

Ziigwan 2012



Fond du Lac Environmental Program

“A Straight Flush Beats a Full House”..And other Advice for Healthy Septic Systems

A worry heard many times this winter was that with the lack of snow cover, septic systems could freeze when the typical January/February freezing temperatures hit. Fortunately, we were spared the bitter cold and resulting headaches and troubles that arise from frozen septic systems. Though we do not have a lot of control over the weather, there are many things we do on a day to day basis that can either help septic systems last a long, long time or cause them to eventually malfunction.

Not only can it cost several thousand dollars to repair or replace a malfunctioning system, it can also cause health and environmental hazards. For example, sewage can end up in the groundwater, potentially contaminating drinking water. It can also flow into surface waters (lakes, streams, rivers), increasing the risk of disease and infections. Additionally, septic systems backing up into houses can create health issues.

What can you do to keep your septic system healthy?

Be careful what you flush - A good rule of thumb is not to flush anything but human waste and toilet paper down the toilet. Avoid flushing cigarette butts, sanitary napkins, diapers, kitty litter, paper towels, kleenex, or hazardous chemicals. Put screens in your shower drain to keep hair from washing down.

Scrape your plates and pans- Food scraps that get rinsed down the sink can eventually clog up your plumbing and septic system. Keep a spatula handy or just use a fork and scrape as much off your plate as possible. **Keep the grease out!** - Fats, oils and greases poured down the sink can also clog up your system and force more frequent pumping and maintenance.

Summer Waste Hours

Monday—Sunday: 8:00am—6:00pm
Closed Holidays

The Fond du Lac Waste Site is for band member household use only.

Watch where you drive - Driving on any part of your septic system (pipes, tank, drainfield) can compact the ground and crack or break pipes.

Conserve Water - Fix plumbing leaks, use dishwashers and washers when full, or use the ‘half-load’ setting when washing only a couple of things. This will help prevent from overloading your system and also reduce the frequency that it needs to be pumped out.

Care for your drainfield - Keep your drainfield mowed so plants do not root deeply and potentially clog or damage it. Trees and shrubs should not be planted on your drainfield or near your tank or pipes.

Keep up with regular inspections and maintenance - Septic tanks need to be pumped periodically based on the frequency recommended by your inspector. Septic systems should also be inspected every three years to ensure they are working properly.

Additional information on maintaining a home septic system can be found at http://www.epa.gov/owm/septic/pubs/homeowner_guide_long.pdf or by contacting Jeff Vivier, FdL Wastewater Manager, at 878-2650.

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Air Program Update

By Alex Jackson, Air Program Coordinator

Newly Installed Bus Heaters Reduce Air Pollution and Fuel Consumption

In cooperation with Minnesota Environmental Initiative (MEI), the Fond du Lac Air Program and Ojibwe School Transportation Department have installed five Scholastic heaters (<http://www.webasto.us/general/en/html/8259.html>) on school buses. These heaters were purchased with monies that MEI had received for its project Green Fleet program. (<http://www.environmental-initiative.org/projects/project-green-fleet>) This is a voluntary program that provides emission-reduction equipment for school buses and other diesel vehicles at little to no cost to fleets. Technologies can reduce emissions by reducing idling, treating exhaust or replacing entire engines with newer and cleaner substitutes.

How do they work? These heaters have a timer that can be set for up to eight different on-and-off periods throughout a twenty four hour period. This timer turns a fuel operated heater and pump on and off. The heater heats the coolant that runs through the buses heating/cooling system. As this coolant is heated it is circulated throughout the bus and engine. As a result, there is no need for the buses to idle for extended periods of time in an attempt to warm or keep the bus warm for the students and driver. It also allows for more timely defrosting/ defogging of windows, which could be a safety concern for all on the bus. It also eliminates the need to plug in the buses overnight and during the day on especially cold days. Finally, maintenance cost and wear and tear on the buses expensive components are reduced.



Photo of Scholastic Heater installed on buses

So how does this benefit the Band? For the 2010/2011 school year, it was estimated that there were, on average, nineteen buses driving approximately 40 routes per day. When the temperature is below thirty degrees F, it is transportation's current policy to leave the bus running until the next route in order to keep it relatively warm. As a result, many buses were idling for as long as seven hours a day. Across the entire fleet of school buses, that breaks down to approximately 5737.5 gallons of fuel being consumed on idling per school year. The Air Program's first concern is air emissions. Table 1 on page 3 demonstrates the amount of emissions for ONE school bus for one year, based on approximately 7650 hours of idling per year. As you can see in Table 1, these heaters will eliminate the listed quantity of each pollutant over the course of a school year.

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The addition of these five heaters is a good first step in reducing the greenhouse gases, pollutants and toxics that Reservation youth and community members are exposed to.

Not only do these heaters help reduce pollution, they also produce a significant financial savings. These savings comes in the forms of: 1) energy costs of plugging buses in; 2) labor costs for not needing a driver to come in early to start the buses ; 3) unnecessary wear and tear on the vehicle is avoided, saving on costly repairs; and 4) significant fuel savings. Diesel was approximately \$3.35/ gallon on average for the school year. When you multiple that times the approximately 5737.5 gallons of fuel consumed while idling, you get a savings amount of \$19,220.63!

In a nutshell, reducing idling has multiple benefits. This project is one of the many steps that have been taken at Fond du Lac to save energy, reduce pollution and protect the health of the community and environment.

Table 1	Emissions per school bus per year					Total for 19 Buses	Total emissions SAVED by the five heaters
	g/hour	mg/hr	g/year	mg/year	lbs/year		
<i>emission factors</i>						lbs/year	lbs/year
VOC	2.73		20,884.50		46.04	874.76	230.20
CO	23.7		181,305.00		399.70	7,594.30	1,998.50
NOx	36.4		278,460.00		613.90	0	3,069.50
PM10	2.12		16,218.00		35.80	680.20	179.00
PM2.5	1.21		9,256.50		20.41	387.79	102.05
SO2	1.74		13,311.00		29.34	557.46	146.70
<i>Benzene</i>		29.9		228,735.00	0.50	9.50	2.50
<i>MTBE</i>		0		0.00	0.00	0.00	0.00
<i>1,3 Butadiene</i>		17.4		133,110.00	0.29	5.51	1.45
<i>Formaldehyde</i>		223		1,705,950.00	3.76	71.44	18.80
<i>Acetaldehyde</i>		82.1		628,065.00	1.38	26.22	6.90
<i>Acrolein</i>		9.96		76,194.00	0.17	3.23	0.85

Recycle

Plastic

Magazine Paper

Aluminium

Newspaper
Cardboard



Mixed paper

Do your part to conserve natural resources and protect the environment for future generations....Recycle.

Fond du Lac Waste Site: 878-8069

Who's Who?

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