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FARO MINE REMEDIATION PROJECT

Quarterly Newsletter: October 2023

Phase 2 of the Permanent Water Treatment Plant Procurement Process Underway

The construction of a new Permanent Water Treatment Plant, one of the key elements of the remediation plan for the Faro Mine site, is being accelerated to treat more water and improve the quality of water leaving the site. Its construction is required to proceed in advance of finalizing the regulatory process. Jacobs (CH2M Hill Canada Ltd.) provided the tender package material, which included the design and specifications for high-density sludge plant, the filtration system, the operations building addition and the conveyance system on June 15, 2023.

The two-part procurement process for selecting a bidder for the construction, installation, testing, and commissioning of the Permanent Water Treatment Plant continues. Through the first phase of the process, the Request for Qualifications (RFQ), Parsons Inc., the project's Main Construction Manager, established a shortlist of qualified bidders. The proposal submission deadline for the second stage of the process, the Request for Proposal (RFP), has been extended until October 31, 2023. The successful company is expected to be announced in Fall 2023.

To better understand the future performance of the Permanent Water Treatment Plant, Jacobs (CH2M HILL Canada Ltd.) has been conducting pilot testing through the operation of a small scale high-density sludge and gravity filtration system. The pilot testing program attempts to put the water treatment process methodologies proposed into practice using water of varying qualities from the site to inform the final design of the system. The pilot plant was set up July 2023 and will continue to operate until the final phase of testing is complete in November 2023.

Left: ***The high-density sludge and thickener components of the pilot plant.***
Right: ***Sand filters in the filtration component of the pilot plant, the final step in the treatment process.***
Photos courtesy of Jacobs (CH2M HILL Canada Ltd.)

Another Successful Field Season for the Community-Based Revegetation Strategy

This year marked the third annual planting program part of the Community-Based Revegetation Strategy led by Ross River Dena Council's Dena Cho Environmental Limited Partnership and ecologists from Integral Ecology Group (IEG) Inc. The program kicked off in mid-June with a well-attended event at Blind Creek. Members of the community, including many Elders and Chief Loblaw, shared thoughts, memories, teachings and hopes for the future with the group in attendance.

With a renewed sense for the importance of their work, a group of ten youth worked to plant approximately 24,000 tree seedlings, an equal mix of trembling aspen (*choba*), lodgepole pine (*gadze*) and white spruce (*ts'u*), in addition to 1350 seedlings grown from seeds collected by community members in 2020, including a mix of mountain avens, blackberry/crowberry (*dzídzest'edze*), bear-root (*tsas*) and low-bush cranberry (*itl'et*). Planting locations included a historical borrow area along the mine access road, the fish overwintering ponds, and the purpose-built trial cover panels on the Northwest Waste Rock Dump.

Left: ***Seedling mix planted as part of 2023 program. Photo courtesy of Dena Cho Environmental.***
Right: ***Planters on the Northwest Waste Rock Dump Landform, Cover and Revegetation Pilot. Photo courtesy of CIRNAC.***

In August, the group of youth and Elders reconvened to participate in the second annual seed collection and toxicology sampling program part of the Community-Based Revegetation Strategy. The seeds that were collected from traditional harvest areas will be grown into seedlings for future planting at the Faro Mine site. Plant, soil and invertebrate samples were also collected from a number of locations around Ross River and at the Faro Mine site, which will be sent to a lab and analyzed for metals. The results will answer important questions that arose from last year's plant-metals uptake work and will support the Project's Human Health and Environmental Risk Assessment. Over the next months, Dena Cho Environmental will be reviewing and interpreting the results in partnership with IEG and plan to discuss the findings with the community in the coming year.

Highlights from Public Meetings on the Remediation Plan

The project team alongside key consultants supporting the development of the Faro Mine remediation plan visited Ross River on June 6, 2023, the Town of Faro on June 7, 2023, Whitehorse on August 22, 2023 and Pelly Crossing on August 23, 2023. Information was shared on plans for remediating the Faro Mine site, next steps in the regulatory process and to obtain feedback on community interests and concerns. During these meetings, Faro Mine Remediation Project Director, Geoff Karcher, delivered a presentation and answered questions about the project. Information stations with posters, maps and handouts, provided the opportunity for participants to further engage with the project experts on specific elements of the project.

Chief Loblaw shares opening remarks at the public meeting in Ross River. Photo courtesy of CIRNAC.

CIRNAC's FMRP Director, Geoff Karcher, addressing the audience at the public meeting in Faro. Photo courtesy of CIRNAC.

CIRNAC's Nicole Jacques discussing environmental considerations of the project with community member in Pelly Crossing. Photo courtesy of CIRNAC.

Public meeting participants engaging with the project team and consultants in Whitehorse. Photo courtesy of CIRNAC.

Public meetings are only one facet of the Faro Mine Remediation Project's engagement approach. The project's First Nation partners are actively involved in project planning through the Technical Review Committee, technical workshops, the Oversight Committee as well as ongoing bilateral discussions which create a forum for ongoing feedback and input on project plans.

The project team also met with Ross River Dena Council's Chief and council to discuss the project directly before the community meeting. A similar meeting was held with the Town of Faro's Mayor and council. Town of Faro councilors who had never visited the Faro Mine site toured the site the following day. Selkirk First Nation leadership and technical advisors visited the site with the CIRNAC project team on June 9, 2023 to better understand the potential impacts of the project on their traditional territory, downstream from the site along the Pelly River.

Selkirk First Nation Leadership and Technical Team during a Faro Mine site tour. Photo courtesy of CIRNAC.

Town of Faro councilors Taylor Fetterly and Sarah McHugh with Rob Yeomans from Parsons during a tour of the Faro Mine site. Photo courtesy of Parsons Inc.

ECO Canada Delivers BEAHR Training in Ross River

Working in collaboration with Ross River Dena Council, Dena Nezziddi Development Corporation and CIRNAC, ECO Canada developed a customized environmental monitoring training program focused on assisting students in obtaining employment in the environmental field. The 4 week program was delivered in April-May 2023 and included a variety of classroom sessions, field based experiential learning and guest speakers, including Ross River Dena Council traditional knowledge holders. The program also brought together different Faro Mine Remediation Project consultants to showcase different disciplines in the remediation field. The participation of Parsons Inc., Ensero Solutions Canada Inc., WSP Canada Inc., and Integral Ecology Group (IEG) Inc. in this training program was of great benefit. Congratulations to the 7 graduates, and as Kathlene Suza would say, “keep shining”!

BEAHR Training participants standing next to a helicopter as part of a module on revegetation and associated monitoring techniques. Photo courtesy of CIRNAC.

Improving Contaminated Water Collection Performance in the North Fork Rose Creek

Work completed over the Winter and in Spring 2023 improved the collection of water in the North Fork Rose Creek interim contaminated water collection systems (the Contact Water Interim Measure (CWIM), the Day 1, and the S-Wells). This work included:

- Installing higher capacity pumps to double the capacity of the CWIM;
- Having additional equipment available including backup pumps, repair kits and a dedicated generator;
- Installing new monitoring infrastructure and purchasing upgraded instrumentation to measure water levels and conductivity to be used in planning measures to avoid release events; and
- Installing additional pumps and piping to keep clean water away from contaminated water collection systems.

While these measures were largely successful, water flows exceeded the capacity of collection systems in this area for a period of 42 hours this Spring resulting in a release of contaminated water.

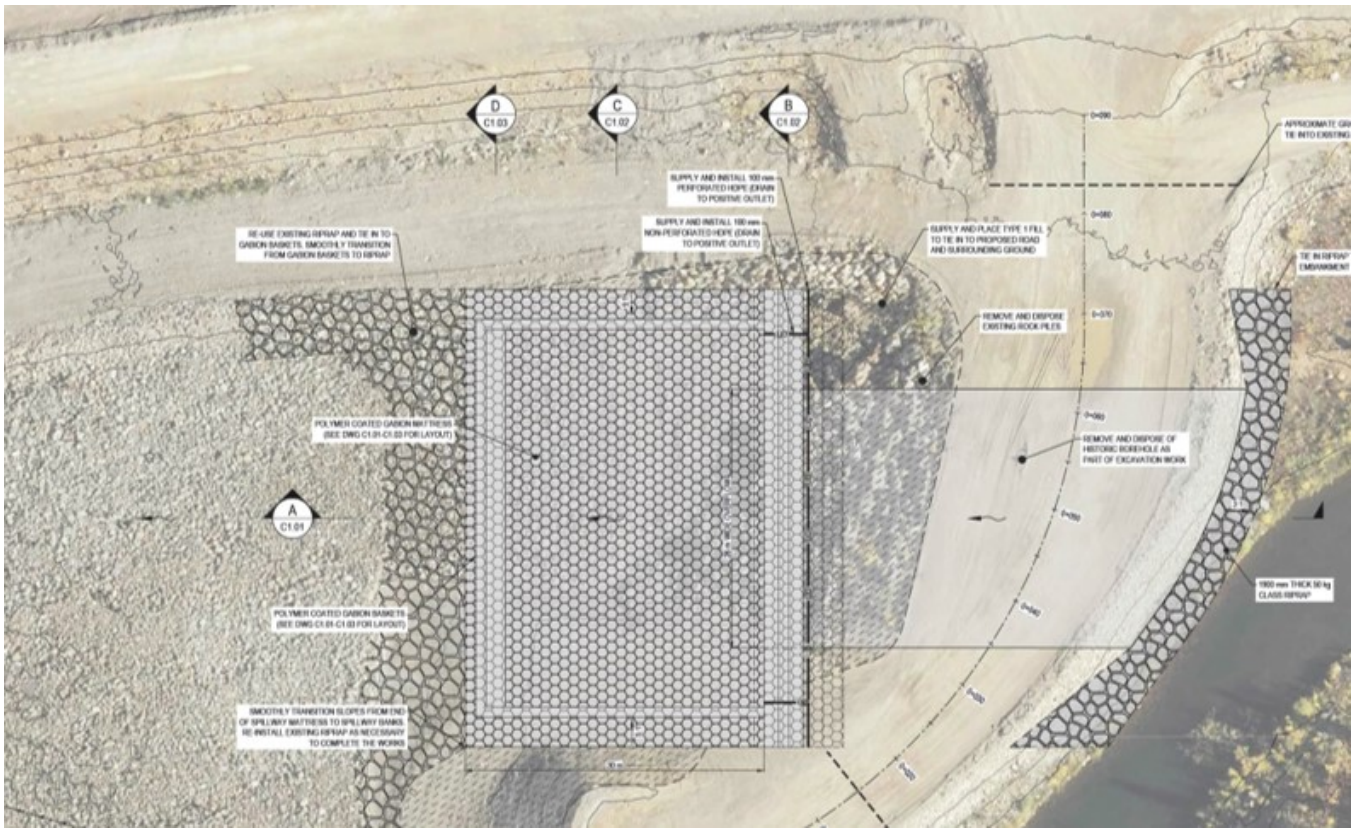
The Project team is actively working with Parsons Inc., the site operator, and AECOM Canada Ltd., the Remediation Plan Design and Support Services consultant to advance a new upgrade to the system before next spring's melt. This upgrade will include a new pumping system to move water around the former haul road in the winter months which will prevent water from building up and then releasing rapidly in the spring to the interim contaminated water collection systems. This upgrade will allow for lower flow rates over a longer period of time, which will allow our existing interim contaminated water collection systems to keep up.

As part of the active remediation phase of the Faro Mine Remediation Project a long-term robust collection system will be constructed at this location which will replace the existing collection systems in the original alignment of the North Fork Rose Creek.

Rose Creek Diversion Channel Overflow Weir Upgrades

A series of investigations by Tetra Tech Canada Inc. of the Remediation Plan Design and Support Services consulting team in September 2023 confirmed the stability issues in the Rose Creek Diversion Channel berm. Work is needed to allow greater flood protection in the area until the final Rose Creek Diversion Channel improvements are implemented in the active remediation phase of the project.

Jim Dent Construction was awarded the contract to complete the work which is scheduled to begin in October 2023. Upon completion, this work will allow flood waters that exceed the current capacity of the Rose Creek Diversion Channel to be redirected into the Intermediate Pond for storage, protecting the Cross Valley Pond and the Rose Creek Diversion Channel from erosion and increasing the overall stability of the tailings dams.



Rose Creek Diversion Chanel Overflow Weir design drawing. Courtesy of Tetra Tech Canada Inc.

Other Key Work Package Updates

X13 Pipeline Maintenance

To address the declining performance of the X13 pipeline, which conveys water from the X13 surface water interception system to the Cross Valley and Intermediate Ponds, pipeline cleaning work (pigging) was completed by Vertex Resource Group Ltd. They reported approximately 50 mm (2-inches) thick scale on the sides of the pipe. Pipeline performance has increased significantly since the work was completed in August 2023.

Inside the X13 pipeline during the cleaning work (pigging) in August 2023. Photo courtesy of Parsons Inc.

Hydroseeding of the Intermediate Dam

Following regrading work, the intermediate dam's downstream face was hydroseeded to stabilize and reduce surficial erosion. This work was completed by Adorna Landscaping with materials supplied by Brock White Canada in June 2023. Some areas were re-applied in September 2023 after significant rainfall caused some damage to the hydroseeded area.

Hydroseeding on the Intermediate Dam in August 2023. Photo courtesy of CIRNAC.

Early Works for the Permanent Water Treatment Plant

To prepare for the construction of the Permanent Water Treatment Plant, the following work designed by the Remediation Plan Design and Support Services consulting team lead by AECOM Canada Inc. has been completed:

Overhead Electrical Upgrades

The demolition and supply, installation, and commissioning of required power poles, and overhead conductors was completed between March and June 2023 by Midlite Powerline Construction.

Aggregate Production

The production of aggregate materials began in April 2023 by Cobalt Construction Inc. through excavation of granular borrow, screening and crushing operations. Once completed, about 200,000 m^3 of aggregate materials will have been produced from waste rock sources on site.

Early Civil Works

Work began in June 2023 by Jim Dent Construction to prepare for the construction of the Permanent Water Treatment Plant, including the relocation and demolition of existing infrastructure from within the footprint of the future building, the construction of new access roads and construction laydown areas, as well as excavation, digging and blasting to prepare for the foundation of the future building. The design was completed in collaboration with Jacobs (CH2M Hill Canada Ltd.).

Excavation to prepare the footprint of the Permanent Water Treatment Plant. Photo courtesy of Parsons Inc.

Progress on the Permanent Water Treatment Plant civil early works construction, August 2023. Photo courtesy of Parsons Inc.

Civil Works for the Office Complex Construction
The civil works required for the Main Construction Manager Office Complex were completed by Cobalt Construction Inc. in June 2023. The work included placement of a granular pad to accommodate modular office buildings, construction of parking areas, proper drainage structures and barriers at the future Office Complex location. In their role as the Main Construction Manager, Parsons Inc. has supplied and installed a modular office trailer complex complete with power, internet and water infrastructure to provide office space.

Water Supply Investigations
Water supply drilling investigations took place between April and June 2023 with the primary objective of sourcing a potable water supply for the future camp, a fresh water supply for the Permanent Water Treatment Plant and for the Interim Water Treatment System. Investigations were overseen by Tetra Tech Canada Inc. of the Remediation Plan Design and Support Services consulting team with drilling and testing from Midnight Sun Drilling Inc., and other support by Challenger Geomatics, Boreal Engineering Ltd., and Cobalt Construction Inc. Wells that will meet the required demand and water quality for the camp and the Permanent Water Treatment Plant were successful.

Camp Operation
The camp owned by Dena Nezziddi Development Corporation (DNDC), Ross River Dena Council's economic development corporation, reopened for use on July 1, 2023. It comprises three dorm buildings and one kitchen/ cafeteria/ recreation building that can currently provide accommodations for up to 76 people. The camp was relocated near the Grum office in Spring 2023 in order to clear the footprint for the construction of a Permanent Water Treatment Plant. The camp was set up by, and is operated by DNDC and Summit Camps.

Term 1 Camp Civil and Electrical Works
Construction on a larger capacity, longer-term camp has begun to accommodate workers needed as the volume of work increases on-site. The new camp will be located near the former freshwater reservoir dam, away from remediation and industrial operations and associated noise and dust. Work is ongoing by Pelly Construction Ltd. and is expected to be completed this Fall.

Progress on the preparation of the future camp area near the former freshwater reservoir dam. Photo courtesy of Parsons Inc.

Environmental and Socio-economic Assessment Process – Screening Phase Continues

The Faro Mine Remediation Project continues to progress through the Screening Phase of the Yukon environmental and socio-economic assessment process. The Yukon Environmental and Socio-economic Assessment Board (YESAB) is currently preparing their Draft Screening Report. YESAB extended their draft preparation period and have requested participants comment on draft documents they will use in their Screening Report by November 7, 2023.

To review and comment on the Faro Mine Remediation assessment documents, access the YESAB Online Registry. A Plain Language Summary of the Faro Mine Remediation Project Proposal is also available on the YESAB Online Registry by searching for document #2019-0149-0638.

The active remediation phase of the Faro Mine Remediation Project will be initiated once the assessment process is complete, the required permits, licenses and authorizations are obtained and potential pre-construction regulatory conditions are met. Until then, care and maintenance and urgent risk mitigation work are ongoing at the site to ensure it remains stable and secure.

Subcontracting Opportunities on the Horizon

Parsons Inc., the Main Construction Manager for the Faro Mine Remediation Project, is responsible for the management of construction activities and for care and maintenance repair and improvement projects at site. Interested contractors are encouraged to monitor MERX for procurement opportunities available at the Faro Mine Remediation Project. To explore how your company can get involved in the work, visit the new project website, hosted by Parsons Inc. Opportunities on the horizon include:

Term 1 Camp Overhead Electrical
Includes construction of overhead power line from Faro Mine Complex to new Main Construction Manager Term 1 Camp. Tender: Fall 2023 / Construction: Winter/Spring 2024

Brush Clearing
Involves clearing of brush around water diversions and dams across the site. Currently being tendered / Construction: Fall/ early Winter 2023

Installation Faro Creek Diversion liner system
Includes installation of liner system in the full length of the Faro Creek Diversion.
Tender: Winter 2023 / Construction: Summer/Fall 2024

Care and Maintenance Major Repairs and Improvements Projects
Upgrade and improvement projects related to site care and maintenance, including electrical, mechanical, civil, material supply and services. These tend to be smaller projects, but depending on contract value these also appear on the MERX system.

Spilled Tailings Remediation in Down Valley
Involves brush clearing and grubbing, excavation, relocation of spilled tailings in down valley area of the site in advance of the Permanent Water Treatment Plant outfall conveyance pipeline construction.
Tender: Winter/Spring 2024 / Construction: Spring/ Summer 2024

Aggregate Materials Production
Anticipatory production of aggregate and other select construction materials to support ongoing site activities. Tender: Winter/Spring 2024 / Construction: Summer 2024

Vangorda Flume and Creek Rehabilitation Construction
Civil works to improve and rehabilitate the Vangorda creek diversion to improve its stability
Tender: Winter/Spring 2024 / Construction: Summer 2024

Contact Us

For questions, comments or to unsubscribe, please email us

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