

PROJECT STATUS REPORT

To:	Village of Lytton	Contact:	CAO – Michael Baker
Project:	Lytton Recovery	From:	Recovery Project Manager – James Heigh
Report Period:	January 2023	Date Issued:	February 11, 2023

1. Project Dashboard

Current Project Phase:



Status	Overall Status	Scope	Budget	Schedule
Last Period	High Risk	High Risk	High Risk	High Risk
This Period	High Risk	High Risk	High Risk	High Risk

Project Status Executive Summary

Matcon

Actions this month include:

- Remobilization of all crews and equipment after the holiday break.
- Excavation of localized contamination on properties following initial soil testing completed (hotspot removal).
- Retaining wall removal and partial backfill of some lots along Main St.
- Contaminated soil removal and disposal on all available properties.

As of January 31st, all but 2 NIRs have been submitted. A decision to shovel-test the remediated properties for archaeological purposes will be decided sometime after the Province and First Nations Representatives review the report due by AEW on the current findings from the Project thus far. If the decision is to shovel test the 90 properties previously discussed by AEW as Archeologically sensitive, backfilling will take a maximum of 90 days (1 day per property to shovel test and then backfill). If a larger archaeological crew is established, shovel testing times can be reduced allowing for faster backfilling. Up to 3-4 properties per day.

IBI

Arcadis IBI Group has been concurrently completing the following activities in the VoL during the month of December:

- Issuing Notifications of Independent Remediation (NIR)
- Monitoring remedial contractor (Matcon Environmental) works
- Collection of samples of anthropogenic materials that have undergone combustion (debris samples) for laboratory analysis

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- Collection of soil samples for laboratory analysis

A brief description of works completed for each activity by IBI group is presented below:

Notification of Independent Remediation (NIR)

Currently, there are only two properties remaining that require NIR submission:

- 441 Old Trans-Canada Highway
- 141 Seventh Street

NIR's for these two properties will be submitted when it is confirmed that they can be remediated within the required 90 days.

Remedial Works Monitoring

In January, debris removal works have been substantially completed by Matcon on all properties.

Arcadis IBI Group has been monitoring debris removal works at these properties which include the following activities:

- Monitoring of the tackifier spraying and management of the asbestos-containing material (ACM) being completed by Matcon's subcontractor, Actes Environmental.
- Monitoring removal of ACM debris that is disposed of at the Campbell Hill Landfill located in Cache Creek, BC. All ACM debris is transported under a manifest signed by IBI Group field staff.
- Monitoring the segregation of metal from the waste debris for subsequent offsite recycling. Metal is transported to Lindsay Ventures located in Surrey, BC for recycling.
- Monitoring the segregation of other waste items from the debris fields such as vehicle batteries, computer boards, electronics, etc.

Remediation of contaminated soils by excavation and offsite disposal has been substantially completed on the following properties.

- Zone 1 – 14/14 properties
- Zone 2 – 15/17 properties
- Zone 3 – 13/15 properties
- Zone 4 – 18/18 properties
- Zone 5 – 15/18 properties
- Zone 6 – 15/16 properties
- Zone 7 – 16/22 properties

Excavated soils were classified as waste quality (IL+) and were disposed by Matcon at the Campbell Hill Landfill.

Matcon has stabilized hazardous waste soils and/or debris through the addition of Portland Cement. Arcadis IBI is in the process of collecting post-treatment samples following the implementation of Matcon's stabilization process to determine the efficacy of the stabilization

program. These samples are analyzed for leachable metals (based on TCLP analysis) to determine subsequent waste classification.

Stabilized soils and/or debris have been removed from all sites except at the following:

- 175 Old Trans Canada Highway
- 379 Main Street
- 441 Old Trans Canada Highway

Debris sample Collection and Analysis

The collection of burned debris samples is considered substantially complete. Approximately 300 samples of burned debris have been collected from properties within Zones 1 to 7 and submitted to CARO Analytical Services (Richmond, BC) for analysis of potential contaminants of concern (PCOCs) including metals, leachable metals (based on TCLP analysis) and asbestos.

Soil Sample Collection and Analysis (Confirmatory Samples)

Post-remedial confirmatory soil samples are being collected by IBI field staff from completed remedial excavations in general accordance with the BC Ministry of Environment Technical Guidance 1. Confirmatory soil samples are analyzed for contaminants of concern previously identified during the site investigation component.

Confirmatory soil samples have been collected from the following zones and submitted for analysis with the project laboratory:

- Zone 1 – 14/14 properties
- Zone 2 – 15/17 properties
- Zone 3 – 13/15 properties
- Zone 4 – 16/18 properties
- Zone 5 – 14/18 properties
- Zone 6 – 13/16 properties
- Zone 7 – 16/22 properties

Note: confirmatory samples can only be collected following removal of all burned debris, in-situ contaminated soils and ex-situ (stockpiled) contaminated soils.

AEW LP

Groundwork resumed on January 3. In the month of January, A.E.W. conducted 20 days of work that included:

- monitoring contractor debris removal,
- screening/raking material for potential heritage artifacts,
- testing material.

Winter weather continues to impair monitoring speed. The weather has been warmer than the December cold snap, however, piles do require thawing, which involves using heavy equipment to first

break down a pile into a windrow followed by covering it with an insulated tarp and blowing hot air. As a result, a pile may take up to 6 hours to thaw, reducing the amount of time in the day to screen.

Currently, 151 lots have been approved for monitoring of which A.E.W. is actively monitoring work or has monitored all lots that have been clear for remediation. A total of 92 lots have been found to have archaeological sites, thus far.

In addition to the groundwork, A.E.W is working on the interim report due at the end of February

AEW's Crew size in January was lower than December at 10.2 persons compared to 13.3.

Infrastructure

Well #2 VFD communication errors have been resolved, and the well now has communication with the Supervisory Control and Data Acquisition (SCADA) of the Water Treatment plant. This will ensure, the Water treatment will have a secondary source of water supply. With the well having been turned off for an extended amount of time, various options to chlorinate and disinfect the water lines are being explored. Well #2 water line disinfection works to be complete in February.

UV #2 Valve within the Water treatment has been jamming up due to debris damage within the valve. A new valve has been ordered. The valve will be replaced with a new valve to prevent the Actuator from over-torque alarms and seamless functionality. This will bring the UV system back to full functionality.

An instrumentation tech. from Exceed engineering visited the site to assess and provide feedback on various aspects of the Water Treatment Plant, including:

- damaged instrumentation,
- electrical equipment,
- communications assessment/reliability,
- Programming Logic
- Site intrusion alarm/monitoring system functionality
- VFD #2 Kiosk ventilation Assessment

A report from Exceed Engineering is expected in February with more information on the assessment done at the site. This report will then be used to contract out work for establishing full functionality to the WTP communications and operations systems. Once complete, the Boil Water Notice can be removed.

DFA continues to review the additional funding requests for the Lytton Creek debris pond, intake pond, and various water system-related works. No timeline on approval is available, however, an Engineer review is required by the DFA Engineering Team before approvals can be completed. This review will not delay the recovery works as funding from the Province will allow for repairs and recovery while DFA works to provide funding on their end.

Phases 1 and 2 of the leak detection programs have now been completed by Cloudburst Water. A major leak had been found in the Ponderosa area. Work is being completed to determine the scope required to repair this leak and a tender for system repairs will be posted publicly in February. Once a Proponent is selected, the repair works will begin in order to bring the water system to full operations with the supply of potable water throughout the Village.

The Wastewater Treatment Plant Aeration Basin valve actuators were replaced. With the new replacements, there were some errors with the valve communications. Exceed engineering was hired to visit the site and resolve the issues. The communication errors have been resolved, and the valve actuator is being monitored for proper function.

BC Hydro is almost complete with the installation of all poles and stringing all powerlines within BC Hydro's scope of work. With the expectation of having the poles energized in Early February.

Staff are working to complete the Master Service Agreement with the Geotechnical Consultant in order to bring them on board and begin geotechnical assessments through the Village.

Staff continue to identify additional grant opportunities for future works, and Reports to Council will be provided for the approval to proceed with applications when eligibility is verified.

Colliers is working on developing several RFPs including Sanitary line works, water systems upgrades, alternative energy studies, and several more to have required work lined up as remediation works is beginning their final stages and the Village gets ready for infrastructure works. The sanitary line works will be to camera, flush, and identify issues with the sanitary pipes. For the water system procurements, Colliers is working on a design RFP for water system upgrade designs for the approved pipe resizing and for the fire flows.

2. Key Risk Changes

Risk Title	Impact on Scope / Schedule / Budget	Mitigation Strategy
Archeological Delays	Schedule and Budget	Increase Arch Crews and Machinery if possible, add winter frost fighting equipment to continue to work in the winter months
Weather	Delay to schedule, increase in budget	If possible, bring in tents and ground heating equipment Pause work and wait out extreme bad weather
Shovel testing program	Schedule delay and / or cost increase	Review AEW recommendations and work closely with Regulator to move the program through priority properties. Focus on properties with Building Permit applications to reduce delays for residential rebuild.
Heritage Site identification	Increase in the budget. Increase in the number of monitoring days Increase in back-end reporting	Budget increase. Increase the number of monitoring days.

3. Budget Status

The remaining few properties that were still awaiting remediation that were available to remediate (i.e. no archeological, environmental or geotechnical reasons) have now been completed. Zone 1 & 2 hot spot removal has also been completed. Matcon working through hot spot removals in Zones 3 – 6 in late January or early February prior to site demobilization between Feb 10-17. Backfilling will be completed on all properties around Mid-May once remobilization occurs.

Change orders for Matcon and AEW were approved to extend their contracts and continue remedial works. With winter conditions slowing down work and requiring extra funding, an additional Change order will be needed for AEW.

Current Project Status	Cost	Comments
Baseline Budget	\$24,531,694	Planned Budget
Committed	\$23,480,817	
Approved Change Orders	\$21,275,814	Matcon, IBI, AEW CO's
Forecast Cost at Completion	\$27,660,176	Based on increased costs for Shovel Testing program and backfill of properties
Forecast Variance at Completion	-\$3,128,482	

4. Schedule Status

The schedule has been readjusted to add a demobilization of the Matcon equipment from Mid Feb through Mid-May at which time the backfilling should begin and be completed within a 6 – 8-week period if AEW is able to provide multiple crews for shovel testing.

We expect the work on site will materially slow until these properties are ready for final remediation. Matcon will begin demobilization of crews and equipment to support a reduced workforce. The work will resume once more favorable weather conditions exist for the final work in Zone 7 and the shovel testing program has been fully developed, approved and funded.

Row	Milestone	Planned Baseline	Current Plan	Actual/Forecast	Variance Current Plan – Actual/Forecast (weeks)
1	Procurement of Environmental QP	Mar 01, 2022	Mar 01, 2022	Mar 01, 2022	0
2	Procurement of Prime Contractor	Mar 01, 2022	Mar 01, 2022	Mar 01, 2022	0
3	Procurement of Archaeologist and Heritage Monitors	Apr 01, 2022	Apr 01, 2022	Apr 01, 2022	0
4	Construction mobilization	Mar 08, 2022	Mar 08, 2022	Mar 08, 2022	0
5	Completion of Work in Zone 1 and Hobo Hollow	May 19, 2022	March 30, 2023		6
6	Establish a safe corridor between Highway 12 and CN Rail bridge for public access	May 19, 2022	May 19, 2022	May 22, 2022	0.5
7	Completion of Work in Zone 2	June 6, 2022	March 30, 2023		0
8	Completion of Work in Zone 3	June 22, 2022	March 30, 2023		0
9	Procure Watershed Analysis Engineering Team	June 24, 2022	June 24, 2022	Feb, 2023	6
10	Completion of Work in Zone 4	July 8, 2022	March 30, 2023		0
11	UV System Repair and fully operational	July 8, 2022	July 8, 2022	July 11, 2022	0
12	Completion of Work in Zone 5	July 26, 2022	March 30, 2023		0
13	Completion of Work in Zone 6	August 11, 2022	March 30, 2023		0
14	Source Water Protection Plan Update	August 26, 2022	February 28, 2023		15
15	Completion of Work in Zone 7	August 29, 2022	May 30, 2023		0
16	Leak Detection Phase 1		September 16, 2022	Sept 16 th , 2022	0
17	Geotech Agreement signed	September 30, 2022	January 30, 2023		0

18	Leak Detection Phase 2		February, 2023	January 27, 2023	0
19	Substantial Performance	Sept 30, 2022	June 30, 2023		8
20	Water system online	April 1, 2023	May 1, 2023		

5. Project Photos



Photo 1 – Zone 1&2 hotspot removal complete



Photo 2 – Zone 1 & 2 hotspot removal complete



Photo 3 – Concrete Foundation removal and Disposal Lots #125-145 Main Street.



Photo 4 – Concrete Foundation Removed 261 Main Street



Photo 5 – Concrete Removal and Disposal 421-437
Main Street



Photo 6 – Concrete Retaining Wall Removed 787
Station Street.