



FACT SHEET

QUESTIONS AND ANSWERS ONALASKA MUNICIPAL LANDFILL MARCH 1992

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An informal availability session, where citizens may ask questions and express concerns in a one-on-one situation with representatives of the United States Environmental Protection Agency (U.S. EPA), Wisconsin Department of Natural Resources (WDNR), and Wisconsin Division of Health (WDH), will be held from 3-5 p.m. and 7-9 p.m. on Tuesday, March 31, at the Onalaska Town Hall. Anyone interested in discussing the Onalaska Municipal Landfill cleanup may come to the Town Hall at any time during the hours listed above.

This fact sheet was designed to answer some questions, as listed below, that people frequently pose about the Onalaska Municipal Landfill Superfund site cleanup and to provide issues for discussion at the availability session on March 31.

1. Q: Can the contaminated ground water simply be monitored to see where it is going, rather than having to extract and treat it?

A: U.S. EPA, after consultation with WDNR, has determined that ground-water monitoring alone is not the appropriate response action at Onalaska. There are several reasons which led to this determination:

First, we already know that contaminated ground water is moving to the southwest towards the Black River and nearby wetlands, and that contaminants are spreading somewhat to the southeast. Although the determination of exactly where the contaminants are or will be entering the river system is a very imprecise science, we do know the general area where ground water discharges. If U.S. EPA and WDNR were to only monitor the site, contaminated ground water would continue to move toward the river system, resulting in an uncontrolled, potentially harmful contaminant release into the river and wetland environment. Monitoring alone will not prevent or control this release of contaminants to this sensitive environment or even to the area southeast of the site where ground water could potentially be used for drinking. As an illustration, it should be

noted that floating contaminants are visible in low-lying surface waters near the river in spring when ground-water levels are high.

Second, as the contaminated ground water moves towards the river and wetlands, the plume of contaminants will spread which would greatly increase the cost of contaminant control. Therefore, not only is it environmentally sound to stop the spread of contaminants before, rather than after, they leave the site and reach a sensitive environment or impact potential drinking-water resources, but it is cost effective, too.

Third, the contaminants must be extracted and treated because U.S. EPA's cleanup policy is to return ground water to its natural state as an actual or potential drinking-water source as quickly and practically as possible. Natural attenuation and monitoring at Onalaska could take 50 years or more to reach safe levels of contaminants in the ground water while extraction and treatment could take as few as five years to reach safe levels.

Lastly, the citizens of Wisconsin have stated that the protection of the ground water for current and future use is important. Thus, the State of Wisconsin Ground-Water Law was passed in 1984, requiring WDNR to take action to prevent the continued release of contaminants to the ground water. U.S. EPA and WDNR are mandated by law to "take action to protect" ground water for future use. Monitoring is not considered to be the appropriate "action" to take at Onalaska.

2. Q: Will the treatment system release contaminants into the environment where people may be harmed by them?

A: People should not be harmed by contaminant releases from the treatment system since treated ground water will meet State effluent standards and releases to the air will meet State and Federal health and environmental standards. Although the treatment processes would release some contaminants into the environment, it would be a controlled release at low concentrations that should not be harmful to human health or the environment.

3. Q: If the contaminated ground water at the site is entering the Black River naturally, why is it necessary to do an expensive treatment remedy?

A: As stated in the response to question 1, treatment is necessary for several reasons. First, the leading edge of the contaminated ground water is moving towards the Black River system where the ground water is or will be discharging contaminants at an uncontrolled rate. Through extraction and treatment of ground water, the rate of contaminant release to the environment will be controlled at safe levels. Allowing an uncontrolled discharge of contaminated ground water to the sensitive environment would mean we have no control over the rate at which contaminants are being released. In effect, we would not be able to ensure protection of the environment or, specifically, ensure that aquatic life would not be harmed.

Also, U.S. EPA and Wisconsin ground-water cleanup policies require the agencies to return ground water to its natural state as an actual or potential drinking-water source as quickly and practically as possible. The agencies have determined that treatment will accomplish this in a cost-effective manner.

4. Q: Is the pumping rate of 800 gallons per minute a "major change" from the original 160 gallons per minute included in the 1990 Record of Decision?

A: The change in the pumping rate is not a major change in the cleanup remedy. Although pumping 800 gallons of treated water per minute into the Black River may seem like a lot more than the original estimate of 160 gallons per minute, the difference is small compared to the average daily flow in the Black River. At low-flow conditions, the average flow is 120 million gallons per day. Discharging 800 gallons per minute, or 1.15 million gallons per day, is only 1 percent of the river flow. During high flow, the average flow rate is 600 million gallons per day; thus, 800 gallons per minute would be 0.2 percent of the daily flow.

5. Q: Why was the original pump-rate estimate so far below the actual pumping rate now said to be needed?

A: The pump-rate estimates are different due to the two different methods used to determine the rate necessary to perform an effective cleanup.

After completion of the site investigation, the next step in the Onalaska cleanup process was to identify likely alternative means for cleaning up the site. These alternatives are listed and discussed in the feasibility study. Typically, the feasibility study is used to evaluate different types of cleanup plans and determine estimated costs of implementation. Then, once a cleanup plan is selected, it is designed for construction. It is during the design of a cleanup method, when blueprints and such plans are developed, that the actual type, size, and costs of cleanup technology are refined.

The method used to calculate the extraction rate presented in the feasibility study for the Onalaska Municipal Landfill produced a rough estimate of a pumping rate. The rough estimate, in turn, was used to determine a rough cost estimate. Following the selection of the remedy, the second method was used to determine the pump rate. The pump test done in April 1991, as part of the design work, was used to determine a more accurate pump rate and to produce a more accurate cost estimate.

Usually, a pump test is performed once it is ascertained that ground-water contamination exists and there is a need for treatment. At Onalaska, the original plan was to perform the pump test before remedy selection; however, at that time the estimated cost of the pump test was too high and U.S. EPA decided that the first method used to determine a pump rate would suffice. After the remedy was selected, U.S. EPA was able to perform the pump test at a much lower cost than originally bid, resulting in a substantial savings.

6. Q: Will the public get a chance to comment on the change in pumping rates?

A: The public's input is always welcome throughout the cleanup process. However, the only time U.S. EPA seeks additional public comment is when it is proposing to change from one type of cleanup remedy to another. Accordingly, there is no formal comment period on the change of pumping rates at Onalaska since U.S. EPA has not determined that a totally different cleanup process is necessary. Only the estimated rate of ground-water extraction has changed, not the type of cleanup process.

7. Q: Will the ground water treatment process pollute the air and be a human health concern?

A: The ground water treatment process should not pollute the air as to create a human health concern. The ground water treatment process will remove contaminants from the ground water by using a forced air system called an air stripper. Completed design work indicates that the air to be discharged from the air stripper will have contaminant levels which will be six to nine times below the numerical limits established in Wisconsin's air regulations. These numerical limits are conservatively set, human health-based limits.

Additionally, the low levels of organic chemicals discharged by the air stripper will be subject to breakdown from exposure to ultraviolet light in sunlight and to naturally occurring air-borne bacteria. In any event, the levels of released chemicals will be so low, air pollution will not be a concern.

8. Q: If no one is currently drinking the ground water, why is this cleanup necessary?

A: As stated above, there are several reasons for performing the ground-water cleanup despite the fact that no one is currently drinking contaminated ground water.

First, U.S. EPA is mandated to protect ground water for current and future uses. Also, Wisconsin's ground water protection law mandates the WDNR to protect the State's natural resources.

More importantly, it was believed that no one was drinking the ground water near the site; however, the Town of Onalaska replaced a citizen's drinking-water well in the early 1980s because it was contaminated. Also, the garden well is contaminated on this same property. This well was being sporadically used by hunters as a source of drinking water. In 1989, U.S. EPA advised the property owner to abandon this well or put a lock on it. In addition, there are residents to the southwest of the site who use ground water as a source of drinking water, and there may be future homes in the area which would rely on ground water for drinking purposes. The cleanup action will prevent the future use of contaminated ground water as a source of drinking water.

Finally, the ground water is discharging to the Black River and adjacent wetlands. These areas would remain unprotected if the ground water is not cleaned up.

9. **Q: How can we be sure that wetlands will not be harmed?**

A: To prevent harm to the wetlands, treated ground water will meet State effluent standards and State and Federal health and environmental standards. Moreover, by extracting and treating contaminants and by setting discharge limits at safe levels, the landfill's effect on local wetlands, as well as on the rest of the environment, can be safely regulated. If action were not taken at this site, unknown, potentially harmful levels of contaminated ground water could enter the wetlands.

10. **Q: Will the discharge of the treated ground water to the Black River cause fish kills during times of low water levels?**

A: It is unlikely that fish kills will occur as a result of discharging treated ground water to the Black River. When setting allowable discharge levels for treated ground water, the agencies have determined that fish populations must be able to survive if exposed to the contaminants being discharged from the effluent pipe. In doing so, two sets of discharge levels are calculated. The first set, called "chronic" limitations, deals with the long-term exposure to levels of contaminants diluted by the receiving waters. Therefore, the rate of the river flow is considered when developing chronic limitations. To maintain protectiveness, the agencies used the low-flow rate of the Black River to determine chronic limits.

The second set, called "acute" limitations, is developed under the assumption that exposure is only to the treated water coming out of the effluent pipe. Thus, testing of the effluent is performed in a laboratory to ascertain that exposure to the effluent is not immediately dangerous to aquatic life.

11. Q: Who will be in charge of the extraction and treatment system, and how often will it be monitored?

A: U.S. EPA and WDNR will oversee the operation of the extraction and treatment system until it is determined if the Town or one of the other potentially responsible parties is able to do so. The system will be monitored at a rate determined by State regulations (under the Wisconsin Pollution Discharge Elimination System). At first, influent and effluent water will be tested monthly, or perhaps weekly. As conditions permit, the rate of testing could change to less frequent testing.

12. Q: Will this cleanup potentially harm the environment as opposed to just leaving the site alone and fixing the cap?

A: By using current data and technologies, and discharges from the extraction and treatment system that meet state standards, the environment should not be harmed. It should be noted that fixing the cap will do little to stop the advance of floating contaminants

(hydrocarbons) and the ground-water plume which, if left unchecked, could harm human health and the environment. The cleanup plan, as outlined in U.S. EPA's 1990 Record of Decision, includes a complete "package" for protection of health and environment--cap replacement, ground-water extraction and treatment, and biological remediation. This entire package was determined to be the best method to address the problems at this site.

13. **Q: Are similar cleanups being done at other Superfund sites?**

A: There are some Region 5 Superfund sites that are similar to the Onalaska site. Stoughton City Landfill, another Wisconsin landfill site, will be capped and ground water will be monitored and/or treated. Most notable here is the fact that a municipality is the owner/operator and is potentially liable for cleanup costs. At the G & H Landfill in Shelby Township, MI., a cleanup plan which includes a landfill cap and extraction and treatment will be implemented next year. At the Seymour Recycling site in Seymour, IN., U.S. EPA recently completed a cleanup which included bioremediation and capping as a part of the cleanup plan.

14. **Q: What is the Town of Onalaska's liability when the cleanup is finished?**

A: The Town of Onalaska, as owner/operator of the landfill, is potentially liable for cleanup costs. This liability is shared with a few other potentially responsible parties. However, U.S. EPA and WDNR are aware of all of the parties' financial situations and have agreed to proceed with the cleanup without requiring the Town to pay for the cleanup costs at this time. In the future, the agencies will meet with the Town and the other parties to determine what portion of the cleanup they are able to pay or contribute through in-kind services.

15. **Q: Do the agencies listen to the concerns of the community regarding this cleanup?**

A: The agencies listen to the community's concerns; however, our main objective is to protect your health and your environment. We are aware of the concerns about cost, so the least expensive cleanup plan was developed which still complied with Federal and State laws and policies. Additionally, the community has expressed its concern about increased truck traffic during cap construction. U.S. EPA and WDNR share this concern and will be taking steps to minimize any inconvenience or safety threats to nearby residents during cap construction.

16. Q: Is the new state statute for wetlands being followed?

A: Part of the cleanup remedy selection process at the Onalaska site included identifying existing rules and regulations that must be met. This process occurred in 1990. At that time, wetlands protection was identified as a State and Federal requirement. Therefore, the cleanup action plan selected for this site was evaluated to ensure that it protects the wetlands. The new state wetlands protection requirements will not alter the cleanup actions for this site, because the protection of wetlands was already considered.

17. Q: Who can I contact for more information?

A: Further information may be obtained by contacting Kevin Adler, U.S. EPA Remedial Project Manager at (312) 886-7078, or Susan Pastor, U.S. EPA Community Relations Coordinator at (312) 353-1325. Messages for U.S. EPA representatives may also be left by calling toll free, 1-800-621-8431.

Robin Schmidt and Paul Kozol, WDNR Project Managers, may be contacted at (608) 267-7569 and (608) 264-6013, respectively.

Mary Young, WDH Public Health Educator, may be contacted to address health concerns at (608) 267-6844.