

# 2016 WILDFIRE

## Disaster Waste Management - RMWB

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# Background – Leading up to the Fire

Saturday April 30<sup>th</sup>

- Fire spotted in woods over 200 km north west of landfill.
- Second fire near new subdivision in north end of Fort McMurray.

Sunday May 1<sup>st</sup> (around noon)

- Landfill closed, staff evacuated and equipment removed from site.

Monday May 2<sup>nd</sup>

- Landfill remained closed.
- Curbside Municipal Collection continued.
- Began to request permission to dispose of waste at alternate Landfill.

May 3<sup>rd</sup> (or as I call it “The Day”)

Morning:

- Landfill remained closed.
- Curbside services continued. (Paper recycling week.)
- Arrangements were made and Approval granted to dispose of waste at the CNRL Horizons Landfill.  
Roughly 70 km North of Fort McMurray (1 hour drive)



May 3<sup>rd</sup>

Noon

- Convoy of 6 garbage trucks, (6 drivers and 3 helpers), foreman and supervisor headed for CNRL Landfill.

Between Noon and 6 pm,  
the complete city of Fort McMurray  
was evacuated.  
Estimated around 90,000 residents.



# May 4<sup>th</sup> - May 10<sup>th</sup>

## Assessing and Repairing damage:

- Fire swept through the Fort McMurray Regional Landfill
- No permanent structures were damaged (except two Quonsets).
- Staff returned on the 6<sup>th</sup> of May and diligently worked to extinguish the fire in the cell.
- Landfill was inspected for integrity and compliance.
- Inspection results found; Leachate collection system sustained some damage, melted piping and burned pump. No damage to the liner. Bear fence will need some work. Landfill opened up for commercial use on the 10<sup>th</sup> of May.
- Calculated space available in the Active Landfill was 1.2 million cubic metres.
- Estimated waste to be received 800,000 metres cubed.

**NOTE: Importance of Staff Training, Installing Fire Breaks in the Landfill and Applying Daily Cover.**

Things could have been a lot worse!!!

## May 10<sup>th</sup> – June 1<sup>st</sup>

- Assessment of damage to other areas of the Landfill completed.
- Compost pad was hit hard. Destroying roughly 18,000 m<sup>3</sup> of compost (mostly in the curing stage). 8,000 m<sup>3</sup> of finished compost remained untouched.
- Destroyed all wood in the stockpile, chipped and whole. (Roughly 46,000 m<sup>3</sup>)
- Mattress mountains were completely destroyed.
- Compost pad was tested for integrity, results were no damage sustained.
- All surface water and groundwater wells were tested. Again not negative effects were observed.
- Remaining compost was tested for quality, still remained Category A compost.







May 10<sup>th</sup> – June 1<sup>st</sup>

- The Material Recovery Facility was untouched.
- Two Quonsets were damaged by the fire.
- Remaining stockpile of Hazardous Waste stored on site was destroyed. Aerosol cans were found scattered everywhere. And paint storage totes were a blob of melted plastic.
- 10 of the 40 yard roll off bins were destroyed.
- The LFG Bioreactor sustained quite a bit of damage. Assessed at roughly 8 million dollars worth.



## Preparation for Residents Return

### Logistically:

- Landfill opened on May 10<sup>th</sup> for commercial companies to empty bins.
- Compost Pad opened on May 16<sup>th</sup> for wood waste and biosolid compost.
- Staff pulled curbside bins from residential properties to the curb, (where the bins could be accessed). Before residents returned all curbside bins were emptied.
- 7 recycling depots had all bins emptied and beefed up with extra bins (to accept waste) and security to ensure no hazardous waste was being received.
- Procured Bagster from High river.
- Set up contracts with metal crushing company, concrete crushing company, hazardous waste management and extra equipment rentals.





## Preparation for Residents Return

### Structurally:

- Installed a 2<sup>nd</sup> inbound and outbound scale at the public drop off area for residential traffic only.
- Built an entry lane for residential only to access the PDO.
- Rented a 3<sup>rd</sup> scale and had it set up off sight to accept demolition debris only.
- Built a second exit lane onto the highway for demolition traffic.
- Built a second exit lane/scale bypass lane for Municipal vehicles registered with tare weights.



## Preparation for Residents Return

### Regulatory:

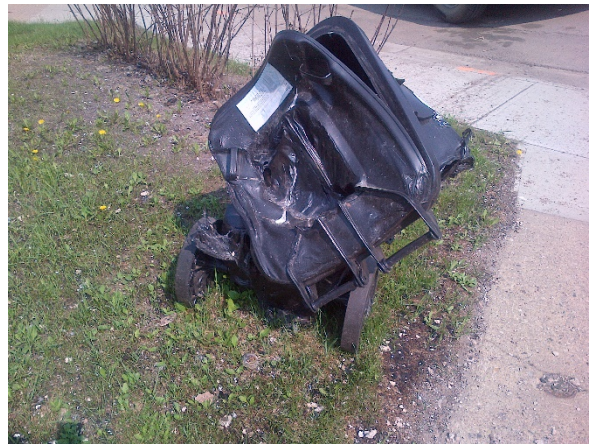
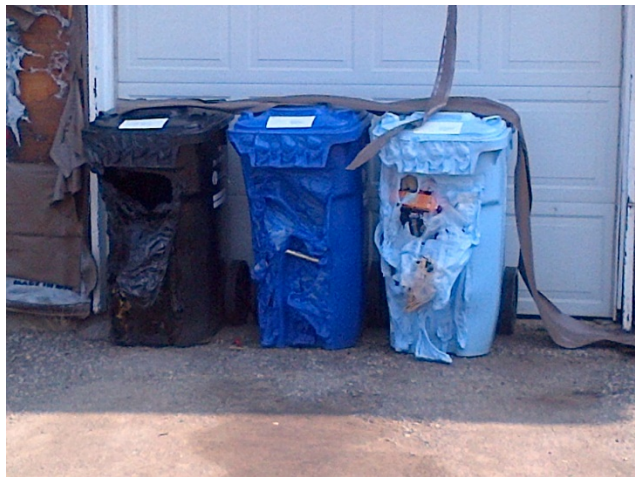
- Sampled ash for contaminants.
- Receive waiver from AEP to accept the ash and debris from the residential properties. Ash exceeded allowable levels of Zinc.
- Receive waiver from AEP to accept wet material (ash was required to be wetted down prior to disposal, so was the insulation to prevent wind blown particulates).
- Discussion on what to do with Asbestos.
- Approval to change operating hours.
- Engineered studies to determine the space available in the landfill.
- Update our operating plan.



## Welcome Home

Re-entry for all communities (except for the 3 hardest hit communities) took place between June 1<sup>st</sup> and June 4<sup>th</sup> a month after evacuation.

- Collected all 3 curbside bins as garbage bins every 4 days for two weeks.
- Gave out Bagsters for residents who required extra waste pick-up.
- Work with Insurance Bureau of Canada to have fridges and freezers collected, degassed, emptied (in some cases) and recycled.
- Free tipping for residential waste at the landfill (until October 31<sup>st</sup>)
- Extended hours from 8 am to 8 pm for residential traffic and 24/7 for commercial/demolition traffic.
- Return curbside service to normal operations as soon as we could (within 2 weeks).



# Challenges

## Within Solid Waste Branch:

- Special Wastes (ammunition, explosives)
- Contaminated soil from around damaged properties
- Propane tanks
- Mattresses
- Asbestos
- Mulch from FireSmart program.
- Contractors (sprouting from everywhere).
- Red tape within and between levels of government.
- Post Traumatic Stress Syndrome (many of our staff lost their homes).
- Financial strain.

## Statistics (effective September 24<sup>th</sup>):

- 15,000 fridges and freezers
- 35,000 MT of soils
- 90,000 MT of concrete
- 2,000 MT of scrap metal
- 20,500 MT of ash/debris
- Total of 147,500 MT of waste

(Because of asbestos and other contaminants a lot of waste was disposed of at other landfills. Fort McMurray has 2 additional scrap metal companies that were accepting scrap metal.)

- 250 properties remain to be cleaned
- Total properties destroyed 2,400

THANK YOU EVERYONE!  
Especially the RMWB Solid Waste Staff!!

# QUESTION?

HAZ-Waste Blaster

