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# Fast Track Remediation: Change Management at an Urban Brownfield Property, BC

## Westminster Pier Park: A Case Study

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Government  
of Canada

**FCM** | Federation of  
Canadian Municipalities



  
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# Agenda



**Setting & Scope**

**Project Overview/PM  
Challenges**  
(scope; schedule; cost; quality)

**PM Planning for Success**

**Challenges/Solutions**

**Lessons Learned &  
Outcome**

**Q & A**



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# Setting & Scope

## City of New Westminster

- Oldest city in western Canada; former BC capital
- Current population 62,000 = restricted tax base
- Limited land base – 7 sq. miles
- Central to Vancouver for commuters

### SUMMARY:

Busy community; limited funds; legacy brownfield site;  
City vision







# Setting & Scope





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# Setting & Scope



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# Setting & Scope



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# Setting & Scope







# Project Overview/Challenges

AERIAL PERSPECTIVE OVER LYTTON SQUARE  
AND FESTIVAL LAWN

Accepted Plan







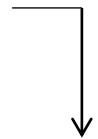
# Project Overview/Challenges



Brownfield  
Property



Site  
Redevelopment

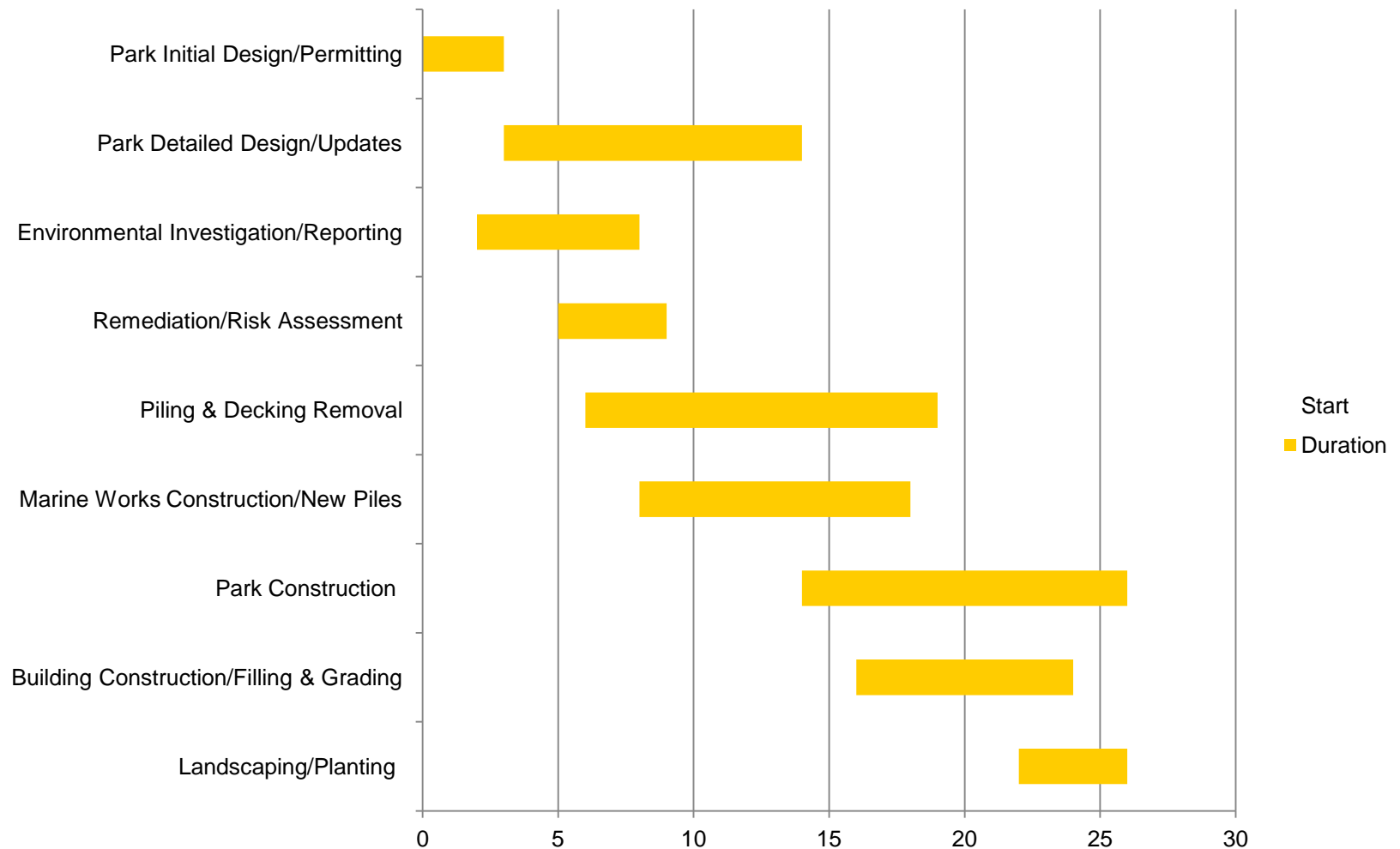


Final Park





# Project Overview/Challenges







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# Toxic soil fouls plan for riverfront park

City and environment ministry look for ways to clean up contaminants 10-15 metres deep at Pier Park site

BY THERESA MCMANUS

A small portion of the Westminister Pier Park site is home to a toxic blob of unknown origin.

A Nov. 8 report to New Westminster council states that remediation of contaminated soils at the park has been completed, but recent groundwater testing in the area around Fourth Street has identified a higher concentration of contaminants than was previously known. The contaminant, called tetrachloroethylene, is a common dry-cleaning chemical, which has been found at depths of 10 to 15 metres.

According to the report, the highest concentrations are located a short distance north of the park boundary, within the railway corridor.

"The contamination we found in the area around Fourth Street is a high risk," said Jim Lowrie, the city's director of engineering services. "It's a high-chlorinated solvent."

Lowrie said there are a few options available to address the contaminants because they are so far underground. He said they could be excavated, but that may not be the best option. "We can contain it and pump and treat it," he said. "If it's not mobile, we can leave it."

"The concern is the potential to migrate toward the river," Lowrie said. "The highest concentration is just off-site in the railway corridor. We are doing additional testing."

The Ministry of Environment has prioritized this site "because it's close to the river with political sensitivities around it," said Doug Walton, the manager of the ministry's risk assessment and remediation department. But, he added, tetrachloroethylene is "nothing unusual for us."

Lowrie said the toxic "blob" is about 750 square metres, which is about five per cent of the park property.

A previous laundry facility in the area has been ruled out as the source of the contaminants, but the source has yet to be identified.

"As part of the remediation process, a human health and ecological risk assessment study will be undertaken to assess the degree of exposure to humans and environment in order that appropriate mitigation measures may be implemented," said the report to council.

"Additional groundwater sampling is currently underway to determine if the contaminants are mobile, and to identify the potential source of the contamination."



JENNIFER SCHNEIDER/PRG FILES

The City of New Westminster is planning a waterfront park for a 3.2-hectare site along Front Street the city purchased last year.

New Westminster resident Christopher Bell has raised concerns about contamination since the city purchased the 3.2-hectare riverfront site last year. Last week, he met with representatives of the Ministry of Environment and the city for two hours to discuss the park site. "We are not even finished the testing," he said. "They haven't figured out the nature of the problem."

Bell said the area is now considered a high-risk area, rather than a low-risk area, as had been previously thought.

"We bought this real mess for

\$8 million without knowing the true toxic nature of this blob," he said.

Bell said a 2005 report done by an environmental consultant noted the presence of off-site contaminants.

Monday's staff report indicated that \$400,200 had been spent on soil remediation at the site as of Sept. 30.

Lowrie said the method used to treat the contaminated area will dictate the cost of remediation.

New Westminster Record  
With a file by Kim Pemberton

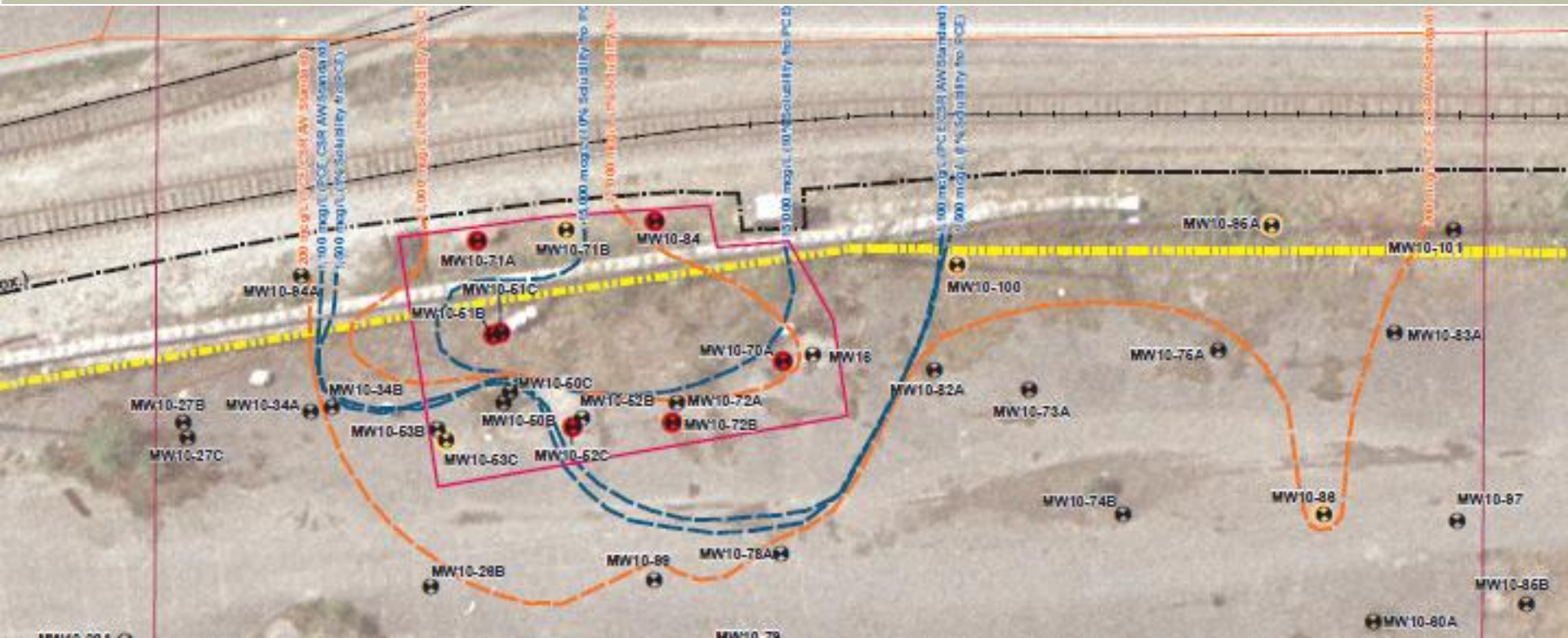
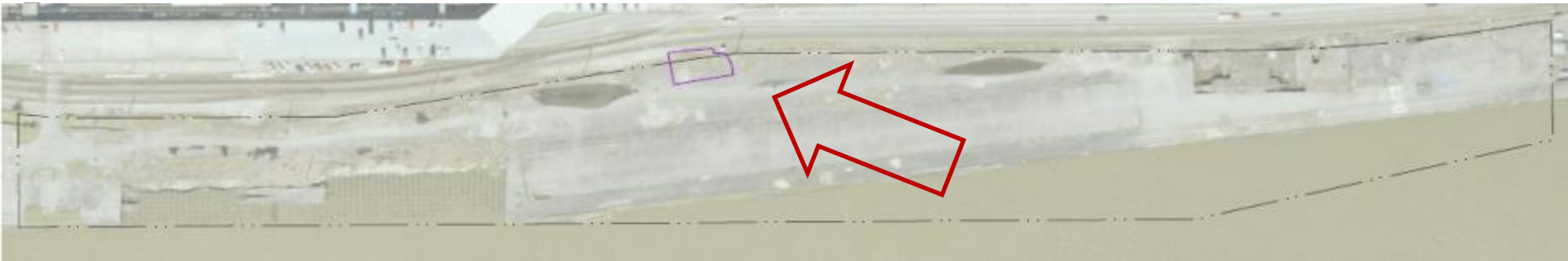


WACOMER SUN





# Project Overview/Challenges







# PM Planning for Success

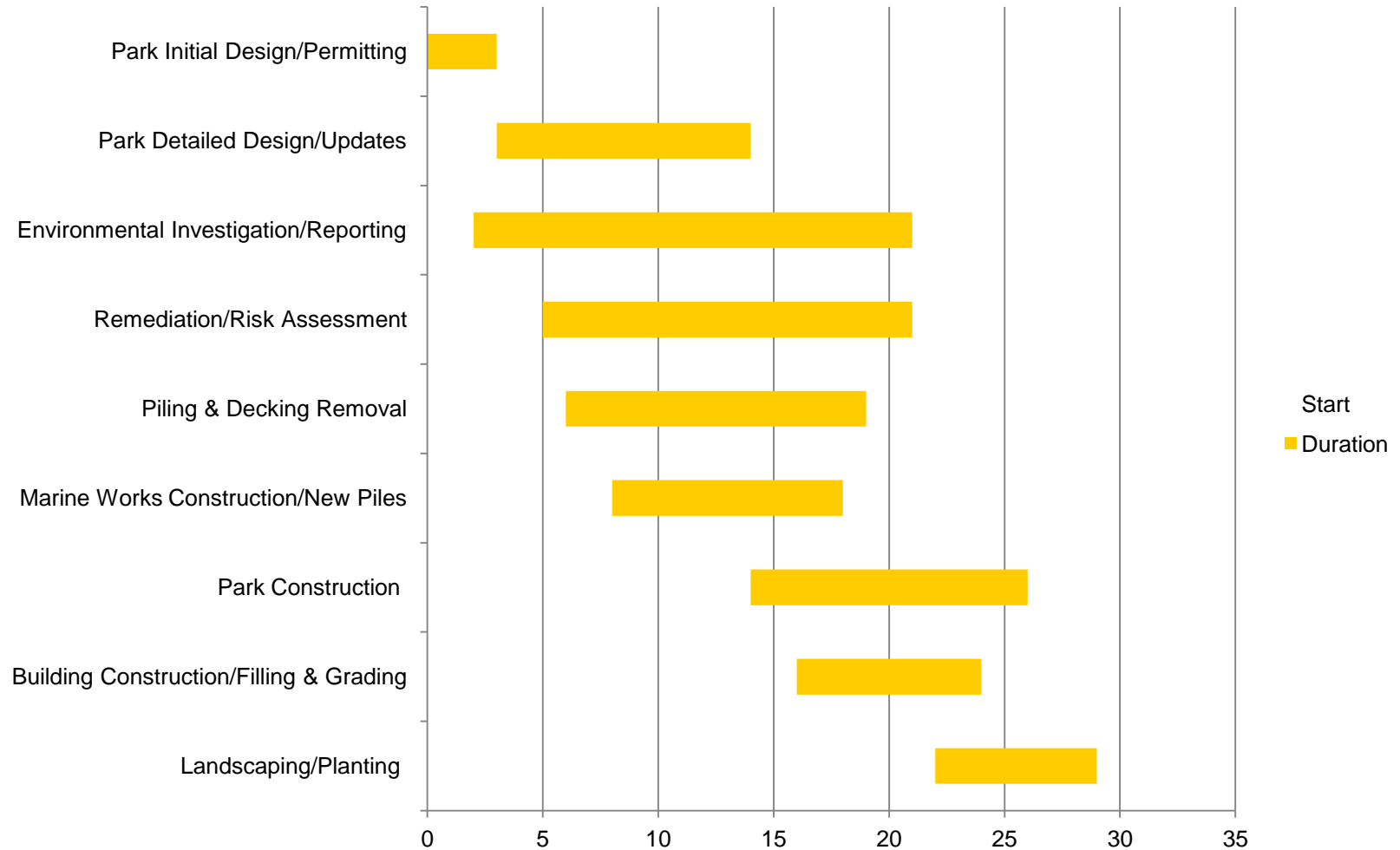


Think different.





# PM Planning for Success







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# PM Planning for Success



**New Execution Plan,  
Cost & Schedule**

**Streamlined  
Permitting**

**Expert Roundtables**

**Simpler Procurement**

**Risk Assessment**

**Manage Risk:  
Real-Time Updates/ &  
Workarounds**

**Safety - One Way™**



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# PM Planning for Success

- ▶ Revised Execution Plan (WBS)
- ▶ Cost & Schedule Management  
forecasting + options + client updates
- ▶ Streamlined Permitting
  - FREMP; DFO, MoE; MetroVan  
Min of Health



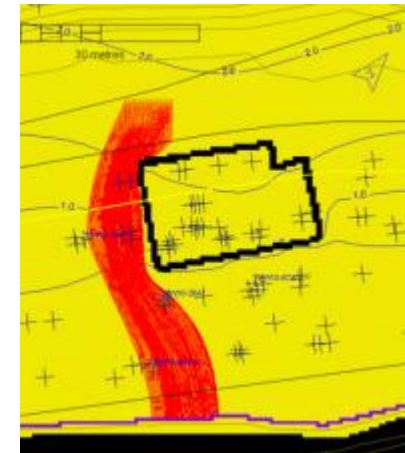
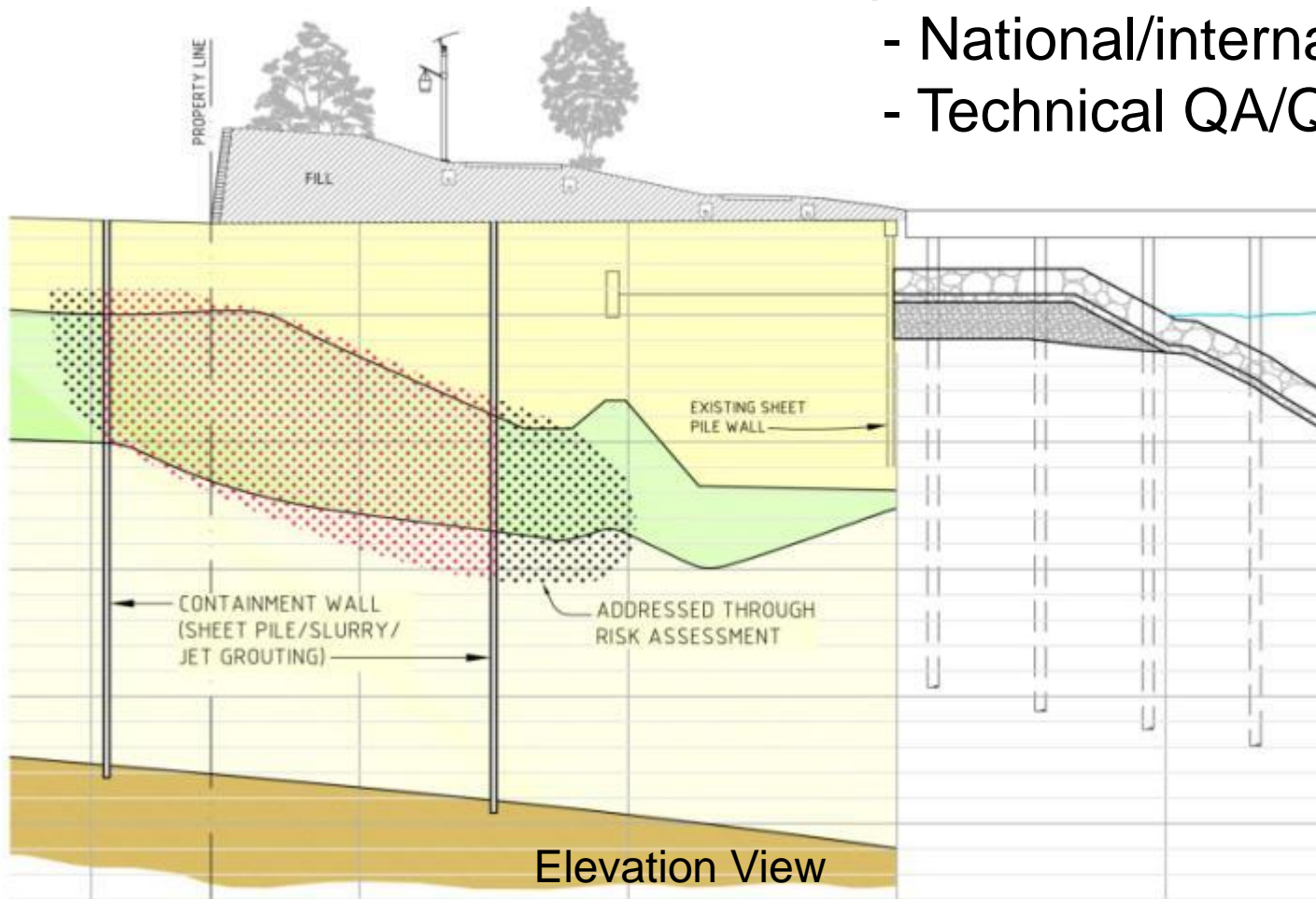




# Site Challenges/Solutions

Expert Roundtable for Remediation

- National/international input
- Technical QA/QC



Plan View  
GW Modeling





# Site Challenges/Solutions

- **Simpler Procurement**

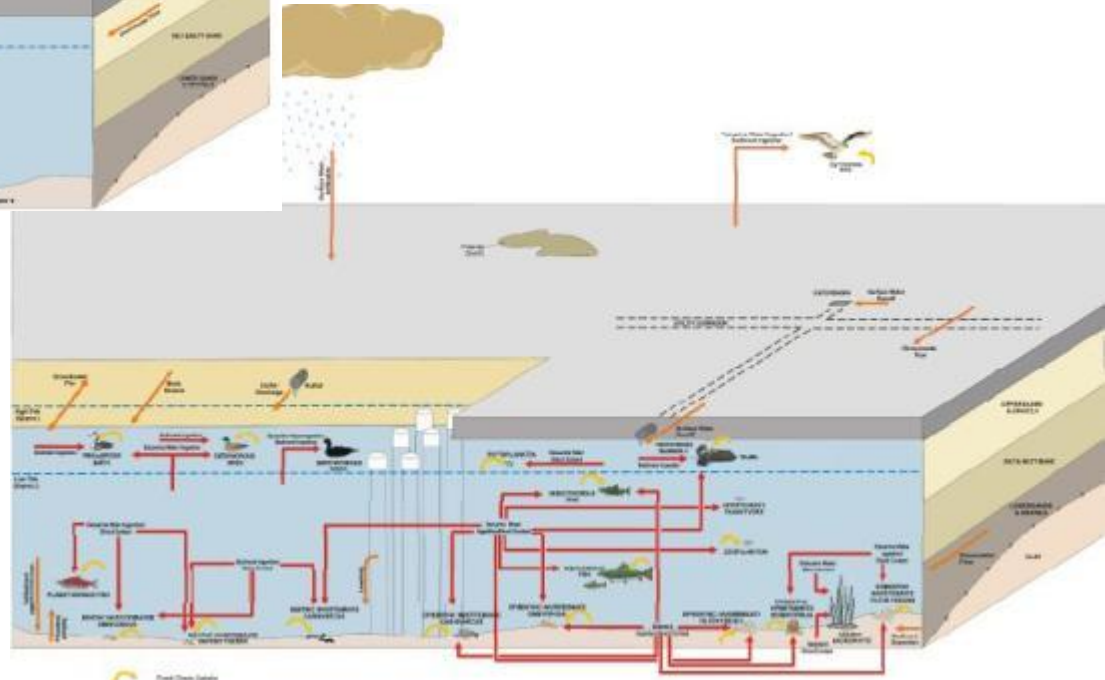
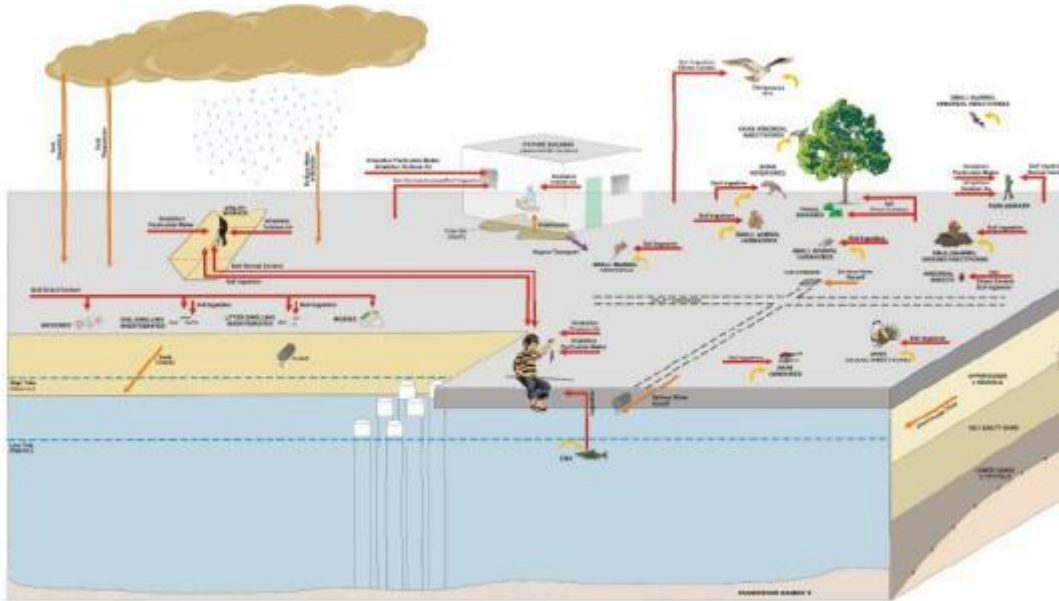




## Site Challenges/Solutions

## ► Risk Assessment

- Aquatic, Human Health
- WOE, TRVs, Toxicity Tests
- Site-based standards





# Site Challenges/Solutions

## Project Risk

Risk Registry & frequent review

Contingency QA/QC







# Site Challenges/Solutions

**Safety – One Way™**  
**No incidents**







# Benefits/Lessons Learned

## Integrated Civil/Marine and Environmental Services







# Benefits & Lessons Learned

## **BENEFITS of PM “Change Management” :**

- Fast Track scheduling - met overall client goals
- Flexibility/contingency built within WBS (planning)
- Continual re-engineering – Valuable
- Permitting advantages/streamlining
- Innovative remediation solutions
- Risk assessment integration

## **LESSONS:**

- Continuous confirmation of objectives – valuable
- Fast tracking on a small site - riskier but viable
- Integrated teams – essential
- Be wary of ground conditions!
- Risk Registry to manage/review change and risk





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# Questions?



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# THANK YOU

*1) 2011 CUI “Brownie” award – Sustainable Remediation & Technological Innovation (Category 2)*

*2) 2012 Environmental Award - Canadian Association of Municipal Administrators (CAMA)*

*3) 2012 Sustainable Communities Award for Brownfields – Federation of Canadian Municipalities*

*4) 2012 Environmental Award – APEGBC (short-listed Oct 26/2012)*

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