



**Registration Pursuant To The
Environmental Assessment Regulations 2003
under the
Environmental Protection Act
For The Proposed
124L Transmission Line Rebuild**

October 20th, 2020

EXECUTIVE SUMMARY

Newfoundland Power is proposing to rebuild a section of their 124L Transmission Line between Gambo and Port Blandford, Newfoundland (the Project). Sections of the transmission line have reached the point where continued maintenance is no longer feasible and a section of line must be rebuilt to continue the provision of safe and reliable service to customers in the area.

The Project will be built in two phases, with Phase 1 being completed in 2021 and Phase 2 in 2022. The Project crosses or passes within the 200 m buffer of numerous watercourses that are scheduled salmon rivers under the Fisheries Act. Additionally, a portion of the Project passes within the vicinity of the backcountry of Terra Nova National Park. An assessment of the sources of pollution and environmental impacts from the Project on the environment was completed. With the implementation of various mitigation measures, the Project is not expected to have any significant impacts on key environmental features.

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1.0 INTRODUCTION

Newfoundland Power (the Proponent) proposes to rebuild 56 km of the 124L Transmission Line in eastern Newfoundland, around Bonavista Bay. This section of the transmission line has reached the point where continued maintenance is no longer feasible and a section of line must be rebuilt to continue the provision of safe and reliable service to customers in the area.

The Project requires registration under the following sections of the *Environmental Assessment Regulations, 2003*:


- Section 28: The transmission line crosses several watercourses that are scheduled salmon rivers under the *Fisheries Act* that cannot be spanned outside of their 200 m buffer.
- Section 34(2): The Proponent is considering an alternate route into the Glovertown substation which will require the construction of new transmission line corridor more than 500 m from the existing right of way.

1.1 Proponent Information

Newfoundland Power operates an integrated electricity generation, transmission, and distribution system throughout the island portion of Newfoundland and Labrador. As the primary distributor of electricity on the island, they operate 12,500 km of transmission and distribution lines on the island, providing service to over 269,000 customers.

Proponent and consultant contact information is provided in Table 1.1.

Table 1.1. Proponent Information

PROPONENT	
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1.2 The Undertaking

Name of the Undertaking: 124L Transmission Line Rebuild (the Project)
Location of the Undertaking: Gambo to Port Blandford, Newfoundland

1.3 Description of the Undertaking

Newfoundland Power is proposing to rebuild a 56 km section of Transmission Line 124L (the Project). Transmission Line 124L is a 138 kV H-Frame line running between the Clarenville Substation and the Gambo Substation (Drawing 1, Appendix A). The 124L transmission line was originally constructed in 1964 and is 89.77 km in length. This line is part of the 138 kV looped transmission system between Sunnyside Substation and Stony Brook Substation near Grand Falls-Windsor. The proposed Project provides the source of supply for the Port Blandford Substation, the Terra Nova Substation, the Glovertown Substation, and the Gambo Substation. This section of Transmission Line 124L has reached the point where continued maintenance is no longer feasible and must be rebuilt to continue the provision of safe and reliable service to customers in the area.

The Project will be built in a new Right of Way (RoW) approximately 26 m wide, adjacent to the existing line. Transmission structures will be located on average 200 m apart, with specific locations varying based on topography. There are several Salmon River crossings along the Project route that are unable to be spanned outside of the 200 m buffer required around scheduled salmon rivers with possible vegetation clearing in some of these areas.

The Project will be built in two phases, with the southern portion of the Project (Phase 1) being construction in 2021, and the northern portion of the Project (Phase 2) being constructed in 2022 (Drawing 1, Appendix A).

Phase 1 includes a 30 km section running from a location south of Port Blandford, where a previously rebuilt section of the transmission line ends, north towards a location north of the Terra Nova Substation (Drawing 1, Appendix A). Approximately 15 km of the Project passes south of Terra Nova National Park. Deterioration of this section of line primarily relates to deteriorated poles and ball link eye bolts. In addition to deteriorated components, this line also has non-standard equipment. This includes non-standard insulators, guying, and framing. For example, approximately 68% of structures on this section of line have insulators that are porcelain Canadian

Ohio Brass or Canadian Pacific. These insulators are prone to failure and are no longer considered industry standard.

Phase 2 encompasses the remaining section of line towards the Gambo substation. Phase 2 includes an alternate line diversion into the Glovertown Substation where the 124L Transmission Line bypasses Glovertown (Drawing 1, Appendix A). The Glovertown diversion comprises a 4.83 km line connecting the Glovertown substation to the 124L Transmission Line. A portion of this line will be built adjacent to the existing RoW exiting the Glovertown substation and the remaining portion will require the construction of a new RoW. Whether the alternate Glovertown diversion or the Glovertown bypass is used will be selected during final Project design, however, both routes are being considered for the purposes of the Environmental Assessment.

2.0 PROJECT DESCRIPTION

2.1 Project Location

The Project will be completed on a 56 km section of the 124L Transmission line that passes from Gambo to Port Blandford, located in eastern Newfoundland by Bonavista Bay (Drawing 1, Appendix A). The Project will be built in a new right-of-way approximately 26 m wide adjacent to the existing transmission line. Approximately 4 km of the line travels parallel within 1.5 km of the Terra Nova National Park boundaries, around Northwest River.

2.2 Physical Features

2.2.1 Key Environment Features

Newfoundland is part of the Boreal Shield Ecozone which covers much of Canada. Boreal forests are characterized by stands of Black spruce (*Picea mariana*), White spruce (*Picea glauca*), Jack pine (*Pinus banksiana*), and Balsam fir (*Abies balsamea*) mixed with bogs and other wetlands. As a result of glacial scouring, areas of bare rocky outcrops support lichen and low shrubs. The Project is located within the Central Newfoundland Ecoregion of the Boreal Shield Ecozone. Its forests are dominated by closed, intermediate to low stands of Balsam fir and Black spruce on steep, moist, upland slopes. White birch (*Betula papyrifera*), aspen (*Populus* sp.), and Black spruce are typical of disturbed sites and exposed nutrient poor sites are characterized by Black spruce, ericaceous shrubs, such as Lambkill (*Kalmia angustifolia*), Labrador tea (*Rhododendron groenlandicum*), and lichens. Open stands of dwarfed Black spruce and Eastern larch (*Larix laricina*) with ericaceous shrubs are found on raised dome bogs.

The Project passes through primarily undeveloped habitat, crossing numerous watercourses and expansive wetlands. Wetlands in the area consist primarily of open bogs and fens, with treed swamps and riparian floodplains, dominated by Black spruce, ericaceous shrubs, and herbaceous species that thrive in nutrient poor and acidic conditions. Substrates in the bogs are comprised of deep accumulations of peat, deepest in the center of bogs and shallower around granite outcropping and wetland edges.

The landscape in the Project area is punctuated by numerous ponds and lakes. The Project intersects three waterbodies associated with the Terra Nova River as well as numerous river crossing (Section 2.2.1.1).

The Atlantic Canada Conservation Data Centre (ACDC) has observation records for 18 fauna and 31 flora species of conservational interest (SOI) within 5 km of the Project area (ACDC, 2020). These species are listed in Table 2.1.

Table 2.1. Flora and Fauna Species of Conservational Interest within 5 km of the Project

Common Name	Scientific Name	SARA ¹	COSEWIC ²	NL ESA ³	General Status ⁴	S-Rank ⁵
Avifauna						
Black-headed Gull	<i>Chroicocephalus ridibundus</i>				Sensitive	S1N, SUM
Barrow's Goldeneye	<i>Bucephala islandica</i>	Special Concern	Special Concern	Vulnerable	Sensitive	S1N, SUM
Red Crossbill	<i>Loxia curvirostra</i>	Endangered	Threatened	Endangered	At Risk	S1S2
Northern Goshawk	<i>Accipiter gentilis</i>				Secure	S3
Northern Hawk-Owl	<i>Surnia ulula</i>				Secure	S3
Harlequin Duck	<i>Histrionicus histrionicus</i>	Special Concern	Special Concern	Vulnerable	Secure	S3B, S2N, SUM
Short-eared Owl	<i>Asio flammeus</i>	Special Concern	Special Concern	Vulnerable	Secure	S3B, SUM
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Threatened	Special Concern	Threatened	At Risk	S3B, SUM
Blue-headed Vireo	<i>Vireo solitarius</i>				Secure	S3B, SUM
Northern Harrier	<i>Circus cyaneus</i>				Secure	S3B, SUM
Ovenbird	<i>Seiurus aurocapilla</i>				Secure	S3B, SUM
Black-bellied Plover	<i>Pluvialis squatarola</i>				Secure	S3M
Lesser Yellowlegs	<i>Tringa flavipes</i>				Secure	S3M
Ruddy Turnstone	<i>Arenaria interpres</i>				Secure	S3M
Chimney Swift	<i>Chaetura pelagica</i>	Threatened	Threatened	Threatened	Vagrant/ Accidental	SNR
Mammals						
Newfoundland Marten	<i>Martes americana</i>	Threatened	Threatened	Threatened	At Risk	S3
Canada Lynx	<i>Lynx canadensis</i>				Secure	S3S4
Invertebrates						
Cherry-faced Meadowhawk/ Common Skimmer	<i>Sympetrum internum</i>				Undetermined	S3
Flora						
Algae-Like Pondweed	<i>Potamogeton confervoides</i>					S3S4
Alpine Foam Lichen	<i>Stereocaulon alpinum</i>					S3

Common Name	Scientific Name	SARA ¹	COSEWIC ²	NL ESA ³	General Status ⁴	S-Rank ⁵
American moor rush	<i>Juncus stygius</i> <i>subsp. americanus</i>					S1
Berchtold's pondweed, slender pondweed	<i>Potamogeton pusillus</i> <i>subsp. tenuissimus</i>					S2
Crowded Sedge	<i>Carex adusta</i>					S2
Curly-Grass Fern	<i>Schizaea pusilla</i>					S2S3
Eyed Chestnut Wrinkle Lichen	<i>Tuckermannopsis sepincola</i>					S2
Finger Foam Lichen	<i>Stereocaulon dactylophyllum</i>					S2S3
Fox Sedge	<i>Carex vulpinoidea</i>					S3
Grassy Arrowhead	<i>Sagittaria graminea</i> <i>subsp. graminea</i>					S3
Greater Sulphur-cup Lichen	<i>Cladonia sulphurina</i>					S3S4
Green Adder's-Mouth	<i>Malaxis unifolia</i>					S2S3
Lance-Leaf Violet	<i>Viola lanceolata</i>					S3S4
Mad Dog Skullcap	<i>Scutellaria lateriflora</i>					S3
Methuselah's Beard Lichen	<i>Usnea longissima</i>					S3S4
Northern Pondweed	<i>Potamogeton alpinus</i>					S3S4
Northern Shorthusk	<i>Brachyelytrum aristosum</i>					S2S3
Petalled Rocktripe Lichen	<i>Umbilicaria polyphylla</i>					S3S4
Pod Grass	<i>Scheuchzeria palustris</i>					S3S5
Powdered Sunshine Lichen	<i>Vulpicida pinastri</i>					S2S3
Red Pine	<i>Pinus resinosa</i>					S1
Rock Polypody	<i>Polypodium virginianum</i>					S1
Sea-Wrack	<i>Zostera marina</i>					S1
Shaved Sedge	<i>Carex tosa</i>					S2
Small Water-Wort	<i>Elatine minima</i>					S1
Spiny Heath Lichen	<i>Cetraria muricata</i>					S3S4
Tuckerman's Quillwort	<i>Isoetes tuckermanii</i>					S3S4
Twin-Stemmed Bladderwort	<i>Utricularia geminisca</i>					S3S4
Variegated Foam Lichen	<i>Stereocaulon vesuvianum</i>					S3S4

Common Name	Scientific Name	SARA ¹	COSEWIC ²	NL ESA ³	General Status ⁴	S-Rank ⁵
Virginia Wild Rye	<i>Elymus virginicus</i> <i>var. virginicus</i>					S3S4
White Pine	<i>Pinus strobus</i>					S3S4

Source: ACCDC, 2020

¹Species at Risk Act

²Committee on the Status of Endangered Wildlife in Canada

³Newfoundland and Labrador Endangered Species Act

⁴Provincial General Status

⁵Subnational Rarity Rankings

2.2.1.1 Scheduled Waters Within 200 metres of Project Site

The proposed Project crosses or passes within 200 m of the following scheduled salmon bearing rivers (Schedule 1, *Newfoundland and Labrador Fishery Regulations* SOR/78-443) at 37 locations (Drawing 2, Appendix A):

- Gambo River & tributaries (4 locations)
- Northwest Brook (Alexander Bay) (1 location)
- Terra Nova River & tributaries (23 locations)
- Northwest Brook (Port Blandford) & tributaries (2 locations)
- Salmon Brook (Port Blandford) & tributaries (2 locations)
- Southwest Brook (Port Blandford) & tributaries (5 locations)

Gambo River empties into Freshwater Bay, Bonavista Bay at Gambo and is within Salmon Fishing Area (SFA) 5. Approximately 4 km upstream from the outflow, Gambo River opens into Gambo Pond, an approximately 28 km long, narrow waterbody. Significant tributaries include Mint Brook, Triton Brook, Riverhead Brook, and Parsons Brook. In recent years, Gambo River and its tributaries have been closed to salmon fishing for periods during the summer months due to high water temperatures and low water levels (Saltwire, 2018). The Project crosses Gambo River at one location and at tributaries at three locations for a total of four crossing locations.

Northwest Brook (Alexander Bay) discharges into Alexander Bay, Bonavista Bay, approximately 7 km north of Glovertown and is within SFA 5. Waterbodies in the watershed include Gull Pond, Little Gull Pond, Third Pond, Fourth Pond, and Little Northwest Pond. Additionally, Northwest Brook's catchment area has a high proportion of fens and other wetlands which feed into the watercourse. In recent years, Northwest Brook has been closed to salmon fishing for periods during the summer months due to high water temperatures and low water levels (Saltwire, 2018). The Project crosses Northwest Brook (Alexander Bay) at one location.

Terra Nova River empties into Bonavista Bay at Glovertown and is within SFA 5. A fishway was installed at an impassable waterfall in the 1950s approximately 22 km upstream (O'Connell and Reddin, 1997). Terra Nova River and its tributaries contain several large waterbodies, including Maccles Lake, Pitts Pond, Terra Nova Lake, Mollyguajeck Lake, Lake St. John, and Deer Pond. Its headwaters originate in the Middle Ridge Wildlife Reserve. In recent years, Terra Nova River and its tributaries have been closed to salmon fishing for periods during the summer months due to high water temperatures and low water levels (Saltwire, 2018). The Project runs parallel with the Terra Nova River for approximately 20 km and therefore has numerous crossings of smaller tributary

streams. The Project crosses Terra Nova River at one location at Terra Nova Lake, in proximity of the Terra Nova substation, and then crosses tributary streams at 19 other locations, including Maccles Brook, for a total of 23 crossing locations.

Northwest River (Port Blandford) empties into Clode Sound, Bonavista Bay within SFA 5. The lower reaches of the watershed and lower 1.8 km of the watercourse lies within Terra Nova National Park. A notable waterfall is located 3.2 km upstream. The headwaters of the watershed lie within the Bay du North Wilderness Area. Due to a declining salmon population, the Northwest River Conservation Group was formed out of a coalition of stakeholders, including Parks Canada, the Department of Fisheries and Oceans, and local citizens. An annual fish count is completed to determine if a quota-based fishery will be open for that year. The Project crosses Northwest River at one location and one tributary for a total of two crossing locations.

Salmon Brook empties into Clode Sound, Bonavista Bay within SFA 5. The outflow of Salmon Brook is located 600 m south of the Northwest River mouth. Salmon Brook and its tributaries include notable waterbodies Salmon Pond and Big Gull Pond. In the 1950s, a fishway was installed around the falls which inhibited salmon migration during periods of low water (O'Connell and Reddin, 1997). In recent years, Salmon Brook and its tributaries has been closed to fishing for periods during the summer months due to low water levels and extremely high water temperatures (Saltwire, 2018). The Project crosses Salmon Brook at one location and one tributary for a total of two crossing locations.

Southwest River empties into Clode Sound, Bonavista Bay within SFA 5. Southwest River flows out of Island Pond running in a northeastern direction. Southwest River is relatively rocky and shallow (an average of less than 0.5 m deep) (Skanes, 1997). As with some of the other salmon rivers, Southwest River and its tributaries has been closed to fishing for periods during the summer months due to low water levels and high water temperatures (Saltwire, 2018). The Project crosses Southwest River in one location, and four individual tributaries for a total of five crossing locations.

2.2.1.2 Terra Nova National Park

The Project is located within proximity of Terra Nova National Park. Terra Nova National Park is a 400 km area of oceanside forests, islands, sheltered inlets, bogs, and ponds located on the northeast coast of Newfoundland. Wildlife includes black bears, lynx, ospreys, moose, and the rare Newfoundland marten. Terra Nova provides frontcountry and backcountry camping opportunities and is open for activities year-round. There is a 4 km stretch of the Project that is within 1.5 km of the Park boundaries in the vicinity of Northwest River.

2.3 Construction

Construction of each Phase of the Project will consist of the following three components:

- **Brush clearing:** Brush clearing will begin during the fall prior to the proposed construction year (November 2020 for Phase 1, and October 2021 for Phase 2) and continue until the spring prior to construction commencement, with some moderate brush clearing being completed over the winter months.

- **Construction:** Construction of Phase 1 will occur in 2021 and construction of Phase 2 will occur in 2022. Construction of the Project will begin in April and continue until November. Construction will involve the installation of poles and anchors; frame structures; string sag, armour, and clip in the new conductor; and installation of vibration dampers.
- **Dismantling:** Dismantling will be completed during construction activities. Dismantling and removal of the existing transmission line will involve the dismantling, removal, and disposal of the existing line, including poles, anchors, insulators, guys, conductors, and hardware.

Construction will be completed by both Newfoundland Power line truck/pickups and tension stringers. Additionally, the pole contract will use 75G John Deer Excavator, 313 CAT Excavator, 2007 International Dump Truck, and 2006 International Digger Derrick Truck.

Construction and brush clearing will primarily be completed by contractors, with Newfoundland Power crews to assist with distribution crossings and substation connections. A Newfoundland Power site supervisor will be present on the site during all construction activities.

2.3.1 Potential Sources of Pollution

Potential sources of pollutants into environmental features that may result from construction activities include:

- Sedimentation and siltation from soil disturbance;
- Sedimentation and siltation in small watercourses due to fording;
- Accidental spills from construction equipment; and
- Disturbance of wildlife and vegetation.

Construction activities will involve brush clearing and soil disturbance within the 200 m buffer of the watercourse during installation of transmission structures which may cause sedimentation and siltation into the scheduled salmon rivers, negatively impacting water quality. Accidental release of deleterious substances, including fuel and lubricants, from construction machinery may also negatively impact water quality.

Due to the sensitivity of the watercourses in the vicinity of the Project, there are no in-water works proposed in Scheduled Salmon Rivers. However, smaller watercourses and streams that are not salmon rivers may be forded during Project construction. Fording may result in alteration to the watercourse substrate as well as the release of fine sediments from the substrate and shoreline which may negatively impact water quality.

Vegetation clearing and construction activities may also disrupt wildlife within the vicinity of the transmission line. Disruption may occur from vegetation clearing, as well as the noise and activity associated with construction equipment. Newfoundland Power has operating procedures in place to guide employees if wildlife is encountered on the job site (OPR600.04 – Wildlife). Vegetative management during migratory bird season will be completed in accordance with Newfoundland Power's migratory bird operating procedure (OPR200.38 – Migratory Birds).

Newfoundland Power will implement a project specific Environmental Protection Plan (EPP) prior to construction, including an erosion and sedimentation control plan (ESCP), wildlife management plan, spill prevention plan, and contingency plan (as necessary). Following the completion of construction activities, the areas adversely affected by this project must be restored to a state that resembles natural conditions. Additionally, the environmental management measures outlined in Section 2.3.2 will be implemented to minimize the risk of release of sediment.

2.3.2 Environmental Management Measures

Mitigative measures to minimize the environmental effects of the Project include:

- Implementation of the EPP, including the ESCP, spill prevention plan, and contingency plans (as necessary prior to construction);
- ESC structures will be maintained and inspected regularly with particular emphasis before and after forecasted heavy rain events, and with consideration of the timing and types of activities involved;
- Where necessary, ESC measures will remain in place after work is completed until areas have stabilized and natural re-vegetation occurs;
- All overburden will be removed during the excavation phase and will be stored according to provincial regulations and best practice guidelines;
- Exposed soils and stockpiles capable of producing sediment laden-runoff will continue to be stabilized and/or will be covered;
- A complete oil spill clean-up kit must be on the site at all times when gasoline or fuel powered equipment is being used or refuelled;
- Refuelling will not be completed within 30 m of a watercourse or waterbody edge;
- Disturbed soils will be re-vegetated after construction is completed;
- Stream banks at fording sites that contain loose or erodible material must be adequately stabilized before crossing to minimize any siltation of stream;
- Fording will be carried out during periods of low water levels;
- The natural course of the stream will not be altered during fording;
- Fording site will be located at shallow sections of channels where there are low approach grades and the channel consists of stable substrate; and
- The fording sites will be restored to their original condition once construction is complete.

2.4 Operation

The construction of the Project will be constructed with structures and equipment intended for an operating life of 60 years. Work on the Project during operation will consist of emergency repair. Vegetation management below the transmission line will be completed manually, no herbicides will be applied. An annual inspection will be completed during the winter months by snowmobile and a ground survey of the line will be completed every 5 years.

2.4.1 Potential Sources of Pollution

Potential sources of pollutants into environmental features that may result from operation of the Project include:

- Sedimentation and siltation from soil disturbance; and
- Accidental spills from construction equipment.

Operation of the Project will have no potential sources of pollutants into the environment on a daily basis. In the event of emergency repairs, activities may result in sources of pollution similar to construction activities, including sedimentation and siltation from soil disturbance and accidental spills from construction equipment. Environmental management measures outlined for construction activities in Section 2.3.2 also apply to operation activities.

2.5 Local Receptors

The Project runs through primarily uninhabited, remote landscape and will have minimal impacts on the local communities. The nearest communities to the Project are in Gambo and Glovertown, where the nearest residential properties are located approximately 250 m from the Project. The Project also passes through numerous watercourses that are used for recreational purposes, particularly fishing.

Construction activities have the potential to cause minor disturbances to nearby residences and recreational users through the creation of noise and dust from construction equipment, as well as increased traffic on nearby roads. Newfoundland Power has operating procedures in place to guide employees in terms of limiting disturbance during vegetation management (OPR101.24 – Vegetation Management) and vehicular disruptions (OPR112.14 – Traffic Control). In addition, Newfoundland Power will minimize the impact of Project activities on local receptors through the implementation of the following mitigation measures:

- Implementing a Project specific EPP, including detailed identification of impacts to receptors and management plans for noise and air quality;
- Construction activities will be completed during regular daylight working hours;
- Vehicular traffic coming to and from the site will kept at a required minimum;
- Maintain equipment in good working order and properly muffled; and
- Minimize idling of equipment and vehicles.

2.6 Occupations

Construction of the Project will require the following occupations (with NOC code breakdown) from both Newfoundland Power and Contractor staff:

- Engineering Technicians:
 - 2212 Geological and Mineral Technologists and Technicians
 - 2231 Civil Engineering Technologists and Technicians
 - 2241 Electrical and Electronics Engineering Technologists and Technicians
 - 2253 Drafting Technologists and Technicians

- 2254 Land Survey Technologists and Technicians
- Heavy Equipment Operators:
 - 7312 Heavy-Duty Equipment Mechanics
 - 7412 Heavy Equipment Operators
- Line Workers:
 - 7212 Contractors and Supervisors, Electrical Trades and Telecommunications Occupations
 - 7244 Electrical Power Line and Cable Workers
- Ground Workers:
 - 0711 Construction Managers
 - 7217 Contractors and Supervisors, Heavy Construction Equipment Crews
 - 7611 Construction Trades Helpers and Labourers
 - 7612 Other Trades Helpers and Labourers

Construction and brush clearing will primarily be completed by contractors, with Newfoundland Power crews to assist with distribution crossings and substation connections. A Newfoundland Power site supervisor will be present on site

3.0 APPROVAL OF THE UNDERTAKING

Other permits and authorization required for the Project are listed in Table 3.1.

Table 3.1. Permits and Authorizations Required for the Project

Permit	Responsible Authority
Release of the Undertaking under the Environmental Assessment Regulations	Department of Environment, Climate Change and Municipalities
Crown Lands Application (for new Right of Way)	Department of Fisheries, Forestry and Agriculture

4.0 SCHEDULE

The proposed schedule for the Project is outlined in Table 4.1.

Table 4.1. Proposed Project Schedule

Project Component		Proposed Date
Registration of Environmental Assessment		October 2020
Phase 1	Brush Clearing	November 2020 – April 2021
	Construction/Dismantling	April – November 2021
	Commissioning	November 2021
Phase 2	Brush Clearing	October - April 2022
	Construction/Dismantling	April – November 2022
	Commissioning	November 2022

5.0 FUNDING

The Project does not depend on funding.

6.0 REFERENCES

ACCDC. 2020. Atlantic Canada Conservation Data Centre. Data Request RQ0813.

O'Connell, M.F., and Reddin, D.G. 1997. Status of Atlantic Salmon (*Salmo salar* L.) in Middle Brook and Terra Nova River (SFA 5), Biscay Bay River (SFA 9), Northeast River, Placentia (SFA 10), Newfoundland, in 1996. DFO Can. Sci. Advis. Sec. Res. Doc. 97/40

Saltwire Network. 2018. DFO closing salmon rivers due to water levels and temperatures. Retrieved from <https://www.saltwire.com/news/dfo-closing-salmon-rivers-due-to-water-levels-and-temperatures-228454/?location=avalon-eastern-newfoundland>

Skanes, R. 1997. Stage 1 Historic Resources Overview Assessment: Southwest River, Newfoundland. Archaeology in Newfoundland and Labrador 1997. Retrieved from <https://www.gov.nl.ca/tcar/provincial-archaeology-annual-report-series/1997-toc/skanes-1997-sw-river/>

7.0 STATEMENT OF QUALIFICATIONS AND LIMITATIONS

This Report (the "Report") has been prepared by Strum Consulting ("Consultant") for the benefit of Newfoundland Power ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations, and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations")
- represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant which has not been independently verified
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- was prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental, or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Consultant shall be entitled to rely upon the accuracy and completeness of information that was provided and has no obligation to update such information. Consultant accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental, or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

Consultant agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but Consultant makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed in writing by Consultant and Client
- as required by law
- for use by governmental reviewing agencies

Consultant accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss, or damage suffered by

such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information ("improper use of the Report"), except to the extent those parties have obtained the prior written consent of Consultant to use and rely upon the Report and the Information. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.

This Statement of Qualifications and Limitations forms part of the Report and any use of the Report is subject to the terms hereof.

Should additional information become available, Strum requests that this information be brought to our attention immediately so that we can re-assess the conclusions presented in this report.

APPENDIX A
DRAWINGS



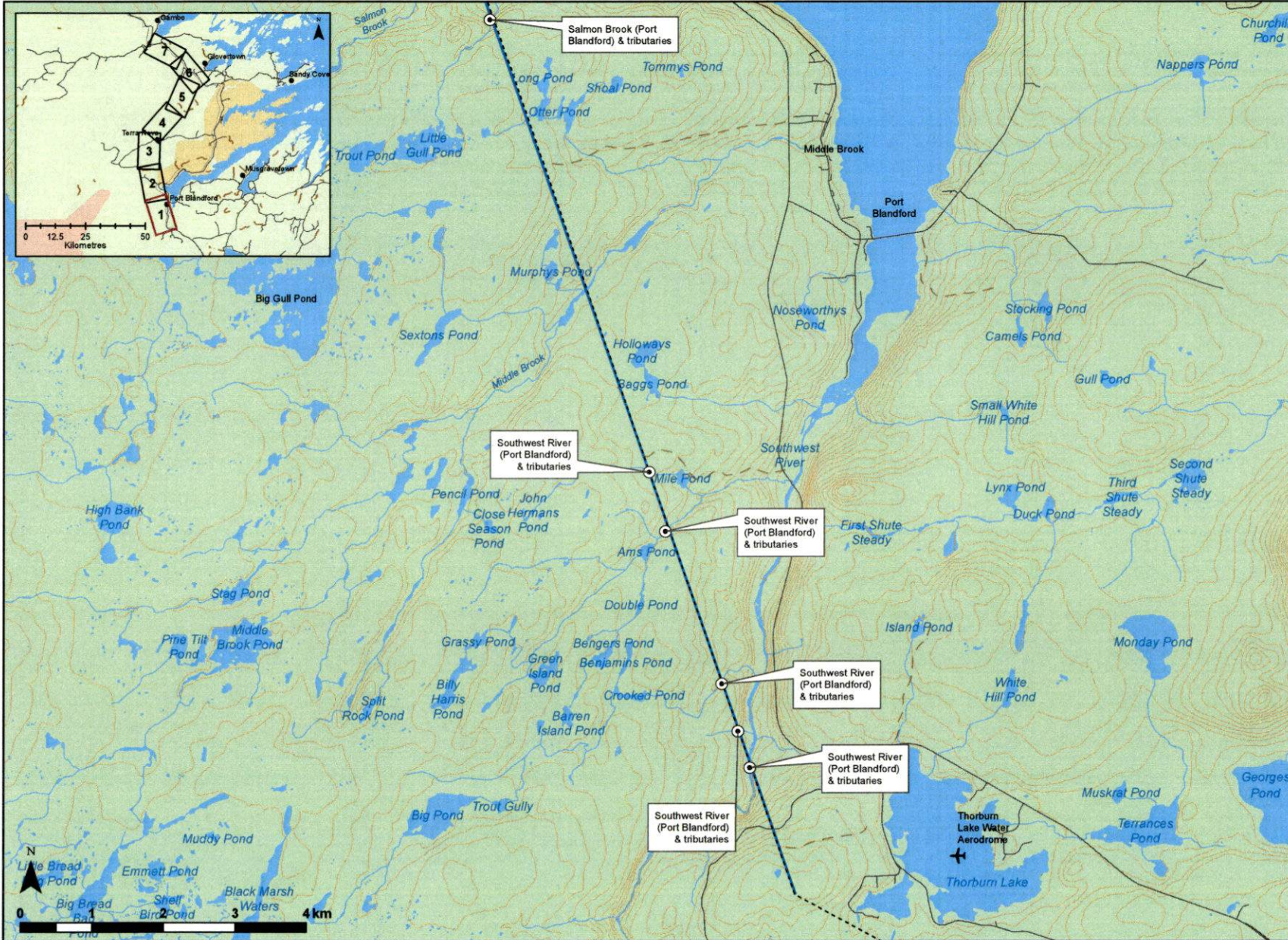
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North.

- Legend:**
- Proposed 124L - Phase 1 (2021)
 - - - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
 - - - Power Line
 - Bay du Nord Wilderness Reserve
 - Terra Nova National Park
 - Road
 - Track
 - Trail
 - Lakes and Rivers

124L Transmission Line Rebuild - Site Location



Sept. 2020	Project # 20-7507
1:180,000	Drawing #
M. Savelle	1
H. Mosher	



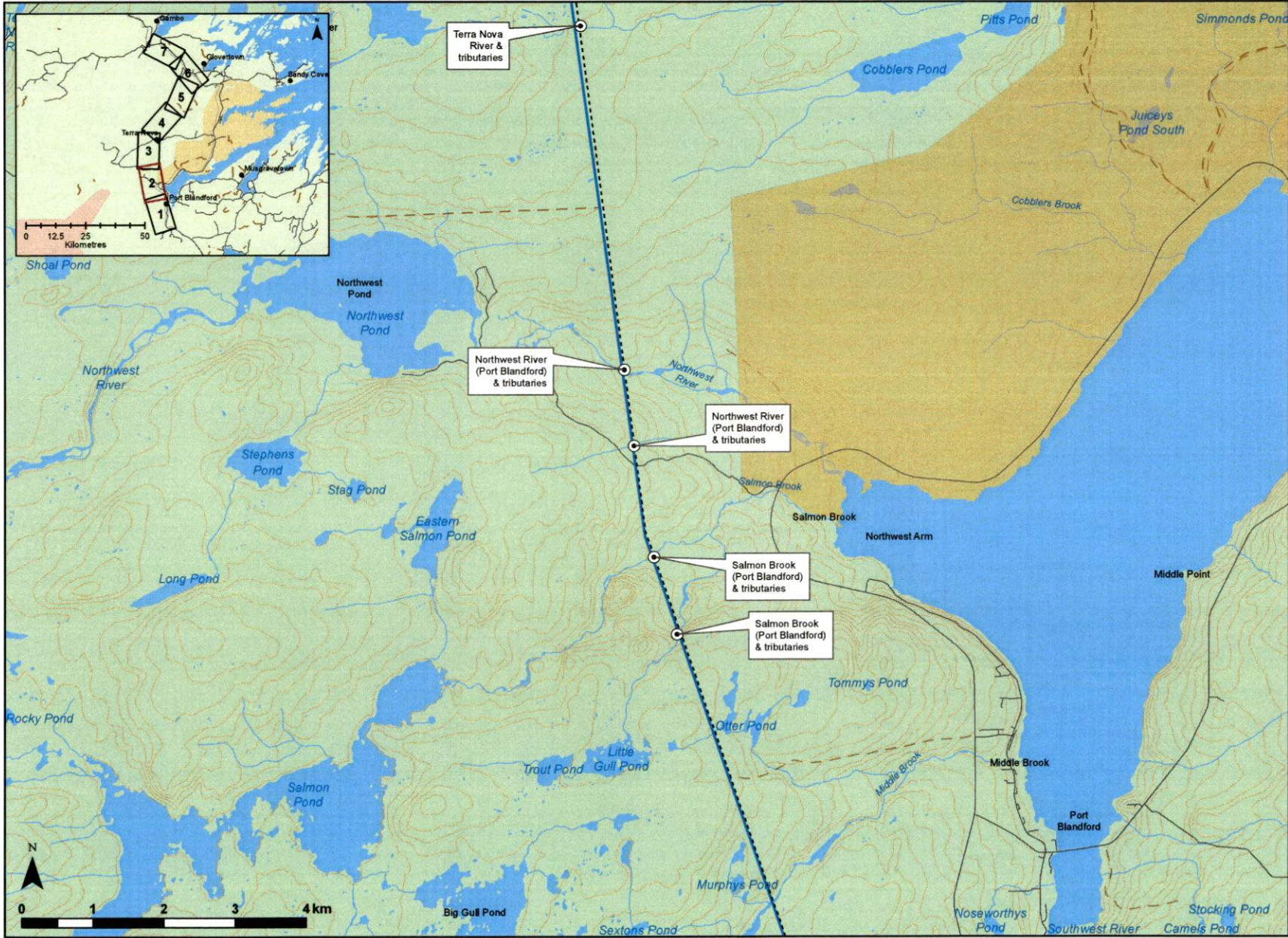
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North.

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
 - - - Power Line
 - Bay du Nord Wilderness Reserve
 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project #: 20-7507
1:50,000	Drawing #:
M. Savelle	2 - 1
H. Mosher	



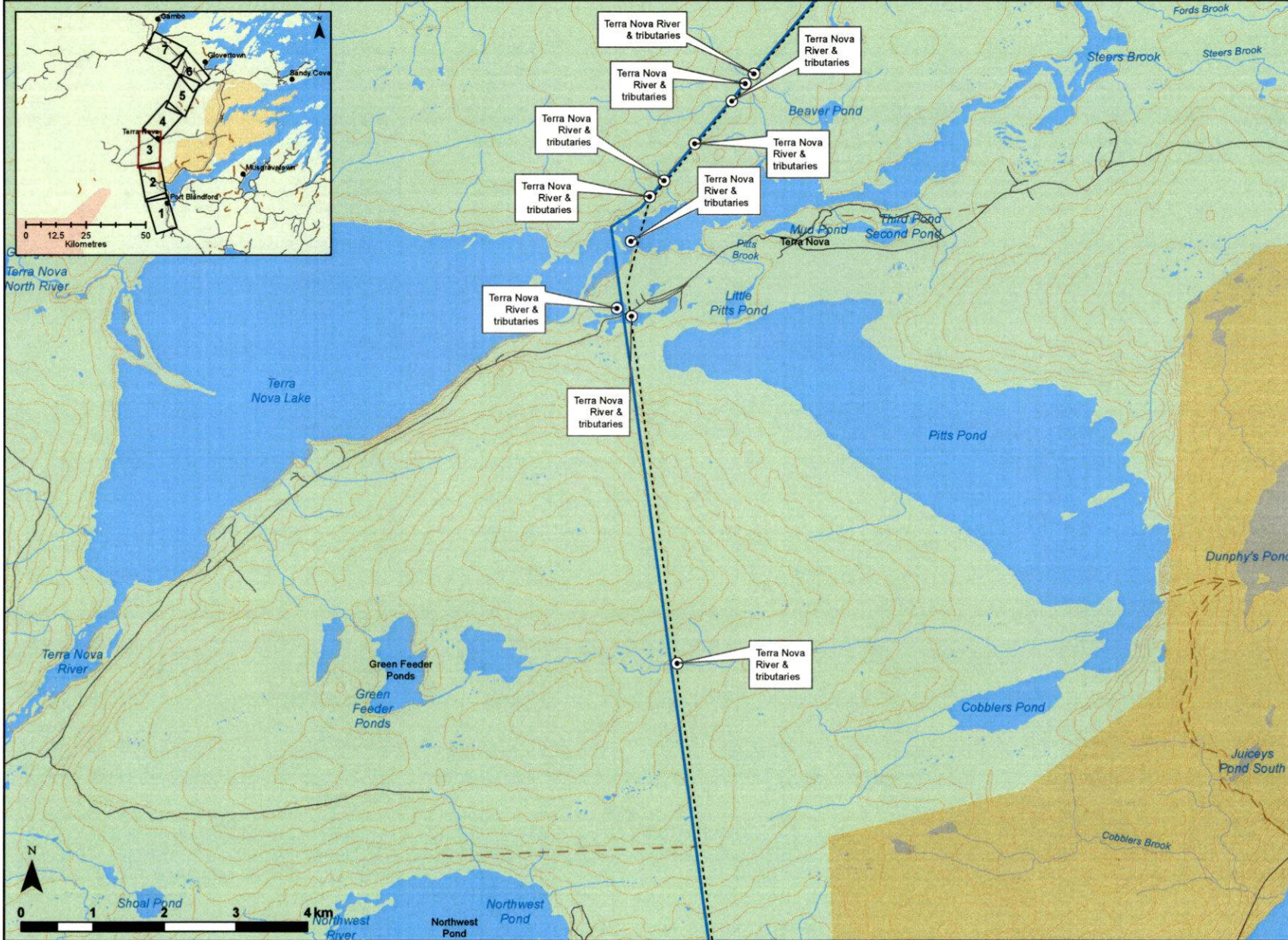
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
 - Power Line
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 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project # 20-7507
1:50,000	Drawing #
M. Savelle	2 - 2
H. Mosher	



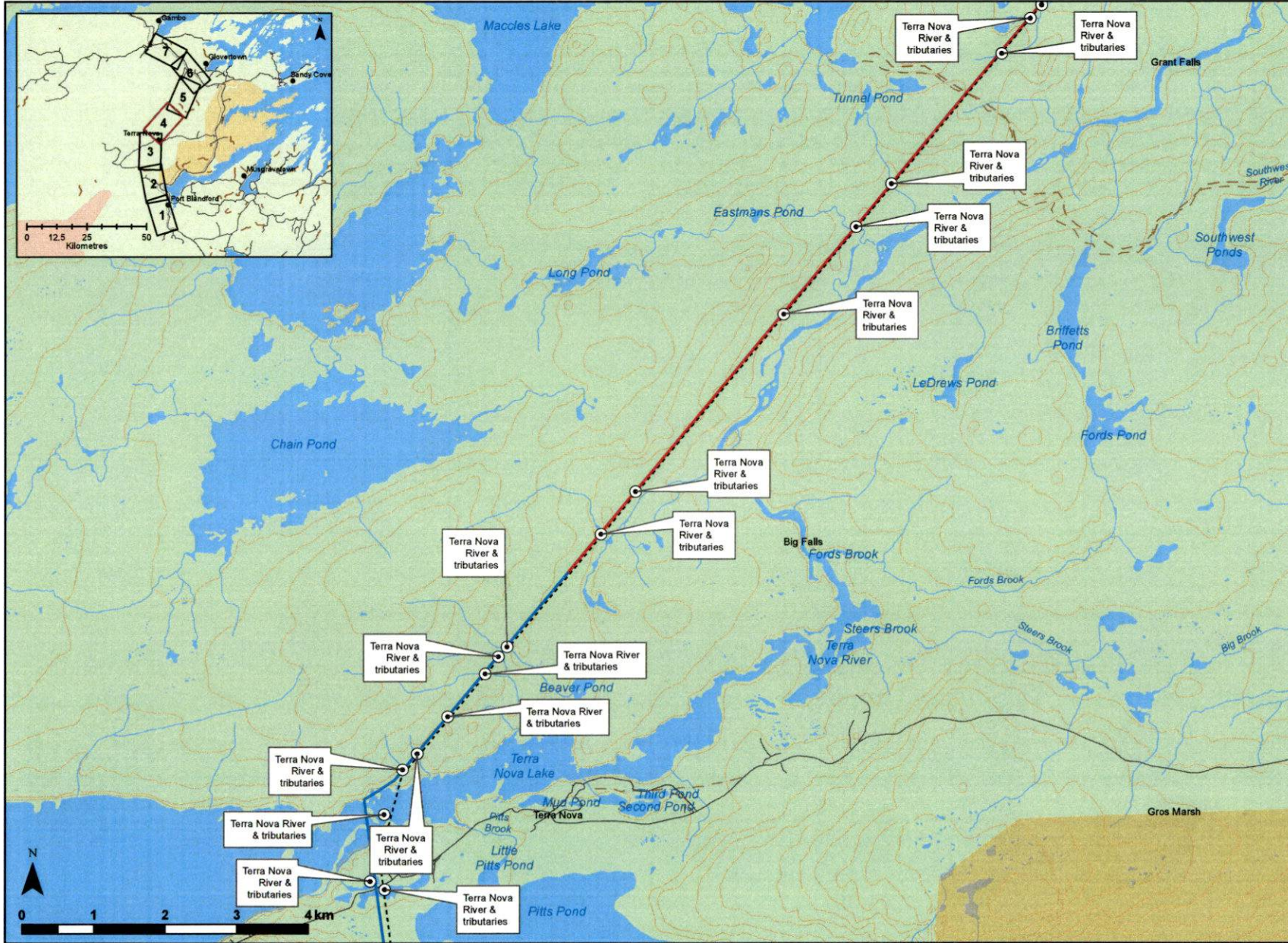
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North.

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
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 - Bay du Nord Wilderness Reserve
 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project # 20-7507
1:50,000	Drawing #
M. Savelle	2 - 3
H. Mosher	



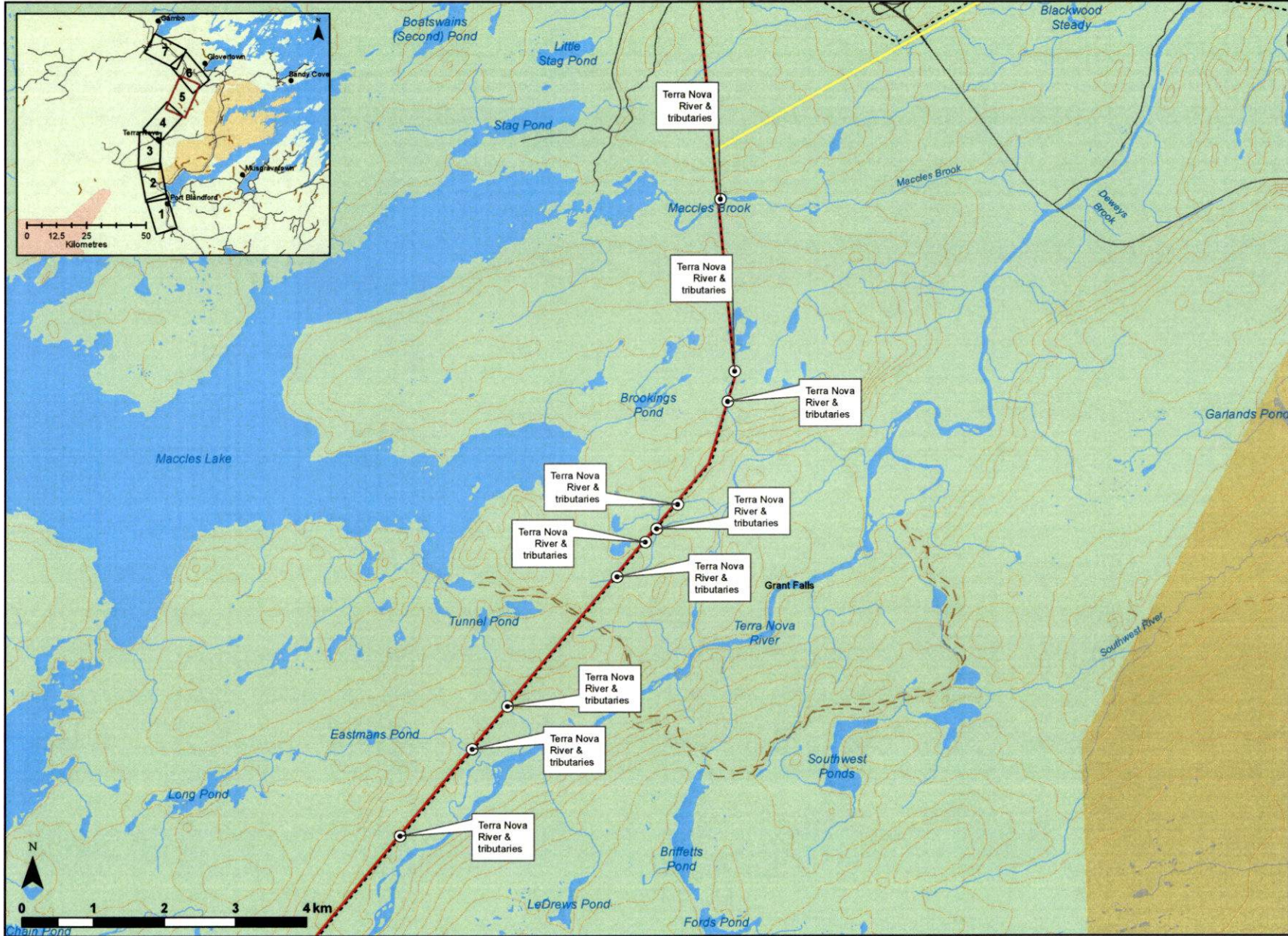
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
 - Power Line
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 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project #: 20-7507
1:50,000	Drawing #: 2 - 4
M. Savelle	
H. Mosher	



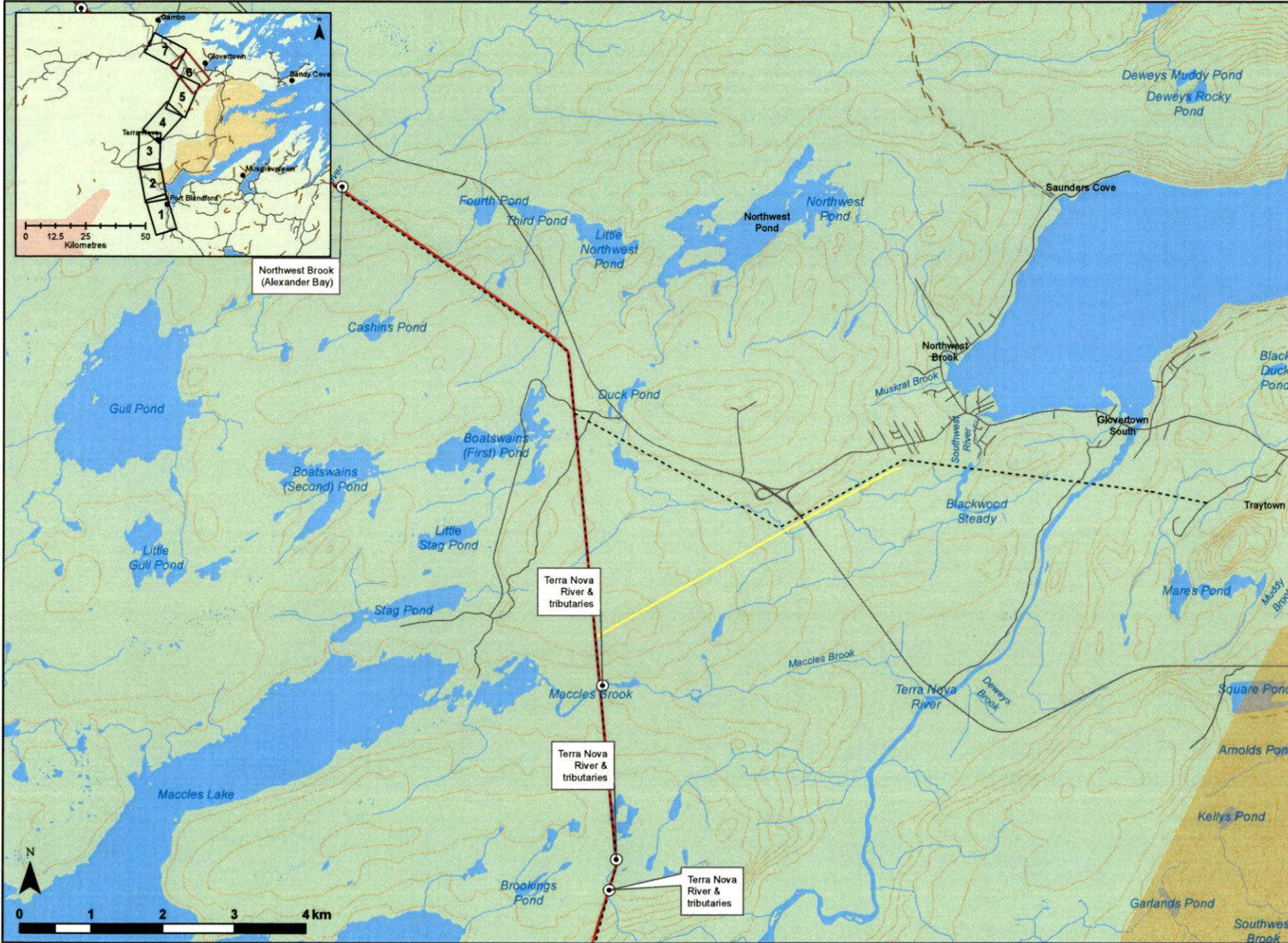
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North.

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
 - Alternative Route to Glovertown
 - Power Line
 - Bay du Nord Wilderness Reserve
 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project # 20-7507
1:50,000	Drawing #
M. Savelle	2 - 5
H. Mosher	



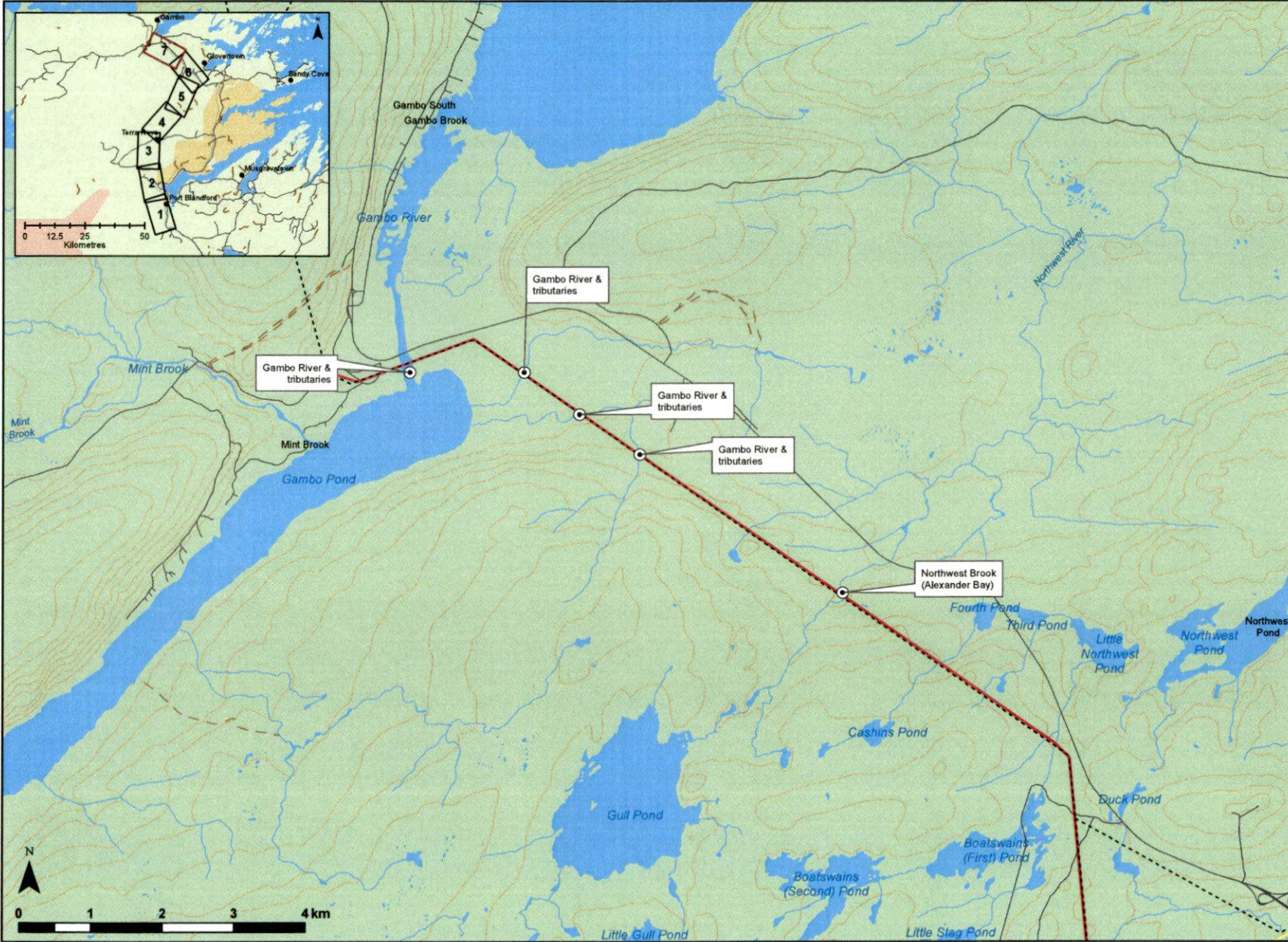
Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North.

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
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 - Terra Nova National Park
 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project #: 20-7507
1:50,000	Drawing #:
M. Savelle	2 - 6
H. Mosher	



Notes:
 1. Data Sources: GeoScience Atlas of NFLD
 2. Projection: NAD83 UTM Zone 21 North

- Legend:**
- Salmon Bearing Rivers
 - Proposed 124L - Phase 1 (2021)
 - Proposed 124L - Phase 2 (2022)
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 - Contours (m)
 - ✈ Aerodrome
 - Road
 - Track
 - Trail
 - Watercourse
 - Lakes and Rivers

124L Transmission Line Rebuild - Environmental Features



Sept. 2020	Project # 20-7507
1:50,000	Drawing #
M. Savelle	2 - 7
H. Mosher	