



May 11, 2022

File Ref: FID 113450480
Dane County
SW/CORR

Mr. John Welch
Director of Waste & Renewables
Dane County Landfill
1919 Alliant Energy Center Way
Madison, WI 53713

Subject: Initial Site Inspection Response - Proposed Dane County Landfill Site #3
6701 US Highway 12 & 18, Madison, Wisconsin

Dear Mr. Welch:

This letter documents the initial site inspection (ISI) performed by the Department of Natural Resources (department) on April 14, 2022, for the proposed Dane County Landfill Site #3, and the department's preliminary opinion regarding the suitability of the site location. Department staff conducted the initial site inspection with staff from Dane County Waste & Renewables (county) and representatives from Tetra Tech, the county's consultant. The purpose of the inspection was to identify any potential conflicts the proposed development might have with the location and performance standards in s. NR 504.04, Wis. Adm. Code.

As part of the inspection, the department evaluated the information in Tetra Tech's March 17, 2022 ISI request letter submitted on behalf of the county. According to the letter, the proposed development consists of an approximate 230-acre parcel located in the SE $\frac{1}{4}$ of Section 25 and the N $\frac{1}{2}$ of the NE $\frac{1}{4}$ of Section 36, T17N, R10E, and is currently developed as the City of Madison Yahara Hills Golf Course.

Based on the review of the March 17, 2022 ISI request and observations from the ISI, the department's preliminary opinion regarding the suitability of site location is that the site location has potential. However, there may be some conflicts with the locational criteria contained in s. NR 504.04(3), Wis. Adm. Code, that will need to be addressed. If there are conflicts that cannot be satisfactorily addressed in accordance with applicable requirements, the conflicts would be constraints to site development.

Summary of Locational Criteria: As described in s. NR 504.04(3)(a) to (i), Wis. Adm. Code, there are several locational criteria that apply to the proposed landfill development. The proposed limits of filling may not be located within:

- (a) *1,000 feet of any navigable lake, pond or flowage.* According to the ISI request, the proposed limits of waste are located within 1,000 feet of a navigable lake, pond or flowage. According to the department's Surface Water Data Viewer (SWDV), an unnamed pond (WBIC 5575561) is located within the proposed limits of waste. A preliminary review of historical aerial imagery indicates this unnamed pond is not naturally occurring but was constructed during development of the golf course. The pond would be removed prior to constructing the landfill liner system.

Based on the information provided in the ISI request and consultation with Al Ramminger, department Water Regulation and Zoning Specialist, the pond is considered to be an artificial wetland which would

likely qualify as exempt from state permitting requirements. Consultation with the department's Watershed Management Program, and possibly the U.S. Army Corps of Engineers (ACOE), will be conducted again by department Waste and Materials Program plan review staff during review of the Initial Site Report (ISR) and the feasibility report to ensure that there are no areas of the pond, or around the pond, that may be regulated under wetland or waterway rules and to assess if an artificial wetland determination would be needed by the department or the ACOE.

- (b) *300 feet of any navigable river or stream.* According to the ISI request, no navigable rivers or streams are located within 300 feet of the proposed site. An unnamed stream (WBIC 803000) is located approximately 850 feet southeast of the proposed limits of disturbance and approximately 950 feet from the proposed limits of waste. The stream flows to the northeast and discharges into Door Creek.
- (c) *A floodplain.* According to the ISI request, the proposed development is not within a floodplain. The SWDV also indicates this area is not in a floodplain.
- (d) *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.* According to the ISI request, the proposed limits of waste would be located approximately 425 feet south of US Highway 12 & 18 and 150 feet west of County Highway AB. Interstate 90/39 (I-90/I-39) is approximately 1,350 feet southwest of the proposed limits of waste. The City of Madison intends to maintain 18 holes of the Yahara Hills Golf Course after the proposed landfill is constructed. The proposed limits of waste overlap portions of the currently proposed 18-hole golf course; however, the final reconfiguration of the golf course has not been determined. The department understands that the county will propose screening measures from US Highway 12 & 18 and the Yahara Hills Golf Course, as required in future submittals for the proposed landfill. Screening is also proposed for County Highway AB although it is not considered a state trunk highway that requires screening. Screening should also be considered for I-90/I-39. Screening should be utilized to the maximum extent practicable.
- (e) *An area where the design or operation of the landfill would pose a significant bird hazard to aircraft.* The ISI request states that there are no airports designed or planned within 5,000 feet of the proposed limits of waste. The nearest public airport is the Blackhawk Airfield, located in Cottage Grove, and Dane County Regional Airport (DCRA), located in Madison. Blackhawk Airfield and DCRA are located approximately 5.25 miles and 7 miles from the proposed limits of waste, respectively. The nearest private use airport is the Quale Airport, located in Cottage Grove, about three miles from the proposed site.
- (f) *1,200 feet of any public or private water supply well.* The ISI request states that three private water supply wells (PW-C, PW-D and PW-E) are located within the proposed limits of waste. These wells are owned by the City of Madison and serve the Yahara Hills Golf Course. The county would abandon these wells prior to constructing the proposed landfill. Golf course private water supply wells PW-A and PW-B are located approximately 1,250 feet south and approximately 1,100 feet west of the proposed limits of waste, respectively, and are not anticipated to be abandoned as part of the proposed development. If the county pursues landfill development that would result in the limits of waste to include the areas where water supply wells are located, then the department may require additional well filling and sealing requirements that would involve either complete removal of the well casing or perforation of the well casing to ensure the annular space is filled and sealed with impermeable material. This has successfully been done in the past at other facilities and provides protection to the groundwater quality for the surrounding area. The department is happy to share and discuss the methods and procedures that may be used.

Four assumed private water supply wells are located at residences east of County Highway AB. Based on mapping estimates, the wells are approximately 380, 800, 1,000 and 1,030 feet from the proposed limits

of waste. Another assumed private water supply well associated with a residence is located approximately 1,100 feet southwest of the proposed limits of waste. A known private water supply well (Biogas Well YZ391) is located approximately 990 feet north of the proposed limits of waste, adjacent to the Biogas Facility for the Dane County Landfill Site No. 2. The ISR and feasibility report for the proposed facility should verify and document the actual locations and separation distances of these water supply wells.

- (g) *200 feet of a fault that has had displacement in Holocene time.* The ISI request states that the proposed development is not within 200 feet of a fault that has had displacement since Holocene time and that no faults in Wisconsin are known to have had displacements since the Holocene time. This assessment will be completed during the ISR and feasibility reviews.
- (h) *Seismic impact zone.* The ISI request concludes that the site is not in a seismic impact zone based on United States Geological Survey (USGS) information. This assessment will be completed during the ISR and feasibility reviews.
- (i) *Unstable areas.* The ISI request states that the bedrock beneath the proposed landfill site consists of Prairie du Chien Group dolomite and sandstone and/or the Cambrian Sandstone. Based on previous site geologic studies at the Dane County Landfill Site No. 2 and supply wells drilled at the golf course, there is no evidence of unstable conditions. This assessment will be completed during the ISR and feasibility reviews.

It appears that the site meets, or could be constructed and operated to meet, the performance standards in s. NR 504.04 (4), Wis. Adm. Code.

- (a) *Wetland Areas* –Based on a review of the department’s SWDV, the proposed landfill would directly impact one wetland. The SWDV shows an approximate 2.27-acre wetland overlying the unnamed pond that is proposed for removal and is located within the proposed limits of waste. The SWDV also indicated the presence of “wetlands too small to delineate” in the northeast corner of the proposed limits of disturbance. The department understands that the county will conduct wetland delineations in these areas and will initiate the wetland permitting process if the field delineations indicate wetlands would be impacted as a result of the proposed development.
- (b) *Critical Habitat Areas* - Based on a review of the Natural Heritage Inventory (NHI), it appears unlikely that there would be any significant adverse impact on critical habitat areas or endangered or threatened species due to the proposed landfill development. The department understands that the county will submit an Environmental Resources Review application to the NHI Program. A copy of the application and response from the NHI Program should be included with future submittals for the proposed landfill. The department requests that any documentation identifying locations of specific endangered or threatened species from the NHI review be submitted as a stand-alone document to the department, so the department can maintain confidentiality of this information. Locations of endangered or threatened species are considered confidential information under Wisconsin’s endangered species law in order to protect those species from collectors and poachers.
- (c) *Archaeological Resources:* According to the ISI request, the county’s archaeological consultant reviewed available literature and records on previously reported cultural resources in and around the Yahara Hills Golf Course. The study found no previously reported archaeological sites within the study area and no standing buildings or other structures that are listed on the Wisconsin Architecture and History Inventory. The 1967 Club House, located to the west of the proposed site and within the property that the City of Madison would maintain, has been identified as potentially significant.

Archaeological issues and historical structures for the site were cleared by Richard Kubicek, Departmental Archaeologist/Departmental Historic Preservation Officer, on March 23, 2022. The department understands that the county will conduct additional archaeological investigation at the site to satisfy the requirements of the State Historic Preservation Office.

The performance criteria outlined in s. NR 504.04 (4) (c) through (f), Wis. Adm. Code include evaluation of surface water, groundwater, gas migration and air contaminant impacts. These performance criteria would be evaluated during the department's review of a feasibility report for the proposed development.

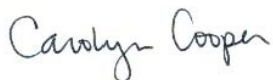
Please remember that s. NR 504.04 (4) (d), Wis. Adm. Code, requires submittal of a 7.5 Minute USGS map or equivalent with a minimum scale of 1 inch=500 feet. The ISI request included a 1 inch=2,000 feet scale topographic map; however, a 1 inch=500 feet scale map will be required in the ISR submittal. Several maps at this scale may be needed to show all items listed in this code section, which include the depiction of contour intervals to sufficiently show relief, surface waters, floodplains, existing land use conditions including the location of public parks, and all water supply wells and residences located within one mile of the property boundaries of the proposed landfill.

Please note that s. NR 504.09 (2) (f), Wis. Adm. Code, requires a minimum separation distance of 100 feet be maintained between the limits of filling and the adjacent property line. A minimum distance of 50 feet must be maintained between any permanent berms or excavations associated with the landfill, excluding stormwater diversion structures, and the adjacent property line.

The locational and performance criteria will be evaluated again as the department reviews the ISR and feasibility report. Please keep in mind that as the department continues its review of the proposed development and as new information is presented, the department may have additional questions, concerns or requests for further information before a feasibility determination is made.

Please do not hesitate to contact me at 608-931-9387 or by email at carolyn.cooper@wisconsin.gov with any questions about this letter.

Sincerely,



Carolyn Cooper
Hydrogeologist
South Central Region

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