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Landfill Q&As

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The Chittenden Solid Waste District (CSWD) is in the process of developing a conceptual design for the proposed landfill in Williston, a process that is not yet complete. As a result, many of the details of the landfill's design and operating plans are not yet available. A design will become public once it is approved by CSWD's Board of Commissioners. Once a conceptual design is approved and before any permits are applied for, CSWD will conduct an extensive public review process and CSWD members will have ample opportunity to become informed on the proposed landfill's design and operating plans and to provide us with their input.

1. Why do we need a local, publicly owned landfill?

Despite our best efforts to recycle, a large portion of the waste stream must still be landfilled. No economically viable alternative technologies exist today with the exception of incineration, a practice that is not currently endorsed by the State of Vermont, CSWD, or any of the cities and towns within Chittenden County.

A local, publicly owned landfill will move control of disposal capacity back to the public sector. CSWD believes that the County will then be much better positioned to take advantage of and implement new waste reduction technologies as they are developed in the future.

Each of us creates trash and is thus responsible for contributing to the need for a landfill. The cities and towns of Chittenden County have collectively decided that the ethical solution is to manage our problem locally and not in someone else's backyard. It is also our responsibility to manage the problem in an economical and environmentally sound manner, instead of pursuing a costly and risky "out of sight/out of mind" approach.

Currently, all of the County's disposed waste is trucked to remote landfills. Every year, over 7,000 tractor trailer loads consume more than 178,000 gallons of diesel fuel transporting this material 859,000 miles through many of Vermont's most picturesque towns to get our waste to these landfills. The estimated savings to the public from the elimination of the pollution, congestion, road wear and tear, and noise resulting from this trucking equates to over $885,000 per year. This number does not include the rapidly rising cost of the fuel.

Federal law leaves municipalities at risk for liability for any damage resulting from the disposal of waste generated from within their borders. Thus, each city and town in Chittenden County is potentially on the hook for the future costs of any environmental cleanup or remediation needed at landfills that accepted their wastes. CSWD believes that its member municipalities would reduce their liability if their waste was landfilled at a publicly owned and controlled site since such a site can incorporate into its construction and operation environmental safeguards that go beyond what is currently in place at the available private landfills.

Finally, it is estimated that the fees paid to aggregate, transfer, and landfill our waste under the present system costs $12,672,000 per year (144,000 tons/yr x $88/ton) in addition to the $885,000 in environmental damage resulting from trucking the waste long distances. CSWD's projections indicate that a local, publicly-owned landfill will cost substantially less.

2. Where will the landfill be located?

The landfill will be located on Redmond Road in Williston, about a mile from Mountain View Road. The site is currently a sand pit owned and operated by Hinesburg Sand & Gravel, Co.

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3. How was this site selected?

The site was selected after a long and thorough search for the best site in Chittenden County. The siting process is documented in numerous reports available to the public for review at the CSWD office. Highlights of the process are:

- The siting of a long-term, state-of-the art regional landfill was started by the Chittenden County Regional Planning Commission in the 1980s, before CSWD existed. After CSWD was chartered in 1987, it took over the process.
- A 22-member volunteer Citizens Advisory Committee (CAC) was established consisting of residents who encompassed a wide range of backgrounds including environmentalists, engineers, business owners, and land-use planners. They developed the guiding criteria that an ideal landfill site should possess. The criteria dealt with environmental protection, land use, economic, and sociological aspects.
- A nationally recognized engineering firm was hired to quantify and apply the CAC criteria to a blank map of the County. Sixty-five sites were identified as possible locations for the new landfill. The suitability of each of those sites was then reviewed with respect to environmental, economic, and land-use considerations. A report was issued and public comment solicited. The report was then revised and reissued. Public comment was again sought and eventually a final report was issued.
- As a result of the siting study, three sites were selected. Each site was then further evaluated. On-site hydrogeology and engineering assessments and more detailed economic and environmental analyses were completed. This in-depth process resulted in the selection of the Redmond Road site as being the preferred location for the new landfill.
- A detailed hydro-geologic investigation and initial conceptual design was then completed on the site.
- Based on the above process and additional public input, the Redmond Road site was eventually selected as the final preferred site.
- In 1992, the voters approved that CSWD and Williston enter into the Host Town Agreement. This was approved by 74% of Williston voters.

4. Why was the Redmond Road site selected as the preferred site for a regional landfill?

- The Redmond Road site provides a high level of protection to the bedrock aquifer. The bedrock is non-carbonate, primarily consisting of quartz-rich schists and phyllites. The bedrock is overlain by a thick layer of low-permeability glacial till. The till is overlain by a deltaic sand deposit. The combination of the above is ideal for a landfill in that the sand allows for a deeper excavation to the bottom of the landfill, thereby increasing the site's capacity, life, and economics. The dense till provides a high level of protection for the bedrock aquifer—generally the aquifer from which we get our drinking water. The underlying bedrock is stable, durable, and has a low permeability.
- The site is centrally located to minimize transportation costs, yet physically isolated from nearby residences and public buildings. There are currently only three residential properties located within a quarter of a mile of the proposed landfill that are not currently owned by CSWD.
- The site's abutters consist of a landfill (since closed and replaced with an operating waste transfer station), a large industrial facility (IBM), undeveloped property owned by an electric utility and a sand and gravel company, a proposed limited access highway, and a small number of residential properties (all of which have been purchased by CSWD).
- The site has a high degree of probability of obtaining all necessary permits.

5. How much trash will be received annually at the landfill?

To provide for the economical, environmentally sound, long-term disposal needs of Chittenden County, the landfill will be designed to handle refuse generated from within the County. Our current estimate is for approximately 135,000 tons per year in 2011.

State permits will contain restrictions on the waste that is able to be accepted by the landfill. Only municipalities whose Solid Waste Implementation Plans have been approved by the State of Vermont will be allowed to deliver waste to the facility. CSWD has no intention of accepting out-of state waste at the landfill.

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6. Who will pay for the cost of building and operating the landfill?

The landfill will be paid for exclusively by the users of the facility based on how much they bring to the facility. The landfill will charge a tipping fee to all users of the facility. The tipping fees collected will be established so that they generate enough revenue to pay for all capital and operation costs, closure and post-closure maintenance costs, as well as all State, regional and local taxes, fees, and assessments.

No local taxes or assessments will be used to pay for the landfill. In fact, Williston taxes will actually go down (all else being equal) as the Host Town Agreement calls for significant payments to the Town from the landfill once it becomes operational.

7. How much will the Town of Williston be paid for hosting the landfill?

The Host Town Agreement requires the following payments to be made once the landfill becomes operational:

- Host Town Fee: $3.50/ton for each ton of waste landfilled, with potential annual adjustments. At the current disposal rate of 144,000 tons/year, this would be $504,000/year.
- Payment in lieu of taxes: Equal to approximately $31,000/year at the current tax rate.
- Payment for materials recycled: $0.25/ton for each ton of material recycled.
- Williston Education Fund: $0.083/ton for each ton disposed will be deposited into a designated fund to be used exclusively by the Town. This equates to nearly $12,000 per year at current disposal rates.
- Environmental monitoring: Up to $3,000/year, inflated annually, to reimburse the Town for costs incurred by the Town in ensuring that the landfill maintains its compliance with permits, regulations, and required environmental controls.

8. The Town already received funds for hosting the landfill, transfer stations, and recycling facility. What have those funds been used for?

From Fiscal Year 1994 to date, the Town has provided $3.7 million to the Fire, Police, Public Works, and Recreation departments; the library; schools; scholarships; sidewalks; and paths.

9. Will the landfill attract gulls?

Without continual gull management efforts, a landfill will attract gulls. The landfill will employ gull management efforts to minimize the number of gulls attracted to the landfill. In some cases, when the need has arisen, landfills have successfully eliminated all gulls from their site.

As a component of the permitting process, the landfill will be required to have an approved gull management and control plan that will ensure that gulls do not become a nuisance to the surrounding area. Since the design of the landfill is not yet complete, this plan is not yet finalized. However, CSWD recognizes the importance of ensuring that gulls do not become a nuisance to surrounding areas and intends to take every action necessary to attain that requirement.

10. How visible will the landfill be?

A conceptual design of the proposed landfill has not yet been completed, so no specific height is yet being proposed. However, CSWD recognizes that the visual impact of the landfill will be addressed by Act 250. The proposed design will give due consideration to the facility's visual impact. Current thoughts are that the landfill will be truncated significantly below the maximum which could otherwise be geometrically obtained. Additionally, the current plan also calls for the planting of trees and bushes on intermediate terraces up the landfill's side slopes to soften any visual impact, as well as similar plantings on the landfill's crest.

11. Will the groundwater and the Winooski River be polluted by the landfill?

The landfill will be fully lined with an impermeable plastic liner to collect all liquid that drains to its bottom. Liquid will be removed as it accumulates on the liner. Under this primary liner, there will be a secondary plastic liner and

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secondary collection system. In the event that the primary liner leaks, the secondary system will collect any leachate that leaks past the primary liner. Beneath the secondary liner will be two feet of very low permeability clay. This clay will essentially plug any leaks in the highly unlikely event that they occur in the secondary liner.

It is important to realize that one of the most favorable characteristics of this site is the low permeability of the native soil and rock, which naturally ensures a high level of aquifer protection. Additionally, a series of monitoring wells will surround the site. The wells will be periodically sampled and analyzed to document that no contamination is present.

12. Will the landfill impact property values?

There have been landfills at the end of Redmond Road since 1969: two unlined Town landfills and one lined landfill. Surrounding property values seem not to have been affected in the slightest by the presence of these three nearby landfills. A study cited by landfill oponents, "Assessing the True Cost of Landfills," relies on assessors siting a hypothetical landfill in a hypothetical town to conclude that landfills can depress property values. The proposed landfill in Williston will be about a quarter the size of the hypothetical landfill used in the study. The proposed landfill in Williston will be designed to accept trash originating only in Chittenden County and designed with an eye towards increasing waste diversion through recycling, reuse, and waste-to-energy conversion technologies and programs, some of which are currently in use and others that are currently in experimental stages.

The proposed landfill will conform to standards required by the State of Vermont, which exist to protect the environment and the community, and may well exceed them.

13. Will the landfill dry up nearby drinking-water wells?

CSWD and its consultants do not believe that it would be possible for the landfill to have an impact on the quantity of water available to existing drinking water wells. Nevertheless, to address the concerns of neighbors, prior to submitting applications for permits, we plan to conduct a hydraulic analysis to verify our assumptions.

14. Will the landfill affect wetlands near the site?

The site was chosen, in part, because of the absence of important wetlands and the minimal amount of low-value wetlands. There exists less than six acres of Class 3 wetlands (the lowest value wetland categorized by the State) within the 66-acre proposed landfill footprint. Both State and federal permits will regulate any wetlands disturbance. Any necessary actions required by permits will be completed.

15. What will CSWD do to prevent stormwater runoff from washing toxins into the water supply?

By state law, all precipitation that comes into contact with waste will be collected and treated as leachate. No such water will be discharged as stormwater.

16. What happens to the leachate generated by the landfill?

CSWD proposes to utilize a state-of–the-art technology whereby leachate collected from the bottom of the landfill is reintroduced into the body of the landfill to assist in the decomposition process. In the event that leachate cannot be recirculated, it will be collected and transported to a permitted wastewater treatment facility.

17. Will the landfill pose a mercury risk?

Aggressive mercury collection and public education programs have so reduced the amount of mercury being disposed of in landfills that it is now nearly nonexistent in the CSWD trash stream. There are three closed landfills in Williston adjacent to the site of the proposed landfill: Two unlined old town landfills, the third lined. The lined landfill is monitored regularly for a variety of contaminants, including mercury. Mercury has not been found in our landfill leachate since a trace amount was detected in 1999.

As mercury-containing products have been banned from the waste stream, the danger from such products breaking en route to the landfill is nullified. The 2002 Vermont Mercury Emissions Inventory indicates that total annual mercury emissions from all Vermont landfills, lined and unlined, comes to just over 3 ounces. To put this in perspective, more

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than 70 pounds of mercury enter the environment each year from all forms of transportation, and 56 pounds per year are emitted from residential heating sources.

Household (alkaline) batteries have not contained mercury since the early 1990s, thus are no longer considered hazardous. Rechargable, lead-acid, lithium, and button cell batteries, on the other hand, do contain toxins and are collected at CSWD Drop-Off Centers. A state-commissioned study shows that mercury-containing products are virtually nonexistent in the waste stream.

18. Will the project result in more truck traffic?

Almost all waste currently disposed of from within the County currently is delivered to one of two transfer stations, both of which are located in Williston and one of which is already located on Redmond Road. Instead of utilizing these transfer stations, it is intended that the trucks will instead deliver the waste to the landfill. Thus, the total number of trucks delivering waste to facilities in Williston should remain unchanged. Currently however, all of the waste delivered to these transfer stations is also loaded into tractor trailers and then trucked out of the County. These 7,000 trucks per year are intended to be eliminated. Thus, truck traffic in Williston should actually decline when the landfill becomes operational.

19. Will the odors emanating from the landfill be able to be smelled off-site?

Since the design of the landfill is not yet complete, an Odor Management and Control Plan is not yet finalized. However, CSWD recognizes the importance of ensuring that off-site odors do not have a significant negative impact and intends to take every action necessary to attain that requirement.

20. Does the siting of the landfill meet FAA regulations for being located so closely to an airport?

Certain classes of airports require that no landfill be sited within 6 miles. The Burlington airport is not in that class. The FAA and the Burlington International Airport have both been aware of this project for many years and have no concerns about the landfill interfering with airport activity.

21. Does the landfill need the Circumferential Highway?

No. The traffic resulting from the landfill can be easily accommodated on the current road network and does not require the construction of the Circumferential Highway.

22. How large is the landfill and how long will it last?

Besides the landfill itself, the site will also accommodate a scale and scalehouse, maintenance garage, recycling area, and a relocated and improved Drop-Off Center. CSWD is also determining how to accommodate future technologies. While it's likely only about two to three acres will be open at any one time, the actual landfill footprint is still being determined. A complex matrix of cost, waste stream estimates, and projections of future technologies must be balanced to reach a final design. CSWD is in the process of determining the final design that will be officially presented to the public. Estimates will assume that, over the next 15 years, significant advancements are made in reducing our waste stream.

23. What hours will the landfill operate?

The Host Town Agreement limits hours to a maximum of 10 hours per weekday between 6 a.m. and 6 p.m. and five continuous hours on Saturday between 6 a.m. and 1 p.m. Hours of operation will be established within those allowable time spans.

24. When will the landfill begin operating?

The earliest that the landfill can reasonably be expected to become operational is 2011, but the odds are high that the opening date will be further into the future than that.