

The Goldboro Gold Project is in Guysborough County, 1.6 km north of Goldboro and approximately 175 km northeast of Halifax.

Paqtnkek Mi'kmaw Nation is the closest Mi'kmaq community, 75 km northeast of the Project.

The planning process for the Project has been on-going since 2017. Signal Gold has carefully considered various development options, identified issues, and provided solutions to address potential environmental issues and concerns raised by regulators, stakeholders, and Rightsholders about the Project.



The Project will be a conventional open pit mine (two pits) and a mill facility capable of processing 4,000 tonnes of ore per day. Related infrastructure includes a fully lined engineered tailings management facility to safely manage mine processing waste, three waste rock storage areas, till and organic material stockpiles, and associated buildings and facilities.

PROJECT PHASES

Construction

February 2024: Clearing to commence with the majority to be completed by April 15, 2024, prior to the breeding bird window

The majority of earthworks and construction will be completed in 2024, including all instream work (June 1 to Sept 30, 2024)

Commissioning Late 2025

Operations

The East Pit will operate for eight years and the West Pit for 11 years.

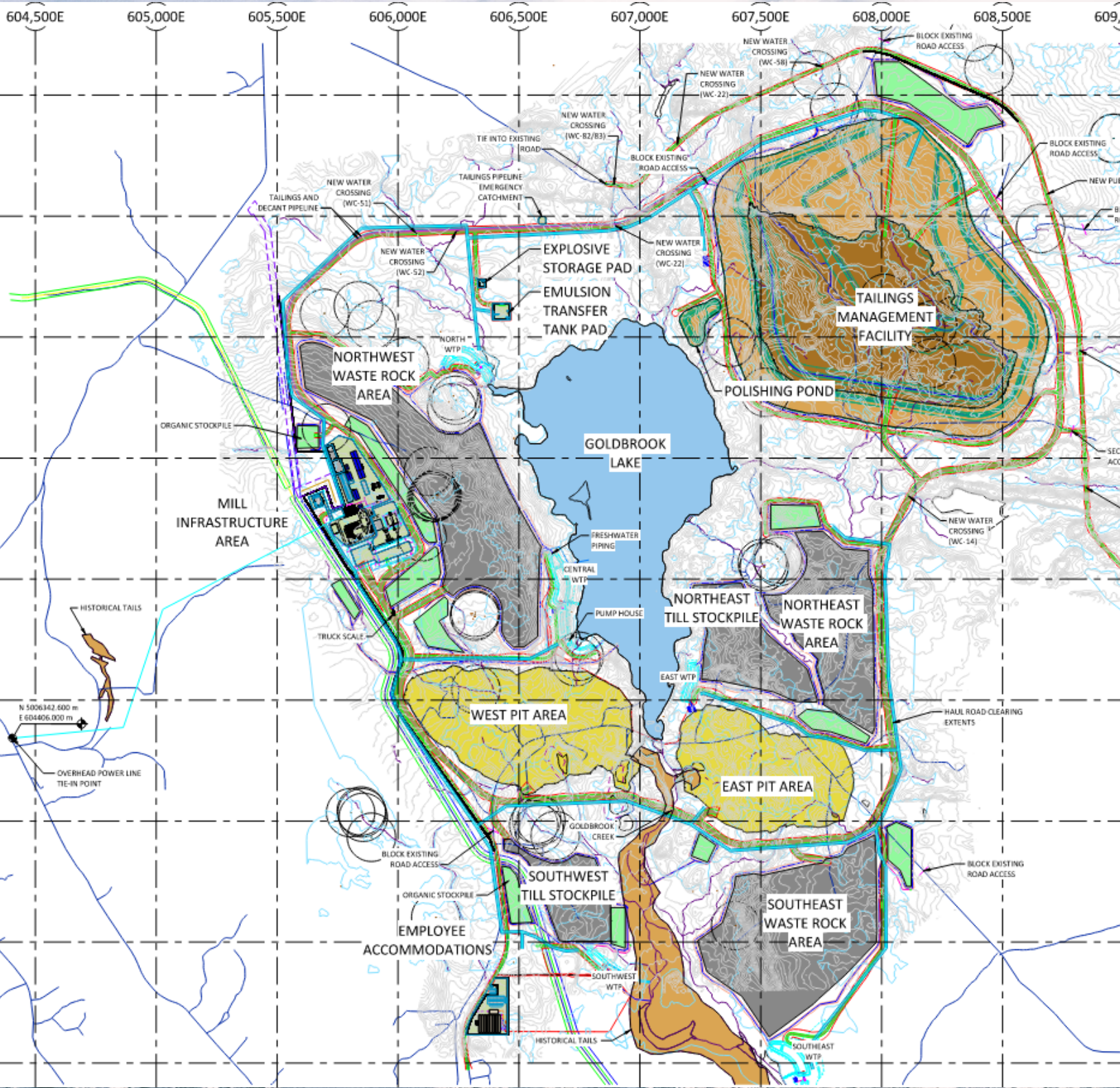
Progressive reclamation will be used to establish vegetation, control erosion and dust, and minimize the total active footprint

Reclamation and Closure

Signal Gold is committed to reclaiming the land with Indigenous and community input.

Active Reclamation will be completed over ~ 3 years and will include demolition of facilities and re-grading of the landscape.

The pits will be allowed to fill with water creating two open waterbodies that will eventually flow into Gold Brook.



TO DATE

Environmental Assessment (EA) is a decision-making tool used to promote sustainable development by evaluating the potential environmental effects of major developments before they proceed.

Signal Gold registered the Project for environmental assessment in June 2022.

On August 2, 2022, the Minister of Environment and Climate Change approved the Project subject to conditions.

Signal Gold has begun preparing an Industrial Approval (IA) application for the Project.

The IA application will focus on controls and mitigations for the environmental effects identified in the EA.

The IA application will address several conditions of EA approval, including contingency plans and management and monitoring plans for surface water and groundwater, among others.

NEXT STEPS

The IA application will include detailed engineering drawings for Project infrastructure.

The updated Project design includes specific focus on the following items:

- Water management
- Water treatment
- Air emissions
- Spill containment
- Hazardous material management

Permitting Submission Timeline

- Industrial Approval: June 2023
- Wetland Alteration Application, Monitoring and Compensation Plans: June 2023
- Fisheries Act Authorization Application: July 2023
- Watercourse Alteration Application: July 2023
- Fisheries Offsetting Plan: July 2023

Once issued, the IA and other permits will contain terms and conditions that the Project must follow to prevent adverse effects to the environment.

Air, noise and light modelling was conducted during the EA to evaluate Project related impacts to the community, Rightsholders, and local land users. Based on this evaluation, a number of mitigation measures were identified to reduce air emissions, noise levels and light generated by the Project.

Mitigation measures include:

- Water and/or dust suppressants will be applied to all on-site roads to reduce dust generation.
- Surfaces of organic material and till stockpiles will be stabilized by vegetation between uses.
- Equipment, vehicles, and haul trucks will be maintained in good working order. To reduce emissions, idling times, and cold starts will be minimized to the extent possible.
- Project-related lighting will be limited to that which is necessary for safe and efficient work activities.
- Lighting will be angled downwards and placed as far from site boundaries as possible.

To confirm the success of the mitigation measures, Signal Gold will complete the following monitoring programs:

- Air quality sampling will occur throughout the life of the Project and results will be compared to baseline conditions and to the Nova Scotia Air Quality Regulations
- Noise monitoring will take place at several locations within Goldboro over the life of the Project
- Signal Gold will maintain a clear line of communication for air, light, and/or noise complaints to be recorded and addressed.

Blasting

- Blasting is anticipated to occur twice per week and will be limited to daylight hours on weekdays.
- Blasting schedule will be communicated to the community in advance of blasting activities.



Groundwater and surface water quality and quantity modelling was completed as part of the EA and evaluated potential impacts of the Project on the existing environment.

Modelling results informed the design of the mine water management infrastructure. Run-off from waste rock storage areas and stockpiles, water from the two open pits, and discharge from the tailings management facility will be collected and treated prior to discharge into Gold Brook Lake and Gold Brook during operations.

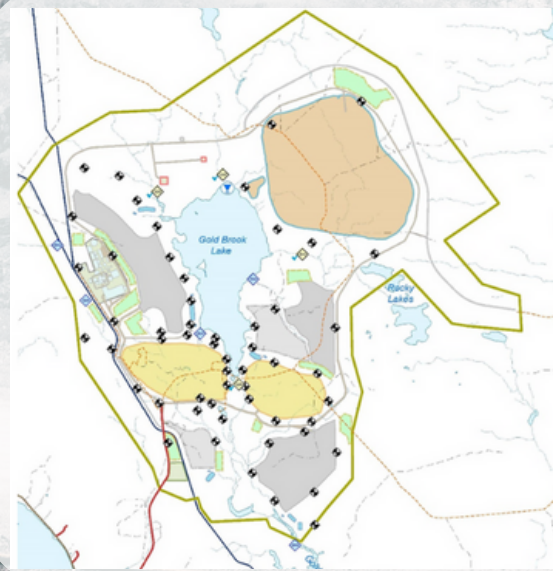
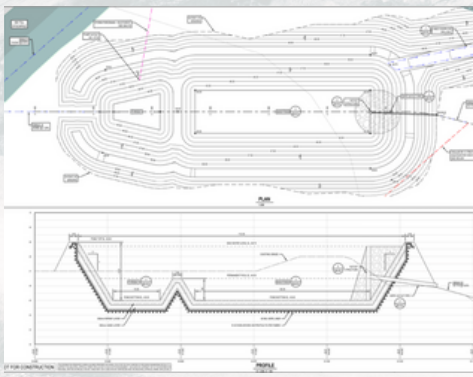
The mine water management infrastructure includes:

- Settling ponds for treatment of run-off from the site
- Ditching system to collect all run-off and direct the water to the settling ponds
- Water treatment systems for all waste rock storage areas and the tailings management facility to remove sediment and treat water for metals and blasting residues
- Erosion and sediment control measures to prevent sediment laden water from entering Gold Brook Lake and Gold Brook

A groundwater and surface water monitoring plan was developed for the Project. This plan includes both quality and quantity monitoring and is intended to monitor against all related regulatory requirements.

The monitoring plan was developed to:

- Identify any long-term surface water and groundwater quality trends.
- Detect any potential surface water and groundwater quality and quantity impacts.
- Gain further understanding of groundwater/surface water interaction.



The Government of Nova Scotia requires that all mines provide financial assurance to cover the cost of reclamation. This is provided before construction can start.

Progressive reclamation is done on an ongoing basis as areas are completed. This ensures that environmental considerations are a daily concern for companies, not just an afterthought.

The reclamation plan addresses key issues such as demolition of infrastructure, surface contouring, proper drainage, and re-vegetation.

During operations, the reclamation plan will be updated every 3 years.

A final reclamation plan will be submitted to the Government of Nova Scotia for approval at least 12 months prior to the end of operations.

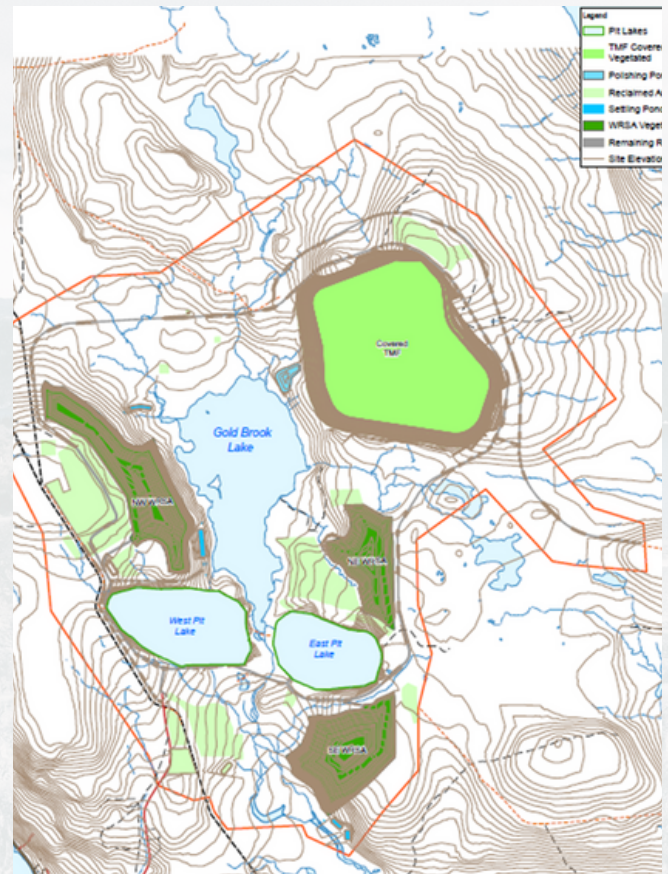
The final reclamation plan and associated future land use will be decided in consultation with Rightsholders, community residents, regulators, and other stakeholders.

At the end of operations, Active Reclamation & Closure is expected to take up to three years.

Post-Closure Monitoring will continue until the site is deemed safe and stable.

Like all mining operations in Canada, the Goldboro Gold Project is a temporary use of the land.

Signal Gold is committed to minimizing the environmental impact while working on the site, and then to reclaiming it for future use.



**Want to discuss reclamation
and closure?**

Please let us know!

info@signalgold.com

Measures to Mitigate and Avoid

Avoidance: Micro-siting of project infrastructure based on results of fish habitat and wetland delineation of fish habitat. The highest priority mitigation.

Project components that have been sited to avoid direct impacts to fish and fish habitat:

- Mill area
- NW, SW, and NW waste rock storage areas
- SW and NE till stockpiles
- Organic stockpiles
- Employee accommodation

No direct impacts proposed to any lakes

Unavoidable impacts to support infrastructure development include removal infilling, excavation, dewatering, and road crossings.

Impacts are expected to result in a change in fish habitat quantity, measured in m² of lost habitat.

Impact areas are calculated using channel measurements collected in the field (linear watercourses), or mapped surface areas (open water).

In total, 32 watercourses and 1 open water feature (Beaver Pond) will be directly impacted by the Project, totaling 16,296 m² of fish habitat, mostly within first and second order streams.

Regulatory triggers

Schedule 2 of the MDMER (Deleterious Substance)

Fisheries Act Authorization (Harmful Alteration, Disruption, or Destruction (HADD) of fish habitat and/or death of fish)



Watercourse System	Impact Type	Impact Area
Multiple	Infilling/Loss of Catchment Area	16,296 m ²
Western Tributary to Gold Brook Lake	Flow Reduction	3,800 m ²
Eastern Tributary to Gold Brook Lake	Flow Reduction	3,588 m ²
WC9	Flow Reduction	1,082 m ²
Gold Brook Tributaries	Flow Reduction	1,586 m ²
Gold Brook	Flow Reduction	TBD
Total		26,353 m²+ *

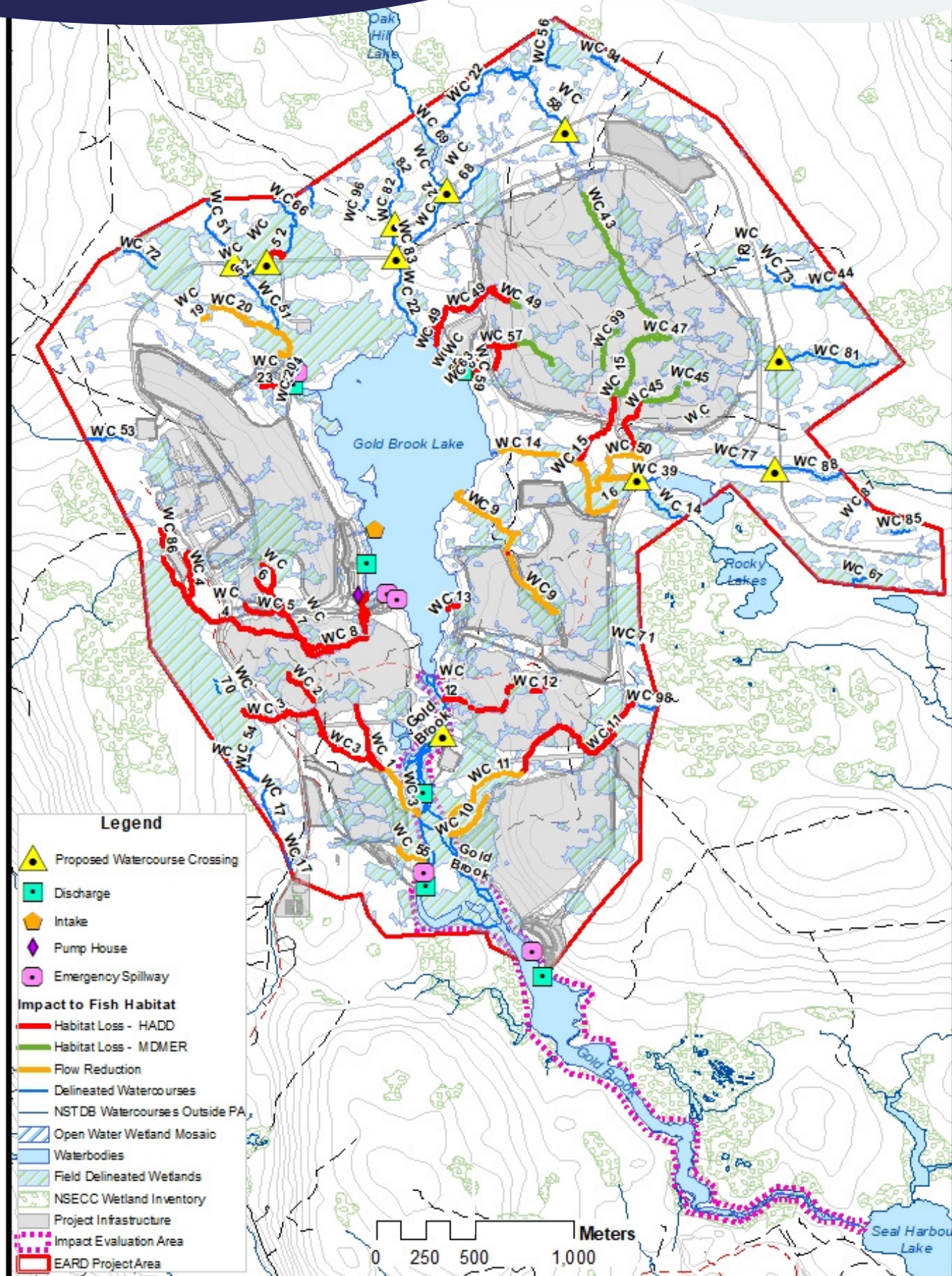
Note: Impact area is currently being refined based on modelling, additional site data collected after the 2022 EARD submission and DFO feedback.

*Note: Impact area is currently being refined based on an updated modelling through and infrastructure design through 2023. This will incorporate additional site data collected after the 2022 EARD submission

FISH HABITAT IMPACTS

GOLDBORO GOLD PROJECT

SIGNAL
GOLD



A fish habitat offsetting plan is being developed to compensate for project related impacts to fish and fish habitat. Identification of fisheries habitat offsetting opportunities has been guided by DFO's requirements including:

- Prioritizing restoration of degraded habitats;
- Prioritizing projects as close to the Site as possible; and
- Restoring similar habitat ("in-kind") or "out-of-kind" habitat if benefits are justified.

The Project Team has been actively working to identify and design fish restoration projects and working collaboratively with Indigenous groups and communities with this goal in mind.

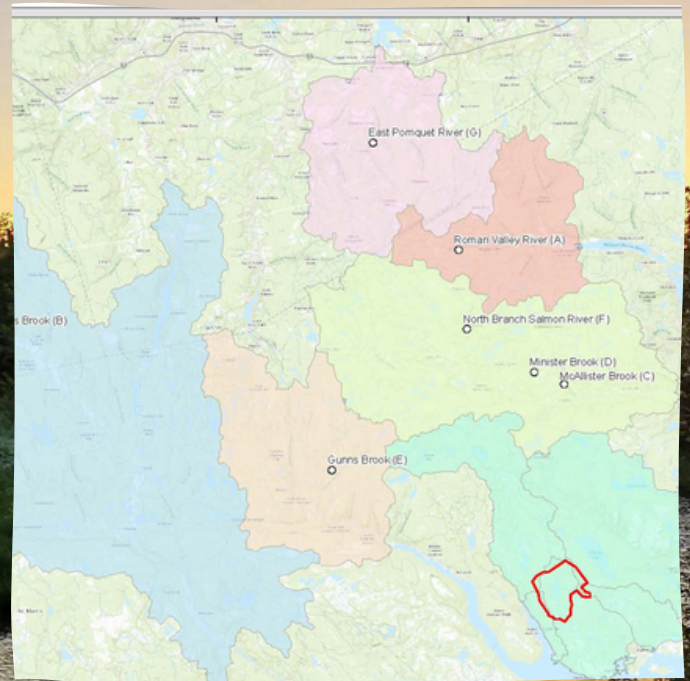
Once the Offsetting Plan has been approved by DFO, Signal intends to initiate construction of offsetting measures in summer 2024. Construction will be staggered during subsequent years. Each offsetting project will be monitored to determine project success as per DFO requirements.

Prioritizing offsetting projects for:

- 1) Species being impacted by the project (American eel and brook trout), and
- 2) Atlantic salmon, which is known to be present in neighboring watersheds and is also a DFO priority species for offsetting planning.

Eight high priority in-stream restoration projects have been identified within five local watersheds. All projects have documented presence of priority fish species, exhibit degraded fish habitat characteristics, and can be enhanced utilizing well-established restoration techniques.

Signal is currently collecting design and biophysical information to support the submission of the Fisheries Offsetting Plan (July 2023).



Restoration techniques include hand installation of structures (digger logs, deflectors and rock sills) that are installed at intervals along the stream. The structures mimic the natural ecosystem functions by developing instream environments such as pools, riffle and runs. Results of installations include scouring of pool habitat, downstream deposition of spawning substrate, and formation of gravel bars which narrow over-widened channels, encourage establishment of riparian vegetation, and create stable meandering channels.



Lichen Transplantation and Monitoring

EA Condition: undertake research related to the indirect impacts of the Project on lichens by monitoring Blue Felt lichen retained on site relative to those transplanted, and provide a report to NS NRR. Monitoring of transplanted individuals: 5 years.

Our Approach

Establish criteria for when and how transplantation should occur, where selected Blue Felt lichen will be relocated to, and how they will be monitored against those left at the mine site.

Recipient Site Identification

Desktop review using habitat suitability model and identification of potential recipient sites during Regional Survey.

Meet with NS NRR to review/select final locations to move the lichen.

Transplantation Methods

Informed by MEL's established transplantation work.

Removal of Blue Felt lichen at the mine site and deployment at recipient site with attachment media.

Post Relocation and in situ Monitoring

Align monitoring methods for programs – mine site and transplants.

Five years of monitoring will include comparison with Blue Felt lichen left at the Project Site per EA Conditions.

Provide data to the Nova Scotia Lichen Recovery Team to help direct future mitigation and adaptive management approaches.



Regional Lichen Survey Methods

EA Condition: undertake surveys to identify the extent of Blue Felt lichen in areas surrounding the Project. Surveys must be undertaken within a 10 km radius of the Project in relevant habitats.

Our Approach

Construct a habitat suitability model to identify relevant habitats to be surveyed for Blue Felt lichen.

The habitat model will assist the field planning team in deciding where to prioritize their survey efforts, though the search will also be guided by conditions on the ground.

Local surveyors will be required four to five days a week for approximately three months.

Training workshop will be completed with crew leads and surveyors prior to survey commencement under direction of a lichenologist.

Implementation of surveys will commence in Spring/Summer 2023 and data will be collected at the vegetation community, host tree, and thallus level.

Survey team will include both surveyors (to be sourced from local community/Mi'kmaq community members as is possible) and experienced terrestrial biologists, all overseen by a lichenologist supervisor.

Watercourses and Wetlands in NS are protected under Watercourse Alteration Standard (2015), Wetland Conservation Policy (2011b), and the Environment Act (1994) and its Activities Designation and Regulations (1995).

Site infrastructure was micro-sited to avoid watercourses and wetlands wherever possible. 66 watercourses were identified, 37 are avoided by Project infrastructure. 222 wetlands were identified, 104 are avoided by Project infrastructure.

20 watercourses are proposed for alteration; 9 watercourses are predicted to have indirect impacts from flow reduction. 10 new/upgraded road crossings will be designed and installed in accordance with regulations. 11 bank alterations to Gold Brook Lake and Gold Brook are proposed to accommodate surface water management discharge and emergency spillways.

A water intake pipe is proposed to be installed within Gold Brook Lake.

Watercourse and Wetland Alteration Permits are required for the project and will be submitted to NSECC in July 2023.



Of the wetlands proposed for alteration, 51 are partial alterations, and 67 are complete alterations.

A detailed Wetland Monitoring Plan (including partially altered and potentially indirectly impacted wetlands) will be prepared and submitted as part of the alteration application.

Wetland compensation is implemented to offset wetland losses associated with the project. The project team is actively working to identify and design wetland compensation projects.

Signal has initiated preliminary work associated with the restoration of a local bog that has been subject to historical peat harvesting. This project provides an opportunity to restore hydrological and vegetative characteristics of the bog.



Want to discuss fisheries, offsetting, wetlands, or watercourses?

We'd love to!

info@signalgold.com



Geology of the Deposit

Turbidite-hosted gold deposit comprised of alternating layers of greywacke (sandstone) and argillite (mudstone). The layers have since been folded into an anticline.

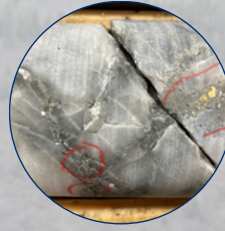
Gold is found in quartz veins within the folded argillite layers, both in the hinge of the anticline and along the limbs. This type of deposit is also known as a saddle reef deposit due to the shape of the fold.

68 stacked lenses of gold mineralization (called Belts) ranging from a 1 m up to 20 have been identified so far. Together, these Belts are what make up the Deposit.

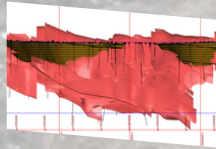
This anticline /saddle reef is similar to the prolific Victorian Goldfields district in Australia, which are known to continue at depth for multiple km's.



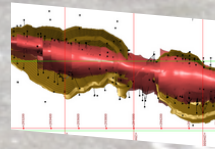
Drill core from recent diamond drill program



Visible gold in drill core



Mineralized Belts (in red) that comprise the Deposit (looking north)



Mineralized Belts (in red) that comprise the Deposit (looking down)



Mineral Resource Estimate

Resource Type	Gold Cut-off (g/t gold)	Category	Tonnes	Grade (g/t gold)	Gold Troy Ounces
Open Pit	0.45	Measured	7,680,000	2.76	681,000
		Indicated	7,988,000	2.89	741,000
		Measured + Indicated	15,668,000	2.82	1,422,000
		Inferred	975,000	2.11	66,000
Underground	2.40	Measured	1,576,000	7.45	377,000
		Indicated	4,350,000	5.59	782,000
		Measured + Indicated	5,925,000	6.09	1,159,000
		Inferred	2,206,000	5.89	418,000
Combined Open Pit and Underground*	0.45 and 2.40	Measured	9,255,000	3.56	1,058,000
		Indicated	12,338,000	3.84	1,523,000
		Measured + Indicated	21,593,000	3.72	2,581,000
		Inferred	3,181,000	4.73	484,000

* Combined Open Pit and Underground Mineral Resources; The Open Pit Mineral Resource is based on a 0.45 g/t gold cut-off grade, and the Underground Mineral Resource is based on 2.40 g/t gold cut-off grade.

Mineral Resource Estimate Notes

1. Mineral Resources were prepared in accordance with NI 43-101 and the CIM Definition Standards for Mineral Resources and Mineral Reserves (2014) and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines (2019). Mineral Resources that are not mineral reserves do not have demonstrated economic viability. This estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues.
2. Mineral Resources are inclusive of Mineral Reserves.
3. Open Pit Mineral Resources are reported at a cut-off grade of 0.45 g/t gold that is based on a gold price of C\$2,000/oz (=US\$1,600/oz) and a metallurgical recovery factor of 89% around cut-off as calculated from $IGRADE = (0.0262 * (NGRADE + 0.0712)) / (GRADE * 100) - 0.083$.
4. Underground Mineral Resource is reported at a cut-off grade of 2.40 g/t gold that is based on a gold price of C\$2,000/oz (=US\$1,600/oz) and a gold processing recovery factor of 97%.
5. Assays were variably capped on a wireframe-by-wireframe basis.
6. Specific gravity was applied using weighted averages to each individual wireframe.
7. Effective date of the Mineral Resource Estimate is November 15, 2021.
8. All figures are rounded to reflect the relative accuracy of the estimates and totals may not add correctly.
9. Excludes unclassified mineralization located within mined out areas.
10. Reported from within a mineralization envelope accounting for mineral continuity.

November 2021 Mineral Resource based on:

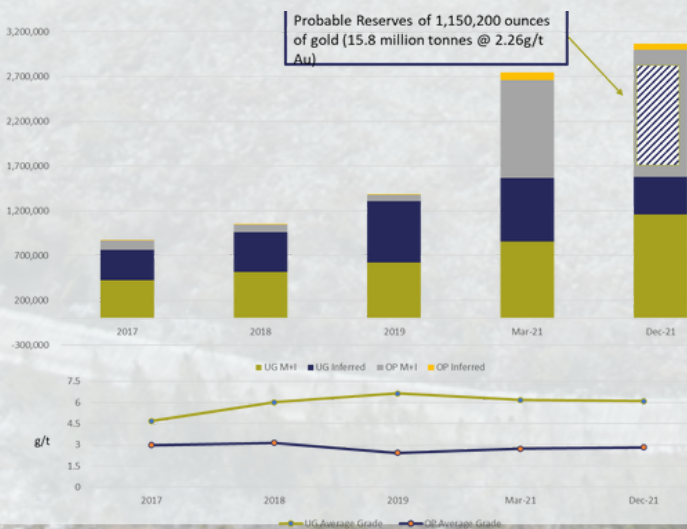
- 681 surface and underground drill holes
- A total of 121,540 m of diamond drilling, including 55,803 m by Signal

High quality Mineral Resource with Significant Growth Potential

- Constrained open pits were designed using only Measured and Indicated Resources
- Opportunity to target Inferred Resources adjacent to the constrained open pits
- Infill program from March 2022
- demonstrates significant opportunity to optimize the value of Goldboro, and 4,000 m program to the west of the Deposit recently completed



Significant Mineral Resource Growth since Acquisition



High Quality Mineral Resource with Significant Growth Potential

- Continuous Resource growth since 2017
- 2021 Mineral Resource demonstrates a significant increase to the surface mining potential
- Constrained open pits were designed using only Measured and Indicated Resources
- Opportunity to target Inferred Resources adjacent to the constrained open pits
- Infill program in early 2022 demonstrates significant opportunity to optimize the value of Goldboro, and
- 4,000 metre program to the west of the Deposit ongoing

Signal has begun a diamond drill exploration program to follow up on the IP survey with the aim of expanding the mineral resource to the west



Signal is committed to employee education, training, and mentoring. In addition to mandated training from regulatory bodies, Signal provides:

- specialty in-house training
- funding for employee education initiatives & professional certification
- formal and informal mentoring programs

We seek to hire people who have connections to the communities and provinces where we operate. We know from experience that this approach is better for creating mutually sustainable social and economic benefits.

Construction Phase

The construction phase of the project will take approximately 2 years, planned to commence in February 2024.

Opportunities include:

- Up to 538 full-time direct jobs, 325 jobs directly on site, 213 full time spin off jobs
- Trades positions required for construction include: Operating Engineers, Labourers, Ironworkers, Sheet Metal Workers & Roofers, Carpenters, Millwrights, Pipefitters, Electricians

Operations Phase

First gold to be poured in December 2025. Ramp up to full production of 4,000 tonnes per day will be 3-6 months with a total of 11 years of operation with the potential of a phase two to extend life of operation.

Opportunities include:

- Up to 175-200 full time positions with Signal
- On-site employee accommodations facility will generate further employment opportunities
- 517 spin off jobs

Signal is actively working with underrepresented groups such as the Mi'kmaq of Nova Scotia to identify potential work force barriers.

Signal is currently focused on promoting the upcoming trades opportunities for the construction phase. This includes preparing potential future employees for positions in partnership with Paq'tnekek First Nation (the closest Mi'kmaq community to the Project), KMK, LiUNA, and the Construction Council of Nova Scotia.

Employment opportunities for the Project will be posted on our website at:

signalgold.com/about/careers

For general employment considerations, email resumes and cover letters to:

careers@signalgold.com

Note that only those selected for an interview will be contacted.



Proposed Build & Operations Criteria
Proposed construction start date: Winter 2024

- Capacity:

300-400 employees for Construction

175-200 for operations
- Individual/Private bathroom for each guest room
- Accommodations facility will be drug and alcohol free
- Safety and security for community, residents, and employees is PRIORITY
- Ongoing conversations to ensure community concerns are incorporated into design considerations

