DANE COUNTY DEPARTMENT OF
WASTE + RENEWABLES

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Dane County Sustainability Campus and Landfill No 3

Frequently Asked Questions – Landfill Permitting

1. What does the Landfill permitting process consist of?

Permitting a landfill is a multi-step process that is under the jurisdiction of the Wisconsin Department of Natural Resources (WDNR). The first step is obtaining the WDNR's initial opinion on the suitability of a proposed landfill site. This includes assessing the locational criteria (setbacks from waterways, private wells, etc.) as well as an onsite inspection with WDNR staff. This first step also includes a preliminary report assessing the regional geology and land use, as well as the basic layout of the proposed landfill. These first steps are formally referred to as the **Initial Site Inspection** and **Initial Site Report.**

The next step includes an extensive geotechnical investigation, an evaluation of the need for the landfill, analysis on the alternatives to landfilling, and a preliminary design for the proposed landfill. The WDNR assesses the need for the landfill and determines the feasibility of the preliminary design. This step is formally referred to as the **Feasibility Report** and typically takes several years to complete. A **local negotiated agreement** is also a required step of the permitting process (refer to Local Negotiated Agreement FAQs).

The last major step includes the development of a plan of operation for the proposed landfill. This includes a detailed phasing plan of the landfill, construction requirements, operational procedures, monitoring requirements, and a plan for financing the closure and long-term maintenance of the proposed landfill. This step is formally referred to as the **Plan of Operation.**

2. What is the status of landfill permitting and when will the landfill be built?

W+R has been undertaking efforts to permit a new Dane County landfill on the Eastern portion of the Yahara Hills Golf Course. Under Wisconsin State law, a

landfill owner proposing a new landfill or an expansion to an existing landfill must complete the multi-step permitting process (i.e. **Initial Site Inspection, Initial Site Report, Feasibility Report and Plan of Operation**) with the Wisconsin Department of Natural Resources (WDNR). W+R submitted the Feasibility Report in early 2024 and subsequent addendums in early 2025. In May 2025, W+R was given notice by WDNR that the ***Feasibility Report is complete.***

Though a Feasibility Report completeness determination is a major step, this is not an approval of the proposed landfill. It does confirm that the minimum information required by chapter NR 512, Wis. Adm. Code, and s. 289.24(3), Wis. Stats., has been provided. The information provided includes:

- a comprehensive and detailed site-specific geologic and hydrogeologic investigation;
- a preliminary engineering design;
- an environmental analysis;
- documentation of the need for the proposed landfill; and
- an analysis of the alternatives to landfilling, such as waste reduction, reuse, recycling, composting and energy recovery initiatives and services.

After the Feasibility Report was determined to be complete, the report and its associated documents were posted on the WDNR's website for public review and comment. WDNR posted the documents to their website on Wednesday, May 21st, beginning a 30-day public comment period.

After the conclusion of the public comment period, WDNR will issue a feasibility determination which, if positive, allows W+R to proceed with the development of a detailed Plan of Operation for the proposed landfill, which is the final step in the landfill permitting process. Construction on the landfill is anticipated to begin by late 2026 or early 2027 with operation beginning in late 2027 or early 2028.

3. Why did the landfill request exemptions to WDNR's requirements?

WDNR has the ability to grant exemptions to specific NR code requirements. W+R believes these exemption requests are compatible with requests approved at other MSW landfills in Wisconsin.

W+R is seeking the following exemptions, as outlined in WDNR's Project Summary and Environmental Analysis for the Proposed Dane County Landfill Site No. 3, below, followed by additional context provided by W+R in italics:

a. An exemption from s. NR 504.04(3)(a), Wis. Adm. Code, which states that a landfill may not be established where the limits of filling would be located within 1,000 feet of any navigable lake, pond, or flowage, not including landfill drainage or sedimentation control structures.

   There is one pond located within the proposed landfill footprint that was constructed as part of golf course development. The pond was determined to be artificial in nature by WDNR and that no regulatory authority applies to this pond, which means that W+R does not have to maintain the minimum setback requirements.

b. An exemption from s. NR 504.04(3)(d), Wis. Adm. Code, which states that a landfill may not be established where the limits of filling would be located within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area, unless the landfill is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park, or natural area.

   The right-of-way of US HWY 12 & 18 to the north, and recreational areas to the west and south (Yahara Hills Golf Course and City of Madison Parks Yahara Hills Park South) are located within 1,000 feet of the proposed landfill boundary. W+R proposes to provide continuous screening of the waste within 1,000 feet of these areas. This exemption and screening requirements were approved and implemented at the existing Dane County Landfill Site No. 2 (Rodefeld Landfill).

c. An exemption from s. NR 504.06(2)(b), Wis. Adm. Code, which requires a minimum separation distance of 10 feet between the seasonal high groundwater table and the bottom of the clay component of a composite or clay liner.

   The historical context for this requirement is to ensure lysimeters, a type of groundwater monitoring device, can be installed and to prevent damage to the

clay liner. Lysimeters are no longer required for modern-day landfills since groundwater can be monitored by more efficient devices.

As part of the Feasibility Report, W+R is proposing an underdrain system to ensure integrity of the landfill liner. The underdrain system is installed below the landfill liner and is a network of pipe with granular bedding, similar to a drain tile, to ensure water is maintained below the landfill liner. Underdrain systems are a common practice in landfill design to control groundwater and in some cases are used to monitor groundwater. This exemption and underdrain concept was also approved and used as part of Rodefeld's 2014 expansion.

d. An exemption from s. NR 504.06(2)(c), Wis. Adm. Code, which requires a minimum separation distance of 10 feet between the top of bedrock and the bottom of the clay component of a composite liner.

   A landfill liner consists of compacted clay, plastic, and a drainage layer to protect the environment. The historical context for this requirement is to avoid concerns with potentially variable bedrock surfaces that could cause problems if unexpected high bedrock spots were encountered during construction.

   Geotechnical investigation, prescribed under NR 512, were conducted in early 2023 with additional investigations in early 2024 and late 2024 to confirm bedrock surface and constructability of the Feasibility Report design.

   W+R exceeded the minimum requirements for borings and excavations to characterize the bedrock surface. Additionally, subbase grades can be adjusted so that removal of competent bedrock would not be needed to construct the proposed landfill. Note, this exemption request has been used at other municipal solid waste (MSW) landfills in Wisconsin.

e. An exemption from s. NR 507.18(2)(a), Wis. Adm. Code, which requires baseline groundwater quality to be established at all wells installed outside the proposed limits of filling.

   The proposed landfill has a network of monitoring wells to ensure the integrity of the landfill liner. As part of the landfill permitting process, all monitoring wells located outside the landfill boundary were sampled to establish existing groundwater quality for various parameters (e.g. volatile organic compounds, heavy metals, etc.).

These sampling events, prior to waste acceptance, are called "baseline monitoring". Baseline monitoring data can then be used to quickly identify any changes from existing conditions after the landfill starts accepting waste.

This type of exemption, especially for new landfill sites, is common because the proposed landfill boundaries are more prone to adjustments. In the time since the Feasibility Report was submitted, additional baseline monitoring was completed for monitoring wells located outside the proposed landfill boundary to satisfy this requirement.

f. An exemption from s. NR 512.09(1)(b), Wis. Adm. Code, which requires borings to extend a minimum of 25 feet below the anticipated subbase grades. Three of the geotechnical investigation borings extended less than 25 feet below the proposed subbase grades.

   The three borings that did not meet the 25-foot depth requirement were drilled to a minimum depth of 23.5 feet below subbase grades. Overall, W+R exceeded the minimum number of borings and excavations required by NR 512 to adequately characterize the geology of the proposed landfill.

   This type of exemption, especially for new landfill sites, is common because subbase grades may still be unknown while geotechnical investigations are occurring.

g. An exemption from s. NR 512.09(2)(d), Wis. Adm. Code, which requires groundwater monitoring wells be located no more than 300 feet from the proposed landfill boundary.

   A minimum of 20 water table observation wells are required to be located within 300 feet of the proposed landfill boundary. A total of 25 water table observation wells were installed for the proposed landfill, of which 19 are within 300 feet of the proposed limits.

   One monitoring well is located approximately 330 feet from the proposed landfill boundary and W+R is seeking an exemption to include this monitoring well to meet the minimum number of water table observation wells. Even though the monitoring well is 30 feet beyond the 300-foot limit, the monitoring well provides valuable information to characterize groundwater flow.

This type of exemption, especially for new landfill sites, is common because the landfill boundary is more prone to adjustments. Additionally, W+R proposes to install at least one additional water table observation well within 300 feet of the landfill boundary as part of the future groundwater monitoring system for the landfill.

h. Exemptions from chapter NR 140, Wis. Adm. Code, which establishes groundwater quality standards for a list of substances that need to be met at their designated point of standards application for the facility. Section NR 140.28 (1), Wis. Adm. Code, states that the department may not approve a proposed facility at a location where a Preventive Action Limit (PAL) or an Enforcement Standard (ES) has been attained or exceeded in groundwater unless an exemption has been granted.

   A limited number of substances had elevated results, some of which are common in Wisconsin, while others were likely linked to the geology or historic use of the site.

   W+R submitted and received WDNR's Redevelopment and Remediation (R&R) programs concurrence on a "No Action Required" Request for monitoring wells that had either a PAL or ES exceedance.

4. How does the landfill design manage areas with potentially high groundwater?

Although this site does have areas with higher groundwater, there are engineering solutions to ensure the integrity of the landfill liner is maintained. The primary engineering solution is to install an underdrain system, which is a network of pipes with granular bedding, similar to a drain tile, to ensure water is maintained below the landfill liner. Underdrain systems are a common practice in landfill design to control groundwater. This exemption and underdrain concept was also approved and used as part of Rodefeld Landfill's 2014 expansion.

5. How does the geology of the site impact landfill design?

W+R has conducted numerous geotechnical investigations in early 2023, early 2024, and late 2024 and have collected adequate data to properly characterize the bedrock surface and quality of bedrock. Although this site has variation in the type of bedrock present, the preliminary design of the proposed landfill will

be constructable, structurally stable, and allow for an effective monitoring system to ensure protection of the environment.

6. Why is this location being proposed for the landfill and not another?

There are a number of factors that go into considering a potential landfill site, including setbacks from private wells and wetlands, land topography, hydrology, surrounding land uses, and access to utilities.

The Yahara Hills site has a number of advantages for this project including its proximity to the urban center of our County, which minimizes waste disposal costs and allows for easy access to the site. These cost savings are passed to our customers. Since many of our customers serve municipalities, ultimately, these savings are reflected on property tax bills.

This site is close to existing utilities, transportation routes, and other businesses, making it ideal for the proposed landfill. Due to these reasons, we are not currently pursuing any other sites.

7. How will the landfill impact the surrounding neighbors?

With the proposed landfill's proximity to our existing facility, we will continue to share many of the same neighbors. We also recognize this plan will bring the future landfill approximately ½ mile closer to some residents.

For over 35 years, we have worked hard to be the best neighbors possible, listening to concerns and making adjustments to our operations when possible. This is a responsibility that we take seriously, and we will continue to do everything possible to limit our impacts.

There are also regulatory and contractual requirements that will be or have been developed for this site to help reduce and mitigate the potential impacts. Site design and operations are regulated by the Wisconsin Department of Natural Resources and the local negotiated agreement with the surrounding communities determines key elements of the project.

8. What are the opportunities for public input?

Public input is key to the success of this project and we look forward to engaging with the community about what the future of waste management

looks like for Dane County. There will be many opportunities for public input during the planning process, and Dane County will consider all of that feedback as we work to design and develop this site.

The County will host or attend informational sessions as needed through the course of planning for the project. A project timeline with opportunities for community input can be found on our project webpage under the "engage", and "timeline" sections. This project will continue to go before several County and City committee meetings during the approval process and the WDNR will hold a public comment period for the feasibility report.

In addition, we have heard recent requests for additional ways to provide comments and concerns and have created a feedback section on our webpage here.

9. Where the entrance and traffic routes be for the site?

Location of the site entrance will be determined through a traffic study. The primary objectives will be to maintain safety and minimize impacts to neighboring communities. Preliminary access points are currently established on County Hwy AB and on Millpond Road. The access point on County Hwy AB will be primarily for large commercial traffic entering the landfill while the access points along Millpond Road will be for residential traffic and/or traffic from the Sustainable Business Park.

Traffic routes and vehicle restrictions are part of the local negotiated agreement with nearby municipalities and the primary truck route will be from US Highway 12 & 18. This will minimize impacts to traffic on town and county roadways such as Siggelkow Road and County Hwy AB.

It is important to note that the newly constructed roundabouts, done as part of the County Highway AB interchange work by WisDOT, were designed to accommodate the largest vehicle using the existing and proposed landfill.

10. When will landfill construction start?

Construction of some elements of the Sustainability Campus, including a Waste Education Center (and Administrative Building), are proposed to start by spring of 2026. These early elements of the project will impact a relatively small footprint of the site.

Construction of the proposed landfill is anticipated to begin by late 2026 or early 2027 with operation beginning in late 2027 or early 2028.

11. How high will the landfill be?

There are physical limits to how high a landfill can be built based on maximum slope requirements by WDNR, stability of the slopes, and geotechnical investigations. The height of the landfill also determines the capacity and the length of time the landfill site could serve the community.

With the preliminary design submitted as part of the Feasibility Report, the final elevation is proposed to be 1,136 feet high or about 240 feet above current ground elevation. For comparison, the existing landfill is approved to go to 1,065 feet high, but the Rodefeld site is narrower which limits the vertical height. The final elevation of the proposed landfill will be determined through the Local Negotiations and the Plan of Operations.

12. What are the requirements for building a landfill near private wells and what is the risk to groundwater?

WDNR requires that a landfill's boundary be at least 1,200 feet from any private or public water supply wells. At the proposed landfill site, there are six (6) wells located within 1,200 feet of the landfill boundary. W+R owns the properties where the wells are located and those wells are planned to be abandoned prior to any waste filling activities.

Modern landfills, like the Rodefeld Landfill and the proposed landfill, are highly engineered and carefully constructed to ensure protection of the environment. There are also various requirements for landfills to monitor the groundwater and private wells surrounding the site to ensure that the water quality continues to remain consistent with conditions prior to the landfilling activities. Through our 35-year history of monitoring groundwater at and near the Rodefeld site, our team of staff, consultants, and regulators have not observed any results that would indicate that the landfill is impacting groundwater.

13. What will be done to control landfill litter?

W+R is committed to doing everything possible to minimize litter from the landfill. Litter is caused when material becomes airborne, typically in areas that

are actively receiving waste. The most effective way for us to control litter is to prevent the litter from becoming airborne and leaving the landfill. To achieve this, we have and will continue to use the following management practices:

- Require all customers to cover their loads when coming to the landfill and inspect their vehicles when leaving to ensure nothing falls during transit.
- Place windscreens in the wind direction to prevent the litter from leaving the area actively receiving waste.
- Maintain a minimum 6' foot high fence along the perimeter of the property to prevent litter from leaving the site.
- Cover the waste at the end of each working day to prevent anything from becoming airborne.
- Inspect the landfill property and surrounding lands for litter.
- Close down the landfill when winds speeds are too high to properly prevent waste from becoming airborne.

In the event that litter does leave the landfill we ensure a prompt response to collect it and bring it back to the landfill to be properly disposed of. Additionally, the local negotiated agreement for the proposed landfill includes response times for when litter is seen off the landfill property.

14. What will be done to control landfill odors?

W+R is committed to doing everything possible to minimize odors. Landfill odors are caused by constituents in biogas that are produced during the breakdown of the waste generated from Dane County households and businesses. The most effective way for us to control odors is to control the landfill gas with a robust and well-functioning landfill gas extraction system. To achieve this, we have and will continue to use the following management practices:

- Install permanent cap over closed areas of the landfill. This cap is engineered to include multiple layers, including a layer of HDPE plastic, and the cap is over 4-feet thick in depth. Covering the waste with a cap creates a physical barrier that prevents gas from leaving the waste.
- Install temporary cover soils over as much of the uncapped landfill area as possible.
- Cover the active area of the landfill at the end of each day.

- Install landfill gas wells sooner and closer together than required to collect landfill gas as it is generated. To learn more about our landfill gas collection and treatment system, check out this video.
- Utilize advanced gas collection and monitoring systems that remotely monitor our gas extraction wells every 15 minutes and automatically make adjustments to maximize the gas collection effectiveness.
- Monitor the gas extraction system on a daily basis and inspect and monitor our entire wellfield at least monthly. We also perform a scan of the surface of the landfill each quarter to identify any areas where gas could be travelling through the cover.

Varying conditions such as barometric pressure, wind patterns, and humidity do temporarily impact gas collection abilities and odors. We have invested in a number of tools and practices to respond to these conditions including:

- Mobile deodorant misting system
- Perimeter odor neutralizing vapor system
- Surface application of deodorant, as needed
- On-site weather stations to monitor weather conditions

We have added an online odor reporting platform and the local negotiated agreement for the proposed landfill includes response times for when an odor complaint is submitted. We have heard recent requests for additional ways to provide comments and concerns and have created a feedback section on our webpage here.

15. Will the proposed landfill attract pests?

We are required to minimize conditions that would attract pests and animals such as rodents, birds, and burrowing animals. These efforts include covering the waste daily, paid professional pest control, and regular visual checks for signs of animal intrusion on the landfill. We don't commonly receive comments or concerns from our existing neighbors about pests.

Of note, we have invested in native pollinator seed mixes on our landfill cover and are committed to habitat restoration so that the site attracts a diversity of species of wildlife.

16. How will the landfill impact stormwater?

As with any development, additional stormwater management measures (e.g. ponds, swales, etc.) will be constructed to effectively manage stormwater from newly developed areas.

Dane County and the City of Madison recently updated stormwater management ordinances and as a result of this development, the site will be subject to more rigorous stormwater management requirements.

Our stormwater design will meet or exceed stormwater management requirements of the City of Madison, Dane County, and the Wisconsin Department of Natural Resources.

17. Whose waste is being disposed of in the landfill and does the landfill take waste from outside of the County?

In our current local negotiated agreement for Rodefeld, 10% of our waste is allowed to be from outside of Dane County while our new local negotiated agreement for the proposed landfill allows only 5% but there is an exemption for materials destined for recycling activities at the site. The actual quantity of out-of-county waste we accept is far less, and we only exercise this option in unique circumstances such as emergencies or large storm events.

The majority of Dane County's waste is disposed of at the Rodefeld landfill, but not all of it. Each municipality is responsible for waste collections and can contract for their waste disposal services which sometimes results in waste leaving the County (most commonly if a contracted hauler also owns a landfill).

18. What level of visual screening is going to be provided for nearby homeowners, the proposed soccer fields, and golf course users?

To the extent possible, W+R will protect and save existing mature trees on the site. To aid in this effort, W+R has surveyed and documented existing mature trees in areas likely to be protected.

Additional screening, most preferably natural screening, such as trees and shrubs, will be planted in strategic locations that aid in screening the landfill.

Screening could also come in the form of soil berms or fencing. We are required to provide adequate screening of the landfill and during the Plan of Operation, W+R will need to obtain WDNR' approval of screening plans.