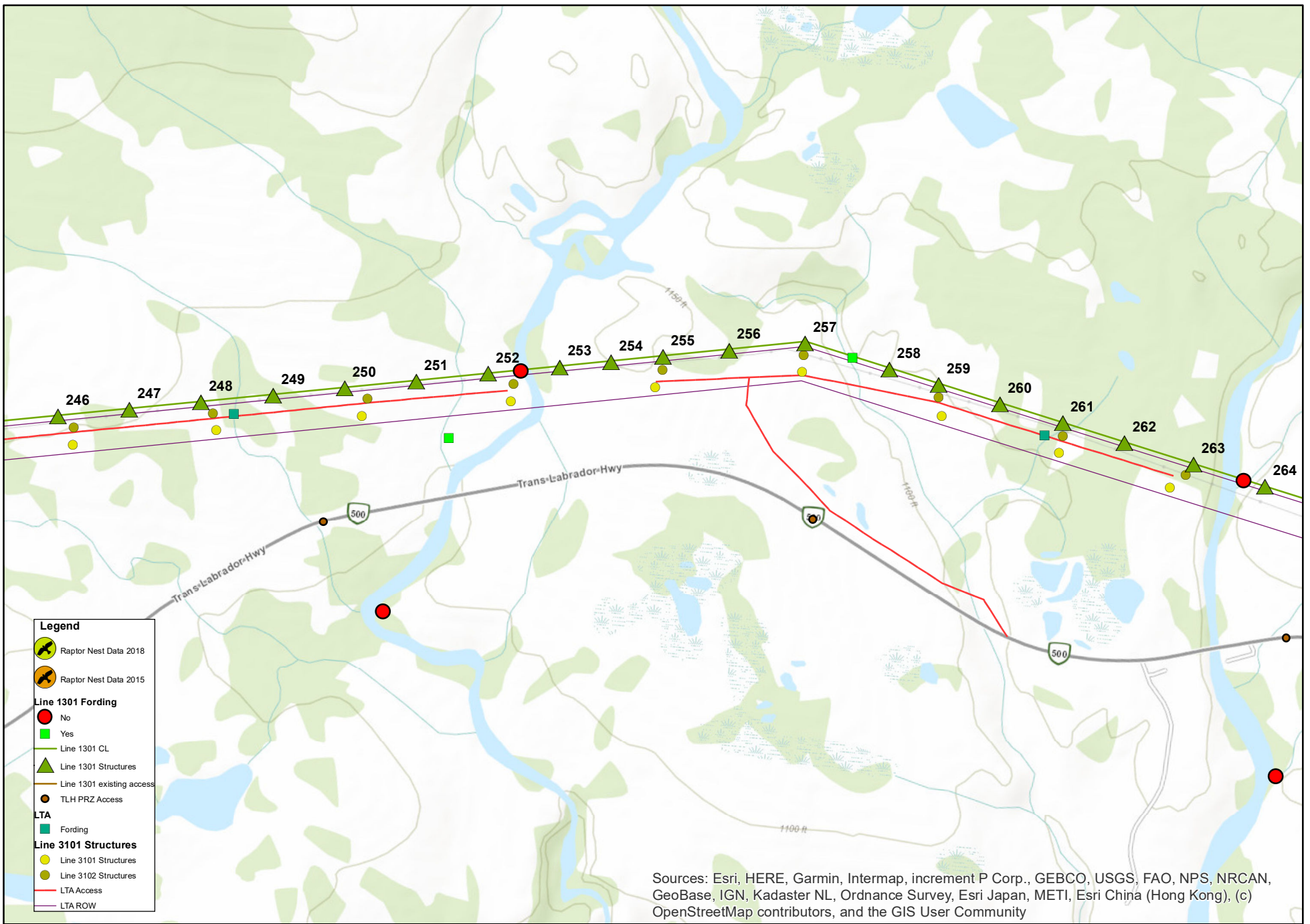


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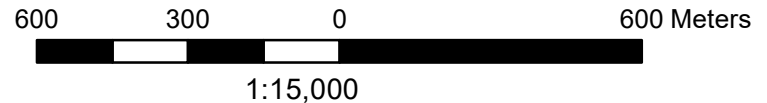


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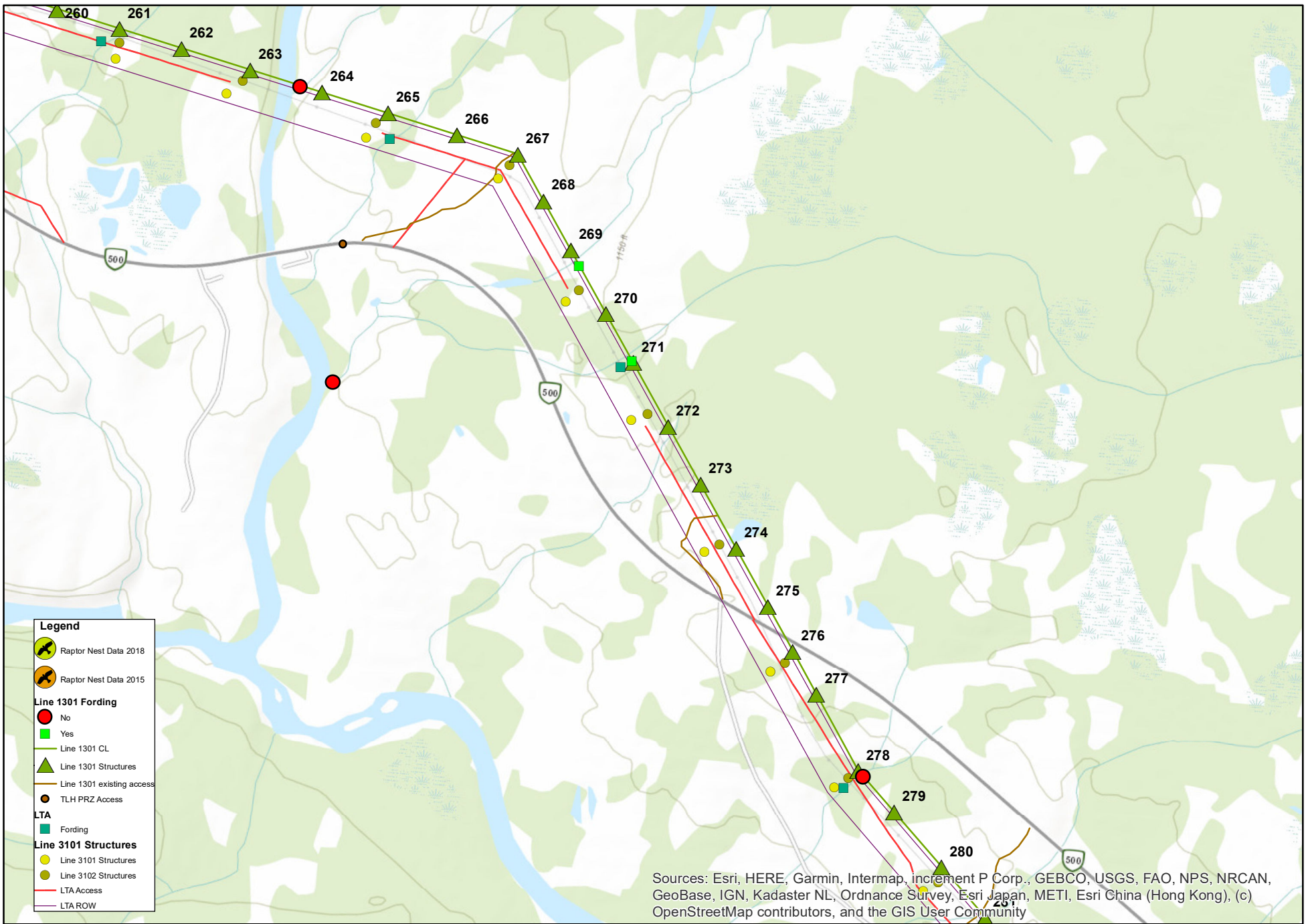




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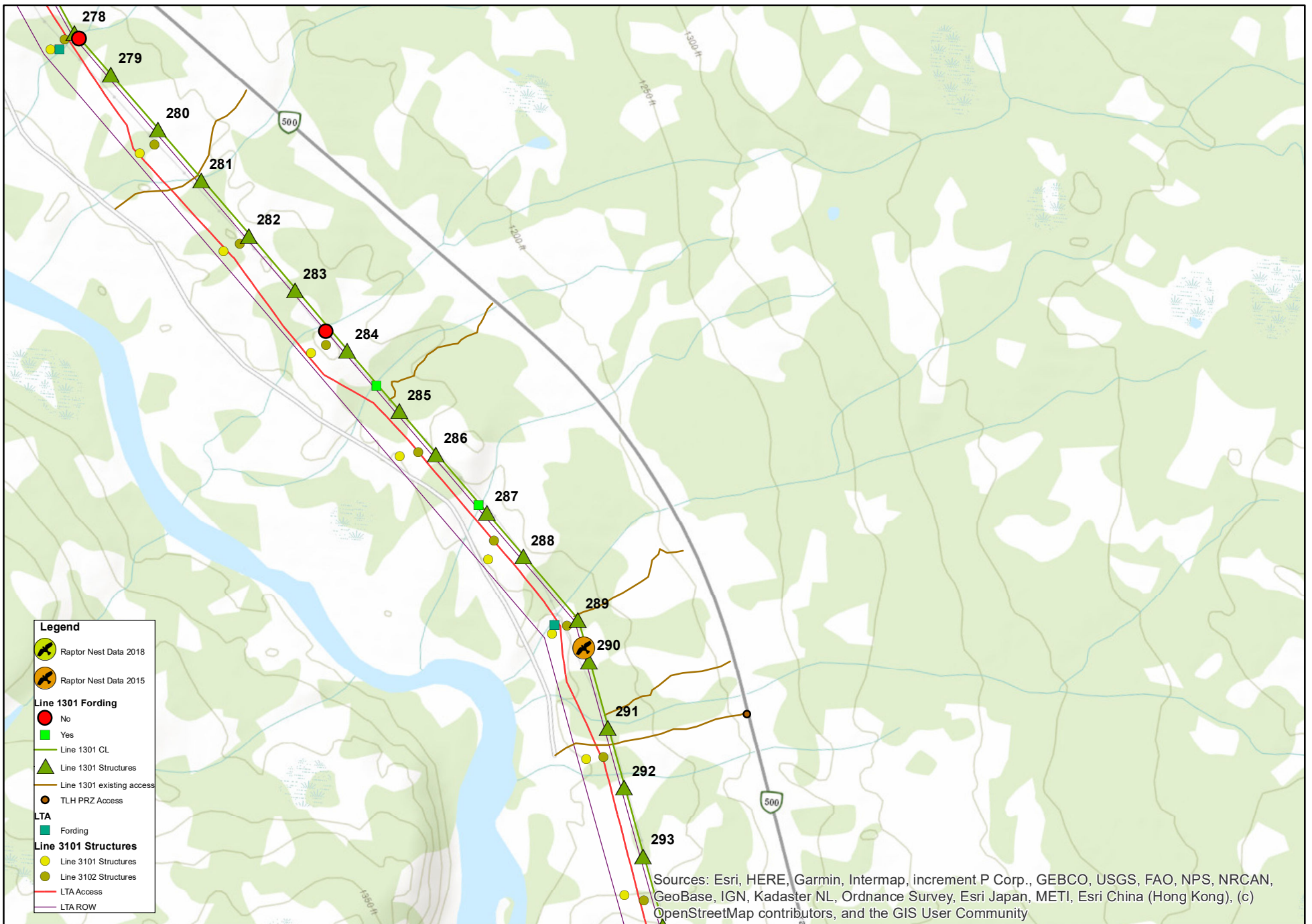


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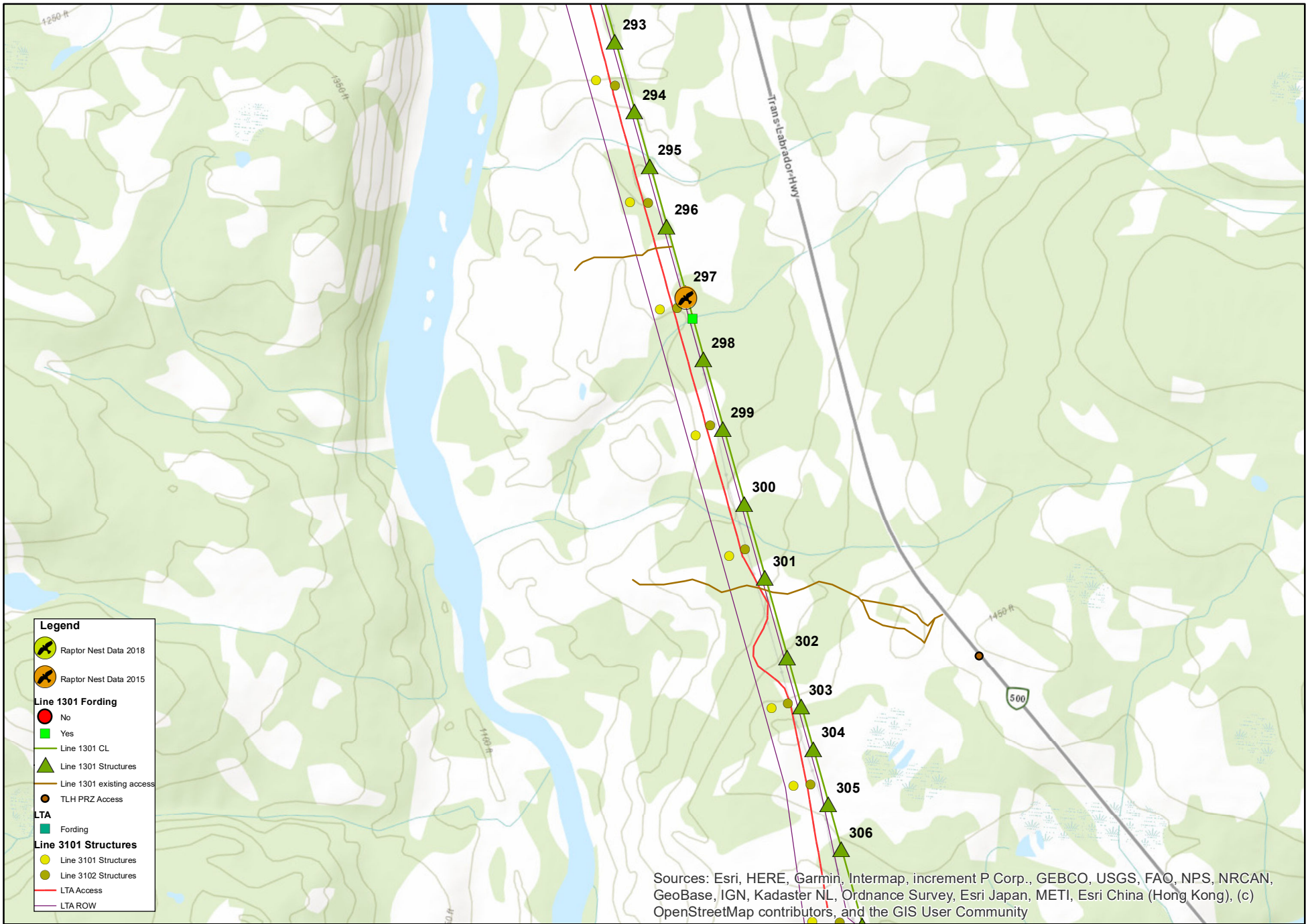


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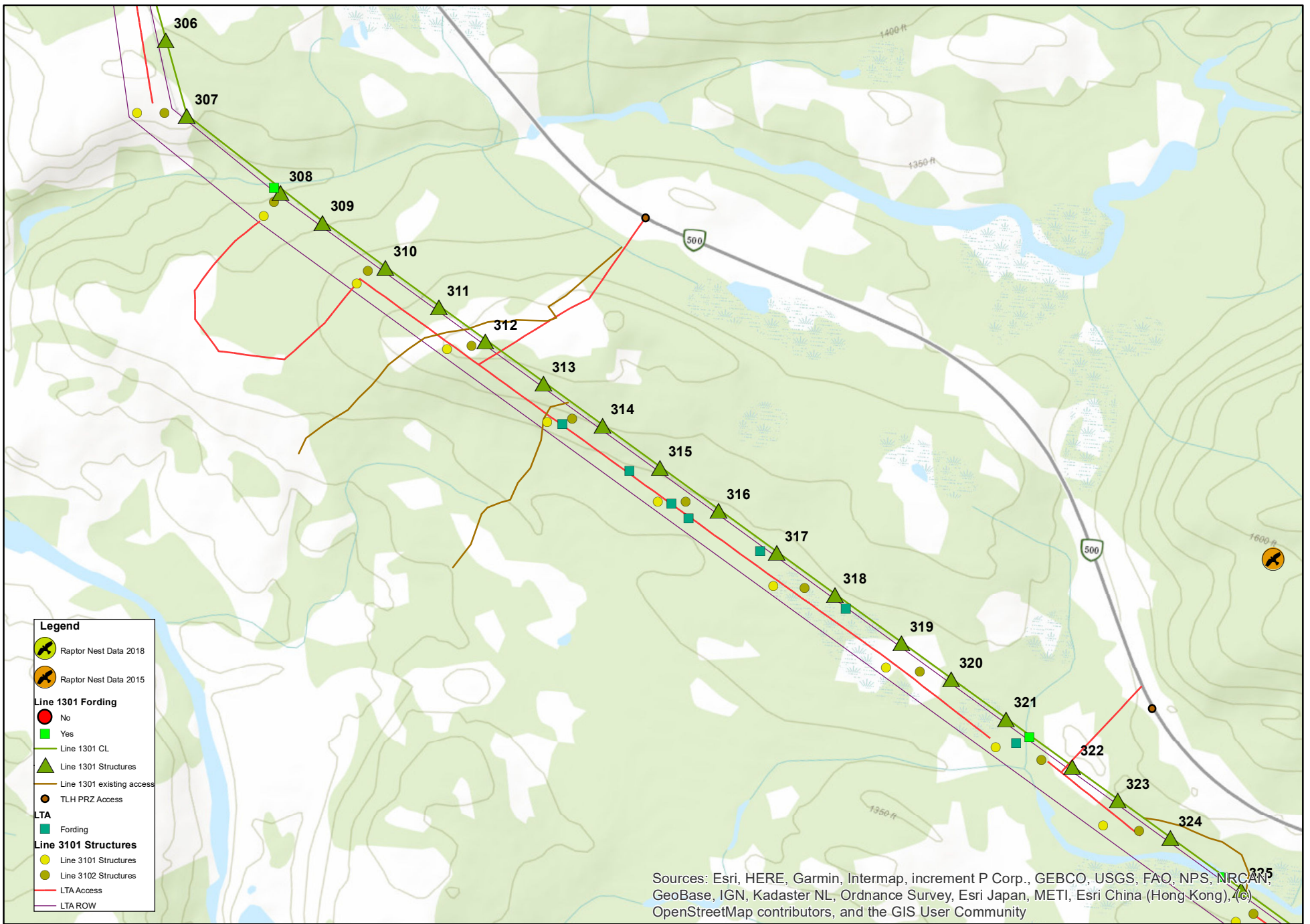


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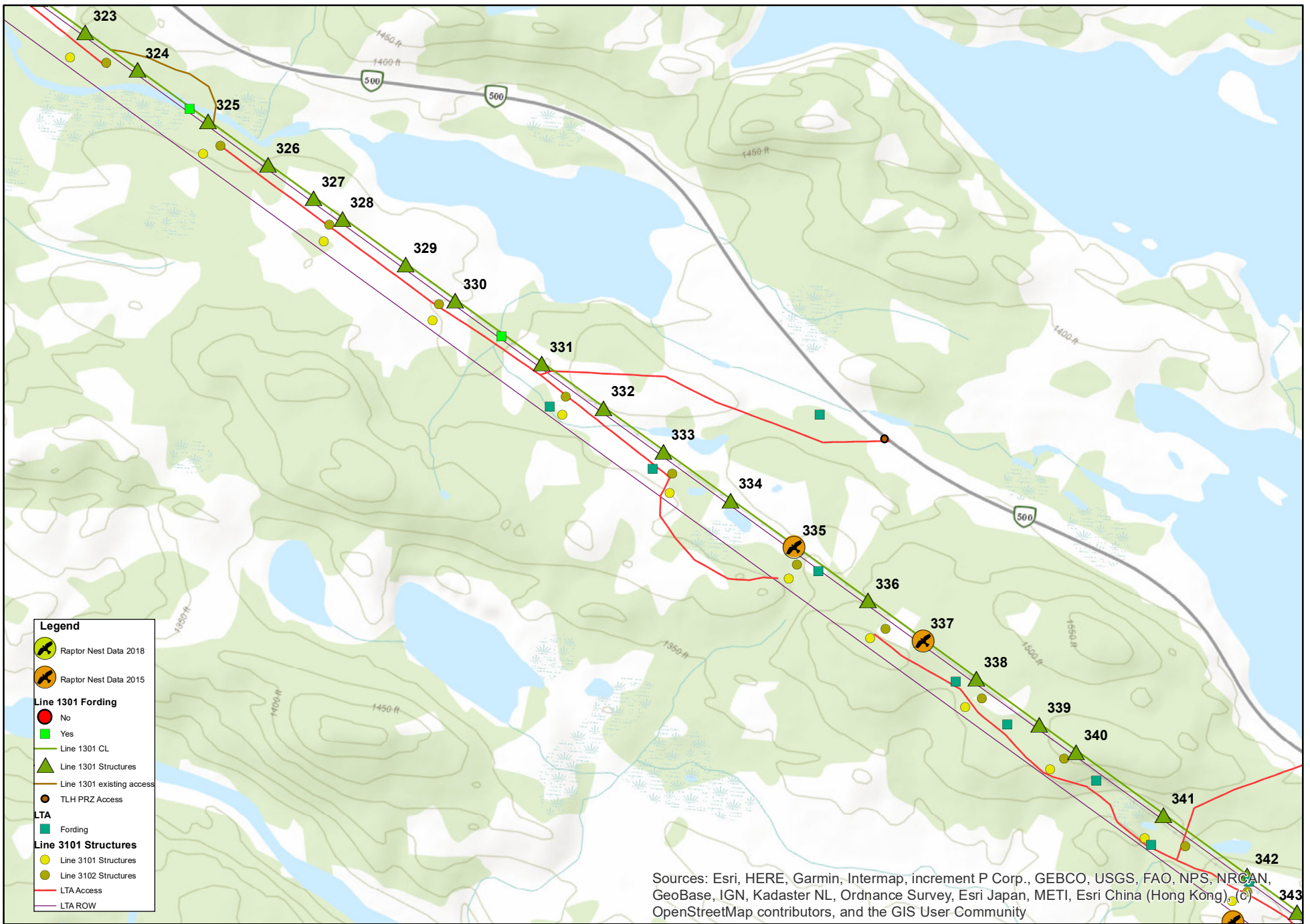


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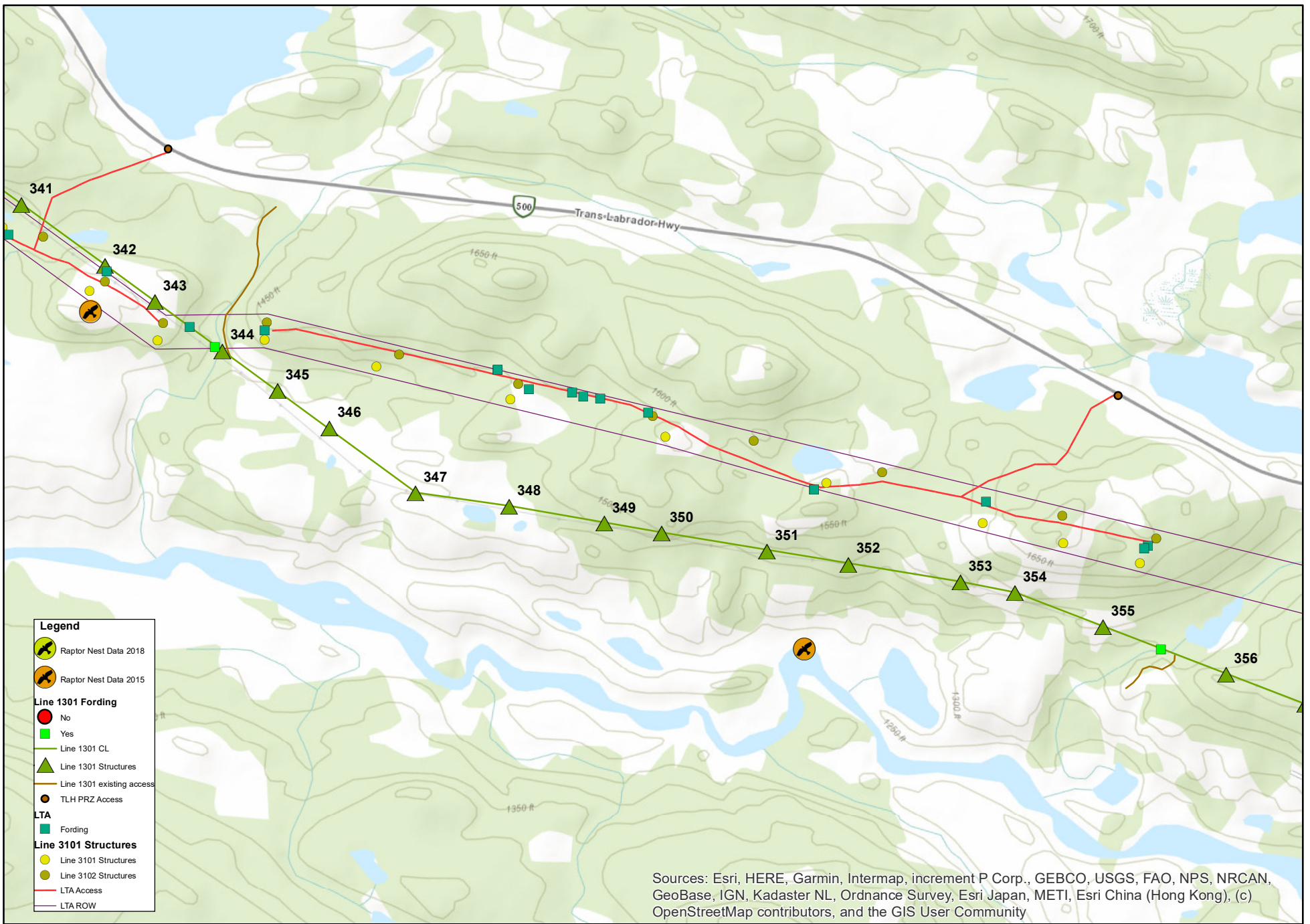


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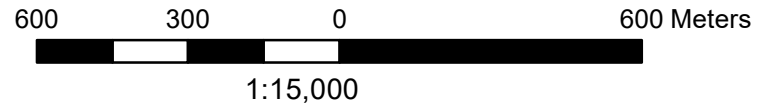
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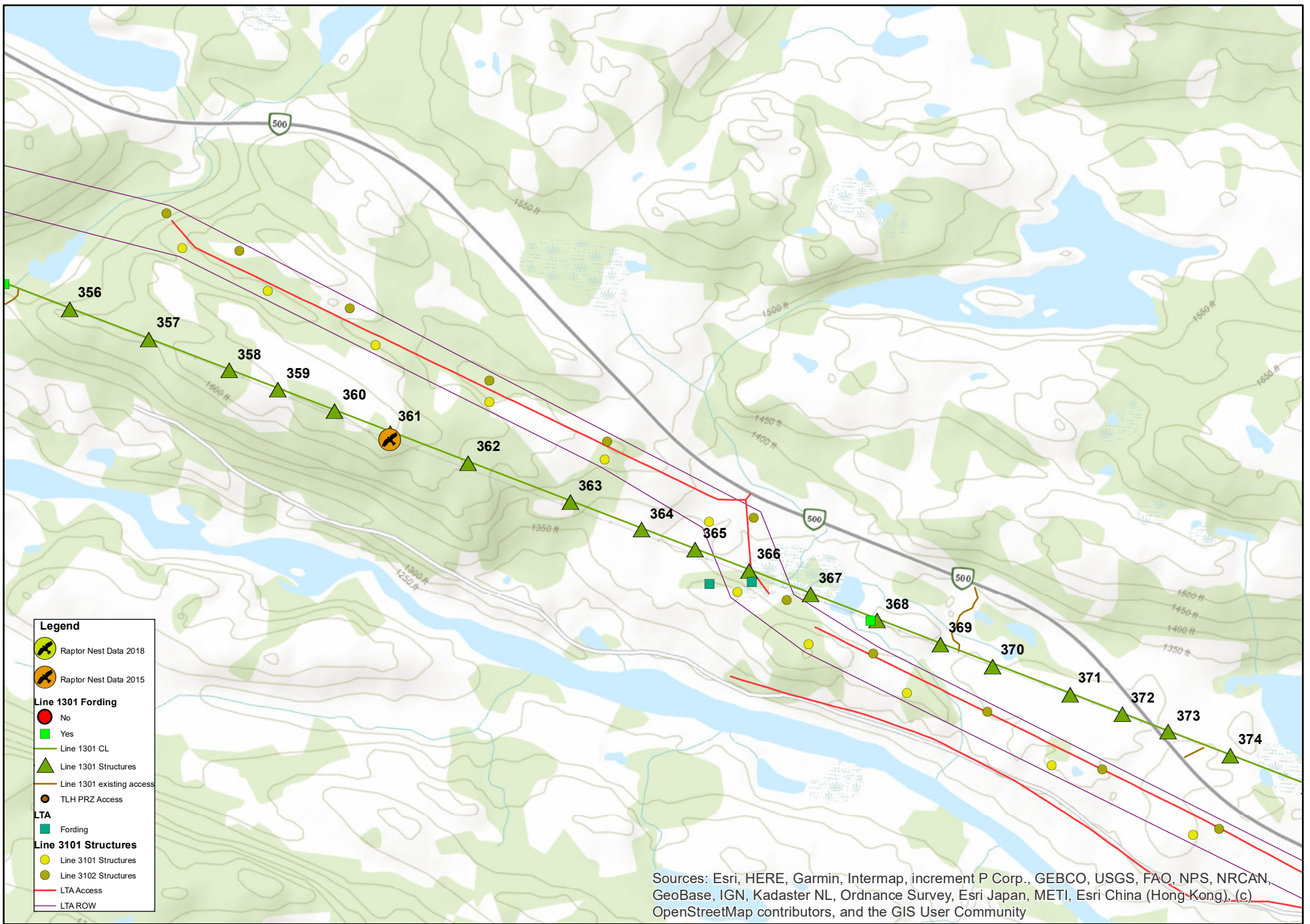
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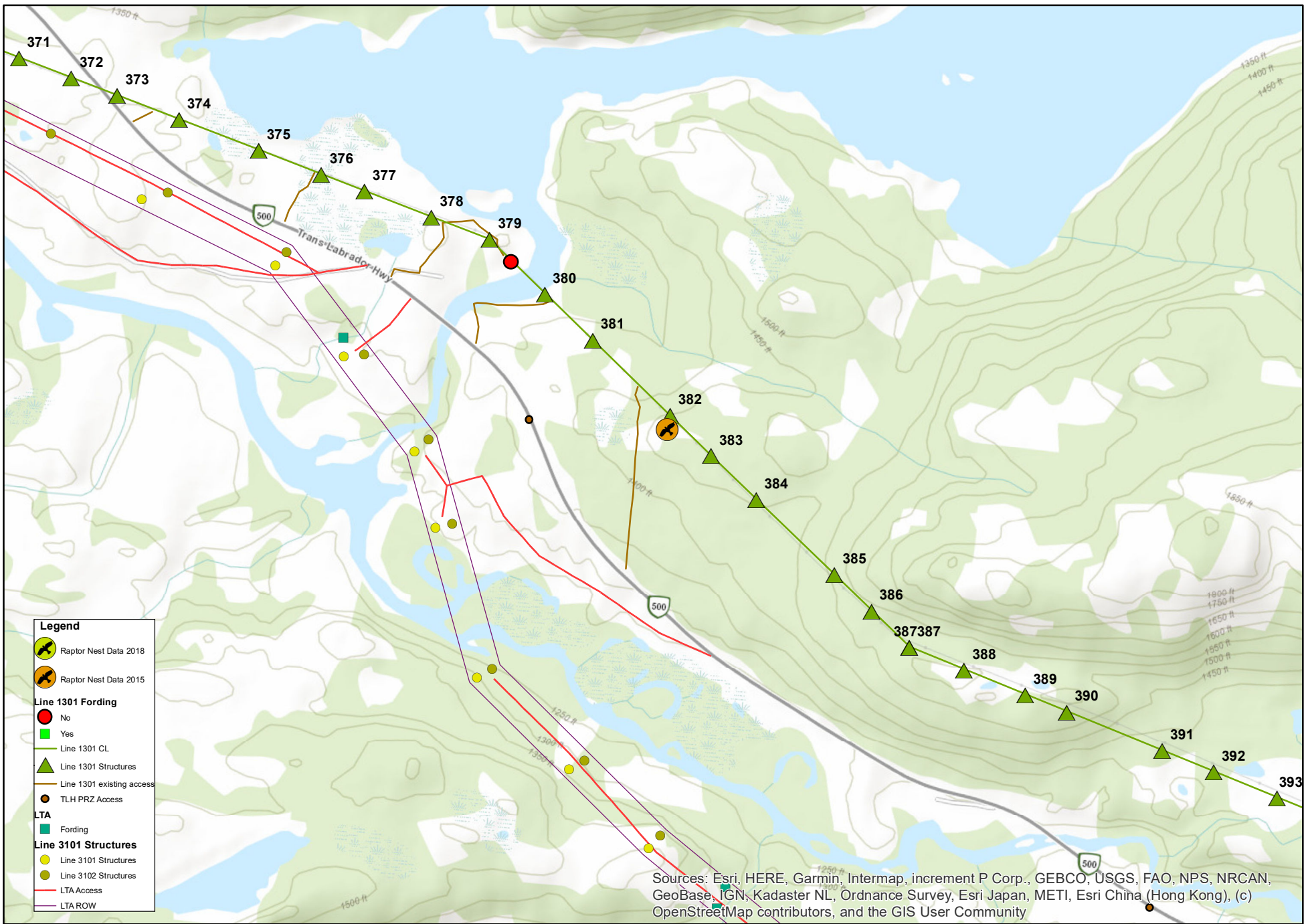




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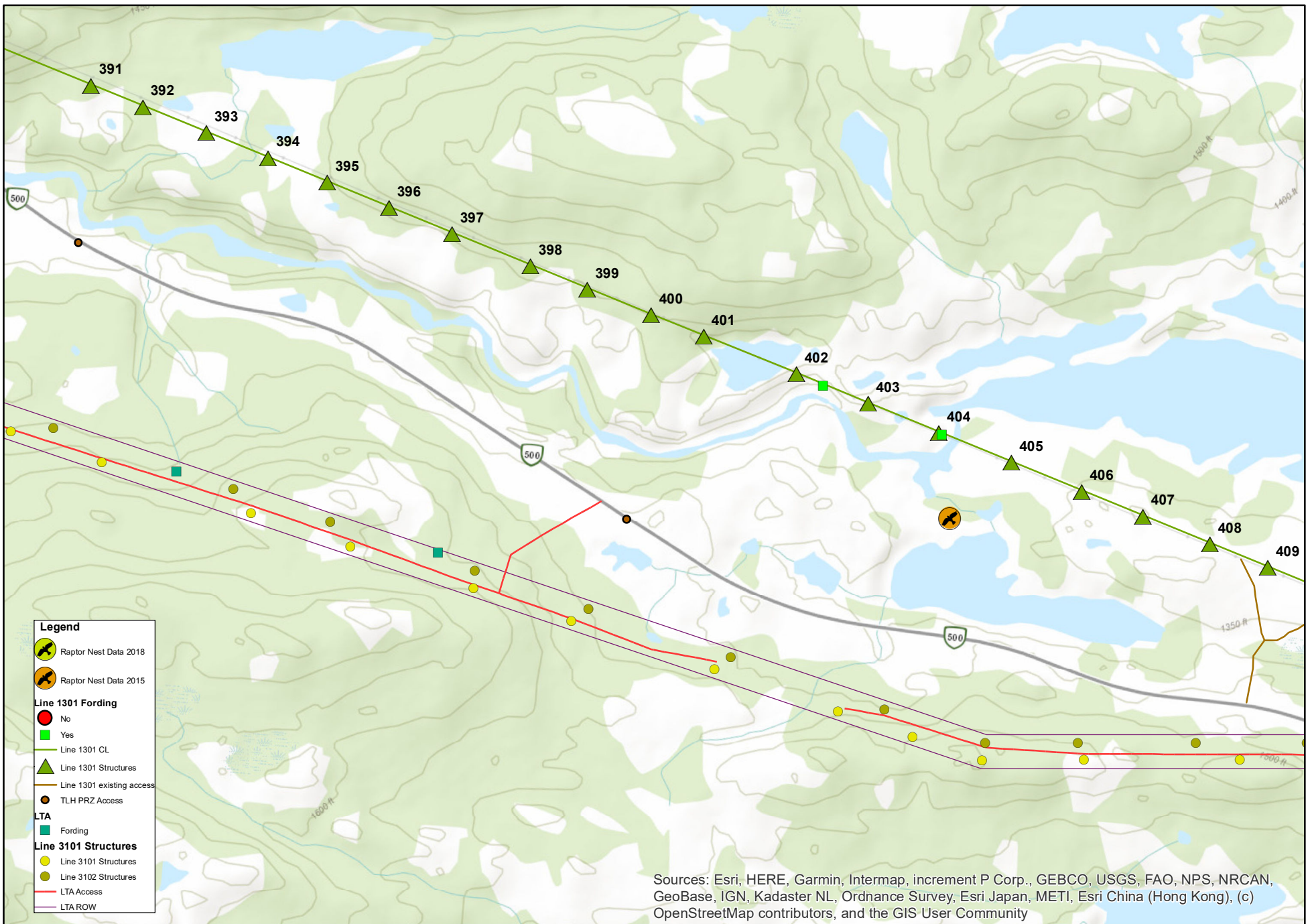
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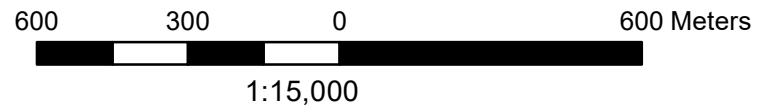


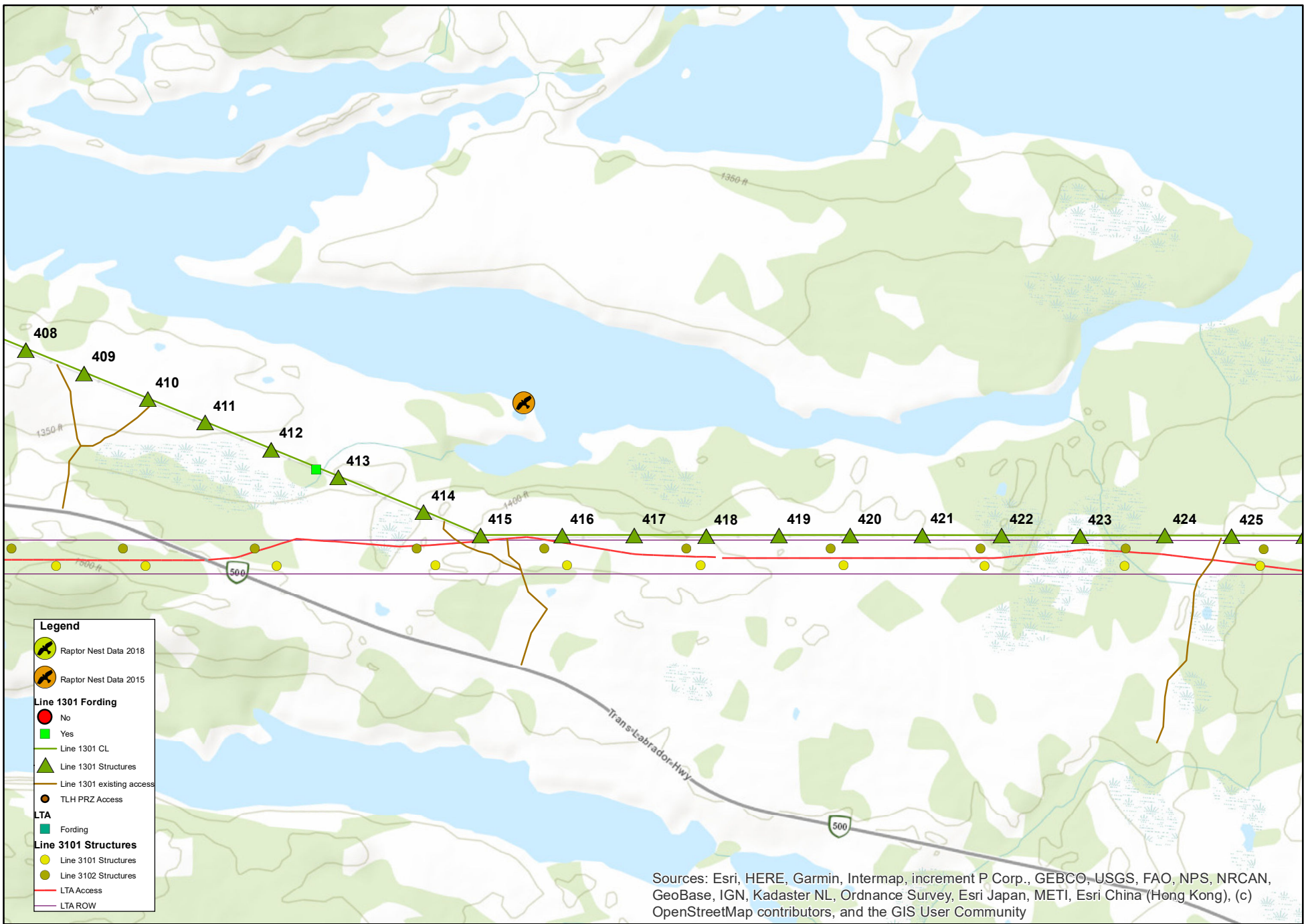
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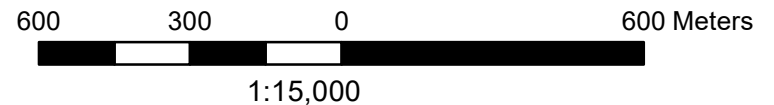


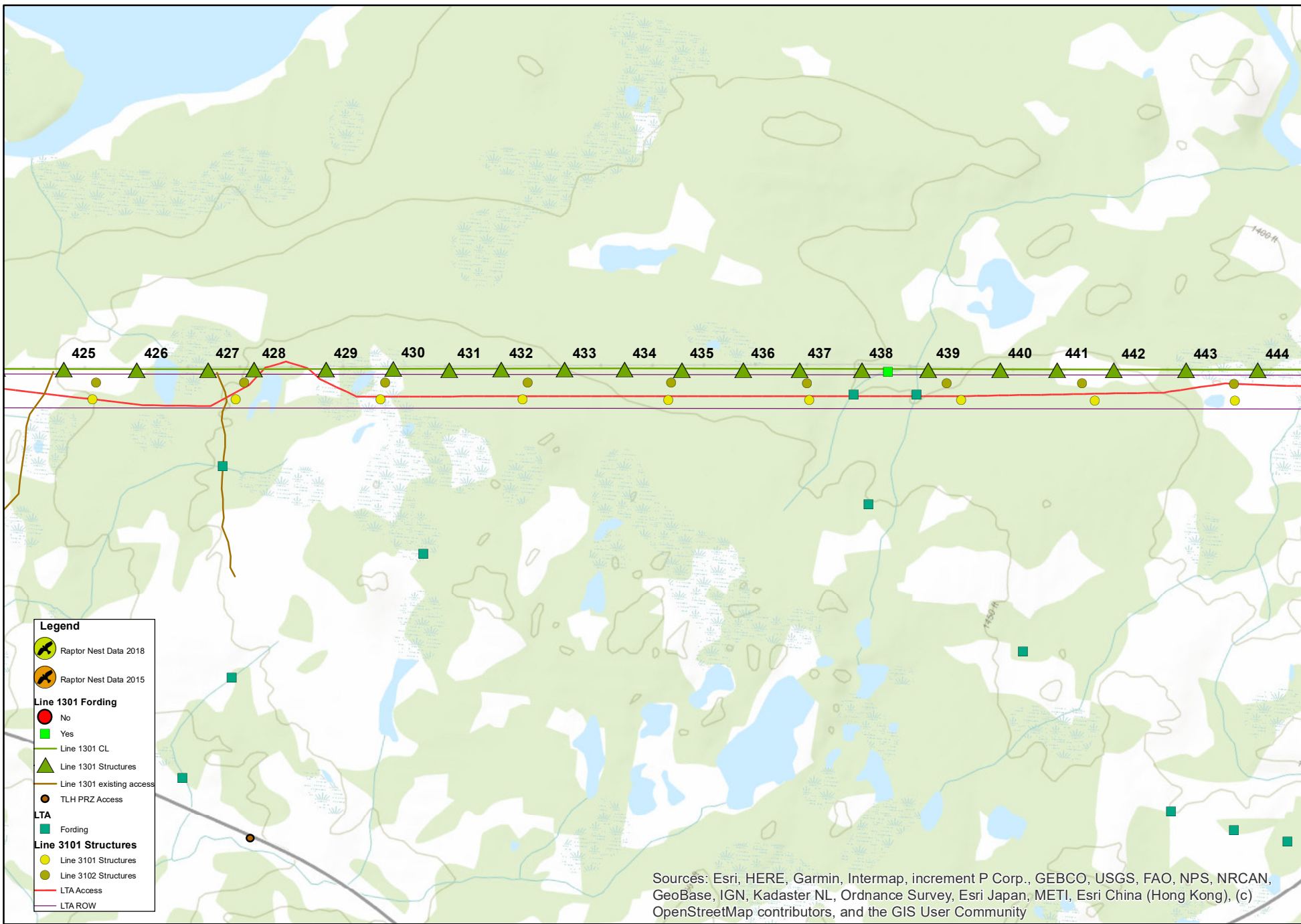
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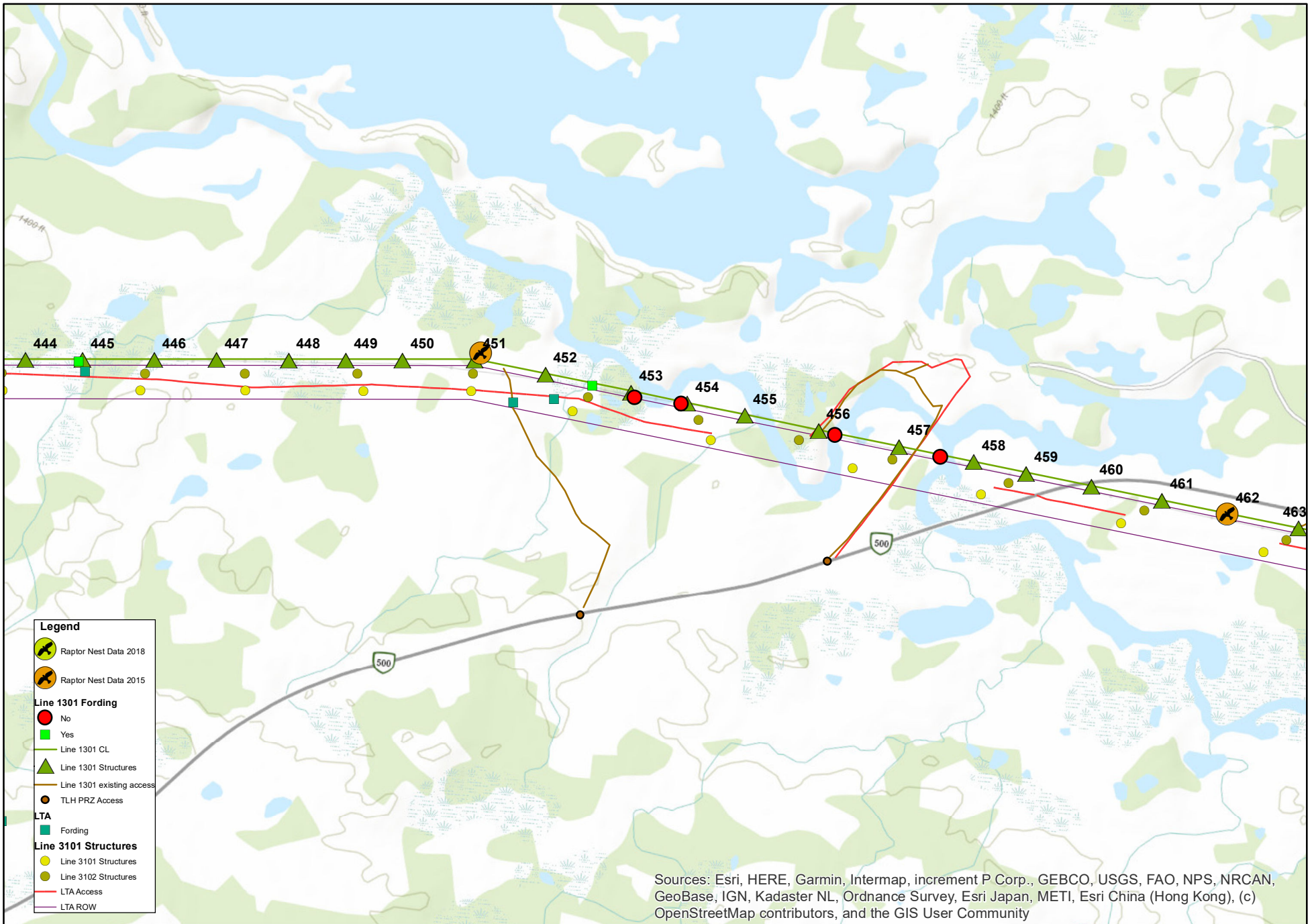


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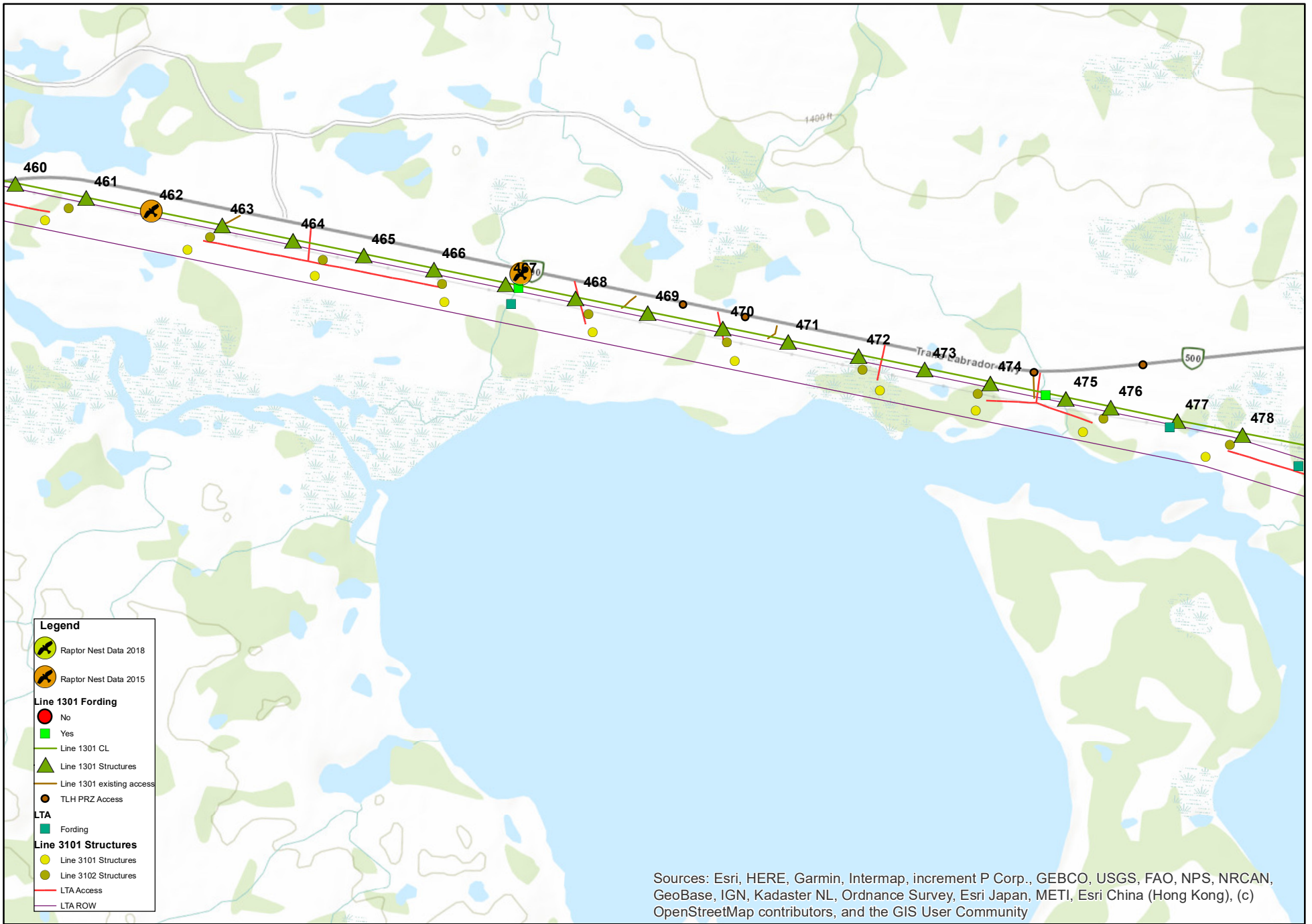


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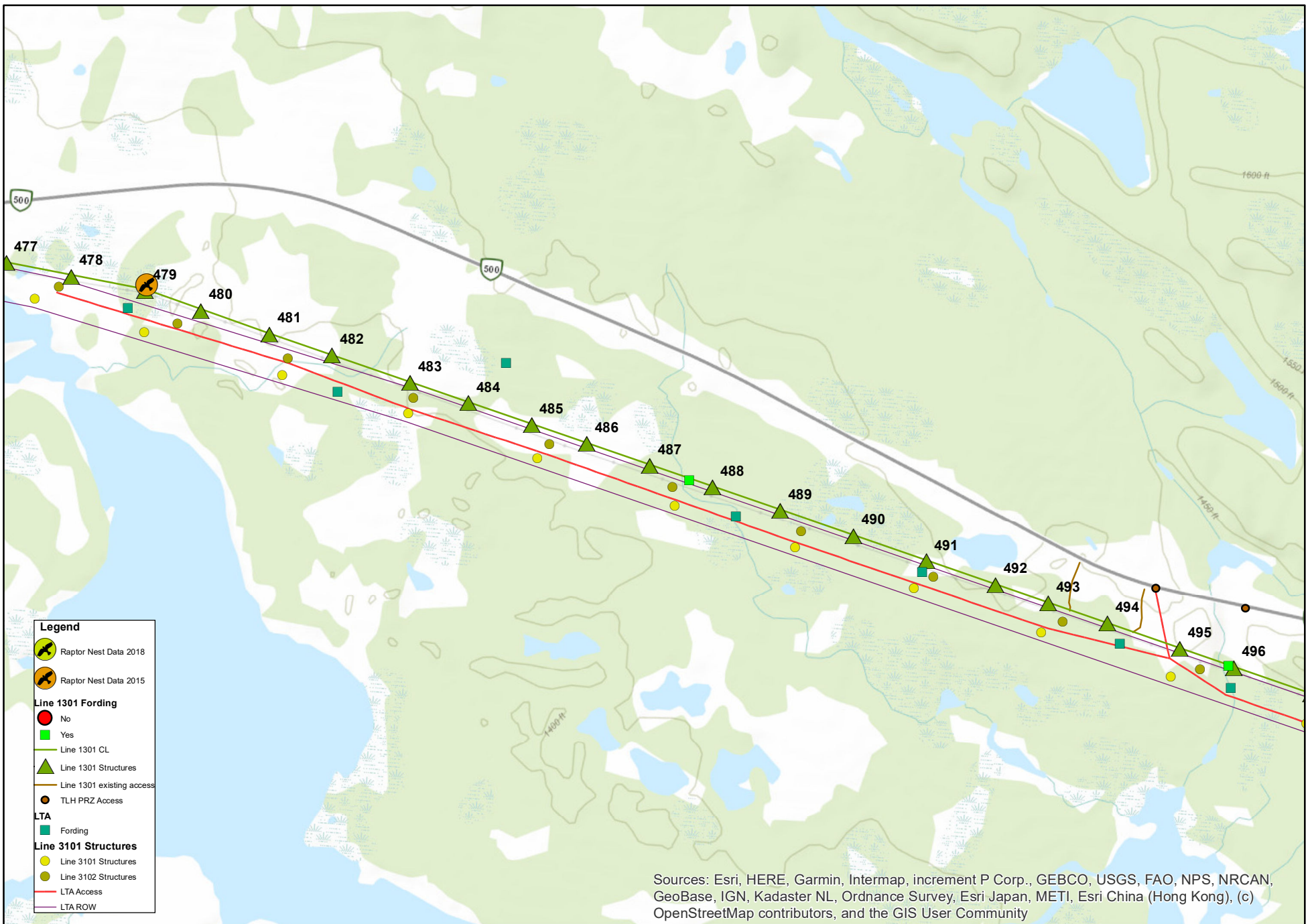
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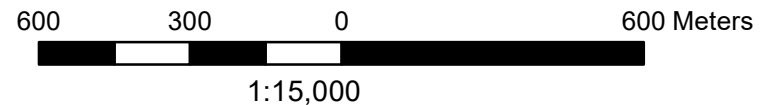


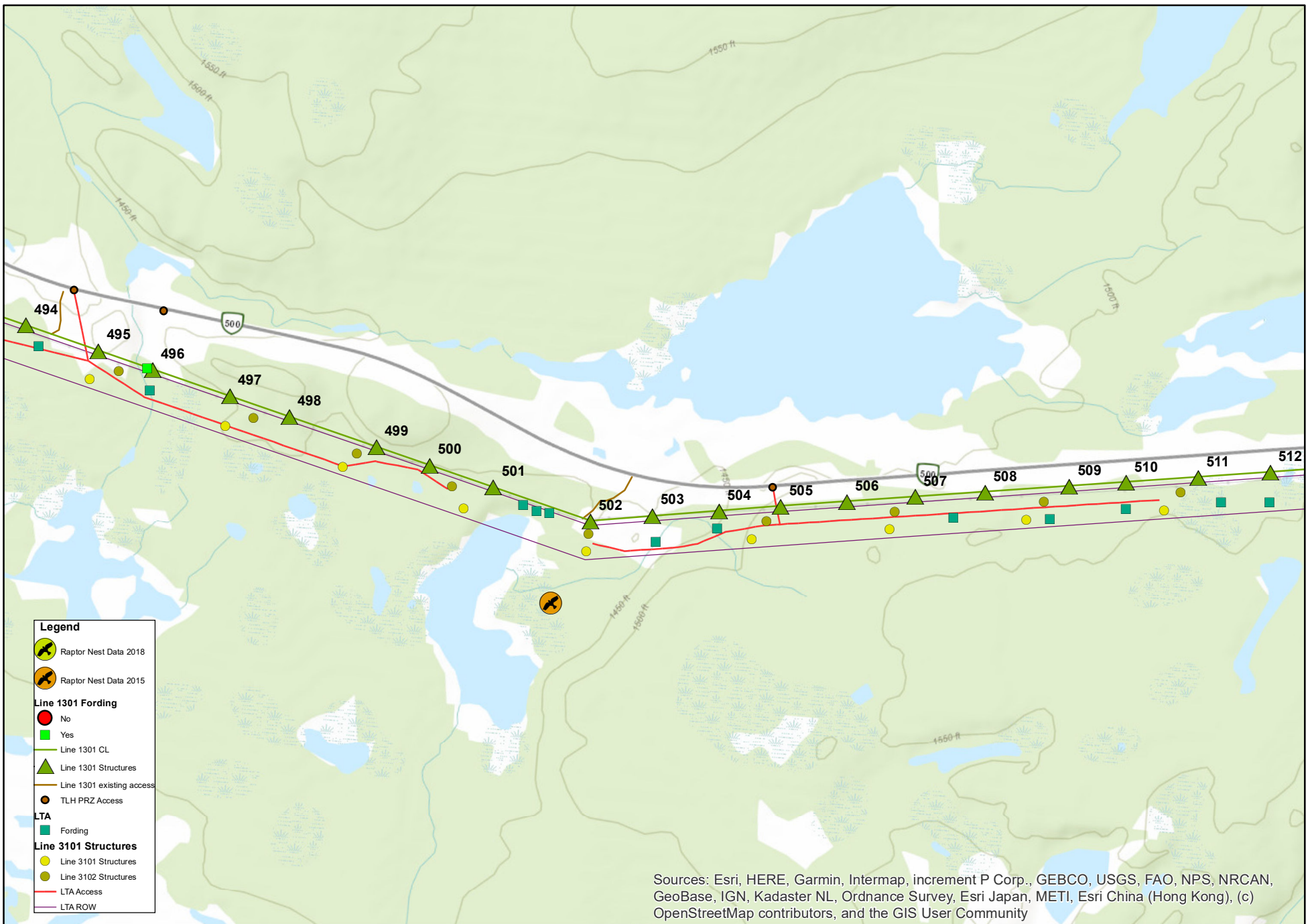
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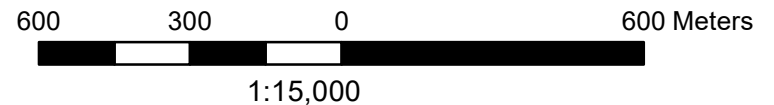


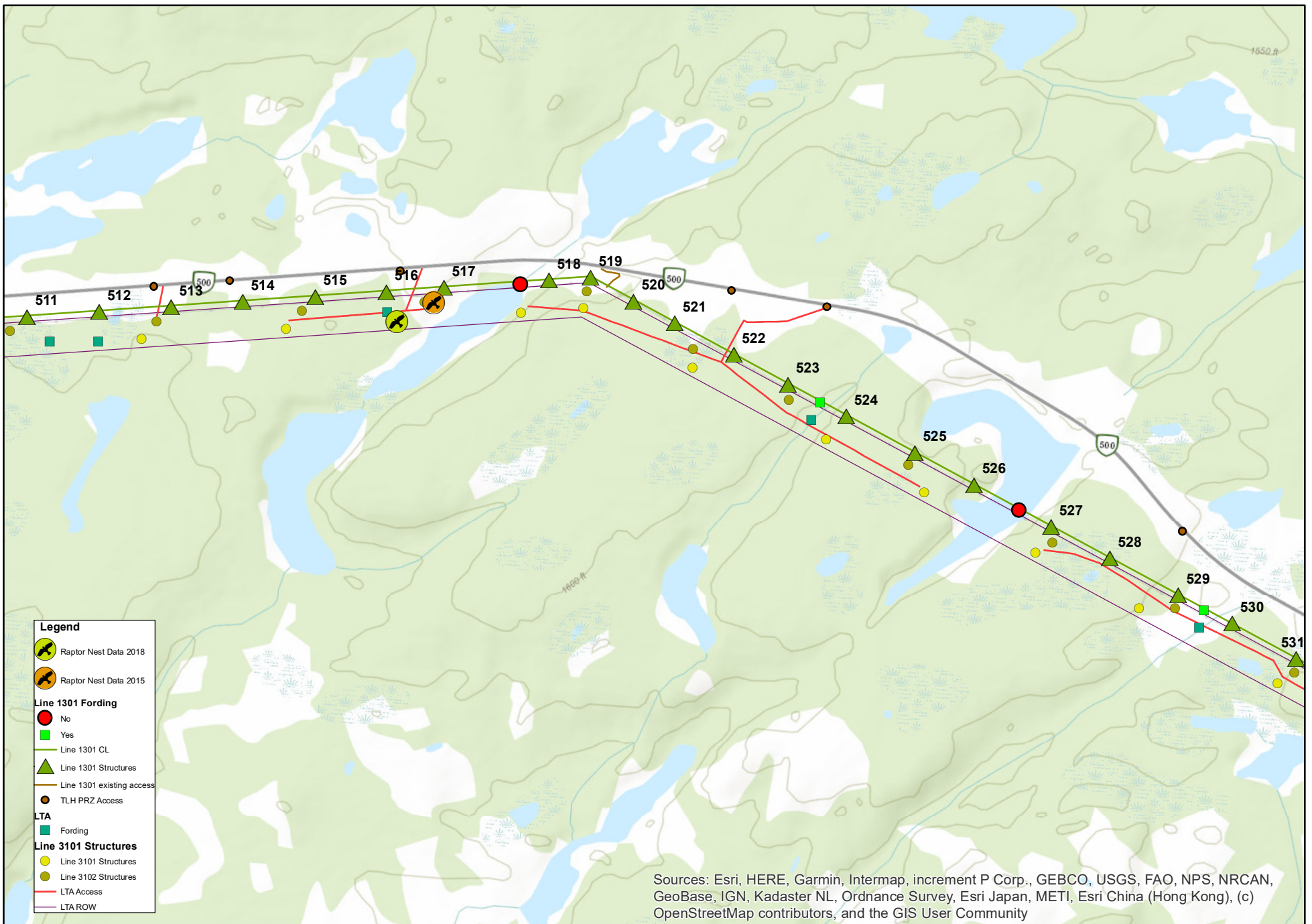
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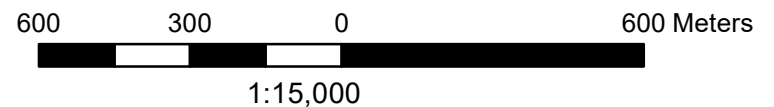


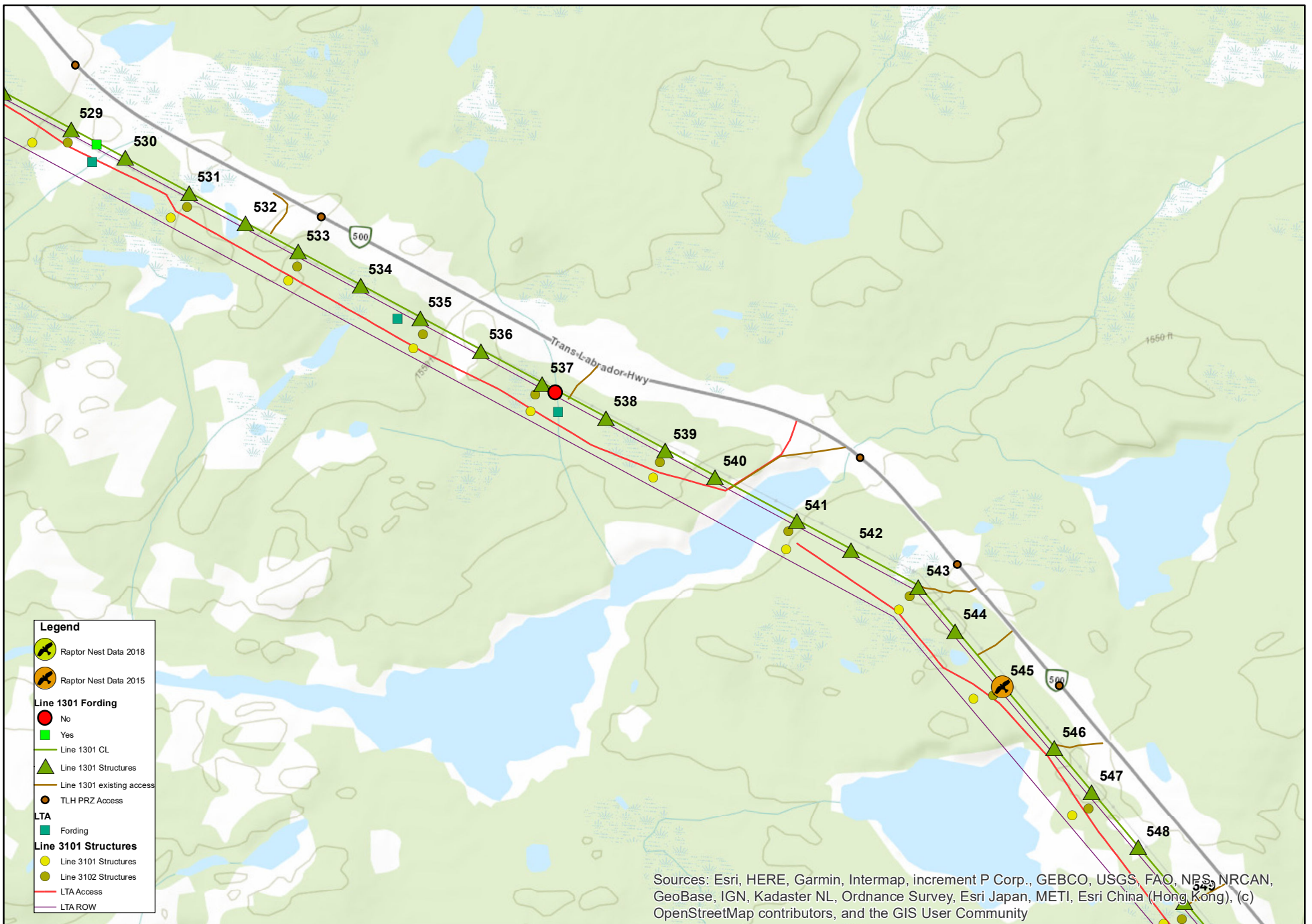
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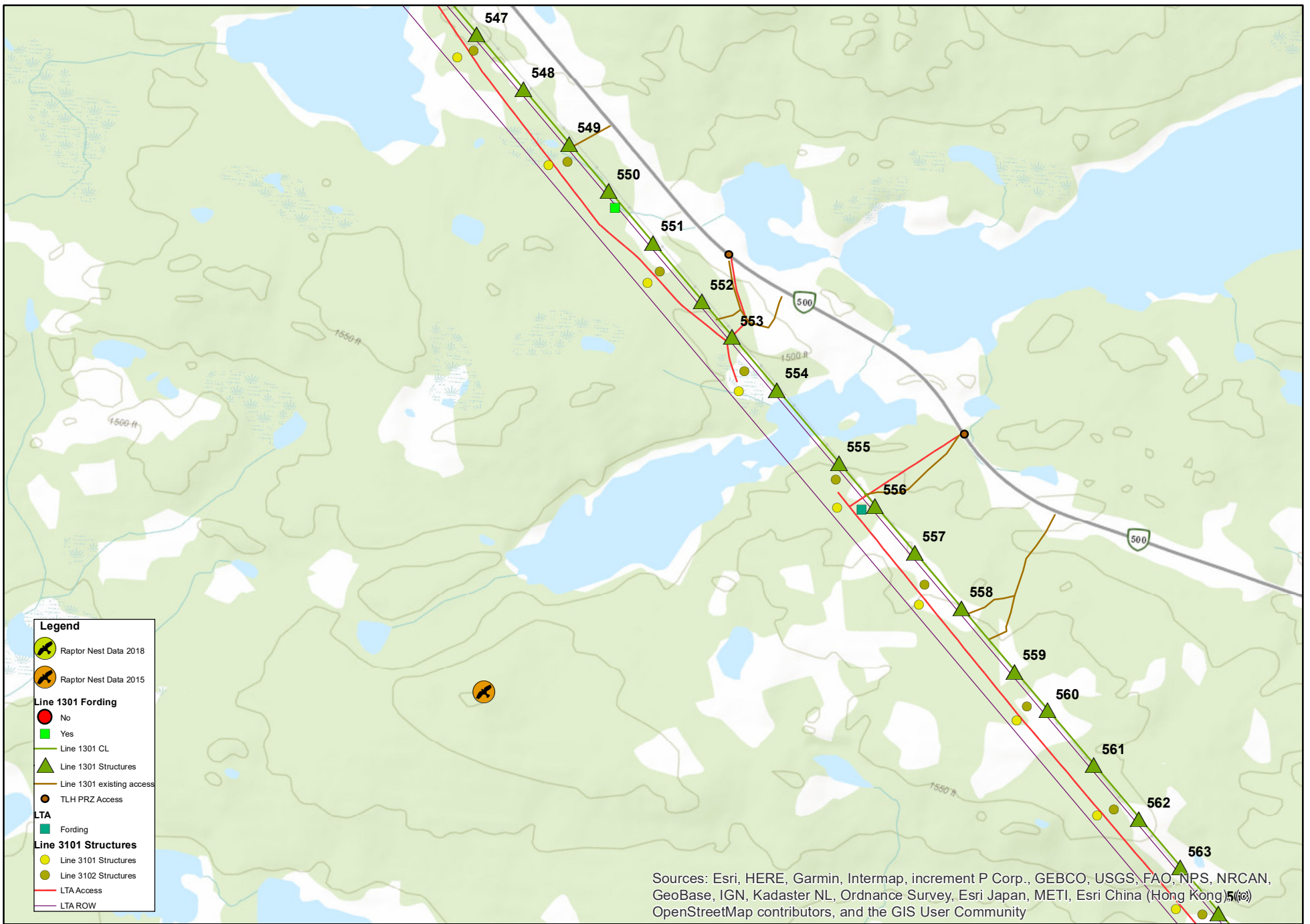


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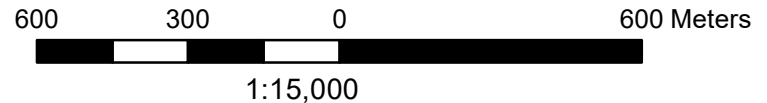
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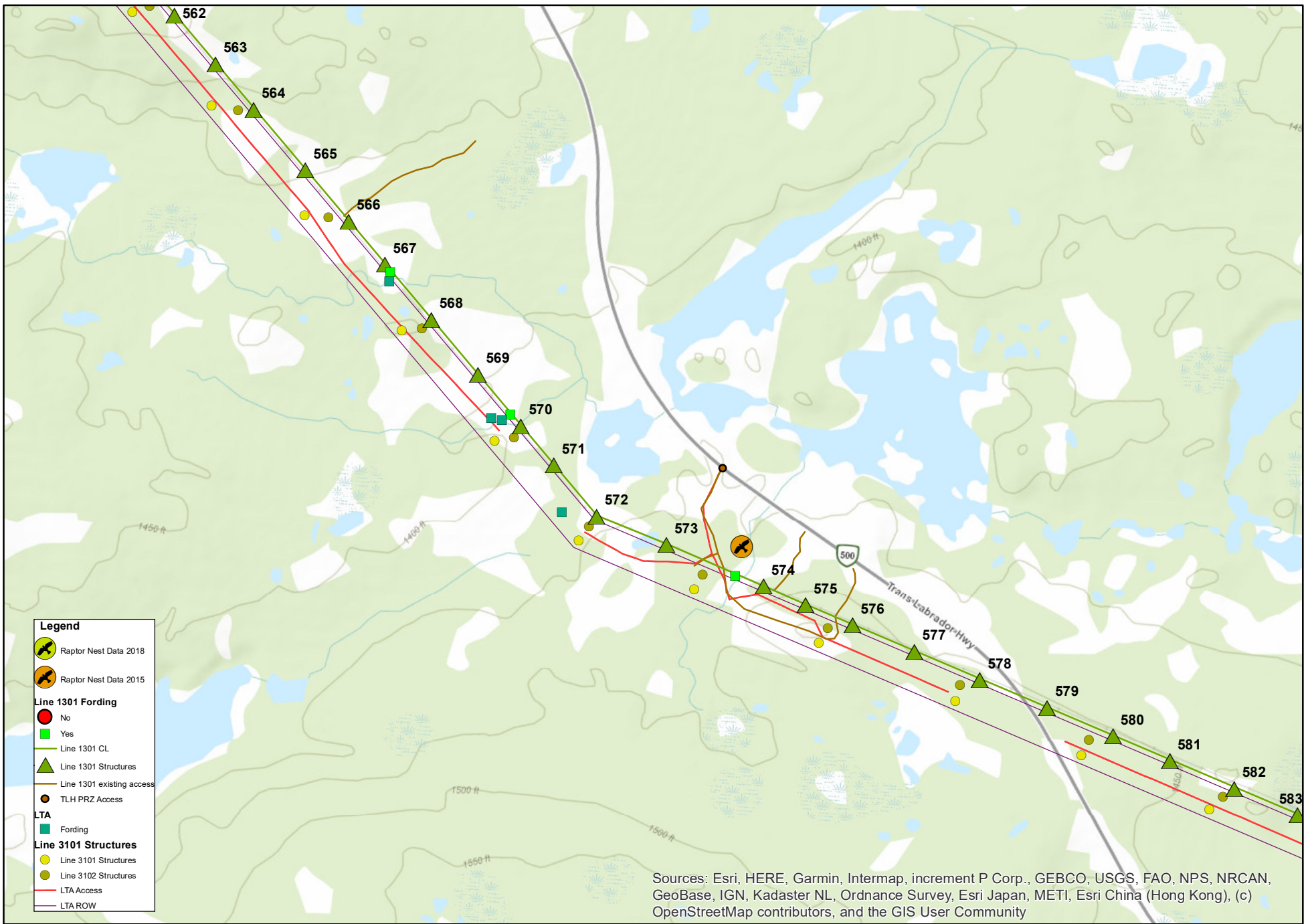
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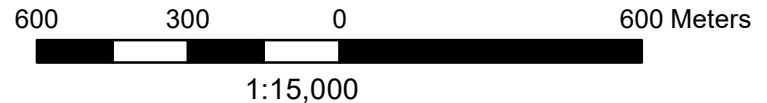


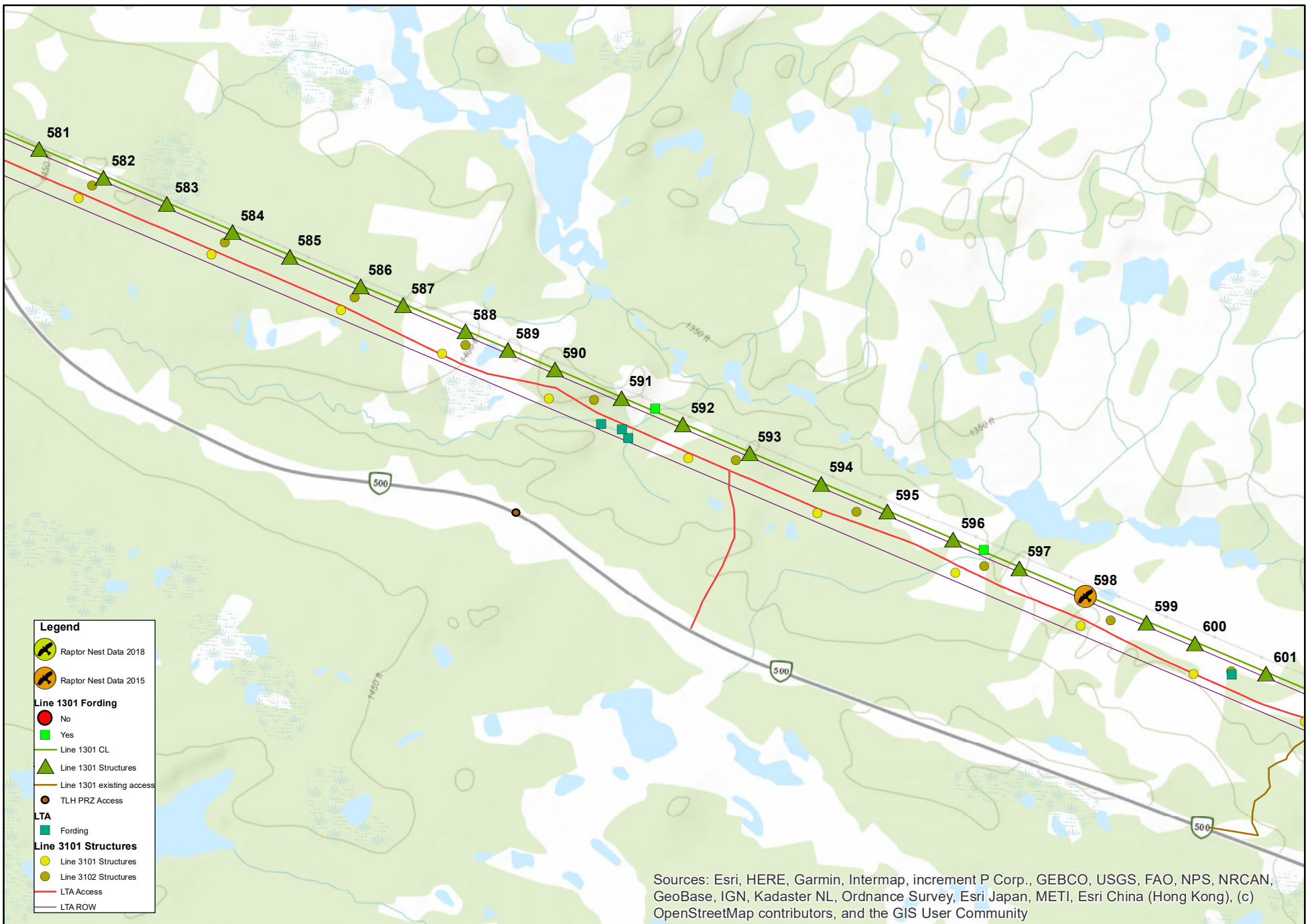
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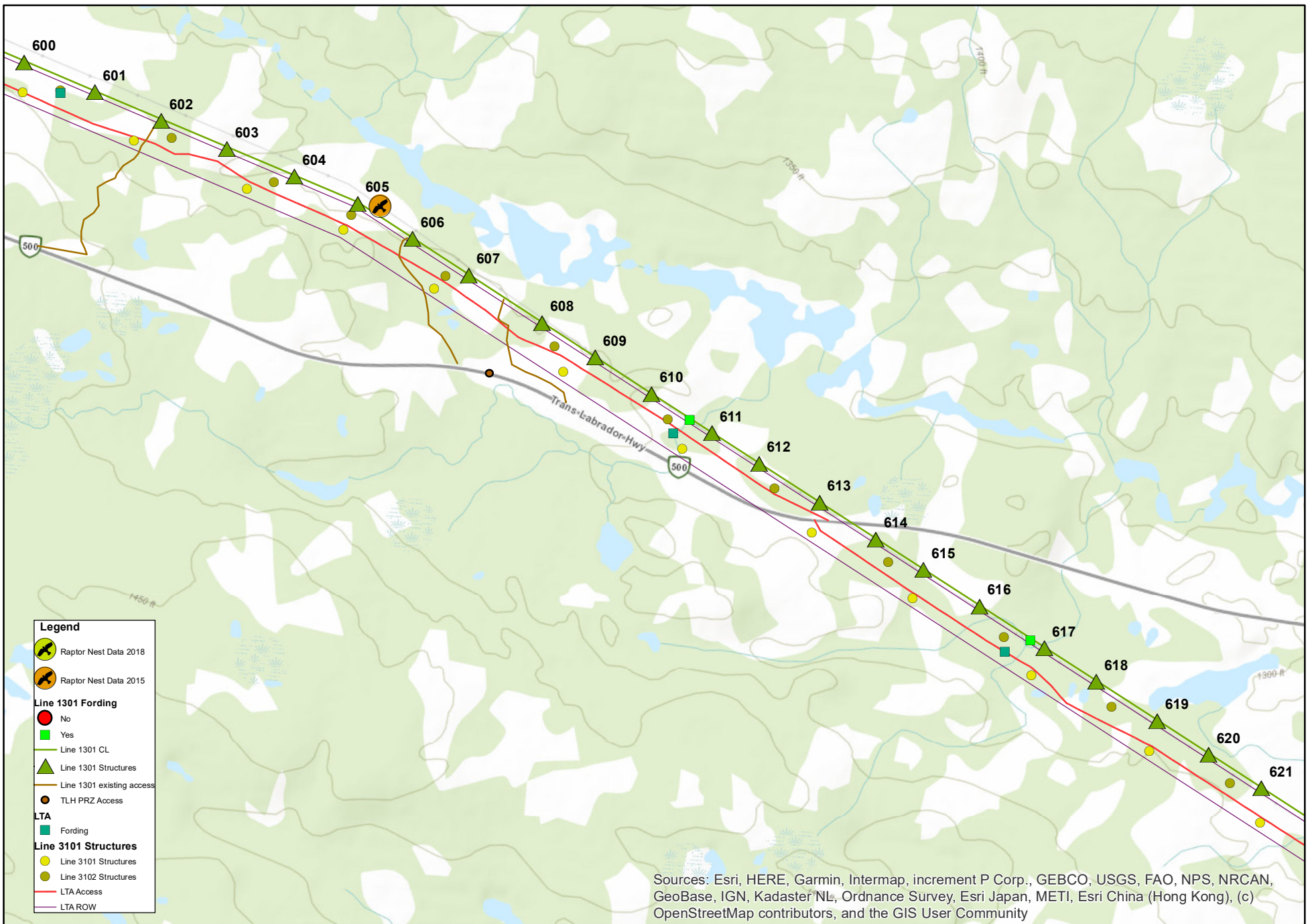


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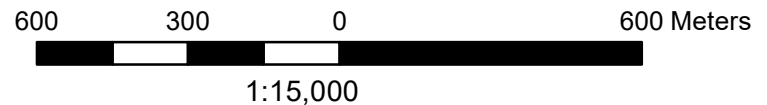
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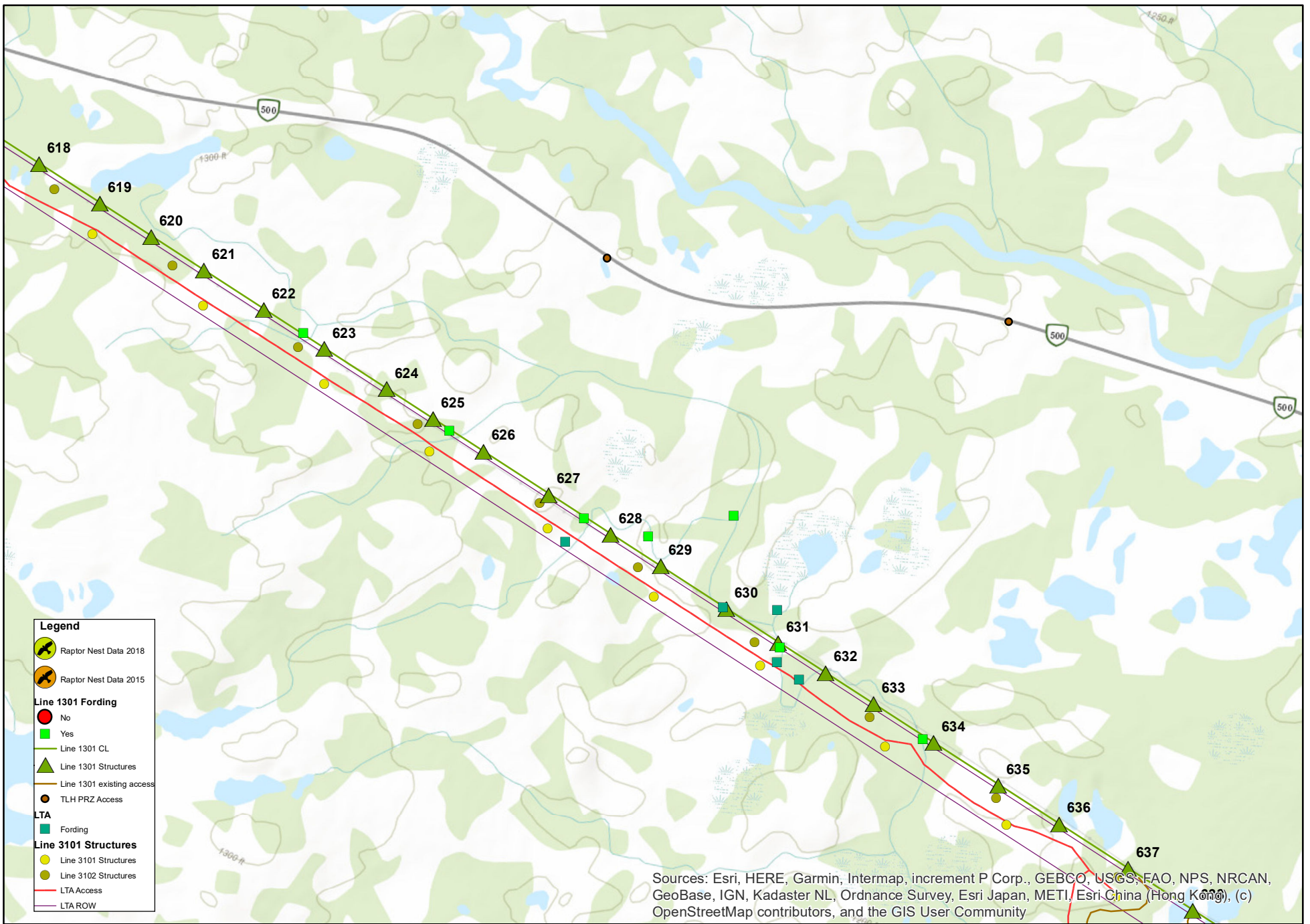
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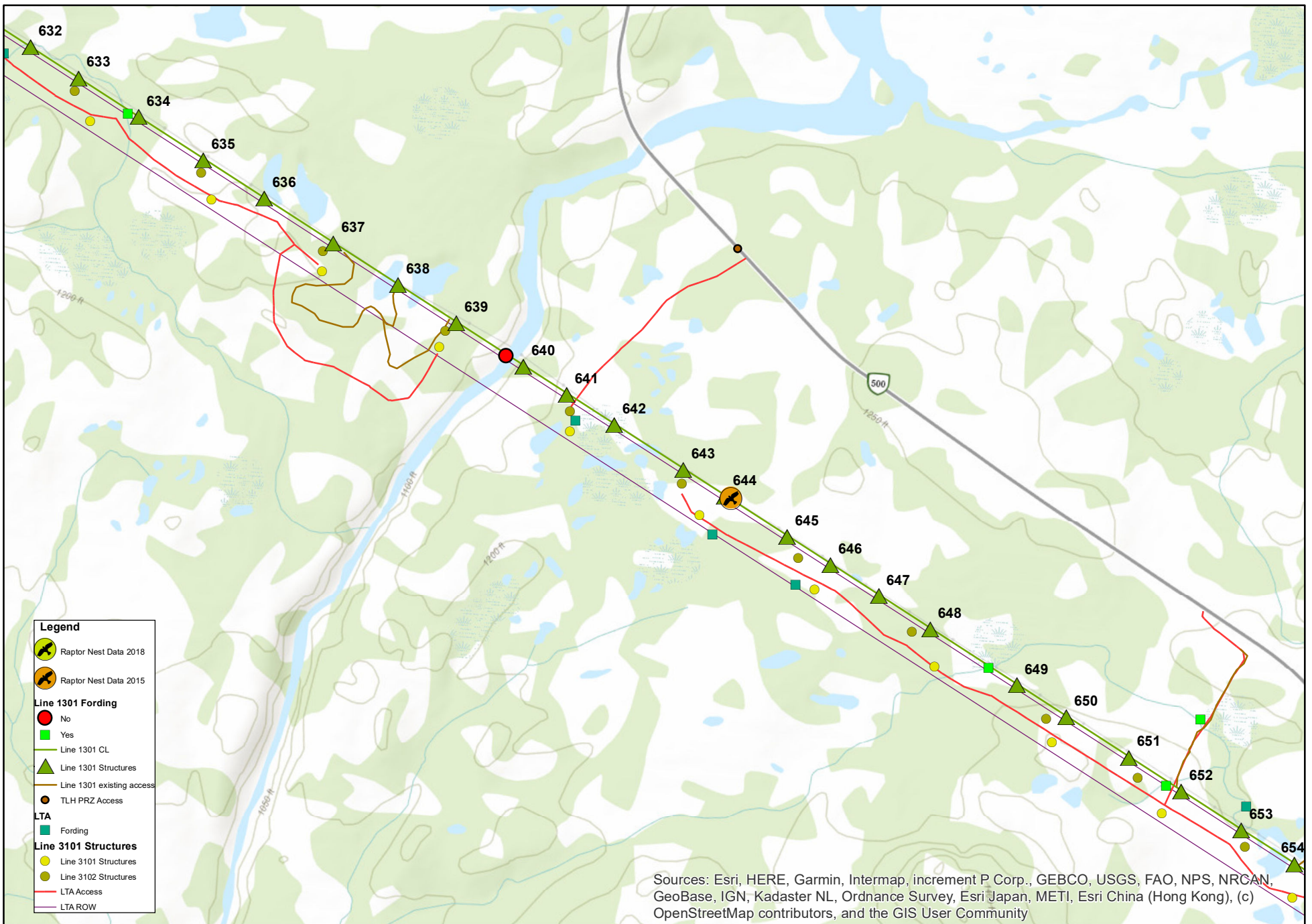


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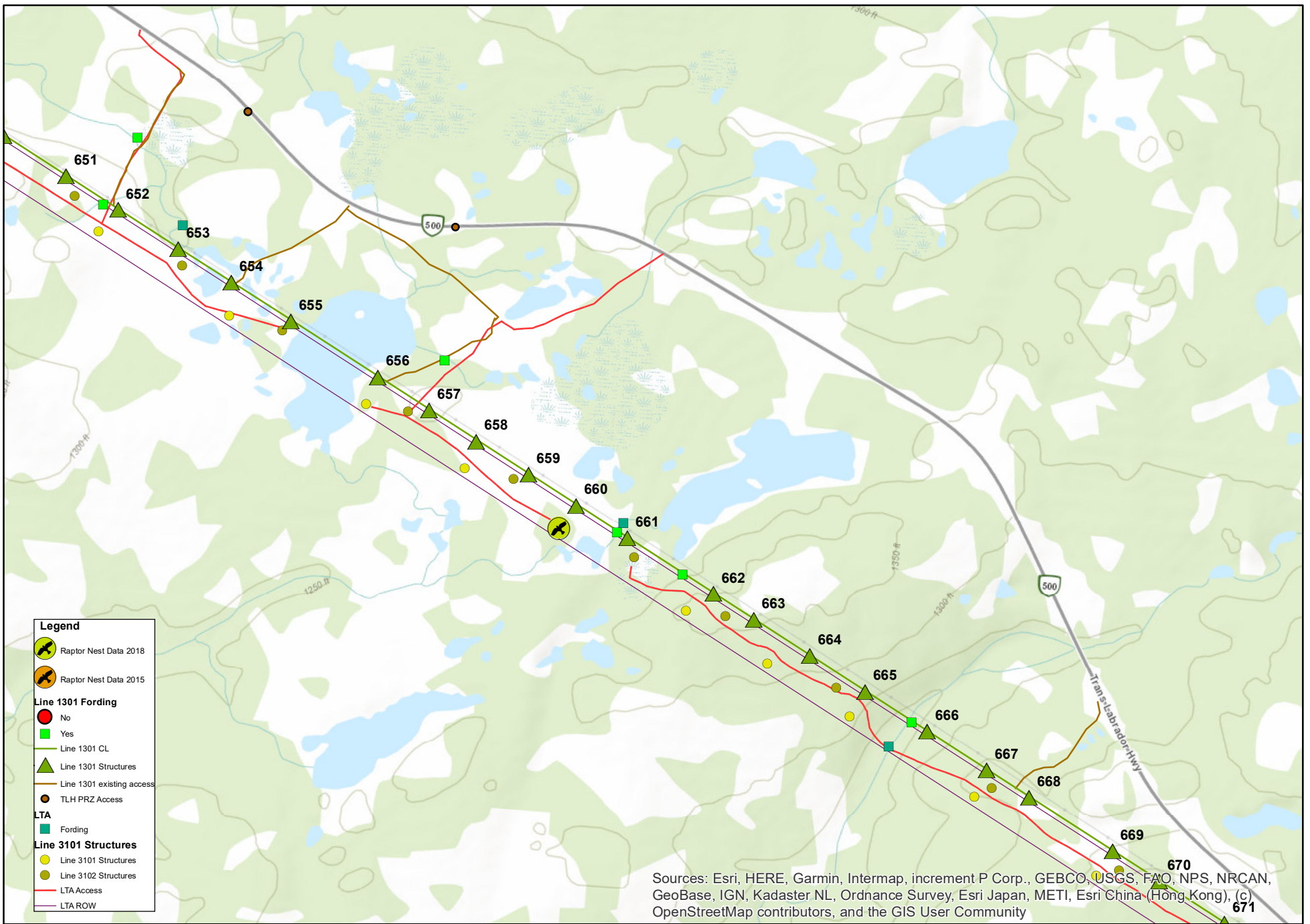


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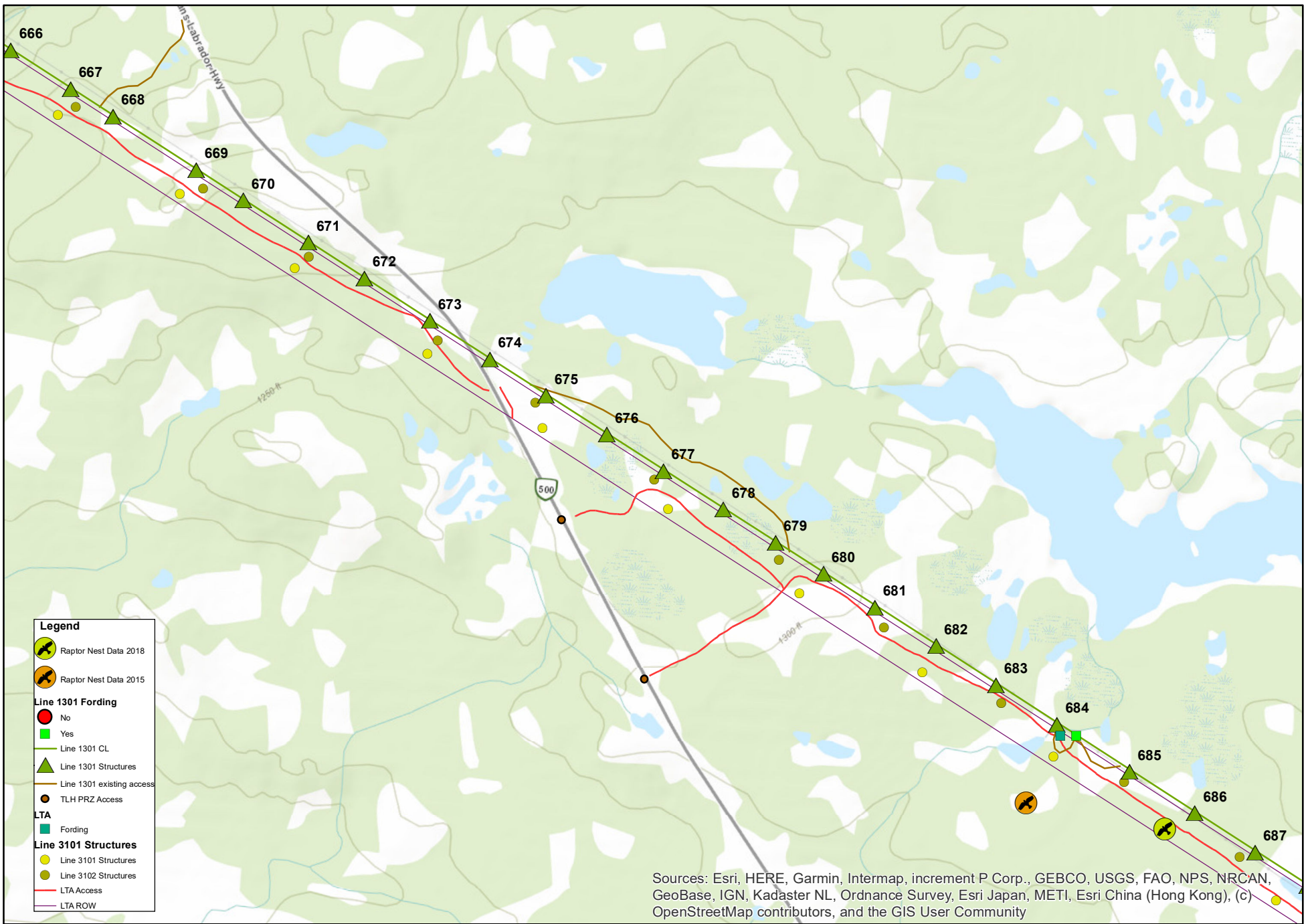
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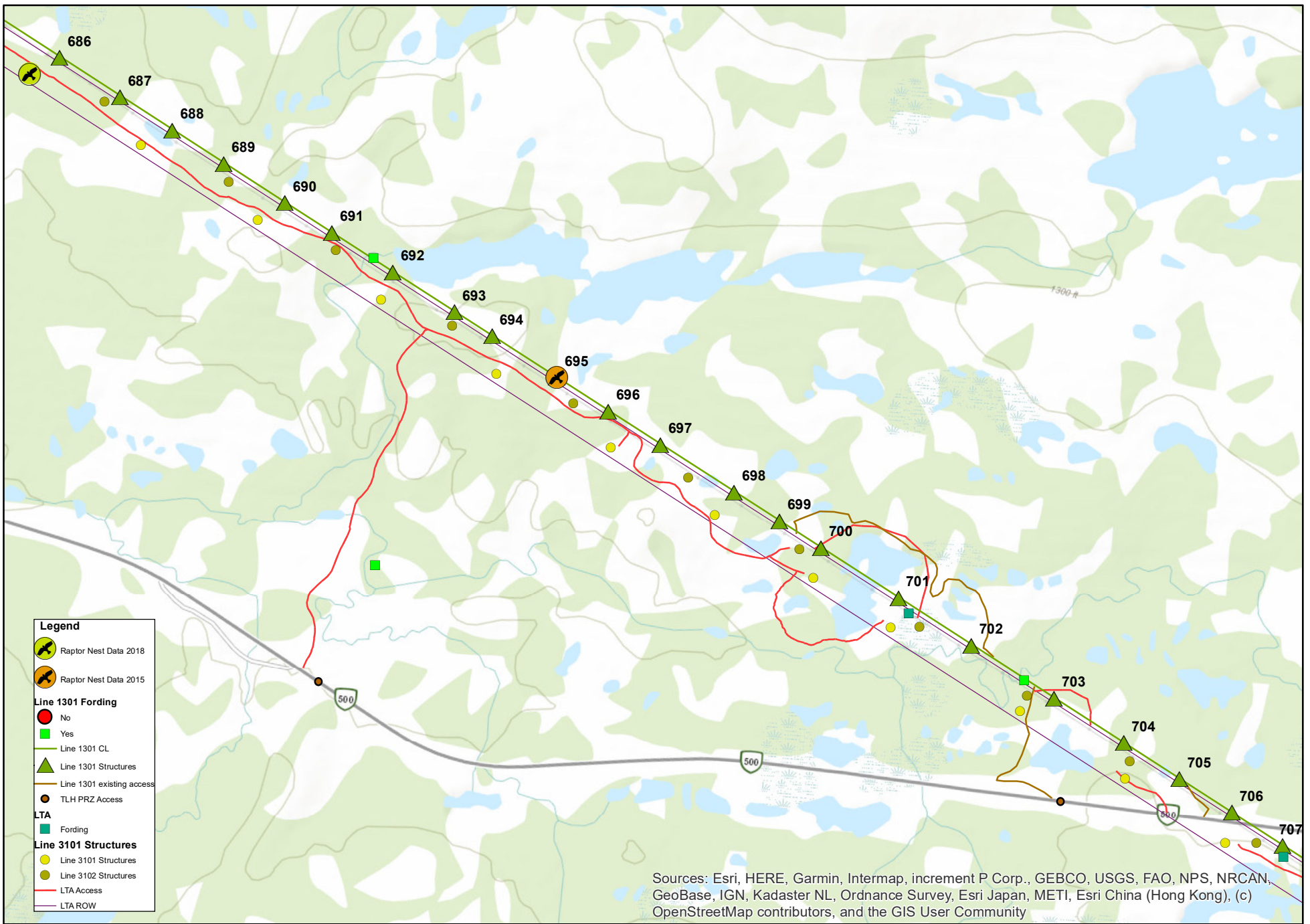


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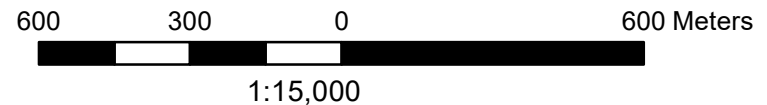
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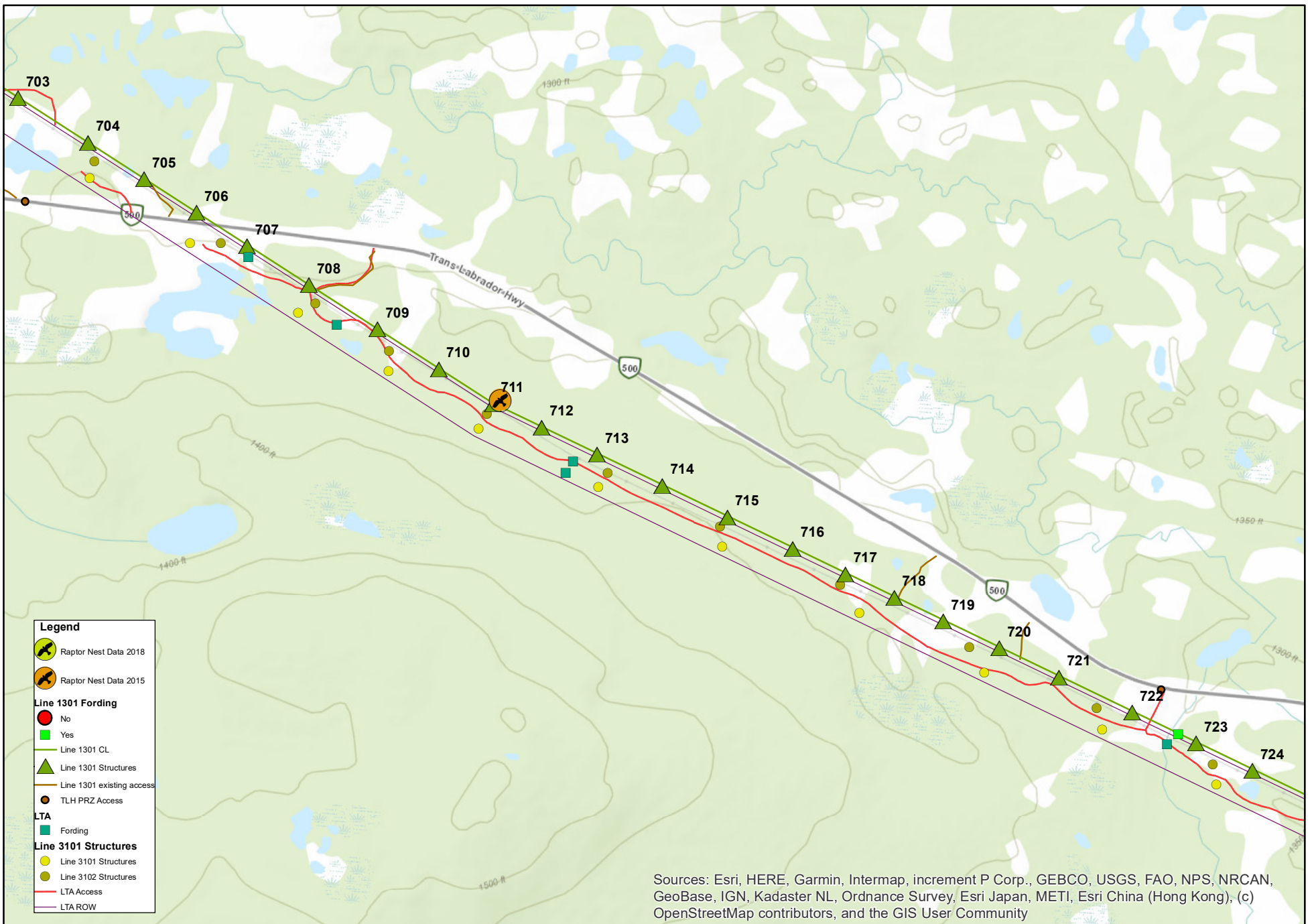
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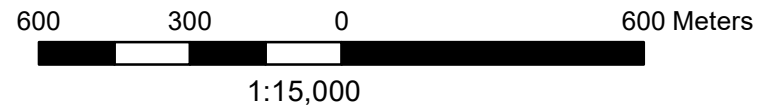


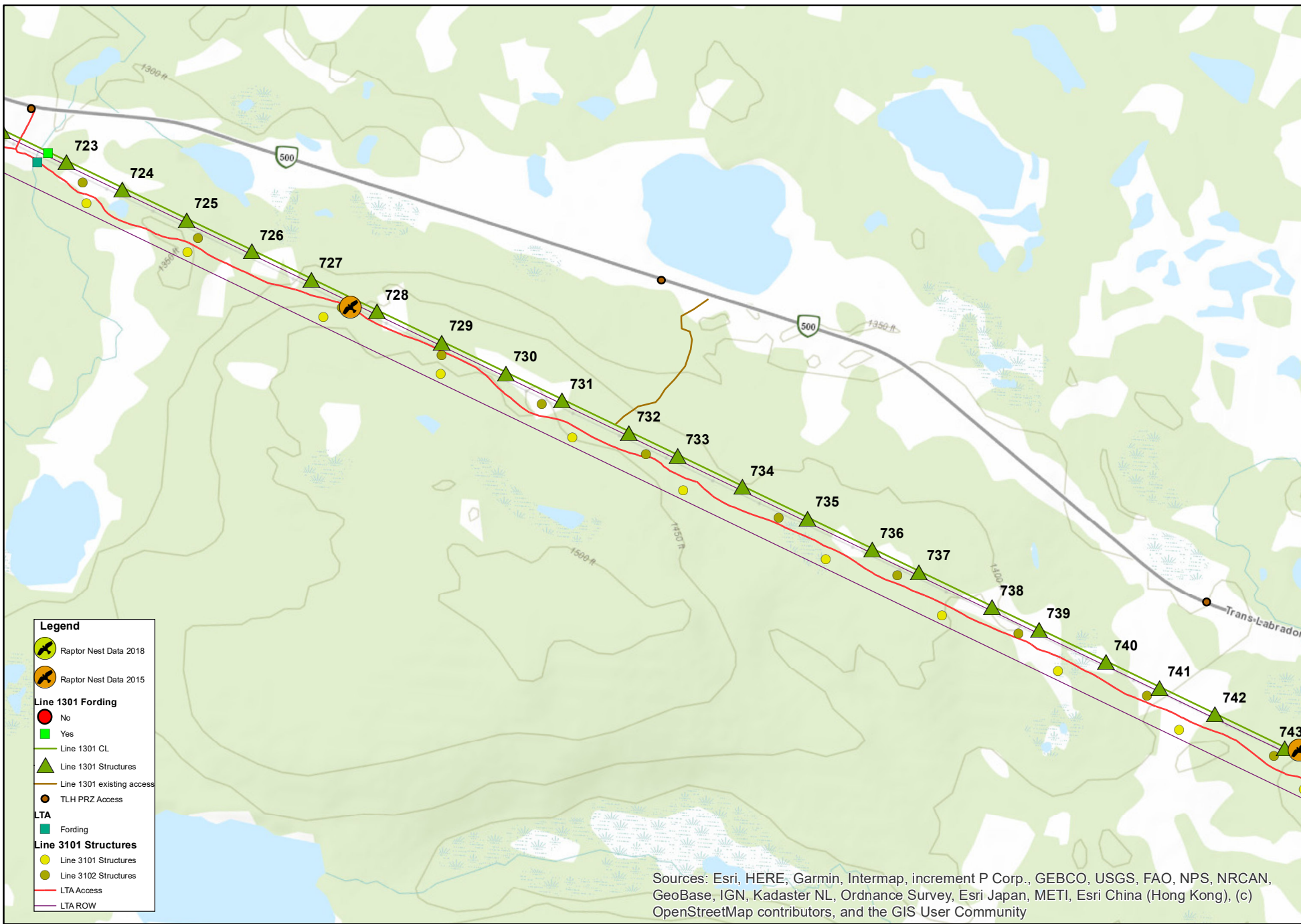
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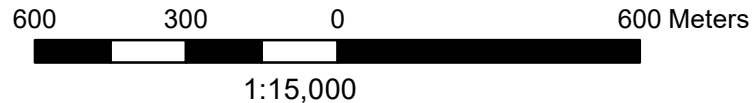


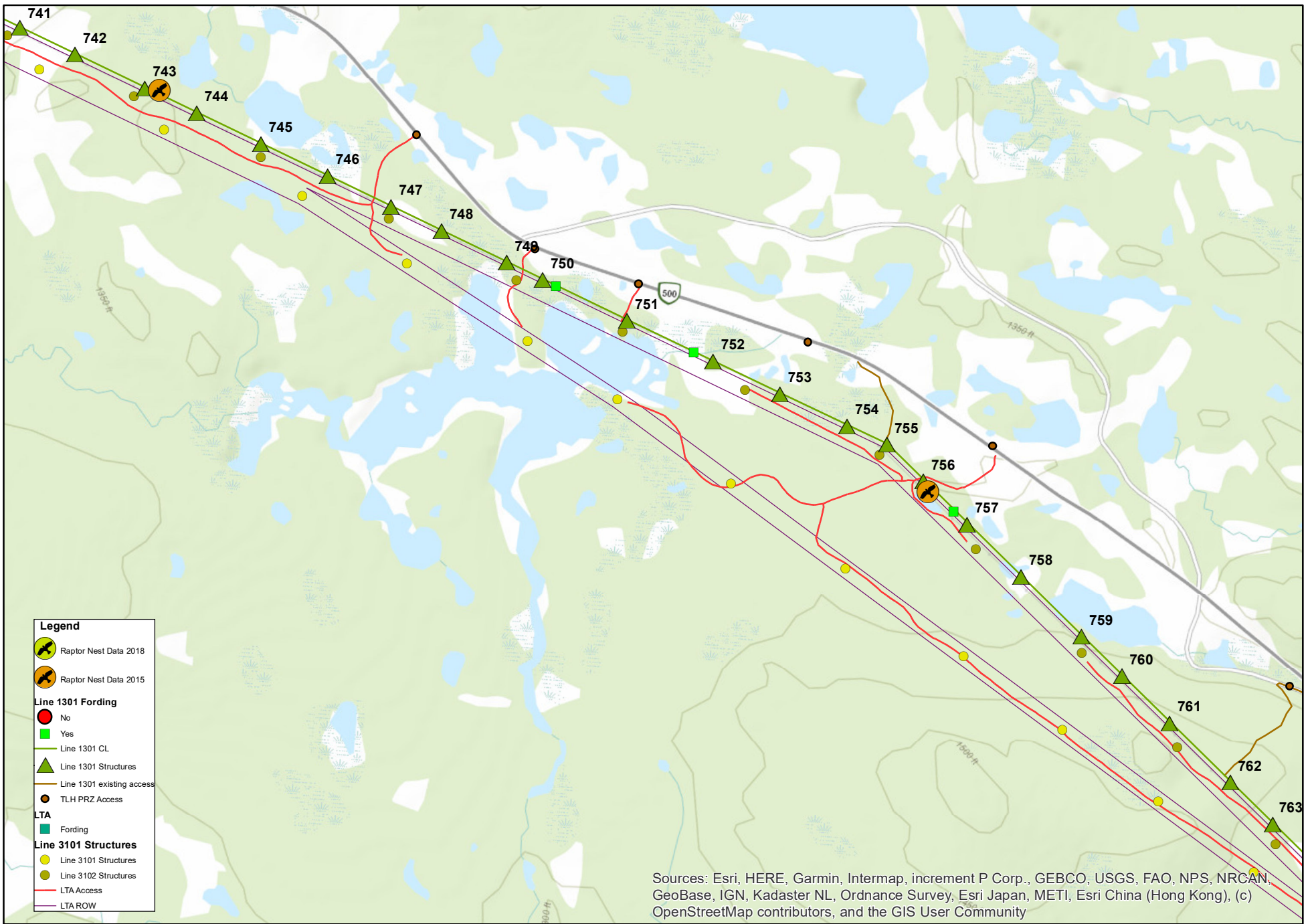
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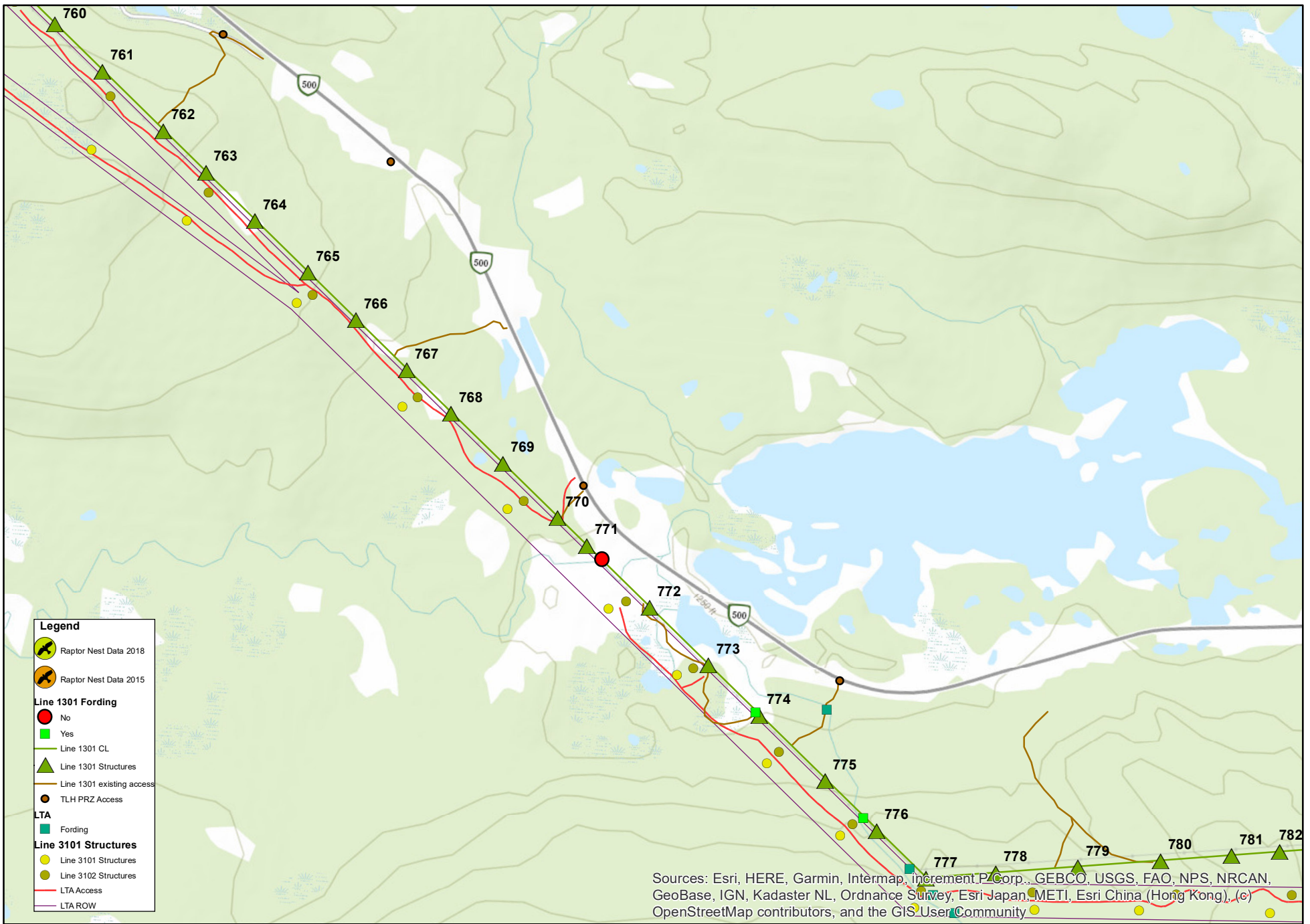


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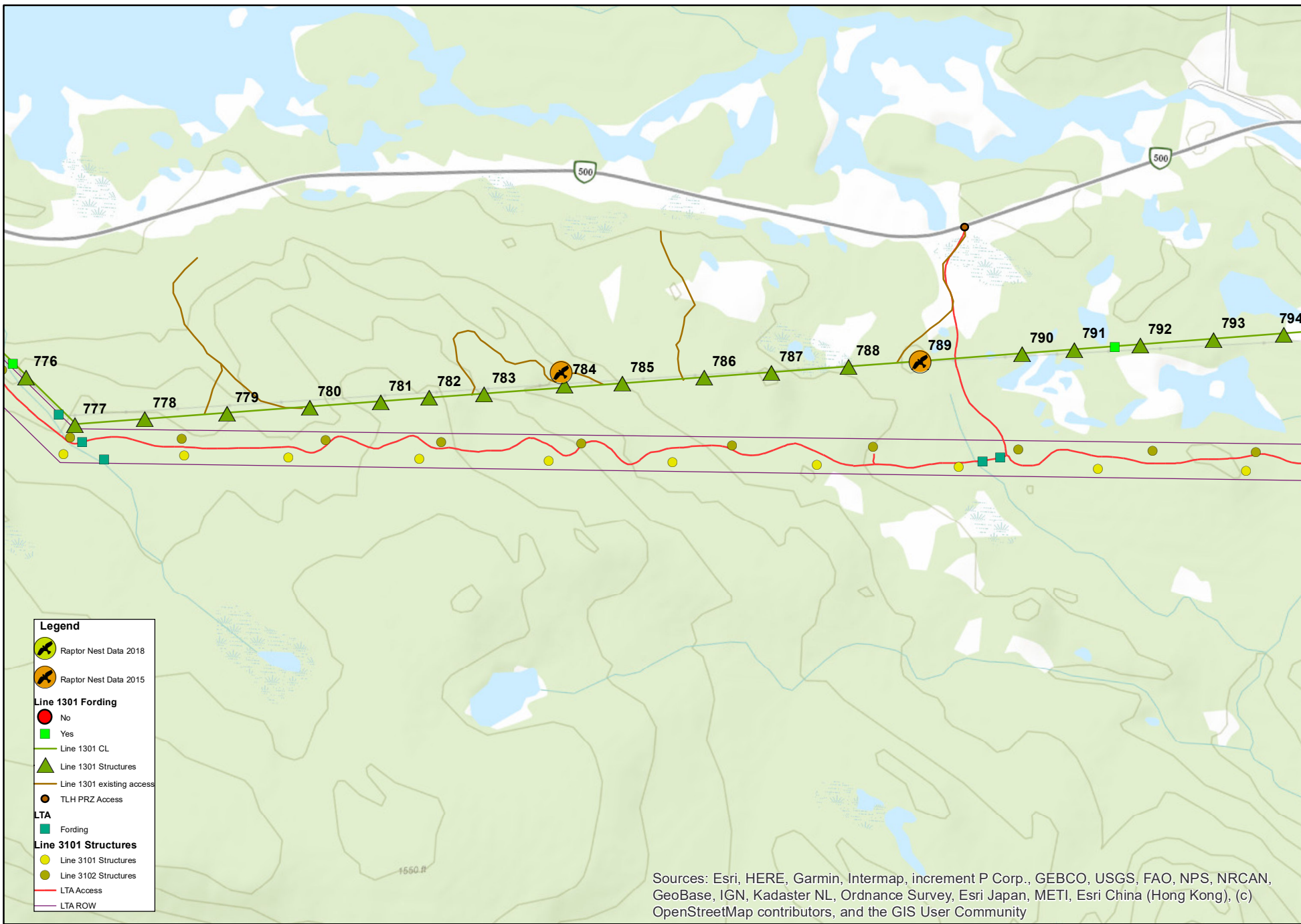


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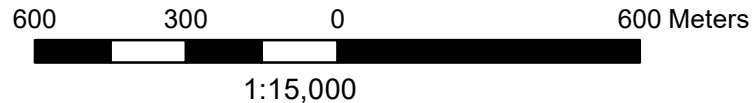
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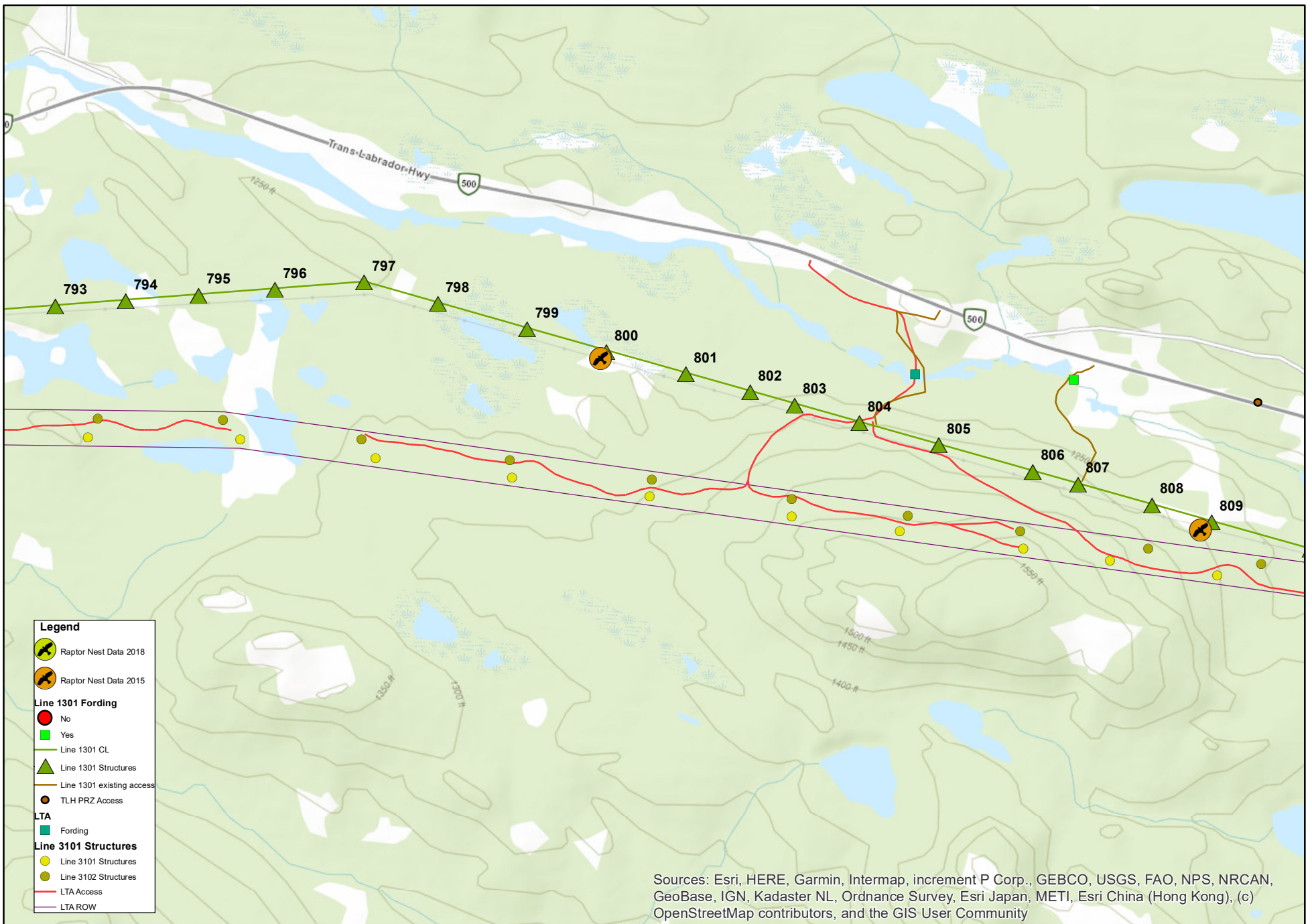
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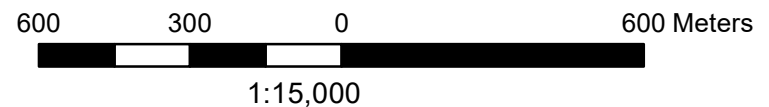


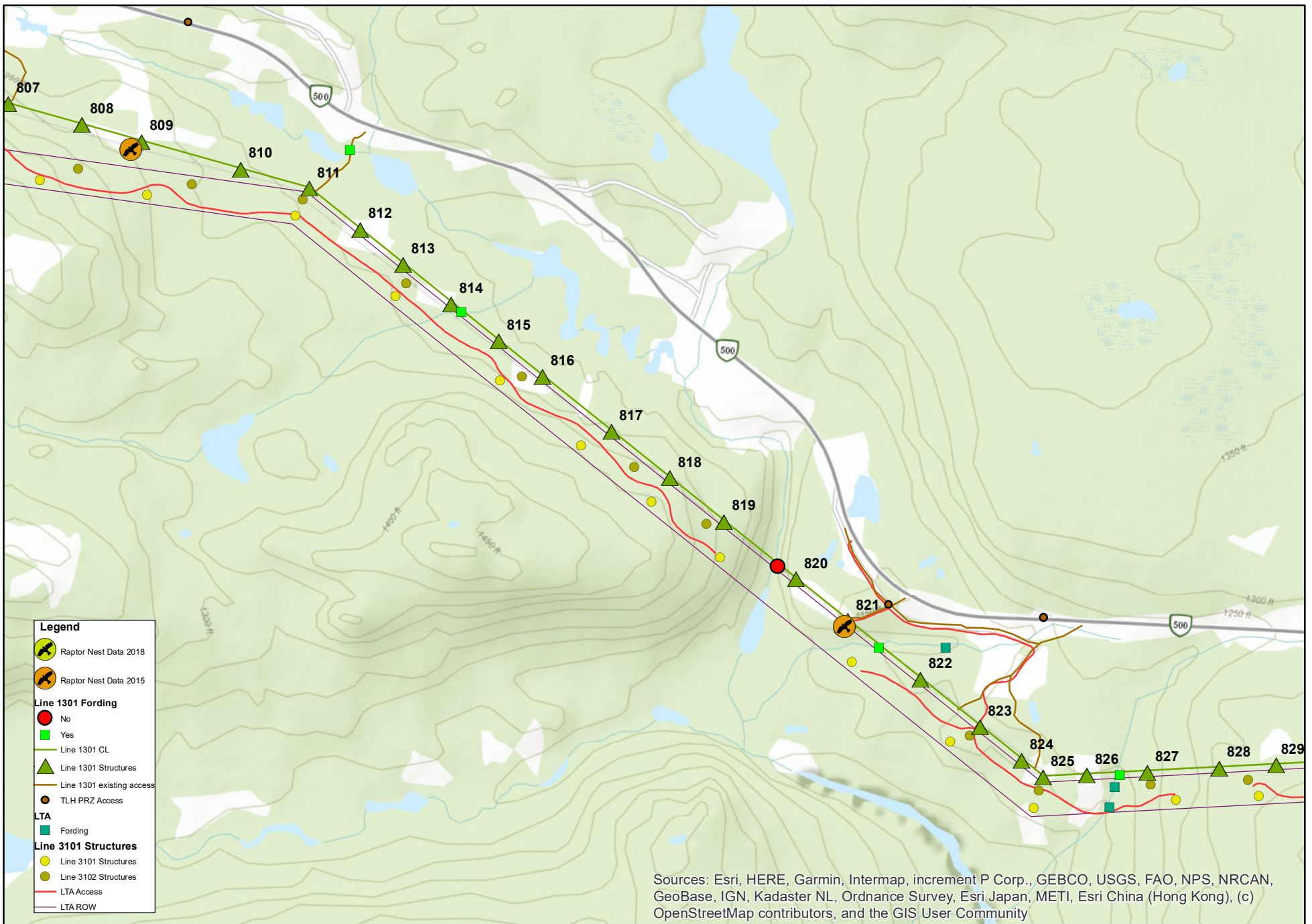
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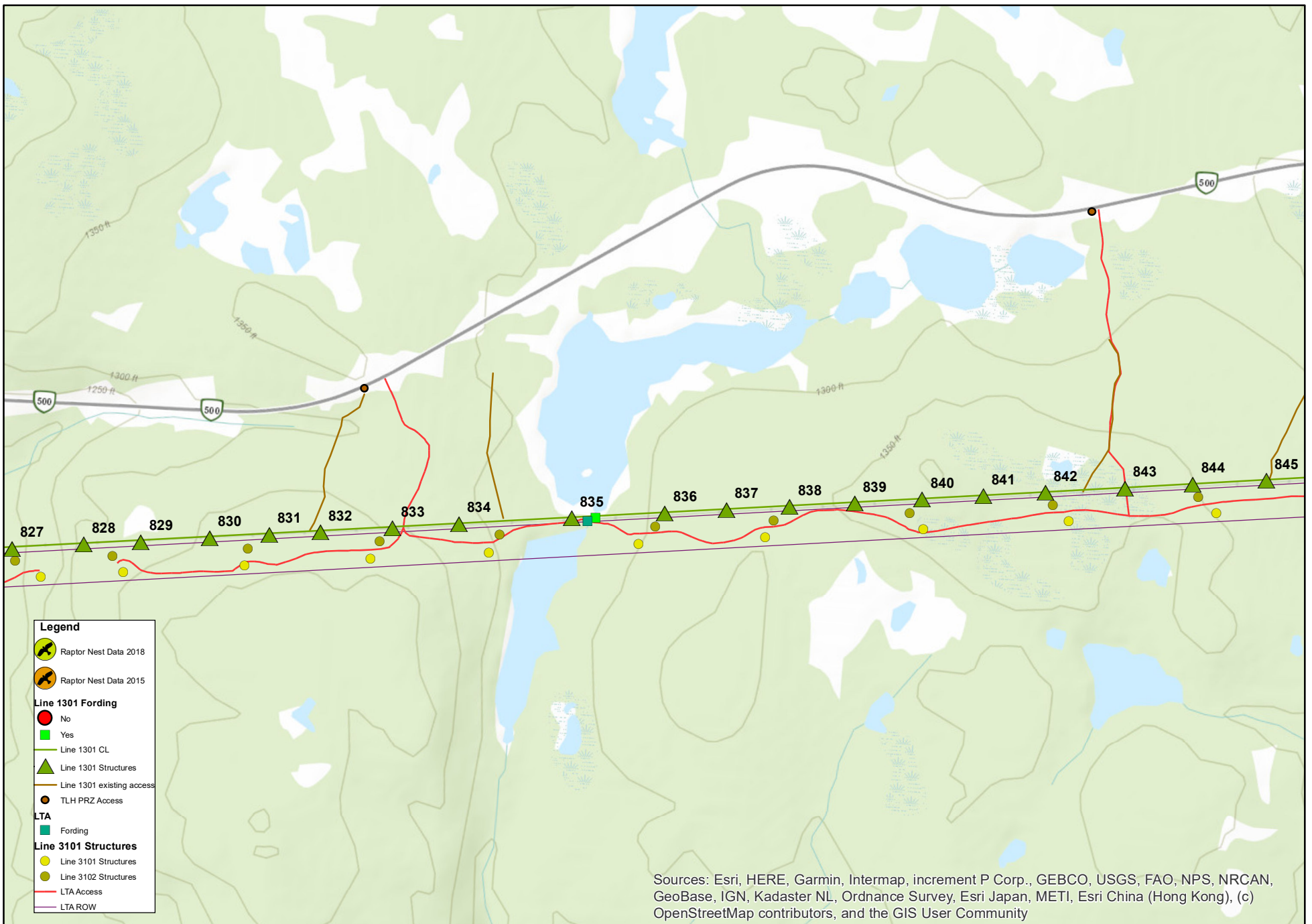


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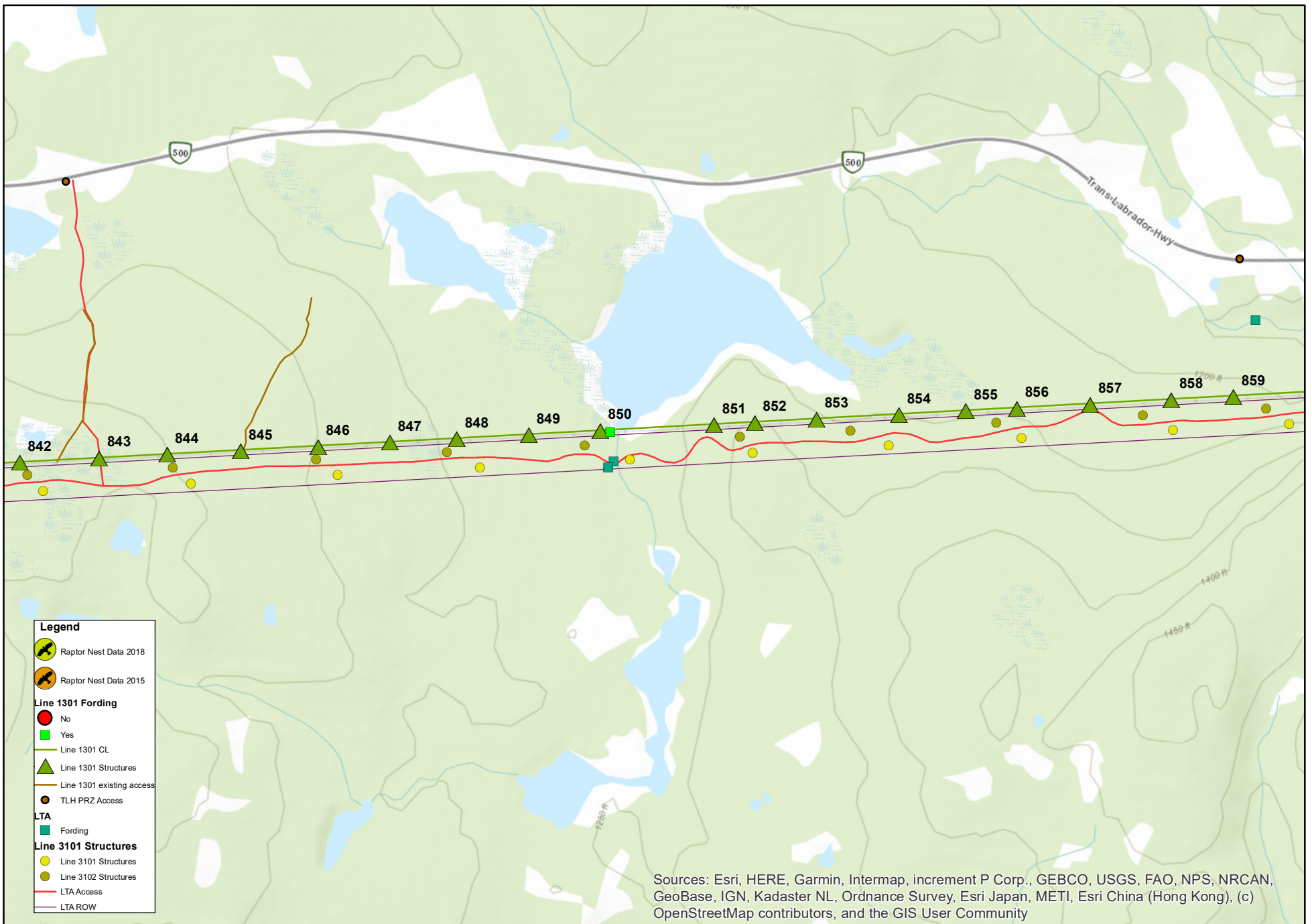
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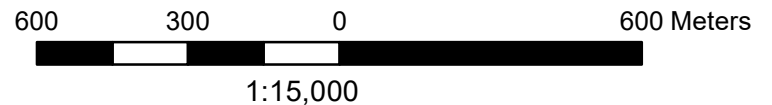


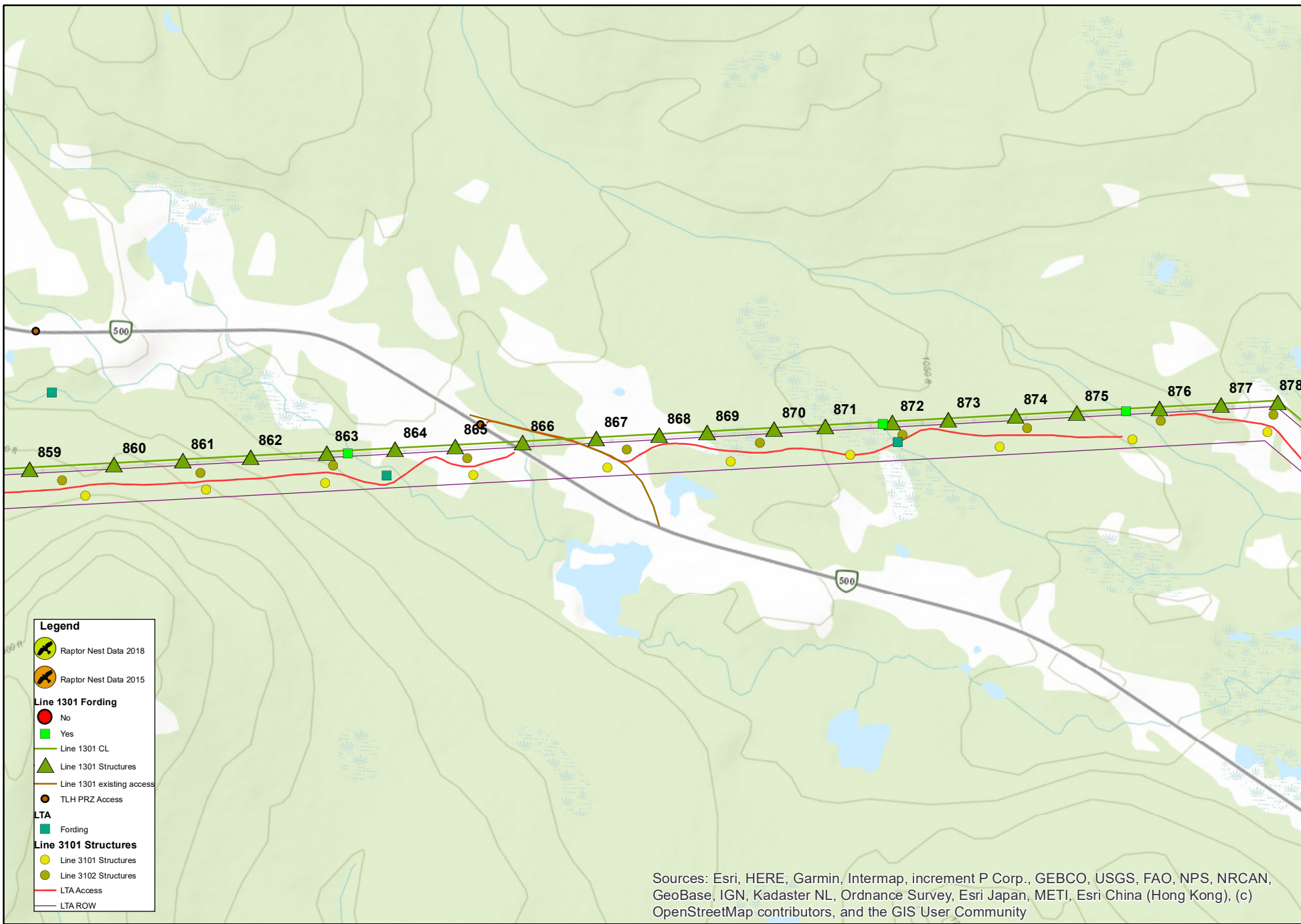
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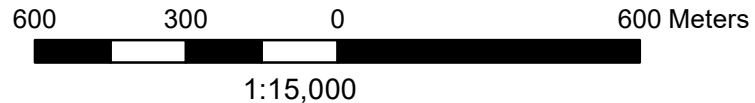


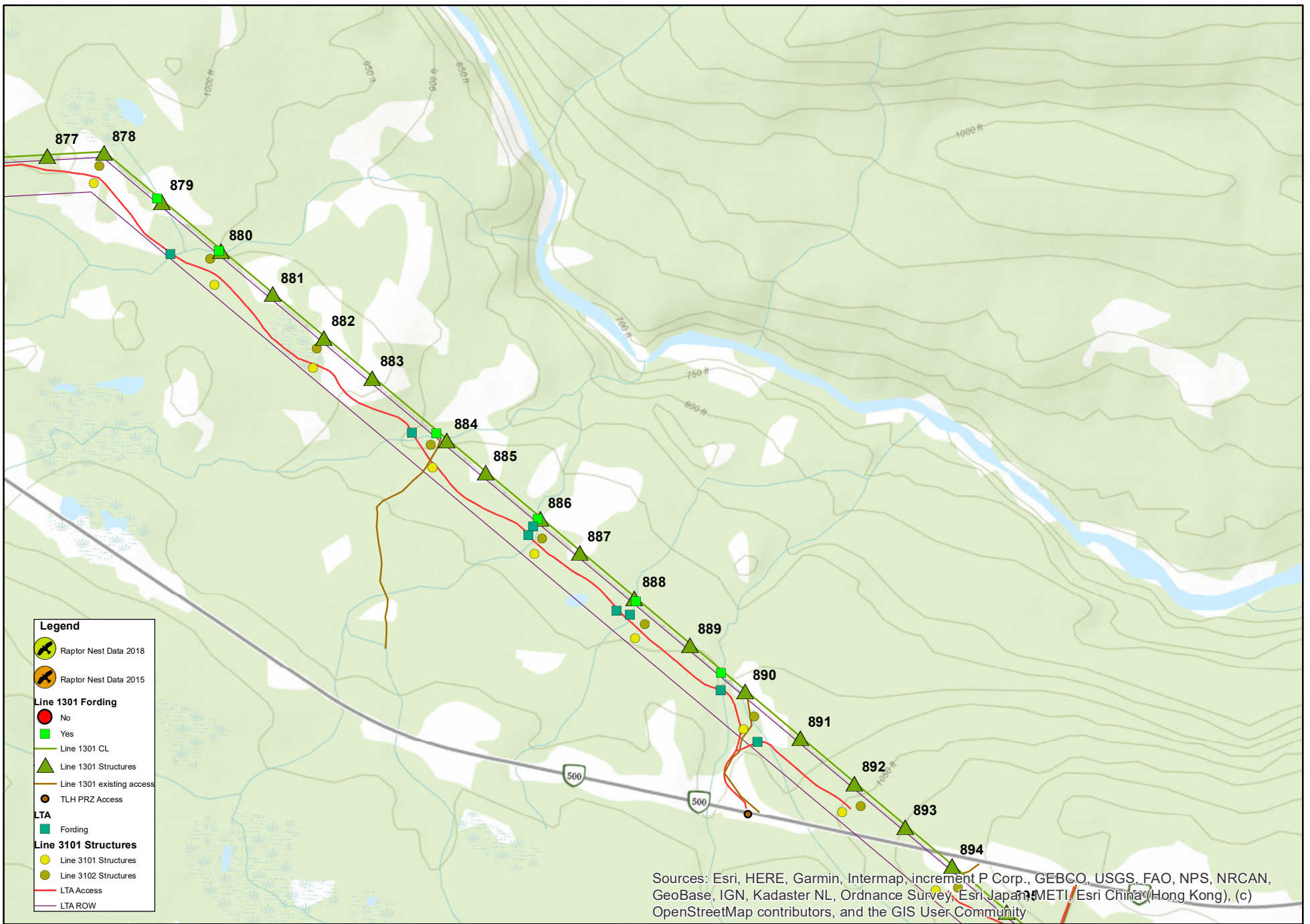
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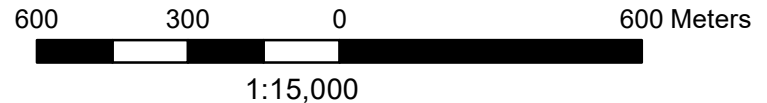


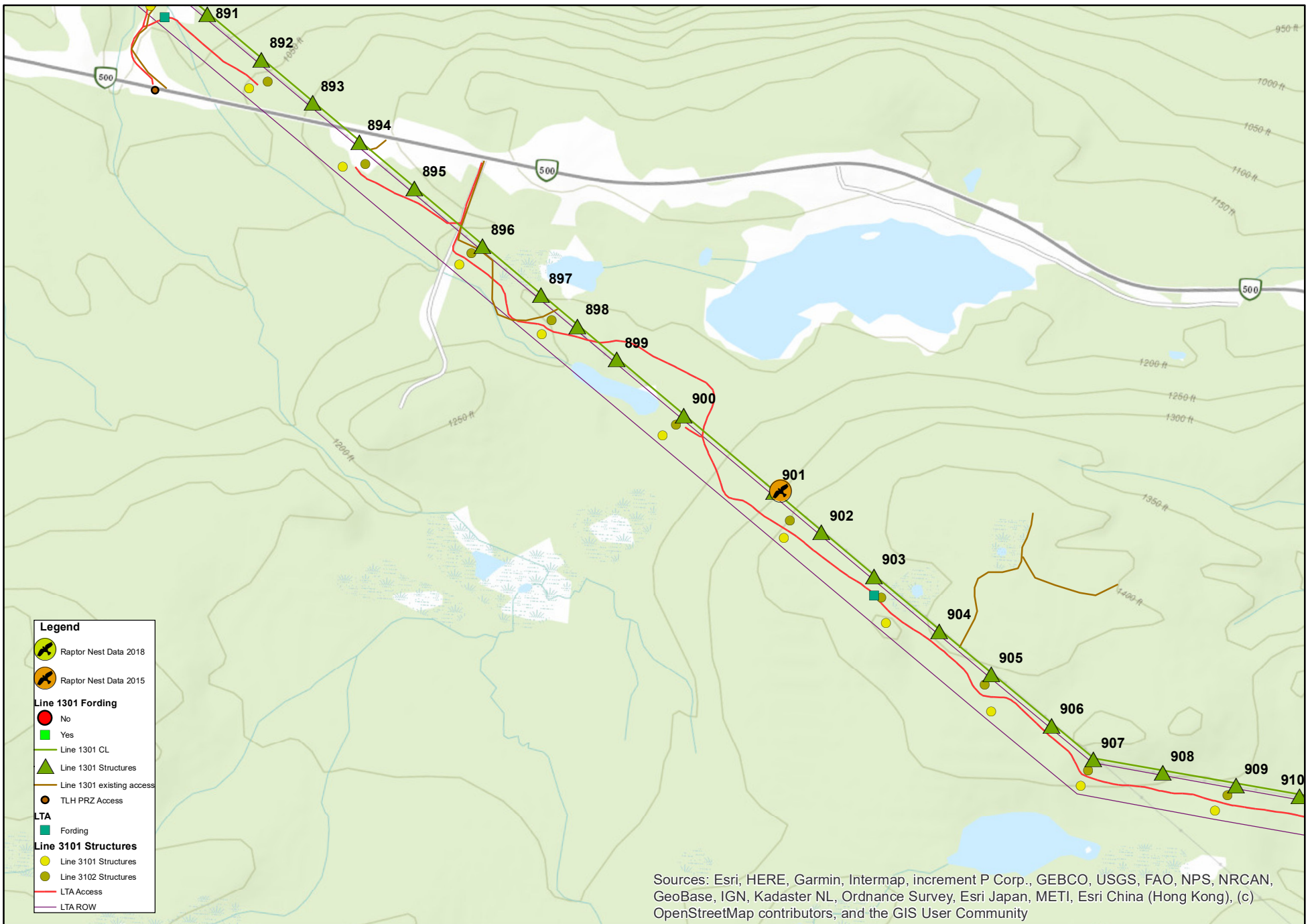
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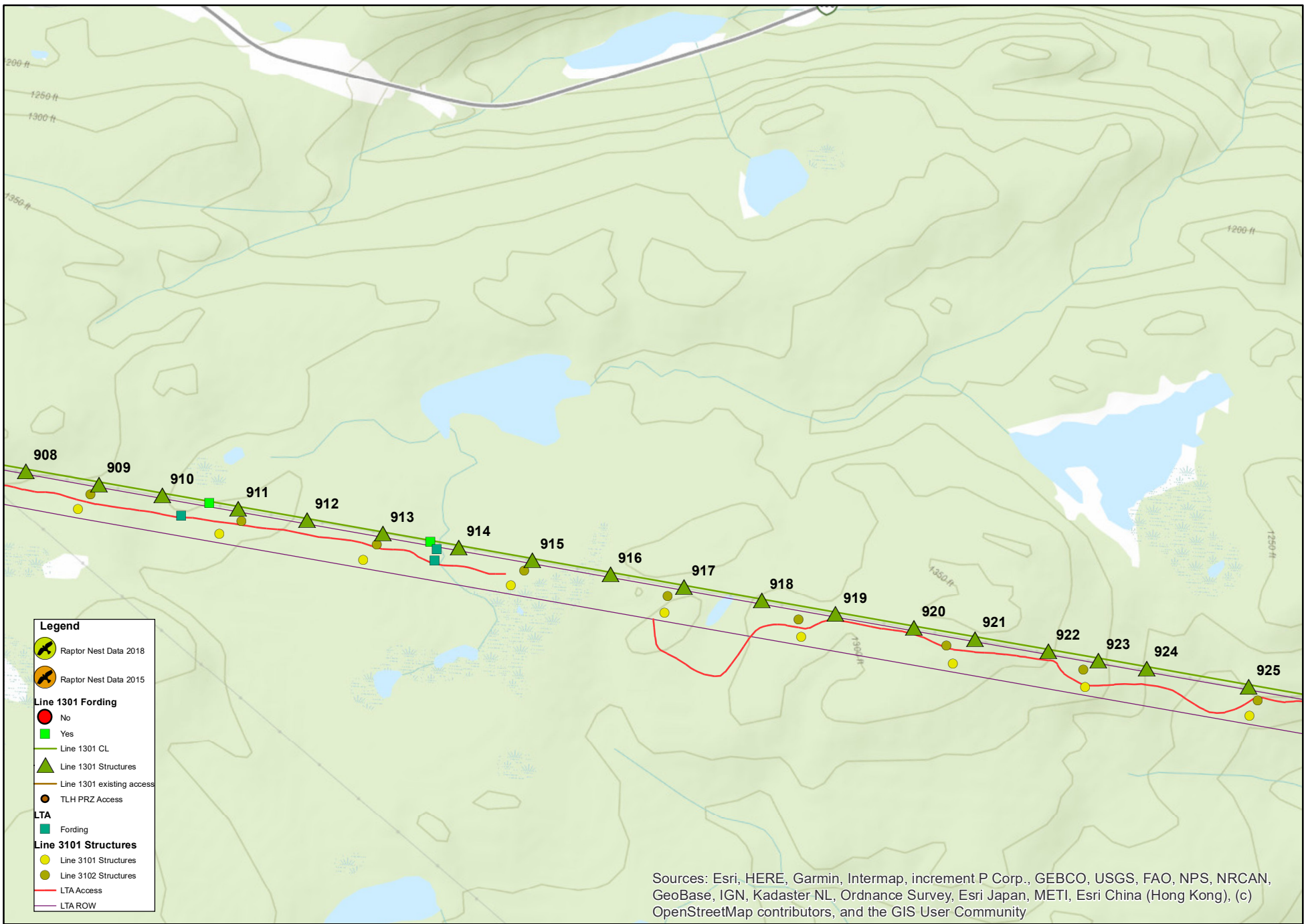
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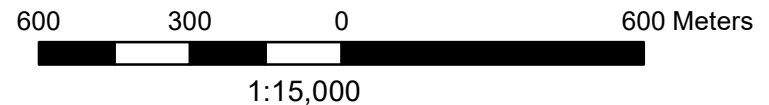


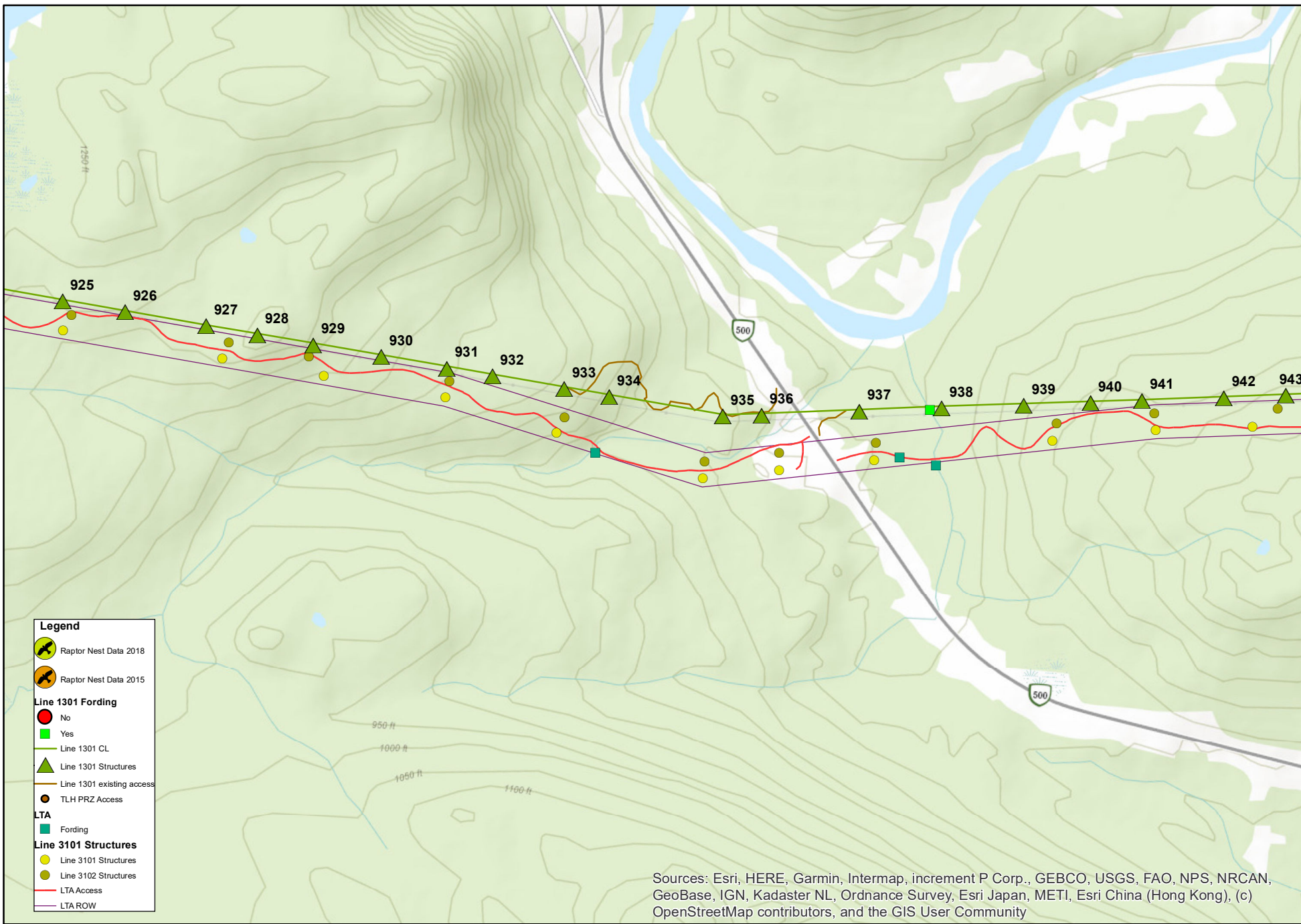
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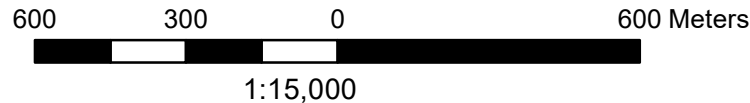


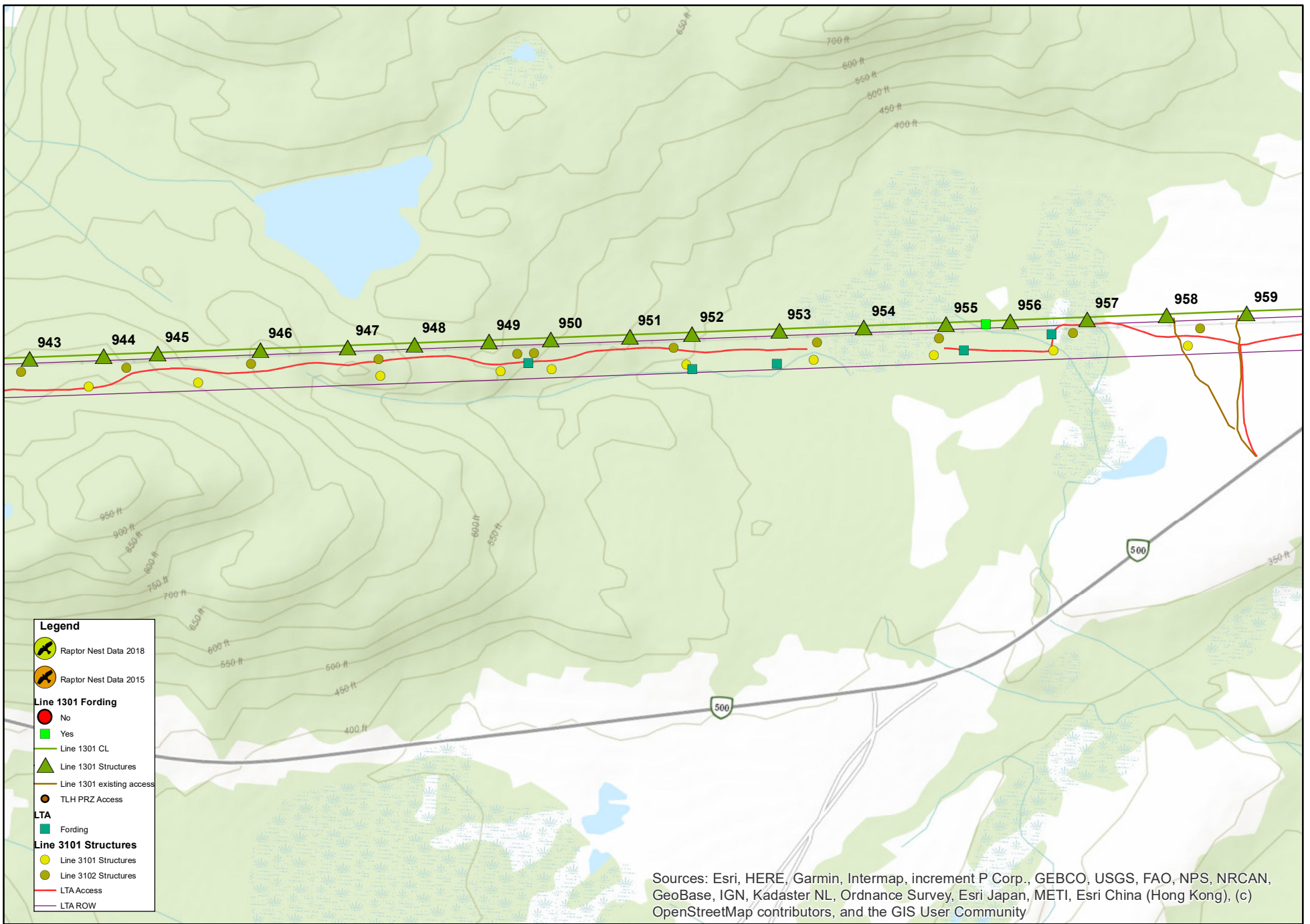
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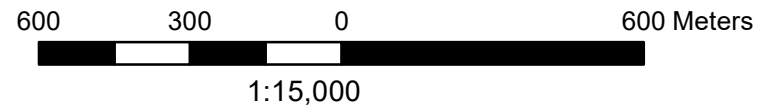


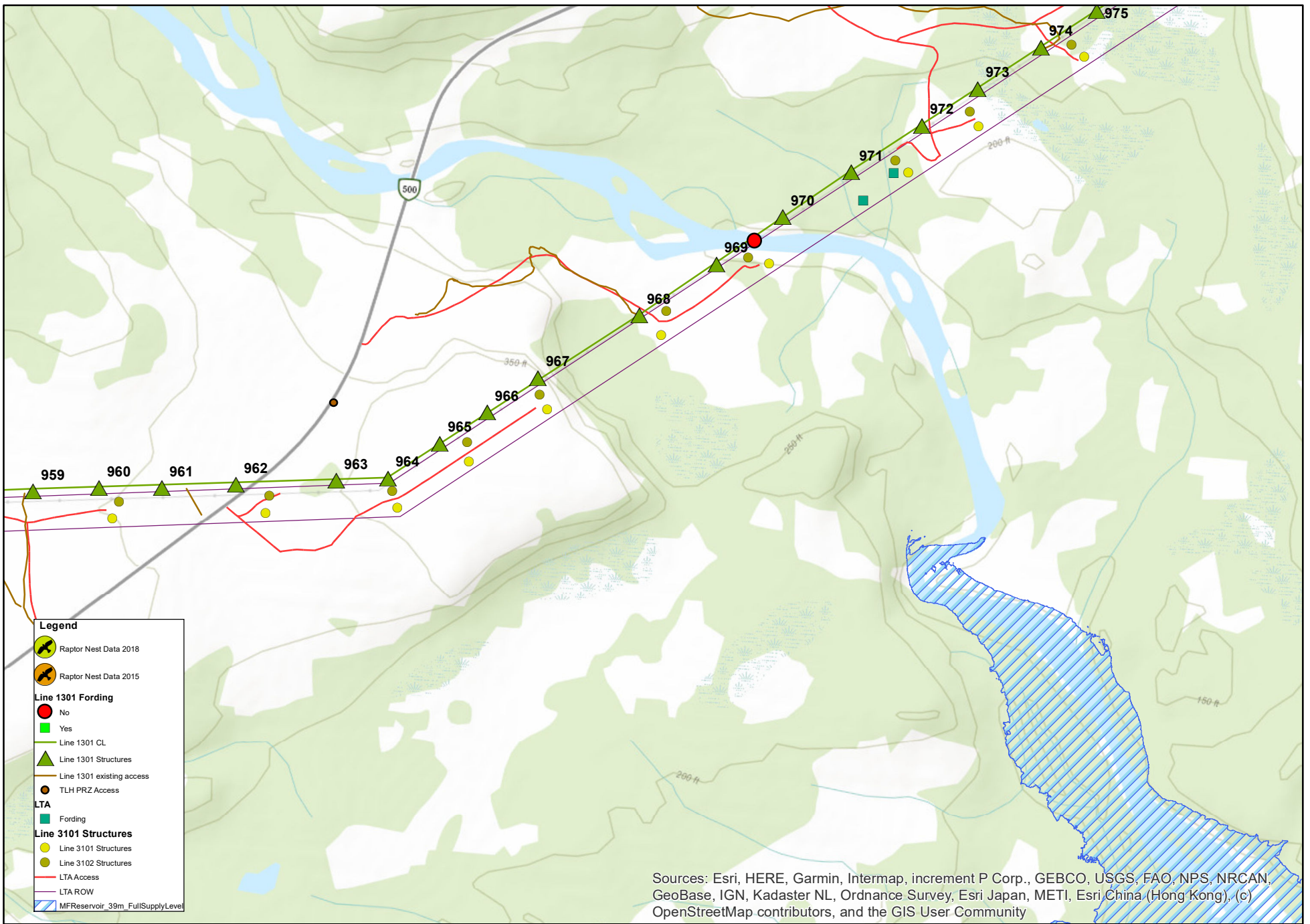
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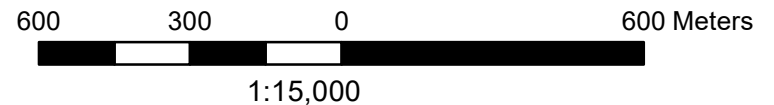


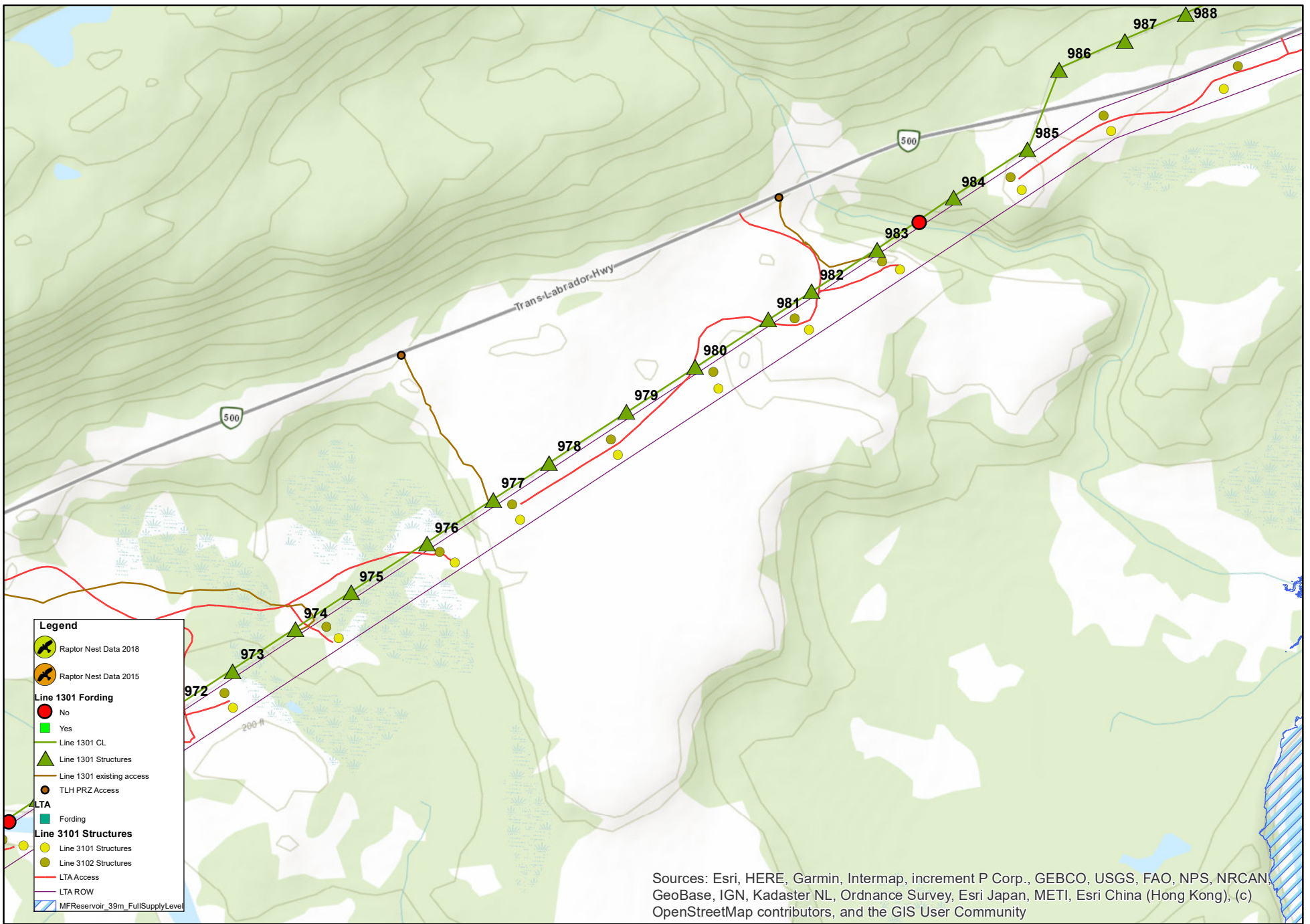
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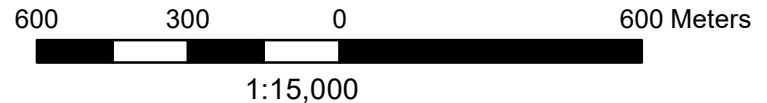


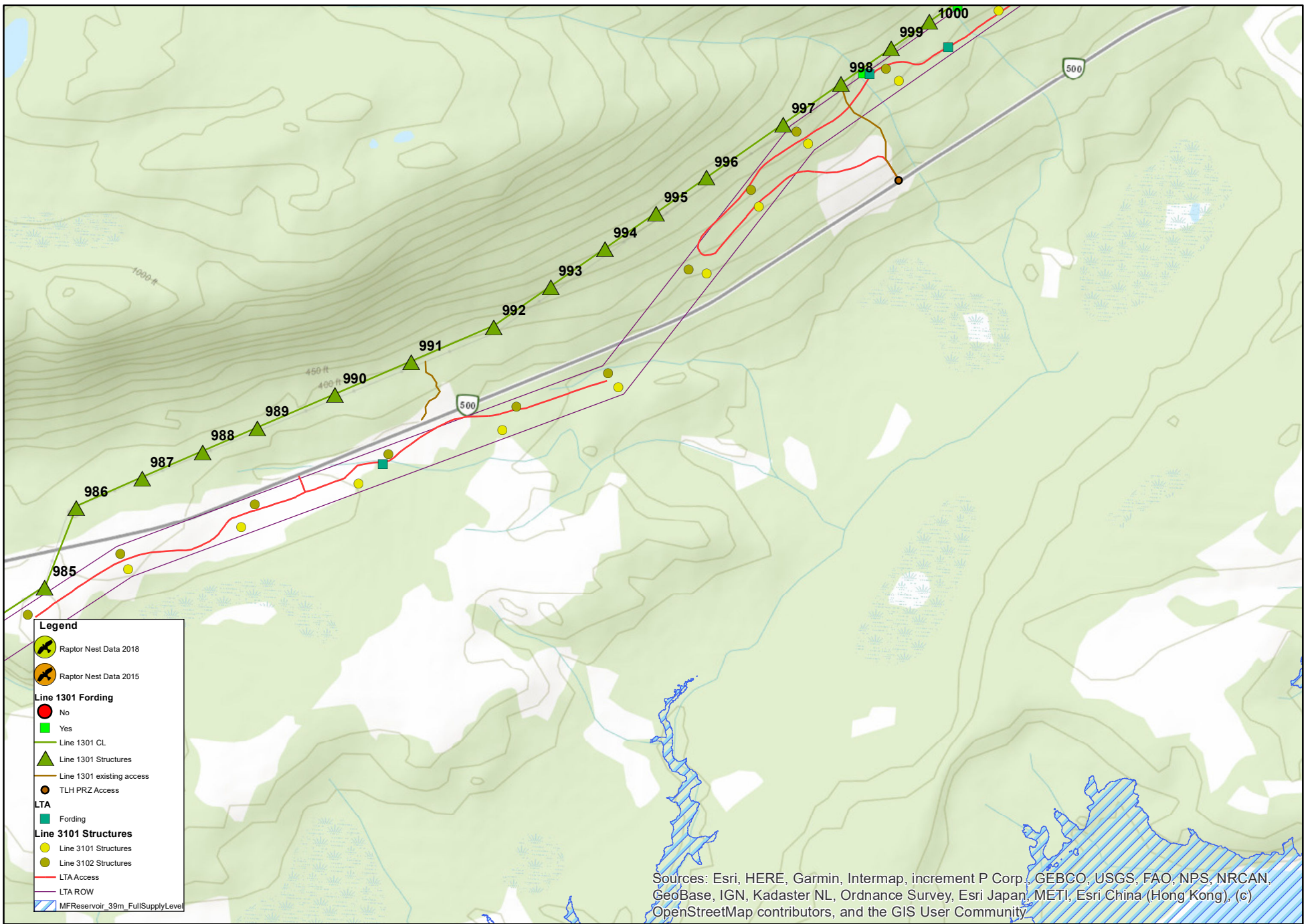
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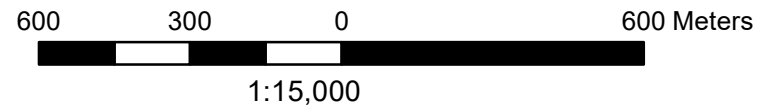


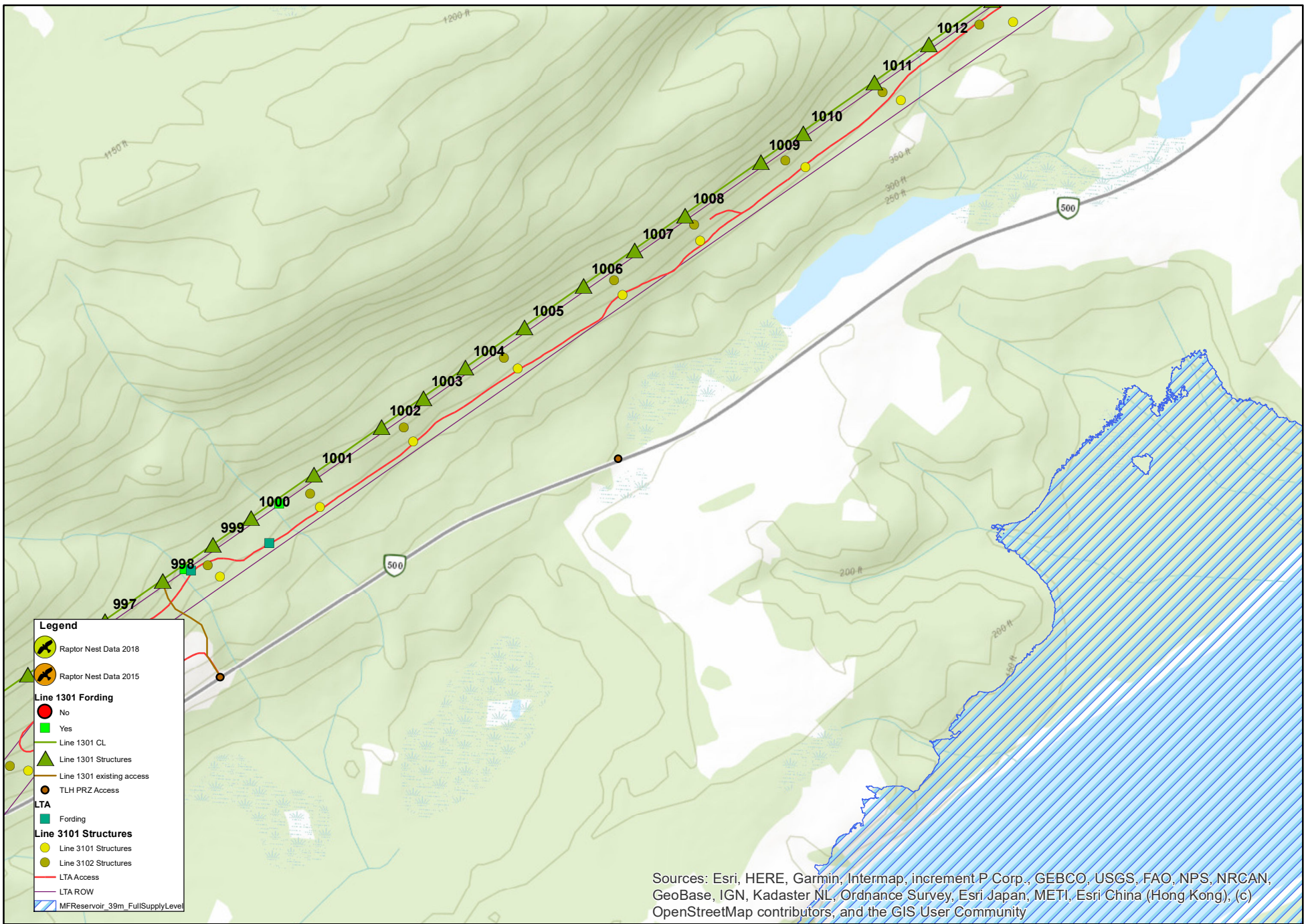
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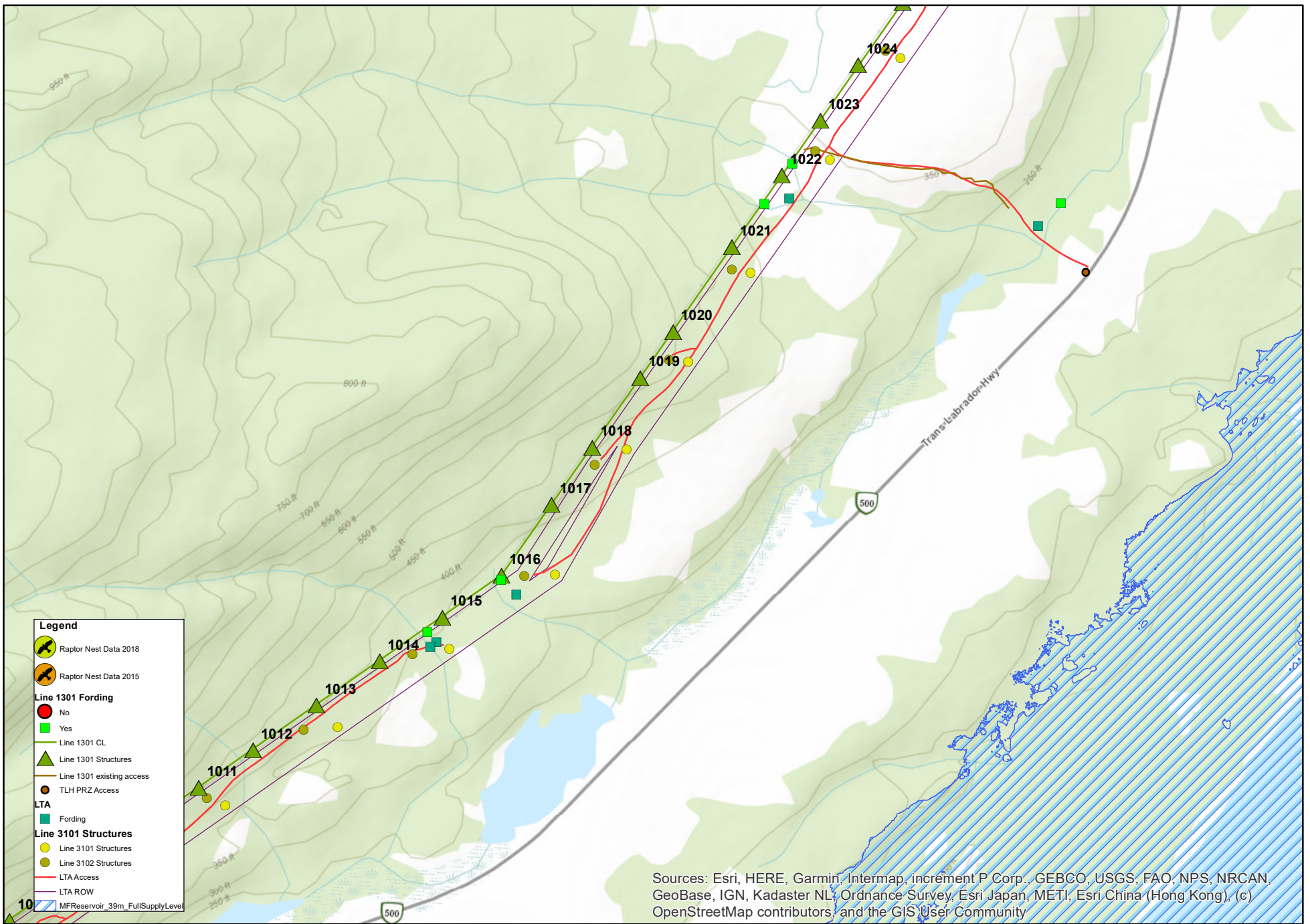


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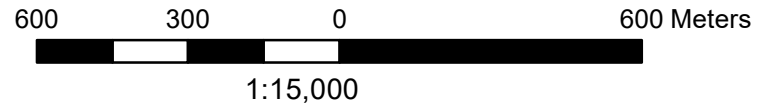
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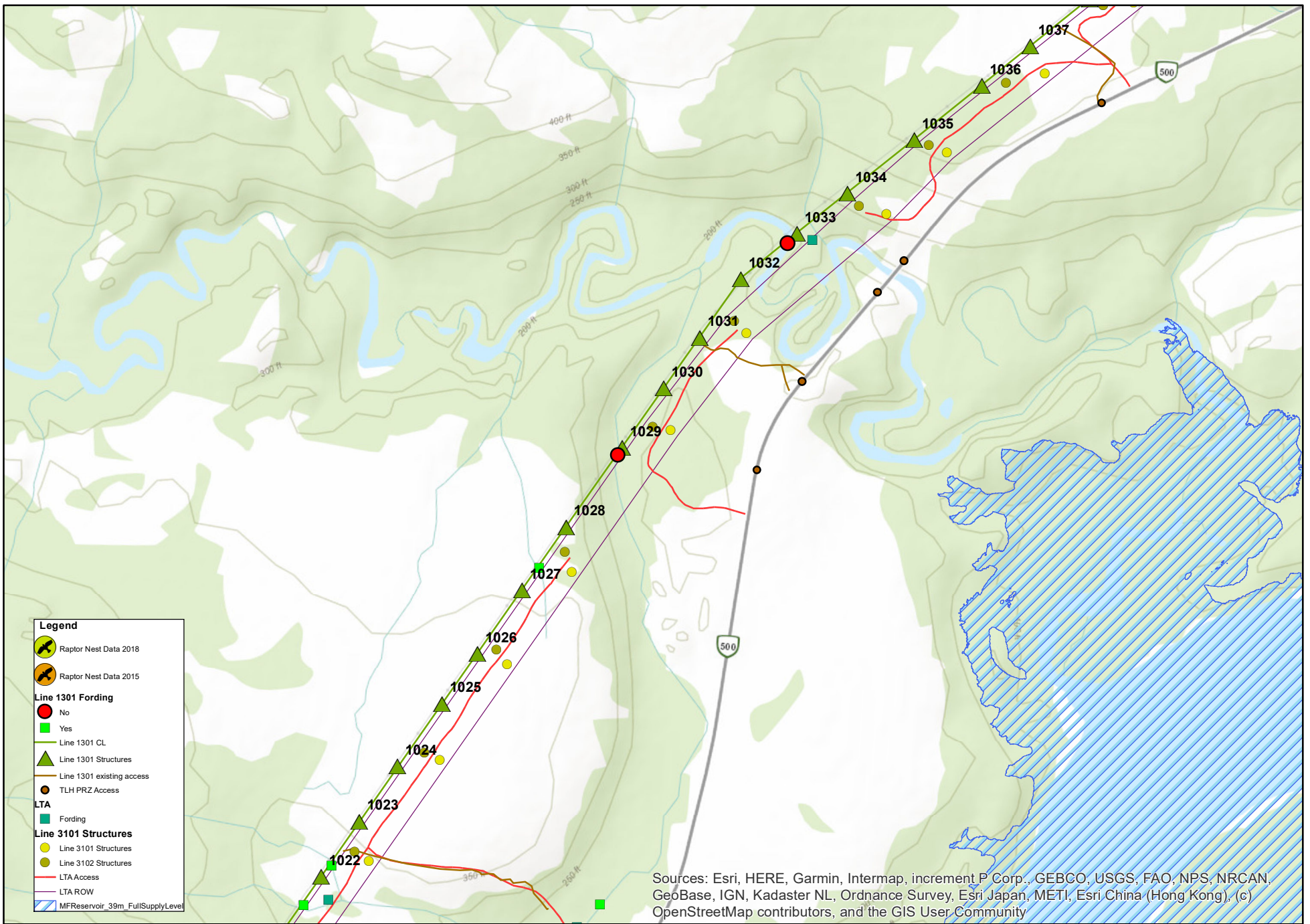
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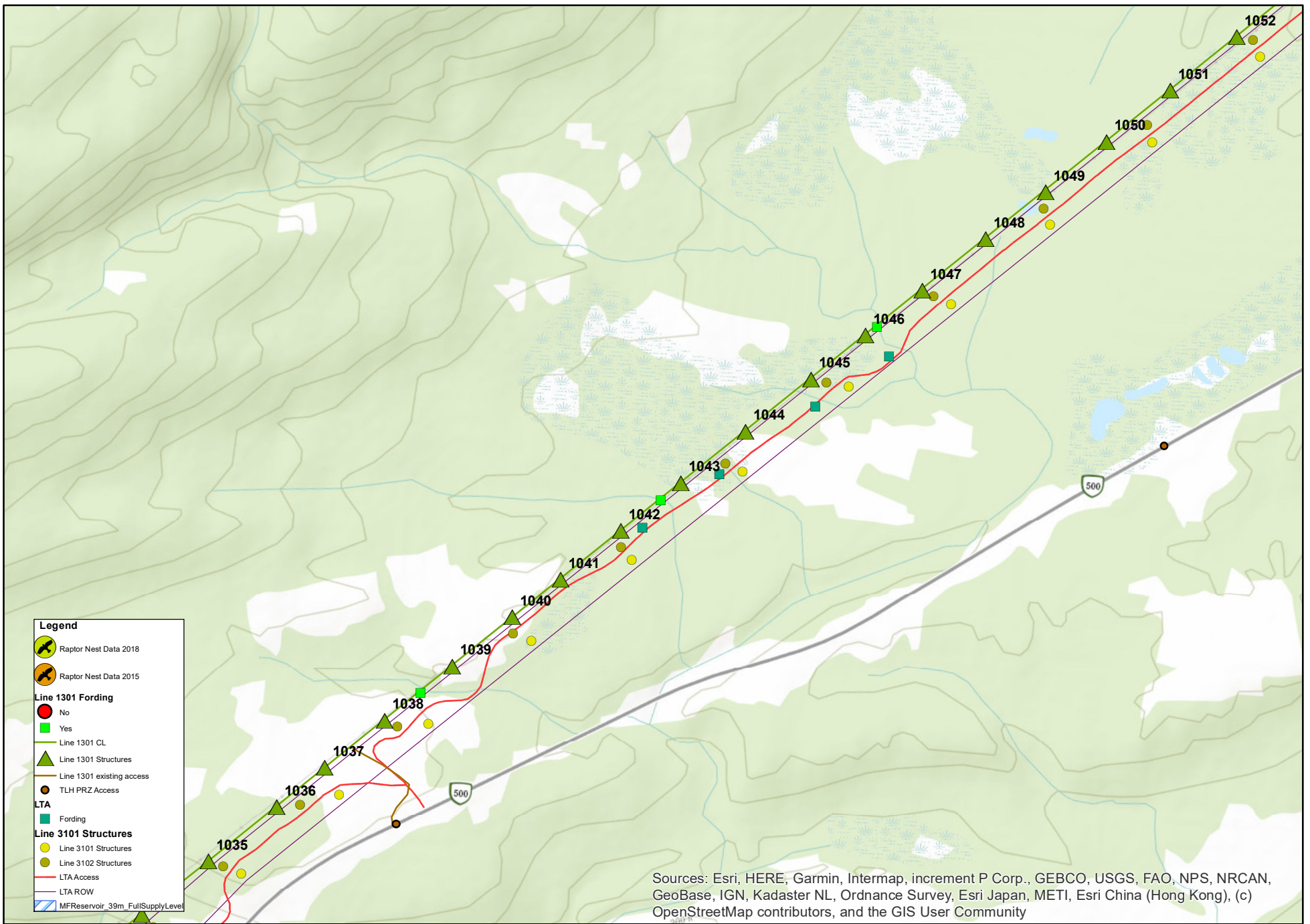


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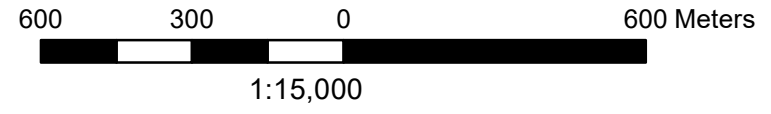
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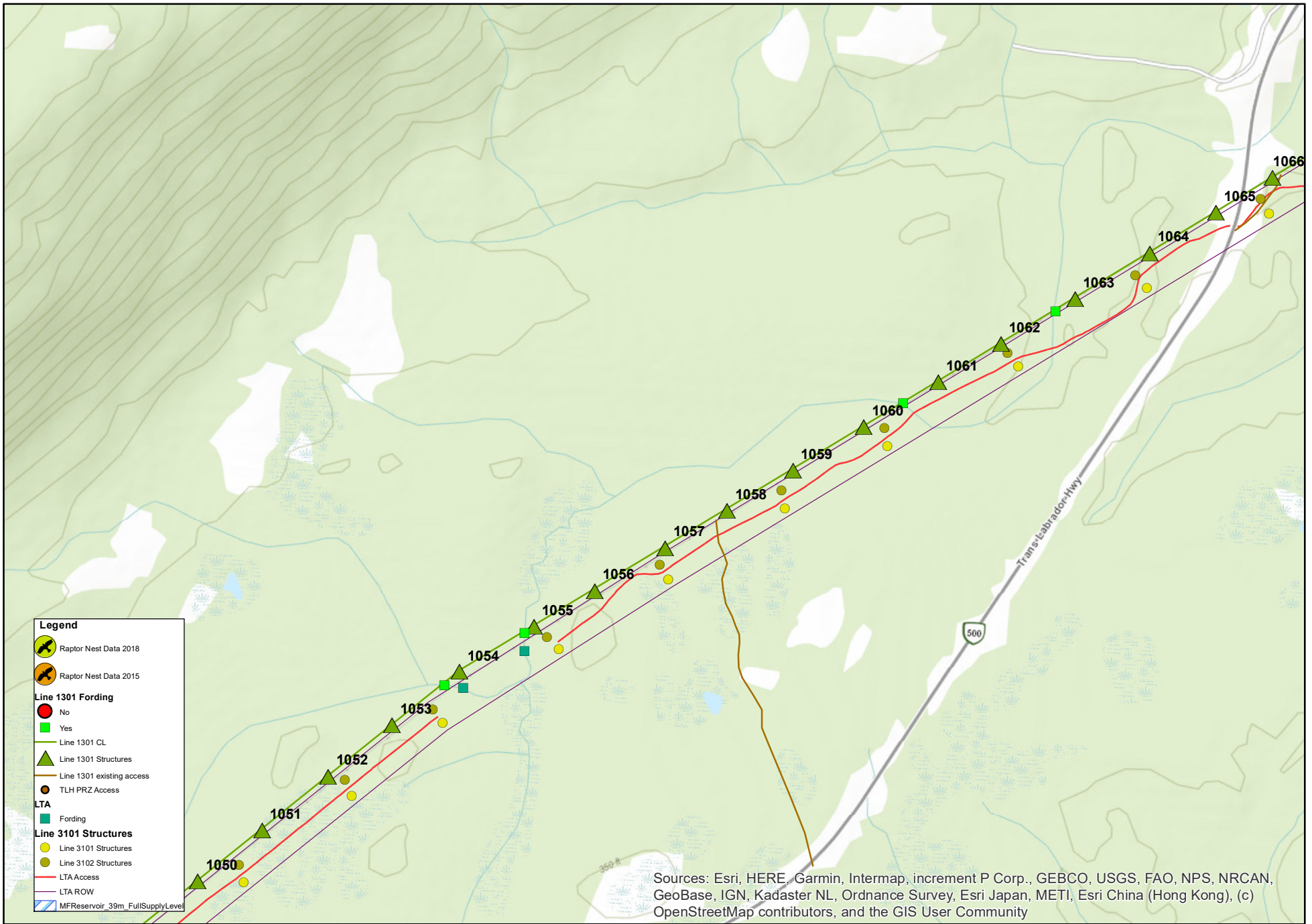




Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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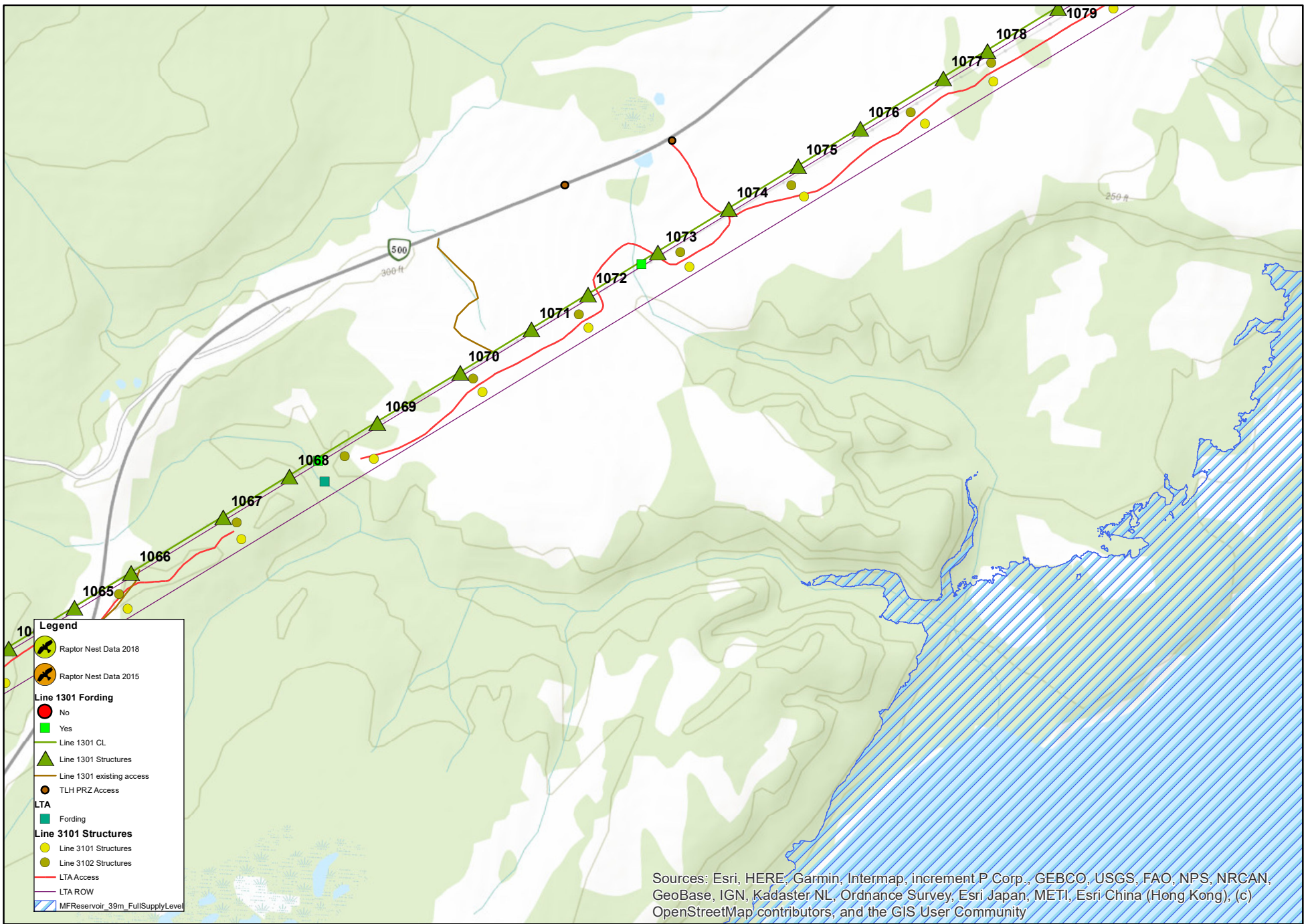
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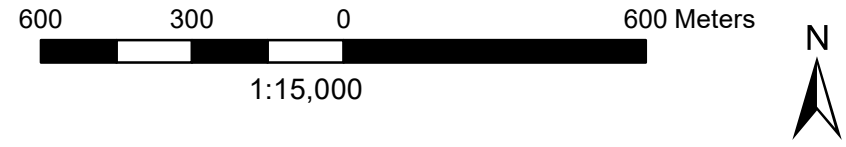
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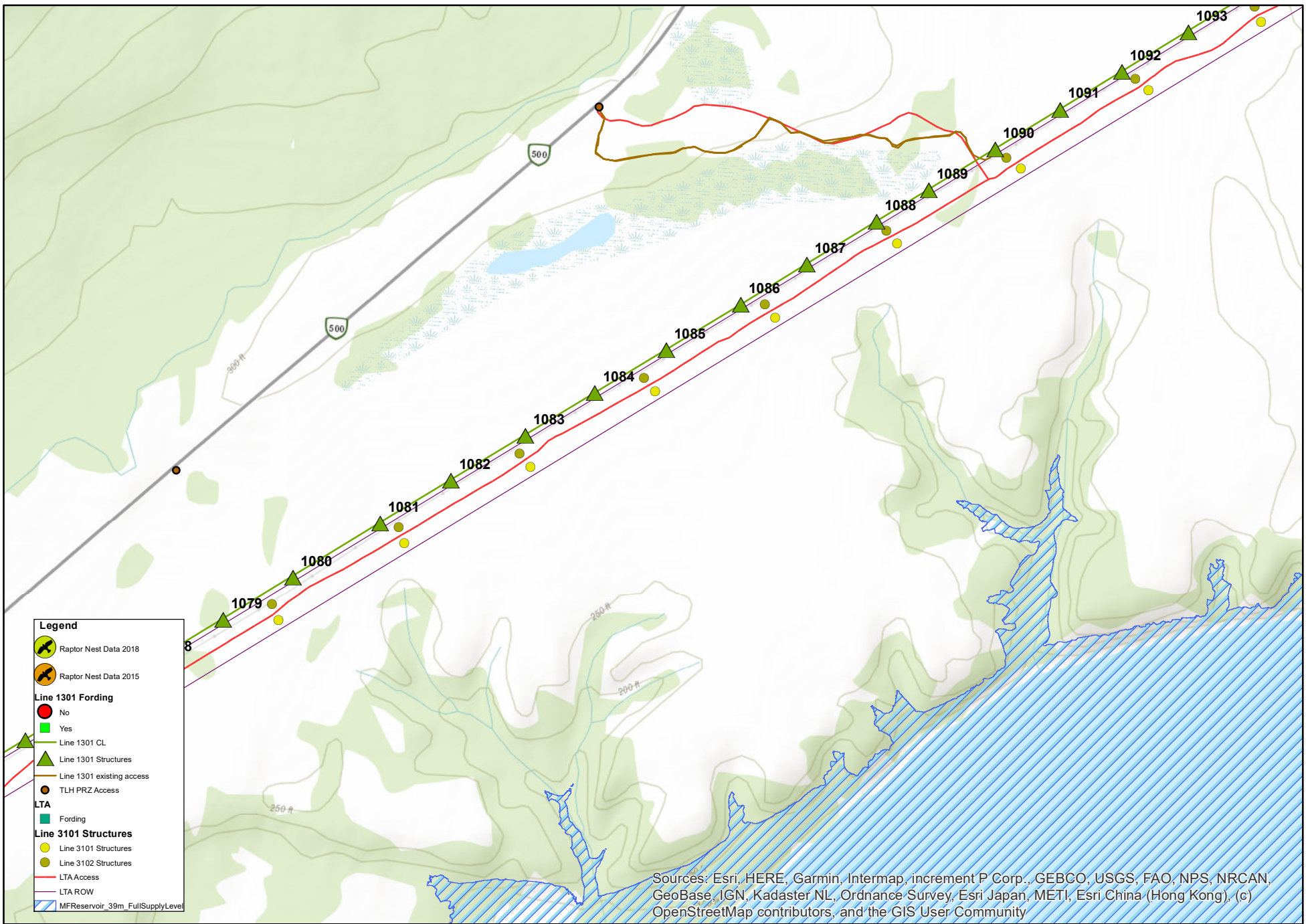




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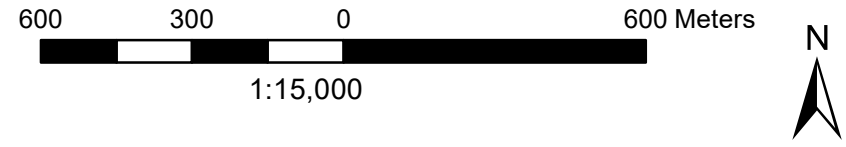
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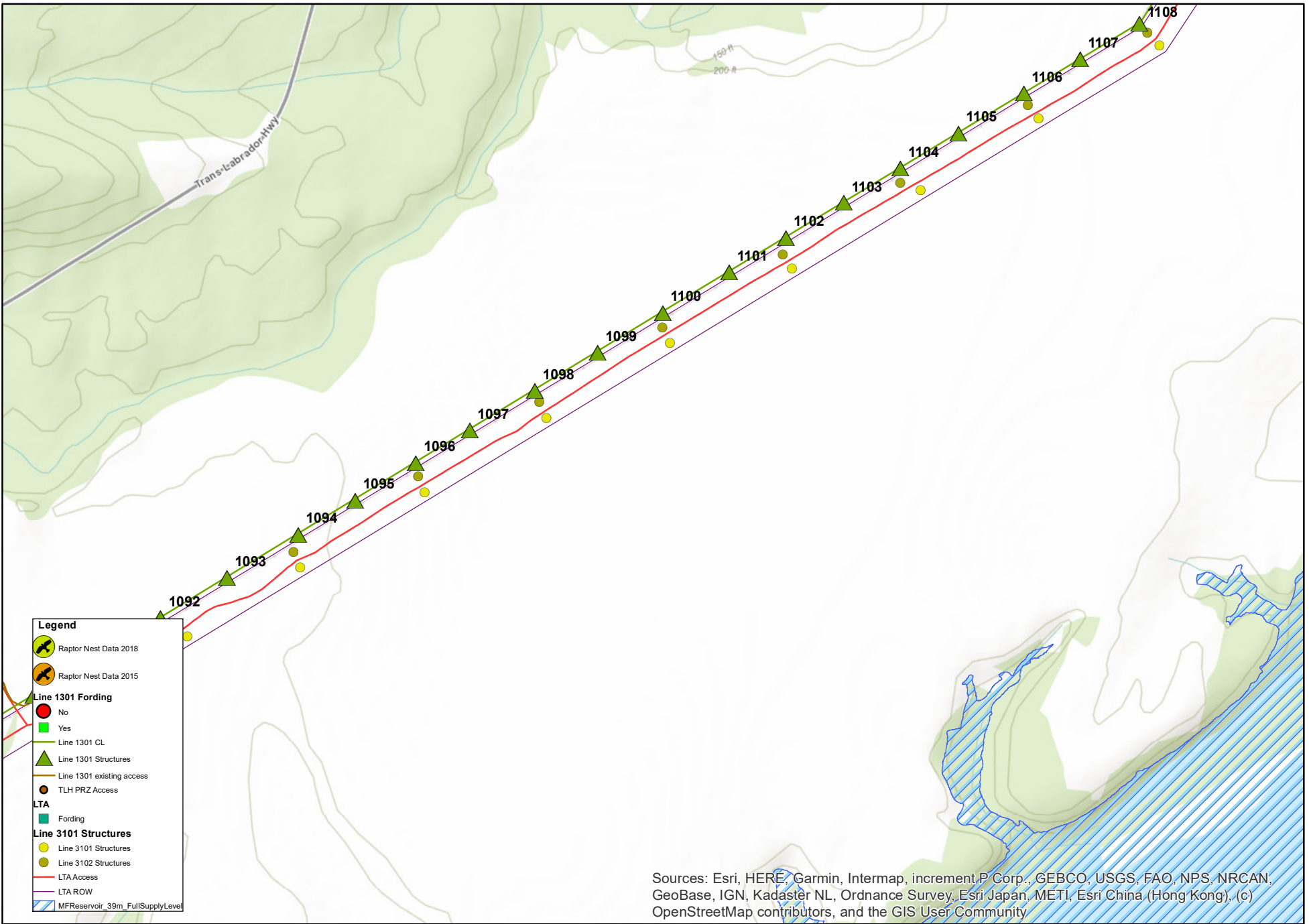




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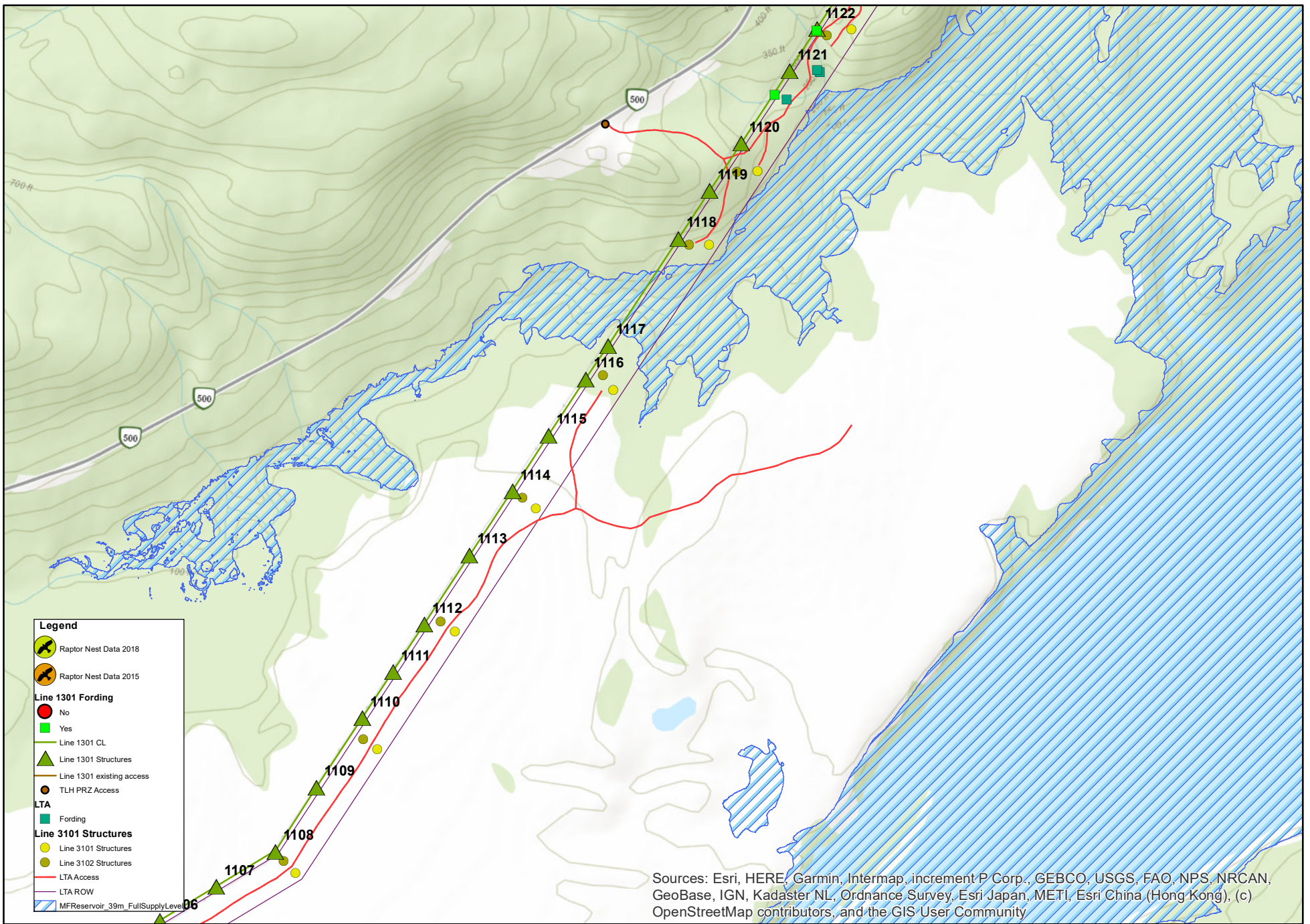
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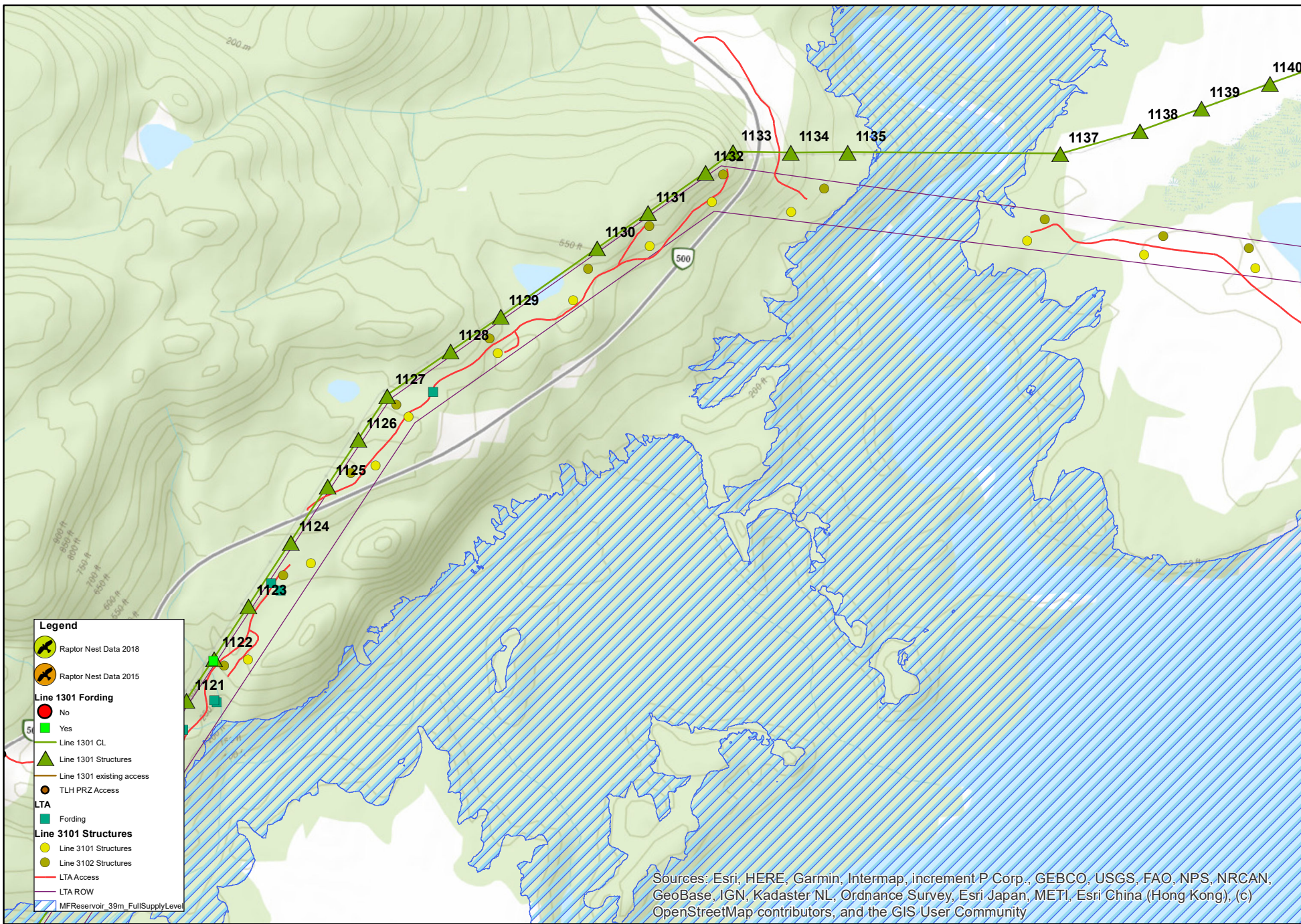


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 Please ensure to engage the Environmental Service Department for any updates.
 Created By: M. Cypher
 2023-03-14

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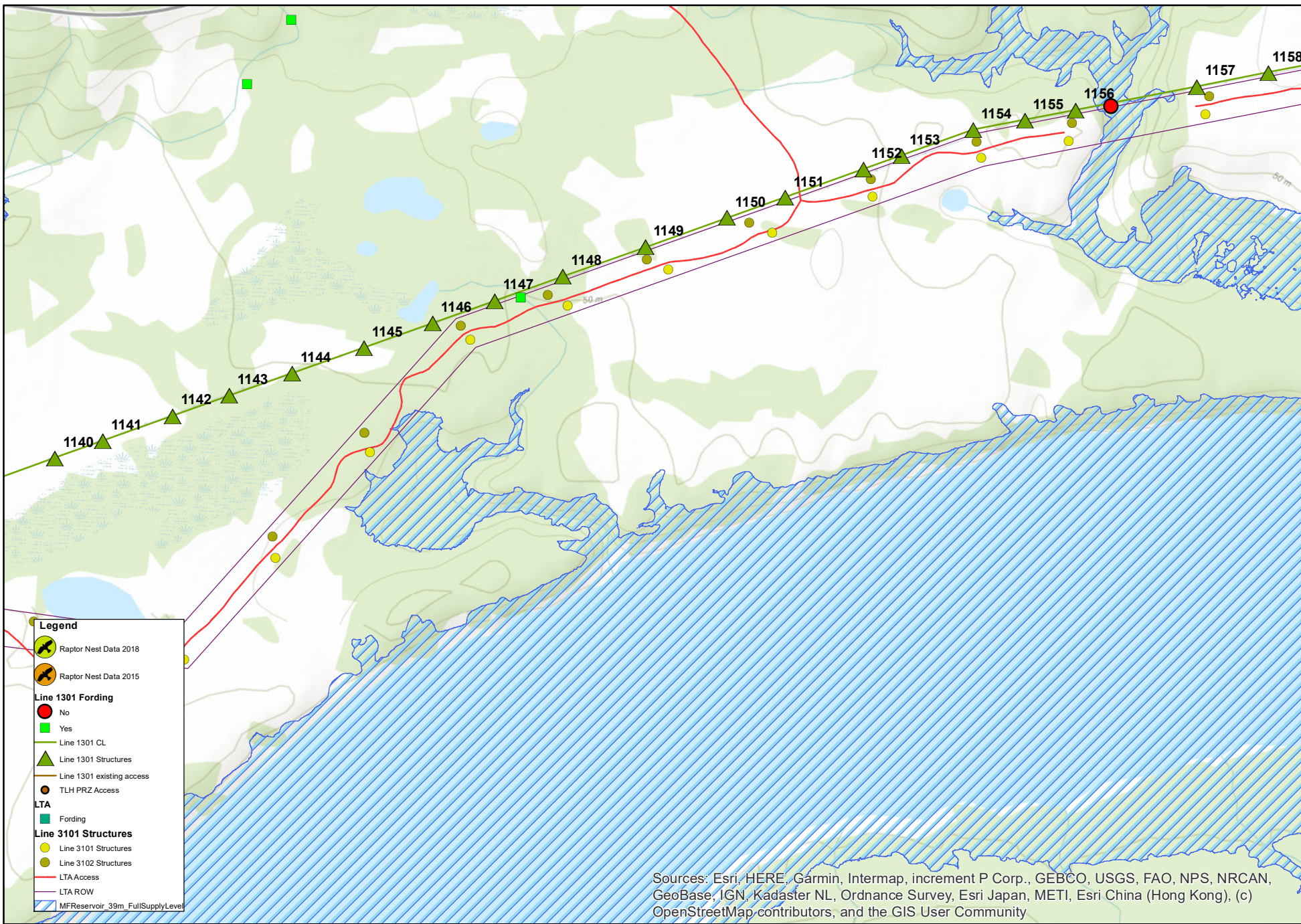
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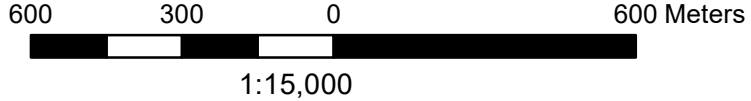
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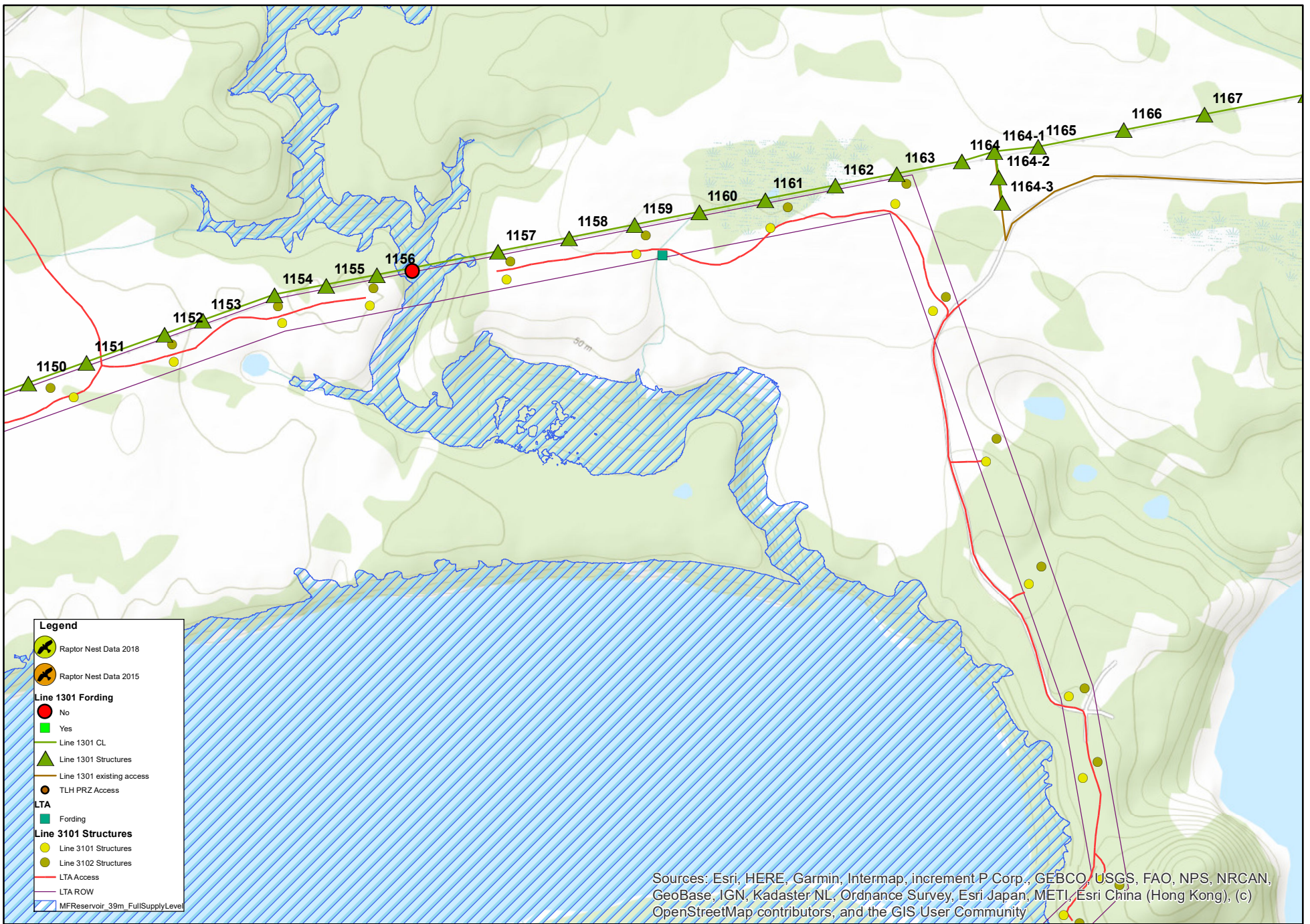




Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

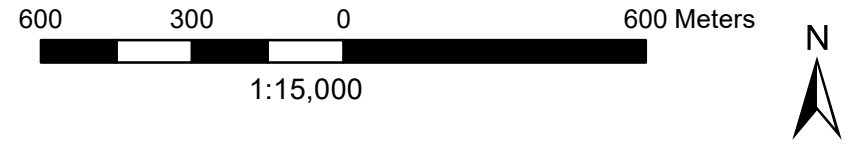
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APPENDIX B

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APPENDIX C

**Procedure for Nesting Birds in Vegetated Areas
(Operations and Maintenance) (NAL-ENV-SOP-01)**



NAL-ENV-SOP-01

Procedure for Nesting Birds in Vegetated Areas (Operations and Maintenance)

Revision	Release / Revision Date	Revision Description	Prepared By	Reviewed By	Approved By
R0	19-Mar-19	Issued for Use	Deneen Cull		Marion Organ
R1	8-Feb-2021	Issued for Use	Leah Fudge		Marion Organ
R2	1-Oct-2021	Issued for Use	Sarah Wilkins		Jackie Wells
R3	22-Apr-22	Issued for Use	Leah Fudge		Jackie Wells

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**PROCEDURE FOR NESTING BIRDS IN VEGETATED AREAS (OPERATIONS
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Scope: This procedure applies to operations and maintenance activities in vegetated areas including existing transmission lines, distribution lines, dykes and dams, facilities, trails and roadsides maintained by NL Hydro. It includes brush clearing, tree trimming, danger tree removal, herbicide application (spray), and pole and line upgrades and replacements. It is to be followed during the main migratory bird nesting season, from April 1-August 31 in Newfoundland (on the island), and from May 1-August 31 in Labrador, whenever operations and maintenance activity is occurring.

The following must be actioned:

- If an active nest is discovered, a buffer must be applied and adhered to.
- If an active nest is discovered outside of the main nesting period, a buffer must still be applied.
- If an inactive nest is discovered it must not be removed until it's determined that re-use of the nest is unlikely.

This procedure applies to migratory birds, species at risk, sea birds, raptors and other bird species protected under federal and provincial legislation. Requirements for raptor nests, including different nesting dates, are covered under Section 3 within this procedure.

Outside contractors must also adhere to this standard operating procedure under the direction of NL Hydro. Personnel directly involved with the nest survey must be competent professionals and show proof of training in bird nest detection.

Reference to 'Environment' personnel for Newfoundland and Labrador Hydro means the Environmental Services Department.

Grid Areas may adjust this procedure to meet their local operational requirements. Discuss with Environment to ensure key components are not changed. Ensure manager approval prior to implementing revisions.

Purpose: This Standard Operating Procedure (SOP) outlines the steps to be followed when conducting operational and maintenance activities, mainly vegetation control, to mitigate the risk of



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disturbance to birds, nests, and eggs. The procedure is not intended to be applied in association with construction activities in previously undisturbed areas. Contact Environment if you are unsure if your project falls within the Scope of this SOP.

The *Species at Risk Act*, *Wildlife Act*, *Wild Life Regulations*, *Migratory Birds Convention Act* (MBCA) and *Migratory Birds Regulations* (MBR) prohibit the disturbance or destruction of birds, nests and eggs of various species. However, activities which are necessary to maintain a safe and reliable electrical system have the potential to disturb birds, nests and eggs. This procedure is intended to document steps to be implemented at NL Hydro facilities and its operations in order to mitigate the impact to nesting birds for the necessary operation and maintenance of structures and equipment; and to ensure compliance with provincial and federal legislation. See the Environmental Compliance Directory, for further details on legislation.

Training and Awareness:
<p>Personnel having responsibilities related to vegetation control and working in vegetated areas where birds may be nesting (e.g. transmission and distribution lines), require training to ensure compliance with this procedure. This will be accomplished by focused training sessions (classroom and field components) for specified individuals, and a review of <i>NAL-ENV-SOP-01</i> in advance of the start of the migratory bird nesting period (April 1 on the Island and May 1 in Labrador). Lines of business will decide what personnel require the focused training sessions, and those only requiring the annual review of this SOP. At minimum, individuals completing the nest surveys and those overseeing the work will require the focused sessions. The training will be documented for future reference (LMS Training session 2965 – “Searching for Bird Nests”).</p>

Procedure	Responsibility
Section 1 – Bird and Bird Nest Awareness	
Ensure personnel are aware that disturbing or destroying birds, nests or eggs is prohibited under provincial and federal legislation.	General Manager
Ensure the requirements in this document are communicated to the supervisors and personnel in their respective departments.	Managers
Ensure personnel are aware of the requirements for dealing with birds, nests and eggs, are appropriately trained, and are provided with the necessary resources to fulfill obligations outlined in this document. Ensure the	Vegetation Control Specialist; Vegetation Control Advisor



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<p>Department of Fisheries and Land Resources, Wildlife Division has been contacted regarding spraying on transmission and distribution lines and access trails, and have provided feedback on potential species at risk in the area. See list of bird species at risk in the Province, their habitat type, and where they nest at the end of this document. If a suspected species at risk is encountered, contact Environment.</p>	Supervisors
<p>Ensure personnel are assigned to assess the work area, as outlined in this procedure, for the presence of birds, nests and eggs prior to work commencing. When nests and eggs are discovered, ensure practical mitigation measures, including a buffer, are implemented to protect them.</p>	Vegetation Control Inspectors; Lead Hands; Contractor Supervisors
<p>Be familiar with the prohibitions in federal and provincial legislation regarding birds, nests and eggs and the mitigation options outlined in this document. This will be completed during focused training sessions or during an annual review of this procedure with your manager or supervisor. Conduct the pre- work nest assessments as required. Implement mitigation measures as directed by inspector/ supervisor/ lead hand. If nests and eggs not previously located during the area assessment are discovered, ensure mitigation measures are implemented to minimize the risk of disturbance.</p>	Employee
Section 2 - Management of Bird Nests During Maintenance and Vegetation Control on Rights-of-Way/Easements (Transmission, Distribution, Trails, Roads) and in Yards	
<p>Prior to the commencement of work each day, ensure personnel trained in bird and bird nest avoidance, carry out a ground patrol on foot in work areas to locate birds and nests in vegetation, on poles/towers and on the ground.</p> <p>Ensure that the possible presence of bird nests and eggs, and the requirement for buffers are discussed during the tailboard meeting and the pre-work checklist (if used in your area).</p>	Supervisors; Lead Hands
<p>Ensure that the Tailboard form and pre-work checklist are filed.</p> <p>Ensure that the <i>NL Hydro Bird Nest Form for Vegetated Areas</i> (found at the end of this procedure) is completed and filed each day. Ensure that the presence of in-active nests in the work area is noted on this form as well.</p> <p>If an inactive nest (no adults, eggs, or chicks present) is encountered, do not</p>	Vegetation Control Inspector; Vegetation Control Advisor



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<p>remove the nest if it belongs to a species that may re-use the nest (This includes species of swallows, herons, raptors, egrets, storks, owls, swifts and cormorants). Contact Environment for guidance if you are unsure, and provide the location, a description and photos.</p>	
<p>Complete a nest survey where work is to occur to determine if nests are present in vegetated areas (in trees or on the ground) or in poles/towers. The survey will be completed on foot. Avoid completing surveys during high winds or heavy rain. Walk through the area in a systematic manner, with personnel located 10-15 meters apart. Keep well ahead of the clearing equipment, or complete the survey when equipment is not in-use, to enable bird singing/chirping to be heard. If the brush is thick, watch the lower levels, and the ground. Pay attention to unpredictable movement of vegetation that is not caused by wind.</p> <p>Look for the following bird behavior to aid in the identification of a nest:</p> <ul style="list-style-type: none"> • Carrying nesting materials to an area; • Staring at a particular location; • Flying back and forth to an area with food and/or waste materials; • Giving alarm calls; or • Flushing from an area when personnel approach. <p>Complete the <i>NL Hydro Bird Nest Assessment Form for Vegetated Areas</i> to document the survey and the findings. Include sightings of in-active nests. If possible, take photos of nests and surrounding areas.</p> <p>Where a nest location has been identified, mark a buffer around the nest at minimum of a 10m radius. Flagging tape is not to be placed directly on the nest, as it may disturb the birds and alert predators to the location. Due to the nature of vegetation along rights-of-ways, the nest may be located in an individual tree/bush where there is not 10m of continuous vegetation around it, or it may be located on the ground. In this case, you must still buffer and mark the nest location to make other personnel in the work area aware of it.</p> <p>On some transmission and distribution lines, the narrow right-of-way may not</p>	<p>Personnel Completing Ground Nest Patrol</p>



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<p>allow for a 10m buffer. In this case, a 5m buffer may be utilized. Note this on the bird nest form.</p> <p>Ensure that the location of any nest is relayed to the remainder of the work crew to ensure all personnel are aware of the presence of the nest. Also, notify the person responsible (inspector or supervisor) of all nest survey findings.</p> <p>Ensure that the equipment moving along the right-of-way is as far from the nest as practical.</p> <p>Document the location of the nest.</p> <p>Ensure that the materials to mark the buffer are removed once work in the area is completed.</p>	
<p>While carrying out vegetation management activities, continue looking for birds and bird nests that may not have been previously identified by personnel conducting the ground patrol.</p> <p>When an unmarked nest is located during the course of work, immediately stop vegetation management activities. Ensure that the nest is not disturbed and create a minimum of a 10m radius buffer around the nest. If the buffer has already been partially compromised during work, ensure that the remainder of the buffer remains intact.</p> <p>Complete the <i>NL Hydro Bird Nest Form for Vegetated Areas</i> to document the presence of the nest.</p> <p>To the extent possible, work in the vicinity of the nest is to be minimized and the area is to be vacated directly upon completion of work. Breaks will not be taken in the vicinity of identified nests and will be outside of the established buffer.</p>	<p>Personnel completing vegetation removal or conducting other maintenance activities</p>
<p>Inspect each tree thoroughly from the ground prior to commencing any tree trimming or danger tree removal. If the trees are accessible by aerial device a</p>	<p>Personnel completing tree trimming and</p>



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second inspection will be made using the aerial device.

If a nest is located and the tree is not an immediate safety or reliability concern, the trimming can be delayed until a later date where practical (after the chicks have fledged).

However, if there are other trees in the same span that require trimming, or if they pose immediate safety or reliability concerns, a 10m buffer is to be created around the nest and the other work can commence. Work will be completed as quickly as is safe to do so, using hand or hydraulic tools. If possible, chain saws are not to be used where an active nest has been identified to minimize potential disturbance from noise or vibration.

If a nest is located and the tree is an immediate safety or reliability concern, the tree will only be trimmed and will not be removed.

Trimming will be kept to a minimum to ensure a safe clearance from the conductor. Branches containing nests will be kept intact and as much of the tree as possible will be kept intact, while maintaining safe clearance from the conductor.

To carry out tree trimming in a tree containing an active nest the following steps will be followed to minimize the risk of disturbance:

- Wherever possible, use an aerial device to complete the work.
- If using a ladder, secure the ladder as far away from the nest as is safe to do so.
- Do not secure the ladder to the branch that contains the nest and do not touch the nest with ropes.
- Any limbs that are removed should be lowered in a manner such that they do not come in contact with the nest. They are not permitted to fall through the canopy of the tree.
- Chipping will not be conducted in the vicinity of the active nest.

danger tree removal



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Breaks will not be taken in the vicinity of identified nests and will be at minimum 10m from the nest.	
<p>Section 3 - Working around Raptor Nests</p> <p>The following procedure must be followed for any work within 800m of an active raptor nest, typically found on a transmission or distribution structure, or manmade nesting platform. Osprey nests are the most common in our structures, but there is potential for other raptor species nesting within or near the right-of-way, or travel route, such as Bald Eagle or ground nesters such as Northern Harrier, Red Tail Hawk, Short Eared Owl, and Hawk Owl.</p>	
Environment shall be notified of any work activity scheduled within 800m of an active nest. See procedure for an inactive nest below.	Managers; Supervisors
Only essential vehicular activity, including helicopter flights, shall be permitted along the transmission line right of way and travel routes in order to minimize disturbance to wildlife.	Managers; Supervisors
Ensure that all activity within 200m of an active Raptor nest is planned prior to working in the area, if nest survey results are available. Work shall not be undertaken in these areas between June 1 and August 15 without an Environment representative on site or specific guidance from them.	Supervisors
Monitor the on-site work.	Supervisors; Environment Representative
Where work activity creates a disturbance at the nest site for a period of two (2) hours (e.g. adults leave the nest), crews shall cease work and move a minimum of 200m from the nest. Work shall not resume until activity at the nest has returned to normal for a period of two (2) hours.	Supervisor; Environment Representative; Crews
If blasting is required in the area, provide Environment with a detailed work plan prior to any on-site activity.	Supervisor
Ensure only machinery and equipment absolutely required for use is in operation within 200m of a nest. When not required for use, all equipment and machinery shall be shut down.	Supervisor
Crews shall not take lunch breaks within 200m of an active raptor nest. Crews shall not establish a permanent or temporary camp within 800m of an active Raptor nest.	Supervisor; Crews
If a crew encounters an active Osprey or Bald Eagle nest, or nest of any other Raptor species, within or near the right-of-way or travel route that is not	Supervisor; Crews



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already known, it shall not disturb the nest and shall immediately inform Environment. Work shall not proceed within 800m of such a nest without written permission from Environment.	
If a nest must be removed from a structure due to potential harm to the birds from electrocution or the creation of a hazard to service reliability, work crews shall notify Environment immediately.	Supervisor; Crews
Environment will obtain a permit to have the nest relocated in consultation with the Provincial Department of Fisheries and Land Resources, Wildlife Division.	Environment
Inactive Raptor Nests	
If an inactive nest (no adults, eggs, or chicks present) is encountered contact Environment. Provide the location, a description and photos, if possible.	Supervisor
Determine whether the nest is viable for use or re-use by a raptor by the physical condition of the nest. If the 'nest' does not have a well-defined bowl, and appears to simply be a loose pile of sticks and other nesting materials it likely is not suitable for future nesting purposes. Contact Provincial Department of Fisheries and Land Resources, Wildlife Division for a permit to remove the in-active nest.	Environment
Based on guidance from Environment, the inactive nest may be left on the structure, or be removed.	Supervisor; Crews



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**Appendix 1 – NL Hydro Bird Nest Form for Vegetated Areas (Lines, trails,
facilities, and roadside)**



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NL Hydro - Bird Nest Form Vegetated Areas (Lines, trails, facilities, and roadside)
Complete at least one assessment form each day that work is occurring. If bird nests are located in the work area, complete a separate form for each nest. Ensure the NL Hydro Vegetation Inspector, or the supervisor on site, receives the completed forms each work day.
Date:
Person completing the assessment:
NL Hydro employee: Yes No
If no, contractor company:
Weather conditions <u>if recording</u> (temperature, wind, precipitation):
Time assessment began:
Time assessment ended:
Work location (General work area for the day Ex. TL222, Structure 370-375):
Type of work occurring (Ex. TL brush clearing; dyke/dam spraying; roadside clearing):
Active nest present: Yes No
Inactive nest present: Yes No (Inactive nests have no eggs, no birds, no chicks, and no sign of bird activity around them.)
If there is no nest(s) present, the form is complete and can be filed.
If there is a nest(s) present, complete the rest of the form. Take photos and e-mail to NL Hydro vegetation inspector, or the supervisor on site, if possible.
If active, describe what the nest contains (eggs, chicks, or adult birds):
If known, what type of birds are nesting or have nested (Ex. Robin, chickadee):
Was a buffer created: Yes No
If yes, buffer size:
If a complete 10m buffer could not be established, explain why:
Personnel notified of nest:



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Describe nest location (Ex. TL 222, 5 m west of structure 374 , in spruce tree, 6 feet up; and UTM or Lat/Long, if possible):

Describe the surrounding area (Ex. Open with sparse low brush; heavily vegetated mostly conifer):

When work is completed, has flagging tape been removed?	Yes	No
---	-----	----



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**Appendix 2 – Schedule 1 Bird Species at Risk with Distributions in
Newfoundland and Labrador (Federal)**

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Table 1: Schedule 1 Bird Species at Risk with Distributions in Newfoundland and Labrador.

Species	Listing	Season Present	Distribution	Nesting Location	Habitat type
Bank Swallow	Threatened	May-early November	Province Wide	Lowland areas along coasts, rivers, streams, lakes, reservoirs and wetlands.	Varied
Barn Swallow	Threatened	Breeding (May-August)	South Coast of Newfoundland	Barns or Garages	Varied
Barrows Goldeneye	Special Concern	Year-round	Province Wide	Cavity nests between 2 and 15 meters from ground. Within 1-2 km of water.	Balsam Fir/White Birch forest (breeding), coastal areas (wintering).
Bobolink	Threatened	May-August	Island Wide	Nests in hayfields, farmlands, salt marshes, and grassy fields.	Varied natural grasslands.
Common Nighthawk	Threatened	Breeding (May-August)	Province Wide	Ground nests in a variety of open, vegetation-free habitats.	Varied
Eskimo Curlew	Endangered	Fall migration only	Possibly Province Wide	Ground nests (Arctic only)	Coastal Barrens
Evening Grosbeak	Special Concern	Year-round	Province Wide	Tree nests.	Mature Forests
Harlequin Duck	Special Concern	Year-round	Labrador/Northern Newfoundland (breeding), South Coast of Newfoundland (wintering)	Ground nests, usually on the banks of fast-flowing streams.	Coastal environments but move inland to breed.
Ivory Gull	Endangered	Wintering only	Labrador/Northern Newfoundland	Ground nests (Arctic only)	Coastal environments
Olive-sided Flycatcher	Threatened	Breeding (May-July)	Province Wide	Tree nests (usually conifer)	Mature forests
Peregrine Falcon	Special Concern	Breeding (May-August)	Northern Labrador	Nests on cliff ledges (or building ledges in urban areas)	On the coast and along a number of major rivers in

*Information summarized from the Species at Risk Public Registry (<https://www.registrelep-sararegistry.gc.ca/>)



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					Labrador
Piping Plover (Melodus Subspecies)	Endangered	Breeding (April- September)	Southwest Coast (island)	Ground nests. Prefers wide, sandy beaches.	Coastal environments
Red Crossbill (Percna Subspecies)	Threatened	Year-round	Island only	Tree nests (usually conifer)	Productive conifer forest. Largely unknown.
Red Knot (Rufa Subspecies)	Endangered	Spring/Fall migration	Coastal areas on the island (migration stopover only)	Ground nests (Arctic only)	Varied coastal. Must be rich and undisturbed by humans.
Red-Necked Phalarope	Special Concern	Breeding May-August	Coastal Areas and Inland	Ground Nests	Varied. Coastal feeding, nests in wetland habitat.
Ross's Gull	Threatened	Winter	Labrador Sea	Flat, low-lying areas with low vegetative cover	Coastal Environments
Rusty Blackbird	Special Concern	Breeding (May-August)	Province Wide	Tree nests (usually near or above a waterbody)	Prefers to nest on the shores of wetland habitats.
Short Eared Owl	Special Concern	Breeding (May- August)	Province Wide	Ground nests (single hole dug into ground)	Varied open habitats.

*Information summarized from the Species at Risk Public Registry (<https://www.registrelep-sararegistry.gc.ca/>)



**ENVIRONMENTAL STANDARD OPERATING
PROCEDURE NL
HYDRO**

**PROCEDURE FOR NESTING BIRDS IN VEGETATED AREAS (OPERATIONS
AND MAINTENANCE)**

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**Appendix 3 – Bird Species at Risk with Distributions in Newfoundland and
Labrador (Provincial)**

Table 2: Bird Species at Risk with Distributions in Newfoundland and Labrador.

Species	Listing	Season Present	Distribution	Nesting Location	Habitat type
Barrows Goldeneye	Vulnerable	Year-round	Province Wide	Cavity nests between 2 and 15 meters from ground. Within 1-2 km of water.	Balsam Fir/White Birch forest (breeding), coastal areas (wintering).
Bobolink	Vulnerable (SSAC) Threatened (COSEWIC)	May-August	Island Wide	Nests in hayfields, farmlands, salt marshes, and grassy fields.	Varied natural grasslands.
Chimney Swift	Threatened	Most Sightings are in the Fall or Spring	South-East Coast of Newfoundland	Hollow trees or chimneys	Near water where insects are abundant.
Common Nighthawk	Threatened	Breeding (May-August)	Province Wide	Ground nests in a variety of open, vegetation-free habitats.	Varied
Eskimo Curlew	Endangered	Fall migration only	Possibly Province Wide	Ground nests (Arctic only)	Coastal Barrens
Harlequin Duck	Vulnerable	Year-round	Labrador/Northern Newfoundland (breeding), South Coast of Newfoundland (wintering)	Ground nests, usually on the banks of fast-flowing streams.	Coastal environments but move inland to breed.
Ivory Gull	Endangered	Wintering only	Labrador/Northern Newfoundland	Ground nests (Arctic only)	Coastal environments
Newfoundland Gray-cheeked Thrush	Threatened	Breeding (May-August)	Island Wide/Southern Labrador	Dense undergrowth	Coniferous Mixed woodlands
Olive-sided Flycatcher	Threatened	Breeding (May-July)	Province Wide	Tree nests (usually conifer)	Mature forests
Peregrine Falcon	Vulnerable	Breeding (May-August)	Northern Labrador	Nests on cliff ledges (or building ledges in urban areas)	On the coast and along a number of major rivers in Labrador
Piping Plover (Melodus Subspecies)	Endangered	Breeding (April-September)	Southwest Coast (island)	Ground nests. Prefers wide, sandy beaches.	Coastal environments
Red Crossbill (Percna Subspecies)	Endangered	Year-round	Island only	Tree nests (usually conifer)	Productive conifer forest. Largely unknown.
Red Knot (Rufa Subspecies)	Endangered	Spring/Fall migration	Coastal areas on the island (migration stopover only)	Ground nests (Arctic only)	Varied coastal. Must be rich and undisturbed by humans.
Rusty Blackbird	Vulnerable	Breeding (May-August)	Province Wide	Tree nests (usually near or above a waterbody)	Prefers to nest on the shores of wetland habitats.

*Information summarized from the Newfoundland Labrador Fisheries, Forestry and Agriculture site (<https://www.gov.nl.ca/ffa/wildlife/endangeredspecies/birds/>)

Short Eared Owl	Vulnerable	Breeding (May- August)	Province Wide	Ground nests (single hole dug into ground)	Varied open habitats.
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*Information summarized from the Newfoundland Labrador Fisheries, Forestry and Agriculture site (<https://www.gov.nl.ca/ffa/wildlife/endangeredspecies/birds/>)