



Leachate Management Course – Creative Sentencing Funding FINAL REPORT – December 2021

Introduction

The Solid Waste Association of North America (SWANA) Northern Lights Chapter (NLC) signed a recipient agreement with the Province of Alberta to use funds from a landfill sentencing to deliver education on landfill leachate for Alberta landfill operators. The SWANA NLC Leachate Management Course was provided virtually to landfill operators in 2020 and 2021.

Project overview

The NLC Leachate Management course provides an overview of leachate management from production to collection and storage to treatment. Participants in this course also examine the complex combination of physical, chemical, and microbial processes that create leachate; overview of government leachate requirements; discuss filling and operations techniques to minimize leachate outbreak occurrence and how to repair them when they do occur. Onsite leachate management and treatment and offsite leachate disposal options are also discussed.

Summary Report:

Section 4.4 (a) Status Summary

SWANA NLC's 2020 course schedule had to be changed after the start of the COVID-19 pandemic, and courses that normally would have been held in-person were moved to a live online classroom format via Zoom instead.

The wording on our website related to the offering of the Leachate Management Course stated:

“Funding will be provided to cover the course registration cost for a limited number of registrants. To qualify, you must be an Alberta-based landfill operator. Funds will be distributed on a first-come, first-serve basis. These funds were provided through a creative sentencing resulting from the prosecution of a landfill offense.”

We have held online classes on the following dates:

Leachate Management Course Date	# of registered participants on stipend	Attended	No-show
September 24, 2020	11	10	1
November 25, 2020	13	13	0
December 16, 2020	16	10	6
April 19, 2021	15	15	0
November 19 & 24, 2021 (course held over two half days)	7	5	2
Total	62		



Section 4.4 (b) – “List of person and organization ...”

The following participants were registered at \$0 under the stipend (no-shows marked in red):

September 24, 2020 training:

Name	Company	Community	Province
All names redacted	Tervita	Rocky Mountain House	AB
	7 Lakes Oilfield Services	Ashmont	AB
	The Crowsnest/Pincher Creek Landfill Assc	Coleman	AB
	The Crowsnest/Pincher Creek Landfill Association	Blairmore	AB
	Town of Redcliff	Redcliff	AB
	Suncor Energy	Fort McMurray	AB
		Fort McMurray	AB
	Town of Redcliff	Redcliff	AB
	City of Lloydminster	Lloydminster	AB
	Acden Environment	Fort McMurray	AB
	Acden Environment	Fort McMurray	AB

November 25, 2020 training:

Name	Company	Community	Province
	City of Wetaskiwin	Wetaskiwin	AB
	City of Edmonton	Edmonton	AB
	Drumheller & District Solid Waste Management Association	Drumheller	AB
	Foothills Regional Services Commission	High River	AB
	Acden Environment Ltd	Fort McMurray	AB
	Whissell Contracting Ltd.	Calgary	AB



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Name	Company	Community	Province
	Tervita Corporation	Grande Prairie	AB
	City of Wetaskiwin	Wetaskiwin	AB
	Drumheller & District Solid Waste Management Association	Drumheller	AB
	Fort McKay Group of Companies	Fort McMurray	AB
	Parkland County	Fairview	AB
	Peace Regional Waste Management Company	Peace River	AB
	Tervita Corporation	Calgary	AB

December 16, 2020 training:

Name	Company	Community	Province
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	MD of Opportunity No. 17	Wabasca	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Acden Environment	Edmonton	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	MD of Opportunity No. 17	Red Earth	AB
	City of Camrose	Beaumont	AB
	MD of Opportunity No. 17	Wabasca	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Mackenzie Regional Waste Management Commission	Fort Vermillion	AB
	Whissell Contracting Ltd.	Calgary	AB



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Name	Company	Community	Province
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Rocky Mountain Regional Solid Waste Authority	Rocky Mountain House	AB

April 19, 2021 training:

Name	Company	Community	Province
	Alberta Pacific Forest Ind.	Boyle	AB
	City of Lethbridge	Lethbridge	AB
	Tervita	Grande Prairie	AB
	Municipal District of Lesser Slave River #124	Slave Lake	AB
	Pure Environmental LP	Fort Kent	AB
	Rosieridge Waste Management Services Commission	Sturgeon County	AB
	City of Calgary	Calgary	AB
	Sunset Recycle & Sales Ltd.	Fort McMurray	AB
	Whissell Waste Solutions	Calgary	AB
	County of Grande Prairie	Clairmont	AB
	Municipal District of Greenview	Valleyview	AB
	Whissell Waste Solutions	Calgary	AB
	St. Michael Regional Solid Waste Commission	Bruderheim	AB
	Whissell Waste Solutions	Calgary	AB
	Town of Hinton	Hinton	AB



November 19 & 24, 2021 training:

Name	Company	Community	Province
	Mackenzie Regional Waste Management Commission	High Level	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB
	Clearwater County	Rocky Mountain House	AB
	Regional Municipality of Wood Buffalo	Fort McMurray	AB

Those listed have not been charged for the Leachate Course and have been informed that the cost is being covered through the Creative Sentencing agreement.

Section 4.4 (c) – Expenses Summary

Costs incurred for the program included setting up courses, advertising, taking course registrations, communicating with students, faculty and government staff, (canceling and changing courses due to Covid), instructor honorariums and review time. Funding has been applied to provide complimentary registrations (\$250/person, excl. GST) to the above-listed people. At \$250/person, a total of 60 students would use the provided funding. A total of 62 students were registered for training and received the NLC Leachate Management course manual and applicable regulations.

Section 4.4 (d) – Summary of revenue earned

SWANA NLC received two payments for this project:

- March 2020, Town of Whitecourt for \$7,500
- September 2019, Woodlands County for \$7,500.

These funds resided in the SWANA operating account (as we had courses planned for early-2020 that were deferred due to COVID-19). There has been no interest earned on these funds.

Section 4.4 (e) – Remaining funds

There are no remaining funds.



Section 4.4 (f) – Summary of delay

COVID-19 has changed SWANA NLC's business and has changed how our clients (waste and recycling managers, operators and staff from municipalities and private companies) do business and receive training. SWANA NLC has successfully moved much of our training online and has since offered live-classroom online training of the Leachate Management course.

Additional Comments

Alberta Environment and Parks (AEP) staff attended the Leachate courses and presented on regulations and a case study regarding a leachate outbreak that resulted in corrective action. The presenters were well received and the overview of regulations was a useful part of the curriculum. The case study was a great opportunity to enforce the seriousness of both the implications of not following regulations and provided great insight into the advantages of working with regulators. NLC would like to incorporate the AEP presentation into future offerings of the Leachate Operations Course.

Conclusion

The Creative Sentencing Funds enabled 60 Alberta landfill operators to attend a course on Leachate Management and learn about what leachate is, how it impacts the environment, health and safety issues related to leachate, regulations and what can happen if issues are not addressed. They also had the opportunity to hear from regulators and ask questions which has opened the door for future discussions and emphasized the benefits of working with regulators on leachate issues. This work and knowledge will have a positive impact on landfills in Alberta.