

SWANA Northern Lights The Next Generation

Landfill Loss Prevention Avoiding Financial Shrinkage

Loss Prevention

Shrinkage

External & Internal Theft

Errors

Landfill Controls

Scales: All customers and operations in and out of the site are measured.

Security: Restrict access to site.

Surveys: Measuring the volume change of the waste over time.

Software & Records: Point of Sale systems to track all scale transactions.

Procedures: Operational practices to ensure that nothing gets past the other controls.

Audits: Periodic reviews of records and practices.

Landfill Controls

All of these controls are in place to protect your asset:

Airspace

Saskatoon's Controls

Scales: Inbound and Outbound Scales, 1 Automated Scale for city vehicles.

Security: Fenced Site, monitored scale bypass lanes, single choke-point into site.

Surveys: Annual Surveys

Software & Records: Geoware

Procedures: Scale Procedures, Cash Handling Procedures, Clean Fill Acceptance Procedures

Audits: Revenue Audits (frequent for every city division that handles cash/tills).

Saskatoon's Landfill



Saskatoon's Landfill



What Happened?

Scheme 1: Manipulating Scale Weights

Scheme 2: Using the incorrect tipping fee

Scheme 1

Hauler: local waste hauler

Staff: Multiple active & former staff, had secondary employment with the waste hauler.

Length: ???

Scheme 1

15:16: 15:16: KBAL	KBAL	10	COM	24,490 R	16,370S	8,120	\$0.001395.	\$795.09
15:17: 15:29: KBAL	RBAL	10	COM	6,820 R	5,830R	990	\$0.001399.	\$118.95
15:19: 15:25: KBAL	RBAL	10	RES	3,730 R	3,640R	90	\$0.001396.	\$15.00
15:23: 15:44: KBAL	RBAL	39	RES	2,680 R	2,675M	5	\$0.001377.	\$0.00
15:28: 15:38: KBAL	RBAL	23	RES	2,430 R	2,180R	250	\$0.001398.	\$41.25
15:29: 15:35: KBAL	RBAL	10	RES	2,790 R	2,730R	60	\$0.001396.	\$15.00

Scheme 1

Estimated Loss: Unknown

Outcomes:

- Implementation of Geoware's notification system.
- Reviewing of daily transactions by supervisors.

Extracted Benefit: Unknown

Scheme 1

Future Ideas:

- A feature to have notifications every time a transaction is completed using manual weights.
- A custom report to highlight only manual weights

Scheme 2

Hauler: local waste hauler

Shift: Multiple staff, all on the same schedule

Length: 3+ years

Scheme 2

Primary Cause:

- No Internal Soil Handling
- We charge \$0 for soil

Waste Loads were being entered as soil

Scheme 2

How was it discovered?

Scheme 2

Clean Fill Deliveries – 2015 – Detailed Report

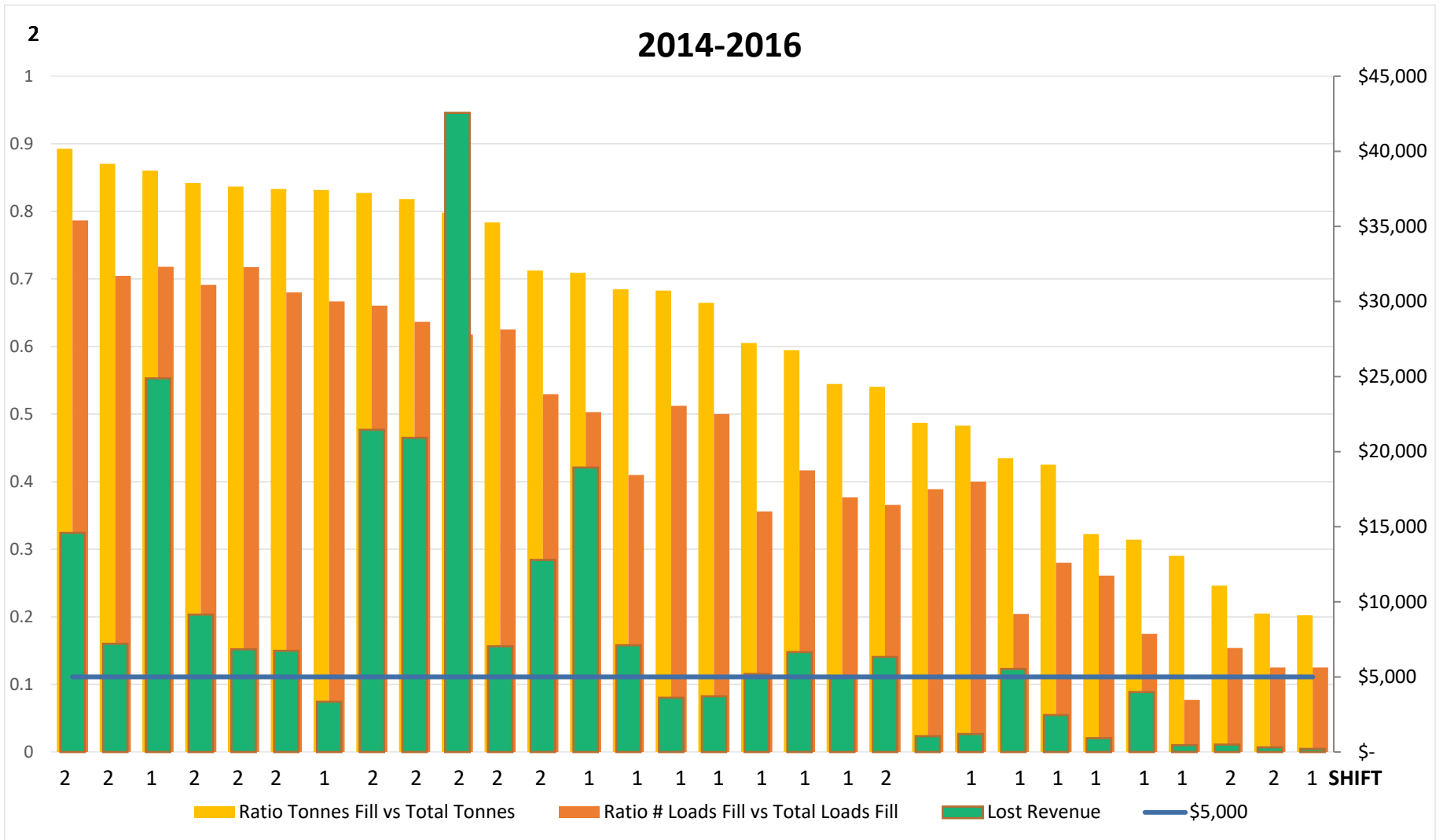
December 17, 2015 Commercial	Company C	7.92
December 17, 2015 Commercial	Company A	1.14
December 17, 2015 Residential	Cash Residential	11.17
December 18, 2015 Commercial	Company A	1.9
December 18, 2015 Commercial	Company A	1.64
December 18, 2015 Commercial	Company A	1.18
December 18, 2015 Residential	Cash Residential	0.56
December 18, 2015 Residential	Cash Residential	0.27
December 18, 2015 Residential	Cash Residential	0.78
December 24, 2015 Commercial	Company A	1.59
December 24, 2015 Commercial	Company A	1.6
December 24, 2015 Residential	Cash Residential	0.53
December 24, 2015 Residential	Cash Residential	1.58
December 30, 2015 Commercial	Company A	1.26
December 31, 2015 Commercial	Company A	1.64
December 31, 2015 Residential	Cash Residential	0.47
December 31, 2015 Residential	Cash Residential	1.11
December 31, 2015 Residential	Cash Residential	0.14

Scheme 2

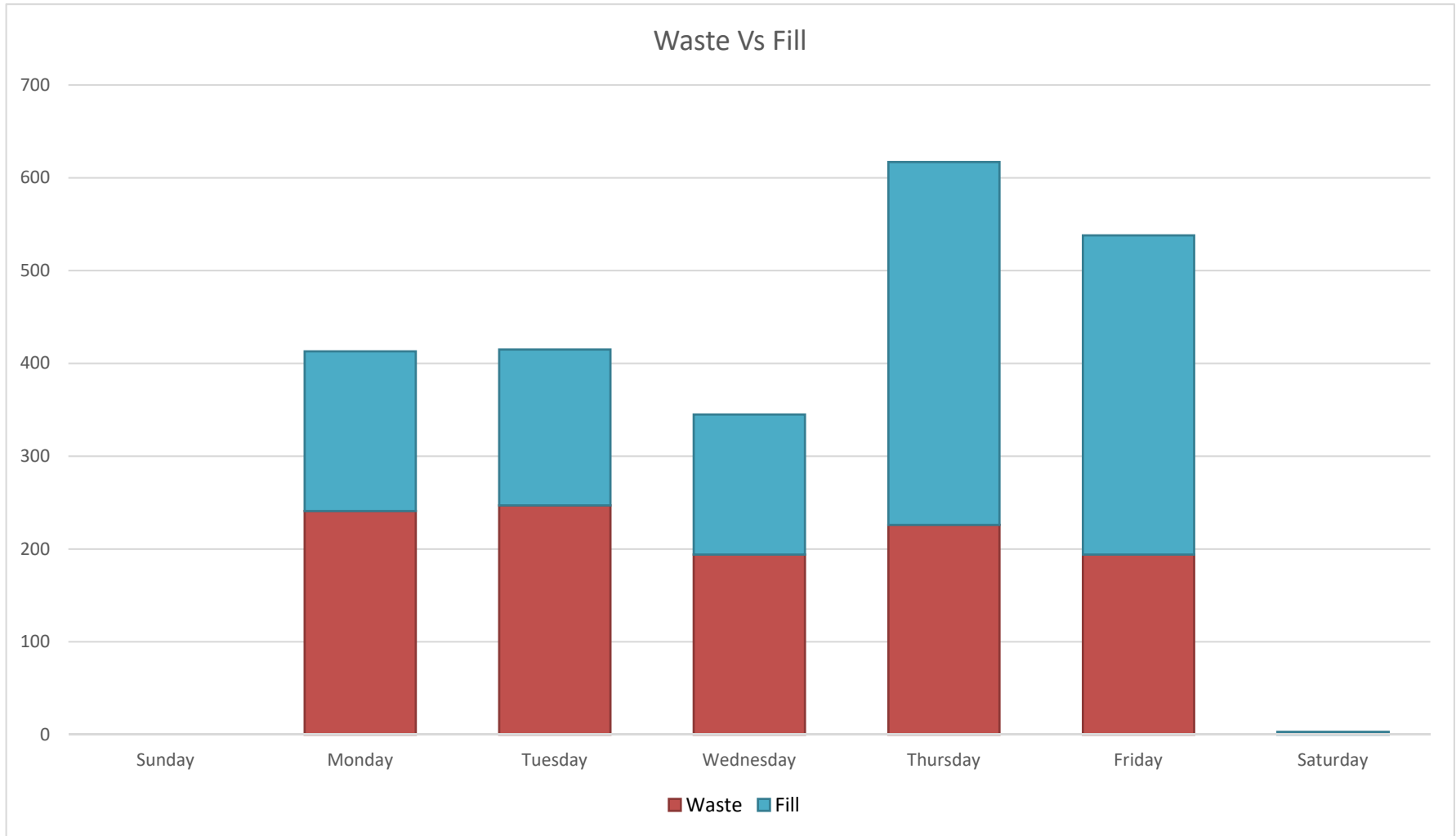
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Scheme 2



Scheme 2



Scheme 2

How to confirm it:

- Photo and video surveillance of the landfill for a period of time to compare to the scale information entered.
- Review of all radio communications on site for when clean fill was declared. The sites radio system is part of the City's trunk radio system and all communications are recorded. Procedure was for **every** clean fill load to be relayed to spotter for confirmation.

Scheme 2

Estimated Loss: <\$250,000 over 3 years.

Outcomes:

- New procedures and inspections required for every clean fill load to ensure it actually is clean fill.
- Frequent reconciliation to ensure there are no clean fill loads in Geoware that weren't reported over the radio.
- Staffing changes
- Load Inspection Camera Angle tied into security system.

Future: Load inspection photo integration into Geoware (new scale planned for 2020, scale to be built with these camera angles in mind)

Summary

- **Trust But Verify**
- **Airspace = Shelfspace**
- **Use technology to your advantage**

Scheme 2

Live Long and Prosper 🖐️