



Engineering Services Environmental Services

Regional Board Meeting

Date March 26, 2018



Westside Landfill Closure Works

Project and Budget Update

Westside Landfill Closure Works

▶ Purpose

- To provide the Board with a brief overview of the landfill closure project schedule and construction.
- To provide the Board with an update on the budget for the Westside Landfill Closure and Post-Closure.

Background

- ▶ The Westside landfill was in operation from the late 60's until 2010. Total waste disposed =782,398tonnes or 1.1 M m³
- ▶ When fully operation; the landfill would accept more than 30,000tonnes of waste annually.
- ▶ Waste diversion and onsite recycling would divert 20 to 30% from the landfill.
- ▶ Serviced 100 to 500 users per day

Background.....

- ▶ Westside Residential Waste Disposal and Recycling Centre opened in 2010
- ▶ Prematurely closing of the landfill in 2010 with several years of capacity remaining.
 - Results:
 - Final site grading was not completed.
 - Final closure and capping was required.
 - Contributions to Closure/Post-Closure Reserve was cut short by several years.

Moving Forward

- ▶ RDCO submission of Landfill Closure and Post-Closure Plans to MoE – May/2015
- ▶ Ministry of Environment approves of the Plans – September/2017.
- ▶ Tender Closed - March/2018
 - Construction Begins - Mid April/2018
 - Construction Ends – June/2018

Long Term Financial Commitment

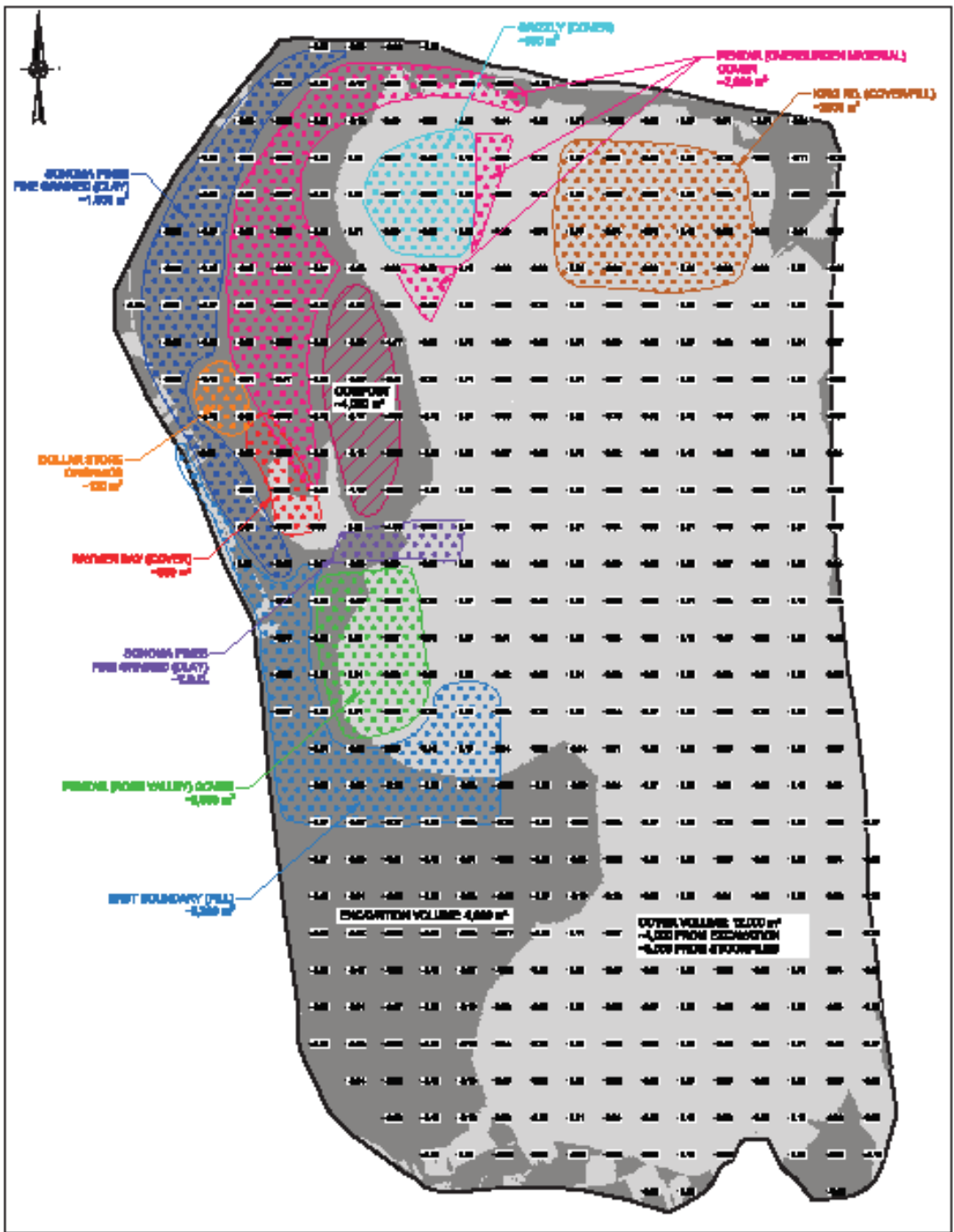
- ▶ Landfill classified as a “Contaminated Site”
- ▶ Long-term Environmental Monitoring Program
 - Next 25-30 years
 - Landfill gas monitoring
 - Groundwater and surface water monitoring
 - Leachate monitoring and treatment
 - Site grading and surface runoff control
 - Site maintenance

Long Term.....

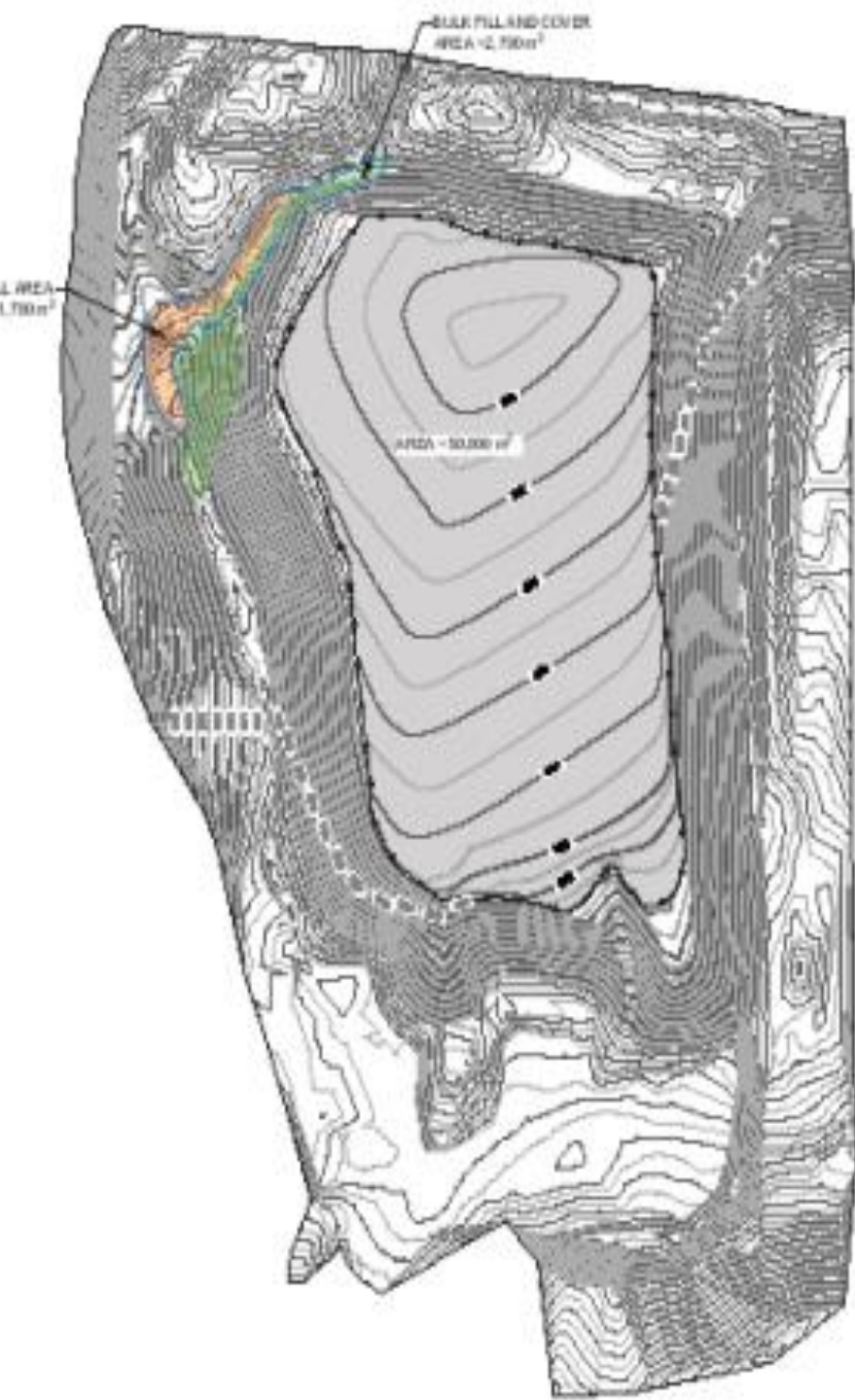
- ▶ Estimated annual Post-Closure costs range from \$15,000 to \$25,000 - per year
 - Highly dependent upon the performance of the Landfill Closure System.
- ▶ \$375,000 to \$625,000 Reserve needed.
- ▶ Closure Tender Estimate \$269,450 (+ \$80,550 contingency)
- ▶ Reserve balance 2017 - \$663,327
 - May not be sufficient for 30 year commitment.

Long Term.....

- ▶ **2018: Review of Post-Closure Reserve to ensure adequacy.**
- ▶ **2018–2023: Review monitoring program and look for opportunities to streamline testing and reduce costs.**



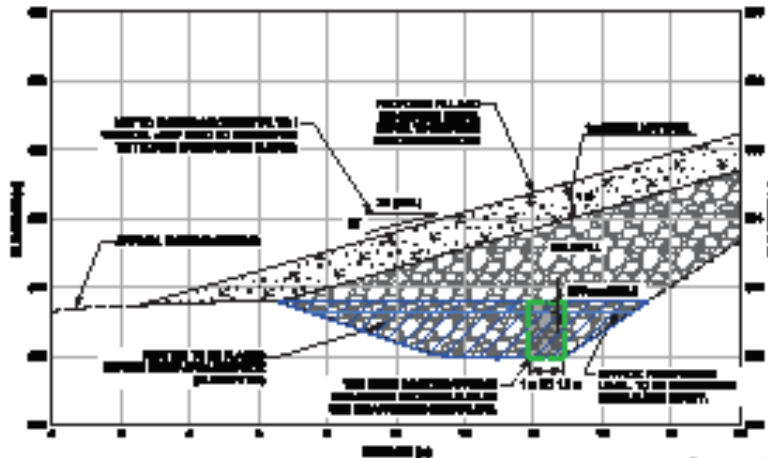
Westside Landfill Today



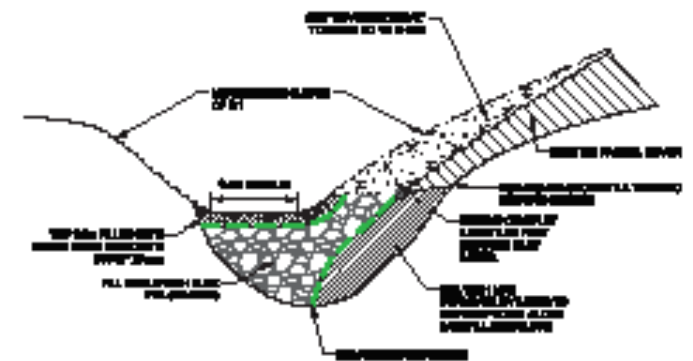
Westside Landfill Final Grading



WESTSIDE LANDFILL, NORTHERN OKANAGAN
1:20000



SECTION A TYPICAL TOP DRAIN SECTION



TYPICAL SECTION FOR SW



- NOTES**
1. ALL CONSTRUCTION SHALL FOLLOW ROAD STANDARDS AND SPECIFICATIONS.
 2. BEARING TESTS, IF PRESENT, ARE NOT SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL PLACE A GROUNDING LOG TO DETERMINE THE BEARING CAPACITY OF THE SOILS AT THE SITE.
 3. SOILS SHALL BE ANALYZED TO DETERMINE THE PRESENT AND FUTURE USE OF THE SITE AND TO DETERMINE THE BEARING CAPACITY OF THE SOILS.
 4. THE DRAINAGE CHANNEL SHALL BE CONSTRUCTED TO A MINIMUM OF 1.5 METERS DEPTH TO ALLOW FOR THE PROPER DRAINAGE OF THE SITE.
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 8. THE DRAINAGE CHANNEL SHALL BE CONSTRUCTED TO A MINIMUM OF 1.5 METERS DEPTH TO ALLOW FOR THE PROPER DRAINAGE OF THE SITE.

- LEGEND**
- ADDITIONAL TEST POINT LOCATION AREA
 - ORIGINAL BOUNDARY TOPOGRAHY COORDINATES (INTERNAL + 0.000)
 - PROPOSED BOUNDARY TOPOGRAHY COORDINATES (INTERNAL + 0.000)
 - NON-VOLCANIC BEDROCK

- PROPOSED LEGEND**
- EXISTING COVER SURFACE
 - PROPOSED COVER SURFACE

REFERENCE
 1. 2015 CANADIAN ROAD SURVEYING PRACTICE MANUAL (C.R.S.M.)

CLIENT
 REGIONAL DISTRICT OF CENTRAL OKANAGAN (RDCCO)

CONTRACT
 T15-229



PROJECT
 T15-229 GRADING WORKS FOR WESTSIDE LANDFILL, WEST KELOWNA, B.C.

TITLE
 NORTHWEST DRAINAGE CHANNEL AND SLOPE RE-GRADING DRAINAGE WORKS

PROJECT NO.	PHASE	SHEET	TOTAL SHEETS
1408505	8005	2	4

Westside Landfill Drainage



Long Term Future of Reclaimed Landfill Site?

- ▶ Closed Landfill is classified as a Contaminated Site which restricts the use.
 - Continued use as the Transfer Station.
 - Passive Recreation
 - Walking
 - Hiking
 - Dog walking
 - Greenspace
- ▶ No long term plans in place.



Questions