

# Lytton First Nation and Village of Lytton Wildfire Remediation – Contractor’s Perspective



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# Lytton BC, June 30<sup>th</sup> 2021 – Day of the Fire.

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 CBC  
NEWS





# Lytton BC, June 30<sup>th</sup> 2021



- Fire started at Approximately 6pm on June 30<sup>th</sup>.
- 49.6 C - Hottest Temperature Ever Recorded in Canada at That Time after a 2 Week Long Heat Dome
- Hurricane Level Winds
- It Took 10-20 Minutes to Level the Entire Town



Lytton Post-Fire Aerial View- Looking South

# Lytton Post-Fire Aerial View- Looking North





CIVIL INFRASTRUCTURE ♦ DEEP FOUNDATIONS ♦ DEMOLITION ♦ ENVIRONMENTAL  
EXCAVATION & SHORING ♦ LANDFILLS ♦ ROCK STABILIZATION









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# Remediation Backstory- Early Timeline

- Village Secured- No Entry
- Early Environmental Sampling
  - Limited Sampling Program, Could Not Provide Enough Detail to Create a Remedial Plan (Insurance Companies)
- Federal and Provincially Funded Remediation
- Personal Items Sieved
- Consultant Chosen by LFN- Arcadis
- Project Tender by LFN
- Decision to Complete Sampling and Remediation in Conjunction



# Matcon Begins Remediation Jan 17<sup>th</sup>, 2022



- High Profile Project
- Many Stakeholders (Not All Included)
  - Lytton First Nation
  - Village of Lytton
  - Insurance Bureau BC
  - Interior Health
  - Red Cross
  - BC Hydro
  - Emergency Management BC
  - Ministry of Environmental
  - Kumsheen Heritage Counsel
  - BC Archeological Branch
  - First Nation Health
  - TNRD
  - Telus
  - Environmental Consultants
  - Matcon Environmental



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## Typical Site Activities

- Homeowner Walk through and Signoff
- Metal Recycling
- Asbestos Debris Abatement and Disposal
- UST and AST Removal
- Utilities Cut & Cap
- Contamination Soil Remediation (Waste & HW)
- Archeological Screening
- Concrete Recycling
- Backfilling



# Metal Recycling





# Metal Recycling



1,000 MT of Metal  
Recycled



160 Vehicle  
Recycled (Slightly  
Misleading)



Shipped to Lower  
Mainland For Recycling  
Via 80 Yard Bins



# Asbestos Debris Abatement and Removal

- ACM Debris Consisted of Ash and Other Burned Debris and Was Assumed by Environmental Consultant to be ACMs
- Lytton Extremely Windy Year Round
- Tackifier Coating Applied to All ACM Debris
- 100m<sup>3</sup> of Tackifier Applied to ACM Debris by Canadian Erosion and Containment





- 12,000MT of ACM was Abated and Moved Offsite in Double-lined Bins or Dump Trucks
- 300 MT Hazardous Waste Lead ACM Debris Abated and Disposed
  - Matcon Stabilized the HW ACM Debris Prior to Shipment Offsite



**Site Pre- Metal Removal and ACM Abatement**





## Site Post-ACM Abatement

# UST and AST Removal

- 30 AST Recycled to Propane Company or Metal Recycler
- 12 UST Removed and Contaminated Soil Excavated and Disposed of







# Utility Cutting and Capping

- 200 Properties Cut and Capped
- Sewer and Water Cut and Capped at Each Properties
- Village Left with GPS As-Builts on All Utilities at Curb

# Soil Remediation (HW and Waste Level Soils)

- 44,000MT of Waste Quality Soils Excavated and Disposed
- Typical Excavation a 2 Meter by 0.5 Meter Halo Around Burned Building



# Hazardous Waste Soil Stabilization



- 1,300 MT Hazardous Waste Soil Excavated, Stabilized and Disposed of
- Stabilization Via Portland Cement



Contaminated Soil Loading and Trucking

# Archeological Screening

- Confluence of Fraser and Thompson Rivers
- 10,000 + Years of First Nation Inhabitation
- Assisted Archeologists with Power Screening of Approximately 25,000 MT of Contaminated Soil
- Mid- Screen Soils Hand Screened by up to 30 Archeological Technicians at Any Given Time



# Concrete Recycling – 11,000 MT of Concrete Removed, Processed and Recycled





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100,000 MT of  
Backfilled Placed  
and Compacted

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6,000 MT of Lawn  
and Garden Topsoil  
Provided for  
Homeowner Use

## Backfilling



## Sad Reality





# Remediation Complete 2023?

Nearly 2 years after  
project kick-off  
backfilling complete

Could the project  
have gone quicker?

Many processes and  
roadblocks along  
the way (another  
presentation  
completely)

# First Nation Collaboration



Entire Project Completed as a Teaming Partner With the Lytton First Nation

LFN Revenue Share for the Entire Project Budget  
15,000 Hours of LFN Labour  
4,000 Hours LFN Equipment  
80,000MT of LFN Backfilled



Additional First Nation Trucking and Equipment Supplied by

Bridge River Band  
Bonaparte First Nation  
Skeetchestn Indian Band



# Any Questions?