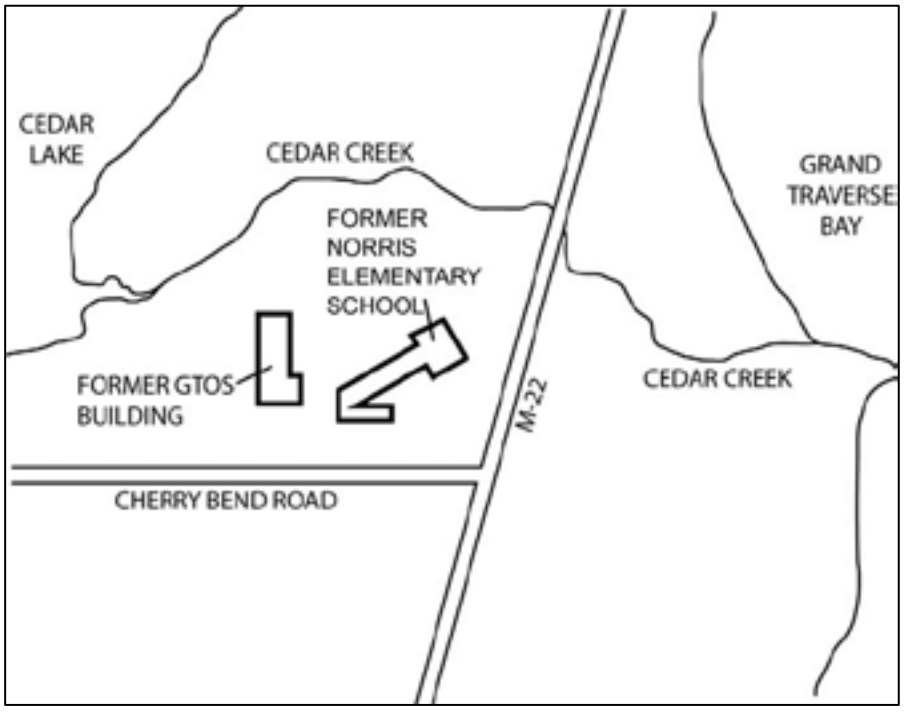
EPA Proposes Change to Soil Cleanup Plan

Grand Traverse Overall Supply Site
Greilickville, Michigan October 2010

U.S. Environmental Protection Agency is proposing to change the soil cleanup plan previously selected for the Grand Traverse Overall Supply site[1]. The soil cleanup plan explained in a 2008 document called a record of decision (ROD) assumed about 10 percent or 380 cubic yards of the contamination source area would need to be dug up and removed following the completion of a time critical removal action.

However, two issues happened during the removal action that prevented EPA from completing the planned soil cleanup. The first issue was that oily soil containing hydrocarbons and low-level amounts of PCBs (polychlorinated biphenyls) was found in an area just north of the former GTOS building. The second issue is that EPA determined the contaminated soil had to be managed as a "listed hazardous waste" under the federal Resource Conservation and Recovery Act. RCRA requires the contaminated soil be disposed of in a licensed hazardous waste landfill. This determination dramatically increased the cost of completely removing the contaminated soil.

As a result, only the most contaminated soil (about 2,075 tons) was dug up in the time-critical removal action while EPA considered how to handle the emerging issues at the site.



[1] *Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act requires EPA to provide an opportunity for a public meeting and comment period. It also requires a newspaper ad announcing the proposed plan and a brief analysis. This mailer summarizes the feasibility study and other site-related reports available in the Traverse Area District Library and EPA office in Chicago.*

Share your opinions

EPA invites your comments on this proposed amended cleanup plan. A public comment period runs from **Oct. 29 to Nov. 28, 2010** and statements can be submitted in these ways**:**

- Fill out and return the enclosed comment sheet.
- Orally or in writing at the public hearing.
- By the Internet at www.epa.gov/region5/publiccomment/grandtraverse-pubcomment.htm.
- Fax to Linda Martin at 312-692-2411

Public meeting/hearing

Nov. 9, 2010, 6:30 p.m.
Elmwood Township Center Office
10090 E. Lincoln Road
Traverse City, Mich.

After a brief presentation, EPA will hold a public hearing to accept comments on the proposed plan. A court reporter will record the meeting and all comments.

For general questions or special meeting accommodations:
Don de Blasio
EPA Community Involvement Coordinator
312-886-4360
deblasio.don@epa.gov

For technical questions:
Linda Martin
EPA Remedial Project Manager
312-886-3854
martin.lindab@epa.gov

EPA Region 5 toll-free:
800-621-8431, 9:30 a.m. - 5:30 p.m., weekdays

EPA is not proposing to alter the parts of the 2008 ROD that calls for digging up soil at the site with contamination levels in excess of the cleanup goals and disposing of it off-site. However, in light of the increased amount of contaminated soil remaining at the site, EPA is proposing to change the soil cleanup plan in the 2008 ROD by boosting the cost estimate and increasing the volume to be excavated.

Before making a final decision, EPA is holding a public meeting and comment period. See the left-hand box on P. 1 for ways you can participate in the decision-making process. EPA could alter its proposed plan or even choose a new one based on public comments so your opinion is important.

Summary of site contamination and risks addressed by the proposed change

The health risks posed by contaminated soil at the site are primarily due to direct exposure to tetrachloroethene (PCE) and trichloroethene (TCE) in the soil and by PCE and TCE soaking into the ground water (underground supplies of fresh water). To better understand what contaminated soil remained on-site after the completion of the time-critical removal action and what to do about it, EPA did some more investigative work in 2009. In addition, EPA petitioned the state of Michigan to allow the contaminated soil to be disposed of in a nonhazardous waste landfill. The state approved that petition this June.

With more investigative information and the approved petition in hand, EPA completed a feasibility study (FS) addendum in June to evaluate the need to excavate additional soil at the site. Based on the data collected during the FS addendum, it was determined a much greater volume of soil would need to be handled by the permanent cleanup action in order to reach the cleanup goals in the 2008 ROD. EPA estimates the revised soil volume at 7,480 cubic yards. Because of this significant increase in volume, there is also a major increase in cost, from $210,000 to $1.2 million. (See the 2008 ROD and other supporting documents in the Administrative Record for a more detailed explanation of the risks posed by contaminants in site soil.)

Cleanup goals in the proposed change

EPA is not proposing any changes in the original soil cleanup goals at the site. Those goals included preventing direct contact with or ingestion of soil contaminated with PCE and TCE at levels higher than Michigan health standards. Other objectives are preventing further movement of PCE and TCE from soil to ground water or to surface water.

Comparison with original soil plan

The 2008 ROD selected a cleanup plan for soil that was called Soil Alternative 2A. Soil Alternative 2A called for excavation of all soil on the site containing pollutant levels that exceeded the cleanup goals and disposing of it in a solid waste landfill. The 2008 ROD assumed following the time-critical removal action there would only be 380 cubic yards of this type of contaminated soil. (Soil Alternative 2A was described in the 2008 ROD as a "limited" excavation because the ROD assumed a large portion of the contaminated soil would be removed during the time-critical project. It also assumed the on-site building had been demolished, as it has been, by the EPA removal program.) EPA is now proposing Soil Alternative 2A be changed by increasing the volume of soil to be dug up and disposed of off-site to 7,480 cubic yards. The cost of amended Soil Alternative 2A is estimated at around $1.2 million.

Evaluation of original and amended soil cleanup plans

The soil cleanup alternatives presented in the 2008 ROD were evaluated against nine criteria required by federal law (see box on next page for explanation of criteria). EPA selected original Soil Alternative 2A because it best met these criteria. EPA believes amended Soil Alternative 2A, as described above, is still the preferred soil remedy. Below is the comparison, based on the nine evaluation criteria, of the amended Soil Alternative 2A to the original Soil Alternative 2A selected in the 2008 ROD.

Overall Protection of Human Health and the Environment

Soil Alternatives 2A and the amended 2A would be most protective of human health and the environment because contaminated soil at or above the cleanup levels would be removed and soil verification samples would be collected to evaluate the effectiveness of the removal. Soil Alternatives 2A and amended 2A would likely restore soil to unrestricted uses. It is anticipated that no institutional controls will be required following the implementation of either alternative, thereby allowing for unrestricted use.

Compliance with ARARs

Soil Alternatives 2A and the amended 2A would comply with all cleanup and disposal standards: contaminated soil at or above target cleanup levels would be removed and disposed of off site. ARAR's for the amended 2A would remain the same as those required for Alternative 2A.

Long-Term Effectiveness and Permanence

Soil Alternatives 2A and amended 2A would leave the lowest magnitude of residual risks because contaminated soil would be actively and permanently removed from the area using excavation. Soil Alternative 2A was expected to take less time to remediate contaminated soils because the volume of soil expected was much less than what actually remains. Soil Alternative amended 2A requires that additional volume be removed thus requiring a longer time frame to address.

Comparison of the selected cleanup plan and the revised proposed cleanup plan

Plan Component	Original Selected Plan	Revised Proposed Plan
Excavation Volume	380 cubic yards	7,480 cubic yards
Disposal option	Off-site (nonhazardous)	Off-Site (nonhazardous)
Miscellaneous	Clearing, grubbing, temporary fence installation	Not included (performed during the EPA interim action)
Cost	$210,000	$1.2 million

Reduction of Contaminant Toxicity, Mobility, or Volume through Treatment
Toxic hazardous substances would not be destroyed through soil treatment under Soil Alternatives 2A and amended 2A, and the total mass of VOCs would not be reduced; however, the contaminated soil would be removed and disposed of at an appropriate facility. EPA prepared a delisting petition and submitted it to MDNRE requesting a determination be made that the contaminated soils left at the facility did not need to be handled as hazardous waste and could be disposed of at a non-hazardous landfill. MDNRE approved the delisting petition allowing for disposal of contaminated soils in a non-hazardous landfill. The delisting of the soils applies to both Alternative 2A and amended 2A. The mobility of VOCs would not be reduced under Soil Alternatives 2A and amended 2A. The volume of contaminated soil would not be reduced under Soil Alternatives 2A and amended 2A; however, the contaminated soil would be removed and disposed of at an appropriate facility.

Short-Term Effectiveness
Soil Alternatives 2A and amended 2A pose little short-term risk to the community, with the exception of increased construction traffic and activities associated with excavation, transportation, and disposal of contaminated soils. In addition, air monitoring would be part of Soil Alternatives 2A and amended 2A to control short-term risks to the workers or community during excavation. Soil Alternative 2A would require about 4 months to implement; however, this time is increased and would require about 6 months to implement under Soil Alternative amended 2A. This is because the amount of contaminated soil that remains on site is significantly more than anticipated under Soil Alternative 2A.

Implementability
Soil Alternatives 2A and amended 2A are easy to implement
because they require excavation of contaminated soils and verification sampling. Soil Alternatives 2A and amended 2A both assume a borrow source for backfill material is readily available. Either of these is implementable.

Cost
The 2008 ROD estimated capital cost for the Soil Alternative 2A was $210,000. Based on the larger volume of soil to be excavated, the revised estimated capital cost to implement amended 2A is $1,225,000. The major capital cost items are excavation, transportation, and disposal as well as backfill costs. No operation and maintenance costs are associated with the selected remedy.

State Acceptance
MDNRE is the support agency for this project. The state agency is expected to be in support of a soil removal alternative to address on site concerns.

Community Acceptance
Community acceptance will be evaluated after the comment period and public hearing. The community has supported the soil excavation plan in the past.

EPA believes based on the information above that Amended Soil Alternative 2A – excavation and off-site disposal of contaminated soil – remains that preferred cleanup alternative for contaminated site soil.

Most of 2008 plan not affected by change

The following are the major components of the 2008 cleanup plan that remain unchanged by this proposed ROD amendment:

- Institutional controls restricting ground water and land use. These controls may include negotiation with property owners of restrictive covenants for contaminated property and ground water, working with local municipalities to draft and implement zoning ordinances, working with the local public health department or agency to draft and implement appropriate health regulations, or filing deed notices describing contaminated soil or ground water.
- Ground water extraction, treatment and discharge with a contingency for on-site treatment if necessary.
- Continued operation of the soil-vapor extraction system that is operating at the former Norris School. The Agency will also develop and implement a nonintrusive vapor-monitoring program to ensure there are no other vapor issues associated with the soil and ground water contamination.

Evaluation criteria

EPA uses nine criteria to compare cleanup options:

1. **Overall protection of human health and the environment** addresses whether an alternative adequately protects both human health and the environment. The cleanup plan can meet this criterion by reducing or eliminating contaminants or by reducing exposures to them.
2. **Compliance with applicable or relevant and appropriate requirements** assures that each project complies with federal, state and local laws and regulations.
3. **Long-term effectiveness and permanence** evaluates how well an option will work in the long term, including how safely remaining contaminants can be managed.
4. **Reduction of toxicity, mobility or volume through treatment** addresses how well the option reduces the toxicity (the chemical makeup of a contaminant that makes it dangerous), movement and amount of contaminants.
5. **Short-term effectiveness** is how quickly the project achieves protection, as well as its potential to be harmful to human health and the environment while it is being constructed and operated.
6. **Implementability** evaluates the technical feasibility of the cleanup plan, and whether materials and services are available to carry out the project.
7. **Cost** includes estimated capital or startup costs, such as the cost of buildings, treatment systems and monitoring wells. The criterion also considers costs to implement the plan, and operate and maintain it over time. Examples include laboratory analysis and personnel to operate equipment.
8. **State acceptance** is whether the state environmental agency, in this case Michigan DNRE, agrees or disagrees with EPA's recommended alternative.
9. **Community acceptance** evaluates how well the community near the site accepts the option. EPA evaluates community acceptance after it receives and reviews public comments on its recommended alternative.

The amended soil remediation component for the proposed ROD amendment includes excavation of any additional contaminated soil remaining on-site that is more than the original amount of contaminated soil specified in the 2008 ROD.

Next steps

EPA will review statements received during the public comment period and at the public hearing before making a decision on the proposed amended soil cleanup plan. Based on new information presented in the comments, EPA may modify its proposed plan. EPA encourages you to review and comment on the proposed amended cleanup plan. Much more detail on the cleanup is available in the official documents on file at the Traverse Area District Library or EPA's Web page.

EPA will respond to the comments in a document called a responsiveness summary. This will be part of the ROD amendment that describes the final cleanup plan for the site.

EPA will announce the selected cleanup plan in a local newspaper and will place a copy on file in the information repository at the Traverse Area District Library.

Ongoing work

Along with the continued operation of the vapor extraction system, EPA continues to monitor the ground water on a quarterly basis and assess the contamination levels being released to the ground water from the soil remaining on-site.

With the implementation of the additional soil removal, EPA will install the ground-water treatment system determined to be necessary in the 2008 ROD for this site.

About the GTOS site

Grand Traverse Overall Supply was a commercial laundering and dry cleaning facility covering 3.9 acres in Greilickville, Leelanau County, Mich. Laundry operations began in the early 1950s, and dry-cleaning machines were installed and used from 1968 through 1987. About 1,200 people live within three miles of the site. The GTOS property is directly west of the former Norris School. Cedar Lake, Cedar Creek and Grand Traverse Bay are all less than 2,000 feet away from the site. Cedar Creek, the outlet of Cedar Lake, flows along the northern property line of the site. Cedar Lake and Grand Traverse Bay are used for swimming and other recreational activities.

Until 1977 the facility used a dry well, lagoons and Cedar Creek to discharge waste. In 1977 the facility began discharging waste to the sanitary sewer system.

In 1978 studies showed ground water in the area was contaminated with VOCs or volatile organic compounds, including the ground water underneath the former Norris School. The water in Cedar Creek was also of poor quality because of contaminants from the site. In the late 1970s the well, lagoons and contaminated soil were removed.

A study done by MDNRE in 1981 showed the ground water was still contaminated. In 1983 the GTOS site was included on the National Priorities List. Sites on the NPL are among the nation's most hazardous waste areas and are eligible for cleanup under the EPA Superfund program. In 1987 a private study showed that while the ground water was still contaminated, contamination levels in the ground water had declined.

EPA conducted what is called a remedial investigation during the period 1989 through 1991. A remedial investigation is a study of the nature and extent of contamination at a cleanup site. This examination looked at the dry well, the lagoons, Cedar Creek and the ground water, but not the soil underneath the GTOS building. While contaminants were found in soil and in the ground water, the amounts were generally low. Based on the results of this remedial investigation, EPA decided at the time no cleanup action was needed at the site.

But the situation changed. In 1995 and 1996 a prospective operator of the GTOS property completed sampling and identified VOC contamination in the soil and ground water beneath the GTOS building.

In 2001 MDNRE installed monitoring wells in the area, and samples taken from the wells showed ground water was now contaminated at levels of concern. This information was shared with EPA, and in 2005-2006 further ground water investigation work was completed. This study confirmed that not only was the underground water tainted, but contaminated ground water had also spread to beneath the former Norris School and was moving toward Grand Traverse Bay.

Vapor intrusion problem

Because of the ground water contamination under the former Norris School, EPA was concerned about the possibility of "vapor intrusion." This problem occurs when contaminants dissolved in ground water evaporate and move up through the soil to seep into building foundations or crawl spaces. VOCs are especially prone to this type of problem. EPA conducted a vapor study and determined the need to install a soil vapor extraction system around the school to stop trapped gases from entering the school building and causing an indoor air pollution problem. EPA installed the soil vapor extraction system in 2005, and it continues to operate today.

Need more information?

Official site documents, including the Administrative Record that includes documents about the amended remedy, can be viewed at the Traverse Area District Library, 22 Sixth St., Traverse City. Library hours are Mon. – Thu. 9 a.m. – 9 p.m., Fri. – Sat. 9 a.m. – 6 p.m., Sun. 12 p.m. – 5 p.m. Documents are also available on EPA's Web page at www.epa.gov/region5/sites/grandtraverse.
This file includes the 2008 ROD and the proposed plan for the ROD amendment with detailed summaries of site characteristics and risk, cleanup goals, remedial action objectives, and the evaluation of cleanup options.

This photo shows the GTOS building on the left and former Norris Elementary School to the right.

This photo shows the cleared site after the building and all waste was removed.

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Grand Traverse Overall Supply Site

Greilickville, Michigan

Public Meeting/Hearing: Nov. 9
Comment Period: Through Nov. 28

(details inside)

EPA
United States
Environmental Protection
Agency

Region 5
Superfund Division (SI-7J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

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GRAND TRAVERSE OVERALL SUPPLY SITE:
EPA Proposes Change to Soil Cleanup Plan

Public Comment Sheet

EPA is interested in your comments on the proposed cleanup plan change for the Grand Traverse Overall Supply site. You may use the space below to write your comments, then fold and mail the form or hand it in at the Nov. 9 public meeting. Or you may submit comments on your own paper. **Comments must be postmarked by Nov. 28, 2010.** You may also submit your comments to Linda Martin at martin.lindab@epa.gov or fax to Linda at 312-692-2411. You can also submit comments on the Web at http://www.epa.gov/region5/publiccomment/grandtraverse.htm.

If you have any questions, please contact Linda Martin at 312-886-4071.

Name: _____

Affiliation: _____

Address: _____

City: _____

State: _____ Zip: _____

Grand Traverse Overall Supply Site

Detach this page, fold on dashed lines, staple, stamp, and mail

Name _____
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FIRST CLASS

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