SEDIMENT REMEDIATION & SHORELINE REHABILITATION

Environmental Services Association of Alberta (ESAA)
Remediation Technologies Symposium
## Envirocon Overview

### AT A GLANCE
- **Founded:** 1988
- **Projects Completed:** 2,800+

### Markets:
- Canada & United States
- Largest Project Size: $75,000,000
- Bonding Capacity: $100,000,000

### A Washington Company:
- [www.washcorp.com](http://www.washcorp.com)

### Services

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<th>Environmental Remediation</th>
<th>Decontamination, Decommissioning &amp; Demolition</th>
<th>Dredging &amp; Sediment Remediation</th>
<th>Geotechnical Construction</th>
<th>Nuclear Services</th>
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<tr>
<td>Soil excavation and hazardous materials handling</td>
<td>Total/partial facility decommissioning and decontamination</td>
<td>Water bypass and diversion systems</td>
<td>Slurry wall seepage barriers</td>
<td>Radiological remediation</td>
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<tr>
<td>Contaminated soil and sludge treatment</td>
<td>Facility dismantling, and demolition</td>
<td>Sediment removal, dewatering, and treatment</td>
<td>Permeable reactive barriers</td>
<td>Hazardous and radiological waste management</td>
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<td>Repository construction, capping, and containment</td>
<td>In plant select demolition</td>
<td>In-situ stabilization</td>
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<td>Contaminated soil excavation</td>
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<td>Radiological impacted soil remediation</td>
<td>Structure and foundation removal</td>
<td>Hydraulic and mechanical dredging</td>
<td>Soil mixing foundation systems and containment walls</td>
<td>Repository construction, operation, and capping</td>
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<td>Mine reclamation</td>
<td>Above-ground &amp; below-ground tank and piping removal</td>
<td>Contaminated sediment transportation and disposal</td>
<td>Jet grouting and other grouting techniques</td>
<td>Hazardous and chemical constituent abatement</td>
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<td>Soil and groundwater remediation systems</td>
<td>Asset recovery and salvage material management</td>
<td>Wetlands and stream restoration</td>
<td>Sheetpile containment and excavation support walls</td>
<td>Radiological facility, structure, concrete, and steel demolition</td>
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<td></td>
<td>Waste stream characterization &amp; disposal</td>
<td>Subaqueous cap construction</td>
<td>Innovative combined systems</td>
<td>Subgrade utility removal and relocation</td>
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Envirocon Overview

- Over 25 years of experience
- Member of privately held Washington group of companies
- Mature corporate infrastructure
- Significant long-term invested assets in Canada and the United States
- Excellent and stable financial position
- Experience with private and public sector clients
SAFETY

- Public Safety
  - Project-Public Interface
  - Public Perception

- Worker Safety
  - Established BBS system
Two Major Components:

- Shoreline
  - Infrastructure
  - Tasks/Constraints

- In Water Work
  - Infrastructure
  - Tasks/Constraints
Manufacturing sited on an industrial waterway
Shoreline Work
CONSTRAINTS

- Work ‘in the dry’
  - Mean Tide Range = 11 feet
  - Cover Exposed Soil

- Water Treatment
  - Treat water for discharge into local sanitary sewer
MECHANICAL PRECISION DREDGING

- Enclosed-Double Arc Bucket
- Best Management Practices
- Accurate Bucket Placement
- Water Treatment
Young Hydraulic Clamshell
MECHANICAL PRECISION DREDGING

- BMPs (partial list)
  - Dredge up stream to down stream
  - Dredge from up slope down gradient
  - Dredge layers to daylight-no ‘glory holes’
  - Dredge side slopes (steps)
  - No multiple grabs on debris
  - Backfill as soon as practicable
Multibeam Survey, AUs, Bucket Cells

1" = 30'

140214 Vs. DOC
- Collect Free Water from Mud Barge
- Treat Water $< 5$ NTU above background
- Return to River
Hydraulic Driven Submersible Pump/Crane/Floating Pipeline
Thank You – Questions?

Visit us at our booth in the exhibit hall!

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