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From Bobb Beauchamp (FAA) to Teri Daigle and John Oswald (Cornerstone), confirming airport setback requirements from the SMCL Sector 2 proposed Northeast Expansion have been met, 3/21/2019

From Bobb Beauchamp (FAA) to Teri Daigle (Cornerstone), request for additional information regarding airport setback requirements from the SMCL Sector 2 proposed Northeast Expansion, 3/11/2019

From John Oswald, Cornerstone Professional Geologist, SMCL – Sector 2 NE Expansion – AGIP Additional Information, 11/7/2018

From Ned Noel, City of Eau Claire Associate Planner, regarding zoning of Seven Mile Creek Landfill site, 7/21/2014

From David Lentz, WDNR Karner Blue Butterfly HCP Implementation Coordinator, to Jerry Kelly (NRC) and Mark Vinall (Onyx SMCL), confirming there is no occupied Karner blue habitat remaining in the north part of the property and therefore there is no “take” and no permit needed, attachment is included (NRC Letter Report dated 10/1/2004), 10/5/2004

WDNR Approval Letters



State of Wisconsin / DEPARTMENT OF NATURAL RESOURCES

Tony Evers, Governor
Preston D. Cole, Secretary
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101 S. Webster St.
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Madison, WI 53707-7921

May 1, 2019

John Oswald
Cornerstone Environmental Group
8413 Excelsior Drive, Suite 160
Madison, WI 53717

SUBJECT: Endangered Resources Review (ERR Log # 19-021)

Proposed Seven Mile Creek Landfill - Sector 2 Northeast Expansion, Eau Claire County, WI (T27N R08W S09)

Dear John Oswald,

The Bureau of Natural Heritage Conservation has reviewed the proposed project described in the Endangered Resources (ER) Review Request received January 8, 2019. The complete ER Review for this proposed project is attached and follow-up actions are summarized below:

Required Actions: 0 species

Recommended Actions: 0 species

No Follow-Up Actions: 10 species

Additional Recommendations Specified: No

This ER Review may contain Natural Heritage Inventory data (<http://dnr.wi.gov/topic/NHI>), including specific locations of endangered resources, which are considered sensitive and are not subject to Wisconsin's Open Records Law. Information contained in this ER Review may be shared with individuals who need this information in order to carry out specific roles in the planning, permitting, and implementation of the proposed project. **Specific locations of endangered resources may not be released or reproduced in any publicly disseminated documents.**

The attached ER Review is for informational purposes and only addresses endangered resources issues. **This ER Review does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.**

Please contact me at 608-264-8968 or via email at anna.rossler@wi.gov if you have any questions about this ER Review.

Sincerely,

Anna Rossler

Endangered Resources Review Program

cc:

Endangered Resources Review for the Proposed Seven Mile Creek Landfill - Sector 2 Northeast Expansion, Eau Claire County
(ER Log # 19-021)

Section A. Location and brief description of the proposed project

Based on information provided by the ER Review Request form and attached materials, the proposed project consists of the following:

Location	Eau Claire County - T27N R08W S09
Project Description	The proposed Sector 2 Northeast Expansion of the Seven Mile Creek Landfill consists of a 12.5 acre horizontal expansion northeast of the currently permitted Sector 2 landfill as well as a 22.3 acre vertical expansion overlaying Sector 2. The proposed horizontal expansion area has already been disturbed for landfill support features with the construction of access roads and a sedimentation basin and a roll-off storage/staging area. These features and the remaining forested area would be removed for a landfill expansion as will as the construction of additional landfill support features adjacent to the expansion. These include an extension of an existing sedimentation pond east of Phase 10 to the north and soil stockpiles east of the proposed expansion.
Project Timing	Anticipated May 2019- Anticipated October 202
Current Habitat	The current and past land use of the proposed vertical expansion area has been and will be a landfill and related support services operated by Advanced Disposal Services. The current land use of the horizontal expansion area and adjacent land within the SMCL property has been a mixture of landfill support features (60%) and pine and oak forest (40%).
Impacts to Wetlands or Waterbodies	There are no wetland or natural waterbodies within the project area. No known or suspected impacts
Property Type	Private
Federal Nexus	No

It is best to request ER Reviews early in the project planning process. However, some important project details may not be known at that time. Details related to project location, design, and timing of disturbance are important for determining both the endangered resources that may be impacted by the project and any necessary follow-up actions. Please contact the ER Review Program whenever the project plans change, new details become available, or more than a year has passed to confirm if results of this ER Review are still valid.

Section B. Endangered resources recorded from within the project area and surrounding area

	Group	State Status	Federal Status
████████████████████	Bird~	THR	
████████████████████	Community	NA	
████████████████████	Community~	NA	
████████████████████	Community~	NA	
████████████████████	Community~	NA	
████████████████████	Moth	END	
████████████████████	Mussel~	SC/P	
Kamer Blue Federal High Potential Range	Other	NA	HPR
████████████████████	Turtle~	SC/P	SOC
████████████████████	Turtle~	THR	SOC

For additional information on the rare species, high-quality natural communities, and other endangered resources listed above,

please visit our Biodiversity (<http://dnr.wi.gov/topic/EndangeredResources/biodiversity.html>) page. For further definitions of state and federal statuses (END=Endangered, THR=Threatened, SC=Special Concern), please refer to the Natural Heritage Inventory (NHI) Working List (<http://dnr.wi.gov/topic/nhi/wlist.html>).

Section C. Follow-up actions

Actions that need to be taken to comply with state and/or federal endangered species laws: None

Actions recommended to help conserve Wisconsin's Endangered Resources: None

Remember that although these actions are not required by state or federal endangered species laws, they may be required by other laws, permits, granting programs, or policies of this or another agency. Examples include the federal Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, State Natural Areas law, DNR Chapter 30 Wetland and Waterway permits, DNR Stormwater permits, and Forest Certification.

No actions are required or recommended for the following endangered resources:

- [REDACTED] - Bird~

State Status: THR

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	Because of the lack of wetlands and the disturbance that is present at the site, no suitable habitat is present and no impacts are anticipated. [REDACTED] [REDACTED]

- [REDACTED] - Community

State Status: NA

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	It is unlikely that [REDACTED] is present at the project site. No impacts are anticipated.

- [REDACTED] - Community~

State Status: NA

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	No [REDACTED] is present at the project site. No impacts are anticipated.

- [REDACTED] - Community~

State Status: NA

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	No [REDACTED] is present at the project site. No impacts are anticipated.

- [REDACTED] - Community~

State Status: NA

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	No [REDACTED] is present at the project site. No impacts are anticipated.

• [REDACTED] - Moth

State Status: END

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	<p>Based on photos of the site, the project site appears highly disturbed and the wooded areas appear dense and disturbed at the edges. It is unlikely that sufficient suitable habitat is present at the project site. No impacts are anticipated.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

• [REDACTED] - Mussel~

State Status: SC/P

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	<p>Due to the lack of suitable aquatic habitat at the site and the distance to suitable habitat, no impacts are anticipated.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

• Karner Blue Federal High Potential Range - Other

State Status: NAFederal Status: HPR

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	<p>Based on photos of the site, the project site appears highly disturbed and the wooded areas appear dense and disturbed at the edges. It is unlikely that sufficient suitable habitat is present at the project site. No impacts are anticipated.</p> <p>The Karner Blue Butterfly High Potential Range (HPR) was developed through a model to identify areas where the Karner Blue Butterfly has the highest probability of occurrence. Karner blue (<i>Lycaeides melissa samuelis</i>), butterfly listed as Federally Endangered and Special Concern in Wisconsin, has been found in pine barrens and oak savanna in close association with its larval hostplant lupine (<i>Lupinus perennis</i>). In Wisconsin, also found along utility and road right-of-ways, abandoned agricultural fields, and managed forests. This butterfly has two flight periods: adults are present from late May through late June and again from late July through late August.</p>

• [REDACTED] - Turtle~

State Status: SC/PFederal Status: SOC

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary
Justification	<p>Because of the distance to the nearest suitable [REDACTED] turtle wetland, it is unlikely that [REDACTED] would be present at the project site. No impacts are anticipated.</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

• [REDACTED] - Turtle~

State Status: THRFederal Status: SOC

Impact Type	No impact or no/low broad ITP/A
Reason	Lack of Suitable Habitat within Project Boundary

Justification

Because of the distance to the nearest suitable [REDACTED] turtle stream, it is unlikely that [REDACTED] turtles would be present at the project site. No impacts are anticipated.

[REDACTED]

[REDACTED]

Section D. Next Steps

1. Evaluate whether the **'Location and brief description of the proposed project'** is still accurate. All recommendations in this ER Review are based on the information supplied in the ER Review Request. If the proposed project has changed or more than a year has passed and you would like your letter renewed, please contact the ER Review Program to determine if the information in this ER Review is still valid.
2. If federally-protected species or habitats are involved and the project involves federal funds, technical assistance or authorization (e.g., permit) and there are likely to be any impacts (positive or negative) to them, consultation with USFWS will need to occur prior to the project being able to proceed. If no federal funding, assistance or authorization is involved with the project and there are likely to be adverse impacts to the species, contact the USFWS Twin Cities Ecological Services Field Office at 612-725-3548 (x2201) for further information and guidance.

Section E. Standard Information to help you better understand this ER Review

Endangered Resources (ER) Reviews are conducted according to the protocols in the guidance document Conducting Proposed Endangered Resources Reviews: A Step-by-Step Guide for Wisconsin DNR Staff.

How endangered resources searches are conducted for the proposed project area: An endangered resources search is performed as part of all ER Reviews. A search consists of querying the Wisconsin Natural Heritage Inventory (NHI) database for endangered resources records for the proposed project area. The project area evaluated consists of both the specific project site and a buffer area surrounding the site. A 1 mile buffer is considered for terrestrial and wetland species, and a 2 mile buffer for aquatic species. Endangered resources records from the buffer area are considered because most lands and waters in the state, especially private lands, have not been surveyed. Considering records from the entire project area (also sometimes referred to as the search area) provides the best picture of species and communities that may be present on your specific site if suitable habitat for those species or communities is present.

Categories of endangered resources considered in ER Reviews and protections for each: Endangered resources records from the NHI database fall into one of the following categories:

- Federally-protected species include those federally listed as Endangered or Threatened and Designated Critical Habitats. Federally-protected animals are protected on all lands; federally-protected plants are protected only on federal lands and in the course of projects that include federal funding (see Federal Endangered Species Act of 1973 as amended).
- Animals (vertebrate and invertebrate) listed as Endangered or Threatened in Wisconsin are protected by Wisconsin's Endangered Species Law on all lands and waters of the state (s. 29.604, Wis. Stats.).
- Plants listed as Endangered or Threatened in Wisconsin are protected by Wisconsin's Endangered Species Law on public lands and on land that the person does not own or lease, except in the course of forestry, agriculture, utility, or bulk sampling actions (s. 29.604, Wis. Stats.).
- Special Concern species, high-quality examples of natural communities (sometimes called High Conservation Value areas), and natural features (e.g., caves and animal aggregation sites) are also included in the NHI database. These endangered resources are not legally protected by state or federal endangered species laws. However, other laws, policies (e.g., related to Forest Certification), or granting/permitting processes may require or strongly encourage protection of these resources. The main purpose of the Special Concern classification is to focus attention on species about which some problem of abundance or distribution is suspected before they become endangered or threatened.
- State Natural Areas (SNAs) are also included in the NHI database. SNAs protect outstanding examples of Wisconsin's native landscape of natural communities, significant geological formations, and archeological sites. Endangered species are often found within SNAs. SNAs are protected by law from any use that is inconsistent with or injurious to their natural values (s. 23.28, Wis. Stats.).

Please remember the following:

1. This ER Review is provided as information to comply with state and federal endangered species laws. By following the protocols and methodologies described above, the best information currently available about endangered resources that may be present in the proposed project area has been provided. However, the NHI database is not all inclusive; systematic surveys

of most public lands have not been conducted, and the majority of private lands have not been surveyed. As a result, NHI data for the project area may be incomplete. Occurrences of endangered resources are only in the NHI database if the site has been previously surveyed for that species or group during the appropriate season, and an observation was reported to and entered into the NHI database. As such, absence of a record in the NHI database for a specific area should not be used to infer that no endangered resources are present in that area. Similarly, the presence of one species does not imply that surveys have been conducted for other species. Evaluations of the possible presence of rare species on the project site should always be based on whether suitable habitat exists on site for that species.

2. This ER Review provides an assessment of endangered resources that may be impacted by the project and measures that can be taken to avoid negatively impacting those resources based on the information that has been provided to ER Review Program at this time. Incomplete information, changes in the project, or subsequent survey results may affect our assessment and indicate the need for additional or different measures to avoid impacts to endangered resources.
3. This ER Review does not exempt the project from actions that may be required by Department permits or approvals for the project. Information contained in this ER Review may be shared with individuals who need this information in order to carry out specific roles in the planning, permitting, and implementation of the proposed project.



February 4, 2019

Mark Vinall, General Manager
Advanced Disposal Services - Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/CORR

Subject: Acceptance of the Proposed Alternative Geotechnical Investigation Program (AGIP) for the Proposed Sector 2 Northeast Expansion of the Seven Mile Creek Landfill, Eau Claire County, Wisconsin, License #3097

Dear Mr. Vinall:

The Department of Natural Resources (department) has completed its review of the proposed AGIP for the proposed expansion of the Advanced Disposal Services - Seven Mile Creek Landfill (ADS SMCL) Sector 2 horizontal and vertical expansion. The proposed AGIP was submitted to the department for consideration under the provisions of s. NR 512.085, Wis. Adm. Code. The report, dated October 23, 2018, was prepared by Cornerstone Environmental Group (Cornerstone) on behalf of ADS SMCL, and was received by the department at the Eau Claire Service Center on October 24, 2018. A payment of \$1,650 (invoice 4339-11698) for a review fee was received by the department on December 3, 2018.

The department received an additional exemption request on November 7, 2018, via email from Cornerstone; and ADS SMCL requested concurrence to commence drilling in early December prior to the department review time period of 65 business days established in s. NR 500.07, Wis. Adm. code. In an email on November 15, 2018, to ADS and to Cornerstone, the department provided preliminary feedback which included department concurrence to commence drilling with the stipulation that the department may request additional geotechnical work after its full review of the proposed AGIP.

An addendum to the proposal dated November 26, 2018, prepared by Cornerstone Environmental Group (Cornerstone) on behalf of ADS SMCL, was received by the department on November 28, 2018. This addendum addressed the questions from the department's November 15, 2018, email. The proposal in the addendum includes 2 additional borings, and to obtain rock cores from the bedrock borings. The addendum also provides an explanation and further justification for the requested exemptions.

On Friday December 14, 2018, Nathan Coller and Aaron Kent of the department met onsite with ADS, Cornerstone, and drilling personnel to observe the drilling and core sample recovery at DH-61. During drilling, the top of the hard rock was observed at approximately 50 feet below ground surface (bgs). Drilling continued and circulation was lost. A core sample was attempted for the first 4-foot segment but only approximately 2-3 feet of rock was recovered due to voids encountered in the bedrock. In the first half-foot of the core, grey fine unconsolidated sand (or friable sandstone) was observed. The remaining core sample was obtained as broken-up but intact/consolidated pieces of sandstone. The color varied with some rusty/oxidized mineralization apparent. Some thin lenses of green to grey shale at end of core was observed. The next 4-ft core segment was very similar to first core having voids and broken-up consolidated sandstone.

Based on our review, we accept your proposed AGIP with some stipulations as provided below with a summary of the requested code exemptions and deviations, followed by our comments to each. Please include a copy of this letter in the feasibility report for the proposed expansion. Formal approval of the AGIP would be granted in the department's feasibility determination which would include the requested exemptions.

Requested Exemptions and Deviations from the Code Requirements:

1. ADS is requesting an exemption from ss. NR 512.09(1) and NR 512.09(2), Wis. Adm. Code, to utilize data obtained from existing borings and wells done for the previous geotechnical investigation at the existing landfill. The AGIP proposes to use data from 13 existing borings and 5 groundwater monitoring wells/piezometers. The AGIP proposes to install 7 new borings, which include 6 new groundwater monitoring wells/piezometers.

Department Response: We agree there is an abundance of geotechnical information from available borings and wells previously installed in the area of the site and that there is consistency of the site geologic and hydrogeologic conditions previously interpreted and documented at the site. Please note that our acceptance to use data from previously installed borings and wells, does not alleviate you of the requirement to provide all of the required geotechnical testing data from major soil units, such as Atterberg limits, grain size analysis, etc. The proposal would meet the minimum number of borings and monitoring wells in accordance to NR512, Table 1, Wis. Adm. Code for a 12.5-acre horizontal landfill expansion.

2. ADS is requesting an exemption from s. NR 512.09(1)(b), Wis. Adm. Code, that requires borings located outside the limits of waste filling extend a minimum of 25-feet below the anticipated elevation of the bottom of the proposed liner (subbase) nearest to the borehole.

Department Response: Considering that the department will accept the use of GP-11 borehole for data, which was drilled 17 feet into the weathered bedrock (within 3 feet of fulfilling the requirement) and based on surrounding boring logs, we concur that it can reasonably be expected that bedrock continues to the required 25-foot depth below the anticipated elevation of the bottom of the nearest proposed base liner elevation. The remaining borings as part of the AGIP as indicated in Table 2 of the AGIP Addendum No. 1 appear to meet the depth requirement in accordance with s. NR512.09 (1) (b), Wis. Adm. Code.

3. ADS is requesting an exemption from s. NR 507.05(1)(e), Wis. Adm. Code, that requires the soil and rock samples be retained until the department approves the report that included documentation of the soil samples.

Department Response: We concur that ADS can rely on available documentation of the subsurface from data obtained in previous investigations as it is not expected that samples would be available from borings installed as part of previous investigations. However, samples obtained from newly drilled borings should be retained through the feasibility determination.

4. ADS is requesting an exemption from s. NR 507.14(5), Wis. Adm. Code, that requires the submission of information on the department's most current version of the required form.

Department Response: We concur with using previously installed boring log and monitoring well construction information reported on older or non-department forms used for the existing borings and wells as the required information was previously presented sufficiently for past geotechnical work for the existing landfill.

5. ADS had requested an exemption from s. NR 507.05(2), Wis. Adm. Code, that requires the collection of a bedrock core from each boring extending five feet or greater into bedrock.

Department Response: In Addendum No. 1 to the AGIP request, ADS and Cornerstone agreed to collect bedrock cores from each boring extending five feet or greater into bedrock. Therefore, the request from NR 507.05 (2), Wis. Adm. Code is not needed and is no longer part of the AGIP for the Northeast Expansion.

6. ADS is requesting an exemption from s. NR 507.14(4), Wis. Adm. Code, that requires submission of well abandonment documentation for monitoring wells DH-23, DH-23A, DH-23B, and DH23-C. Cornerstone continues to search for this information.

Department Response: The abandonment information for wells DH-23, 23A, 23B, and 23C remains unavailable to the department. These wells are within the limits of the existing landfill and vertical portion of the proposed expansion. The department will consider the potential accumulative effects of the vertical portion of the expansion in the area of these wells during the feasibility review. Options may include limiting additional waste placement in this area, requiring additional monitoring wells to be installed as part of the plan of operation to ensure groundwater is not impacted or no additional requirements. As such, if the abandonment forms cannot be located in time to include in the feasibility report, the department requests that ADS include an assessment or evaluation of the potential accumulative risks and potential methods to mitigate the risks from not having the well abandonment documentation and the uncertainty that the wells were properly abandoned. Any other information or documentation that can be found, which may support the likelihood the wells were properly abandoned would be beneficial as well.

7. ADS is requesting an exemption from s. NR 512.09 (4)(f), Wis. Adm. Code, that requires the collection of quarterly water level measurements following the monthly water level measurements at the new wells for a six (6) month period.

Department Response: We concur with the request; however, we ask that ADS continue to record the groundwater elevations semiannually at the well/piezometers as part of the AGIP. The data should be presented with the submittal for the plan of operation report.

8. ADS is requesting an exemption from ss. NR 512.09 (2) (e) and NR 507.06 (1) (b), Wis. Adm. Code, that require standard penetration tests (SPTs). ADS had proposed to utilize sonic drilling for the borings. Because of the method of sonic drilling, SPTs cannot be completed.

Department Response: According to the AGIP, the map of competent sandstone bedrock surface was based on auger refusal or ability to obtain rock cores for on-site borings. The department recognizes that borings completed for previous geotechnical investigations indicate friable or weathered bedrock that gives the appearance of unconsolidated material when attempting to obtain cores. For these reasons, we acknowledge that the SPT data obtained from blow counts has limited usefulness given the

geological conditions of the site; therefore, we concur with relying on other means (i.e., ability to collect rock core samples) to define the competent bedrock surface of the site.

The department reserves the right to require additional geotechnical information if necessary to fully evaluate subsurface conditions at the site and to complete our review of your feasibility report. If major changes are made to the proposed footprint during the course of design development, please work with the department to determine if additional geotechnical investigation will be needed.

Also, if you have any questions about this letter, please do not hesitate to contact Aaron Kent, Hydrogeologist at 715-839-3796 or aaron.kent@wisconsin.gov by email.

Sincerely,

A handwritten signature in black ink, appearing to read "John Morris", with a stylized flourish at the end.

John Morris, Professional Soil Scientist
Waste and Materials Management Program Supervisor

c: Mr. Dan Roche – Cornerstone (e-mail)
Mr. John Oswald – Cornerstone (e-mail)
Joe Lourigan – DNR (e-mail)
Valerie Joosten – DNR (e-mail)
Aaron Kent – DNR (e-mail)



January 4, 2019

Mark Vinall, General Manager
Advanced Disposal Services - Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/CORR

Subject: Initial Site Report Opinion Letter for the Proposed Sector 2 Northeast Expansion for the Seven Mile Creek Landfill, Eau Claire County, Wisconsin, License #3097

Dear Mr. Vinall:

The Department of Natural Resources (department) has completed our review of the initial site report (ISR) for the proposed Seven Mile Creek Landfill - Sector 2 Northeast Expansion. The report, dated October 10, 2018, was prepared by Cornerstone Environmental Group (CEG) on behalf of Advanced Disposal Services (ADS), and was received by the department on October 11, 2018. The department issued a completeness determination of the ISR on November 8, 2018. The department received payment for the ISR review fee on November 26, 2018.

Based on the information presented in the ISR, our opinion is that the landfill expansion has limited potential for development. Provided below is a discussion of possible constraints on site feasibility that may limit the potential for site development, information regarding storm water management and a summary of your proposal.

This opinion letter does not approve or deny your proposed expansion. If you wish to pursue feasibility, the feasibility report will need to address the concerns listed below and contain the information required in ch. NR 512, Wis. Adm. Code. Please also remember that the department may request additional information as it reviews the feasibility report.

If you plan to submit a feasibility report for this proposal, ss. 289.22 and 289.23, Stats., require you to notify all affected municipalities and apply for all specified local approvals at least 120 days before you can submit a feasibility report to the department (the exact time period depends upon the municipal response). The Waste Facility Siting Board has specific requirements which apply to the municipal notification. For additional information on these requirements, please contact the Wisconsin Waste Facility Siting Board at (+1) 608-267-7854.

POSSIBLE CONSTRAINTS ON SITE FEASIBILITY

At this time, the department has identified the following constraints that may limit the potential for site development. The following information should be discussed in the feasibility study report narrative, and if necessary, depicted on any accompanying plan sheets.

- 1) NR 512.17, Wis. Adm. Code: If you submit a feasibility report, you must provide an evaluation to justify the need for the proposed expansion in accordance with s. 289.28 (1), Stats. and the design capacity

under s. 289.29 (1) (d), Stats. Please provide a list of all anticipated volumes of each major waste stream and their respective characterizations in accordance with s. NR 512.12, Wis. Adm. Code.

- 2) Federal Aviation Administration (FAA): Section NR 509.06(3), Wis. Adm. Code, requires FAA response when a landfill is proposed within 5 miles of the end of a runway. The proposed expansion is more than 5.5 miles from the Chippewa Valley Regional Airport. In a letter dated September 6, 2018, Cornerstone submitted, as a courtesy on your behalf to the FAA, notification of the proposed expansion. Please provide any additional relevant correspondence related to this matter in the feasibility report.
- 3) NR 504.04(3)(d), Wis. Adm. Code: Requires an exemption to construct a landfill within 1,000 feet of a public park or recreational area, unless the landfill is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the park. An exemption to this requirement was granted in the feasibility determination dated September 30, 2015. Advanced Disposal Services would need to request and receive an exemption renewal or demonstrate that the landfill is not visible from the Tower Ridge Recreational Area.

The Eau Claire County Tower Ridge Recreational Area is located within 1,000 feet of the southeast corner of the existing waste footprint of Sector 2 and was previously shown to not be visible from the recreation area based on line of sight drawings from the Tower Ridge Recreational Area to the landfill provided in the 2014 Feasibility Report Addendum No. 1. While the footprint of the proposed Northeast Expansion is greater than 1,000 feet from the Tower Recreation Area, the expansion area includes a vertical overlay over the existing landfill with the proposed final grades being approximately 64 feet higher than the currently approved final grades.

- 4) NR 504.04(3)(f), Wis. Adm. Code: Requires an exemption to construct a landfill within 1200 feet of a water supply well. The proposed Northeast Expansion and the Sector 2 footprint are within 1,200 feet of twenty-eight (28) private water supply wells. Twenty-six (26) of these wells were previously granted NR 504 exemptions in 2004, and 2015. The feasibility report would need to request exemptions to s. NR 504.03(3)(f), Wis. Adm. Code for all water supply wells that are located within 1,200 feet of the proposed expansion and the existing landfill limits of waste. Note, s. NR 504.04(2)(a), Wis. Adm. Code, requires that the well construction information be provided before the department may grant an exemption for the separation distance requirement to a water supply well. In addition, a variance to ch. NR 812, Wis. Adm. Code would need to be requested for all water supply wells located within 1,200 feet of the proposed expansion and the existing landfill limits of waste which were not previously granted a variance, or which would be closer to the limits of waste because of the horizontal component of the expansion.

The Initial Site Inspection (ISI) Request identified an additional water supply well north of Olson Road. After discussions with the property owner and field reconnaissance of the area, it was determined the water supply well initially indicated in figures included in the ISI Request, does not exist.

- 5) NR 504.06(2)(c), Wis. Adm. Code: An exemption was granted in the September 30, 2015 Feasibility Determination for the Sector 2 Vertical Expansion to the requirement of s. NR 504.06(2)(c), Wis. Adm. Code, that allows the Sector 2 liner to be constructed within the 10-foot separation distance to the underlying bedrock surface. An exemption from this requirement may be required for the proposed Northeast Expansion.
- 6) Potential presence of an endangered or threatened species – The ISR noted that a preliminary endangered resources review conducted in March 2018 indicates the potential presence of an

endangered or threatened species in the Northwest Expansion area and that additional review will be required by the department’s Endangered Resources Review Program (ERRP). ADS should submit a request for a full Endangered Resources review to be conducted by the ERRP and include in the feasibility report the findings provided by the ERP in accordance with the Endangered Resources Review Program’s data sharing policy for sensitive information.

INFORMATION ON STORM WATER MANAGEMENT

The storm water management design details may be provided in a plan of operation report; however, the department requests that ADS include in the feasibility report an evaluation of the site layout and the facility’s conceptual sedimentation basin(s) location, design and overall storm water management system to assess if the proposal might meet the standards. In your plan of operation report, please describe any modifications to the conceptual design shown in the feasibility report that would be needed and their significance.

The current standards in s. NR 504.09, Wis. Adm. Code, no longer coincide with the storm water runoff control standards contained in chs. NR 216 and NR 151, Wis. Adm. Code. Beginning in 2016, active landfills were required to obtain separate storm water permit coverage under the General Tier 2 industrial permit.

Since landfill construction and operation has soil erosion issues over a long period of time, the department has required a hybrid approach, using the technical standards 1001 and 1064 of ch. NR 151, Wis. Adm. Code, for the design of storm water features at landfills. In addition to meeting the standards in s. NR 504.09, Wis. Adm. Code, the hybrid approach involves designing wet basins to control 80% of the annual average sediment load that is conveyed in runoff based on the dominant soil type. Additionally, the peak flow discharge from the 1-year and 2-year, 24-hour rainfall events are not to be increased. Local ordinances may require that peak flows not be increased as a result from rainfall events up to and including the 100-year, 24-hour rainfall event.

In accordance with ch. NR 151, Wis. Adm. Code, the department has developed the following:

Technical Standard 1001 (Wet Detention Basin: post-construction basin design) can be obtained from the department’s web site at: <http://dnr.wi.gov/topic/stormwater/documents/WetPondStd1001.pdf>

Technical Standard 1064 (Sediment Basin: temporary construction basin design) can be obtained from the department’s web site at: http://dnr.wi.gov/topic/stormwater/documents/sedimentbasin_1064.pdf

Table A – Key Differences Between Standards for Sedimentation Basin Design.

s. NR 504.09, Wis. Adm. Code	Tech Standards 1001 & 1064 and ss. NR 151.122 & NR 151.123, Wis. Adm. Code
25 year – 6 hour time of concentration storm event	No increase in 1 year & 2 year – 24 hour peak flows
Particle Size: 15 mm (loam, silt & silty loam)	80% Sediment Control based on dominant soil entering basin
Emergency Spillway: 100-year storm event	Emergency Spillway: 100 year – 24 hr. storm event
Dry Sediment Basin	Wet Sediment Basin

In regard to erosion control, flow areas should be assessed for erosion control matting. Slope and channel matrices can be found on the Wisconsin DOT website at:

<http://www.dot.wisconsin.gov/business/engrserv/pal.html>

Technical Standard 1053 for erosion mat can be found at:

http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

SUMMARY OF LANDFILL PROPOSAL

Site Location and Land Use:

The proposed site of the landfill expansion would be located on 303 acres of land owned by Advanced Disposal Services in the SE ¼ of Section 8 and the SW ¼ of Section 9, Township 27 N, Range 8 W, City of Eau Claire and Town of Seymour, Eau Claire County. Most of the ADS property is located within the city limits of Eau Claire, and a small portion is within the Town of Seymour. The expansion would be a contiguous horizontal and vertical expansion of the existing active landfill (License #3097).

The landfill property is zoned Landfill within the city limits and non-sewered industrial, and Agricultural-Residential within the Town of Seymour. The land use in the property limits of the proposed landfill consists of partially undeveloped land and activities related to the existing landfill operations. Within a 1-mile area of the proposed landfill, adjacent land uses consist of rural residential, agricultural, forestry, industrial, and the closed Town of Seymour Landfill.

Proposed Design Capacity, Service Area, and Anticipated Site Life:

The proposed expansion would occupy approximately 12.5 horizontal acres, and 22.0 vertical acres with a proposed design capacity of approximately 4.18 million cubic yards and have an approximate site life of 8-9 years. The proposed landfill would serve municipalities and industries in the western Wisconsin counties of Buffalo, Pepin, Pierce, St. Croix, Trempealeau and Jackson; and eastern Minnesota counties of Winona, Olmsted, Wabasha, Goodhue, Dakota, Hennepin, Ramsey, Washington and Anoka.

Transportation and Access:

Packer trucks, semi-trailers, utility vehicles, and pickup trucks are currently transporting waste to the landfill. Railroads do not service this facility. The primary access route to the landfill is along County Highway Q (Olson Drive). The county constructed improvements near the landfill entrance. Site access would not change with the proposed expansions. Additionally, the maximum weight of trucks hauling waste and leachate will not exceed the limits set by the Wisconsin Department of Transportation.

Waste Types and Characteristics:

Waste disposed of at the proposed landfill would be a continuation of existing municipal solid waste (including construction and demolition waste) from the established service area. Other waste types would include Special Waste (industrial waste and contaminated soil).

Initial Site Inspection (ISI) Results:

On August 13, 2018, the department conducted an initial site inspection (ISI) in accordance with s. 509.04, Wis. Adm. Code. The department's ISI letter dated September 14, 2018, identified the site location has potential for development of a landfill expansion.

Critical Habitat Features:

Previous landfill permitting for the Sector 2 Landfill has not indicated the presence of critical habitats in the area. The vertical portion of the proposed Northeast Expansion will be within the existing permitted limits of waste while a majority of the horizontal portion of the Northeast Expansion will be within a previously disturbed area that incorporates a sedimentation basin.

Based on reviews performed by the department's Bureau of Endangered Resources (BER) during the past 16 years, it was determined a few threatened or endangered plant or insect species may exist near the landfill. A summary of the findings from the department's Endangered Species reviews or assessments during this period is provided as follows:

- In March 2002, the BER issued a Review Letter for the Northern and Eastern Sector 2 Expansion, which indicated the potential presence of Endangered Resources near the landfill. Because of the findings in the BER letter, SMCL engaged Smith Group JJR to conduct a Biological Resources Investigation during the Sector 2 Northern and Eastern Expansion permitting process. A Report was issued in October 2002 which summarized the findings of the Investigation. The habitat for the investigated area did not appear to support the referenced threatened or endangered species other than the [REDACTED]. None of the BER referenced species were observed other than the [REDACTED]. The Report was included in the November 2003 Feasibility Report prepared by Ayers Associates.
- The department conducted a review of Threatened and Endangered Species for the 2014 Feasibility Report and in response, issued an Endangered Resources Review Letter dated May 21, 2014 (ERR Log # 14-316). In this letter the department indicated that no required or recommended actions were needed to address the 14-species referenced in the letter. Per correspondence in the department's May 2014 letter, the letter is redacted from this ISR document.
- Cornerstone performed an Endangered Resources Preliminary Assessment on the department's website in March 2018 for the proposed Northeast Expansion. The initial findings indicate the potential presence of threatened and endangered species in the proposed Northeast Expansion area and that a review will be required by the department. No further correspondence has been received related to the 2018 Preliminary Assessment.

Regional Geotechnical Information:

The following information was obtained from the department's 2002 ISR letter for the Superior (now ADS) Sector 2 Landfill Horizontal expansion and again used in the department's 2014 ISR letter for the Sector 2 Landfill vertical expansion:

The proposed vertical expansion is in the Eau Claire River basin on an alluvial terrace formed by melt water during the Wisconsin Glaciation.

Seven Mile Creek is the closest surface water feature and is located along the northwest and west side of the site, approximately 300 feet from the closest limits of waste filling. Seven Mile Creek flows into the Eau Claire River about one mile south of the site. The Eau Claire River is located about 2,000 feet south of the site and flows from east to west through the region. There are no ponds or flowages within 1,000 feet of the limits of filling. The proposed expansion would not affect any wetlands.

Soil mapping indicates the soils on site include the Manahga sand and Plainfield loamy sand. Both soil types are present at a 1 to 6 percent slope and are nearly level or gently sloping. Infiltration rates and soil permeability are moderately high. Runoff from these soil types is low.

The geology in the vicinity of the site consists of alluvial sand and gravel deposits overlying Cambrian age sandstone bedrock. The alluvial material was deposited by melt water during the Wisconsin Stage of Pleistocene glaciation. The alluvium consists of poorly graded sand with occasional silty layers. The alluvium is generally 15

to 60 feet in thickness in the Sector 2 area. Bedrock at the site is Cambrian age sandstone consisting of the Eau Claire and Mount Simon formations, which, in turn, overlies Precambrian age crystalline rock. The depth to bedrock ranges from approximately 15 feet to 70 feet below ground surface.

The water table is approximately 35 feet below the ground surface along the eastern side of the Sector 2 area and about 45 feet below the ground surface along the western side. The direction of groundwater flow beneath the site is toward the southwest. The horizontal gradient varies from a low of 0.006 ft/ft near Seven Mile Creek along the western side of the site to a high of 0.025 ft/ft near the eastern side. Hydraulic conductivity in the sandstone averages 5.5×10^{-4} cm/sec. Hydraulic conductivity in the unconsolidated alluvial sand is generally higher, averaging 3.0×10^{-3} cm/sec. Vertical hydraulic gradients indicate downward gradients in wells over most of the site with upward gradients in the wells along Seven Mile Creek.

Preliminary Landfill Design Concepts:

The proposed contiguous landfill expansion would increase the footprint of the existing landfill to the Northeast and increase the final cover height. The conceptual final cover grade elevation at its highest point would be approximately 1,165.93 feet above MSL. The intermediate waste grades are proposed to be extended to a point 5% higher than the proposed final top of waste grades to allow for settlement. Prior to placing final cover, waste grades will be verified and established by removal of waste or adding additional waste materials. The landfill gas and surface water control design will be modified to accommodate the Northeast Expansion. Waste grades will be used that will provide the greatest practicable volume for waste, while also meeting all requirements specified in NR 504. The existing approved final cover grade is 1101.5 feet above MSL.

In conclusion, this opinion is based on the information provided to us. The review of a feasibility report submittal and information received by the department during the public comment period of the feasibility review may reveal additional items to be addressed. If needed, we would be able to meet with you to discuss the items in this letter.

If you should have any questions, please contact Aaron Kent, Hydrogeologist, who is the assigned lead reviewer for this project at 715-839-3796 or aaron.kent@wisconsin.gov by email.

Sincerely,



John Morris, Professional Soil Scientist
Waste and Materials Management Program Supervisor

- c: Mr. Dan Roche – Cornerstone (via e-mail)
Mr. John Oswald – Cornerstone (via e-mail)
Joe Lourigan – WDNR (via e-mail)
Valerie Joosten – WDNR (via e-mail)
Aaron Kent – WDNR (via e-mail)



November 29, 2018

Mr. Mark Vinall
Advanced Disposal Services Seven Mile Creek Landfill, LLC
8001 Olson Drive
Eau Claire WI 54703

File Ref: FID 618045450
Eau Claire Co.
SW/APPR File

Subject: Conditional Approval of the Construction Documentation for Sector 2, Phase 13 B Liner, Leachate Collection System and Plan Modification to the March 18, 2016 Conditional Plan of Operation Approval revising the northeast storm water basin and the random load inspection interval for Advanced Disposal Services Seven Mile Creek Landfill, Eau Claire County, License No. 3097.

Dear Mr. Vinall:

The department has reviewed your construction documentation report entitled "Construction Documentation Report Phase 13B Composite Liner WDNR LICENSE NO. 3097, FID 618045450, Advanced Disposal Services, Seven Mile Creek Landfill, LLC, Eau Claire County, Wisconsin." The report was prepared by CQM on behalf of Advanced Disposal Services Seven Mile Creek Landfill (Advanced) and was dated November 2018. The report was received in the LaCrosse Service Center on September 14, 2018. The department is approving the report and you may begin filling waste in Phase 13B. Conditions for payment of the plan review fee, not placing sharp construction debris or fine-grained material in the initial waste lifts and placing at least four feet of waste on the liner by December 1, 2019, have been included in the approval.

The department has also reviewed your proposed plan modification request to revise the northeast storm water basin and the random load inspection interval for the Sector 2 Landfill. The November 5, 2018 request letter was prepared by Cornerstone Environmental Group (Cornerstone) on behalf of Advanced and was received in the LaCrosse Service Center on November 7, 2018 with two plan sheets and applicable sections of Advanced's 2015 Plan of Operation submittal. At this time the department is also approving this plan modification request. Please note that the conditions in a department issued plan of operation and /or its subsequent plan modifications take precedence over the narrative in a department approved plan of operation submittal.

This approval should be attached to your June 20, 1988, May 21, 2002, April 19, 2005 and March 18, 2016 Plan of Operation Approvals. If you have any questions regarding this letter, please contact Martin Herrick at (608) 789-5518.

Sincerely,

John Morris, P.S.S
Waste and Materials Management Program Supervisor
West Central Region

CC: Dan Roche Cornerstone(electronic), Nick Sturzl CQM (electronic)

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
CONDITIONAL CONSTRUCTION DOCUMENTATION AND PLAN MODIFICATION APPROVAL
FOR
PHASE 13B, SECTOR 2
LINER AND LEACHATE COLLECTION SYSTEM, REVISED STORMWATER BASIN AND RANDOM
LOAD INSPECTION INTERVAL
ADVANCED DISPOSAL SERVICES SEVEN MILE CREEK LANDFILL
LICENSE #3097

FINDINGS OF FACT

The department finds that:

1. Advanced Disposal Services Inc. owns and operates the Seven Mile Creek Landfill, a non-hazardous solid waste disposal facility located in the SE ¼ of Section 8, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. Conditional Plan of Operation Approvals were issued by the department for the facility on June 20, 1988, May 21, 2002, April 19, 2005 and March 18, 2016.
3. On March 28, 2003 the department issued a plan modification to the June 20, 1988 and May 21, 2002 Plan of Operation Approvals to add the Kenowski clay borrow site.
4. On November 8, 2005, the department issued an expedited Plan Modification for geomembrane testing allowing the destructive seam testing interval to be extended to 1000 feet from the code required 500-foot interval. This was allowed because the facility proposed to perform leak location surveys for all the facility's future liner construction.
5. On November 20, 2012, Seven Mile Creek Landfill's ownership was transferred from Veolia Environmental Services to Advanced Disposal Services (ADS).
6. On June 14, 2016, Dan Roche of Cornerstone Environmental requested via-E-mail that the interface friction testing for the rock source be deleted because of the similarities in the materials. On June 15, 2016, Martin Herrick of the department concurred via E-mail that testing could be deleted for the Phase 13A construction. On February 28, 2018 Martin Herrick of the department concurred with this request for the Phase 13B liner construction.
7. On August 9, 2016, Dan Roche of Cornerstone Environmental requested via-E-mail that an alternate size pipe bedding and drainage layer be allowed in the Phase 13A liner construction. Martin Herrick of the department concurred via -E-mail on August 9, 2016. On February 27, 2018 Martin Herrick of the department concurred with this request for the Phase 13B liner construction.
8. The information submitted as construction documentation includes the following:
 - a. A report titled "Construction Documentation Report Phase 13B Composite Liner WDNR License No. 3097, FID NO. 618045450", along with 13 drawings was submitted by CQM. The cover letter and report were dated September 12, 2018 and September 2018 respectively. And were received in the LaCrosse Service Center on September 12, 2018.
 - b. A report titled "Preconstruction Report Phase 13B Composite Liner Construction" dated June 7, 2018, and received on June 11, 2018, in the LaCrosse Service Center.
9. Construction inspections were performed for the following items on and by the following department staff:
 - a. Sub-base on May 11, 2018, by Martin Herrick,
 - b. Fine grained soil placement on June 5, 2018, by Martin Herrick,
 - c. Geomembrane and Leachate collection system components on July 6, 2018, by Martin Herrick,
 - d. Rock drainage blanket placement on July 17, 2018, by Martin Herrick, and

- e. Leak location survey on August 1, 2018, by Martin Herrick.
- 11. On November 5, 2018, Cornerstone on behalf of Advanced submitted a plan modification to the department requesting revisions to the size of the northeast storm water basin and the random load inspection interval for the Sector 2 Landfill. The submittal was received in the department's LaCrosse service center on November 7, 2018 and included three plan sheets and applicable sections the of the 2015 approved plan of operation submittal for Advanced.
- 12. On November 20, 2018, the department issued invoice #4339-11706- for \$3300 for the plan review of the proposed plan modification, Phase 13B construction documentation and four construction inspections of the landfill's Phase 13B Liner.

CONCLUSIONS OF LAW

1. The department has authority under s. 289.31, Stats. and ch. NR 516, Wis. Adm. Code, to require that the owner of a solid waste disposal facility demonstrate that the facility has been constructed in substantial compliance with the June 20, 1988, May 21, 2002, April 19, 2005 and March 18, 2016 Conditional Plan of Operation Approvals and subsequent plan modifications.
2. If the conditions of approval set forth below are complied with, the applicant will have demonstrated that the facility has been constructed in substantial compliance with chs. NR 500 to NR 590, Wis. Adm. Code, the June 20, 1988, May 21, 2002, April 19, 2005, and March 18, 2016 Conditional Plan of Operation Approvals, and subsequent plan modifications.
3. The department has authority under s.289.30(6), Stats., to modify a plan of operation approval if the modifications will not inhibit compliance with the applicable portions of chs. NR 500 to NR 590, Wis. Adm. Code.
4. In accordance with the foregoing, the department has authority under ch. 289, Stats., to issue the following conditional approval.

CONDITIONS OF APPROVAL

The department hereby approves the proposed construction documentation of the liner and leachate collection system for Phase 13B of Sector 2, the revisions to the northeast storm water basin, and the random load inspection interval at the Advanced Disposal Services Seven Mile Creek Landfill subject to the following conditions:

1. Payment of invoice # 4339 -11706 shall be made to the department within 30 days of receipt.
2. Sharp or fine-grained material shall not be placed in the initial waste lifts of the Phase 13B Liner.
3. A minimum of four feet of waste shall be placed across the bottom and initial 10 feet of the Phase 13B sidewall prior to December 1, 2019.
4. The revisions of the northeast sedimentation basin shall be in accordance with plan sheets No.1, 10 and 25 of the November 5, 2018 submittal from Cornerstone.
5. Random load inspections shall be conducted on every 5000 tons of solid waste accepted or one inspection per month, whichever is more frequent. No more than one inspection per week is required. If Advanced accepts less than 10,000 tons per year of solid waste and demonstrates adequate justification, less frequent inspections may be approved by the department for a minimum of four inspections per year. A truck shall be inspected at random and inspected for the presence of non-acceptable wastes. The truck shall be instructed to dump its load away from the active area for inspection. The contents of the truck shall be inspected. The inspection shall be documented in accordance with s. NR 506.16(2), Wis. Adm. Code.

This approval is based on the information available to the department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the department may ask you to provide further information relating to this activity. Likewise, the department accepts proposals to modify approvals, as provided for in state statute and administrative codes.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision made by the department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing department decisions.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Stats. establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the department to file your petition with the appropriate circuit court and serve the petition on the department. The petition shall name the Department of Natural Resources as the respondent.

Dated: November 29, 2018

DEPARTMENT OF NATURAL RESOURCES

For the Secretary



John Morris, Professional Soil Scientist
Waste and Materials Management Program Supervisor
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region



September 14, 2018

Mr. Mark Vinall
Advanced Disposal Seven Mile Creek Landfill, LLC
8001 Olson Drive
Eau Claire WI 54703

File Ref: 618045450
Eau Claire
SW/APPR

Subject: Initial Site Inspection for the proposed vertical and horizontal expansion of the Advanced Disposal Services Seven Mile Creek Sector 2 Landfill, City of Eau Claire, Eau Claire County, Wisconsin, License No.3097

Dear Mr. Vinall:

On July 24, 2018 the Department's Eau Claire office received a request from Cornerstone Environmental on behalf of Advanced Disposal Services to perform an initial site inspection for the proposed vertical and horizontal expansion of the Northeast Expansion of the Sector 2 Landfill. The request was dated July 24, 2018 and was submitted in accordance with NR 509.04(2), Wis. Adm. Code.

The proposed vertical and horizontal expansion is in the SE ¼ of Section 8 and the SW ¼ of Section 9, T27N, R8W, City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin. The proposed vertical expansion is approximately 22.3 acres and will be located above parts of the Sector 2 Landfill approved in the April 19, 2005, October 24, 2011 and March 18, 2016 Conditional Plan of Operation Approvals. The proposed horizontal expansion is approximately 12.5 acres and would be located east of the existing Sector 2 Landfill footprint.

On August 13, 2018 I performed the initial site inspection for the proposed vertical and horizontal expansion. The purpose of the initial site inspection is to obtain a preliminary evaluation from the Department on the potential a proposal has for complying with the locational criteria and performance standards specified in s. NR 504.04, Wis. Adm. Code. Based on the initial site inspection of the proposed vertical and horizontal expansion it is the opinion of the Department that the proposed expansion can meet the requirements of NR 504.04, Wis. Adm. Code. Department exemptions to NR 504.04(3)(f), Wis. Adm. Code, which were previously issued for the public and private wells located within 1200 feet of the landfill, will have to be issued for the proposed vertical and horizontal expansion. Additional previously granted exemptions where applicable will require renewal as well including the 10-foot separation distance to bedrock requirement in NR 504.06(2)(c), Wis. Adm. Code and the data presentation for the high-water mark to show only critical locations within 1500 feet of the waste in NR 512.11(1)(b), Wis. Adm. Code.

If Advanced Disposal Services chooses to continue with the proposed expansion of the Sector 2 Landfill it will be necessary to address the requirements in NR 509, Wis. Adm. Code for Initial Site Reports.

If you have any questions regarding this letter, please contact me at (608) 789-5518.

Sincerely,

A handwritten signature in black ink, appearing to read 'MH' followed by a stylized flourish.

Martin Herrick, P.E.
Environmental Engineer
West Central Region

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont Ave.
Eau Claire WI 54701

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



February 28, 2017

Mark Vinall, General Manager
Advanced Disposal Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Revised Summary of Environmental Monitoring Requirements for the Advanced Disposal Services Seven Mile Creek Landfill Sector 2, License # 3097

Dear Mr. Vinall:

We have revised the Summary of Environmental Monitoring Requirements Tables 1A – 1E, which replaces the summary tables contained in the October 27, 2016, Modification of the Plan of Operation Approval for Seven Mile Creek Landfill (SMCL) Sector 2. Please include this letter in the written record for the landfill.

The lysimeter monitoring requirements in Table 1B have been revised. For monitoring liquid elevation at each lysimeter for semiannual events, report the liquid elevation data using the parameter code 4189, groundwater elevation, feet above mean sea level (msl). The department will transfer data previously reported under the parameter code 99423, leachate elevation to the parameter code 4189, groundwater elevation, msl.

The surface water monitoring requirements in Table 1C have been revised. The parameter description for nitrate (as nitrogen) incorrectly referred to collecting filtered samples. Samples for nitrate (as nitrogen) must be collected as *unfiltered* similar to the other parameters for surface water monitoring.

The gas monitoring requirements in Table 1E have been revised. The department concurred with the request to change the frequency of leachate monitoring at the gas extraction wells from monthly to annually in an email dated April 11, 2016, to your consultant, Cornerstone Engineering Group, Inc.

The aforementioned revisions are reflected in the attached tables that summarized the environmental monitoring requirements for SMCL Sector 2. There are no changes made to the existing requirements to monitor groundwater, water supply wells, the leachate tank, or leachate head wells.

If you have questions regarding this letter, please contact Nathan Coller, Hydrogeologist at 715-635-4048, or nathan.coller@wi.gov by email.

Sincerely,

Jill Schoen, CHMM
Supervisor, Waste and Materials Management Program

cc: John Oswald, Cornerstone Engineering (email)
Marty Herrick, Waste Engineer/DNR, La Crosse (email)
Nathan Coller, DNR, Spooner (email)

Summary of Environmental Monitoring Requirements
ADS SEVEN MILE CREEK, SECTOR 2 LANDFILL – LICENSE # 3097
Tables 1A – 1E

Table 1A - GROUNDWATER MONITORING		
Point Name (DNR Point ID)	Frequency	Parameters
DH-4R** (108) DH-18A (140) DH-18B (142) DH-22A (158) DH-22B (160) DH-32 (184) DH-33 (186) DH-33A (188) DH-34 (190) DH-35A (194) DH-36 (196)	Semi-Annually, (April and October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field (°C) 00094 Field Conductivity (umho/cm @ 25°C) 00400 pH, Field (standard units) 04189 Groundwater Elevation (ft. above MSL) 00941 Chloride, dissolved (mg/l) 22413 Hardness, Total, dissolved (mg/l) 39036 Alkalinity, Total, dissolved (mg/l)
DH-39 (200) DH-39A (202) DH-40 (204) DH-41 (206) DH-43 (208) DH-43A (210) DH-45 (216) DH-46A (220) DH-47 (222) DH-47A (224) DH-48 (226) DH-49 (228) DH-49A (230) DH-52 (236) {DH-53} (238) And any others installed as needed.	Annually (April)	VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code
Subtitle-D wells: DH-18 (138) DH-22R (157) DH-35 (192) DH-46 (218)	Semi-Annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field (°C) 00094 Field Conductivity (umho/cm @ 25°C) 00400 pH, Field (standard units) 04189 Groundwater Elevation (ft. above MSL) 00941 Chloride, dissolved (mg/l) 22413 Hardness, Total, dissolved (mg/l) 39036 Alkalinity, Total, dissolved (mg/l) VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code

Well Name, Wisconsin Unique Well Number (DNR Point ID)	Frequency	Parameters
ADS Office Well, OH541 (356)** ADS Shop Well, WT191 (355) PW-2, Thompson Dahlby Residence, DK154 (362) PW-26, Steindl Residence, PY092 (386)	Semi-annually (April and October)	00010 Temperature, Field 00094 Field conductivity (@ 25°C) 00400 pH, Field 00410 Alkalinity, Total Unfiltered 00900 Hardness, Total Unfiltered 00940 Chloride, Total or Dissolved VOCs Using SDWA method 524.2

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

{DH-x}=Monitoring point to be abandoned

Table 1B - LYSIMETER MONITORING		
Point Name (DNR Point ID)	Frequency	Parameters
L-1A (400) L-2 (406) L-3 (408) L-4 (410)	Semi-annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00094 Field conductivity (@25°C) 00400 pH, Field 00410 Alkalinity, Total 00625 Total Kjeldahl Nitrogen 00900 Hardness, Total 00929 Sodium, Total 00940 Chloride, Total 00945 Sulfate, Total 04189 Groundwater Elevation (feet above MSL)
	Annually (April)	VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code
	Monthly (reported semi- annually)	74064 Lysimeter Discharge in gallons 72002 Depth to Top of Groundwater in feet

Table 1C - SURFACE WATER MONITORING		
Point Name (DNR Point ID)	Frequency	Parameter
Stream-1, upstream** (300) Stream-2, mid-stream** (302) Stream-3, downstream** (304)	Semi-Annual (April, October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field 00094 Field conductivity (@ 25°C) 00299 Dissolved Oxygen 00400 pH, Field 00410 Alkalinity, Total Unfiltered 00620 Nitrate (NO ₃ -N), Unfiltered 00665 Total Phosphorous 00900 Hardness, Total Unfiltered 00940 Chloride, Total 74010 Total Iron 99520 Surface Water Elevation
Note: Surface Water Elevation (Parameter Code 99520), is not required at Stream-2, mid-stream (DNR Point ID 302).		

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

Table 1D - LEACHATE MONITORING		
Leachate Head Wells	Frequency	Parameter
1A, 2A, 3A, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8, 9, 10A, 10B, 11, 12, And any others installed as needed.	Monthly (submitted semi- annually)	00023 Leachate Head Elevation 00031 Depth (thickness) of Leachate
Leachate Collection	Frequency	Parameter
Sector 2 Leachate Tank, (DNR Point ID 425)	Monthly (submitted semi- annually)	00032 Volume of Leachate removed (volume pumped)
Sector 2 Leachate Tank, (DNR Point ID 425)	Semi-annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00094 Field conductivity (@ 25°C) 00150 Total Susp. Solids 00310 BOD ₅ 00400 Field pH 00410 Alkalinity, Total Unfiltered 00610 Ammonia Nitrogen, Total 00625 Total Kjeldahl Nitrogen 00900 Hardness, Total Unfiltered 00929 Sodium, Total Unfiltered 00945 Sulfate, Total Unfiltered 00940 Chloride, Total Unfiltered 01027 Cadmium, Total Unfiltered 01051 Lead, Total Unfiltered 01055 Manganese, Total Unfiltered 71900 Mercury, Total Unfiltered 74010 Total Iron VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code 39516 PCB analysis (See 40CFR PART 761. 358)
	Annually (April)	SVOCs (All in ch. NR 507, Appendix IV)

Table 1E - GAS MONITORING		
Gas Probes	Frequency	Parameter
GP-1, GP-2R, GP-3R, GP-4R, GP-5R, GP-6, GP-7, GP-8, GP-9, GP-12, GP-13, GP-14, GP-15 (GP-10 and GP-11 were not installed at the time of this approval.) And any others installed as needed.	Quarterly (January, April, July, October)	00007 Ground conditions (1=frozen, 2=wet, 3=dry) 00021 Ambient air temperature (°F) 00025 Barometric pressure 46381 Pressure trend, barometric 85547 % Methane 85550 % Oxygen
Gas Extraction Wells	Frequency	Parameter
GEW-1, GEW-2, , GEW-3A, GEW-4, GEW-5A, GEW-6A, GEW-7A, GEW- 8A, GEW-9A, GEW-10B, GEW-11B, GEW-12A, GEW-13, GEW-14A, GEW-15A, GEW-16A, GEW-17, GEW- 18, GEW-19, GEW-20, GEW-21, GEW-22A, GEW-23A, GEW-24A, GEW-25A, GEW-26A, GEW-27A, GEW-28A, GEW-29B, GEW-30, GEW-31, GEW-32, GEW-33, GEW-34, GEW-35, GEW-36A, GEW-37, GEW- 38, GEW-39, GEW-40A, GEW-41, GEW-42, GEW-43A, GEW-44, GEW- 45, GEW-52, GEW-53, GEW-60, GEW-61A, GEW-62A, GEW-63, and GEW-64 And any others installed as needed.	Monthly (submitted semi- annually)	46385 Well Head Pressure (inches of water column) 46387 Valve Opening (% open) 46388 Gas Temperature (°F) 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 99098 Gas Flow Rate (cfm) 99848 Percent Gas Balance (by vol.)
	Annually	00023 Leachate Head Elevation (ft. above MSL) 00031 Leachate, Depth of (thickness), in feet
Misc. Gas Monitoring	Frequency	Parameter
Blower Inlet, (Point ID 850)	Semi-monthly (twice per month)	46382 Header Pressure (inches of water column)
BLOWER OUTLET** (Point ID 852)	Semi-monthly (twice per month)	46382 Header Pressure (inches of water) 46388 Gas Temperature (°F) 85544 % Carbon Dioxide 85547 % Methane 85550 % Oxygen 99098 Gas Flow Rate (cfm) 99848 Percent Gas Balance (by vol.) 98927 Gas Extracted, (total monthly volume in 1000 cu. ft./month)
FLARE** (Point ID 854)	Semi-monthly (twice per month)	99098 Gas Flow Rate (cfm)

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

Kari Rabideau

From: Coller, Nathan - DNR <Nathan.Coller@wisconsin.gov>
Sent: Monday, March 6, 2017 8:40 AM
To: Oswald, John
Cc: Herrick, Martin A - DNR; Shiel, Sarah J - DNR; Mark Vinall
Subject: RE: ADS SMCL #3097 REVISED monitoring table

Thank you John. This will be noted in the file - ADS SMCL landfill will conduct annual leachate measurements at the gas wells in October of each year.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Nathan Coller
715-635-4048
nathan.coller@wi.gov

From: Oswald, John [mailto:John.Oswald@Cornerstoneeg.com]
Sent: Friday, March 03, 2017 8:29 AM
To: Coller, Nathan - DNR
Cc: Herrick, Martin A - DNR; Shiel, Sarah J - DNR; mark.vinall@advanceddisposal.com
Subject: RE: ADS SMCL #3097 REVISED monitoring table

Nathan-

In follow up to my below email, SMCL will be performing the annual leachate measurements at the gas wells during October based on challenges of pump removal and maintenance during the late winter/early spring month of April.

Thanks,
John

John C. Oswald, P.G. (WI, IL, MN)
Client Manager/Operations Director
Cornerstone Environmental Group, LLC
8413 Excelsior Drive, Suite 160, Madison, WI 53717
P: 630.410.7224 | C: 608.515.4111 | [Follow us on LinkedIn!](#)
John.Oswald@cornerstoneeg.com
www.CornerstoneEG.com



From: Oswald, John
Sent: Thursday, March 02, 2017 4:55 PM
To: 'Coller, Nathan - DNR' <Nathan.Coller@wisconsin.gov>
Cc: Herrick, Martin A - DNR <Martin.Herrick@wisconsin.gov>; Shiel, Sarah J - DNR <Sarah.Shiel@wisconsin.gov>;

mark.vinall@advanceddisposal.com

Subject: RE: ADS SMCL #3097 REVISED monitoring table

Nathan -

Thanks for the updated plan for SMCL.

Just to confirm, are the annual gas well leachate measurements to be performed in April or October. See that attached email - Brian K had left to SMCL discretion.

Regards,
John

John C. Oswald, P.G. (WI, IL, MN)
Client Manager/Operations Director
Cornerstone Environmental Group, LLC
8413 Excelsior Drive, Suite 160, Madison, WI 53717
P: 630.410.7224 | C: 608.515.4111 | [Follow us on LinkedIn!](#)
John.Oswald@cornerstoneeg.com
www.CornerstoneEG.com



From: Coller, Nathan - DNR [<mailto:Nathan.Coller@wisconsin.gov>]

Sent: Tuesday, February 28, 2017 4:38 PM

To: mark.vinall@advanceddisposal.com; Oswald, John <John.Oswald@Cornerstoneeg.com>

Cc: Herrick, Martin A - DNR <Martin.Herrick@wisconsin.gov>; Shiel, Sarah J - DNR <Sarah.Shiel@wisconsin.gov>

Subject: ADS SMCL #3097 REVISED monitoring table

Mark – hardcopy is in the mail to you.

John – PDF is your copy. Please distribute to sampling personnel.

Thanks.

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Nathan Coller
Hydrogeologist
Wisconsin Department of Natural Resources
Spooner Service Center
810 W. Maple St. Spooner, WI 54801
Phone: 715-635-4048

nathan.coller@wi.gov





October 27, 2016

Mark Vinall, General Manager
Advanced Disposal Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Modification of the Plan of Operation Approval and Revised Summary of Environmental Monitoring Requirements for the Advanced Disposal Services Seven Mile Creek Sector 2 Landfill, License # 3097

Dear Mr. Vinall:

We have completed our review of your request dated September 14, 2016, to modify the plan of operation environmental monitoring requirements for the Advanced Disposal Services (ADS) Seven Mile Creek Landfill and determined that it is consistent with Wisconsin's solid waste regulations, subject to compliance with chs. NR 500-590, Wis. Adm. Code, and the conditions in the attached approval. The request was received by the department on September 14, 2016, and was submitted by Cornerstone Engineering Group on behalf of ADS.

This approval must be maintained with the Plan of Operation Approval dated March 18, 2016. The Summary of Environmental Monitoring Requirements Tables 1A – 1E contained in this approval replaces the summary tables numbered 2A- 2E in the March 18, 2016, Plan of Operation Approval.

The request proposes the abandonment of well DH-53 without replacing the well. The department is approving this request. The Eau Claire County Highway Department provided ADS a notice of intent on October 10, 2016, to purchase right of way from ADS. The well DH-53 is located north of County Trunk Highway Q in the proposed right of way. The realignment of the highway requires the abandonment of DH-53.

The request proposes to reduce the groundwater monitoring requirements at the piezometer DH-18B. The monitoring point was not included with the environmental summary tables contained in the plan of operation approval dated March 18, 2016. The monitoring point was assumed to be an omission from the March 18, 2016, plan of operation approval because DH-18B was included as part of the monitoring requirements in prior approvals for the Sector 2 landfill. In an email dated August 10, 2016, the department asked ADS to include the well with the regular monitoring program.

At this time the department is not approving the request to reduce monitoring parameters at the groundwater monitoring point DH-18B and is requiring ADS to sample DH-18B in accordance with the attached Environmental Monitoring Summary Table 1A for Groundwater Monitoring. The department evaluated the historical groundwater data at DH-18B. Upon review of the conductivity levels, the department determined that multiple rounds since April 2012 have been above the established Preventative Action Limit (PAL). Additionally, the most recent round of data available was from October 2015 and indicates the presence of Volatile Organic Compound (VOCs). While the concentration of acetone and tetrahydrofuran are below their respective PALs, routine detection monitoring for VOCs is a requirement for the groundwater monitoring points for the landfill.

The department is modifying the leachate monitoring requirements in this approval. To be consistent with leachate data previously obtained, the leachate samples will be collected at the leachate collection tank and not at the lift station. Cornerstone made the request on behalf of ADS in an email to the department on June 21, 2016, and the department concurred via email on June 22, 2016.

There are no modifications made to the surface water, lysimeter, gas, or leachate head well requirements; however, the summary tables have been revised to list the parameters in order by parameter code for ease of reference.

If you have questions regarding this modification approval, please contact Nathan Coller, Hydrogeologist at 715-635-4048, or nathan.coller@wi.gov by email.

Sincerely,

A handwritten signature in cursive script that reads "Jill Schoen".

Jill Schoen, CHMM
Supervisor, Waste and Materials Management Program

cc: John Oswald, Cornerstone Engineering (email)
Marty Herrick, Waste Engineer/DNR, La Crosse (email)
Nathan Coller, DNR, Spooner (email)

**BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**CONDITIONAL PLAN OF OPERATION MODIFICATION APPROVAL
FOR
ADVANCED DISPOSAL SERVICES SEVEN MILE CREEK
SECTOR 2,
SANITARY LANDFILL
CITY OF EAU CLAIRE,
EAU CLAIRE COUNTY, WISCONSIN
LICENSE #3097**

FINDINGS OF FACT

The department finds that:

1. Advanced Disposal Services (ADS) owns and operates a municipal solid waste disposal facility known as ADS Seven Mile Creek Landfill (SMCL), Sector 2, located in the southeast 1/4 of Section 8 and the southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. On June 20, 1988, the department issued a conditional plan of operation approval for the active landfill, license #3097.
3. On March 18, 2016, the department issued a conditional plan of operation approval for the vertical expansion of the active landfill.
4. The information submitted as part of this request includes the following:
 - a. A report dated September 14, 2016, submitted by Cornerstone Engineering Group (Cornerstone), on behalf of ADS SMCL, and received by the department on September 14, 2016, requesting to abandon well DH-53 and to not replace it, and proposing to reduce the groundwater monitoring requirements at groundwater monitoring point DH-18B; and
 - b. An email from Cornerstone dated October 11, 2016, containing a PDF of the letter of intent dated October 10, 2016, from the Eau Claire County Highway Department providing notice to ADS SMCL to purchase right of way.
5. On October 3, 2016, the department received payment of \$1,650 (Invoice # 4339-11049) for a review fee of the plan modification request.
6. Additional facts considered in connection with the plan modification request:
 - a. The realignment of the County Trunk Highway Q requires the abandonment of DH-53; and
 - b. Data for specific conductivity since April 2012 indicate levels have been above the established preventative action limit (PAL) of 270 umho/cm at DH-18B.
7. Additional information reviewed in connection with review of the request includes:
 - a. An email dated August 10, 2016, from the department to Cornerstone, asking ADS SMCL to include the piezometer DH-18B as part of the groundwater monitoring requirements for the non-Subtitle D monitoring points;
 - b. An email dated June 22, 2016, from the department concurring with Cornerstone's request on June 21, 2016, made on behalf of ADS SMCL to designate the leachate collection tank (DNR

- Point ID 425) – and not the lift station (DNR Point ID 430) – as the point for collecting analytical data for leachate;
- c. Groundwater monitoring data from the department’s groundwater and environmental monitoring system (GEMS) database; and
 - d. Environmental monitoring information, including boring logs and well construction reports for the monitoring wells, previously received by the department and contained in department files.
8. The special conditions set forth below are needed to assure that the facility will not have a detrimental effect on groundwater. If the special conditions are complied with, the proposed modifications will not inhibit compliance with the standards set forth in chapter NR 500-590, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The department has authority under s. 289.30(6), Stats., to modify a plan of operation approval if the modifications will not inhibit compliance with chs. NR 500 - NR 590, Wis. Adm. Code.
2. The department has authority under 289.30(6), Stats to approve a plan with special conditions if the conditions are needed to ensure compliance with chs. NR 500 - NR 590, Wis. Adm. Code.
3. The conditions set forth below are needed to ensure compliance with the applicable portions of chs. NR 500 - NR 590, Wis. Adm. Code.
4. In accordance with the foregoing, the department has authority under ch. 289, Stats., to issue the following conditional plan of operation approval modification.

CONDITIONS OF APPROVAL

The department hereby approves the proposed monitoring changes and monitoring point abandonment at the ADS SMCL Sector 2, Lic. #3097, subject to compliance with chs. NR 500 to NR 590, Wis. Adm. Code, the March 18, 2016, Conditional Plan of Operation, subsequent plan modifications and the following conditions:

1. ADS SMCL shall conduct the environmental monitoring, reporting and response in accordance with the requirements of chs. NR 507 and NR 508, Wis. Adm. Code, and the attached Tables 1A to 1E – Summary of Environmental Monitoring Requirements, which shall supersede those requirements, contained in condition no. 9 of the March 18, 2016, Plan of Operation Approval.
2. Within 60 days from the date of the abandonment of monitoring point DH-53 (DNR Point ID 238), ADS SMCL shall submit documentation of the abandonment in accordance with s. NR 141.25, Wis. Adm. Code.

This approval is based on the information available to the department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the department may ask you to provide further information relating to this activity. Likewise, the department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision made by the department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing department decisions.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed, or otherwise served by the department, to file your petition with the appropriate circuit court and serve the petition on the department. The petition shall name the Department of Natural Resources as the respondent.

Dated: October 27, 2016

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jill Schoen, CHMM
Supervisor, Waste and Materials Management Program



Nathan Coller
Hydrogeologist

Summary of Environmental Monitoring Requirements
ADS SEVEN MILE CREEK, SECTOR 2 LANDFILL – LICENSE # 3097
Tables 1A – 1E

Table 1A - GROUNDWATER MONITORING		
Well Name (DNR Point ID)	Frequency	Parameters
DH-4R** (108) DH-18A (140) DH-18B (142) DH-22A (158) DH-22B (160) DH-32 (184) DH-33 (186) DH-33A (188) DH-34 (190) DH-35A (194) DH-36 (196) DH-39 (200) DH-39A (202) DH-40 (204) DH-41 (206) DH-43 (208) DH-43A (210) DH-45 (216) DH-46A (220) DH-47 (222) DH-47A (224) DH-48 (226) DH-49 (228) DH-49A (230) DH-52 (236) {DH-53} (238) And any others installed as needed.	Semi-Annually, (April and October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field (°C) 00094 Field Conductivity (umho/cm @ 25°C) 00400 pH, Field (standard units) 04189 Groundwater Elevation (ft. above MSL) 00941 Chloride, dissolved (mg/l) 22413 Hardness, Total, dissolved (mg/l) 39036 Alkalinity, Total, dissolved (mg/l)
	Annually (April)	VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code
Subtitle-D wells: DH-18 (138) DH-22R (157) DH-35 (192) DH-46 (218)	Semi-Annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field (°C) 00094 Field Conductivity (umho/cm @ 25°C) 00400 pH, Field (standard units) 04189 Groundwater Elevation (ft. above MSL) 00941 Chloride, dissolved (mg/l) 22413 Hardness, Total, dissolved (mg/l) 39036 Alkalinity, Total, dissolved (mg/l) VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code

Water Supply Well Name, Wisconsin Unique Well No. (DNR Point ID)	Frequency	Parameters
ADS Office Well, OH541 (356)** ADS Shop Well, WT191 (355) PW-2, Carr Residence, DK154 (362) PW-26, Steindl Residence, PY092 (386)	Semi-annually (April and October)	00010 Temperature, Field 00094 Field conductivity (@ 25°C) 00400 pH, Field 00410 Alkalinity, Total Unfiltered 00900 Hardness, Total Unfiltered 00940 Chloride, Total or Dissolved VOCs Using SDWA method 524.2

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

{DH-x}=Monitoring point to be abandoned

Table 1B - LYSIMETER MONITORING		
Lysimeter Name (DNR Point ID)	Frequency	Parameters
L-1A (400) L-2 (406) L-3 (408) L-4 (410)	Semi-annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00094 Field conductivity (@25°C) 00400 pH, Field 00410 Alkalinity, Total 00625 Total Kjeldahl Nitrogen 00900 Hardness, Total 00929 Sodium, Total 00940 Chloride, Total 00945 Sulfate, Total 99423 Elevation, liquid
	Annually (April)	VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code
	Monthly (reported semi- annually)	74064 Lysimeter volume removed 72002 Depth to Liquid

Table 1C - SURFACE WATER MONITORING		
Stream Monitoring Point Name (DNR Point ID)	Frequency	Parameter
Stream-1, upstream** (300) Stream-2, mid-stream** (302) Stream-3, downstream** (304) Note: Surface Water Elevation (Parameter Code 99520), is not required at Stream-2, mid-stream (DNR Point ID 302).	Semi-Annual (April, October)	00001 Odor 00002 Color 00003 Turbidity 00010 Temperature, Field 00094 Field conductivity (@ 25°C) 00299 Dissolved Oxygen 00400 pH, Field 00410 Alkalinity, Total Unfiltered 00620 Nitrate (NO ₃ -N), Filtered 00665 Total Phosphorous 00900 Hardness, Total Unfiltered 00940 Chloride, Total 74010 Total Iron 99520 Surface Water Elevation

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

Table 1D - LEACHATE MONITORING		
Leachate Head Wells	Frequency	Parameter
1A, 2A, 3A, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8, 9, 10A, 10B, 11, 12, And any others installed as needed.	Monthly (submitted semi-annually)	00023 Leachate Head Elevation 00031 Depth of Leachate
Leachate Collection	Frequency	Parameter
Sector 2 Leachate Tank, (DNR Point ID 425)	Monthly (submitted semi-annually)	00032 Volume of Leachate removed (volume pumped)
Sector 2 Leachate Tank, (DNR Point ID 425)	Semi-annually (April and October)	00001 Odor 00002 Color 00003 Turbidity 00094 Field conductivity (@ 25°C) 00150 Total Susp. Solids 00310 BOD ₅ 00400 Field pH 00410 Alkalinity, Total Unfiltered 00610 Ammonia Nitrogen, Total 00625 Total Kjeldahl Nitrogen 00900 Hardness, Total Unfiltered 00929 Sodium, Total Unfiltered 00945 Sulfate, Total Unfiltered 00940 Chloride, Total Unfiltered 01027 Cadmium, Total Unfiltered 01051 Lead, Total Unfiltered 01055 Manganese, Total Unfiltered 71900 Mercury, Total Unfiltered 74010 Total Iron VOCs listed in ch. NR 507, Appendix III, Wis. Adm. Code. Using an EPA SW-846 or s. NR 219.04, Wis. Adm. Code method that otherwise meets s. NR 507.17(4), Wis. Adm. Code 39516 PCB analysis (See 40CFR PART 761. 358)
Sector 2 Leachate Tank, (DNR Point ID 425)	Annually (April)	SVOCs (All in ch. NR 507, Appendix IV)

Table 1E - GAS MONITORING		
Gas Probe	Frequency	Parameter
GP-1, GP-2R, GP-3R, GP-4R, GP-5R, GP-6, GP-7, GP-8, GP-9, GP-12, GP-13, GP-14, GP-15 (GP-10 and GP-11 were not installed at the time of this approval.) And any others installed as needed.	Quarterly (January, April, July, October)	00007 Ground conditions (1=frozen, 2=wet, 3=dry) 00021 Ambient air temperature (⁰ F) 00025 Barometric pressure 46381 Pressure trend, barometric 85547 % Methane 85550 % Oxygen
Gas Extraction Wells	Frequency	Parameter
GEW-1, GEW-2, , GEW-3A, GEW-4, GEW-5A, GEW-6A, GEW-7A, GEW-8A, GEW-9A, GEW-10B, GEW-11B, GEW- 12A, GEW-13, GEW-14A, GEW-15A, GEW-16A, GEW-17, GEW-18, GEW-19, GEW-20, GEW-21, GEW-22A, GEW-23A, GEW-24A, GEW-25A, GEW-26A, GEW-27A, GEW- 28A, GEW-29B, GEW-30, GEW-31, GEW-32, GEW-33, GEW-34, GEW-35, GEW-36A, GEW-37, GEW-38, GEW-39, GEW-40A, GEW-41, GEW-42, GEW-43A, GEW-44, GEW-45, GEW-52, GEW-53, GEW-60, GEW-61A, GEW-62A, GEW-63, and GEW-64 And any others installed as needed.	Monthly (submitted semi- annually)	00023 Leachate Head Elevation 00031 Depth of Leachate 46385 Well Head Pressure (inches of water column) 46387 Valve Opening (% open) 46388 Gas Temperature (⁰ F) 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 99098 Gas Flow Rate (cfm) 99848 Percent Gas Balance (by vol.)
Misc. Gas Monitoring	Frequency	Parameter
Blower Inlet, (Point ID 850)	Semi-monthly (twice per month)	46382 Header Pressure (inches of water column)

Table 1E - GAS MONITORING		
BLOWER OUTLET** (Point ID 852)	Semi-monthly (twice per month)	46382 Header Pressure (inches of water) 46388 Gas Temperature (⁰ F) 85544 % Carbon Dioxide 85547 % Methane 85550 % Oxygen 99098 Gas Flow Rate (cfm) 99848 Percent Gas Balance (by vol.) 98927 Gas Extracted, (total monthly volume in 1000 cu. ft./month)
FLARE** (Point ID 854)	Semi-monthly (twice per month)	99098 Gas Flow Rate (cfm)

** denotes the monitoring point is shared by both Sector 1 and Sector 2 landfills. The data can be submitted with either license number.

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont Ave.
Eau Claire WI 54701

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



March 18, 2016

Mark Vinall, General Manager
Advanced Disposal Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Conditional Plan of Operation for the Proposed Vertical Expansion of
the Advanced Disposal Services Seven Mile Creek Sector 2 Landfill, License # 3097

Dear Mr. Vinall:

We have completed our review of your plan of operation for the proposed Advanced Disposal Services Seven Mile Creek Landfill Vertical Expansion and determined that it is consistent with Wisconsin's solid waste regulations. Therefore, the plan of operation is approved and you can begin construction of the landfill, subject to compliance with chs. NR 500-590, Wis. Adm. Code, the conditions in the attached approval, the April 19, 2005, May 21, 2002 and June 20, 1988 Plan of Operation Approvals and their subsequent plan modifications. This approval should be maintained with the respective Plan of Operation Approvals. Please note that this approval does not replace the existing approvals for this facility and it does not replace the requirements of approved features of the existing landfill, with the exception of the final grades and cap requirements associated with the vertical expansion.

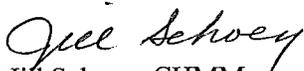
Conditions for construction, operation, groundwater monitoring and reporting have been included in the approval. Details are included in the attached conditions.

Note that we are not able to grant your requests for alternate geotechnical investigation requests for the potential clay borrow sites in the Eau Claire area or the green system sands because NR 504.075(5), Wis. Adm. Code requires existing information for the proposed soil borrow source.

You are reminded this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements. In the near future, all active landfills will be required to obtain coverage under the General Tier 2 Industrial Storm Water Permit. More information will be forthcoming.

If you have questions regarding this approval, please contact Brian Kalvelage, Hydrogeologist at (608) 785-9983, Marty Herrick, Environmental Engineer at (608) 789-5518,

Sincerely,


Jill Schoen, CHMM
Waste Program Manager
West Central Region

CC: Donna Austad, City Clerk - City of Eau Claire, 203 S Farwell St, Eau Claire WI 54701
Janet Loomis, County Clerk - Eau Claire County, 721 Oxford Ave, Eau Claire WI 54703
Sue Larson, Clerk - Town of Seymour, 6500 Tower Dr, Eau Claire WI 54703
Brian Hayes- W F SB, 5005 University Ave, Suite 201, Madison WI 53705-5400
Sarah Shiel- WDNR, Eau Claire
Marty Herrick, WDNR, La Crosse
Brian Kalvelage, WDNR, La Crosse
Brad Wolbert, WDNR, Madison (via email)
Bob Grefe, WDNR, Madison (via email)

PROJECT SUMMARY
ADVANCED DISPOSAL SERVICES SEVEN MILE CREEK LANDFILL
SECTOR 2 VERTICAL EXPANSION

GENERAL INFORMATION

AUTHORIZED CONTACT: Mark Vinall, General Manager
Advanced Disposal Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703
Phone Number (715) 830-0284

LICENSEE AND PROPERTY OWNER: Advanced Disposal Services Seven Mile Creek Landfill (ADSSMCL), LLC

SITE LOCATION: ADSSMCL is proposing to construct a vertical expansion at their existing Sector 2 Sanitary Landfill. The proposed facility would be located in the SE ^{1/4} of Section 8 and the SW ^{1/4} of Section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.

PROPOSED CAPACITY AND SITE LIFE: The existing Sector 2 facility has a design capacity of 9,055,889 cubic yards and the vertical expansion will add 1,506,500 cubic yards for a total capacity of 10,562,389 cubic yards. Based on current filling rates, the vertical expansion will add approximately four years of site life with an expected closing date of 2021.

The proposed site is a vertical expansion with 25.1 acres of vertical overlay of the currently approved Sector 2 footprint including portions which have yet to be constructed. The existing Sector 2 Landfill occupies 79.5 acres of the 330.31 acres owned by ADSSMCL.

WASTE TYPES AND GENERATORS SERVED: The facility will continue to accept non-hazardous municipal and industrial waste, as well as approved special wastes. Typical wastes include municipal solid waste (MSW), shredder fluff, paper mill sludge, foundry sand and light industrial demolition waste. Shredder fluff, paper mill sludge and foundry sand are currently approved for use as alternate daily cover. The approved special waste acceptance plan allows beneficial use of additional materials at the ADSSMCL. Waste composition and leaching behavior in the expansion are not expected to be different from those in the current landfill. The chemical characteristics of the leachate generated from this expansion are expected to be similar to the operating Sector 2 Landfill.

The approximate service area for the ADSSMCL includes the counties of Buffalo, Chippewa, Dunn, Eau Claire, Jackson, Pepin, Pierce, Polk, St. Croix, and Trempealeau. It also accepts material from other portions of western Wisconsin and eastern Minnesota including the Twin Cities metro area.

PRESENT LAND USE AND ZONING: Land uses adjacent to the ADSSMCL include rural residential, agricultural, salvage yards and Eau Claire County Forest land. As noted above ADSSMCL is currently using a portion of the 330.31-acre parcel for solid waste disposal and its associated facilities. The majority of the ADSSMCL property is located within the City limits of Eau Claire and the remaining

portion within the Town of Seymour. The landfill property is zoned public properties within the Eau Claire City Limits and non-sewered industrial within the Town of Seymour.

The property contains one closed landfill, identified as the Sector 1 Landfill, located approximately 200 feet to the southwest of the Sector 2 Landfill. The Sector 2 Landfill is located upgradient of the closed Sector 1 Landfill.

ADSSMCL has multiple department approved borrow sites for the facility including: the Eau Claire County property known as the North Borrow area located adjacent to HWY 93, clay borrow from the Monroe County Landfill in Ridgeville, WI, two locations on the Nesja property located on CTH DD in Chippewa County and the Kenowski property located in the York Township in Clark County.

SITE CHARACTERISTICS: The site geology and hydrogeology has been previously described in the feasibility report for the existing Sector 2 Landfill. Generally, the geology in the vicinity of the landfill consists of alluvial sand and gravel deposits overlying the Cambrian age sandstone bedrock. The alluvial material is 15 to 60 feet thick with occasional silt layers in the Sector 2 area. Below the alluvium, the sandstone bedrock is part of the Eau Claire and Mount Simon Formations. The glacial soils and sandstone are underlain by Precambrian crystalline rock.

Surficial soils are sands and loamy sands with high permeabilities.

The water table in alluvial soils and sandstone is approximately 35 feet below the ground surface along the eastern side of the Sector 2 Landfill and about 45 feet below the ground surface on the western side. The direction of groundwater flow beneath the site is towards the south-southwest. The horizontal gradient varies from .006 ft/ft near Seven Mile Creek on the facilities western side to .025 ft/ft on the eastern side. Hydraulic conductivity in the sandstone averages 5.5×10^{-5} cm/s. Hydraulic conductivity in the unconsolidated sands average 3.3×10^{-3} cm/s. Vertical gradients are generally downward around the site with upward gradients along Seven Mile Creek.

FACILITY DESIGN: The vertical expansion will raise the final waste grades in phases 1 through 5 and 11 through 13 with approximately 54.4 acres of the existing cap design grades remaining on the Sector 2 Landfill. No changes to future liner design have been proposed. .

The landfill is constructed with a composite liner system. The clay component of the liner in phases 1 through 4 is 5 feet thick and in phases 5 through 7 it is 4 feet thick. Above the clay, the liner includes a 60-mil High-Density Polyethylene (HDPE) geomembrane. The leachate collection layer above the geomembrane is a 12 to 18 inch granular layer with a minimum hydraulic conductivity of 1cm/s. Eighteen inches of granular material was placed above the v-shaped collection trenches.

Leachate is collected via sidewall penetrations in phases 1 through 4 and by sideslope risers and lift stations for phases 5 through 12 as well as the future phase 13. The collected leachate is routed to a 100,000-gallon aboveground leachate collection tank. Leachate is pumped from the collection tank and recirculated in the waste mass by trench, vertical wells and surface applications. When leachate is not recirculated it is sent to the City of Eau Claire, WI wastewater treatment plant for treatment and discharge. The Cascade Tissue wastewater treatment plant is also available to treat leachate. Leachate headwells are used to monitor the head elevations in the waste mass.

The Sector 2 Landfill has an active gas extraction system, which incorporates a series of vertical extraction wells, laterals, a header system, blower and flare. Gas is currently being collected from the extraction wells, the leachate recirculation piping and the leachate collection header manholes. Gas collected from the Sector 1 and 2 landfills is combined and routed to four Internal Combustion (IC) engines. Three engines are rated at 10.2 MMBTU/HR and one is rate at 9.81 MMBTU/HR with a combined maximum output of 4MW of power. Excess landfill gas or when the engines are not operating is burned with an open flare rated at 75.0 MMBTU/HR and 2500 CFM. Gas probes are located beyond the landfill footprint to check for gas migration.

On January 24, 2005 the department's Air Management Program issued Air Pollution Control Construction Permit Number 04-JAJ-177. The permit regulated the flare and IC engines along with requiring stack testing, gas control system maintenance, recordkeeping and preventing fugitive dust. ADSSMCL has installed capture and control equipment for Non Methane Organic Compounds (NMOC) emitted at the landfill. ADSSMCL has exceeded the 50Mg/YR NMOC limit and is subject to the New Source Performance Standards. Consequently the department's Air Management Program issued Air Pollution Control Permit No. 618045450-P10 on December 5, 2014, requiring the respective standards.

Final cover for the landfill includes from the top of the waste up a 6 inch soil grading layer, a 2 foot soil barrier layer, a geosynthetic clay layer, a 40 mil LLDPE geomembrane, a geocomposite drainage layer, 2.5 feet of protective cover soil and 6 inches of topsoil. The upper foot of the soil barrier layer is required to be fine-grained soil with at least 40% of the material passing the P200 sieve. The topsoil will be seeded, mulched and measures will be implemented to prevent erosion.

The vertical expansion will not remove any final cap. The remaining landfill capping, including the vertical expansion, will be performed in the capping construction events 5 through 8. Capping in events 5 through 7 will be around the perimeter of the vertical expansion and will reduce contact water but will increase the surface water management. The majority of the vertical expansion will be capped in the final construction event, which is phase 8. The estimated maximum open area for the Sector 2 Landfill is approximately 63.6 acres and was anticipated to occur in 2015. As more of the site is capped and the volume of non-contact surface water increases the northeast and west sedimentation basins will be upgraded accordingly. ADSSMCL other surface water management features include waterways, diversion berms, culverts and infiltration basins.

The final use for the landfill is green space.

ENVIRONMENTAL MONITORING: Environmental and performance monitoring will extend through the period of active site operation and perpetual long-term care. Monitoring data will be reported to the department electronically in a format supplied by the department, as specified in s. NR 507.26(3), Wis. Adm. Code. Environmental monitoring shall be conducted in accordance with the attached Environmental Monitoring Summary.

CLOSURE AND LONG TERM CARE COSTS: The vertical expansion of the Sector 2 Landfill will be performed by additional filling in liner phases 1 through 5 and 11 through 13. To date liner phase 13, which is currently the last approved section, has not been constructed. To date portions of phases 1 through 7 sideslopes have been final capped. A substantial amount of the site has intermediate cover as well as a temporary geomembrane cover.

All landfill phases are required to complete closure in accordance with NR 506.08, Wis. Adm. Code. Closure costs are based on a worst case closure scenario where the highest cost would be incurred if the landfill had to prematurely close. As noted above, the maximum open area currently exists at 63.6 acres, which is the basis for the worst case closure estimate. The premature closure cost estimate includes installing the final cover system, seeding and vegetating the final cover system, completing construction of the gas extraction system, and preparing a closure documentation report. The final cover system is composed of a 6 inch grading layer, 2 feet of barrier soils, the geocomposite clay layer, the 40 mil LLDPE geomembrane layer, the geocomposite drainage layer, 2.5 feet of cover soils, 6 inches of topsoil, vegetative cover and the surface water management features.

ADSSMCL initially proposes to use a performance bond or other approved financial assurance instrument as the financial mechanism to cover the closure costs.

CLOSURE COSTS:

Item	Quantity	Unit Cost	Estimated Cost
Composite Cover (61.7 Acre)			
Lower 1ft Barrier Soil	99,543 CY	\$2.00 CY	\$ 199,085.33
Upper 1 ft Barrier Soil	99,543 CY	\$12.00 CY	\$ 1,194,512.00
Geocomposite Clay Liner	2,687,652 SF	\$.41 SF	\$ 1,101,937.32
Geocomposite Drainage System	2,687,652 SF	\$.45 SF	\$ 1,209,443.40
Geomembrane (40mil LLDPE)	2,687,652 SF	\$.39 SF	\$ 1,048,184.28
Rooting Zone Layer (30 in)	248,857 CY	\$ 4.5 CY	\$ 1,119,855.00
Topsoil (6 in)	49,771 CY	\$ 6.00 CY	\$ 298,628.00
Seed, Fertilizer, Lime, Mulch	62 Acre	\$ 1,500.00/ Acre	\$ 93,000.00
Construction Documentation & Administration	62 Acre	\$ 16,000.00/ Acre	\$ 992,000.00
Total Composite Cover Cost			\$ 7,256,645.33
Gas Extraction System			
Gas Extraction Wells (16)	883	\$ 95.00 VF	\$ 83,885.00
Gas Extraction Well Head	16	\$ 625.00/ unit	\$ 10,000.00
6" Gas Lateral	1379	\$ 35.00 LF	\$ 48,265.00
8" Gas Lateral	1507	\$ 40.00 LF	\$ 60,280.00
12" Gas Header & GCL	1293	\$ 50.00 LF	\$ 64,650.00
18" Gas Header	1202	\$ 60.00 LF	\$ 72,120.00
24" Gas Header	1573	\$ 75.00 LF	\$ 117,975.00
Construction	1	\$ 2000	\$ 2,000.00
Documentation &			

Administration			
Total Landfill Gas Extraction System			\$ 459,175.00
Contingency (10%)	1	10 %	\$ 771,582.03
Total Worst Case Closure Cost			\$ 8,487,402.37
Cost/Acre			\$ 137,559.20

LONG TERM CARE COSTS: ADSSMCL is perpetually responsible for the long term care of the landfill with proof of owner financial responsibility being required the 40 years long term care period. Actions to be taken during closure and the 40 year owner financial responsibility period, along with the associated cost estimates, are summarized below. ADSSMCL initially proposes to use a performance bond or other approved financial assurance instrument for demonstrating compliance with the long term care requirements in NR 520.06(6), Wis. Adm. Code.

The long term care costs are itemized below and reflect the estimated yearly expenses for:

Item	Quantity	Unit Cost	Estimated Cost/Year
Site Inspections			
Facility Inspections	1	\$ 3,500	\$ 3,500.00
Land Surface Repair			
Erosion Repair & Seeding (4%)	3.18	\$ 3500/Acre	\$ 11,130.00
Mowing	79.5	\$35/Acre	\$ 2,782.50
Maintenance			
General Site Maintenance/Repairs/ Sediment Basin Cleaning	1	\$10,000.00	\$10,000.00
Leachate Management System			
Leachate and Condensate Haul and Treatment (1" over 79.5 Acres)	2,158,743	\$.04/gal	\$86,349.72
Leachate System Operation Maintenance & Line Cleaning	1	\$8,000.00	\$8,000.00
Leachate Tank Replacement (\$80000 over 40 yrs.)	1	\$2,000.00	\$2,000.00
Lift Station Pump Replacement (\$6000 over 5 yrs.)	1	\$1,200.00	\$12,000.00
Landfill Gas Management System			
Gas System Operation and Maintenance	1	\$6,000.00	\$6,000.00
Gas Well Replacement (One Well/5 yrs.)	1	\$1,500.00	\$1,200.00
Blower Replacement (One over 40 yrs.)	1	\$1,200.00	\$1,200.00
Environmental Monitoring			
Gas System Blower and Well Monitoring	720	\$21.42	\$15,422.40
Leachate, Ground Water Monitoring and Gas Probes	1	\$26,700.00	\$26,700.00

Reports			
Annual Report	1	\$5,500.00	\$5,500.00
Subtotal			\$180,984.62
Contingency (10%)	1	10%	\$18,098.50
Yearly Total			\$199,083.12
40 Year Total			\$7,963,324.8

**BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**CONDITIONAL PLAN OF OPERATION APPROVAL
FOR
ADVANCED DISPOSAL SERVICES SEVEN MILE CREEK
SECTOR 2 VERTICAL EXPANSION,
SANITARY LANDFILL
CITY OF EAU CLAIRE,
EAU CLAIRE COUNTY, WISCONSIN
LICENSE #03097**

FINDINGS OF FACT

The Department finds that:

1. ADSSMCL has proposed to construct a vertical expansion of their Sector 2 Municipal Solid Waste (MSW) landfill. The facility would be located in the southeast 1/4 of Section 8 and the southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. The sequence of ownership for the ADSSMCL is shown in the following table:

Landfill Owner	Dates
Eau Claire County	Initial Construction to 9/30/1996
Superior Services Inc.	10/1/1996 to 6/1/1999
Onyx Environmental	6/02/1999 to 12/16/2002
Veolia Environmental Services	12/17/2002 to 12/04/2012
Advanced Disposal Services	12/05/2012 to Present

3. The proposed vertical expansion of the Sector 2 facility is intended to serve the needs of western Wisconsin and eastern Minnesota. Materials disposed at this site will consist of municipal solid waste from residential and commercial sources and non-hazardous industrial waste. With the proposed vertical expansion of the Sector 2 Landfill, the facility would have a total design capacity of 10,562,389 cubic yards with an estimated additional four years of operational life.
4. The department issued a conditional plan of operation approval for the initial ADSSMCL Sector 2 Landfill on June 20, 1988, with subsequent conditional plan of operation approvals issued on May 21, 2002, and April 19, 2005.
5. On May 28, 2004, the department issued a feasibility determination for the ADSSMCL Sector 2 landfill.
6. On September 15, 2011, the department modified the May 28, 2004, feasibility determination to allow filling of a "saddle area" and retracting of the northern waste limits.

7. On December 23, 2013, the department's LaCrosse Service Center received a request from Cornerstone Environmental, on behalf of ADSSMCL, to perform an initial site inspection for their proposed vertical expansion of the Sector 2 site.
8. The department performed an initial site inspection and issued a preliminary opinion letter for the proposed ADSSMCL vertical expansion of the Sector 2 site on January 13, 2014, and January 21, 2014, respectively.
9. The department received the initial site report for the ADSSMCL proposed vertical expansion of the Sector 2 site on March 28, 2014, and subsequently issued the Initial Site Report Opinion Letter on June 5, 2014.
10. The department received the feasibility report for the ADSSMCL proposed vertical expansion of the Sector 2 site on November 4, 2014.
11. The Sector 2 landfill is located within 1,200 feet of 26 water supply wells (PW-1, PW-2, PW-3, PW-4, PW-7, PW-8, PW-9, PW-10, PW-11, PW-12, PW-14, PW-15, PW-17, PW-18, PW-19, PW-20, PW-21, PW-22, PW-23, PW-25, PW-26, PW-27, PW-28, PW-30, PW-31 and PW-32). Exemptions from s. NR 504.04 (3) (f), Wis. Adm. Code were granted for all of these wells except PW-2 and PW-26 in the Department's September 30, 2015, feasibility determination.
12. An exemption from s. NR 504.04 (3) (f), Wis. Adm. Code was granted for PW-2 and PW-26 in the department's May 28, 2004 feasibility determination and remains in effect.
13. Based on a December 22, 1986 department memo from Roger Gerhardt and a September 9, 2014 department e-mail from Randell Clark, well variances for PW-3, PW-22, PW-23, PW-25 and PW-26 were granted as part of the December 22, 1986 memo for the department's November 5, 1987 Sector 2 feasibility determination.
14. On September 9, 2015, the department received a request for variances to NR 812, Wis. Adm. Code. On 1/06/2016 and 1/07/2016 variances were issued by the department's Private Water Supply Section for PW-1, PW-2, PW-4, PW-7, PW-9, PW-10, PW-11, PW-12, PW-15, PW-18, PW-19, PW-20, PW-21 and PW-27.
15. The department granted a variance for PW-8 on October 25, 1991; PW-14 in June, 1997; PW-17 in March, 2003; PW-28 in October, 2000; PW-30 in June, 2011; PW-31 on March 5, 2008; and PW-32 in June, 2005.
16. On September 14, 2015, Martin Herrick of the department inspected the Sector 1 and 2 facilities at the ADSSMCL with no compliance issues observed.
17. On September 30, 2015, the department made a favorable feasibility determination for the proposed vertical expansion of the ADSSMCL Sector 2 site.
18. On October 15, 2015, SCS Engineers on behalf of ADSSMCL requested a determination of Construction Permit Applicability for the proposed vertical expansion of their Sector 2 site.

19. On October 23, 2015, the department's La Crosse Service Center received the Plan of Operation submittal. The submittal included 2 narrative volumes, 25 plan sheets and was prepared by Cornerstone Environmental on behalf of ADSSMCL.
20. On November 6, 2015, the department's Air Management Program issued a letter concurring with SCS Engineers October 15, 2015 exemption request under s, NR 406.04, Wis. Adm. Code for the Department's Air Management Construction Permit.
21. On November 20, 2015, Cornerstone Environmental on behalf of ADSSMCL provided a response to condition No. 10 of the Department's September 30, 2015, Feasibility Determination, documenting the Federal Aviation Administration's determination of no hazard to air navigation.
22. On December 30, 2015, the department received three additional e-mails from Cornerstone Engineering. These submittals included specific details regarding changes and clarifications to the proposed environmental monitoring.
23. On January 13, 2016, the department requested additional information from Mark Vinall of ADSSMCL regarding the use of foundry sands and other potential borrow sources proposed for the Sector 2 vertical expansion.
24. On January 22, 2016, the department issued invoice no. 4339-10853 for \$7700, for the review of the Plan of Operation.
25. On February 8, 2016, the department requested additional information from Mark Vinall of ADSSMCL regarding the air permitting requirements and associated benchmarks.
26. On February 15, 2016, Conerstone Environmental on behalf of ADSSMCL provided responses to the department's January 13, 2016 request for information.
27. The information submitted in connection with the plan of operation review includes the following:
 - a. A report entitled "Plan of Operation Seven Mile Creek Landfill Sector 2 Vertical Expansion" The report, which was prepared by Cornerstone Environmental, includes 25 plan sheets and was dated October 2015.
 - b. A November 20, 2015, letter from Cornerstone Environmental providing a response for condition no. 10 of the September 30, 2015 Feasibility Determination. The response provides the Federal Aviation Administration's Determination of No Hazard to Air Navigation.
 - c. A February 15, 2016, narrative from Cornerstone Environmental providing responses to the January 13, 2016, E-Mail from Martin Herrick of the department to Mark Vinall of ADSSMCL.
 - d. A March 4, 2016, E-mail from Cornerstone Environmental providing responses to the February 9, 2016, E-mail from Martin Herrick of the department to Mark Vinall of ADSSMCL

28. Additional Documents considered in the review of the Plan of Operation include the following:
- a. ADSSMCL Annual Reports;
 - b. September 30, 2015, Feasibility Determination for the Proposed Vertical Expansion of the Advanced Disposal Services Seven Mile Creek Sector 2 Landfill;
 - c. Feasibility Report Addendums No. 1 and 2 dated March 12, 2015, and May 2015, respectively;
 - d. The department's December 12, 2014, Air Management Air pollution Control Operation Permit 618045450-P10; and,
 - e. Department inspection reports.
29. Additional facts relevant to the review of the plan of operation include:
- a. "PCB bulk product waste", as defined in s. 761.3, TSCA, includes shredder fluff with PCB concentrations ≥ 50 ppm in solid form. PCB bulk product waste is derived from manufactured products containing PCBs in a non-liquid state, and several such wastes have been shown or can be demonstrated to show limited leaching behavior for PCBs.
 - b. Shredder fluff, regardless of PCB concentration, is a solid waste under Wisconsin statutes.
 - c. Shredder fluff from processing automobiles with average PCB concentrations of <50 ppm have been used, with department approval, for reuse as daily cover at several landfills in Wisconsin.
 - d. Section 761.62(b)(1), TSCA allows certain PCB bulk product waste to be disposed of in a licensed censored nonhazardous solid waste landfill, with department approval. This includes shredder fluff from the processing of automobiles and household appliances from which PCB-containing capacitors have been removed.
 - e. TSCA does not prohibit leachate recirculation with auto shredder residue under 40CFR 761.62(b)(1)(i) or for wastes that meet the PCB leachability standard of 10 ug/l under 40 CFR 761.62(b)(1)(ii). Other PCB wastes not defined under these sections have to be segregated from organic liquids.
 - f. Disposal of shredder fluff that meets the definition of PCB bulk product waste in an approved solid waste landfill that meets modern standards for design and operation should not result in unacceptable concentrations of PCBs in leachate.
 - g. Reuse of shredder fluff, including compliance with restrictions against placement of shredder fluff on exterior slopes or in areas where runoff from the shredder fluff would

leave the waste mass, should not result in PCBs leaving the landfill.

- h. Daily cover is necessary at municipal solid waste landfills to limit windblown debris, odors, and vectors.
 - i. Selected solid waste materials can be approved by the department as an alternative daily cover under the provisions of secs. NR 506.055(1) and (3), Wis. Adm. Code.
 - j. The proposed design would be on land that is somewhat circumscribed for effective groundwater investigation and remediation in the event such was needed, by public streets, established residents and businesses, protected resources such as surface waters, and surface water control structures.
 - k. The proposed design would be a solid waste landfill that is proposed to accept putrescible waste, practice leachate recirculation, promote waste decomposition and landfill gas production through leachate recirculation, and extract landfill gas at rates that minimize the potential for uncontrolled landfill gas emissions and odors.
 - l. The current and proposed landfill operation includes recirculation of almost all leachate generated by the landfill, and the landfill operator has expressed interest in use of additional liquids.
 - m. The landfill has close proximity to local residents, who have expressed concern about detectable landfill gas and odors in the past and who may be exposed to increased odor potential due to excavation of installed final cover.
 - n. There is some uncertainty regarding the longevity and survivability of leachate collection pipe materials in solid waste landfills with large depths of fill that impose large overburden stresses on the pipes.
 - o. The proposed alignment of the leachate collection lines minimizes friction and other impediments to complete insertion of cleanout hoses and video inspection hardware.
 - p. The potential effects of a landfill on groundwater quality are minimized by use of efficient leachate collection designs, where highly permeable drain layers reduce the head of leachate on the liner and, in consequence, significantly reduce leakage rates though any potential defects in geomembrane components of liners.
 - q. The potential for adverse effects of a landfill on groundwater quality are minimized by reducing leakage through the geomembrane component of a liner to the maximum extent possible. Current technology allows this by detection of leaks at defects in geomembranes. Defects are possible in geomembranes due to placement and construction of clay liner, geomembrane, and gravel drain layers.
30. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
- a. Is in noncompliance with a plan approval or order issued by the department

for a solid or hazardous waste facility in Wisconsin,

- b. Owns or previously owned a 10% or greater legal or equitable interest in a person, or in the assets of a person, who is not in compliance with a plan approval or order issued by the department for a solid or hazardous waste facility in Wisconsin.(E-mail sent asking status)
31. The department has complied with the requirements of NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
 32. The conditions set forth below are needed to assure that construction, operation, closure, and monitoring of the ADSSMCL are conducted in conformance with NR 500 to 590, Wis. Adm. Code, and modern landfill practice.

CONCLUSIONS OF LAW

1. The department has authority under s. 289.30, Stats. to approve a plan of operation with special conditions if the conditions are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
2. The department has authority under NR 507.18(1) Wis. Adm. Code, to approve and allow certain baseline monitoring results and corresponding PAL/ACL calculations to be submitted in a separate report. This data is normally required in the Plan of Operation Report.
3. The department has authority under NR 500.08(4), Wis. Adm. Code, to approve exemptions to the requirements of chs NR 500 to 590, Wis. Adm. Code in special cases except as otherwise provided.
4. The department has the authority under s. NR 140.28, Wis. Adm. Code and ss. 160.19 (8) and (9), Stats., to grant exemptions to groundwater standards and to specify terms and conditions under which the department may seek remedial action relating to standards for which an exemption has been granted. This may include establishing alternative concentration limits.
5. The department has the authority under s. 160.15(3), Stats., and s. NR 140.20, Wis. Adm. Code, to establish preventive action limits for indicator parameters.
6. The conditions of approval set forth below are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
7. In accordance with foregoing, the department has the authority under ch. 289, Stats., to issue the following conditional approval.

CONDITIONAL PLAN OF OPERATION APPROVAL

The department hereby approves the Plan of Operation for the vertical expansion of the Advanced Disposal Services Seven Mile Creek Sector 2 Landfill subject to compliance with chs. NR 500 to 590 Wis. Adm. Code, and the following conditions:

General

1. The total design capacity of the entire Sector 2 Landfill shall not exceed 10,562,389 cubic yards.
2. All aspects of construction, operation, monitoring and closure of the landfill shall be performed in accordance with the June 20, 1988, May 21, 2002, and April 19, 2005, Plan of Operation Approvals and subsequent plan modifications where not superseded by subsequent approvals, the Plan of Operation for the vertical expansion, the requirements of chs. NR 500 to 590, Wis. Adm. Code, and the conditions of this approval. In the case of any discrepancies between the approval conditions and the respective Plan of Operations and their associated plan sheets, the approval conditions shall take precedence.
3. Any proposed changes to the plan or this approval shall be presented to the department. If the changes are compatible with the desired performance of this landfill, as determined by the department, a plan modification will be approved accepting those changes. Written department approval is necessary prior to implementing any changes with the exception of minor field modifications that are documented in accordance with NR 516.04(3)(d), Wis. Adm. Code. All field modifications shall be discussed with the department prior to implementation. Other changes may be handled as expedited plan modifications under s. NR 514.09, Wis. Adm. Code as appropriate.

Design, Construction, and Operations

4. ADSSMCL shall notify the department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events listed below, for the purpose of allowing the department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below.

Construction Events	<u>(Liner)</u> - Phase 13	<u>(Capping)</u> -Phase 4-8 final cover events
Inspections	(1.) Subase & Clay Soil Placement	(1.) Grading Layer & Barrier Soil Placement
	(2.) Geomembrane Installation	(2.) GCL, Geomembrane Installation
	(3.) Leachate Collection System Components	(3.) Geocomposite Drainage Layer Installation
	(4.) Drainage Blanket	(4.) Rooting Zone & Topsoil Placement

5. If the proposed capping soils and geosynthetics differ from what was previously used on the ADSSMCL Sector 2 site, the preconstruction reports for the respective final cover construction phases shall include an analysis which demonstrates whether the maximum head in the drain layer will be confined within the thickness of the drain. The analysis shall be based on the soils and geosynthetics selected for the construction of the respective final cover event. Drain calculations shall include infiltration rates based on saturated characteristics of the topsoil and rooting zone and a hydraulic gradient of 1 through the topsoil and rooting zone.
6. ADSSMCL shall provide relevant site characterization data with any request for an alternate geotechnical investigation in accordance with in NR 504.075(5), Wis. Adm. Code.
7. If partial clay liner is constructed prior to freeze up, the completed and tested part of the clay liner shall be covered by a minimum one foot of compacted protective clay (no testing required). The following spring, at least the upper six inches of the protective clay layer shall be removed and the upper foot of the completed clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the upper three inches of the completed clay liner and the remaining protective clay layer shall be scarified and re-compacted. If the tests do not meet compaction specification then the entire lift of protective clay and at least the upper four inches of the clay liner shall be removed and the second foot of the clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the remaining eight inches of the upper foot of the clay liner shall be scarified and re-compacted. If the tests do not meet compaction specifications then the procedure shall be repeated for the remaining depth of clay liner until compaction specifications are met.
8. Proof of financial responsibility for closure and long-term care shall be provided before waste filling commences within the first constructed expansion phase, in accordance with ch. NR 520, Wis. Adm. Code. Proof of financial responsibility shall be established using department approved costs.

Environmental Monitoring

9. ADSSMCL (Sector 2) shall conduct environmental monitoring, reporting and responses in accordance with the requirements of chs. NR 507 and NR 508, Wis. Adm. Code and the attached Environmental Monitoring Summary: Tables 2A-2E.
10. The previously established monitoring well and parameter-specific preventative action limits (PALs) and alternative concentration limits (ACLs) that are shown below in Tables 1A-B will remain in effect. Unless otherwise approved, the Preventive Action Limits (PALs) and Enforcement Standards (ESs) shall be as specified in ch. NR 140, Wis. Adm. Code.
11. For any new or replacement monitoring wells, ADSSMCL shall collect a minimum of eight baseline water samples at least 30 days apart, but no more than 90 days apart, within the first two years following installation.

12. Water supply well samples shall be collected and analyzed in accordance with s. NR 507.20, Wis. Adm. Code and the department's guidance titled "Monitoring Water Supply Wells For VOCs Around Solid Waste Disposal Facilities NR 507.19 and NR 507.20., Wis. Adm. Code, Pub. WA 1009-2006", including the guidance document's recommended maximum limits of detection.
13. ADSSMCL shall monitor the Sector 2 Landfill's leachate semi-annually for PCB's in accordance with the test methods in 40 CFR761.358.

This approval is based on the information available to the department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the department may ask you to provide further information relating to this activity. Likewise, the department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

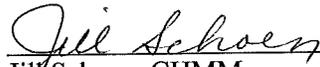
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision made by the department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing department decisions.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed, or otherwise served by the department, to file your petition with the appropriate circuit court and serve the petition on the department. The petition shall name the Department of Natural Resources as the respondent.

Dated: March 18, 2016

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jill Schoen, CHMM
Waste Program Manager
West Central Region



Brian Kalyelage, P.G.
Hydrogeologist
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region

**ENVIRONMENTAL MONITORING SUMMARY
 ADS SEVEN MILE CREEK, SECTOR 2 LANDFILL – LICENSE # 3097**

**Table 1A
 (Preventive Action Limits)**

Substance/Parameter	Monitoring Point/Well	PAL value (mg/l)
Alkalinity	DH-2	120
	DH-2A	120
	DH-4(abandoned)	130
	DH-18	120
	DH-18A	120
	DH-18B	120
	DH-20	110
	DH-20A	110
	DH-22	110
	DH-22A	120
	DH-22B	130
	DH-24	110
	DH-32	130
	DH-33	120
	DH-33A	120
	DH-34	120
	DH-35	200
	DH-35A	170
	DH-36	130
	DH-1	110
	DH-39	110
	DH-39A	110
	DH-40	110
	DH-41	110
	DH-43	110
	DH-43A	110
	DH-44	120
	DH-44A	120
	DH-45	110
	DH-46	110
	DH-46A	110
	DH-47	110
	DH-47A	110
DH-48	110	
DH-49	110	
DH-49A	110	
DH-50	110	
COD	Not applicable	Not applicable
Field Conductivity	DH-2	280
	DH-2A	270

	DH-4(abandoned)	280
	DH-18	290
	DH-18A	270
	DH-18B	270
	DH-20	270
	DH-20A	260
	DH-22	270
	DH-22A	280
	DH-22B	280
	DH-24	260
	DH-32	290
	DH-33	270
	DH-33A	260
	DH-34	320
	DH-35	380
	DH-35A	320
	DH-36	310
	DH-1	310
	DH-39	330
	DH-39A	250
	DH-40	280
	DH-41	410
	DH-43	440
	DH-43A	260
	DH-44	320
	DH-44A	320
	DH-45	460
	DH-46	240
	DH-46A	280
	DH-47	240
	DH-47A	250
	DH-48	520
	DH-49	760
	DH-49A	300
	DH-50	260

Sodium	DH-1	20
	DH-39	20
	DH-39A	20
	DH-40	20
	DH-41	50
	DH-43	40
	DH-43A	20
	DH-44	20
	DH-44A	20
	DH-45	50
	DH-46	20
	DH-46A	20
	DH-47	20
	DH-47A	20
	DH-48	110
	DH-49	70
DH-49A	20	
DH-50	20	
Ammonia as N	DH-1	10
	DH-39	10
	DH-39A	10
	DH-40	10
	DH-41	10
	DH-43	10
	DH-43A	10
	DH-44	10
	DH-44A	10
	DH-45	10
	DH-46	10
	DH-46A	10
	DH-47	10
	DH-47A	10
	DH-48	10
	DH-49	10
DH-49A	10	
DH-50	10	
Hardness	DH-2	140
	DH-2A	130
	DH-4(abandoned)	140
	DH-18	140
	DH-18A	130
	DH-18B	130
	DH-20	130
	DH-20A	130
	DH-22	130
	DH-22A	120
	DH-22B	140

	DH-24	130
	DH-32	150
	DH-33	140
	DH-33A	140
	DH-34	170
	DH-35	210
	DH-35A	180
	DH-36	160
	DH-1	130
	DH-39	160
	DH-39A	120
	DH-40	140
	DH-41	150
	DH-43	160
	DH-43A	120
	DH-44	150
	DH-44A	150
	DH-45	180
	DH-46	120
	DH-46A	120
	DH-47	120
	DH-47A	120
	DH-48	140
	DH-49	270
	DH-49A	140
	DH-50	130

Table 1B
 (Alternative Concentration Limits)

Substance/Parameter	Monitoring Point/Well	ACL value (mg/l)
Cadmium	DH-2,	9
	DH-4 (abandoned)	9
	DH-18B	6
	DH-20A	5
Iron	DH-4 (abandoned)	6
	DH-22B	2
	DH-33A	1
	DH-35A	1
Zinc	DH-1	3.5
	DH-2	6
	DH-4(abandoned)	6
Chloride	DH-49	196
Boron	DH-45	421 (ug/L)
Nickel	DH-49	26
Manganese	DH-39A	0.10

	DH-40	0.10
	DH-44	0.90
	DH-45	6.00
	DH-46	0.04
	DH-46A	0.05
	DH-48	0.20
	DH-49	0.10
	DH-49A	0.42
Nitrate + Nitrite (as N)	DH-36	10
	DH-39	8
	DH-41	6
	DH-44	4
	DH-44A	3
	DH-45	4
	DH-48	8
	DH-49	10
	DH-49A	5
	DH-50	6

Table 2A

(GROUNDWATER MONITORING)

MONITORING WELLS/ PIEZOMETERS	MONITORING FREQUENCY	PARAMETERS
{DH-1}, DH-4R***, DH-18A, DH-22A, DH-22B, DH-32, DH-33, DH-33A, DH-34, DH-35A, DH-36, DH-39, DH-39A, DH-40, DH-41, DH-43, DH-43A, DH-45, DH-46A, DH-47, DH-47A, DH-48, DH-49, DH-49A, DH-52 and DH-53 (Subtitle-D wells; DH-18, DH-22R, DH-35 and DH-46) And any others installed as needed.	Semi-Annually, (April and October)	39036 Alkalinity, Total Filtered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 04189 Groundwater Elevation 22413 Hardness, Total Filtered 00001 Odor 00002 Color 00003 Turbidity
{DH-1}, DH-4R***, DH-18A, DH-22A, DH-22B, DH-32, DH-33, DH-33A, DH-34, DH-35A, DH-36, DH-39, DH-39A, DH-40, DH-41, DH-43, DH-43A, DH-45, DH-46A, DH-47, DH-47A, DH-48, DH-49, DH-49A, DH-52 and DH-53 And any others installed as needed.	Annually (April)	VOCs (All in NR 507, Appendix III) (EPA Solid Waste analytical method 8260)
DH-18*, DH-22R*, DH-35*, DH-46*	Semi-Annually (April and October)	VOCs (All in NR 507, Appendix III) (EPA Solid Waste analytical method 8260)
PRIVATE WELLS	MONITORING FREQUENCY	PARAMETERS
ADS Office Well (PW-28) (OH541)*** ADS Shop Well (PW-30) (WT191) Carr Residence (PW-2) (DK154) Steindl Residence (PW-26)	Semi-annually (April and October)	00410 Alkalinity, Total Unfiltered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 00900 Hardness, Total Unfiltered All NR 507, Appendix III VOCs(using EPA Safe Drinking Water Method 524.2)

Table 2B
 (LYSIMETER MONITORING)

LYSIMETERS	MONITORING FREQUENCY	PARAMETERS
L-1A, L-2, L-3, L-4	Semi-annually (April and October)	00094 Field conductivity (@25°C) 00400 pH, Field 00410 Alkalinity, Total 00900 Hardness, Total 00940 Chloride, Total 00625 Total Kjeldahl Nitrogen 00929 Sodium, Total 99423 Elevation, liquid 00945 Sulfate, Total 00001 Odor 00002 Color 00003 Turbidity
L-1A, L-2, L-3, L-4	Annually (April)	VOCs (All in NR 507, Appendix III) (EPA Solid Waste analytical method 8260)
L-1A, L-2, L-3, L-4	Monthly (reported semi-annually)	74064 Lysimeter volume removed 72002 Depth to Liquid

Table 2C
 (SURFACE WATER MONITORING)

STREAM MONITORING	MONITORING FREQUENCY	PARAMETERS
Stream-1-[upstream]*** Stream-2-[mid-stream]*** Stream-3-[downstream]*** • Note: Parameter 99520, Surface Water Elevation is not required at Stream-2 location.	Semi-Annual (April, October)	74010 Total Iron 00410 Alkalinity, Total Unfiltered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 99520 Surface Water Elevation • 00900 Hardness, Total Unfiltered 00299 Dissolved Oxygen 00620 Nitrate (NO ₃ -N), Filtered 00665 Total Phosphorous 00001 Odor 00002 Color 00003 Turbidity

Table 2D
(LEACHATE MONITORING)

LEACHATE HEAD WELLS	MONITORING FREQUENCY	PARAMETERS
1A, 2A, 3A, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8, 9, 10A, 10B, 11, 12, And any others installed as needed.	Monthly (submitted semi-annually)	00023 Leachate Head Elevation 00031 Depth of Leachate
LEACHATE COLLECTION	MONITORING FREQUENCY	PARAMETERS
Sector 2 Lift Station, (point ID-430)	Monthly (submitted semi-annually)	00032 Volume of Leachate removed (volume pumped)
Sector 2 Lift Station, (point ID-430)	Semi-annually (April and October)	00310 BOD ₅ 00094 Field conductivity (@ 25°C) 00400 Field pH 00410 Alkalinity, Total Unfiltered 01027 Cadmium, Total Unfiltered 00940 Chloride, Total Unfiltered 00900 Hardness, Total Unfiltered 74010 Total Iron 01051 Lead, Total Unfiltered 01055 Manganese, Total Unfiltered 71900 Mercury, Total Unfiltered 00610 Ammonia Nitrogen, Total 00625 Total Kjeldahl Nitrogen 00929 Sodium, Total Unfiltered 00945 Sulfate, Total Unfiltered 00150 Total Susp. Solids 00001 Odor 00002 Color 00003 Turbidity VOCs (All NR 507, Appendix III) (EPA Solid Waste analytical method 8260) (39516) PCB analysis (See 40CFR PART 761. 358)
Sector 2 Lift Station, (point ID-430)	Annually (April)	SVOCs (All in NR 507, Appendix IV) (see attached Table 3)

Table 2E
(GAS MONITORING)

GAS PROBES	MONITORING FREQUENCY	PARAMETERS
GP-1, GP-2R, GP-3R, GP-4R, GP-5R, GP-6, GP-7, GP-8, GP-9, GP-12, GP-13, GP-14, GP-15 (GP-10 and GP-11 were not installed at the time of this approval.) And any others installed as needed.	Quarterly (January, April, July, October)	85547 % Methane 85550 % Oxygen 00025 Barometric pressure 46381 Pressure trend, barometric 00007 Ground conditions (1=frozen, 2=wet, 3=dry) 00021 Ambient air temperature (°F)
GAS EXTRACTION WELLS	MONITORING FREQUENCY	PARAMETERS
GEW-1, GEW-2, , GEW-3A, GEW-4, GEW-5A, GEW-6A, GEW-7A, GEW-8, GEW-9A, GEW-10B, GEW-11B, GEW-12A, GEW-13, GEW-14A, GEW-15A, GEW-16A, GEW-17, GEW-18, GEW-19, GEW-20, GEW-21, GEW-22A, GEW-23A, GEW-24A, GEW-25A, GEW-26A, GEW-27A, GEW-28A, GEW-29B, GEW-30, GEW-31, GEW-32, GEW-33, GEW-34, GEW-35, GEW-36A, GEW-37, GEW-38, GEW-39, GEW-40A, GEW-41, GEW-42, GEW-43A, GEW-44, GEW-52 and GEW-61A and others installed as needed.	Monthly (submitted semi-annually)	46388 Gas Temperature (°F) 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 99848 Percent Gas Balance (by vol.) 46387 Valve Opening (% open) 99098 Gas Flow Rate (cfm) 46385 Well Head Pressure (inches of water column) 00023 Leachate Head Elevation 00031 Depth of Leachate
MISCELLANEOUS GAS SAMPLING	MONITORING FREQUENCY	PARAMETERS
Blower Inlet, (Point ID 850)	Semi-monthly (twice per month)	46382 Header Pressure (inches of water column)
BLOWER OUTLET*** (Point ID 852)	Semi-monthly (twice per month)	46388 Gas Temperature (°F) 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 99098 Gas Flow Rate (cfm) 46382 Header Pressure (inches of water) 98927 Gas Extracted, (total monthly

		volume in 1000 cu. ft./month) 99848 Percent Gas Balance (by vol.)
FLARE*** (Point ID 854)	Semi-monthly (twice per month)	99098 Gas Flow Rate (cfm)

Designated Subtitle "D" monitoring wells.

**=A monitoring point (i.e. Well) which is shared by both Sector 2 and the Town of Seymour LF.

***= A monitoring point (i.e., well) which is shared by both Sector 1 and Sector 2. These points will only have to be sampled once at their respective frequency, and the data can be submitted with either license number.

(..) = Wisconsin unique well number

{DH-x}=Monitoring point to be abandoned as facility construction dictates

Table 3
 (NR 507, Appendix IV)

Semivolatile Organic Compounds (SVOCs)

PARAMETER CODE	PARAMETER DESCRIPTION
34200	ACENAPHTHYLENE (UG/L)
34205	ACENAPHTHENE IN WHL WTR SAMPLE (UG/L)
34220	ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34230	BENZO(B)FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34242	BENZO(K)FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34247	BENZO(A)PYRENE IN WHL WTR SAMPLE (UG/L)
34273	BIS(2-CHLOROETHYL) ETHER IN WHL WTR SAMPLE (UG/L)
34278	BIS(2-CHLOROETHOXY)METHANE IN WHL WTR SMPL (UG/L)
34292	BUTYL BENZYL PHTHALATE IN WHOLE WATER SAMPLE(UG/L)
34320	CHRYSENE IN WHL WTR SAMPLE (UG/L)
34336	DIETHYL PHTHALATE IN WHOLE WATER SAMPLE (UG/L)
34341	DIMETHYL PHTHALATE IN WHL WTR SAMPLE (UG/L)
34346	1,2-DIPHENYLHYDRAZINE IN WHOLE WATER SAMPLE (UG/L)
34376	FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34381	FLUORENE IN WHL WTR SAMPLE (UG/L)
34386	HEXACHLOROCYCLOPENTADIENE IN WHL WTR SAMPLE (UG/L)
34391	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)
34396	HEXACHLOROETHANE IN WHL WTR SAMPLE (UG/L)
34403	INDENO(1,2,3-CD)PYRENE IN WHL WTR SAMPLE (UG/L)
34408	ISOPHORONE IN WHL WTR SAMPLE (UG/L)
34428	N-NITROSODI-N-PROPYLAMINE IN WHL WTR SAMPLE (UG/L)
34433	N-NITROSODIPHENYLAMINE IN WHL WTR SAMPLE (UG/L)
34438	N-NITROSODIMETHYLAMINE IN WHL WTR SAMPLE (UG/L)
34447	NITROBENZENE IN WHL WTR SAMPLE (UG/L)
34452	P-CHLORO-M-CRESOL IN WHL WTR SAMPLE (UG/L)

34461	PHENANTHRENE IN WHL WTR SAMPLE (UG/L)
34469	PYRENE, TOTAL (UG/L)
34521	BENZO(GHI)PERYLENE IN WHL WTR SAMPLE (UG/L)
34526	BENZ(A)ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34536	O-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34551	1,2,4-TRICHLOROBENZENE IN WHOLE WATER SAMPLE(UG/L)
34556	DIBENZ(A,H)ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34566	M-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34571	P-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34581	2-CHLORONAPHTHALENE IN WHL WTR SAMPLE (UG/L)
34586	2-CHLOROPHENOL IN WHL WTR SAMPLE (UG/L)
34591	2-NITROPHENOL IN WHL WTR SAMPLE (UG/L)
34596	DI-N-OCTYL PHTHALATE IN WHL WTR SAMPLE (UG/L)
34601	2,4-DICHLOROPHENOL IN WHL WTR SAMPLE (UG/L)
34606	2,4-DIMETHYLPHENOL IN WHL WTR SAMPLE (UG/L)
34611	2,4-DINITROTOLUENE IN WHL WTR SAMPLE (UG/L)
34616	2,4-DINITROPHENOL IN WHL WTR SAMPLE (UG/L)
34621	2,4,6-TRICHLOROPHENOL IN WHOLE WATER SAMPLE (UG/L)
34626	2,6-DINITROTOLUENE IN WHL WTR SAMPLE (UG/L)
34631	3,3'-DICHLOROBENZIDINE IN WHOLE WATR SAMPLE (UG/L)
34636	4-BROMOPHENYL PHENYL ETHER IN WHL WTR SMPL (UG/L)
34641	4-CHLOROPHENYLPHENYL ETHER, WHL WATR SAMPLE (UG/L)
34646	4-NITROPHENOL IN WHL WTR SAMPLE (UG/L)
34694	PHENOL IN WHL WTR SAMPLE (UG/L)
34696	NAPHTHALENE IN WHOLE WATER SAMPLE (UG/L)
39032	PENTACHLOROPHENOL (PCP) IN WHOLE WTR SAMPLE (UG/L)
39100	BIS(2-ETHYLHEXYL) PHTHALATE (DEHP)WHL WTR SMP(UG/L)
39110	DI-N-BUTYL PHTHALATE IN WHOLE WATER SAMPLE (UG/L)
39120	BENZIDINE IN WHL WTR SAMPLE (UG/L)
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)
73522	BIS(2-CHLOROISOPROPYL) ETHER IN WHL WTR SMP (UG/L)
79533	4,6-DINITRO-O-CRESOL IN WHL WTR SAMPLE UG/L)

Note: This Table may change as NR 507, NR 140, NR 809 and 40 CFR 141 are revised.

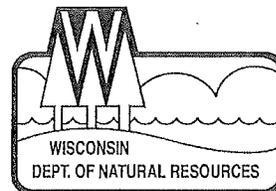
NR 507 Appendix III Contaminant	CAS #	NR 140 PAL (µg/L)	NR 809 Status (MCL in µg/L)	SDWA Methods
Acetone	67-64-1	200	--	524.2
Benzene	71-43-2	0.5	5	502.2, 524.2
Bromodichloromethane	75-27-4	0.06	TTHM MCL = 100	502.2, 524.2
Bromomethane	74-83-9	1	Unregulated	502.2, 524.2
Bromoform (Tribromomethane)	75-25-2	0.44	TTHM MCL = 100	502.2, 524.2
Carbon disulfide	75-15-0	200		524.2
Carbon tetrachloride	56-23-5	0.5	5	502.2, 524.2
Chlorobenzene	108-90-7	20	100	502.2, 524.2
Chloroethane	75-00-3	80	Unregulated	502.2, 524.2
Chloroform (Trichloromethane)	67-66-3	0.6	TTHM MCL = 100	502.2, 524.2

Chloromethane	74-87-3	0.3	Unregulated	502.2, 524.2
Dibromochloromethane	124-48-1	6	TTHM MCL = 100	502.2, 524.2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.02	0.2	504.1, 551, 551.1
1,2-Dibromoethane (EDB)	106-93-4	0.005	0.05	504.1, 551, 551.1
1,2-Dichlorobenzene	95-50-1	60		502.2, 524.2
1,3-Dichlorobenzene	541-73-1	125	Special 809.26	502.2, 524.2
1,4-Dichlorobenzene	106-46-7	15	75	502.2, 524.2
Dichlorodifluoromethane	75-71-8	200	Special 809.26	502.2, 524.2
1,1-Dichloroethane	75-34-3	85	Special 809.26	502.2, 524.2
1,2-Dichloroethane	107-06-2	0.5	5	502.2, 524.2
1,1-Dichloroethylene	75-35-4	0.7	7	502.2, 524.2
Cis-1,2-Dichloroethylene	156-59-2	7	70	502.2, 524.2
Trans-1,2-Dichloroethylene	156-60-5	20	100	502.2, 524.2
1,2-Dichloropropane	78-87-5	0.5	5	502.2, 524.2
1,3-Dichloropropene (cis)	10061-01-5	*0.02	Special 809.26	502.2, 524.2
1,3-Dichloropropene (trans)	10061-02-6	*0.02	Unregulated	502.2, 524.2
Ethylbenzene	100-41-4	140	Unregulated	502.2, 524.2
Fluorotrichloromethane	75-69-4	698		502.2, 524.2
Methylene bromide	74-95-3		Unregulated	502.2, 524.2
Methylene chloride (Dichloromethane)	75-09-2	0.5	5	524.2
Methyl ethyl ketone (MEK)	78-93-3	90		502.2, 524.2
Methyl tert-butyl ether (MTBE)	1634-04-4	12		502.2, 524.2
**Naphthalene	91-20-3	8	Unregulated	524.2*
Styrene	100-42-5	10	100	502.2, 524.2
Tetrachloroethylene	127-18-4	0.5	5	502.2, 524.2
Tetrahydrofuran	109-99-9	10		502.2, 524.2
Toluene	108-88-3	200	1000	502.2, 524.2
1,1,1-Trichloroethane	71-55-6	40	200	524.2
1,1,2-Trichloroethane	79-00-5	0.5	5	502.2, 524.2
Trichloroethylene (TCE)	79-01-6	0.5	5	502.2, 524.2
Vinyl chloride	75-01-4	0.02	0.2	502.2, 524.2
Xylenes (total)	***	1000	10000	502.2, 524.2

* PAL applies to the sum of the concentrations of 1,3-Dichloropropene (cis) and 1,3-Dichloropropene (trans).

** Naphthalene is also a polynuclear aromatic hydrocarbon (PAH). If other semi-volatile compounds or specifically PAHs are included in the monitoring plan, it may be appropriate to eliminate this compound from VOC monitoring.

*** CAS #s include 95-47-6 for o-Xylene, 108-38-3 for m-Xylene, and 106-42-3 for p-Xylene, or 1330-20-7 for unspecified Xylene



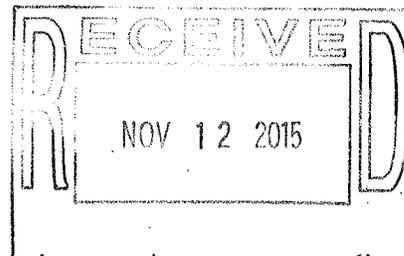
November 6, 2015

FILE CODE: 4560
FID NO.: 618045450
EXEMPTION NO.: 15-MHR-152-EXM

Mark Vinall
Advanced Disposal Services Seven Mile Creek Landfill LLC
2626 Mondovi Road
Eau Claire, WI 54701-6163

[Subject: Exemption request under s. NR 406.04, Wis. Adm. Code]

Dear Mr. Vinall:



The Department of Natural Resources has received the air pollution control permit exemption request regarding the proposed vertical expansion within the currently constructed, active area of the landfill (Phases 1-12 of Sector II) located in Eau Claire, Wisconsin.

PROJECT DESCRIPTION.

Upon review of the submittal for the proposed construction – and based on the information submitted – it appears that the proposed project is exempt from air pollution control construction permit requirements. This is based on the following:

1. The proposed vertical expansion occurring only within Phases 1-12 of Sector II of the landfill.
2. The capacity of the currently constructed landfill (Sectors I-II, combined), including the proposed vertical expansion, will not exceed 10.3 million cubic yards. That capacity limitation is required by Air Pollution Control Construction Permit Number 04-JAJ-177.

Note that this opinion is also based upon a presumption that this project is not a portion of any other projects, which together may be subject to construction permitting.

Although this project has been determined to be exempt under ch. NR 406, Wis. Adm. Code, it is still subject to all applicable requirements in NR 400 - 499, Wis. Adm. Code and any other applicable federal, state or local regulations, including the applicable requirements within Air Pollution Control Operation Permit Number 618045450-P10.

If you have any questions regarding this matter, please feel free to contact me at (608) 785-9973.

Sincerely,

Michael Ross, P.E.
Air Management Engineer

cc: Ashley Gray - West Central Region Air Program, Wausau Area Office
Sherren Clark, SCS Engineers, 2830 Dairy Drive, Madison, WI 53718



September 30, 2015

Mr. Mark Vinall, General Manager
Advanced Disposal Services (ADS) Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Feasibility Determination for the Proposed ADS Seven Mile Creek Landfill Sector 2
Vertical Expansion (Lic#: 3097)

Dear Mr. Vinall:

The Department of Natural Resources (department) has determined that the proposed vertical expansion of the Advanced Disposal Service (ADS) Seven Mile Creek Landfill (Sector 2) is feasible and should provide for satisfactory solid waste disposal. The department has also determined that an Environmental Impact Statement is not needed for this proposed expansion.

The maximum design capacity of the proposed vertical expansion is limited to 1,587,200 cubic yards, including daily and intermediate cover. The maximum height of the vertical expansion will be 1101.5 feet above sea level.

Below is a discussion highlighting the requested exemptions and the department's comments.

The feasibility report identified 26 private water supply wells located within 1,200 feet of the landfill. Consequently, the feasibility report included an exemption request from NR 504.04(3)(f), Wis. Adm. Code, to construct a landfill within 1,200 feet of each water supply well. To support the exemption request, the feasibility report contained groundwater elevation contour drawings, geologic cross-sections and other hydrogeologic information. Based on the information provided, the department has determined that the exemption is warranted for each well, except PW-2 and PW-26, and is granted in the attached feasibility determination.

Wells PW-2 and PW-26 have exemptions from the setback requirements that were granted in connection with a horizontal expansion several years ago. It now appears these two exemptions were granted without the well logs and construction information required under s. NR 504.04(2), Wis. Adm. Code. The department re-evaluated the exemptions and determined that the vertical expansion will not create any new or exacerbate any existing risk to either water supply well if the conditions of the feasibility determination are complied with; therefore we consider that the previously granted exemptions remain in effect. Although the limits of waste of the vertical expansion area are beyond 1,200 ft. from both PW-2 and PW-26, existing waste is located within that distance. Because of the landfill design and site conditions, the potential risk to both wells is minimal, and the proposed vertical expansion will not increase the risk to these wells. This decision that the previously issued setback exemptions for these two wells remain in effect is based on data specific to this landfill expansion proposal and should not be construed as a precedent for future landfill development proposals.

Well abandonment forms and documentation for private wells PW-13 and PW-16 were unavailable and therefore not included with the feasibility report. The well abandonment form for private well PW-5 was submitted as additional information, and received by the department on September 15, 2015. Due to the importance of proper well abandonment, condition #4 of this feasibility determination requires that when ADS abandons monitoring wells, piezometers and water supply wells it owns or controls within 1,200 ft. of the limits of waste, that ADS

submit the proper well abandonment forms to the department pursuant to the timelines and protocol required by s. NR 812.26 and s. NR 141.25, Wis. Adm. Codes.

The feasibility report contained an exemption request to s. NR 504.04(3)(d), Wis. Adm. Code, to construct a landfill within 1,000 feet of a public park or recreational area. Although the 25.1-acre vertical expansion is not within the 1,000-foot setback, existing waste is located within that distance. Information contained within the feasibility report and addendum No.1 provided visual documentation, line-of-sight drawings, and other required information. Based on the information provided, an exemption to this setback distance is granted in the attached feasibility determination. It should be noted that all of the visuals provided were during the growing season with leaves on trees, and that the proposed expansion could have visual impacts to park users during the vegetative dormant season.

The feasibility report contained an exemption request to s. NR 140.28, Wis. Adm. Code, to construct a landfill (expansion) where groundwater standard exceedances exist. This feasibility determination grants the requested groundwater standard exemptions pursuant to s. NR 140.28, Wis. Adm. Code, except where only one sample value showed an NR 140 preventative action limit (PAL) exceedance which was not confirmed in any follow-up sample rounds from the respective well. Condition #5 of this feasibility determination requires ADS to submit a cause and significance of exceedance report to the department for the exceedances reported in samples collected from monitoring well DH-10, in accordance with ch. NR 508, Wis. Adm. Code. A site investigation will be needed if findings warrant.

The feasibility report contained an exemption request to the 10-foot separation distance between the landfill subbase and the top of the underlying bedrock as required in s. NR 504.06(2)(c), Wis. Adm. Code. Addendum No.2 of the feasibility report indicated that a portion of the landfill had previously been constructed directly on top of the local bedrock without an exemption because the information was not included in the 2011 feasibility modification request. We have determined that the proposed vertical expansion will not cause any new or exacerbate any existing risk to the environment due to the proximity of the landfill subbase to the bedrock at that location. Therefore the feasibility determination grants an exemption to this separation distance at this location for the vertical expansion. This decision to grant an exemption for this vertical expansion is based on data specific to this landfill expansion proposal and should not be construed as a precedent for future decisions by the department for future landfill development proposals.

The feasibility report contained a request for an alternate geotechnical approval pursuant to s. NR 512.085, Wis. Adm. Code. This request was further clarified in Addendum No.1 of the feasibility report. The primary request was to utilize the existing number of soil borings, monitoring wells and piezometers to adequately define and monitor the facility. The secondary request was to use data that were previously submitted in other documents and reports. This secondary request was withdrawn as the data are contained within the feasibility report and Addenda Nos.1 and 2. We agree that additional geotechnical work is not required at this time (with the exception of any work that may be needed relating to groundwater standard exceedances found in DH-10).

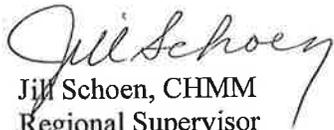
The feasibility report contained an exemption request to s. NR 512.11(1)(b), Wis. Adm. Code, regarding data presentation with respect to showing the delineation of the Ordinary High Water Mark (OHWM) for Seven Mile Creek (i.e., the stream edges) at all locations within 1,500 feet of the limits of waste. On plan drawing "1-2" in Addendum No.1 of the feasibility report, the OHWM was shown at critical locations but not completely delineated at all points within the 1,500 foot radius of the limits of waste. An exemption to this requirement is granted, due mainly to the fact that this expansion is strictly vertical in nature and does not encroach any closer to the adjacent Seven Mile Creek than the existing Sector 2 landfill. This decision to grant an exemption for this vertical expansion is based on data specific to this landfill expansion proposal and should not be construed as a precedent for future decisions by the department for future landfill development proposals.

The feasibility report contained an exemption request to s. NR 512.11(2), Wis. Adm. Code, regarding data presentation showing the final grades of the landfill on the geologic cross sections. Because the information was ultimately presented in Addendum No.1 of the feasibility report, an exemption is unnecessary.

You may now submit your plan of operation in accordance with Chapters NR 500 through 538, Wisconsin Administrative Codes, the feasibility report and the conditions of feasibility listed in the attached determination. However, this favorable determination of feasibility does not guarantee that the Department will approve your plan of operation for the proposed landfill expansion.

If you have questions regarding this approval, please contact Brian Kalvelage, Regional Hydrogeologist at (608) 785-9983, or Marty Herrick, Environmental Engineer at (608) 789-5518.

Sincerely,



Jill Schoen, CHMM
Regional Supervisor
Waste & Materials Management Program

CC: Brian Kalvelage - WDNR, La Crosse
Marty Herrick - WDNR, La Crosse
Sarah Shiel - WDNR Eau Claire (via email)
Brad Wolbert - WDNR Madison (via email)
Bob Grefe - WDNR Madison (via email)
Joe Lourigan - WDNR Madison (via email)
Dan Baumann - WDNR, Eau Claire (via email)
Brian Hayes - WFSB, 5005 University Ave., Suite 201, Madison, WI 53705-5400
John Oswald - Cornerstone Env. Group, 8413 Excelsior Drive, Suite 160, Madison, WI 53717
Mark Torresani - Cornerstone Env. Group, 8414 Excelsior Drive, Suite 160, Madison, WI 53717
Janet Loomis - County Clerk, Eau Claire County, 721 Oxford Avenue, Eau Claire, WI 54703
Donna Austad - City Clerk, City of Eau Claire, 203 S. Farwell Street, Eau Claire, WI 54701
Sue Larson - Town Clerk, Town of Seymour, 6500 Tower Drive, Eau Claire, WI 54703

BEFORE THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

DETERMINATION OF SITE FEASIBILITY FOR THE
PROPOSED VERTICAL EXPANSION OF THE ADVANCED DISPOSAL SERVICES
SEVEN MILE CREEK LANDFILL, SECTOR 2
EAU CLAIRE COUNTY, WISCONSIN
WDNR LICENSE NUMBER #3097

FINDINGS OF FACT

The department finds that:

1. Advanced Disposal Services (ADS) Seven Mile Creek Landfill, LLC, has proposed a vertical expansion of its Sector 2 landfill located in the southeast 1/4 of Section 8 and southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin.
2. The proposed municipal solid waste landfill (vertical expansion) would consist of a 25.1 acre overlay on the existing landfill. This vertical expansion would add 1,587,200 cubic yards of waste capacity. The maximum design capacity of the existing Sector 2 facility (without the expansion) is 9,055,889 cubic yards.
3. The proposed landfill expansion represents a vertical expansion of the ADS Seven Mile Creek-Sector 2 Landfill, WDNR license # 3097. The approved maximum height of the landfill (and vertical expansion) will be 1101.5 feet above mean sea level. This elevation is approximately 37 feet higher than the currently approved maximum height.
4. The proposed municipal solid waste landfill expansion is intended to serve the residential, commercial and non-hazardous industrial waste disposal needs of northwestern Wisconsin.
5. The ADS Seven Mile Creek Landfill, LLC was previously known as Veolia Seven Mile Creek Landfill, Onyx Seven Mile Creek Landfill and Superior Seven Mile Creek Landfill, LLC.
6. The department issued a conditional plan of operation approval for the Sector 2 landfill on June 20, 1988.
7. The department issued a conditional plan of operation approval for the Sector 2 vertical expansion on May 21, 2002.
8. The department made an initial site inspection of the proposed vertical expansion site on January 13, 2014.
9. On March 28, 2014, the department received an Initial Site Report (ISR), dated March 21, 2014, and submitted by Cornerstone Environmental on behalf of ADS Seven Mile Creek Landfill, LLC. The report was entitled "Initial Site Report, Advanced Disposal Services Seven Mile Creek Landfill, Proposed Vertical Expansion of Sector 2".

10. On June 5, 2014, the department issued an "ISR opinion letter", based on the initial site inspection and the Initial Site Report, that the proposed site has potential for development for a vertical expansion of the existing municipal solid waste landfill.
11. On November 4, 2014, the department received the feasibility report for the proposed vertical expansion. This report is dated October 31, 2014, and was submitted by Cornerstone Environmental on behalf of ADS Seven Mile Creek Landfill, LLC. The feasibility report consists of 2 volumes and a set of 29 plan sheets.
12. On November 6, 2014, the department received an electronic copy of the feasibility report.
13. On December 15, 2014, the department received a review fee of \$28,000.
14. On January 5, 2015, the department issued a response and incompleteness determination letter. This letter requested additional information from the applicant.
15. On March 12, 2015, the department received Addendum No.1 of the feasibility report. This report includes a bound narrative and plan sheets. An electronic copy of this report was received by the department on April 29, 2015.
16. On May 5, 2015, the department issued a second response and request for additional information. This letter requested additional information from the applicant.
17. On May 21, 2015, the department received Addendum No.2 of the feasibility report.
18. On June 8, 2015, the department sent an additional invoice (#4339-10701) for an additional locational exemption request that was contained within the May 21, 2015, Addendum No.2 submittal.
19. On June 24, 2015, the department determined that the feasibility report (including addenda) is complete and issued a Completeness Determination for the proposal.
20. On June 27, 2015, the *Eau Claire Leader Telegram* published a class 1 public notice at the request of the department pursuant to s. 289.25(3), Wis. Stats. This public notice was a solicitation for public comments.
21. On June 29, 2015, the department received the appropriate exemption fee of \$2,000 related to item 18 above.
22. On July 27, 2015, the 30-day public comment period closed at 5:00 p.m. No public comments or hearing requests were received during this period.
23. On September 15, 2015, the department received the well abandonment form for private well PW-5.
24. On September 15, 2015, the department received variance applications for 14 private water supply wells not previously granted a variance under the provisions of s. NR 812.43, Wis. Adm. Code.
25. The department considered the following documents submitted by the applicant in its review of the feasibility of the proposed vertical expansion:
 - a. A Feasibility Report (including plan sheets) entitled, "Feasibility Report Sector 2, Vertical Expansion, (ADS) Seven Mile Creek Landfill, LLC, dated October 2014, and received by the

- department on November 4, 2014. This document was prepared by Cornerstone Environmental on behalf of ADS Seven Mile Creek Landfill, LLC.
- b. Addendum No.1 of the feasibility report (including plan sheets), dated March 10, 2015.
 - c. Addendum No. 2 of the feasibility report (including plan sheets), dated May 20, 2015.
 - c. The well abandonment form for private well PW-5, received by the department on September 15, 2015.
 - d. A submittal entitled, "Requests for variances to NR 812 for fourteen water supply wells", dated September 9, 2015, and received by the department on September 15, 2015.
26. The department considered the information contained in its site file for the ADS (formerly Veolia, Onyx and Superior) Seven Mile Creek Sector 2 Landfill, and the following additional information in its review of the feasibility of the proposed vertical expansion:
- a. DNR guidance document number WA047.doc, dated February 2, 2004. This guidance is entitled, "Interim guidance addressing the 1200-foot setback between proposed landfills and existing water supply wells".
 - b. The Plan of Operation Report for the Eau Claire County Seven Mile Creek Landfill, Sector 2, submitted by Ayres Associates, November, 1987.
 - c. An affidavit of publication for the Class 1 public notice. This notarized letter, dated June 29, 2015, was signed by Robyn Brown of the *Eau Claire Leader Telegram* Newspaper.
 - d. A memo from Mary E. Vollbrecht, DNR Drinkingwater and Groundwater Section Chief, dated June 23, 2015, regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill (expansion) in a location where NR 140, Wis. Adm. Code, groundwater standards have been exceeded.
 - e. DNR Feasibility Internal Procedures worksheets (rev. Oct., 1997).
 - f. DNR Feasibility Completeness Checklist (rev. Feb., 2001).
 - g. A memo from Chris Willger, DNR Environmental Analysis and Review Specialist, dated December 22, 2014, stating that a landfill feasibility review process is an "equivalent analysis" under s. NR 150.20(2)(a)7, Wis. Adm. Code.
27. The existing Sector 2 landfill (which contains the proposed vertical expansion) would not be located within:
- a. 300 feet of a navigable river or stream;
 - b. 1,000 feet of a navigable lake, pond or flowage not including landfill drainage or sedimentation control structures;
 - c. A floodplain;
 - d. 10,000 feet of any airport runway end used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston type aircraft or within an area where the design or operation of the landfill would pose a significant bird hazard to aircraft;
 - e. 200 feet of a fault that has had displacement in Holocene time, as defined in s. NR 500.03(80), Wis. Adm. Code;
 - f. A seismic impact zone, as defined in s. NR 500.03(208), Wis. Adm. Code; or
 - g. An unstable area, as defined in s. NR 500.03(246), Wis. Adm. Code.

28. The existing Sector 2 landfill including the proposed vertical expansion would be located within 1,200 feet of 26 water supply wells (PW-1, PW-2, PW-3, PW-4, PW-7, PW-8, PW-9, PW-10, PW-11, PW-12, PW-14, PW-15, PW-17, PW-18, PW-19, PW-20, PW-21, PW-22, PW-23, PW-25, PW-26, PW-27, PW-28, PW-30, PW-31 and PW-32). ADS Seven Mile Creek Landfill, LLC, requested an exemption from s. NR 504.04(3)(f), Wis. Adm. Code, for each of these wells. The department finds that an exemption for all the wells, except PW-2 and PW-26 is warranted because all the wells are located upgradient, side gradient, or are separated by Seven Mile Creek which may act as a hydrologic divide from the Sector 2 landfill relative to the groundwater flow system. In addition, the design of the landfill includes a composite liner consisting of a 4 to 5-foot layer of compacted clay and a 60 mil HDPE geomembrane, a composite final cover, a leachate collection system and an active gas extraction system, all of which will be protective of the groundwater if the landfill is properly constructed and operated.
29. An exemption from s. NR 504.04(3)(f), Wis. Adm. Code, for PW-2 and PW-26 is not warranted because the well construction information required in s. NR 504.04(2)(a), Wis. Adm. Code, was not provided. The department re-evaluated the exemptions for PW-2 and PW-26 granted in the department's May 28, 2004, feasibility determination and has determined that because of landfill design and well location, the proposed vertical expansion will not create an additional risk to these water supply wells. The exemption provided for each well in the department's May 28, 2004, feasibility determination remains in effect.
30. The feasibility report documents that private water supply wells PW-5, PW-6, PW-13, PW-16 and PW-29 were abandoned since the 2005 Horizontal and Vertical Expansion Approval. The well abandonment forms could not be located and were consequently not submitted for PW-13 and PW-16. PW-13 and PW-16 were located within 1,200 ft. of the existing limits of waste and on property currently owned by ADS.
31. The abandonment form for private well PW-5 was submitted via email on September 15, 2015.
32. The existing Sector 2 Landfill with proposed vertical expansion would be located within 1,000 feet of the nearest edge of any public park. The vertical expansion portion of the landfill is not within 1,000 feet of the public park; however, the southeast corner of the existing landfill is located within 1,000 feet of Tower Ridge Recreational Area.
33. The existing Sector 2 Landfill with proposed vertical expansion would be located within an area where bedrock is within 10 feet of the subbase of the landfill in the area of boring TB-39. ADS has requested an exemption to the 10 foot separation distance between the bottom of the clay component of a composite liner and the top of bedrock, required in s. NR 504.06(2)(c), Wis. Adm. Code. The department finds that the exemption warranted because of landfill design and the area not meeting the 10 foot separation is a small portion of the landfill. There is some question raised in the feasibility report as to whether the description of competent bedrock in TB-39 is accurate, based on the landfill excavation experience in the area of TB-39 in preparation for liner construction at the time. The landfill base grades in this area were approved in the department's September 15, 2011, feasibility modification approval, and liner in this area is already constructed. The vertical expansion will not alter the previously approved based grades.
34. The proposed vertical expansion would not be within an area where there is a reasonable probability that the facility will cause:
 - a. A significant adverse impact on wetlands as provided in ch. NR 103, Wis. Adm. Code;

- b. A significant adverse impact on critical habitat areas;
 - c. A detrimental effect on any surface water, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - d. A detrimental effect on groundwater quality, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - e. The migration of explosive concentrations of gases in any facility structure or in the soil or air beyond the facility boundary, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - f. The emission of any hazardous air contaminants in excess of standards contained in s. NR 445.03, Wis. Adm. Code, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below.
35. The proposed vertical expansion will not affect wetlands.
36. The department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:
- a. Baseline groundwater monitoring data provided with the feasibility report.
 - b. Information provided to the department indicating groundwater flow beneath the site is in a southwesterly direction.
 - c. Information provided to the department indicating groundwater flow west of the Seven Mile Creek is in a southeasterly direction.
 - d. Well construction details and boring logs provided in the feasibility report and additional submittals.
 - e. Well location plan sheets and water table maps provided in the feasibility report and additional submittals.
 - f. Revised bedrock contour maps provided in Addendum No.1 of the feasibility report.
 - g. A memo from Mary E. Vollbrecht, DNR Drinkingwater and Groundwater Section Chief, dated June 23, 2015, regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill (expansion) in a location where NR 140, Wis. Adm. Code, groundwater standards have been exceeded.
 - h. The landfill design specifications provided in the feasibility report and as conditioned herein.
37. Based on an examination of site conditions, the department finds the following:
- a. Groundwater concentrations of benzene, tetrahydrofuran, boron, cadmium, lead, nitrate + nitrite (as N), chloride, vinyl chloride and iron in the site area found at concentrations exceeding the ch. NR 140, Wis. Adm. Code, groundwater standards are due to background groundwater quality associated with natural hydrogeologic conditions or human activities.

- b. To minimize any incremental increase in contamination from the proposed municipal solid waste landfill expansion, the facility has been designed to contain and collect leachate. The conditionally approved design includes a composite liner, leachate collection system and composite final cover system. These design features will limit increases of contaminants in the groundwater, including benzene, tetrahydrofuran, boron, cadmium, lead, nitrate + nitrite (as N), chloride, vinyl chloride and iron. Therefore, the department believes the proposed landfill is designed to achieve the lowest possible concentration of these substances in the groundwater that is technically and economically feasible.

38. Based on an examination of the groundwater quality data for the proposed facility for substances of public health concern, other than nitrate, and the information listed in Findings of Fact above, the department finds the following:

- a. Baseline concentrations above the preventive action limits but below the enforcement standards established for the following substances of public health concern, other than nitrate, were observed in two or more sample rounds at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Benzene	DH-22A and DH-53
Tetrahydrofuran	DH-10
Boron	DH-53
Cadmium	DH-53
Lead	DH-53

- b. Baseline concentrations above the enforcement standard for the following substances of public health concern, other than nitrate, were observed in at least one sample round at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Vinyl Chloride	DH-10

- c. The proposed facility will not cause the concentrations of the substances listed in part **a** above to exceed the enforcement standard for these substances at a point of standards application because of the facility design.
- d. The proposed facility is designed to achieve the lowest possible concentrations for substances listed in parts **a** and **b** above which are technically and economically feasible.
- e. The anticipated increase in the concentrations of the substances listed in part **b** above will not cause an increased threat to public health or welfare because of the landfill design.
- f. The anticipated incremental increase in the concentrations of the substances listed in part **b** above will not exceed the preventive action limit because of the landfill design.

39. Based on an examination of the groundwater quality data for the proposed facility for nitrate or substances of public welfare concern and the information listed in Findings of Fact above, the Department finds the following:

- a. Baseline concentrations above the preventive action limits but below the enforcement standards established for the following substances of public welfare concern and nitrate + nitrite (as N) were observed in two or more sample rounds at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Chloride	DH-34 and DH 39
Iron	DH-1, DH-2, DH-40, DH-41, DH-44 and DH-53
Nitrate	DH-52 and DH-53

- b. Baseline concentrations above the enforcement standard established for the following substances of public welfare concern were observed at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Iron	DH-35A, DH-42 and DH-42A

- c. The proposed facility is designed to achieve the lowest possible concentrations for substances listed in parts **a** and **b** above which are technically and economically feasible.
- d. The anticipated increase in the concentrations of substances listed in parts **a** and **b** above does not present a threat to public health or welfare because of the landfill design.

40. Based upon an examination of the need and design capacity evaluation prepared by ADS pursuant to the requirements of s. NR 512.17, Wis. Adm. Code, the department finds the following:

- a. The approximate service area for the landfill and the expansion, which takes into account the economics of waste collection, transportation and disposal, has been reasonably identified by the applicant to include the counties of Eau Claire, Buffalo, Chippewa, Dunn, Pepin, Pierce, Polk, St. Croix, Trempealeau, west half of Jackson and the City of Rice Lake in Wisconsin. While not anticipated to part of the ongoing service area, portions of Minnesota and Iowa are part of the existing landfill service area. The service area may change during the landfill's life.
- b. The quantity of solid waste projected to be generated within the anticipated service area and suitable for disposal in the landfill and the expansion is estimated to be approximately 879,000 cubic yards per year (2014 data). The estimated waste generation and landfill disposal rates for the anticipated service area do not include recycled wastes or wastes disposed of by incineration.
- c. The following approved facilities, as defined under section 289.01 (3), Stats., are located within the anticipated service area of the proposed landfill expansion:

<u>Name of Facility</u>	<u>Estimated Remaining Capacity in Cubic Yards as of January 2014 (cubic yards)</u>	<u>% of Waste Derived from Within the Anticipated Service Area</u>

ADS Seven Mile Creek Landfill	2,293,180	100%
BFI Waste Systems (Washburn County)	6,625,036	32%
La Crosse Co. Landfill	2,670,793	14%
Waste Management Timberline Trail RDF	5,039,180	74%

d. There are no non-approved municipal solid waste disposal facilities currently operating within the anticipated service area of the proposed expansion.

e. There are two solid waste incinerators licensed by the department currently operating in the Wisconsin portion of the ADS Seven Mile Creek Landfill service area. They are listed as follows:

Name of Facility	Intake Rate in tons (August 2014 data)
Barron County Waste-to-Energy Facility (Barron County) Lic#3091	34,000 tons per year
Xcel La Crosse (LaCrosse County) Lic#3776	75,000 tons per year

f. Except for ADS Seven Mile Creek Landfill, LLC., there have been no complete feasibility reports submitted to the department for proposed facilities or for the expansion of existing facilities within the anticipated service area.

g. The proposed 1.5872 million cubic yard vertical expansion of the ADS Seven Mile Creek Landfill is projected to begin receiving waste in 2016 and reach capacity in 2021, resulting in an anticipated site life of less than 15 years from the date of this feasibility determination.

41. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
 - a. Is in noncompliance with a plan approval or order issued by the department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided;
 - b. Owns or previously owned a 10% or greater legal or equitable interest in a person or in the assets of a person who is not in compliance with a plan approval or order issued by the department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided.

42. The proposed expansion is located approximately 5.5 miles from the Chippewa Valley Regional Airport. This exceeds the separation distance of 10,000 feet required under s. NR 504.04(3)(e), Wis.

Adm. Code, between a landfill or landfill expansion and an airport used for turbojet aircraft. The Federal Aviation Administration (FAA) has stated in an email dated June 27, 2014, that the FAA did not find the proposed landfill expansion to be incompatible with airport operations. The FAA did specify conditions related to the development of the proposed landfill expansion to ensure that bird activity at the landfill is monitored and controlled.

43. The department has complied with the requirements of ch. NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
44. Granting the exemptions that are set forth below will not inhibit compliance with Wisconsin solid waste management standards in chs. NR 500 through 538, Wis. Adm. Code.
45. The conditions of site feasibility set forth below are needed to ensure compliance with ch. NR 140 and chs. NR 500 through 538, Wis. Adm. Code and to ensure that the facility will not pose a substantial hazard to human health or welfare.

CONCLUSIONS OF LAW

1. The proposal will comply with the applicable requirements of chs. NR 500 through 538, Wis. Adm. Code, provided that the conditions of the feasibility determination set forth below are met.
2. The procedural requirements of ss. 1.11 and 289.21 to 289.29, Stats., and chapters NR 150 and NR 500 to 538, Wis. Adm. Code, have been complied with.
3. The department has the authority under s. 289.29(3), Wis. Stats., to determine that a site is feasible with special conditions for design, operations and other requirements, if the conditions are needed to ensure compliance with chs. NR 500 through 538, Wis. Adm. Code.
4. Pursuant to s. NR 150.20(2)(a)(7), Wis. Adm. Code, the landfill feasibility review process under ch. NR 512, Wis. Adm. Code, is an "equivalent analysis action" because a detailed environmental analysis and public disclosure are conducted as part of the department programmatic procedure. Therefore, an additional environmental analysis is not required for the proposal.
5. As provided for under s. 289.28(1), Wis. Stats., the anticipated service area for the proposed landfill includes the counties of Eau Claire, Buffalo, Chippewa, Dunn, Pepin, Pierce, Polk, St. Croix, Trempealeau, west half of Jackson and the City of Rice Lake in Wisconsin. Sufficient need for the proposed municipal solid waste landfill has been established under the applicable provisions of s. 289.28(1), Wis. Stats.
6. Under s. 289.29(1)(d), Wis. Stats., the department may approve a design capacity for a proposed landfill expansion, if the design capacity does not exceed the expected waste to be disposed of at the expansion within 15-years after the expansion begins operation.
7. The department has the authority under s. NR 504.04(2), Wis. Adm. Code, to grant an exemption to the location standards of s. NR 504.04(3)(f), Wis. Adm. Code, regarding the siting of a solid waste land disposal facility within 1,200 feet of a water supply well.

8. The department has the authority under s. NR 140.28, Wis. Adm. Code, and ss. 160.19(8), (9) and (10), Wis. Stats., to grant exemptions to the Wisconsin groundwater standards for substances listed in ch. NR 140, Wis. Adm. Code.
9. In accordance with the foregoing, the department has the authority under ch. 289, Stats., to issue the following grant of exemptions, determination of need and design capacity and conditional feasibility determination.

GRANT OF EXEMPTIONS

1. ADS Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption from the requirements of s. NR 504.04(3)(f), Wis. Adm. Code, to allow construction of a municipal solid waste landfill (expansion), where the limits of filling would be within 1,200 feet of any private or public water supply well. This exemption is hereby granted for the private wells PW-1, PW-2, PW-3, PW-4, PW-7, PW-8, PW-9, PW-10, PW-11, PW-12, PW-14, PW-15, PW-17, PW-18, PW-19, PW-20, PW-21, PW-22, PW-23, PW-25, PW-26, PW-27, PW-28, PW-30, PW-31 and PW-32 listed in the feasibility report and the supplemental information.
2. ADS Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption from s. NR 504.04(3)(d), Wis. Adm. Code, to construct a landfill within 1,000 feet of a public park or recreational area. This exemption is hereby granted.
3. ADS Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption to the groundwater standards for Benzene, Tetrahydrofuran, Boron, Cadmium, Lead, Nitrate, Chloride, Vinyl chloride and Iron in ch. NR 140, Wis. Adm. Code, as specified in s. NR 140.28, Wis. Adm. Code. The exemption would allow the expansion of a municipal solid waste landfill in an area where the background concentration of a substance exceeds the ch. NR 140, Wis. Adm. Code, preventive action limit (PAL) or enforcement standard (ES). This exemption is granted for the parameters and wells listed in findings of fact 38 and 39.
4. ADS Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption to the 10-foot separation distance between the landfill subbase and the top of the underlying bedrock as required in s. NR 504.06(2)(c), Wis. Adm. Code. Addendum No.2 of the feasibility report indicated that a portion of the landfill had previously been constructed directly on top of the local bedrock without an exemption because the information was not included in the 2011 feasibility modification request. This exemption is hereby granted.
5. ADS Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption to s. NR 512.11(1)(b), Wis. Adm. Code, regarding data presentation with respect to showing the delineation of the Ordinary High Water Mark (OHWM) for Seven Mile Creek (i.e. the stream edges) at all locations within 1,500 feet of the limits of waste. This exemption is hereby granted.

DETERMINATION OF NEED AND DESIGN CAPACITY

The department hereby determines as follows:

1. There is sufficient need within the anticipated service area for the proposed vertical expansion of the ADS Seven Mile Creek Landfill, Sector 2, in the City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin.

2. The increase of 1.5872 million cubic yards in the design capacity for the proposed vertical expansion will extend the expected operational life for the facility approximately four years.
3. The existing remaining operational site life of approximately 6 years will combine with approximately 4 years of proposed site life from this vertical expansion to yield an operational site life of approximately 10.2 additional years.

CONDITIONAL FEASIBILITY DETERMINATION

The department hereby determines that the proposed ADS Seven Mile Creek Landfill, Sector 2 Vertical Expansion in the City of Eau Claire and Town of Seymour, Eau Claire County is environmentally feasible and has the potential for use as a municipal solid waste landfill (expansion) provided that the following conditions are complied with and the plan of operation is prepared pursuant to s. 289.30, Wis. Stats., and in accordance with chs. NR 500 through NR 538, Wis. Adm. Code:

General

1. The total design capacity of the vertical expansion shall not exceed 1.5872 million cubic yards.
2. The plan of operation, at a minimum, shall comply with the requirements of chs. NR 500 through 538, Wis. Adm. Code, the proposed feasibility report, and the conditions of this approval. The plan of operation shall include supporting justification if the plan differs from the provisions of the administrative code or any condition of approval.
3. The Plan of Operation may include a maximum 5% overfill of the approved waste thickness in the area being filled with plan sheets showing the maximum elevations to which waste may be placed as well as the final waste elevations and a provision that those areas of overfill which do not settle to the approved waste final grades at the time of final cover construction shall have the overfilled waste removed to the approved waste final grades. The plan of operation drawings and report shall incorporate a specific closure phasing plan that provides for closure at final approved waste elevations of each phase of the landfill no later than two years following completion of waste filling in each phase. The department will continue to evaluate overfills at landfills. This condition provides that as the department continues its evaluation, if in the future it determines that approving greater overfills may be warranted in some circumstances then ADS may submit a plan modification request to the department for a maximum 10% overfill after the plan of operation is approved. The department may require certain criteria and justification to be met by the applicant before approving such a plan modification request.

Environmental Monitoring and Wells

4. ADS shall submit the proper well abandonment forms as required by s. NR 812.26 and s. NR 141.25, Wis. Adm. Codes, when ADS abandons monitoring wells, piezometers and water supply wells it owns or controls within 1,200 ft. of the limits of waste.
5. ADS shall submit a "Cause and Significance of Exceedance" report to the department for the groundwater exceedances collected from monitoring well DH-10 within 60 days of the date of this feasibility determination. This report shall follow the requirements and protocol of s. NR 507.30, Wis. Adm. Code. The NR 140 groundwater standard exemptions granted for tetrahydrofuran and vinyl chloride shall not prevent the department from requiring a response from ADS to the

exceedances that follows the protocol provided in ch. NR 508, Wis. Adm. Code. This may include, but not be limited to, requiring the installation of additional monitoring wells to evaluate the extent of tetrahydrofuran and vinyl chloride, sampling for additional parameters at DH-10 and other monitoring wells and remediating the tetrahydrofuran and vinyl chloride to concentration levels consistent with the standards for tetrahydrofuran and vinyl chloride contained in ch. NR 140, Wis. Adm. Code.

6. The plan of operation shall propose a monitoring plan that includes private wells PW-2 and PW-26.
7. The plan of operation shall contain a provision that if a water supply well becomes contaminated from the landfill, as determined by the department, it will be replaced with a new, safe potable water supply at ADS's expense if required by the department.
8. The plan of operation shall contain a provision that ADS will offer to pay the additional cost actually incurred by an affected well owner for any additional well casing requirement conditioned by the department in an s. NR 812.43, Wis. Adm. Code, well variance approval to provide comparable protection to the 1,200 foot set-back on any new or replacement water supply well drilled within 1,200 feet of the limits of waste and for which an exemption from s. NR 504.04(3)(f), Wis. Adm. Code, has been granted for the existing water supply well already serving that residence.

Bird Control and FAA Notification

9. The plan of operation shall provide documentation that ADS notified the FAA in writing of the correct maximum height of the vertical expansion of 1101.5 feet above mean sea level plus the additional airspace of any approved temporary overfill. (Correspondence with the FAA contained within the feasibility report indicated that the maximum height of the proposed landfill is 1089 feet above mean sea level.)
10. The plan of operation shall propose a method of sampling leachate elevation(s) that is able to provide an accurate measurement of the depth of leachate. Sampling devices or methods shall be able to provide numeric elevation data.

This approval is based on the information available to the department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the department may ask you to provide further information relating to this activity. Likewise, the department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review department decisions must be filed.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the department to file your petition with the appropriate circuit court and serve the petition on the department. The petition shall name the Department of Natural Resources as the respondent.

Dated 30th of September, 2015

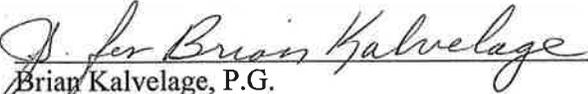
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jill Schoen, CHMM
Waste & Materials Management Program Manager
West Central Region



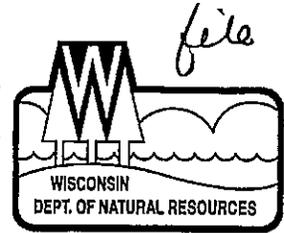
Marty Herrick, P.E.
Environmental Engineer
West Central Region



Brian Kalvelage, P.G.
Regional Hydrogeologist
West Central Region

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
West Central Region Headquarters
PO Box 4001
Eau Claire, WI 54702-4001

Scott Walker, Governor
Cathy Stepp, Secretary
Scott Humrickhouse, Regional Director
Telephone 608-789-9000
FAX 608-785-9990
TTY 608-785-9000



September 19, 2012

Mark Vinall
Veolia ES Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

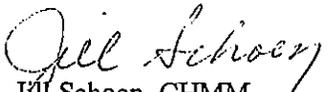
FID #618045450
Eau Claire Co.
SW PLOP File

Subject: Conditional Plan Modification to the Plan of Operation Approval for the
for the Sector 2, Veolia ES Seven Mile Creek Landfill Cap, Eau Claire County, License No.
3097

Dear Mr. Vinall:

The Department has reviewed your letter entitled "Plan of Operation, Plan Modification Veolia ES Seven Mile Creek Landfill, Sector 2 Eau Claire, Wisconsin." The September 11, 2012 letter and three associated plan sheets were prepared by Ayres Associates. The plan modification proposes design changes including storm water management, membrane liner/cap interface, and a revised approach for measuring clay thickness. At this time we are approving the proposal with one condition for payment of the plan review fee. This approval should be attached to your June 20, 1988, May 21, 2002 and April 19, 2005 Plan of Operation Approvals. If you have any questions regarding this approval, please contact Martin Herrick at (608) 789-5518.

Sincerely,


Jill Schoen, CHMM
Waste Program Supervisor
West Central Region

cc: Martin Herrick-LAX
Steve Bischoff -Ayres Associates, 3433 Oakwood Hills Parkway, Eau Claire, WI54701-7698

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN MODIFICATION APPROVAL
FOR REVISIONS OF THE SECTOR 2 LANDFILL CAP
AT THE
VEOLIA ES SEVEN MILE CREEK LANDFILL
LICENSE #3097

FINDINGS OF FACT

The Department finds that:

1. Veolia ES Seven Mile Creek Landfill (VSMCL) owns and operates a solid waste disposal facility located in the southeast ¼ of Section 8 and the southwest ¼ of Section 9, T 27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. Conditional Plan of Operation Approvals were issued by the Department for the facility on June 20, 1988, May 21, 2002 and April 19, 2005.
3. On October 21, 2011 the Department issued a conditional plan modification to the April 19, 2005 Conditional Plan of Operation Approval for changes to base grades, final grades, limits of waste filling, interior and exterior slopes and leachate lines.
4. In a letter dated September 11, 2012, VSMCL requested a plan modification proposing design changes to storm water management and membrane liner / cap interface, and a revised approach for measuring clay thickness.
5. On September 18, 2012 the Department issued invoice no. 4339-9905 for \$1650 for the plan review.

CONCLUSIONS OF LAW

1. The Department has the authority under s. 289.30(6), Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
2. The Department has authority to approve a plan of operation modification with special conditions if the conditions are needed to ensure compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
3. The conditions of approval set forth below are needed to ensure compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
4. In accordance with the foregoing, the Department has authority under ch. 289, Stats., to issue the following conditional plan of operation approval.

CONDITION OF APPROVAL

The Department hereby approves the additional diversion berms, the revised cap and liner interface connection and the revised method for measuring clay cap and liner for the Sector 2 Landfill at VSMCL as proposed in the September 11, 2012 submittal, subject to compliance with chs. NR 500 to NR 590, Wis. Adm. Code, the June 20, 1988, May 21 2002 and April 19, 2005 Conditional Plan of Operation Approvals and the following condition:

1. Payment of invoice No. 4339-9905 shall be made within 30 days of receipt.

This approval is based on the information available to the Department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity. Likewise, you may request a modification of this approval based on additional information, project changes, or other circumstances as provided for in state statutes and administrative codes. Unless specifically noted, the condition of this approval does not supersede or replace any previous conditions of approval for this facility.

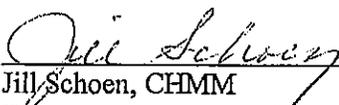
NOTIFICATION OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing Department decisions.

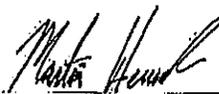
To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: September 19, 2012

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jill Schoen, CHMM
Waste Program Supervisor
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
West Central Region Headquarters
PO Box 4001
Eau Claire, WI 54702-4001

Scott Walker, Governor
Cathy Stepp, Secretary
Scott Humrickhouse, Regional Director
Telephone 608-789-9000
FAX 608-785-9990
TTY 608-785-9000



October 24, 2011

RECEIVED

OCT 25 2011

Mark Vinall
Veolia ES Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

AYRES ASSOCIATES

FID #618045450
Eau Claire Co.
SW PLOP File

Subject: Conditional Plan Modification to the Plan of Operation Approval for the revised footprint for the North Expansion of Sector 2, Veolia ES Seven Mile Creek Landfill, Eau Claire County, License No. 3097

Dear Mr. Vinall:

The Department has reviewed your report entitled "Veolia Seven Mile Creek Landfill -Sector 2 Plan Modification to the Plan of Operations." The report was prepared by Ayres Associates and is dated August 2011. The plan modification proposes a revised foot print for the north expansion of the Sector 2 landfill, which includes revised base and final grades, revised waste limits and relocation, as well as rerouting leachate collection lines. At this time we are conditionally approving the revised footprint for the north expansion of the Sector 2 landfill. Conditions have been added for payment of the plan review fee and a revised table for the Department's construction inspection to account for the addition of Phase 13.

This approval should be attached to your June 20, 1988, May 21, 2002 and April 19, 2005 Plan of Operation Approvals. If you have any questions regarding this approval, please contact Martin Herrick at (608) 789-5518.

Sincerely,

A handwritten signature in cursive script that reads "Jill Schoen".

Jill Schoen, CHMM
Waste Program Supervisor
West Central Region

cc: Steve Bischoff- Ayres Associates, 3433 Oakwood Hills Parkway, Eau Claire, WI 54701-7698

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN MODIFICATION APPROVAL
FOR
REVISED FOOTPRINT OF NORTH EXPANSION SECTOR 2 LANDFILL
AT THE
VEOLIA ES SEVEN MILE CREEK LANDFILL
LICENSE #3097

FINDINGS OF FACT

The Department finds that:

1. Veolia ES Seven Mile Creek Landfill (VSMCL) owns and operates a solid waste disposal facility located in the southeast ¼ of Section 8 and the southwest ¼ of Section 9, T 27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. Conditional Plan of Operation Approvals were issued by the Department for the facility on June 20, 1988, May 21 2002 and April 19, 2005.
3. On February 7, 2011 the Department received a request to modify the May 28, 2004 feasibility determination which proposed changes to base grades, final grades, limits of waste filling, interior and exterior slopes and leachate lines. The proposal also included a request to exhume and relocate waste and cover materials with an initial estimate of 60,000 yd³ which was subsequently revised to 137,000 yd³ during the feasibility review. The feasibility modification request for VSMCL was submitted by Ayres Associates and was dated February 2, 2011.
4. On September 15, 2011 the Department issued a Feasibility Modification approval for the existing VSMCL (Sector 2), Eau Claire County, Wisconsin, Lic. # 3097.
5. On September 15, 2011 the Department received a Plan of Operation Plan Modification for the revised footprint of the north expansion of the Sector 2 Landfill at VSMCL. The August 29, 2011 submittal, which was prepared by Ayres Associates, included a narrative and 23 plan sheets.
6. On October 11, 2011 the Department issued invoice no. 4339-9624 for \$1650 for the plan review.

CONCLUSIONS OF LAW

1. The Department has the authority under s. 289.30(6), Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
2. The Department has authority to approve a plan of operation modification with special conditions if the conditions are needed to ensure compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
3. The conditions of approval set forth below are needed to ensure compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
4. In accordance with the foregoing, the Department has authority under ch.289, Stats., to issue the following conditional plan of operation approval.

CONDITIONS OF APPROVAL

The Department hereby approves the revisions to the north expansion of the Sector 2 Landfill at VSMCL as proposed in Ayres Associates August 29, 2011 submittal, subject to compliance with chs. NR 500 to NR 590, Wis. Adm. Code, the June 20, 1988, May 21 2002 and April 19, 2005 Conditional Plan of Operation Approvals and the following conditions:

1. Payment of invoice No. 4339- 9624 shall be made within 30 days of receipt.
2. The following table for Department construction inspections shall replace the table in the April 19, 2005 Conditional Plan of Operation Approval.

Construction Events	<u>(Liner)</u> - Phases 8, 9, 10, 11,12,13	<u>(Capping)</u> -Portions of Phases 3, 4, 5 and all of 6 and 7. - Portions of Phase 1 and 4, finish 3, -Remaining portions of 4, 5, 6 and all of 11,12 and 13.
Inspections	(1.) Subbase & Clay Soil Placement (2.) Geomembrane Installation (3.) Leachate Collection System Components (4.) Drainage Blanket	(1.) Grading Layer & Barrier Soil Placement (2.) GCL, Geomembrane Installation (3.) Geocomposite Drainage Layer Installation (4.) Rooting Zone & Topsoil Placement

The Department retains jurisdiction to further modify this approval at any time if conditions so warrant.

NOTIFICATION OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing Department decisions.

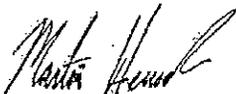
To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: October 24, 2011

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



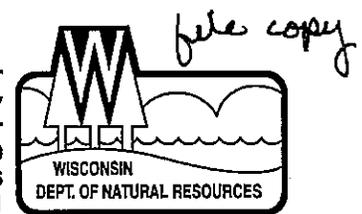
Jill Schoen, CHMM
Waste Program Supervisor
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
West Central Region Headquarters
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Scott Walker, Governor
Cathy Stepp, Secretary
Scott Humrickhouse, Regional Director
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711



September 15, 2011

File Ref: FID 618045450
EAU CLAIRE
SW /Approvals

Mr. Mark Vinall
Veolia Seven Mile Creek Landfill, LLC
8001 Olson Drive
Eau Claire, WI 54703

SUBJECT: Feasibility Modification approval for the existing Veolia Seven-Mile Creek Landfill (Sector 2), Eau Claire County, Wisconsin, Lic. #3097.

Dear Mr. Vinall:

The department has completed a review of the report entitled "Feasibility Modification-Veolia ES Seven-Mile Creek Landfill Sector 2." The report was prepared by Ayres Associates on your behalf and was received by the department on February 7, 2011. An exemption request, related to this submittal, was also received by the department on March 18, 2011. An incompleteness determination was issued by the department on March 31, 2011. On April 12, 2011 Ayres Associates submitted a response to this determination which included additional information and plan sheets. On June 28, 2011 the department issued a completeness determination for the proposed modifications to the May 28, 2004 feasibility determination.

Our feasibility review process included only the requested modifications, not the entire feasibility report. After technical review of the request and amendment of the Department's Environmental Analysis, the public had the opportunity to comment on the proposed modifications and request a hearing. No comments or hearing requests were received during the 30-day comment period. The comment period ended August 1, 2011.

We have conditionally approved the proposed modifications of the May 28, 2004 feasibility determination and determined that an Environmental Impact Statement is not needed for this action. You may now submit your plan of operation in accordance with Chapters NR 500 through 538, Wisconsin Administrative Code, the feasibility report and the conditions of feasibility listed in the May 28, 2004 feasibility determination and the attached approval. However, this feasibility modification approval does not guarantee that we will approve your plan of operation.

Sincerely,

Jill Schoen, CHMM
Waste and Materials Management Program Supervisor

Attachments – Conditional Modification of the May 28, 2004 Feasibility Determination, Veolia Seven-Mile Creek Landfill, Sector 2.

cc: Brian Kalvelage/Marty Herrick (via email)
Sue Brumberg-Eau Claire WDNR
Steven Bischoff, Ayres Associates (via email)
Jeff Ellerd, Veolia (via email)
Brad Wolbert, WDNR
Bob Grefe, WDNR

BEFORE THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

MODIFICATION OF THE FEASIBILITY DETERMINATION FOR THE
EXISTING VEOLIA SEVEN MILE CREEK LANDFILL, SECTOR 2
EAU CLAIRE COUNTY, WISCONSIN
WDNR LICENSE NUMBER #3097

FINDINGS OF FACT

The Department finds that:

1. Veolia Seven Mile Creek Landfill, LLC, has proposed modifications to the May 28, 2004 feasibility determination of its Sector 2 landfill located in the southeast 1/4 of Section 8 and southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin.
2. Veolia Seven Mile Creek Landfill, LLC was previously known as Onyx Seven Mile Creek Landfill, LLC and Superior Seven Mile Creek Landfill, LLC.
3. The department issued a conditional plan of operation approval for the Sector 2 landfill on June 20, 1988.
4. WDNR determined that the horizontal and vertical expansion of the Veolia Seven Mile Creek Sector 2 Landfill was feasible in the May 28, 2004 Feasibility Determination.
5. No parties requested a review of the May 28, 2004 decision under NR 2.20, Wis. Adm. Code; section 227.49(3), Stats.; or the provisions in sections 227.52 and 227.53, Stats.
6. On April 19, 2005 the department issued a conditional plan of operation for the Horizontal and Vertical expansion of the Veolia Seven Mile Creek Landfill, Sector 2.
7. On February 7, 2011 the department received a request to modify the May 28, 2004 feasibility determination which proposed changes to base grades, final grades, limits of waste filling, interior and exterior slopes, and leachate line lengths and directions. Excavation and relocation of approximately 60,000 cubic yards of waste, later modified to 137,000 cubic yards of waste and cover materials, was also included in this proposal. This request was dated February 2, 2011 and submitted by Ayres Associates on behalf of Veolia.
8. On March 18, 2011 the department received an exemption request to certain sections of NR 512, Wis. Adm. Code. This request, dated March 17, 2011, was submitted in conjunction with the February 2, 2011 feasibility modification request.
9. The department considered the following documents submitted by the applicant in its review of the feasibility of the proposed modification to the feasibility determination:
 - a. Feasibility Modification request, Veolia Seven Mile Creek Landfill, Sector 2, dated February 2, 2011 and received by the department on February 7, 2011. This report was prepared by Ayres Associates on behalf of Veolia Seven Mile Creek Landfill.

- b. Exemption request, Veolia Seven Mile Creek Landfill, Sector 2, dated March 17, 2011, and received by the department on March 18, 2011. This report was prepared by Ayres Associates on behalf of Veolia Seven Mile Creek Landfill.
 - c. Additional information submittal dated April 12, 2011 and received by the department on April 15, 2011. Additional and revised plan sheets were also included in this submittal.
 - d. August 3, 2011 groundwater exceedance notification letter and data submittal.
 - e. Various emails between Jeff Ellerd (Veolia) and Brian Kalvelage (WDNR).
 - f. Various emails between Steve Bischoff (Ayres Associates) and Brian Kalvelage (WDNR).
10. The department considered the general files relating to the Veolia Seven Mile Creek Sector 2 Landfill, and the following additional information in its review of the feasibility of the proposed feasibility modification:
- a. March 1, 2011 internal memo from Brad Wolbert outlining project review protocol and procedures.
 - b. March 28, 2011 DOT letter of acknowledgement regarding setback requirements to airports.
 - c. March 31, 2011 WDNR incompleteness determination and request for information letter.
 - d. Class 1 public notice published in the Eau Claire Leader Telegram on June 30, 2011.
 - e. WDNR Amendment to the Environmental Assessment (EA) dated June 27, 2011 and finalized on August 8, 2011.
 - f. Various internal department emails regarding the proposed modifications and review protocol.
 - g. Information in the department's paper and electronic files for the Veolia Seven Mile Creek Landfill, Lic#3097.
11. On March 29, 2011 the department received the Feasibility Modification review fee of \$5,000.
12. On March 31, 2011 the department issued an incompleteness determination and requested that additional information be submitted to continue the review of this proposal.
13. On April 6, 2011 the department received the additional exemption request review fee of \$550.
14. On June 28, 2011 the department determined that the Feasibility Modification Request was complete.
15. A draft Environmental Assessment (EA) was completed on June 27, 2011, wherein the department made a preliminary determination that an Environmental Impact Statement (EIS) would not be required for the proposed project. This decision was made final and determined to be in compliance with the Wisconsin Environmental Policy Act (WEPA) on August 8, 2011.
16. On June 30, 2011 a public notice (for the above-mentioned Feasibility Modification and Environmental Assessment) was published in the Eau Claire Leader Telegram pursuant to s. 289.25(3), Wis. Stats.
17. The department received no public comments during the required 30-day comment period for the public notice. A contested case hearing was not requested. The department continued to accept public comments on the proposed expansion until 5:00 p.m. August 1, 2011. Since no comments were received, a summary of comments was not drafted.
18. Total acreage, total capacity, final elevation and depth of cut would not increase as a result of this proposed feasibility modification. The proposed reconfiguration of the fill area would be limited to a small confined area of previously unlicensed land which is virtually surrounded by approved waste

filling and is intensively used for landfill support operations. The new fill area is entirely within the area originally subjected to the statutory landfill siting process during the 2004 expansion of this facility. This small expansion of the fill area would be compensated for by retracting the fill area along the northern portion of the facility.

19. The proposed feasibility modification would not be within an area where there is a reasonable probability that the facility will cause:
 - a. A significant adverse impact on wetlands as provided in ch. NR 103, Wis. Adm. Code;
 - b. A significant adverse impact on critical habitat areas;
 - c. A detrimental effect on any surface water, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - d. A detrimental effect on groundwater quality, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - e. The migration of explosive concentrations of gases in any facility structure or in the soil or air beyond the facility boundary, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - f. The emission of any hazardous air contaminants in excess of standards contained in s. NR 445.03, Wis. Adm. Code, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below.
20. The proposed modification to the feasibility of the horizontal and vertical expansion will not affect wetlands.
21. The department considered the following information while reviewing the need for exemptions at this facility:
 - a. Information previously provided to the department as part of the original feasibility report and siting process, circa 2003 and 2004.
 - b. Well construction details and boring logs provided in the feasibility modification request.
 - c. Well location plan sheets and water table maps provided in the feasibility modification request.
22. The applicant has demonstrated circumstances which warrant an exemption to the requirements of s. NR. 512.04, Wis. Adm. Code requiring an Initial Site Report (ISR) be submitted prior to submittal of a feasibility report. An ISR was previously submitted as part of the proposed horizontal and vertical expansion, Sector 2 Landfill in 2003. The proposed reconfiguration would not change any locational criteria or expand the landfill capacity.
23. The applicant has demonstrated circumstances which warrant an exemption to the requirements of s. NR 512.05, Wis. Adm. Code, regarding general submittal requirements, specifically the requirement to submit a complete new feasibility report for a proposed landfill expansion. Although the proposed reconfiguration would result in waste filling in a previously unlicensed portion of the facility, that

- area is for practical purposes part of the landfill, and in other respects (capacity, acreage, and proximity to resources) the proposed reconfiguration does not have the effect of a landfill expansion.
24. The applicant has demonstrated circumstances which warrant an exemption to the requirements of s. NR 512.06 (1) and (2), Wis. Adm. Codes. The proposed reconfiguration would not alter the overall size or the positioning of the landfill relative to other resources, and therefore is not expected to trigger the need for additional local approvals.
 25. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
 - a. Is in noncompliance with a plan approval or order issued by the department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided;
 - b. Owns or previously owned a 10% or greater legal or equitable interest in a person or in the assets of a person who is not in compliance with a plan approval or order issued by the department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided.
 26. The proposed expansion is located approximately 5.71 miles from the Chippewa Valley Regional Airport. This exceeds the separation distance of 10,000 feet required under s. NR 504.04(3)(e), Wis. Adm. Code, between a landfill or landfill expansion and an airport used for turbojet aircraft. The Federal Aviation Administration (FAA) has stated in a letter dated March 28, 2011 that the FAA did not find the proposed landfill expansion to be incompatible with airport operations.
 27. The department has complied with the requirements of ch. NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
 28. Granting the exemptions that are set forth below will not inhibit compliance with Wisconsin solid waste management standards in chs. NR 500 through 538, Wis. Adm. Code.
 29. The special conditions set forth below are needed to assure that the facility will not pose a substantial hazard to public health or welfare.

CONCLUSIONS OF LAW

1. The proposal will comply with the applicable requirements of chs. NR 500 through 538, Wis. Adm. Code, provided that the conditions of the feasibility determination set forth below are met.
2. The procedural requirements of ss. 1.11 and 289.21 to 289.29, Stats., and chapters NR 150 and NR 500 to 538, Wis. Adm. Code, have been complied with.
3. The department has the authority under s. 289.29(3), Wis. Stats., to determine that a site is feasible with special conditions for design, operations and other requirements, if the conditions are needed to ensure compliance with chs. NR 500 through 538, Wis. Adm. Code.

4. Under s. 289.29(1)(d), Wis. Stats., the department may approve a design capacity for a proposed landfill expansion, if the design capacity does not exceed the expected waste to be disposed of at the expansion within 15-years after the expansion begins operation.
5. The department has the authority under s. NR 504.04(2), Wis. Adm. Code, to grant an exemption to the location standards of s. NR 504.04(3)(f), Wis. Adm. Code, regarding the siting of a solid waste land disposal facility within 1,200 feet of a water supply well.
6. The department has authority under s. NR 812.43(1), Wis. Adm. Code, to grant variances to the locational criterion of s. NR 812.08(4)(g)1., Wis. Adm. Code, regarding private water supply wells located within 1,200 feet of a proposed landfill.
7. The department has the authority under s. NR 140.28, Wis. Adm. Code, and ss. 160.19(8), (9) and (10), Wis. Stats., to grant exemptions to the Wisconsin groundwater standards for substances listed in ch. NR 140, Wis. Adm. Code.
8. In accordance with the foregoing, the department has the authority under ch. 289, Stats., to issue the following grant of exemptions, determination of need and design capacity and conditional feasibility modification.

GRANT OF EXEMPTIONS

Subject to compliance with the conditions of this determination, the department hereby grants exemptions from s. NR 512.04 regarding the submittal of an initial site report, s. NR 512.05 regarding general submittal requirements, and ss. NR 512.06(1) and (2) regarding local approvals and submittal of reports.

CONDITIONAL FEASIBILITY MODIFICATION DETERMINATION

The department hereby determines that the proposed modifications to the Veolia Seven Mile Creek Landfill, Sector 2 Horizontal and Vertical Expansion in the City of Eau Claire and Town of Seymour, Eau Claire County are environmentally feasible provided the following conditions are complied with and the plan of operation is prepared pursuant to s. 289.30, Wis. Stats., and in accordance with chs. NR 500 through NR 538, Wis. Adm. Code:

1. The plan of operation shall comply with the requirements of chs. NR 500 through 538, Wis. Adm. Code, the proposed feasibility modifications, the conditions of the May 28, 2004 feasibility determination approval and the conditions of this approval. The plan of operation shall include supporting justification if the plan differs from the provisions of the administrative code or any condition of approval.
2. The total design capacity of the horizontal and vertical expansion shall not exceed 5.3 million cubic yards.
3. The plan of operation shall address the department's comments #8 through #11 on the March 31, 2011 Incompleteness Determination letter.
4. All other conditions and exemptions in the May 28, 2004 Feasibility Determination are unchanged.

The department retains the jurisdiction either to require the submittal of additional information or to modify this approval at any time if, in the department's opinion, conditions warrant further modifications.

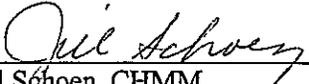
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review department decisions must be filed.

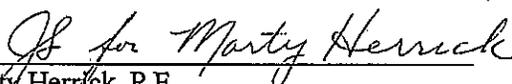
For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed or otherwise served by the department, to file your petition with the appropriate Circuit Court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

Dated September 15, 2011

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Jill Schoen, CHMM
Waste & Materials Mgt. Program Supervisor
West Central Region



Marty Herrick, P.E.
Environmental Engineer
West Central Region



Brian Kalvelage, P.G.
Hydrogeologist
West Central Region



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Scott Humrickhouse, Regional Director

West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711

November 29, 2010

Mr. Mark Vinall,
Veolia ES Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI. 54703

FID#618045450
Eau Claire Co.
SW File
PLOP

Subject: Research, Development and Demonstration (RD&D) Plan Renewal, Modification to the Plan of Operation Approval, Veolia ES Seven Mile Creek Landfill, Eau Claire County, License No. 3097

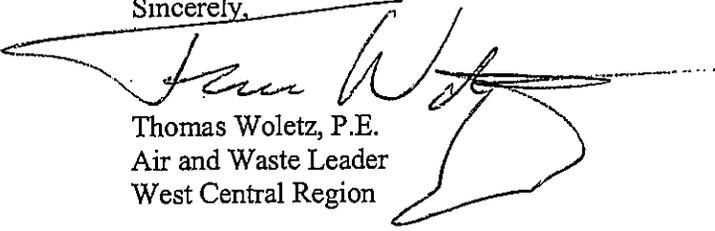
Dear Mr. Vinall:

The Department has reviewed your report entitled "Research, Development and Demonstration Plan Renewal Request Veolia ES Seven Mile Creek Landfill." The report was prepared by BT² Inc. and was dated June 7, 2010. At this time the Department is conditionally approving your renewal request.

The research, development & demonstration (RD&D) plan was submitted in accordance with NR 514.07(10), Wis. Adm. Code which allows a landfill to apply for a RD&D plan for specific items. Veolia is proposing to continue adding liquids to the waste with no proposed changes to the RD&D plan. The renewal test period and number of renewals for the RD&D plan is limited to a maximum of 3 years and 3 renewals respectively, in accordance with NR 514.10 (2) (c), Wis. Adm. Code. This is approval is the first renewal. Additional renewal requests will be reviewed based on the information submitted as part of the RD&D plan, the annual reports and associated submittals.

This approval should be attached to your June 20, 1988, May 21, 2002 and April 19, 2005 Plan of Operation Approvals. If you have any questions regarding this approval, please contact Martin Herrick at (608) 789-5518.

Sincerely,


Thomas Woletz, P.E.
Air and Waste Leader
West Central Region

cc: Martin Herrick-LAX
Bob Grefe-WA/5
Eric Nelson - BT² Inc., 2830 Dairy Drive, Madison, WI. 53718-6751

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
PLAN OF OPERATION APPROVAL MODIFICATION
FOR A
RESEARCH, DEVELOPMENT & DEMONSTRATION PLAN
VEOLIA ES SEVEN MILE CREEK LANDFILL
LICENSE #3097

FINDINGS OF FACT

The Department finds that:

1. Veolia ES Seven Mile Creek Landfill (VSMCL) owns and operates a solid waste disposal facility located in the southeast ¼ of Section 8 and the southwest ¼ of Section 9, T 27N, R 8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. Conditional Plan of Operation Approvals were issued by the Department for the facility on June 20, 1988, May 21, 2002 and April 19, 2005.
3. On July 17, 2007 the Department issued a Research, Development and Demonstration Plan Modification to the April 19, 2005 Plan of Operation Approval.
4. The information submitted as a plan modification request to the Department includes the following:
 - a. A June 7, 2010 report titled "Research, Development and Demonstration Plan Renewal Request Veolia ES Seven Mile Creek Landfill BT Squared Project#3970."
5. On October 21, 2010 the Department issued invoice no. 4339-9347 for \$2500 for the plan review of the Research, Demonstration and Development renewal request.
6. Additional documents considered in connection with the modification request include the following:
 - a. The Department's July 17, 2007 Research, Development and Demonstration Plan Modification to the Plan of Operation Approval,
 - b. The Department's April 19, 2005 Conditional Plan of Operation Approval,
 - c. The Department's files for the Seven Mile Creek Landfill.
7. Additional facts relevant to the review of the plan modification request include the following:
 - a. The USEPA approved a modification to Wisconsin's approved municipal solid waste (MSW) landfill regulatory program on March 21, 2006, to allow the Department to issue Research, Development and Demonstration (RD&D) approvals to owners and operators of MSW landfills. This approval allowed the Department to implement the RD&D permit provisions of 40 CFR 258.4 of the Resource Conservation and Recovery Act (RCRA),
 - b. The Seven Mile Creek Landfill is an approved MSW landfill operating under Wisconsin rules, has been approved to re-circulate leachate, has an operating gas extraction system, and performs monitoring of landfill performance as required by rules and approvals,
 - c. Use of liquid wastes will be performed in accordance with the approved leachate recirculation plan and organic stability plan as modified by the RD&D plan modification,
 - d. Water is an essential ingredient in the decomposition of the decomposable fraction of MSW and subsequent effects such as production of landfill gas, settlement of the waste mass, and physical and chemical stabilization of the waste mass,
 - e. Addition of water to MSW by leachate recirculation and liquid waste to support decomposition of MSW is supported by laboratory research, experimental work at test cells, and experimental work at operating, full scale MSW landfills.

7. The special conditions set forth below are needed to assure that the facility is operated in an environmentally sound fashion. If the special conditions are complied with, the proposed modifications will not inhibit compliance with the standards set forth in the applicable portions of chs. NR 500-590, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The Department has authority under s. 289.30(6), Wis. Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
2. The Department has authority to approve a plan of operation approval modification with special conditions if the conditions are needed to ensure compliance with chs. NR 500-590, Wis. Adm. Code.
3. The conditions of this approval are needed to ensure compliance with chs. NR 500-590, Wis. Adm. Code.
4. In accordance with the foregoing, the Department has the authority under s. 289.30, Wis. Stats., to issue the following conditional plan of operation approval modification.

PLAN OF OPERATION APPROVAL MODIFICATION

The Department hereby approves the proposed modification to the plan of operation for the Veolia ES Seven Mile Creek Landfill for the Research, Development and Demonstration Plan, subject to the following conditions:

1. The test period for the renewal application of the RD&D plan shall be limited to a maximum of 3 years from the date of this approval.
2. Payment of invoice No. 4339-9347 shall be made to the Department within 30 days from October 22, 2010.

The Department retains the right to require the submittal of additional information or to modify this conditional plan modification at any time if, in the Department's opinion, further modifications are necessary.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

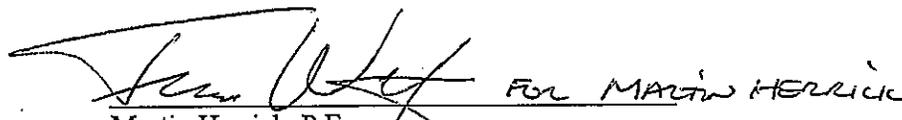
To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing does not extend the 30 day period for filing a petition for judicial review.

Dated: NOVEMBER 29, 2010

DEPARTMENT OF NATURAL RESOURCES
For the Secretary

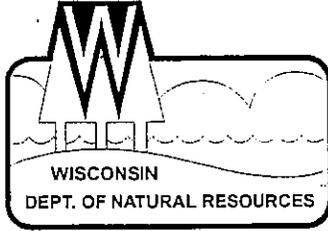


Thomas Woletz, P.E.
Air and Waste Leader
West Central Region

 FOR MARTIN HERRICK

Martin Herrick, P.E.
Environmental Engineer
West Central Region

File



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew Frank, Secretary
Scott A. Humrickhouse, Regional Director

West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TDD 715-839-2786

December 18, 2007

Mr. Mark Vinall, General Manager
Veolia Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

File Reference: FID # 618009260
Eau Claire County
SW/Approvals

Subject: Plan Modification Approval for Groundwater Monitoring Reductions
Veolia ES Seven Mile Creek Landfill, LLC – Sector 1 – License #2821

Dear Mr. Vinall:

On September 25, 2007, Veolia ES Seven Mile Creek Landfill, LLC – Sector 1 – License #2821 submitted a monitoring reduction report and plan modification request to reduce groundwater monitoring at the Veolia ES Seven Mile Creek Landfill, LLC – Sector 1 – License #2821. The report was prepared by Ayres Associates following the WDNR Solid Waste Technical Guidance, "Reducing or Terminating Groundwater Monitoring at Solid Waste Landfills" - PUB-WA 1013 2006.

Annual Environmental Monitoring

The above mentioned plan modification submittal requested the following:

1.) That semi-annual environmental monitoring should be reduced to annual sampling.

The attached Conditional Plan Modification Approval includes findings of fact, conclusions of law and specific conditions that apply to this facility.

The Conditional Plan Modification has approved your request for the above change, except for:

- Permanently assigning semi-annual Stream Samples 1, 2 & 3 and New Office Well Sample to Veolia Seven Mile Creek – Sector 2 Landfill – License #3097,
- Keeping monitoring wells DH-1, DH-4R, DH-42 and DH-42A on a semi-annual schedule,
- Keeping leachate tank volumes pumped on a monthly reporting basis, and
- Keeping the gas flare and gas blower inlet & outlet measurements on a biweekly basis

Elimination of Iron Sampling in Monitoring Wells

The Conditional Plan Modification also eliminates iron from your ground water monitoring well sampling program. The iron was eliminated since it is naturally occurring in up gradient and side gradient wells and the parameter has not supplied any substantially different information than the other parameters.

12/18/07

2

Abandonment of Several Monitoring Wells

The Conditional Plan Modification also asks you to abandoned monitoring wells DH-12, DH-13 and DH-14. There are 13 (8 groundwater table wells and 5 piezometers) that monitor Sector 1's west side (approximately 1350 feet in length). Since the indicator parameter data collected in the 8 groundwater table wells are very similar and because VOCs detected in DH-12 are very similar to the ones detected in DH-19, it is not necessary to have 8 monitoring wells on the west side of this landfill collecting similar information. Abandoning DH-12, DH-13 and DH-14 will leave the newer and better designed wells to monitor Sector 1's west side.

Review & Concurrence with Draft Approval

We sent you an electronic draft copy of this Plan Modification Approval on November 19, 2007. You sent us an electronic mail notification on December 17, 2007 concurring with these conditions.

Future Contact Information

If you have any questions regarding this letter or the attached plan modification, please contact Christine Lilek, Senior Hydrogeologist at (715) 839-3768.

Sincerely,



David R. Lundberg
Waste Management Team Leader, West Central Region

CC: Christine Lilek – WDNR, Eau Claire
Eric Syftestad-WDNR, Madison
Steve Bischoff, PE & Lori Rosemore, PG – Ayres Associates, 3433 Oakwood Hills Parkway,
PO Box 1590 Eau Claire, WI 54702-1590
Don Smith Veolia ES – N104 W13275 Donges Bay Road, Germantown, WI 53022

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN MODIFICATION APPROVAL
FOR THE VEOLIA ES SEVEN MILE CREEK LANDFILL, LLC, SECTOR 1 LICENSE
NUMBER #2821
FID NUMBER #618009260

FINDINGS OF FACT

The Department finds that:

1. Veolia ES Seven Mile Creek Landfill, LLC owns a closed non hazardous solid waste disposal facility in the NE ¼ of Section 17, T27N, R8W, Eau Claire County, Wisconsin. This facility is called the Sector 1 Landfill and holds license number #2821.
2. On July 31, 1978 the Department issued a conditional plan of operation approval for the Sector 1 Landfill.
3. Environmental monitoring conditions and modifications were included in the: February 2, 1983 Plan of Operation modification for Sector 1, December 13, 1990 Facility Closure Documentation, April 29, 1994 Turn Around Documentation Letter, and June 26, 1995 Initiation of Semi-Annual Monitoring at Eau Claire Sector 1 (license #2821) and Sector 2 (license #3097)"Letter.
4. On May 13, 2002, the Department issued a Corrected Environmental Monitoring Schedule Tables for the Plan Modification Approval dated April 22, 2002 for Veolia Seven Mile Landfill Sector 1 and Sector 2, WDNR License numbers #2821 and #3097, respectively, now known as the Veolia Seven Mile Creek Landfill.
5. On September 25, 2007 the Department received a Reduction of Environmental Monitoring Request and Report dated September 25, 2007. Ayres and Associates on behalf of Veolia ES Seven Mile Landfill; LLC. submitted this report.
6. On November 6, 2007 Veolia Environmental Services paid the \$1,650 plan review fee pursuant to NR 520, Wis. Adm. Code.
7. The groundwater table beneath the site is approximately 30 to 55 feet below the ground surface within the sandstone bedrock and overlying unconsolidated material.
8. Groundwater flow direction at this site is toward the southwest.
9. Seven Mile Creek flows south and is located approximately 300 - 400 feet west of the landfill.
10. There are no private, high capacity or public water supply wells 1200 feet side gradient or down gradient from Sector 1 Landfill – License #2821. There are 3 private wells 1200 feet

up gradient of the landfill and there are 2 monitoring well nests (DH-16 & 16A and DH 18, 18A & 18B) that have monitored for the Appendix E landfill leachate health & welfare parameters. These private wells and monitoring well nests continue to have good water quality.

11. Hydraulic conductivity testing was done on wells adjacent to Sector 1 Landfill during Veolia ES Seven Mile Creek Landfill – Sector 2’s Horizontal & Vertical Expansion Feasibility Study (2002 – 2003). These hydraulic conductivity values (unconsolidated material has a K value of $5.7E-03$ cm/sec and the weathered sandstone aquifer has a K value of $2.06E-03$ cm/sec) document that down gradient wells that are placed 75 – 300 feet of the waste will likely intercept any contaminate release quickly. Upward gradients measured in well nests (DH-10/10A, DH15/15A, DH19/19A and DH42/42A) east of Seven Mile Creek demonstrate groundwater discharge conditions in this area.
12. There is little potential for development within 1200 feet down gradient of the Sector 1 landfill, since Seven Mile Creek is located 300 -- 400 feet down gradient of the landfill. Eau Claire County owes the land across the creek and is managing it as land conservation property.
13. Documents considered by the Department for review of this conditional plan modification include:
 - (a) July 31, 1978 plan of operation approval issued by the Department for Sector 1, license number #2821.
 - (b) July 8, 1980 plan approval modification issued by the Department for Sector 1, license number #2821.
 - (c) February 2, 1983 plan of operation modification issued by the Department for Sector 1, license number #2821.
 - (d) July 30, 1990 modification to the plan of operation approval issued by the Department for Sector 1, license number #2821.
 - (e) December 13, 1990 facility closure documentation approval and plan modification approval issued by the Department for Sector 1, license number #2821.
 - (f) April 29, 1994 TAD Modification letter for Sector 1 and Sector 2 issued by the Department. This letter also contained changes to the environmental monitoring at both sectors.
 - (g) May 22, 1995 groundwater monitoring plan modification request submitted by Ayres and Associates on behalf of Eau Claire County. License number #2821.
 - (h) June 29, 1995 acknowledgment of receipt letter issued by the Department for the May 22, 1995 groundwater plan modification request. See (h) above.
 - (i) June 26, 1995 letter issued by the Department for the “Initiation of semi-annual environmental monitoring at the Eau Claire Sector 1 and Sector 2 Landfills”.
 - (j) February 8, 1999 letter issued by the Department for the “Acknowledgment of Expedited Plan Modification Request for the Sector 1 Landfill.”
 - (k) March 26, 2002 “Response to February 27, 2002, WDNR Notice of Intent to Modify the Plan of Operation Approval for the Veolia Seven Mile Creek Landfills Sector 1 and Sector 2, WDNR License numbers 2821 and 3097, respectively.” Ayres and Associates on behalf of Veolia Seven Mile Landfill submitted this report.
 - (l) May 13, 2002 Plan of Operation Modification Approval “Corrected Environmental Monitoring Schedule Tables for the Plan Modification Approval dated April 22, 2002 for Veolia Seven Mile Landfill Sector 1 and Sector 2, WDNR License numbers #2821 and #3097, respectively.”

- (m) April 19, 2005 Conditional Plan of Operation for the Proposed Horizontal and Vertical Expansion of the Onyx Seven Mile Creek Sector 2 Landfill, License # 3097
 - (n) November 19, 2007 Memorandum to the File written by Christine Lilek – Senior Hydrogeologist – WDNR – Eau Claire, Wisconsin summarizing the information submitted in the September 25, 2007 Reduction of Environmental Monitoring Request and the WDNR's electronic GEMs database for Sector 1 landfill license number #2821.
14. Additional information and documents used by the Department in preparation of this conditional plan modification include:
- (a) Environmental monitoring data in the Department's electronic GEMs database for Sector 1 landfill license number 2821.
 - (b) Site maps, correspondence, photos and engineering plan sheets as contained within the Department's case files for Sector 1 landfill license number 2821.
 - (c) Reducing or Terminating Groundwater Monitoring at Solid Waste Landfills Publication - WA 1013-2006.
 - (d) Wisconsin Administrative Code NR 507 and 514.
 - (e) Wisconsin Administrative Code NR 140.

CONCLUSIONS OF LAW

1. The Department has authority under s. 289.30 (6), Wis. Stats. to approve a plan of operation modification with special conditions if the conditions are needed to ensure compliance with the applicable standards of chs. NR 500 through 538, Wis. Adm. Code.
2. The Department has authority under s. 289.30, Wis. Stats. and ch. NR 507.04, Wis. Adm. Code, to modify a plan approval if the modification is needed to minimize the detrimental effects the landfill may have upon groundwater, surface water, and air quality.
3. The conditions of approval set forth below are needed to assure compliance with ch. NR 140, Wis. Adm. Code and applicable portions of chs. NR 500 through 538, Wis. Adm. Code.
4. The conditions set forth in this approval are needed to assure compliance with chs. NR 507.19 and 507.20, Wis. Adm. Code, to require the owner or operator to sample water supply wells as part of a detection groundwater monitoring program or to determine the extent of groundwater contamination, if applicable.
5. In accordance with the foregoing, the Department has authority under ch. 289, Wis. Stats. to issue the following conditional approval for modifying the plan of operation.

CONDITIONAL PLAN OF OPERATION
ENVIRONMENTAL MONITORING APPROVAL MODIFICATION

The Department hereby modifies and replaces the environmental monitoring conditions listed in the May 13, 2002 Corrected Tables for the Plan Modification Approval dated April 22, 2002 (Sector 1 Conditions #10 – Table 1A, Table 1C, Table 1D and Table 1E):

1. Veolia ES Seven Mile Creek Landfill, LLC, shall perform environmental monitoring at the Veolia ES Seven Mile Creek Landfill Sector 1, license number #2821, in accordance with this plan approval and the applicable requirements of chs. NR 500 to 526 and NR 140 and 141, Wis. Adm. Code. In the case of any discrepancies between the conditions of this approval and any prior approvals, the conditions of this approval shall take precedence.
2. The environmental monitoring requirements contained herein shall commence with the issuance of this approval and shall continue until otherwise modified by the Department in writing. However, "assessment monitoring" pursuant to ch. NR 508, Wis. Adm. Code, may be implemented without written Department approval, if warranted.
3. The Department reserves the right to require either the submittal of additional information or to further modify this approval at any time if, in the Department's opinion, further modifications to this approval are necessary.
4. The results of all of the required environmental monitoring shall be reported electronically to the Department in an approved electronic format. All monitoring specified as occurring on an annual basis shall be completed in April of each year.
5. The New Office Well (OH541), and the up, middle and down stream samples (which were linked to both Veolia ES Seven Mile Creek Landfills - Sector 1 and Sector 2, license #2821 and #3097 respectively) shall now only be assigned to and reported by Veolia Seven Mile Creek Landfill – Sector 2 Landfill (License #3097) on Sector 2's semi-annual basis (April & October).
6. Monitoring Wells DH-12, DH-13 and DH-14 shall be abandoned properly following NR 141.25 Wisconsin Administrative Code. Well Filling and Sealing (Abandonment) Form – DNR 3300 – 005 R 8/07 should be filled out completely and sent to the Department within 30 days of the well abandonments.
7. Monitoring Wells DH-42 and DH-42A shall continue to be sampled semi-annually (April & October) for alkalinity, total filtered (39036), chlorides, total or dissolved (00940), field conductivity (@ 25°C) (00094), field pH (00400), Field Temperature (00010), Field 04189 Groundwater Elevation (04189), 22413 Hardness, Total Filtered (22413), Odor (00001), Color (00002) and Turbidity (00003) and annually in April for VOC Scan (EPA method 8260 or 8021.)
8. Veolia ES Seven Mile Creek Landfill, LLC, shall implement an environmental monitoring program in accordance with the following schedules/tables:

ENVIRONMENTAL MONITORING SCHEDULE
VEOLIA ES SEVEN MILE CREEK LANDFILL, SECTOR 1 – LICENSE # 2821

Table 1A
(GROUNDWATER MONITORING)

MONITORING WELLS/ PIEZOMETERS	MONITORING FREQUENCY	PARAMETERS
DH-1, DH-4R, DH-42, DH-42A	Semi-Annually	39036 Alkalinity, Total Filtered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 04189 Groundwater Elevation 22413 Hardness, Total Filtered 00001 Odor 00002 Color 00003 Turbidity
DH-7, DH-8, DH-9, DH-10, DH-10A, DH-11R, DH-15, DH-15A, DH-16, DH-16A, DH-19, DH-19A, DH-21, DH-21A	Annually (April)	39036 Alkalinity, Total Filtered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 04189 Groundwater Elevation 22413 Hardness, Total Filtered 00001 Odor 00002 Color 00003 Turbidity
DH-1, DH-4R, DH-7, DH-8, DH-9, DH-10, DH-10A, DH-11R, DH-15, DH-15A, DH-16, DH-16A, DH-19, DH-19A, DH-21, DH-21A, DH-42, DH-42A	Annually (April)	VOC scan (EPA method 8260 or 8021)

Table 1B
(LEACHATE MONITORING)

LEACHATE HEAD WELLS	MONITORING FREQUENCY	PARAMETERS
HW-1A, HW-1B, HW-2A, HW-2B, HW-3A, HW-3BR, HW-4A HW-4B, HW-5A, HW-5B, HW-6A, HW-6B	Annually (April)	00023 Leachate Head Elevation 00031 Depth of Leachate
LEACHATE COLLECTION	MONITORING FREQUENCY	PARAMETERS
LEACHATE TANK-1 ***	Monthly	00032 Volume of Leachate removed

	(submitted annually for Sector 1 Landfill – License #2821)	
LEACHATE TANK-1	Annually (April)	00310 BOD ₅ 00094 Field conductivity (@ 25°C) 00400 Field pH 00410 Alkalinity, Total Unfiltered 01027 Cadmium, Total Unfiltered 00940 Chloride, Total Unfiltered 00900 Hardness, Total Unfiltered 74010 Total Iron (replaces sulfate) 01051 Lead, Total Unfiltered 01055 Manganese, Total Unfiltered 71900 Mercury, Total Unfiltered 00610 Ammonia Nitrogen, Total 00625 Total Kjeldahl Nitrogen 00620 Nitrate Nitrogen, Total 00929 Sodium, Total Unfiltered VOC Scan (EPA method 8260 or 8021)

**Table 1C
(GAS MONITORING)**

GAS PROBES	MONITORING FREQUENCY	PARAMETERS
GP-1 GP-2 GP-3 GP-4	Annually (April)	85547 % Methane 85550 % Oxygen 46388 Field Temperature 00025 Barometric pressure 46381 Pressure trend, barometric
GAS EXTRACTION WELLS	MONITORING FREQUENCY	PARAMETERS
GEW-1, GEW-2, GEW-3 GEW-4, GEW-5, GEW-6, GEW-7, GEW-8, GEW-9, GEW-10, GEW-11, GEW-12, GEW-13, GEW-14, GEW-15, GEW-16, GEW-17, GEW-18, GEW-19, GEW-20, GEW-21, GEW-22, GEW-23, GEW-24	Monthly (submitted semi-annually)	46388 Field Temperature 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 46386 Flow Rate 46382 Header Pressure (inches of water)
MISCELLANEOUS GAS SAMPLING	MONITORING FREQUENCY	PARAMETERS
BLOWER INLET AND BLOWER OUTLET***	Bi-weekly (every other week)	46388 Field Temperature 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 46390 Vacuum (inches of water)

		46386 Flow Rate 46382 Pressure
FLARE***	Bi-weekly (every other week)	46386 Flow rate 46382 Header Pressure

***= A monitoring point (ie, well) which is shared by both Sector 1 and Sector 2. These points will only have to be sampled once at their respective frequency, and the data can be submitted with either license number.

9. The up gradient wells (which are also sampled for Veolia ES Seven Mile Creek Landfill, LLC - Sector 2 Landfill) DH-1, DH-4R shall continue on Sector 2's semi-annual (April and October) sampling schedule for: Alkalinity, Total Filtered (39036), Chloride, Total or Dissolved (00940), Field Conductivity (@ 25°C) (00094), Field pH (00400), Field Temperature (00010), Groundwater Elevation (04189), Iron, Total Filtered (01046), Hardness, Total Filtered (22413), Odor (00001), Color (00002) and Turbidity (00003) and annually for VOC Scan (EPA method 8260 or 8021). The data can be submitted with either license number.
10. Veolia ES Seven Mile Creek Landfill, LLC shall provide additional soil and seeding around the leachate headwells (LH3A, LH5B and LH6B) surface seals to assist in routing precipitation runoff away from the headwell casing.

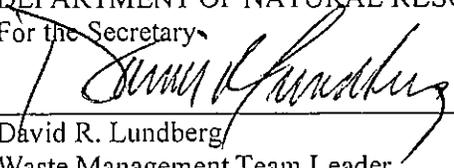
NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

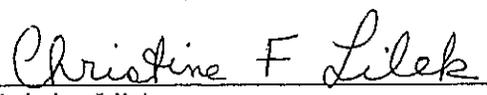
For judicial review of a decision pursuant to Sections 227.52 and 227.53, Wis. Stats. you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

Dated December 18, 2007

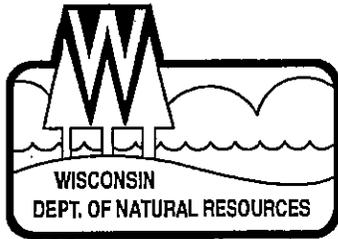
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



David R. Lundberg
Waste Management Team Leader
West Central Region



Christine Lilek
Regional Hydrogeologist



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director

West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711

July 19, 2007

Mr. Mark Vinall, General Manager
Veolia Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI. 54703

FID#618045450
Eau Claire Co.
SW File
PLOP

Subject: Approval of Organic Stability Plan, Modification to the Plan of Operation Approval,
Veolia Seven Mile Creek Landfill, Eau Claire County, License No. 3097

Dear Mr. Vinall:

The Department has reviewed your report entitled "Organic Stability Plan Veolia ES Seven Mile Creek Eau Claire, Wisconsin License #3097." The report was prepared by BT² Inc. and was dated March 2007. At this time the Department is conditionally approving the report. A condition has been included which will reduce the amount of time required for the landfill to achieve organic stability.

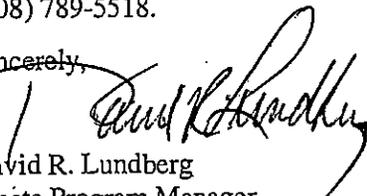
The organic stability plan was submitted in accordance with NR 514.07(9), Wis. Adm. Code which requires landfills to submit a plan for significantly reducing the amount of degradable organic material remaining after site closing in order to materially reduce the amount of time the landfill will take to achieve organic stability.

Veolia's general approach to decrease the time required for the landfill to reach organic stability includes two elements:

1. Increase the moisture content in the waste mass to increase the waste degradation rate. The moisture content will be increased through leachate recirculation and the addition of other liquids approved under a Research, Development and Demonstration (RD&D) Plan.
2. Evaluate the potential to divert additional organics from the landfill by expanding compost operations.

This approval should be attached to your June 20, 1988, May 21, 2002 and April 19, 2005 Plan of Operation Approvals. If you have any questions regarding this approval, please contact Martin Herrick at (608) 789-5518.

Sincerely,



David R. Lundberg
Waste Program Manager
West Central Region

CC: Martin Herrick-LAX
Chris Lilek - Eau Claire Service Center
Sherren Clark - BT² Inc., 2830 Dairy Drive, Madison, WI. 53718-6751
Steve Bischoff- Ayres Associates, 3433 Oakwood Hills Parkway, Eau Claire, WI 54702
Brad Wolbert/Bob Grefe-WA/3
Don Smith-Veolia ES Solid Waste, N104 W13275, Donges Bay Road, Germantown, WI. 53022

PROJECT SUMMARY
ORGANIC STABILITY PLAN

VEOLIA SEVEN MILE CREEK LANDFILL

The organic stability plan was submitted in accordance with NR 514.07(9), Wis. Adm. Code, which requires a plan for landfills to significantly reduce the amount of degradable organic material remaining after site closure and expedite organic stability.

The objective of the landfill stability plan is to achieve the following goals in NR 514.07(9)(c), Wis. Adm. Code:

1. A monthly average total methane plus carbon dioxide gas production rate less than or equal to 5% of the maximum monthly average total gas production rate observed during the life of the facility, or less than 7.5 cubic feet of total gas/per year/per cubic yard of waste,
2. A steady downward trend in the rate of total methane plus carbon dioxide gas production,
3. Production of total methane plus carbon dioxide gas cumulatively representing 75% or greater of the projected total gas production of the landfilled waste,
4. Reduction of the time necessary to reach landfill organic stability to 40 years or less after site closing.

Veolia's general approach to expedite organic stability includes the following elements:

1. Increase the waste mass moisture content and its degradation rate,
2. Evaluate the diversion of additional organics from the landfill through expanded composting operations.

Leachate Recirculation

Increasing the moisture content is the primary strategy to reduce the amount of time required to reach organic stability. Increasing the moisture content is anticipated to increase the rate of waste degradation, which will reduce the amount of non-degraded organic material left in the landfill at the end of the post closure proof of financial responsibility period (40 years after closure). The moisture content will be increased through leachate recirculation and the addition of other liquids approved under a Research, Development and Demonstration (RD&D) plan. Total liquid addition will be limited to the currently approved allowable rate of 8300 gallons per acre per day for phases V and higher. Phases one through four are limited to 6400 gallons per acre per day.

The first leachate recirculation trial system at the Seven Mile Creek Landfill was performed by the previous owner, Eau Claire County, under a June 30, 1993 Department approval. Multiple rounds of leachate recirculation testing were approved after this with a plan modification to re-circulate leachate issued by the Department on March 15, 2001.

Leachate recirculation has led to the following:

- Stabilization through accelerated biodegradation
- Reduction of solids and other sorptive materials in the leachate
- Reduced leachate treatment costs and loading for local WWTP
- Improved waste consolidation and maximizing the landfill's airspace
- Improved long term integrity of the final cover system through reduced differential settlement
- Increased gas production in terms of flow rate and quality for operating IC engines

Warning symptoms

Leachate recirculation will be suspended upon discovery of symptoms and shall not resume until changes are made to the system or the warning symptoms have declined to acceptable levels. Veolia shall notify the Department in writing within 7 days of the discovery of the symptom/symptoms and suspension of leachate recirculation. Warning symptoms include but are not limited to the following:

- Leachate chemistry showing acidic conditions and high CODs and gas with reduced methane concentrations,
- Leachate head wells showing persistent elevated liquid levels,
- Gas wells flooded and/or showing little or no gas production,
- Carbon monoxide detected in gas at levels indicating potential subsurface fire, and/or evidence of smoke, burning odors, or other signs of subsurface fire,
- Leachate seeps that are constant or recurring in areas near active recirculation or liquids addition,
- Ponded leachate over recirculation trenches or on the active the active fill area,
- Gas or odor emissions that require major adjustments of the gas extraction system in order to control,
- Gas generation that is close to or exceeding flare and/or gas utilization capacity when keeping vacuum on all gas extraction wells,
- Anomalous increases in leachate pumping in or in proximity of a leachate drainage basin where leachate recirculation is occurring.

Failure Thresholds

Leachate recirculation shall be suspended whenever any of the failure thresholds are exceeded. Leachate recirculation may not resume until the Department has reviewed and approved changes to the system that will result in meeting the thresholds. Veolia shall notify the Department within three days of the discovery of exceeded failure thresholds. Failure thresholds include but are not limited to the following:

- Flowing leachate seeps with constant liquid output and observable flow down side slopes,
- Visible cracks in the wastes indicating stability concerns,
- Abnormal vibration or shaking while standing on the waste from traffic several feet away,
- Trucks or vehicles sinking into soft MSW, particularly if waste is wet or saturated where the problem is persistent and not weather related,
- Visible changes in outline of the waste mass (i.e. bulging or obvious slope changes),
- Collapse of access roads or other soil structures such as biopiles or stockpiles,
- Odor and gas releases that not readily controllable by the gas extraction system and associated controls.

Monitoring and Evaluation

The organic stability plan will be monitored and evaluated to determine if the established goals are being met. The leachate recirculation monitoring shall be performed according to NR 507.215(1)-(4), Wis. Adm. Code including liquid mass balance, leachate head and characteristics and landfill gas monitoring.

BLOWER OUTLET	Semi-monthly (submitted semiannually)	46384 Gas volume extracted 46388 Gas Temperature (F) 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide Balance Gas 46386 Flow Rate 46382 Pressure(outlet)
	Annual(submitted with next semiannual event)	Total Sulfur Compounds VOCs (using EPA Method TO-14A or TO-15)
BLOWER INLET	Semi-monthly (submitted semiannually)	46382 Pressure (inches of water, negative if vacuum)
FLARE	Semi-monthly (submitted semiannually)	46386 Flow rate

Contingency Plan

When monitoring and subsequent evaluation indicate that the goals outlined NR 514.07(9)(c), Wis. Adm. Code are unlikely to be achieved the contingency plan shall be implemented. If it is determined that liquid addition likely will not achieve the landfill organic stability goals Veolia shall evaluate potential options for achieving organic stability and update the contingency plan as part of the annual reporting. Contingency plan options could include but are not limited to the following:

- Expand composting operations to include source separated food or agricultural waste,
- Divert additional organic waste streams,
- Pre-process organic or hybrid waste (e.g. composting or shredding),
- Implement aerobic bioreactor techniques,
- Delay final cover installation.

Veolia will also continue to evaluate organic stability measures undertaken in European operations for potential applicability in Wisconsin.

Reporting

Annual progress reports shall be prepared in accordance with NR 514.07(9)(d), Wis. Adm. Code. Annual reports shall include an evaluation of needed plan revisions to correct problems, opportunities for increased efficiencies or changes to the contingency plan as the state of the art changes. Every five years, Veolia shall examine the approved plan's progress in achieving the goals and the need to implement the contingency plan. A report describing the evaluation and conclusions shall be submitted to the Department as part of the annual progress report. The Department may require the implementation of some or all of the methods itemized in the contingency plan if the report or the Department's independent conclusions determine that the landfill has not made adequate progress toward achieving the established goals.

Expanding Composting Operations

Veolia shall evaluate the feasibility of expanding composting beyond existing yard waste operations. Source separation of waste prior to the landfill and diverting other organic materials that have potential for composting from the landfill will be examined. Items included but are not limited to:

- Food waste,
- Farm crop residue,
- Manure,
- Other materials.

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
PLAN OF OPERATION APPROVAL MODIFICATION
FOR
AN ORGANIC STABILITY PLAN
VEOLIA SEVEN MILE CREEK LANDFILL
LICENSE #3097

FINDINGS OF FACT

The Department finds that:

1. Veolia Seven Mile Creek Landfill (VSMCL) owns and operates a solid waste disposal facility located in the Southeast ¼ of Section 8 and Southwest ¼ of section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. Conditional Plan of Operation Approvals were issued by the Department for the facility on June 20, 1988, May 21, 2002 and April 19, 2005.
3. The information submitted as construction documentation includes the following:
 - a. A report titled "Organic Stability Plan Veolia ES Seven Mile Creek Landfill Eau Claire, Wisconsin License #3097" was submitted by BT² Inc. The report was dated December 2006.
 - b. A report titled "Organic Stability Plan Veolia ES Seven Mile Creek Landfill Eau Claire, Wisconsin License #3097" was submitted by BT² Inc. The report was dated March 2007.
4. On March 16, 2007 full payment for Invoice No. 8250 for the plan review of the organic stability plan and the Research, Development & Demonstration Plan was received by the Department
5. Additional documents considered in connection with the modification request include the following:
 - a. The Seven Mile Creek Landfill Research, Development and Demonstration Plan dated December 2006.
 - b. The Seven Mile Creek Landfill Research, Development and Demonstration plan dated March 2007.
 - c. The Department's April 19, 2005 Conditional Plan of Operation Approval.
 - d. The Department's March 15, 2001 Modification to the Plan of Operation Approval for leachate recirculation.
 - e. Ayres Associates October 31, 2005 revised leachate circulation plan submittal required by condition 10 of the April 19, 2005 Conditional Plan of Operation Approval.
 - f. The Department's files for the Seven Mile Creek landfill.
6. The special conditions set forth below are needed to assure that the facility is operated in an environmentally sound fashion. If the special conditions are complied with, the proposed modification will not inhibit compliance with the standards set forth in the applicable portions of chs. NR 500-590, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The Department has authority under s. 289.30(6), Wis. Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. NR 500-590, Wis. Adm. Code.
2. The Department has authority to approve a plan of operation approval modification with special conditions if the conditions are needed to ensure compliance with chs. NR 500-590, Wis. Adm. Code.

3. The conditions of this approval are needed to ensure compliance with chs. NR 500-590, Wis. Adm. Code.
4. In accordance with the foregoing, the Department has the authority under s. 289.30, Wis. Stats., to issue the following conditional plan of operation approval modification.

PLAN OF OPERATION APPROVAL MODIFICATION

The Department hereby approves the proposed modification to the plan of operation for the Veolia Seven Mile Creek Landfill for the organic stability plan, subject to the following conditions:

1. The landfill gas monitoring shall be performed in accordance with gas monitoring table attached to this approval. This table supersedes Table 2E of the April 19, 2005 Conditional Plan of Operation Approval.

The Department retains the right to require the submittal of additional information or to modify this conditional plan modification at any time if, in the Department's opinion, further modifications are necessary.

NOTICE OF APPEAL RIGHTS

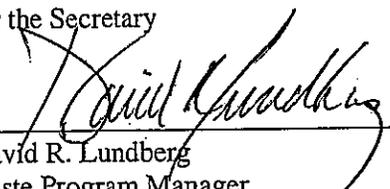
If you believe that you have the right to challenge this decision, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Wis. Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated:

July 19, 2007

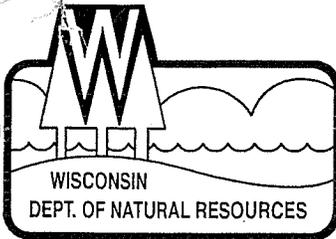
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



David R. Lundberg
Waste Program Manager
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director

West Central Region Headquarters
1300 W. Clairemont Avenue
PO Box 4001
Eau Claire, Wisconsin 54702-4001
Telephone 715-839-3700
FAX 715-839-6076
TTY Access via relay - 711

April 19, 2005

RECEIVED

APR 20 2005

AYRES ASSOCIATES

Mr. Mark Vinall, General Manager
Onyx Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Conditional Plan of Operation for the Proposed Horizontal and Vertical Expansion of the Onyx Seven Mile Creek Sector 2 Landfill, License # 3097

Dear Mr. Vinall:

We have completed our review of your plan of operation for the proposed Onyx Seven Mile Creek Horizontal and Vertical Expansion Landfill and determined that it is consistent with Wisconsin's solid waste regulations. Therefore, the plan of operation is approved and you can begin construction of the landfill, subject to compliance with chs. NR 500-590, Wis. Adm. Code, the conditions in the attached approval and the May 21, 2002 and June 20, 1988 Plan of Operation Approvals and their subsequent plan modifications. This approval should be maintained with the May 21, 2002 and June 20, 1988 Plan of Operation Approvals. Please note that this approval does not replace the existing approvals for this facility and it does not replace the requirements of approved features of the existing landfill, with the exception of the final grades, the landfill footprint and the applicable variances associated with the horizontal and vertical expansion.

As requested by Onyx, the Department is not including a condition regarding use of alternate daily cover (ADC) at the new Onyx Seven Mile Creek Landfill at this time. However, it is understood that Onyx and other stakeholders will join the Department in a concerted effort to resolve this issue prior to initiation of filling the first phase of the new landfill, anticipated in early 2006. It is expected that Onyx will propose an acceptable resolution to this issue with the initial phase site construction documentation report, and that the Department will formalize a decision regarding use of ADC in the approval of the construction documentation.

Conditions for construction, operation, groundwater monitoring and reporting have been included in the approval. Note that we are not granting variances for your alternate geotechnical investigation program or the alternate daily cover proposal but instead are approving them in accordance with ss. NR 512.15(2) 506.055(3), Wis. Adm. Code, respectively. Your request to delete the surface water diversion structures is being allowed for the majority of the site. However, we have included a condition requiring that diversion structures be included for the saddle area between the southern side of phase 11 and the northern side of phase 8, 1, 2, 3, and 4. Diversion structures and downslope flumes may still be required in other parts of the landfill if the proposed maintenance practices do not result in an erosion-resistant and self-sustaining vegetative cover. A field evaluation is required by this approval to develop data on selection of runoff and sediment control requirements.

A condition allowing the utilization of Sector 1 leachate for dust control within the Sector 2 waste limits is included in the approval.

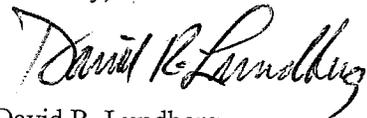
The proposed horizontal and vertical expansion includes removal of portions of the installed final cover system. We are both aware that this may result in release of odors and reduced efficiency of the landfill gas extraction system. This approval requires that additional control measures be developed and that limitations be placed on exposure of waste or interim cover if necessary. The exact sets of conditions that might require use of control measures and limitations of cover removal cannot be fully anticipated. The Department expects that expeditious decisions will be made to control emissions of odor and gas and that the measures taken to remove cover and control gas will be modified in response to experience.

A number of design and construction enhancements are required by this approval. Details are included in the attached conditions.

You are reminded this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements.

If you have questions regarding this approval, please contact Brian Kalvelage, Hydrogeologist at (608) 785-9983, Marty Herrick, Environmental Engineer at (608) 789-5518, or Jack Tritt, Waste Management Specialist at (715) 839-3768.

Sincerely,



David R. Lundberg
Waste Program Manager
West Central Region

CC: Donna Austad, Clerk - City of Eau Claire
Janet Loomis, Clerk - Eau Claire County
Suzanne Turner, Clerk - Town of Seymour
Steven Bischoff - Ayres Associates
Timm Speerschneider - DeWitt, Ross & Stevens, S.C.
David Swartz - Waste Facility Siting Board
David Lundberg - WCR - Eau Claire
Jack Tritt - WCR - Eau Claire
Marty Herrick/Brian Kalvelage-La Crosse
Dennis Mack - WA/3
Bob Grefe - WA/3 (electronic copy)
Bill Phelps - DG/3

PROJECT SUMMARY
ONYX SEVEN MILE CREEK LANDFILL
SECTOR 2 VERTICAL EXPANSION

GENERAL INFORMATION

AUTHORIZED CONTACT: Mark Vinall, General Manager
Onyx Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703
Phone Number (715) 830-0284

LICENSEE AND PROPERTY OWNER: Onyx Seven Mile Creek Landfill (OSMCL), LLC

SITE LOCATION: OSMCL is proposing to construct a contiguous horizontal and vertical expansion at their existing Sector 2 Sanitary Landfill. The proposed facility would be located in the southeast 1/4 of Section 8 and the southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.

PROPOSED CAPACITY AND SITE LIFE: The existing Sector 2 facility has a design capacity of 3.84 million cubic yards and the horizontal and vertical expansion will add 5.3 million cubic yards for a total capacity of 9.14 million cubic yards. Based on a current filling rate of 325,165 tons per year the horizontal and vertical expansion will add approximately 12 years of site life with an expected closing date of 2018.

The proposed site is a horizontal and vertical expansion with 42 acres of horizontal expansion and 13.75 acres of vertical overlay over the currently approved Sector 2 footprint. The existing Sector 2 Landfill occupies 37 acres of the 323.5 acres owned by OSMCL and the proposed expansion would increase the landfill's footprint to approximately 79 acres.

WASTE TYPES AND GENERATORS SERVED: The facility will continue to accept non-hazardous municipal and industrial waste, as well as approved special wastes. Typical wastes include municipal solid waste (MSW), shredder fluff, paper mill sludge, foundry sand and light industrial demolition waste. Shredder fluff, paper mill sludge and foundry sand are currently approved for use as alternate daily cover. The proposed Special Waste Acceptance Plan will allow OSMCL to self-approve various additional special wastes for beneficial use. Waste composition and leaching behavior in the expansion are not expected to be different from those in the current landfill. The chemical characteristics of the leachate generated from this expansion are expected to be similar to the operating Sector 2 Landfill.

The approximate service area for the OSMCL includes the counties of Buffalo, Chippewa, Dunn, Eau Claire, part of Jackson, Pepin, Pierce, Polk, St. Croix, Trempealeau, and the City of Rice Lake in Wisconsin. It would also include the counties of Anoka, Dakota, Goodhue, Hennepin, Olmsted, Ramsey, Wabasha, Washington, Winona and the City of Duluth in Minnesota.

PRESENT LAND USE AND ZONING: Land uses adjacent to the OSMCL include rural residential, agricultural, scrap yards and Eau Claire County Forest land. OSMCL is currently using a portion of the

323.5-acre parcel for solid waste disposal and its associated facilities. The majority of the OSMCL property is located within the City limits of Eau Claire and the remaining portion within the Town of Seymour. The landfill property is zoned public properties within the Eau Claire City Limits and non-sewered industrial within the Town of Seymour.

The property contains one closed landfill, identified as the Sector 1 Landfill, located approximately 200 feet to the southwest of the Sector 2 Landfill. The Sector 2 Landfill is located upgradient of the closed Sector 1 Landfill. Other portions of the Onyx property have also been considered for siting a landfill. At the initial site inspection stage of the Department's landfill approval process Onyx proposed a North and South location for the proposed expansion. Ultimately the North landfill expansion location, which is the current vertical and horizontal expansion, was selected.

Due to the landfill's horizontal expansion, a review to determine the presence of historical, archaeological or environmentally unique areas within a mile of the proposed landfill or borrow sites was performed. No historical, archaeological or environmentally unique areas were noted in the review.

Currently OSMCL has four Department approved borrow sites for the facility including: the Eau Claire County property known as the North Borrow area located adjacent to HWY 93, the clay borrow from the Monroe County Landfill in Ridgeville, two locations on the Nesja property located on CTH DD in Chippewa County and the Kenowski property located in the York Township in Clark County. OSMCL also is proposing to obtain soils from construction related excavations.

SITE CHARACTERISTICS: The site geology and hydrogeology has been previously described in the feasibility report for the existing Sector 2 Landfill. Generally, the geology in the vicinity of the landfill consists of alluvial sand and gravel deposits overlying the Cambrian age sandstone bedrock. The alluvial material is 15 to 60 feet thick with occasional silt layers in the Sector 2 area. Below the alluvium, the sandstone bedrock is part of the Eau Claire and Mount Simon Formation. The glacial soils and sandstone are underlain by Precambrian crystalline rock.

Surficial soils are sands and loamy sands with high permeabilities.

The water table is in alluvial soils and sandstone approximately 35 feet below the ground surface along the eastern side of the Sector 2 Landfill and about 45 feet below the ground surface on the western side. The direction of groundwater flow beneath the site is towards the south-southwest. The horizontal gradient varies from .006 ft/ft near Seven Mile Creek on the facilities western side to .025 ft/ft on the eastern side. Hydraulic conductivity in the sandstone averages 5.5×10^{-5} cm/s. Hydraulic conductivity in the unconsolidated sands average 3.3×10^{-3} cm/s. Vertical gradients are generally downward around the site with upward gradients along Seven Mile Creek.

Preventive Action Limits (PALs) and Alternative Concentration Limits (ACLs) have been established at this facility for certain parameters at specific monitoring points. Tables A and B in the attached Environmental Monitoring Summary specify this in greater detail.

FACILITY DESIGN: For the horizontal portion of the Sector 2 Landfill expansion phases 8 through 10 would be added on the east side and phases 11 and 12 would be added on the north side. For the vertical expansion, the final waste grades will be raised in phases 1 through 7 with approximately 4 acres of the existing cap remaining on the Sector 2 Landfill. The proposed horizontal and vertical expansion would

not change the currently approved liner design for either the constructed portion of the landfill, which will be overlaid, or the newly constructed horizontal portion of the expansion.

The landfill is designed with a composite liner system. The clay component of the liner in phases 1 through 4 is 5 feet thick and in phases 5 through 7 it is 4 feet thick. Above the clay, the design includes a 60-mil High-Density Polyethylene (HDPE) geomembrane. The proposed leachate collection layer above the geomembrane is a 12 to 18 inch thick granular layer with a minimum hydraulic conductivity of 1cm/s. Eighteen inches of granular material is placed above the v-shaped collection trenches.

Phases 1 through 4 of the landfill were designed with sidewall penetrations to route the collected leachate through the liner to the 30,000-gallon leachate collection tank. Existing phases 5 through 7 use sideslope risers and a lift station to pump the collected leachate into the collection tank. Proposed phases 8 through 12 will also use sideslope risers. Ultimately leachate is pumped from the collection tank and recirculated in the waste mass by trench and surface applications. When leachate can not be recirculated it will be sent to the City of Eau Claire, WI wastewater treatment plant for treatment and discharge. The Plainwell Tissue wastewater treatment plant is also available to treat leachate. Leachate headwells are used to monitor the head elevations in the waste mass. OSMCL has proposed that the leachate collection tank will eventually be supplemented or replaced by an above ground, covered tank with considerably increased capacity. The additional capacity will be needed due to the increased open landfill area, the resulting contact water and to store leachate for recirculation into the waste mass.

The Sector 2 Landfill has an active gas extraction system, which incorporates a series of vertical extraction wells, laterals, a header system, blower and flare. Gas is currently being collected from the extraction wells, the leachate recirculation piping and the leachate collection header manholes. Gas collected from the Sector 1 and 2 landfills is combined and routed to three Internal Combustion (IC) engines. The three IC engines can handle 1200 CFM of throughput. The engines provide enough energy to run approximately 2600 homes. Excess landfill gas or when the engines are not operating is burned with an open flare rated at 67.2 MMBTU/HR and 2800 CFM. Gas probes are located beyond the landfill footprint to check for gas migration. On January 24, 2005 the Department's Air Management Program permitted the flare and IC engines. When the landfill's emissions of nonmethane organic compounds (NMOC) exceed 50 megagrams/yr., which is projected for the year 2005, additional measures will be required.

Final cover for the landfill includes from the top of the waste up a 6 inch soil grading layer, a 2 foot soil barrier layer, a geosynthetic clay layer, a 40 mil LLDPE geomembrane, a geocomposite drainage layer, 2.5 feet of protective cover soil and 6 inches of topsoil. The upper foot of the soil barrier layer is required to be fine-grained soil with at least 40% of the material passing the P200 sieve. The topsoil will be seeded, mulched and measures will be implemented to prevent erosion.

Surface water management features include waterways, diversion berms, culverts, sedimentation and infiltration basins. OSMCL has requested a variance to delete diversion berms and downslope flumes from the design and instead allow sheet flow of precipitation across the cap. The proposed change is allowed by this approval, subject to testing and comparison to test sections to evaluate the effectiveness of the change in controlling erosion and loss of soil.

While removal of a substantial portion of the existing cap for the vertical expansion will increase the amount of contact water it will also temporarily reduce the amount of surface water that has to be managed. The vertical expansion will be done in 5 phases with a maximum open area of approximately

9.4 acres. Other areas not exhumed will remain covered with the previous final or interim cover. As more phases of the landfill are completed the volume of non-contact surface water to be managed will increase accordingly.

Certain design, construction, and documentation requirements are included in this approval. These include use of gravel with a minimum hydraulic conductivity of 1 cm/sec for the leachate collection blanket, a leak location survey as a CQA measure for completed liner construction, analysis of final cover drain and erosion behavior, an updated leachate recirculation plan, and additional documentation for the condition of leachate collection piping. These changes will have to be integrated into the construction and documentation of the liner and final cover phases.

The final use for the landfill is green space.

ENVIRONMENTAL MONITORING: Environmental and performance monitoring will extend through the period of active site operation and perpetual long-term care. Monitoring data will be reported to the Department electronically in a format supplied by the Department, as specified in s. NR 507.26(3), Wis. Adm. Code. To determine exceedances of groundwater standards, analytical results shall be compared to the indicator PALs in Table A and the ACLs in Table B of the attached approval, or the standards in ch. NR 140, Wis. Adm. Code. Environmental monitoring shall be conducted in accordance with the attached Environmental Monitoring Summary.

OSMCL was issued a permit from the Department's Air Management Program on January 24, 2005. Measures imposed as a result of the permit include stack testing, gas control system maintenance, recordkeeping and preventing fugitive dust. Additionally, OSMCL will be required to install capture and control equipment for NMOC's emitted at the landfill. The 50-megagram threshold for installing control equipment as noted above is based on emission factors for the volume of waste placed in the landfill. OSMCL landfill is projected to exceed the 50-megagrams/yr. emission rate for NMOC's in 2005 and additional emission monitoring will be required.

CLOSURE AND LONG TERM CARE COSTS: The vertical and horizontal expansion of the Sector 2 Landfill will be performed by additional filling in Phases 1 through 7 and construction of Phases 8 through 12. Presently Phase 1, the majority of Phase 2 and the south and north slopes of Phase 3 have been closed. Phases 4 through 7 are still filling with some areas having intermediate cover. As noted above because of the vertical expansion, a substantial portion of the final cover placed over the previously closed area will be exhumed and additional waste will be placed in the area. Consequently worst-case closure costs have to reflect this change.

All landfill phases are required to complete closure in accordance with NR 506.08, Wis. Adm. Code. Closure costs are based on a worst case closure scenario where the highest cost would be incurred if the landfill had to prematurely close. For the horizontal and vertical expansion of the Sector 2 Landfill this would occur when Phase 11 is actively filling and with no additional sections of the landfill cap installed. The premature closure cost estimate includes installing the final cover system, seeding and vegetating the final cover system, completing construction of the gas extraction system and preparing a closure documentation report. The final cover system is composed of a 6 inch grading layer, 2 feet of barrier soils, the geocomposite clay layer, the 40 mil LLDPE geomembrane layer, the geocomposite drainage layer, 2.5 feet of cover soils, 6 inches of topsoil, vegetative cover and the surface water management features.

OSMCL initially proposes to use a performance bond or other approved financial assurance instrument as the financial mechanism to cover the closure costs.

CLOSURE COSTS:

Item	Quantity	Unit Cost	Estimated Cost
Composite Cover			
(45.5 Acre)			
6" Grading Layer	19750 CY	\$2.00 CY	\$ 39500
Lower 1ft Barrier Soil	39500 CY	\$2.00 CY	\$ 79000
Upper 1 ft Barrier Soil	73400 CY	\$5.00 CY	\$ 367000
Geocomposite Clay Liner	1982000SF	\$.41 SF	\$ 812620
Geocomposite Drainage System	1982000SF	\$.40 SF	\$ 792800
Geomembrane (40mil LLDPE)	1982000 SF	\$.35 SF	\$ 693700
Rooting Zone Layer (30 in)	183500 CY	\$ 2.00 CY	\$ 367000
Topsoil (6 in)	36700 CY	\$ 8.00 CY	\$ 293600
Seed, Fertilizer, Lime, Mulch	45.5 Acre	\$ 1700.00 Acre	\$ 77350
Diversion Berm Construction	1000 LF	\$ 5.00/LF	\$ 5000
Documentation & Administration	45.5 Acre	\$ 7000.00 Acre	\$ 318500
Total Composite Cover Cost			\$ 3846070
Gas Extraction System			
Gas Extraction Wells (13)	1145	\$ 65.00 VF	\$ 74425
Gas Extraction Well Head	13	\$ 500.00/ unit	\$ 6500
6" Gas Lateral Construction	3200	\$ 25.00 LF	\$ 80000
Documentation & Administration	1	\$ 15000	\$ 15000
Total Landfill Gas Extraction System			\$ 175925
Subtotal			\$ 4021995
Contingency (10%)	1	10 %	\$ 402200
Total Worst Case Closure Cost			\$ 4424195
Cost/Acre			\$ 97235

LONG TERM CARE COSTS:

Although OSMCL will be perpetually responsible for the long term care of the landfill, proof of owner financial responsibility for a long term care period of 40 years is required. Actions to be taken during closure and the 40 year owner financial responsibility period, along with the associated cost estimates, are summarized below.

The long term care costs are itemized below and reflect the estimated yearly expenses for:

Item	Quantity	Unit Cost	Estimated Cost/Year
Site Inspections			
Annual Inspection & Report	1	\$ 2000	\$ 2000
Land Surface Repair			
Erosion Repair	79.5 Acres	\$ 300 /Acre for yr 1-5 & \$50/Acre for yr 6-40	\$ 6460
Seeding (10%) for yr 1-5 & (3 %) for yr 6-40 of 79.5 Acres)	79.5 Acres	\$ 1500/Acre	\$ 4621
Road Repair	1	\$ 500	\$ 500
Mowing	79.5 Acres	\$ 45/Acre	\$ 3578
Maintenance			
General Site Maintenance/Repairs/ Sediment Basin Cleaning	40	\$ 60 hr	\$ 2400
Leachate and Condensate Haul and Treatment (1” over 79.5 Acres)	2149980	\$.031gal	\$ 66649
Leachate Line Cleaning	1	\$ 2500	\$ 2500
Leachate Tank Replacement (\$80000 over 40 yrs.)	1	\$ 2000	\$ 2000
Lift Station Pump Replacement (\$5000 over 5 yrs.)	1	\$ 1000	\$ 1000
Leachate Sump Pump Replacement (\$2000 over 5 years)	1	\$ 400	\$ 400
Leachate Collection System Operation and Maintenance (cost split between Sector 1 & 2)	0.5	\$2000	\$ 1000
Gas System Operation and Maintenance (cost split between Sector 1 & 2)	0.5	\$ 12000	\$ 6000

Gas Well Replacement (One Well/5 yrs.)	1	\$ 1500	\$ 1500
Blower Replacement (Cost Split between Sector 1 & 2)	0.5	\$ 1500	\$ 750
L.F. Gas System Misc. Spare Parts	1	\$ 1000	\$ 1000
Blower Electricity	12	\$ 800/Month	\$ 9600
Environmental Monitoring			
Gas System Blower and Well Monitoring (12 hrs./month)	144	\$ 45 hr	\$ 6480
Leachate, Ground Water Monitoring and Gas Probes	1	\$ 30000	\$ 30000
Reports			
Annual Report	1	\$ 4500	\$ 4500
Subtotal			\$ 152938
Contingency (10%)	1	10%	\$ 15294
Yearly Total			\$ 168232
40 Year Total			\$ 6729280

PERIOD OF LONG TERM CARE RESPONSIBILITY: OSMCL has, by law, a 40 year proof of financial responsibility period for long term care following landfill closure. However, OSMCL will be responsible for the long term care of the facility in perpetuity. OSMCL initially proposes to use a performance bond or other approved financial assurance instrument for demonstrating compliance with the long term care requirements in NR 520.06(6), Wis. Adm. Code.

**BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**CONDITIONAL PLAN OF OPERATION APPROVAL
FOR
ONYX SEVEN MILE CREEK
SECTOR 2
HORIZONTAL AND VERTICAL EXPANSION,
SANITARY LANDFILL
CITY OF EAU CLAIRE,
EAU CLAIRE COUNTY, WISCONSIN
LICENSE #03097**

FINDINGS OF FACT

The Department finds that:

1. OSMCL has proposed to construct a horizontal and vertical expansion of their Sector 2 Municipal Solid Waste (MSW) landfill. The facility would be located in the southeast 1/4 of Section 8 and the southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. The proposed horizontal and vertical expansion of the Sector 2 facility is intended to serve the needs of western Wisconsin and eastern Minnesota. Materials disposed at this site will consist of municipal solid waste from residential and commercial sources and non-hazardous industrial waste. The horizontal and vertical expansion of the Sector 2 Landfill would have a design capacity of 5.3 million cubic yards with an estimated operational life of 12 years.
3. On May 28, 2004 the Department made a favorable feasibility determination for the proposed horizontal and vertical expansion of the Onyx Seven Mile Creek, Sector 2 Sanitary Landfill.
4. Onyx Seven Mile Creek Landfill, LLC was previously known as Superior Seven Mile Creek Landfill, LLC. Prior to its purchase by Superior, the landfill was owned and operated by Eau Claire County.
5. The Department made an initial site inspection of the proposed horizontal and vertical expansion site on December 5, 2001 and December 10, 2001.
6. On October 29, 2004 the Department's La Crosse Service Center received the Plan of Operation. On November 24, 2004 the Department received a payment of \$7700 for invoice # 7537, which is the Plan of Operation review fee.
7. On November 29, 2004, the Department deemed the October 29, 2004 Plan of Operation submittal complete.
8. On December 3, 2004 a meeting and on December 16, 2005 a conference call was held to review the Plan of Operation's proposed variances including: deleting the diversion berms on the cap, alternate soil testing requirements, approval of industrial wastes for daily cover and using the

Sector 1 Landfill Leachate for dust suppression in the Sector 2 Landfill.

9. The information submitted in connection with the plan of operation review includes the following:
- a. A report entitled "Plan of Operation Sector 2, Horizontal and Vertical Expansion Onyx Seven Mile Creek Landfill, Eau Claire County, Wisconsin." The report, which was prepared by Ayres Associates, included 38 plan sheets and was dated October 2004.
 - b. A November 19, 2004 e-mail from Ayres Associates regarding gas probe(s) replacement schedule and location clarification.
 - c. A November 23, 2004 e-mail from Ayres Associates regarding leachate headwell(s) and monitoring well(s) abandonment and replacement.
 - d. A December 2, 2004 e-mail submittal from Don Smith of Onyx to the Department, which included a draft letter discussing their variance requests.
 - e. A December 7, 2004 memorandum from Brian Kalvelage to Marty Herrick and Dave Lundberg regarding additional information that should be provided with respect to environmental monitoring proposed at the OSMCL.
 - f. On December 23, 2004 the Department requested additional information for the review of the plan of operation for the proposed horizontal and vertical expansion of the Sector 2 Landfill. On January 21, 2005, Ayres Associates on behalf of OSMCL provided Addendum No. 1, which provided responses to the Department's letter. The response included a narrative, additional groundwater data and revised plan sheets.
 - g. A January 25, 2005 e-mail from Ayres Associates. This e-mail contained an attached spreadsheet that outlined the remaining baseline sampling required for certain parameters at specific wells. This additional baseline sampling is a result of accepted waste types and their respective volumes which were clarified in the January 21, 2005 Plan of Operation Addendum No. 1 submittal.
 - h. On January 27, 2005 the Department received Addendum No. 2, which provided details on the leachate collection tank for the proposed Sector 2 Landfill expansion.
 - i. On February 16, 2005 a conference call was held between Onyx, Ayres Associates and the Department to discuss odor abatement at the Sector 2 Landfill.
 - j. A March 11, 2005 e-mail from Don Smith of Onyx to Marty Herrick and Dave Lundberg regarding a revision to Drawing No. 6R in the January 21, 2005 Plan of Operation Addendum No. 1, requesting that the two secondary leachate line cleanouts in Phase 11 be deleted. An electronic submittal of the revised plansheet was included with the e-mail.
 - k. On March 15, 2005 Onyx requested that the Department extend the plan review deadline until April 15, 2005 in order to allow the Department and interested stakeholders time to resolve the issue of utilizing alternate daily cover at Wisconsin landfills.

1. On April 14, 2005 via e-mail from Mark Vinall of Onyx to Dave Lundberg of the Department, Onyx requested that the Department extend the plan review deadline until April 19, 2005. As part of this e-mail Onyx also provided suggested language to clarify Condition 12 in the draft Plan of Operation regarding the upper soil barrier layer for the landfill cap and revisions to the shredder fluff sampling protocol in Condition 34 (b). In addition, Onyx requested that Condition 17, related to use of alternate daily cover, be deleted and dealt with at a later date, prior to initiation of filling in the first phase of the new landfill.
 - m. On April 15, 2005 a revised draft of the Plan of Operation was sent to Onyx. On April 18, 2005 Onyx responded indicating that the revised language in the draft approval reflected the clarifications and edits that had previously been discussed and agreed to with the Department.
10. Additional Documents considered in the review of the Plan of Operation include the following:
- a. Quarterly monitoring results for shredder fluff from North Star Steel since 1997.
 - b. May 28, 2004 WDNR Feasibility Determination for the Proposed Vertical and Horizontal Expansion of the Onyx Seven Mile Creek Sector 2 Landfill.
 - c. April 22, 2002 WDNR Final Plan Modification to the Environmental Monitoring Section of the Plan of Operation Approval.
 - d. February 14, 2005 Plan Modification submittal from OSMCL to expand the clay borrow site for the Nesja property.
 - e. The January 24, 2005 permit from the Department's Air Management Program.
 - f. WDNR internal guidance document number # Wa47.doc dated February 2, 2004. This written guidance is entitled, "Interim guidance addressing the 1200-foot setback between proposed landfills and existing water supply wells."
 - g. WDNR internal guidance document number #Wa026.doc dated September 9, 2002. This written guidance is entitled, "Solid Waste Technical Guidance-PAL/ACL Calculations."
 - h. Internal WDNR memo dated May 17, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill (expansion) in a location where NR 140, Wis. Adm. Code, groundwater standards have been exceeded.
 - i. Information provided by the Department's Drinking and Groundwater Program on March 10, 2004 informing other WDNR programs that NR 140 Wis. Adm. Code has been revised to include lower groundwater standards for Arsenic. This information indicated that the preventive action limit (PAL) and enforcement standard (ES) for Arsenic has

been lowered to 1 ug/l and 10 ug/l respectively. According to this information the effective date for these new standards was March 1, 2004.

- j. Internal WDNR guidance document entitled, "Reducing or Terminating Groundwater Monitoring at Solid Waste Facilities", dated January 8, 2003. This guidance was used to eliminate COD sampling from the environmental monitoring plan.
- k. February 21, 2005 e-mail from Brian Kalvelagc (WDNR) to Steve Bischoff (Ayres Associates) regarding clarifications on the proposed environmental monitoring program. On the same date a phone conversation with the above mentioned people resolved these monitoring issues.

11. Additional facts relevant to the review of the plan of operation include:

- a. "PCB bulk product waste", as defined in s. 761.3, TSCA, includes shredder fluff with PCB concentrations ≥ 50 ppm in solid form. PCB bulk product waste is derived from manufactured products containing PCBs in a non-liquid state, and several such wastes have been shown or can be demonstrated to show limited leaching behavior for PCBs.
- b. Shredder fluff, regardless of PCB concentration, is a solid waste under Wisconsin statutes.
- c. Shredder fluff from processing automobiles with average PCB concentrations of <50 ppm have been used, with Department approval, for reuse as daily cover at several landfills in Wisconsin.
- d. S. 761.62(b)(1), TSCA allows certain PCB bulk product waste to be disposed of in a licensed nonhazardous solid waste landfill, with Department approval. This includes shredder fluff from the processing of automobiles and household appliances from which PCB-containing capacitors have been removed.
- e. TSCA does not prohibit leachate recirculation with auto shredder residue under 40CFR 761.62(b)(1)(i) or for wastes that meet the PCB leachability standard of 10 ug/l under 40 CFR 761.62(b)(1)(ii). Other PCB wastes not defined under these sections have to be segregated from organic liquids.
- f. Disposal of shredder fluff that meets the definition of PCB bulk product waste in an approved solid waste landfill that meets modern standards for design and operation should not result in unacceptable concentrations of PCBs in leachate.
- g. Reuse of shredder fluff, including compliance with restrictions against placement of shredder fluff on exterior slopes or in areas where runoff from the shredder fluff would leave the waste mass, should not result in PCBs leaving the landfill.
- h. Daily cover is necessary at municipal solid waste landfills to limit windblown debris, odors, and vectors.

- i. Selected solid waste materials can be approved by the Department as an alternative daily cover under the provisions of secs. NR 506.055(1) and (3), Wis. Adm. Code.
 - j. The proposed design would be on land that is somewhat circumscribed for effective groundwater investigation and remediation in the event such was needed, by public streets, established residents and businesses, protected resources such as surface waters, and surface water control structures.
 - k. The proposed design would be a solid waste landfill that is proposed to accept putrescible waste, practice leachate recirculation, promote waste decomposition and landfill gas production through leachate recirculation, and extract landfill gas at rates that minimize the potential for uncontrolled landfill gas emissions and odors.
 - l. The current and proposed landfill operation includes recirculation of almost all leachate generated by the landfill, and the landfill operator has expressed interest in use of additional liquids.
 - m. The landfill has close proximity to local residents, who have expressed concern about detectable landfill gas and odors in the past and who may be exposed to increased odor potential due to excavation of installed final cover.
 - n. There is some uncertainty regarding the longevity and survivability of leachate collection pipe materials in solid waste landfills with large depths of fill that impose large overburden stresses on the pipes.
 - o. The proposed alignment of the leachate collection lines minimizes friction and other impediments to complete insertion of cleanout hoses and video inspection hardware.
 - p. The potential effects of a landfill on groundwater quality are minimized by use of efficient leachate collection designs, where highly permeable drain layers reduce the head of leachate on the liner and, in consequence, significantly reduce leakage rates though any potential defects in geomembrane components of liners.
 - q. The potential for adverse effects of a landfill on groundwater quality are minimized by reducing leakage through the geomembrane component of a liner to the maximum extent possible. Current technology allows this by detection of leaks at defects in geomembranes. Defects are possible in geomembranes due to placement and construction of clay liner, geomembrane, and gravel drain layers.
12. The Plan of Operation Report included Preventive Action Limits (PALs) for indicator parameters to groundwater standards. Table A (attached) contains PALs that were previously approved by the Department for Sector 2 monitoring wells on June 5, 2000. Table A also contains PALs for certain parameters at specific monitoring wells installed as part of the proposed expansion. Additional PALs will be provided to the Department in a separate report pursuant to NR 507.18, Wis. Adm. Code and Condition #29 in this approval.
13. The Plan of Operation Report included Alternative Concentration Limits (ACLs) to groundwater

- standards. Table B (attached) contains ACLs that were previously approved by the Department for the Sector 2 monitoring wells on June 5, 2000. Table B also contains ACLs for certain parameters at specific monitoring wells installed as part of the proposed expansion. Additional ACLs will be provided to the Department in a separate report pursuant to NR 507.18, Wis. Adm. Code, and Condition #29 in this approval.
14. Gas extraction for the existing and proposed Sector 2 Landfill and the closed Sector 1 Landfill are routed through a single blower-flare operation.
 15. The Department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:
 - a. Baseline groundwater monitoring data provided in the Feasibility Report, Addenda to the Feasibility Report, the Plan of Operation Report (and addenda).
 - b. Information provided to the Department indicating groundwater flow beneath the site is in a southwesterly direction.
 - c. Information provided by the Department's Drinking and Groundwater Program on March 10, 2004 informing other WDNR programs that NR 140, Wis. Adm. Code had been revised to include lower groundwater standards for Arsenic. This information indicated that the preventive action limit (PAL) and enforcement standard (ES) for Arsenic has been lowered to 1ug/l and 10 ug/l, respectively. According to this information the effective date for these new standards was March 1, 2004.
 - d. Internal WDNR memo dated May 17, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill in a location where groundwater standards have been exceeded.
 - e. Well construction details and boring logs provided in the Feasibility Report,
 - f. Well location plan sheets and water table maps provided in the Plan of Operation Report and Addendum No 1.
 - g. The landfill design specifications provided in the Plan of Operation Report as conditioned herein.
 16. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
 - a. Is in noncompliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin,
 - b. Owns or previously owned a 10% or greater legal or equitable interest in a person, or in the assets of a person, who is not in compliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin.

17. The Department has complied with the requirements of NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
18. The conditions set forth below are needed to assure that construction, operation, closure, and monitoring of the OSMCL are conducted in conformance with NR 500 to 590, Wis. Adm. Code, and modern landfill practice.

CONCLUSIONS OF LAW

1. The Department has authority under s. 289.30, Stats. to approve a plan of operation with special conditions if the conditions are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
2. The Department has authority under NR 507.18(1) Wis. Adm. Code, to approve and allow certain baseline monitoring results and corresponding PAL/ACL calculations to be submitted in a separate report. This data is normally required in the Plan of Operation Report.
3. The Department has authority under NR 500.08(4), Wis. Adm. Code, to approve exemptions to the requirements of chs NR 500 to 590, Wis. Adm. Code in special cases except as otherwise provided.
4. The Department has the authority under s. NR 140.28, Wis. Adm. Code and ss. 160.19 (8) and (9), Stats., to grant exemptions to groundwater standards and to specify terms and conditions under which the Department may seek remedial action relating to standards for which an exemption has been granted. This may include establishing alternative concentration limits.
5. The Department has the authority under s. 160.15(3), Stats., and s. NR 140.20, Wis. Adm. Code, to establish preventive action limits for indicator parameters.
6. The conditions of approval set forth below are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
7. In accordance with foregoing, the Department has the authority under ch. 289, Stats., to issue the following conditional approval.

GRANT OF EXEMPTIONS

1. OSMCL has demonstrated circumstances which warrant an exemption from the requirements of s. NR 504.04(3)(f), Wis. Adm. Code to allow construction of a municipal solid waste landfill, where limits of filling would be within 1200 feet of any private or public water supply well. The Department granted this exemption for the 29 private wells listed in the May 28, 2004 Feasibility Determination.
2. OSMCL has demonstrated circumstances which warrant an exemption to the groundwater standards for nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene ch. NR 140, Wis. Adm. Code, as specified in s. NR 140.28, Wis. Adm. Code. The exemption would allow the expansion of a MSWLF in area where the background concentration of a substance exceeds the preventive action limit (PAL) or enforcement standard

(ES). The Department granted the above-stated exemptions on June 5, 2000 and May 28, 2004. See Tables A and B.

CONDITIONAL PLAN OF OPERATION APPROVAL

The Department hereby approves the Plan of Operation for the horizontal and vertical expansion of the Onyx Seven Mile Creek Sector 2 Landfill subject to compliance with chs. NR 500 to 590 Wis. Adm. Code, and the following conditions:

General

1. All aspects of construction, operation, monitoring and closure of the landfill shall be performed in accordance with the June 20, 1988 and May 21, 2002 Plan of Operations and subsequent plan modifications where not superseded by subsequent approvals, the Plan of Operation for the horizontal and vertical expansion, the requirements of chs. NR 500 to 590, Wis. Adm. Code, and the conditions of this approval. In the case of any discrepancies between the approval conditions and the respective Plan of Operations and their associated plan sheets, the approval conditions shall take precedence.
2. Any proposed changes to the plan or this approval shall be presented to the Department. If the changes are compatible with the desired performance of this landfill, as determined by the Department, a plan modification will be approved accepting those changes. Written Department approval is necessary prior to implementing any changes with the exception of minor field modifications that are documented in accordance with NR 516.04(3)(d), Wis. Adm. Code. All field modifications shall be discussed with the Department prior to implementation. Other changes may be handled as expedited plan modifications under s. NR 514.09, Wis. Adm. Code as appropriate.
3. The Department shall have the right of unannounced entry to the OSMCL facility for inspection purposes.

Design, Construction, and Operations

4. The construction and documentation of the liner and leachate collection systems shall be revised to include the following:
 - a. The gradation of the leachate collection layer gravel media shall be specified based on meeting a minimum hydraulic conductivity of 1 cm/sec.
 - b. Pipe bedding material shall be composed of coarse, uniform gravel with a hydraulic conductivity that is greater than or equal to the hydraulic conductivity of the leachate collection blanket.
 - c. Construction documentation shall include test results from a minimum of one hydraulic conductivity test performed on representative samples of drainage media used for the leachate collection blanket and for the leachate collection trench backfill. The test procedure and any adaptations used to accommodate high-capacity drainage material

shall be identified in construction documentation.

- d. Leak location testing of the installed geomembrane shall be completed by or observed by the quality assurance engineer or qualified technician. Leak location testing shall be conducted after the leachate collection layer has been placed on the base grades and at a minimum, over the lower half of the sideslopes. Documentation of the testing method shall include a description of the procedures and photo documentation. Documentation of all detected defects and repairs shall include the testing data for geomembrane sheet and welding and photo documentation of the defect prior to and after repairs.
5. The design and specifications for the proposed above-ground leachate collection tank shall be submitted for review and approval prior to construction. The design shall include definition of piping to interconnect the tank to the existing leachate collection and recirculation piping for the landfill. The design shall specify measures to be taken to prevent or contain leakage from the tank and prevent uncontrolled introduction of leachate into the waste mass.
 6. In addition to the annual leachate collection cleaning required by NR 506.07(5)(c), the following actions shall be taken for leachate collection pipe inspection:
 - a. Pipe cleaning shall be conducted after any construction events where the liner or alterations to the leachate collection system have occurred.
 - b. All leachate collection lines shall be cleaned with water jet cleanout devices initially after placement of the leachate drain layer using pipe cleaning procedures that insert cleanout devices from each access point to, at a minimum, the toe of the opposite sideslope.
 - c. A video camera inspection shall be conducted on all leachate collection pipes after the initial pipe cleaning activities and at 5 year intervals, following the annual pipe cleaning. The video camera inspection shall extend a minimum of 300 feet onto the base grades of each new leachate collection line and as practicable for existing leachate lines.
 - d. All blockages of leachate collection pipes, pipe breaks or any impedence to passage of pipe cleaning equipment shall be investigated, defined and a remediation proposed for review and approval by the Department.
 7. The secondary containment system for the leachate collection tank shall be checked monthly.
 8. OSMCL shall notify the Department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events listed below, for the purpose of allowing the Department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the Department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below.

Construction Events	<u>(Liner)</u>	<u>(Capping)</u>
	- Phases 8, 9, 10, 11,12	-Portions of Phases 3, 4, 5 and all of 6 and 7. - Portions of Phase1 and 4, finish 3, -Remaining portions of 4, 5, 6 and all of 11 and 12.
Inspections	(1.) Subase & Clay Soil Placement (2.) Geomembrane Installation (3.) Leachate Collection System Components (4.) Drainage Blanket	(1.) Grading Layer & Barrier Soil Placement (2.) GCL, Geomembrane Installation (3.) Geocomposite Drainage Layer Installation (4.) Rooting Zone & Topsoil Placement

9. The odor control plan shall be revised to include criteria when additional media or final cover will be placed over areas of the landfill which have interim cover in order to abate odors. The use of compost as an odor sorbing media shall be included in the plan. The revised plan shall be submitted to the Department within 90 days from the date of this approval.

10. A revised leachate recirculation plan shall be submitted to the Department for review and approval within 180 days of the date of this approval. The revised plan shall describe current recirculation practices and experience from the full scale recirculation operations conducted to date. The plan shall propose practices and restrictions on recirculation based on experience and Department guidance and codes. The plan shall propose monitoring of the leachate collection system that tracks the performance of leachate recirculation and its effects on leachate quality. The plan shall include operational measures for capturing fugitive landfill gas emissions and abating odors. This plan, when approved will replace the March 15, 2001 approval for leachate recirculation at the Sector 2 Landfill.

Dennis Mark

11. The Department may require that leachate recirculation cease at any time the Department believes it is causing operational, nuisance or environmental problems.

12. The landfill cap shall be revised to include diversion structures for the saddle area located on the east side of the Sector 2 Landfill between Phase 11 on the north and Phase 8, 1, 2, 3 and 4 on the south side. The revised design and adjusted closure costs shall be submitted to the Department within 90 days from the date of this approval.

13. The construction and documentation of the final cover system shall be revised to include the following:

- a. The preconstruction report for each final cover construction phase shall include an analysis which demonstrates whether the maximum head in the drain layer will be confined within the thickness of the drain. The analysis shall be based on the soils and geosynthetics selected for construction of the final cover phase. Drain calculations shall include infiltration rates based on saturated characteristics of the topsoil and rooting zone and a hydraulic gradient of one through the topsoil and rooting zone.

- b. The performance and erosion rates from the final cover shall be assessed by use of a comparison between sections of final cover constructed with and without diversion berms and downslope flumes. The selection of final cover sections and proposed testing methods shall be proposed to the Department for review and approval within 180 days of the date of this approval.
14. The condition of the exposed geosynthetics in the areas of final cover removal shall be noted and reported to the Department annually while final cover removal is ongoing. The results of the observations shall be utilized in the selection of geosynthetics for construction of future final cover phases. The observations shall include:
 - a. Impacts of sediment and clogging on the flow capacity of the geocomposite drain layer.
 - b. Damage, penetrations, or tensile stress on the geomembrane.
 - c. Changes to the hydraulic conductivity of the geosynthetic clay liner and any signs of panel separation.
15. Proof of financial responsibility for closure and long-term care shall be provided before waste filling commences within the first constructed expansion phase, in accordance with ch. NR 520, Wis. Adm. Code. Proof of financial responsibility shall be established using Department approved costs.
16. The quantities of approved beneficially reused materials applied at the OSMCL for the previous year shall be reported to the Department by March 31 of the following year. The report shall include:
 - a. The types of materials applied and the respective generators,
 - b. The volumes and tonnages used,
 - c. Estimated density of the daily cover materials,
 - d. Coverage ratio,
 - e. Alternate applications such as dikes, berms or other structures in the landfill,
 - f. The ratio of waste to alternative daily cover by volume for the year,
 - g. Discussion of problems encountered and recommendations.
17. If partial clay liner is constructed prior to freeze up, the completed and tested part of the clay liner shall be covered by a minimum one foot of compacted protective clay (no testing required). The following Spring, at least the upper six inches of the protective clay layer shall be removed and the upper foot of the completed clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the upper three inches of the completed clay liner and the remaining protective clay layer shall be scarified and re-

compacted. If the tests do not meet compaction specification then the entire lift of protective clay and at least the upper four inches of the clay liner shall be removed and the second foot of the clay liner shall be re-tested for density and moisture at the same locations previously tested. If the tests meet compaction specifications the remaining eight inches of the upper foot of the clay liner shall be scarified and re-compacted. If the tests do not meet compaction specifications then the procedure shall be repeated for the remaining depth of clay liner until compaction specifications are met.

18. Conformance sampling and testing shall be conducted on the GCL delivered on site and used in construction. Sampling shall be conducted by the quality assurance engineer or qualified technician. Laboratory testing shall be performed at a laboratory not affiliated with the party providing construction quality assurance monitoring in the field at OSMCL. Manufacturer testing performed on the GCL materials delivered to the facility may be submitted in place of the conformance testing, provided the testing was performed at the minimum frequency stated below.
 - a. Clay mass per unit area (dried) shall be tested at a rate of one test per 40,000 ft² of GCL installed; results shall be reported at 0% moisture content.
 - b. Grab and peel tensile strength (MD and CD) shall be tested at a rate of one test per 100,000 ft² of GCL installed (ASTM D-4632).
 - c. Index flux shall be tested at a rate of one test per 100,000 ft² of GCL installed (ASTM D-5887).
 - d. Bentonite recovered from GCL sample shall be tested for free swell at a rate of one test per 100,000 ft² of GCL installed.

19. Placement and testing of the two-foot soil barrier layer below the GCL shall meet the following minimum requirements:
 - a. The upper one-foot barrier layer shall consist of a fine-grained soil or a well-graded sandy soil with fines, and meeting the criteria for USCS soil types ML, CL, CH, SM or SC or dual-symbol classification of these soils, with at least 40% by weight passing the P200 sieve size. The upper one-foot shall have a maximum particle size of one inch and the lower one-foot shall have a maximum particle size of two inches.
 - b. Compacted in maximum one-foot lifts using footed compaction equipment with feet that penetrate the entire lift of soil. Each lift shall be disked or otherwise mechanically processed prior to compaction to break up clods and allow for moisture content adjustment. Clod size shall be not greater than 4-inches.
 - c. A sufficient number of passes of the compaction equipment shall be made over each lift to ensure complete remolding of the soil. All compaction equipment utilized shall have a minimum static weight of 30,000 pounds unless an alternate is approved by the Department in accordance with NR 504.06(2)(f)1, Wis. Adm. Code.

- d. Compacted to at least 90% modified Proctor density or 95% standard Proctor density or greater at a moisture content at or wet of optimum.
 - e. Dry density and moisture tests in accordance with s. NR 516.07(1)(a), Wis. Adm. Code.
 - f. Moisture-density curves and grain size in accordance with s. NR 516.07(1)(b), Wis. Adm. Code.
 - g. A minimum of one undisturbed sample for each acre or less for every one-foot thickness of soil barrier layer placement shall be retrieved and analyzed for grain size distribution through the #200 sieve, moisture content and dry density.
20. Prior to the disposal of fertilizers containing oxidizing agents, a proposal including the volume and characterization of the material shall be submitted to the Department for written concurrence.
 21. Sector 1 leachate may be used for dust suppression within the waste limits of the active landfill based upon weather, temperature, rainfall events and operational conditions. Leachate shall be applied with a spray bar attachment to maximize dust control effectiveness. Use of Sector 1 leachate for this purpose shall be documented on each day of application using the Dust and Windblown Debris Control Plan form provided in Attachment 2 of the January 21, 2005 Plan of Operation Addendum No. 1. A summary record of Sector 1 leachate usage, including days of usage and amount of leachate applied, shall be provided with each annual report.

Environmental Monitoring

22. OSMCL shall perform environmental monitoring during the active site life and following closure in accordance with the attached Environmental Monitoring Summary. (See Tables A, B, and 2A-2E)
23. OSMCL shall provide all environmental monitoring data as required in the Department's electronic format.
24. OSMCL shall conduct quarterly monitoring in January, April, July and October.
25. OSMCL shall conduct semi-annual environmental monitoring in April and October.
26. OSMCL shall conduct annual monitoring in April.
27. OSMCL shall report monthly monitoring results with the semi-annual monitoring data.
28. OSMCL (Sector 2) shall conduct environmental monitoring as specified in the attached Environmental Monitoring Summary. See Tables A, B and 2A-2E. The attached Environmental Monitoring Summary includes Preventive Action Limits (PALs) and Alternate Concentration Limits (ACLs) which are established in Tables A and B, respectively. PALs and ES (Enforcement Standards) for all other substances shall be as specified in ch. NR 140, Wis. Adm. Code. When submitting monitoring data to the Department, OSMCL shall compare the groundwater sampling results with the aforementioned standards to determine whether exceedances have occurred.

29. OSMCL shall complete the remaining rounds of required baseline monitoring for the existing Sector 2 monitoring wells. Remaining parameters shall include sulfate, nitrate+nitrite as N, fluoride, Ammonia as N, Sodium and Boron. A minimum of eight samples for each of the above-referenced parameters shall be sampled from the following monitoring wells/piezometers; DH-2, DH-2A, DH-18, DH-18A, DH-18B, DH-20, DH-20A, DH-22, DH-22A, DH-22B, DH-24, DH-32, DH-33, DH-33A, DH-34, DH-35, DH-35A, DH-36 and DH-4R. This data shall be used to calculate Alternate Concentration Limits (PALs/ACLs) and be submitted to the Department no later than 2 years from the date of this approval. This report will be subject to the requirements of NR 507.18 and NR 520.15, Wis. Adm. Codes.
30. For new or replacement wells, OSMCL shall collect eight baseline monitoring samples at least 30 days apart, but no more than 90 days apart, for the first two years following installation.
31. OSMCL shall collect water supply well samples in accordance with s. NR 507.20(1), Wis. Adm. Code and the Waste Management program guidance document entitled "Monitoring Water Supply Wells For VOCs Around Solid Waste Disposal Facilities [chs.]NR 507.19 and NR 507.20., Wis. Adm. Code." OSMCL shall collect samples at any private well that is required to be sampled as part of the monitoring schedule and analyze them for the compounds listed in Appendix 1. The maximum detection limits for SDWA compounds included in Appendix 1 and identified in the column labeled "NR 809 Status" shall be:

Vinyl Chloride	0.3 ug/L
EDB	0.01 ug/L
DBCP	0.02 ug/L
All other SDWA VOCs	0.5 ug/L

If the following VOCs are not detected, their Limits of Quantitation shall not exceed their respective Preventive Action Limits (listed in Appendix 1):

Acetone
Carbon Disulfide
Fluorotrichloromethane
Tetrahydrofuran
1,2 - Dichlorobenzene
Methyl ethyl ketone
Methyl isobutyl ketone

32. OSMCL shall provide a "cause and significance" report pursuant to the requirements NR 140.24, Wis. Adm. Code, to address the NR 140 groundwater exceedances at and adjacent to the DH-45 monitoring well.
33. OSMCL and its successors and assigns shall be responsible for site maintenance, monitoring, and any necessary remedial activities identified by the Department.
34. Condition 19 of the Departments May 21, 2002 Plan of Operation Approval is rescinded and replaced by the following:

Shredder fluff is approved for use as alternative daily cover. Shredder fluff shall be sampled and tested as follows below. The results of all testing shall be submitted to the Department annually, except in accordance with paragraph b (below), when more frequent reporting is required. The sampling collection dates and times shall be included with the submittal. Testing shall be performed on a quarterly basis if more than 10,000 tons of fluff per year is accepted from a producer, otherwise testing shall be performed on a semi-annual basis.

- a. Ten samples of each source of shredder fluff shall be collected over a five-day period. Each sample shall be obtained by removing a shovel full of fluff from the conveyor once an hour for a four-hour period in the morning and then again for another four-hour period in the afternoon. Each day's sampling shall be composited into a single sample. The resulting daily sample shall be coned and quartered until 10 gallons of fluff remain. Each 10-gallon sample shall be coned and quartered into two five-gallon samples. The samples shall be stored in sealed containers made of inert material until they are analyzed in a laboratory. The 10 resultant five-gallon samples shall then be tested as outlined in (b) through (d) below.

Three samples from each source of shredder fluff shall be randomly selected and analyzed at a lab for lead, cadmium and mercury using the Toxicity Characteristic Leaching Procedure (TCLP) testing method and for PCB's using a total elemental extraction test method referenced in 40 CFR Part 761.358. If all three samples test below the regulatory limit, then the simple arithmetic mean for the three samples shall be reported as one test result. If any of the three samples tests are above the regulatory limit for any parameter, then the remaining seven samples as referenced in a. above shall be tested for the exceeded parameter and the simple arithmetic mean for the ten samples shall be reported as one test result. A rolling average shall then be used to determine the regulatory status of the shredder fluff. The rolling average shall be based upon the five most recent test results for the above parameters. The oldest test result shall be dropped from the average as each new value is added. Shredder fluff from an individual auto shredder shall not be accepted at the landfill if their rolling average exceeds 80% of regulatory limit for a parameter listed below.

b. Regulatory Limits

<u>TCLP leach test</u>		<u>Solids analysis</u>	
Lead	5.0 mg/l	PCB	50 mg/kg
Cadmium	1.0 mg/l		
Mercury	0.2 mg/l		

If an individual sampling event (arithmetic mean for ten samples) exceeds a regulatory limit for any parameter, an additional sampling event in accordance with paragraph a., above, shall immediately be performed and the samples shall be analyzed for the exceeded parameter in accordance with paragraph b., above. Results shall be submitted to the Department within 30 days of the testing.

- c. On an annual basis, one sample of shredder fluff from each source shall be subject to the ASTM D 3987-85 water leach test and the leaching fluid shall be analyzed for dissolved PCBs using an analytical method with a level of detection <10 microgram per liter.

- d. Beginning the year after OSCML receives more than 10,000 tons of shredder fluff from a specific source and every five years thereafter, each source of shredder fluff accepted at the landfill that on average exceed 10,000 tons per year acceptance rate shall be tested for an extended list of contaminants, including fire retardants, hydrocarbons, BTEXs and physical properties. A proposal for testing shall be submitted to the Department for concurrence at least 60 days prior to the testing
35. OSMCL shall monitor the Sector 2 Landfill's leachate semi-annually for PCB's in accordance with the test methods in 40 CFR761.358.
36. A composite gas sampling point, if not already present, shall be established by OSMCL to allow separate characterization of gas flow and composition from the closed Sector 1 Landfill. The sampling point shall be monitored for the same parameters with the same frequency as the blower inlet.
37. A laboratory certified or registered under s. 299.11 Stats shall conduct all chemical and physical analysis required by the above conditions and Ch. NR 149, Wis. Adm. Code where applicable.

The Department reserves the right to require the submittal of additional information and to modify this approval at any time, if in the Department's opinion, modifications are necessary. Unless specifically noted, the conditions of this approval do not supersede or replace any previous conditions of approval for this facility.

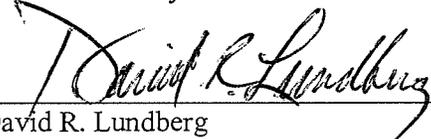
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: April 19, 2005

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



David R. Lundberg
Waste Program Manager
West Central Region



Brian Kalvelage
Hydrogeologist
West Central Region



Martin Herrick, P.E.
Environmental Engineer
West Central Region

**ENVIRONMENTAL MONITORING SUMMARY
 ONYX SEVEN MILE CREEK, SECTOR 2 LANDFILL – LICENSE # 3097**

**Table A
 (Preventive Action Limits)**

Substance/Parameter	Monitoring Point/Well	PAL value (mg/l)
Alkalinity	DH-2	120
	DH-2A	120
	DH-4(abandoned)	130
	DH-18	120
	DH-18A	120
	DH-18B	120
	DH-20	110
	DH-20A	110
	DH-22	110
	DH-22A	120
	DH-22B	130
	DH-24	110
	DH-32	130
	DH-33	120
	DH-33A	120
	DH-34	120
	DH-35	200
	DH-35A	170
	DH-36	130
	DH-1	110
	DH-39	110
	DH-39A	110
	DH-40	110
	DH-41	110
	DH-43	110
	DH-43A	110
	DH-44	120
	DH-44A	120
	DH-45	110
	DH-46	110
	DH-46A	110
	DH-47	110
DH-47A	110	
DH-48	110	
DH-49	110	
DH-49A	110	
DH-50	110	
COD	Not applicable	Not applicable
Field Conductivity	DH-2	280
	DH-2A	270

	DH-4(abandoned)	280
	DH-18	290
	DH-18A	270
	DH-18B	270
	DH-20	270
	DH-20A	260
	DH-22	270
	DH-22A	280
	DH-22B	280
	DH-24	260
	DH-32	290
	DH-33	270
	DH-33A	260
	DH-34	320
	DH-35	380
	DH-35A	320
	DH-36	310
	DH-1	310
	DH-39	330
	DH-39A	250
	DH-40	280
	DH-41	410
	DH-43	440
	DH-43A	260
	DH-44	320
	DH-44A	320
	DH-45	460
	DH-46	240
	DH-46A	280
	DH-47	240
	DH-47A	250
	DH-48	520
	DH-49	760
	DH-49A	300
	DH-50	260

Sodium	DH-1	20
	DH-39	20
	DH-39A	20
	DH-40	20
	DH-41	50
	DH-43	40
	DH-43A	20
	DH-44	20
	DH-44A	20
	DH-45	50
	DH-46	20
	DH-46A	20
	DH-47	20
	DH-47A	20
	DH-48	110
	DH-49	70
	DH-49A	20
DH-50	20	
Ammonia as N	DH-1	10
	DH-39	10
	DH-39A	10
	DH-40	10
	DH-41	10
	DH-43	10
	DH-43A	10
	DH-44	10
	DH-44A	10
	DH-45	10
	DH-46	10
	DH-46A	10
	DH-47	10
	DH-47A	10
	DH-48	10
	DH-49	10
	DH-49A	10
DH-50	10	
Hardness	DH-2	140
	DH-2A	130
	DH-4(abandoned)	140
	DH-18	140
	DH-18A	130
	DH-18B	130
	DH-20	130
	DH-20A	130
	DH-22	130
	DH-22A	120
DH-22B	140	

	DH-24	130
	DH-32	150
	DH-33	140
	DH-33A	140
	DH-34	170
	DH-35	210
	DH-35A	180
	DH-36	160
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	DH-1	130
	DH-39	160
	DH-39A	120
	DH-40	140
	DH-41	150
	DH-43	160
	DH-43A	120
	DH-44	150
	DH-44A	150
	DH-45	180
	DH-46	120
	DH-46A	120
	DH-47	120
	DH-47A	120
	DH-48	140
	DH-49	270
	DH-49A	140
	DH-50	130

Table B
 (Alternative Concentration Limits)

Substance/Parameter	Monitoring Point/Well	ACL value (mg/l)
Cadmium	DH-2,	9
	DH-4 (abandoned)	9
	DH-18B	6
	DH-20A	5
Iron	DH-4 (abandoned)	6
	DH-22B	2
	DH-33A	1
	DH-35A	1
Zinc	DH-1	3.5
	DH-2	6
	DH-4(abandoned)	6
Chloride	DH-49	196
Boron	DH-45	421 (ug/L)
Nickel	DH-49	26
Manganese	DH-39A	0.10
	DH-40	0.10
	DH-44	0.90
	DH-45	6.00
	DH-46	0.04
	DH-46A	0.05
	DH-48	0.20
	DH-49	0.10
	DH-49A	0.42
Nitrate + Nitrite (as N)	DH-36	10
	DH-39	8
	DH-41	6
	DH-44	4
	DH-44A	3
	DH-45	4
	DH-48	8
	DH-49	10
	DH-49A	5
	DH-50	6

Table 2A
 (GROUNDWATER MONITORING)

MONITORING WELLS/ PIEZOMETERS	MONITORING FREQUENCY	PARAMETERS
{DH-1}, DH-2, DH-2A, DH-4R***, DH-18*, DH-18A, DH-18B*, {DH-20**}, {DH-20A}, DH-22, DH-22A, DH-22B, {DH-24}, DH-32, DH-33, DH-33A, DH-34, DH-35*, DH-35A, DH-36, DH-39,	Semi-Annually, (April and October)	39036 Alkalinity, Total Filtered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 04189 Groundwater Elevation 22413 Hardness, Total Filtered

<p>DH-39A, DH-40, DH-41, DH-43, DH-43A, {DH-44}, {DH-44A}, DH-45, DH-46*, DH-46A, DH-47, DH-47A, DH-48, DH-49, DH-49A, {DH-50}</p> <p>And any others installed as needed.</p>		<p>01046 Dissolved Iron 00001 Odor 00002 Color 00003 Turbidity</p>
<p>{DH-1}, DH-2, DH-2A, DH-4R***, DH-18*, DH-18A, DH-18B*, {DH-20**}, {DH-20A}, DH-22, DH-22A, DH-22B, {DH-24}, DH-32, DH-33, DH-33A, DH-34, DH-35*, DH-35A, DH-36, DH-39, DH-39A, DH-40, DH-41, DH-43, DH-43A, {DH-44}, {DH-44A}, DH-45, DH-46*, DH-46A, DH-47, DH-47A, DH-48, DH-49, DH-49A, {DH-50}</p> <p>And any others installed as needed.</p>	<p>Annually (April)</p>	<p>VOC scan (EPA method 8260 or 8021)</p>
<p>DH-18*, DH-18B*, DH-35*, DH-46*</p>	<p>Semi-Annually (April and October)</p>	<p>VOC scan (EPA method 8260 or 8021)</p>
<p>PRIVATE WELLS</p>	<p>MONITORING FREQUENCY</p>	<p>PARAMETERS</p>
<p>{Onyx well (formerly STEWART well)-PW-5} (EH407)</p> <p>{Onyx well (formally CONNELL well)-PW-6} (EH408)</p> <p>{Onyx well-LANDFILL SHOP-PW-29} (IM687)</p> <p>OFFICE WELL(PW-28) (OH541)***</p>	<p>Semi-annually (April and October)</p>	<p>00410 Alkalinity, Total Unfiltered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 00900 Hardness, Total Unfiltered VOC Scan (See Condition # 32)</p>

Table 2B
 (LYSIMETER MONITORING)

LYSIMETERS	MONITORING FREQUENCY	PARAMETERS
L-1A, {L-1B}, {L-1C}, L-2, L-3, L-4	Semi-annually (April and October)	00094 Field conductivity (@25°C) 00400 pH, Field 00410 Alkalinity, Total 00900 Hardness, Total 00940 Chloride, Total 00625 Total Kjeldahl Nitrogen 00929 Sodium, Total 99423 Elevation, liquid 00945 Sulfate, Total
L-1A, {L-1B}, {L-1C}, L-2, L-3, L-4	Annually (April)	VOC scan (EPA method 8260 or 8021)
L-1A, {L-1B}, {L-1C}, L-2, L-3, L-4	Monthly (reported semi-annually)	74064 Lysimeter volume removed 72002 Depth to Liquid

Table 2C
 (SURFACE WATER MONITORING)

STREAM MONITORING	MONITORING FREQUENCY	PARAMETERS
Stream-1-[upstream]*** Stream-2-[mid-stream]*** Stream-3-[downstream]*** • Note: Parameter 99520, Surface Water Elevation is not required at Stream-2 location.	Semi-Annual (April, October)	74010 Total Iron 00410 Alkalinity, Total Unfiltered 00940 Chloride, Total or Dissolved 00094 Field conductivity (@ 25°C) 00400 pH, Field 00010 Temperature, Field 99520 Surface Water Elevation • 00900 Hardness, Total Unfiltered 00299 Dissolved Oxygen 00620 Nitrate (NO ₃ -N), Filtered 00665 Total Phosphorous 00001 Odor 00002 Color 00003 Turbidity

Table 2D
 (LEACHATE MONITORING)

LEACHATE HEAD WELLS	MONITORING FREQUENCY	PARAMETERS
1A, {1B}, 2A, {2B}, 3A, {3B}, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8, 9 And any others installed as needed.	Monthly (submitted semi-annually)	00023 Leachate Head Elevation 00031 Depth of Leachate

LEACHATE COLLECTION	MONITORING FREQUENCY	PARAMETERS
Sector 2 Lift Station, (point ID-430)	Monthly (submitted semi-annually)	00032 Volume of Leachate removed (volume pumped)
Sector 2 Lift Station, (point ID-430)	Semi-annually (April and October)	00310 BOD ₅ 00094 Field conductivity (@ 25°C) 00400 Field pH 00410 Alkalinity, Total Unfiltered 01027 Cadmium, Total Unfiltered 00940 Chloride, Total Unfiltered 00900 Hardness, Total Unfiltered 74010 Total Iron 01051 Lead, Total Unfiltered 01055 Manganese, Total Unfiltered 71900 Mercury, Total Unfiltered 00610 Ammonia Nitrogen, Total 00625 Total Kjeldahl Nitrogen 00929 Sodium, Total Unfiltered VOC Scan (EPA method 8260 or 8021) (39516) PCB analysis (See 40CFR PART 761.358)
Sector 2 Lift Station, (point ID-430)	Annually (April)	Base/Neutral Extractable Compounds and Acid Extractable Compounds (see attached Table 3.)

Table 2E
(GAS MONITORING)

GAS PROBES	MONITORING FREQUENCY	PARAMETERS
GP-1, GP-2R, GP-3/3R, GP-4/4R, GP-5/5R, GP-6, GP-7, GP-8, GP-9, GP-10, GP-11, GP-12, GP-13, GP- 14, GP-15 And any others installed as needed.	Quarterly (January, April, July, October)	85547 % Methane 85550 % Oxygen 46388 Field Temperature 00025 Barometric pressure 46381 Pressure trend, barometric
GAS EXTRACTION WELLS	MONITORING FREQUENCY	PARAMETERS
GEW-1, GEW-2, GEW-3, GEW-4, GEW-5, GEW-6, GEW-7, GEW-8R, GEW-9R, GEW-10R, GEW-11R, GEW- 12R, GEW-13, GEW-14, GEW-15, GEW-16, GEW-17, GEW-18, GEW-19, GEW-20,	Monthly (submitted semi-annually)	46388 Field Temperature 85547 % Methane 85550 % Oxygen 46386 Flow Rate(s) 46382 Header Pressure (inches of water)

GEW-21, GEW-22, GEW-23, GEW-24, GEW-25, GEW-26, GEW-27, GEW-28, GEW-29R, GEW-30 through GEW-60 And any others installed as needed.		
MISCELLANEOUS GAS SAMPLING	MONITORING FREQUENCY	PARAMETERS
BLOWER INLET AND BLOWER OUTLET***	Semi-monthly (twice per month)	46388 Field Temperature 85547 % Methane 85550 % Oxygen 85544 % Carbon Dioxide 99181 % Nitrogen 46390 Vacuum (inches of water column) 46386 Flow Rate 46382 Pressure
FLARE***	Semi-monthly (twice per month)	46386 Flow rate 46382 Header Pressure (inches of water)

*=Designated Subtitle "D" monitoring wells.

**=A monitoring point (i.e. Well) which is shared by both Sector 2 and the Town of Seymour LF.

***= A monitoring point (i.e., well) which is shared by both Sector 1 and Sector 2. These points will only have to be sampled once at their respective frequency, and the data can be submitted with either license number.

(...) = Wisconsin unique well number

{DH-x}=Monitoring point to be abandoned as facility construction dictates

Table 3

PARAMETER LIST FOR BASE/NEUTRAL EXTRACTABLE COMPOUNDS AND ACID
EXTRACTABLE COMPOUNDS

PARAMETER CODE	PARAMETER DESCRIPTION
34200	ACENAPHTHYLENE (UG/L)
34205	ACENAPHTHENE IN WHL WTR SAMPLE (UG/L)
34220	ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34230	BENZO(B)FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34242	BENZO(K)FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34247	BENZO(A)PYRENE IN WHL WTR SAMPLE (UG/L)
34273	BIS(2-CHLOROETHYL) ETHER IN WHL WTR SAMPLE (UG/L)
34278	BIS(2-CHLOROETHOXY)METHANE IN WHL WTR SMPL (UG/L)
34292	BUTYL BENZYL PHTHALATE IN WHOLE WATER SAMPLE(UG/L)
34320	CHRYSENE IN WHL WTR SAMPLE (UG/L)
34336	DIETHYL PHTHALATE IN WHOLE WATER SAMPLE (UG/L)
34341	DIMETHYL PHTHALATE IN WHL WTR SAMPLE (UG/L)
34346	1,2-DIPHENYLHYDRAZINE IN WHOLE WATER SAMPLE (UG/L)
34376	FLUORANTHENE IN WHL WTR SAMPLE (UG/L)
34381	FLUORENE IN WHL WTR SAMPLE (UG/L)
34386	HEXACHLOROCYCLOPENTADIENE IN WHL WTR SAMPLE (UG/L)
34391	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)
34396	HEXACHLOROETHANE IN WHL WTR SAMPLE (UG/L)
34403	INDENO(1,2,3-CD)PYRENE IN WHL WTR SAMPLE (UG/L)
34408	ISOPHORONE IN WHL WTR SAMPLE (UG/L)
34428	N-NITROSODI-N-PROPYLAMINE IN WHL WTR SAMPLE (UG/L)
34433	N-NITROSODIPHENYLAMINE IN WHL WTR SAMPLE (UG/L)
34438	N-NITROSODIMETHYLAMINE IN WHL WTR SAMPLE (UG/L)
34447	NITROBENZENE IN WHL WTR SAMPLE (UG/L)
34452	P-CHLORO-M-CRESOL IN WHL WTR SAMPLE (UG/L)
34461	PHENANTHRENE IN WHL WTR SAMPLE (UG/L)
34469	PYRENE, TOTAL (UG/L)
34521	BENZO(GHI)PERYLENE IN WHL WTR SAMPLE (UG/L)
34526	BENZ(A)ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34536	O-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34551	1,2,4-TRICHLOROBENZENE IN WHOLE WATER SAMPLE(UG/L)
34556	DIBENZ(A,H)ANTHRACENE IN WHL WTR SAMPLE (UG/L)
34566	M-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34571	P-DICHLOROBENZENE IN WHL WTR SAMPLE (UG/L)
34581	2-CHLORONAPHTHALENE IN WHL WTR SAMPLE (UG/L)
34586	2-CHLOROPHENOL IN WHL WTR SAMPLE (UG/L)
34591	2-NITROPHENOL IN WHL WTR SAMPLE (UG/L)
34596	DI-N-OCTYL PHTHALATE IN WHL WTR SAMPLE (UG/L)
34601	2,4-DICHLOROPHENOL IN WHL WTR SAMPLE (UG/L)
34606	2,4-DIMETHYLPHENOL IN WHL WTR SAMPLE (UG/L)

34611 2,4-DINITROTOLUENE IN WHL WTR SAMPLE (UG/L)
34616 2,4-DINITROPHENOL IN WHL WTR SAMPLE (UG/L)
34621 2,4,6-TRICHLOROPHENOL IN WHOLE WATER SAMPLE (UG/L)
34626 2,6-DINITROTOLUENE IN WHL WTR SAMPLE (UG/L)
34631 3,3'-DICHLOROBENZIDINE IN WHOLE WATR SAMPLE (UG/L)
34636 4-BROMOPHENYL PHENYL ETHER IN WHL WTR SMPL (UG/L)
34641 4-CHLOROPHENYLPHENYL ETHER, WHL WATR SAMPLE (UG/L)
34646 4-NITROPHENOL IN WHL WTR SAMPLE (UG/L)
34694 PHENOL IN WHL WTR SAMPLE (UG/L)
34696 NAPHTHALENE IN WHOLE WATER SAMPLE (UG/L)
39032 PENTACHLOROPHENOL (PCP) IN WHOLE WTR SAMPLE (UG/L)
39100 BIS(2-ETHYLHEXYL) PHTHALATE (DEHP) WHL WTR SMP (UG/L)
39110 DI-N-BUTYL PHTHALATE IN WHOLE WATER SAMPLE (UG/L)
39120 BENZIDINE IN WHL WTR SAMPLE (UG/L)
39700 HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)
73522 BIS(2-CHLOROISOPROPYL) ETHER IN WHL WTR SMP (UG/L)
79533 4,6-DINITRO-O-CRESOL IN WHL WTR SAMPLE UG/L)

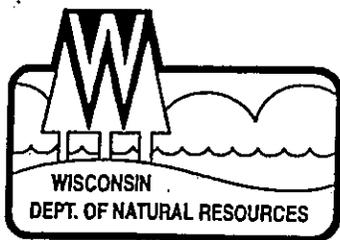
Appendix 1

Note: This Table may change as NR 507, NR 140, NR 809 and 40 CFR 141 are revised.

NR 507 Appendix III Contaminant	CAS #	NR 140 PAL (µg/L)	NR 809 Status (MCL in µg/L)	SDWA Methods
Acetone	67-64-1	200	--	524.2
Benzene	71-43-2	0.5	5	502.2, 524.2
Bromodichloromethane	75-27-4	0.06	TTHM MCL = 100	502.2, 524.2
Bromomethane	74-83-9	1	Unregulated	502.2, 524.2
Bromoform (Tribromomethane)	75-25-2	0.44	TTHM MCL = 100	502.2, 524.2
Carbon disulfide	75-15-0	200		524.2
Carbon tetrachloride	56-23-5	0.5	5	502.2, 524.2
Chlorobenzene	108-90-7	20	100	502.2, 524.2
Chloroethane	75-00-3	80	Unregulated	502.2, 524.2
Chloroform (Trichloromethane)	67-66-3	0.6	TTHM MCL = 100	502.2, 524.2
Chloromethane	74-87-3	0.3	Unregulated	502.2, 524.2
Dibromochloromethane	124-48-1	6	TTHM MCL = 100	502.2, 524.2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.02	0.2	504.1, 551, 551.1
1,2-Dibromoethane (EDB)	106-93-4	0.005	0.05	504.1, 551, 551.1
1,2-Dichlorobenzene	95-50-1	60		502.2, 524.2
1,3-Dichlorobenzene	541-73-1	125	Special 809.26	502.2, 524.2
1,4-Dichlorobenzene	106-46-7	15	75	502.2, 524.2
Dichlorodifluoromethane	75-71-8	200	Special 809.26	502.2, 524.2
1,1-Dichloroethane	75-34-3	85	Special 809.26	502.2, 524.2
1,2-Dichloroethane	107-06-2	0.5	5	502.2, 524.2
1,1-Dichloroethylene	75-35-4	0.7	7	502.2, 524.2
Cis-1,2-Dichloroethylene	156-59-2	7	70	502.2, 524.2
Trans-1,2-Dichloroethylene	156-60-5	20	100	502.2, 524.2
1,2-Dichloropropane	78-87-5	0.5	5	502.2, 524.2
1,3-Dichloropropene (cis)	10061-01-5	*0.02	Special 809.26	502.2, 524.2
1,3-Dichloropropene (trans)	10061-02-6	*0.02	Unregulated	502.2, 524.2
Ethylbenzene	100-41-4	140	Unregulated	502.2, 524.2
Fluorotrichloromethane	75-69-4	698		502.2, 524.2
Methylene bromide	74-95-3		Unregulated	502.2, 524.2
Methylene chloride (Dichloromethane)	75-09-2	0.5	5	524.2
Methyl ethyl ketone (MEK)	78-93-3	90		502.2, 524.2
Methyl tert-butyl ether (MTBE)	1634-04-4	12		502.2, 524.2
**Naphthalene	91-20-3	8	Unregulated	524.2*
Styrene	100-42-5	10	100	502.2, 524.2
Tetrachloroethylene	127-18-4	0.5	5	502.2, 524.2
Tetrahydrofuran	109-99-9	10		502.2, 524.2
Toluene	108-88-3	200	1000	502.2, 524.2
1,1,1-Trichloroethane	71-55-6	40	200	524.2
1,1,2-Trichloroethane	79-00-5	0.5	5	502.2, 524.2

Trichloroethylene (TCE)	79-01-6	0.5	5	502.2, 524.2
Vinyl chloride	75-01-4	0.02	0.2	502.2, 524.2
Xylenes (total)	***	1000	10000	502.2, 524.2

- * PAL applies to the sum of the concentrations of 1,3-Dichloropropene (cis) and 1,3-Dichloropropene (trans).
- ** Naphthalene is also a polynuclear aromatic hydrocarbon (PAH). If other semi-volatile compounds or specifically PAHs are included in the monitoring plan, it may be appropriate to eliminate this compound from VOC monitoring.
- *** CAS #s include 95-47-6 for o-Xylene, 108-38-3 for m-Xylene, and 106-42-3 for p-Xylene, or 1330-20-7 for unspecified Xylene



State of Wisconsin | DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Scott Humrickhouse, Regional Director

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JUN 01 2004

AYRES ASSOCIATES

May 28, 2004

Mr. Mark Vinall, General Manager
Onyx Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Feasibility Determination for the Proposed Horizontal and Vertical Expansion of the Onyx Seven Mile Creek Landfill (Sector 2), Eau Claire County, Wisconsin. Lic#3097.

Dear Mr. Vinall:

We have determined that the proposed horizontal and vertical expansion of the Onyx Seven Mile Creek Landfill is feasible and should provide for satisfactory solid waste disposal. We have also determined that an Environmental Impact Statement is not needed for this facility.

The maximum design capacity of the proposed horizontal and vertical expansion is limited to 5.3 million cubic yards, including daily and intermediate cover. The maximum capacity of the previously approved design capacity for Sector 2 is limited to 3.84 million cubic yards.

On Page 3 section 1.3.1 an exemption was requested for the existing conditions plan sheet and the associated 2ft contour interval. The requirement for this is found in NR 512.11(1), Wis. Adm. Code. The exemption is not needed and the existing conditions plan sheet with a 2ft contour interval does not have to be provided as there are other plan sheets and narrative that present the information.

On page 9 section 1.3.3 an exemption was requested for the substitution of HDPE pipe for the leachate collection lines as opposed to Schedule 80 PVC as required in NR 504.06(5)(c), Wis. Adm. Code. The exemption is not needed as the code allows for approved substitutes. HDPE pipe has been approved for this application in a number of similar landfills.

On page 10 section 1.3.4 an exemption is being requested for the 1200-ft leachate collection line cleanout length as required in NR 504.06(5)(g), Wis. Adm. Code. Two of the four lines exceed the 1200-ft requirement for the secondary direction i.e. from point of entry to the downstream toe. This exemption is conditionally granted as specified in the attached Feasibility Determination.

On page 10 section 1.35 an exemption to NR 504.07(b), Wis. Adm. Code was discussed but not requested. An exemption is not needed for this because an alternate cap design using a GCL and barrier soils was previously approved for other sections of the Sector 2 landfill and this design feature can be included by referencing the previous approval and associated conditions.

On pages 3-9 section 1.3.2 an exemption was requested for the groundwater standards and locational criteria pursuant to NR 140.28 and NR 504.04(4), Wis. Adm. Codes, respectively. However, generally speaking, an exemption for a groundwater parameter that exceeds the respective NR 140, Wis. Adm.

Code, PAL value on only one round of sampling will not require an exemption provided other rounds of data show no other NR 140 value exceedances for that same parameter in that same monitoring well.

With the active leachate recirculation program and acceptance of PCB wastes at the Onyx Seven Mile Creek Landfill, the Department is recommending that consideration be given to performing electrical resistivity leak testing as part of the construction quality assurance/quality control measures for new liner construction. Previous testing of this nature has detected a number of rips and tears in the membrane liners at various landfills across the state. And while it's hard to measure, we have found that the membrane contractors are very conscientious when they know that this type of testing will occur.

The submittals, correspondence, and approvals related to the previously proposed south expansion option were not included in the attached Feasibility Determination. This south expansion option proposal was withdrawn by Onyx prior to the submittal of the north and east horizontal and vertical expansion feasibility report.

You may now submit your plan of operation in accordance with Chapters NR 500 through 538, Wisconsin Administrative Code, the feasibility report and the conditions of feasibility listed in the attached determination. However, this determination of feasibility does not guarantee that the Department will approve your plan of operation for the proposed landfill expansion.

If you have questions regarding this approval, please contact Brian Kalvelage, Hydrogeologist at (608) 785-9983, Marty Herrick, Environmental Engineer at (608) 789-5518, or Jack Tritt, Waste Management Specialist at (715) 839-3768.

Sincerely,



David R. Lundberg
Waste Program Manager
West Central Region

Attachment

CC: Donna Austad, Clerk - City of Eau Claire
Janet Loomis, Clerk - Eau Claire County
Suzanne Turner, Clerk - Town of Seymour
Steven Bischoff/Lori Rosemore- Ayres Associates
Timm Speerschneider - DeWitt, Ross & Stevens, S.C.
David Schwarz, Waste Facility Siting Board, 5005 University Avenue, Suite 201, Madison,
WI 53705-5400
Jack Connelly/Jim Walden -Bureau Files - WA/3
David Lundberg/Jack Tritt/Sue Brumberg - WCR - Eau Claire
Brian Kalvelage/Marty Herrick - WCR - LaCrosse

BEFORE THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

DETERMINATION OF SITE FEASIBILITY FOR THE
PROPOSED HORIZONTAL AND VERTICAL EXPANSION OF THE ONYX SEVEN MILE CREEK
LANDFILL, SECTOR 2
EAU CLAIRE COUNTY, WISCONSIN
WDNR LICENSE NUMBER #3097

FINDINGS OF FACT

The Department finds that:

1. Onyx Seven Mile Creek Landfill, LLC, has proposed a horizontal and vertical expansion of its Sector 2 landfill located in the southeast 1/4 of Section 8 and southwest 1/4 of Section 9, T27N, R8W, City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin.
2. The proposed municipal solid waste landfill (horizontal and vertical) expansion would add an additional 5.3 million cubic yards of waste capacity. The maximum design capacity of the existing Sector 2 facility, including the May 21, 2002 approved vertical expansion, is approximately 3.84 million cubic yards. Therefore, the total maximum landfill design capacity, including the proposed horizontal and vertical expansion, will be approximately 9.14 million cubic yards, and extend the operational life of the facility by an estimated 12 years. The anticipated date of closure of the facility is the year of 2018.
3. The proposed landfill expansion represents both a vertical and horizontal expansion of the Onyx Seven Mile Creek-Sector 2 Landfill, WDNR license # 3097.
4. The proposed municipal solid waste landfill expansion is intended to serve the residential, commercial and non-hazardous industrial waste disposal needs of northwestern Wisconsin and northeastern Minnesota.
5. Onyx Seven Mile Creek Landfill, LLC was previously known as Superior Seven Mile Creek Landfill, LLC.
6. The Department issued a conditional plan of operation approval for the Sector 2 landfill on June 20, 1988.
7. The Department issued a conditional plan of operation approval for the Sector 2 vertical expansion on May 21, 2002.
8. The Department made initial site inspections of the proposed horizontal and vertical expansion site on December 5, 2001 and December 10, 2001.
9. On April 12, 2002, the Department received an Initial Site Report (ISR), dated April 2002 and submitted by Ayres Associates on behalf of Onyx Seven Mile Creek Landfill, LLC.

10. On May 17, 2002, the Department determined that the ISR was complete and issued an "Initial Site Report Completeness Letter".
11. On August 16, 2002, the Department issued an "ISR opinion letter", based on the initial site inspection and the Initial Site Report, that the proposed site has potential for development for a horizontal and vertical expansion of the existing municipal solid waste landfill. However, several possible limiting factors to the proposed landfill expansion were noted in that letter.
12. On November 17, 2003, the Department received the feasibility report for the (north and east) horizontal and vertical expansion. This report was dated November 2003 and submitted by Ayres Associates on behalf of Onyx Seven Mile Creek Landfill, LLC. The feasibility report consisted of 2 volumes and a set of 32 plan sheets.
13. The Department considered the following documents submitted by the applicant in its review of the feasibility of the proposed horizontal and vertical expansion:
 - a. A proposed geotechnical program (including plan sheet) dated November 1, 2002. This document was prepared by Ayres Associates on behalf of Onyx Seven Mile Creek, LLC.
 - b. A Feasibility Report (including plan sheets set) entitled, "Feasibility Report, Onyx Seven Mile Creek Landfill, LLC, Sector 2, Horizontal and Vertical Expansion", dated November 2003 and received by the Department on November 17, 2003. This document was prepared by Ayres Associates on behalf of Onyx Seven Mile Creek Landfill, LLC.
 - c. Letter dated May 7, 2002, from Michael Pinkley, U.S. Department of Transportation, Federal Aviation Administration concerning compatibility with area airport operations. A copy of this letter was contained within the Feasibility Report.
 - d. A cover letter and supporting documentation for the notification of private well owners and/or users within 1,200 feet of the proposed limits of waste, dated December 30, 2003, and received by the Department on January 2, 2004. (Copies of each letter and proof of mailing were attached). This submittal was prepared by Ayres Associates on behalf of Onyx Seven Mile Creek Landfill, LLC.
 - e. Additional information submittal: Letter of transmittal and email from Ayres Associates, dated February 5, 2004, which included plan sheets and soil quantity calculations and other project clarifications. This information was submitted in response to WDNR's January 29, 2003 email request for additional information.
 - f. Additional information submittal entitled "Sector-2 Horizontal and Vertical Expansion, Addendum No. 2", dated March 8, 2004. The Department received this information on March 10, 2004 and was prepared by Ayres Associates on behalf of Onyx Seven Mile Creek Landfill, LLC.
 - g. Information submitted via facsimile by Ayres Associates, dated April 13, 2004 to the Department. This information included gas extraction well data, environmental monitoring data forms and groundwater analytical results from some selected monitoring wells.
14. The Department considered the general files relating to the Onyx (Superior) Seven Mile Creek Sector 2 Landfill, and the following additional information in its review of the feasibility of the proposed horizontal and vertical expansion:
 - a. WDNR internal guidance document number#Wa047.doc dated February 2, 2004. This written guidance is entitled, "Interim guidance addressing the 1200-foot setback between proposed landfills and existing water supply wells".
 - b. WDNR internal guidance document number#Wa026.doc dated September 9, 2002. This written guidance is entitled, "Solid Waste Technical Guidance-PAL/ACL Calculations."

- c. WDNR letter dated March 26, 2002 from Jennifer Bardeen from the Endangered Resources Program to Lori Rosemore from Ayres Associates. This letter provided specific comments relative to endangered species that may be impacted by the proposed landfill expansion.
- d. Internal WDNR memo dated June 13, 2002 from Brian Kalvelage of the Waste Management Program to WDNR Onyx Seven Mile Creek Landfill files (in LaCrosse). This memo documented the lack of wetland issues on the site and stated, "...no wetland areas were identified... during the Initial Site Inspection".
- e. WDNR letter dated November 19, 2003, acknowledging the receipt of the Feasibility Report dated November 2003. An invoice for \$20,000.00 (WDNR review fee) was attached to the above-mentioned letter.
- f. Internal WDNR memo dated January 9, 2004 from Brian Kalvelage of the Waste Management Program to Dave Lundberg of the Waste Management Program. This memo asked selected staff to provide program specific comments on the proposed landfill expansion project.
- g. Internal WDNR memo dated January 12, 2004 from Brian Kalvelage of the Waste Management Program to Steven Thon, WDNR Wastewater Engineer, regarding leachate treatability at the City of Eau Claire and Cascade Tissue Wastewater Treatment Plants and subsequent response from Mr. Thon received on January 20, 2004.
- h. Wisconsin Karner Blue Butterfly Habitat Conservation Plan/Species and Habitat Conservation Agreement (including Appendix A & B) dated and signed by WDNR Secretary, Scott Hassett, on December 1, 2003. The WDNR La Crosse Service Center received a copy of this conservation agreement on January 20, 2004.
- i. External WDNR memo dated January 29, 2004 from Brian Kalvelage of the Waste Management Program to Steve Bischoff (Ayres Associates) requesting additional information to the feasibility report.
- j. Internal WDNR memo dated February 10, 2004 from Jack Tritt of the Waste Management Program to WDNR Onyx Seven Mile Creek Landfill files. This memo was attached to an email dated February 11, 2004. The memo and corresponding email addressed the "needs analysis" for the proposed expansion.
- k. Internal WDNR memo dated April 22, 2004 from Brian Kalvelage of the Waste Management Program to Dave Lundberg and Jack Connelly of the Waste Management Program regarding compliance groundwater sampling during the October 29, 2002 field QA/QC work.
- l. WDNR news release dated November 24, 2003, and briefly describing the November 17, 2003, Feasibility Report.
- m. The Environmental Assessment for the Onyx Seven Mile Creek Landfill, Sector 2, prepared by the Department, February 2004.
- n. The Plan of Operation Report for the Eau Claire County Seven Mile Creek Landfill, Sector 2, submitted by Ayres Associates, November 1987.
- o. A plan of operation modification request to use an alternative final cover design for Sector 2 which includes a geosynthetic clay liner, submitted by Ayres Associates, March 2000.
- p. Written and oral comments received in conjunction with the public notice and corresponding 30-day comment period from March 1, 2004 through March 31, 2004.
- q. Internal WDNR memo and supporting documentation dated April 9, 2004 from Brian Kalvelage of the Waste Management Program to Tom Lovejoy of the Environmental Assessment Program regarding the summary of public comments received by the Department during the 30-day comment period.
- r. Internal WDNR memo dated April 22, 2004 from Randell Clark of the Drinking and Groundwater Program to Brian Kalvelage of the Waste Management Program regarding concurrence with the proposed exemptions to NR 504.04(3)(f), Wis. Adm. Code, for placement of waste within 1,200 feet of a public or private water supply well.
- s. Environmental Assessment (EA) for the proposed horizontal and vertical expansion, prepared by the Department and dated February 17, 2004.

- t. Internal WDNR memo dated May 17, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill (expansion) in a location where NR 140, Wis. Adm. Code, groundwater standards have been exceeded.
 - u. WDNR Feasibility Internal Procedures worksheets (rev. Oct., 1997)
 - v. WDNR Feasibility Completeness Checklist (rev. Feb., 2001)
 - w. WDNR Environmental Assessment Checklist, and WDNR staff comments regarding program specific issues/concerns relative to this proposed project (January 2004, see "f" above).
 - x. WDNR Environmental Assessment for the approved Superior (now Onyx) Seven Mile Creek Landfill, Sector 2, Vertical Expansion.
 - y. Internal WDNR memo dated May 13, 2004, from Marty Herrick of the Waste Management Program to Brian Kalvelage of the Waste Management Program regarding Engineering related exemption requests contained within the November 2003 report titled "Feasibility Report Onyx Seven Mile Creek Landfill Sector 2 Horizontal and Vertical Expansion".
 - z. Comments received from Brad Wolbert, Hydrogeologist for the Department, concerning needs assessments that were recently completed for other proposed landfill facilities.
15. The Department received the Feasibility Report review fee of \$20,000 on December 23, 2003.
 16. On February 17, 2004, the Department determined that the Feasibility Report was complete.
 17. A draft Environmental Assessment (EA) was completed on February 17, 2004, wherein the Department made a preliminary determination that an Environmental Impact Statement (EIS) would not be required for the proposed project. This decision was made final and determined to be in compliance with the Wisconsin Environmental Policy Act (WEPA) on March 13, 2004.
 18. On March 1, 2004, a public notice (for the above-mentioned Feasibility Report and Environmental Assessment) was published in the Eau Claire Leader Telegram pursuant to s. 289.25(3), Wis. Stats.
 19. The Department received four (4) public comments during the required 30-day comment period for the public notice. A contested case hearing was not requested. The Department continued to accept public comments on the proposed expansion until 5:00 p.m. March 31, 2004. A summary of these comments was drafted and placed in the file for reference.
 20. The proposed Sector 2 horizontal and vertical landfill expansion would not be located within:
 - a. 300 feet of a navigable river or stream;
 - b. 1,000 feet of a navigable lake, pond or flowage not including landfill drainage or sedimentation control structures;
 - c. 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;
 - e. 10,000 feet of any airport runway end used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston type aircraft or within an area where the design or operation of the landfill would pose a significant bird hazard to aircraft;

- f. 200 feet of a fault that has had displacement in Holocene time, as defined in s. NR 500.03 (80), Wis. Adm. Code;
 - g. A seismic impact zone, as defined in s. NR 500.03 (208), Wis. Adm. Code; or
 - h. An unstable area, as defined in s. NR 500.03 (246), Wis. Adm. Code.
21. The proposed vertical expansion would be located within 1,200 feet of 29 water supply wells. Onyx Seven Mile Creek Landfill, LLC, has requested exemptions to s. NR 504.04(3)(f), Wis. Adm. Code, for each of these wells. The May 21, 2002, plan of operation for the Onyx Seven Mile Creek Landfill vertical expansion granted an exemption to NR 504.04(3)(f), Wis. Adm. Code for thirteen (13) of the twenty-nine (29) water supply wells mentioned above. The Department finds that an exemption for all 29 wells is warranted because all the wells are located upgradient, side gradient, or are separated by Seven Mile Creek which acts as a hydrologic divide from the Sector 2 landfill relative to the groundwater flow system. In addition, the design of the landfill includes a composite liner consisting of a 4 to 5-foot layer of compacted clay and a 60 mil HDPE geomembrane, a leachate collection system and an active gas extraction system, all of which will be protective of the groundwater if the landfill is properly constructed and operated.
22. The proposed horizontal and vertical expansion would not be within an area where there is a reasonable probability that the facility will cause:
- a. A significant adverse impact on wetlands as provided in ch. NR 103, Wis. Adm. Code;
 - b. A significant adverse impact on critical habitat areas;
 - c. A detrimental effect on any surface water, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - d. A detrimental effect on groundwater quality, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - e. The migration of explosive concentrations of gases in any facility structure or in the soil or air beyond the facility boundary, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below;
 - f. The emission of any hazardous air contaminants in excess of standards contained in s. NR 445.03, Wis. Adm. Code, if the facility is designed, constructed and operated in accordance with the Feasibility Report and the conditions set forth below.
23. According to the signed agreement entitled "Wisconsin Karner Blue Butterfly Habitat conservation plan-Species and Habitat Conservation Agreement", Onyx Seven Mile Creek Landfill, LLC, intends to implement conservation measures or programs related to the following species: Karner Blue Butterfly, Frosted elfin, dusted skipper, cobweb skipper and phlox moth. According to the agreement, "Areas...on Onyx property have population on [of, sp.] wild lupine. SmithGroup JJR performed a biological resources survey of the property for Onyx and reported the presence of wild lupine and the federally endangered Karner Blue Butterfly at locations on the Onyx property." The proposed horizontal and vertical expansion would be located within an area that is known to contain or provide habitat for the previously mentioned species. Appendix "B" of this agreement indicates that efforts such as establishing and maintaining a trail corridor vegetated with mature lupine plants can be used to offset the loss of habitat from the proposed expansion. The agreement also indicates

that monitoring and maintenance of the trail corridor will be performed. This conservation agreement was signed by Scott Hassett, Secretary of the WDNR, on December 1, 2003.

24. The proposed horizontal and vertical expansion will not affect wetlands.
25. The Department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:
 - a. Baseline groundwater monitoring data provided with the feasibility report.
 - b. Information provided to the Department indicating groundwater flow beneath the site is in a southwesterly direction.
 - c. Well construction details and boring logs provided in the feasibility report.
 - d. Well location plan sheets and water table maps provided in the feasibility report.
 - e. Information provided by the Department's Drinking and Groundwater Program on March 10, 2004 informed other WDNR programs that NR 140 Wis. Adm. Code had been revised to include lower groundwater standards for Arsenic. This information indicated that the preventive action limit (PAL) and enforcement standard (ES) for Arsenic has been lowered to 1 ug/L and 10 ug/L, respectively. According to this information, the effective date for these new standards was March 1, 2004.
 - f. Internal WDNR memo dated May 17, 2004 from Mike Lemcke of the Drinking and Groundwater Program to Dave Lundberg of the Waste Management Program regarding concurrence with the proposed exemptions to NR 140.28, Wis. Adm. Code, for construction of a landfill in a location where groundwater standards have been exceeded.
 - g. The landfill design specifications provided in the feasibility report as conditioned herein.
26. Based on an examination of site conditions, the Department finds the following: Groundwater concentrations of nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene in the site area found at concentrations exceeding the ch. NR 140, Wis. Adm. Code, groundwater standards are due to background groundwater quality associated with natural hydrogeologic conditions or human activities.
27. To minimize any incremental increase in contamination from the proposed municipal solid waste landfill expansion, the facility has been designed to contain and collect leachate. The conditionally approved design includes a composite liner, leachate collection system and composite final cover system. These design features will limit increases of contaminants in the groundwater, including nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene. Therefore, the Department believes the proposed landfill is designed to achieve the lowest possible concentration of these substances in the groundwater that is technically and economically feasible.
28. Based on an examination of the groundwater quality data for the proposed facility for substances of public health concern, other than nitrate, and the information listed in Findings of Fact 25, 26 and 27 above, the Department finds the following:

- a. Baseline concentrations above the preventive action limit (PAL) but below the enforcement standard established for the following substances of *public health concern*, other than nitrate, were observed in two or more sample rounds at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Nickel	DH-49
Boron	DH-45
Tetrachloroethene	DH-45

- b. Baseline concentrations above the enforcement standard (ES) for the following substances of *public health concern*, other than nitrate, were observed in at least one sample round at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Chloromethane	DH-45

- c. The proposed facility will not cause the concentration of nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene to exceed the enforcement standard at a point of standards application because of the facility design.
- d. The proposed facility is designed to achieve the lowest possible concentrations for nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene, which are technically and economically feasible.
- e. The anticipated increase in the concentration of nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene will not cause an increased threat to public health or welfare because of the landfill design.
- f. The anticipated incremental increase in the concentration of nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene will not exceed the preventive action limit because of the landfill design.
29. Based on an examination of the groundwater quality data for the proposed facility for nitrate or substances of *public welfare concern* and the information listed in Findings of Fact 25, 26 and 27 above, the Department finds the following:

- a. Baseline concentrations above the preventive action limit (PAL) but below the enforcement standard established for the following substances of *public welfare concern* were observed in two or more sample rounds at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Chloride	DH-49
Zinc	DH-1
Nitrate + Nitrite (as N)	DH-39, DH-41, DH-44, DH-44A, DH-45, DH-48, DH-49, DH-49A, and DH-50
Manganese	DH-39A, DH-40, DH-44, DH-45, and DH-46

- b. Baseline concentrations above the enforcement standard (ES) established for the following substances of public welfare concern were observed at the monitoring wells listed below:

<u>Substance</u>	<u>Wells</u>
Manganese	DH-39A, DH-40, DH-44, DH-46A, DH-48, DH-49, and DH-49A

- c. The proposed facility is designed to achieve the lowest possible concentrations for Chloride, Zinc, Nitrate + Nitrite (as N) and Manganese which are technically and economically feasible.
- d. The anticipated increase in the concentrations of for Chloride, Zinc, Nitrate + Nitrite (as N) and Manganese does not present a threat to public health or welfare because of the landfill design.
30. The approximate service area for the proposed landfill expansion includes the counties of Buffalo, Chippewa, Dunn, Eau Claire, west half of Jackson, Pepin, Pierce, Polk, St. Croix, Trempealeau, and the City of Rice Lake in Wisconsin. The approximate service area would also include the counties of Anoka, Dakota, Goodhue, Hennepin, Olmsted, Ramsey, Wabasha, Washington, Winona and the City of Duluth in Minnesota.
31. The quantity of solid waste projected to be generated within the anticipated service area and suitable for disposal in the proposed expansion is estimated to be approximately 2.91 million in-place cubic yards per year. The estimated waste generation and landfill disposal rates for the anticipated service area do not include recycled wastes or wastes disposed of by incineration.
32. The following approved facilities, as defined under section 289.01 (3), Stats., are located within the Wisconsin portion of the anticipated service area of the proposed landfill expansion:

Name of Facility	Estimated Remaining Capacity in Cubic Yards as of January 2004 (cubic yards)	% of Waste Derived from Within the Anticipated Service Area
Jackson County Landfill	0	57%
Onyx Seven Mile Creek Landfill	935,000	100%

33. The following facilities or proposed competing solid waste facilities are not located within the Wisconsin portion of the anticipated service area of the proposed expansion, but are receiving significant quantities of waste generated within the anticipated service area:

Onyx Seven Mile Creek Landfill-Sector 2 Horizontal and Vertical Expansion
Feasibility Determination

Name of Facility	Remaining Capacity in Cubic Yards as of January 2002 (cubic yards)	% of Waste Derived from Within the Anticipated Service Area	Projected disposal capacity in 2006 (cubic yards)
BFI Waste Systems of North America (Washburn Co.)	2,959,416	55%	13,693,516 (includes the proposed expansion) 709,587
LaCrosse County Landfill (LaCrosse Co.)	1,008,031	42%	
Northwoods Sanitary Refuse Disposal (Barron Co.)	270,644	95%	270,304
WMWI Timberline Trail (Rusk Co.)	354,252	80%	5,564,416
Burnsville SLF (Minnesota)	2,288,043* (*as of Dec. 2001)	94%	527,298
Pine Bend SLF (Minnesota)	3,150,230* (*as of Dec. 2001)	93%	7,119,847
Elk River SLF (Minnesota)	8,766,240* (*as of Dec. 2001)	55%	4,704,110
Olmsted County Kalmar SLF (Minnesota)	1,146,000* (*as of Dec. 2001)	90%	950,797
Spruce Ridge Resource Mngt. (Minnesota)	4,464,073* (*as of Dec. 2001)	97%	3,604,073
Central Disposal Systems (Iowa)	26,510,500	72%	24,556,500

34. There are no non-approved municipal solid waste disposal facilities currently operating within the anticipated service area of the proposed expansion.
35. There are no licensed recycling or resource recovery facilities, or proposed recycling or resource recovery facilities which have plans of operation approved by the Department within the anticipated service area of the proposed expansion.
36. There are two solid waste incinerators licensed by the Department currently operating in the Wisconsin portion of the Onyx Seven Mile Creek Landfill service area. They are listed as follows:

Name of Facility	Intake Rate in tons
Barron County Waste-to-Energy Facility (Barron County) Lic#3091	33,000 tons per year
Xcel La Crosse (LaCrosse County) Lic#3776	400 tons per day (maximum)

37. The following municipal solid waste incinerators are located in Minnesota within or near the anticipated Onyx Seven Mile Creek Landfill service area:

Name of Facility	Intake Rate in tons (2002 data)
Hennepin County Energy Recovery (Minnesota)	365,550 tons per year
Xcel - Red Wing (Minnesota)	198,465 tons per year
Xcel - Wilmarth (Minnesota)	207,259 tons per year
Olmsted County Incinerator (Minnesota)	69,546 tons per year
Red Wing City Incinerator (Minnesota)	17,438 tons per year
UPA Incinerator (Great River) (Minnesota)	438,498 tons per year
WLSSD Incinerator (Minnesota)	(Shut down in 1999)

38. Except for Onyx Seven Mile Creek Landfill, LLC., there have been no complete feasibility reports submitted to the Department for proposed facilities or for the expansion of existing facilities within the anticipated service area. BFI Waste Systems of North America is located in Washburn County, Wisconsin. Washburn County is not identified as being located within the proposed service area for Onyx Seven Mile Creek Landfill, LLC.
39. The proposed 5.3 million cubic yard horizontal and vertical expansion of the Onyx Seven Mile Creek Landfill is projected to begin receiving waste in 2006 and reach capacity in 2018, resulting in an anticipated site life of less than 15 years.
40. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
- Is in noncompliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided;
 - Owns or previously owned a 10% or greater legal or equitable interest in a person or in the assets of a person who is not in compliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin for which proof of financial responsibility ensuring the availability of funds to comply with the plan or order has not been provided.
41. The proposed expansion is located approximately 5.5 miles from the Chippewa Valley Regional Airport. This exceeds the separation distance of 10,000 feet required under s. NR 504.04(3)(e), Wis. Adm. Code, between a landfill or landfill expansion and an airport used for turbojet aircraft. The Federal Aviation Administration (FAA) has stated in a letter dated May 7, 2002, that the FAA did not find the proposed landfill expansion to be incompatible with airport operations. The FAA did specify conditions related to the development of the proposed landfill expansion to ensure that bird activity at the landfill is monitored and controlled.

42. Section NR 507.18, Wis. Adm. Code, specifies requirements for the performance of baseline groundwater monitoring for a proposed landfill. Additional baseline monitoring is required, prior to submittal of a plan of operation, to meet these requirements, to confirm the need for groundwater quality exemptions and to develop adequate data to calculate preventive action limits for indicator parameters (PALs) and alternate concentration limits (ACLs), as appropriate, for parameters that have groundwater standards established in ch. NR 140, Wis. Adm. Code.
43. Leachate collection pipes in the proposal are made of high density polyethylene (HDPE) and are longer than 1,200 feet, which exceeds the maximum limit in s. NR 504.06(5)(g), Wis. Adm. Code, and for which an exemption has been requested in the feasibility report.
44. The Department has complied with the requirements of ch. NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
45. Granting the exemptions that are set forth below will not inhibit compliance with Wisconsin solid waste management standards in chs. NR 500 through 538, Wis. Adm. Code.
46. The special conditions set forth below are needed to assure that the facility will not pose a substantial hazard to public health or welfare.

CONCLUSIONS OF LAW

1. The proposal will comply with the applicable requirements of chs. NR 500 through 538, Wis. Adm. Code, provided that the conditions of the feasibility determination set forth below are met.
2. The procedural requirements of ss. 1.11 and 289.21 to 289.29, Stats., and chapters NR 150 and NR 500 to 538, Wis. Adm. Code, have been complied with.
3. The Department has the authority under s. 289.29(3), Wis. Stats., to determine that a site is feasible with special conditions for design, operations and other requirements, if the conditions are needed to ensure compliance with chs. NR 500 through 538, Wis. Adm. Code.
4. The anticipated service area for the proposed horizontal and vertical expansion includes the counties of Buffalo, Chippewa, Dunn, Eau Claire, west half of Jackson, Pepin, Pierce, Polk, St. Croix, Trempealeau, and the City of Rice Lake in Wisconsin. The anticipated service area would also include the counties of Anoka, Dakota, Goodhue, Hennepin, Olmsted, Ramsey, Wabasha, Washington, Winona and the City of Duluth in Minnesota. In evaluating the need for the proposed expansion the Department must consider alternative facilities which are located within the anticipated service area. The Department may consider alternatives outside the service area for the purpose of determining the approved design capacity under section 289.29(1)(d), Stats.
5. Under s. 289.29(1)(d), Wis. Stats., the Department may approve a design capacity for a proposed landfill expansion, if the design capacity does not exceed the expected waste to be disposed of at the expansion within 15-years after the expansion begins operation.
6. The Department has the authority under s. NR 504.04(2), Wis. Adm. Code, to grant an exemption to the location standards of s. NR 504.04(3)(f), Wis. Adm. Code, regarding the siting of a solid waste land disposal facility within 1,200 feet of a water supply well.

7. The Department has authority under s. NR 812.43(1), Wis. Adm. Code, to grant variances to the locational criterion of s. NR 812.08(4)(g)1., Wis. Adm. Code, regarding private water supply wells located within 1,200 feet of a proposed landfill.
8. The Department has the authority under s. NR 140.28, Wis. Adm. Code, and ss. 160.19(8), (9) and (10), Wis. Stats., to grant exemptions to the Wisconsin groundwater standards for substances listed in ch. NR 140, Wis. Adm. Code.
9. In accordance with the foregoing, the Department has the authority under ch. 289, Stats., to issue the following grant of exemptions, determination of need and design capacity and conditional feasibility determination.

GRANT OF EXEMPTIONS

1. Onyx Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption from the requirements of s. NR 504.04(3)(f), Wis. Adm. Code, to allow construction of a municipal solid waste landfill, where the limits of filling would be within 1,200 feet of any private or public water supply well. This exemption is granted for the 29 private wells listed in the feasibility report and the supplemental information referenced in findings of fact 13.b and 13.d above.
2. Onyx Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption to the groundwater standards for nitrate + nitrite (as N), manganese, boron, nickel, zinc, chloride, chloromethane and tetrachloroethene ch. NR 140, Wis. Adm. Code, as specified in s. NR 140.28, Wis. Adm. Code. The exemption would allow the expansion of a MSWLF in an area where the background concentration of a substance exceeds the preventive action limit (PAL) or enforcement standard (ES). This exemption is granted for the parameters and wells listed in findings of fact 28 and 29. The Department will establish alternative concentration limits for the wells and substances listed in Finding of Facts 28 and 29 when sufficient rounds of baseline groundwater samples have been collected and analyzed as required in Condition 6 below.
3. Onyx Seven Mile Creek Landfill, LLC., has demonstrated circumstances which warrant an exemption to the requirements of s. NR 504.06(5)(g), Wis. Adm. Code, allowing leachate collection pipes, made of high density polyethylene (HDPE), to exceed the 1,200-foot length limit.

DETERMINATION OF NEED AND DESIGN CAPACITY

The Department hereby determines as follows:

1. There is sufficient need within the anticipated service area for the proposed horizontal and vertical expansion of the Onyx Seven Mile Creek Landfill, Sector 2, in the City of Eau Claire and Town of Seymour, Eau Claire County, Wisconsin.
2. The increase of 5.3 million cubic yards in the design capacity for the proposed horizontal and vertical expansion will provide for an expected operational life for the facility of approximately 12 years.

CONDITIONAL FEASIBILITY DETERMINATION

The Department hereby determines that the proposed Onyx Seven Mile Creek Landfill, Sector 2 Horizontal and Vertical Expansion in the City of Eau Claire and Town of Seymour, Eau Claire County is environmentally feasible and has the potential for use as a municipal solid waste landfill (expansion) provided that the following conditions are complied with and the plan of operation is prepared pursuant to s. 289.30, Wis. Stats., and in accordance with chs. NR 500 through NR 538, Wis. Adm. Code:

1. The plan of operation, at a minimum, shall comply with the requirements of chs. NR 500 through 538, Wis. Adm. Code, the proposed feasibility report, and the conditions of this approval. The plan of operation shall include supporting justification if the plan differs from the provisions of the administrative code or any condition of approval.
2. The total design capacity of the horizontal and vertical expansion shall not exceed 5.3 million cubic yards.
3. The plan of operation report shall provide pipe strength calculations to support Onyx's request to use HDPE pipe. The design and installation for the HDPE pipe including wall thickness, connections, seaming, transitions and bedding material must also be addressed in the plan of operation.
4. The plan of operation shall propose a detailed wildlife hazard management plan for the operation of the proposed landfill expansion as specified by the Federal Aviation Administration (FAA). The plan shall include a description of how bird populations have been documented in the past and a discussion of any past increases in bird population and methods that were used to control the bird population and the success of these control methods. The plan shall include a detailed description of how bird populations will be monitored in the future to assure that they are not increasing. The plan shall include detailed description of control methods beyond standard good operating procedures that will be implemented to ensure bird populations do not increase.
5. Baseline groundwater quality data shall be provided in the plan of operation for all monitoring wells installed for the expansion and located outside of the limits of waste as required under s. NR 507.18, Wis. Adm. Code. A minimum of 8 rounds of baseline groundwater data shall be provided for the substances and wells requiring an exemption from the groundwater standards of ch. NR 140, Wis. Adm. Code.
6. The proposed plan of operation shall propose a schedule for abandonment of all groundwater monitoring wells, potable well(s) and other environmental monitoring devices located in the footprint of the final design of the proposed expansion. The monitoring wells determined to be in the proposed expansion footprint shall not be abandoned until such time as is necessary for phases of landfill construction. Well abandonment shall be completed in accordance with the requirements of s. NR 141.25(2)(c), Wis. Adm. Code. Appropriate documentation of completed well abandonment forms shall be provided to the Department.
7. The proposed plan of operation shall propose the abandonment of the landfill shop water supply well (Point ID# PW-29) owned by Onyx and located within the footprint of the proposed north horizontal expansion area, prior to placement of any waste within that area. Appropriate documentation including completed well abandonment forms shall be provided to the Department.
8. If applicable, the proposed plan of operation shall provide a narrative on the abandonment plans for all of the approved clay borrow sites for Onyx Seven Mile Creek Landfill, LLC.

9. The proposed plan of operation shall provide a narrative on the status of the "Wisconsin Karner Blue Butterfly Habitat conservation plan-Species and Habitat Conservation Agreement". More specifically, scheduling of the work to be completed and monitoring shall be discussed.
10. For the horizontal and vertical expansion areas, the proposed plan of operation shall include plan sheets showing the maximum elevations to which waste may be placed as well as the final waste elevations. At each location within the horizontal and vertical expansion areas, the maximum elevation to which waste may be placed shall be no more than 5% higher than the final waste elevation proposed in the feasibility report when compared to the depth of waste at that location.
11. The proposed plan of operation shall include a comprehensive plan to comply with the malodorous emission limitations of the air management regulations of s. NR 429.03, Wis. Adm. Code, and the fugitive dust regulations in s. NR 415.045, Wis. Adm. Code. Please include a summary of actions being taken to abate the noise problems that have been identified in association with the cooling fans on the 3 power generation engines.
12. The proposed plan of operation shall include an environmental investigation plan that will be able to distinguish existing groundwater impacts in the vicinity of DH-45 from any potential groundwater impacts related to waste disposal in the proposed (north) expansion area. This plan shall specifically address the potential source of the groundwater contamination, and propose the installation of additional groundwater monitoring wells and/or soil borings in the area between DH-45 and the proposed limits of waste for the (north) horizontal expansion area.

The Department retains the jurisdiction either to require the submittal of additional information or to modify this approval at any time if, in the Department's opinion, conditions warrant further modifications.

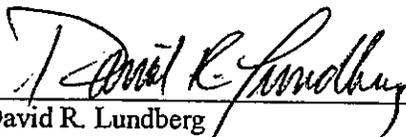
NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to file your petition with the appropriate Circuit Court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

Dated May 28, 2004

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



David R. Lundberg
Waste Program Manager
West Central Region



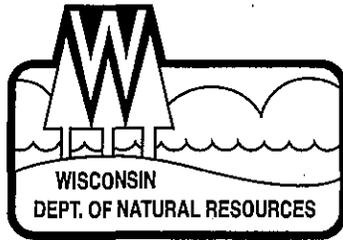
Marty Herrick, P.E.
Environmental Engineer
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Brian Kalvelage
Hydrogeologist
West Central Region



Jack Tritt
Waste Management Specialist
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October 2, 2002

Mr. Mark Vinall, General Manager
Superior Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals
ISR/ N/S Exp.

Subject: WDNR Response To The Proposed Alternate Geotechnical Investigation For The Proposed Superior Seven Mile Creek Landfill-South Horizontal Expansion, Eau Claire County, WI.

Dear Mr. Vinall:

On June 25, 2002, Ayres Associates submitted a request to the Department for a review of an alternate geotechnical investigation program for the proposed south horizontal landfill expansion at your facility in Eau Claire County, Wisconsin. Ayres Associates submitted the request on behalf of Superior Seven Mile Creek Landfill, LLC (SSMCL). Pursuant to a meeting with Ayres Associates and WDNR, additional information was submitted on July 19, 2002. This information was provided as an amendment to the June 25, 2002 document.

The proposed geotechnical investigation program included exemption requests to certain Wisconsin Administrative Code requirements and proposed new definitions to terms as defined in NR 500, Wis. Adm. Code for the purpose of developing a method to help define the bedrock location beneath the surface.

The exemption requests proposed in the submittal are restated below in quotations. We are approving your requested alternative geotechnical program in part with some modifications. WDNR comments on each request are noted below in *Italics*.

- 1) **"For purpose of consistency in interpretation of the bedrock, we propose the following definition of bedrock:"**

"Soil (weathered bedrock) can be drilled with augers or excavated with construction equipment."

WDNR Response: The WDNR generally agrees that soil as defined in NR 500.03(214), Wis. Adm. Code can be weathered bedrock. However, the above definition is very broad and should include the qualifier that "construction equipment" be limited to hand tools or other non-mechanical means of excavation. Therefore, weathered bedrock that is able to be moved/excavated by hand will meet the definition of soil. Soil consisting primarily of weathered bedrock, which can not be moved/excavated by hand, will be considered to be fractured bedrock.

“Bedrock (competent rock) produces auger refusal and cannot be excavated with construction equipment.”

WDNR Response: Although this definition was determined to be appropriate for the Superior Cranberry Creek Landfill, the geological conditions at the Superior Seven Mile Creek Landfill are very different. For example, the bedrock at the Superior Seven Mile site is a relatively soft sedimentary sandstone, while the bedrock at the Superior Cranberry Creek Landfill site consists of a much more resilient igneous formation. Therefore, auger refusal may not occur at the Superior Seven Mile site due to the softer bedrock, and this definition will not be acceptable. However, the Department does recognize the fact that the bedrock soil interface (lithology change) is not exactly a definitive line. Therefore, soil consisting primarily of weathered bedrock, which can not be moved/excavated by hand, will be considered to be fractured bedrock.

- 2) **“NR 512 and 507 exemption to allow the use of existing borings logs and well construction reports. We propose to use the well construction reports and boring logs for all the existing wells, piezometers, and borings listed in Table 1. This information has been previously accepted by the WDNR in feasibility studies and landfill investigation reports. We propose resubmitting these same logs and construction reports in the feasibility study.”**

WDNR Response: We are assuming that the above quote is in reference to NR 512.09(2) and NR 507.04 respectively. The Department will allow the use of existing borings, monitoring wells and piezometers towards meeting the requirements of NR 512.09 (Table 1), Wis. Adm. Code. However, these monitoring points must accurately represent existing geologic and hydrogeologic conditions, meet the depth requirements of s. NR 512.09 (1) (b), Wis. Adm. Code, and meet the requirements of NR 141, Wis. Adm. Code. An exemption to NR 507.04 does not apply to the use of existing monitoring wells, borings, and piezometers, and therefore will not be needed.

- 3) **“NR 509.09(1)(a) requiring 36 borings 25 feet beneath the proposed subbase grade. Thirty-three code-complying borings are proposed (11 new and 22 existing). The data from these borings will be sufficient to characterize the site.”** The amendment submittal, dated July 19, 2002, states, “The June 25, 2002, plan listed 49 wells, piezometers and borings within 300 feet of the proposed expansion. Slight modifications to the expansion footprint reduced this number to 45.”

WDNR Response: NR 509.09(1)(a) does not exist. The Department assumes that the above quote is in reference to NR 512.09(1)(a). Based on the 75 to 85 acre size of the proposed expansion footprint, 38 to 42 borings would be required by code. The Department believes that the code establishes “minimum” requirements. Except in areas of very simple geology, the minimum requirements in this code must be met. More specifically, additional borings should be located in the area of DH-8, TB-66 and DH-41/41A. The currently proposed distances between some of these borings may be insufficient to accurately define subsurface geological features.

- 4) **“NR 507.05 requiring continuous bedrock coring for all borings extending more than 5 feet into the bedrock. Our alternate plan calls for coring eight locations to a depth of 25 feet below subbase grade that will yield an estimated 105 feet of bedrock core.”** The amendment submittal, dated July 19, 2002, states, “The original proposed bedrock coring program consisted of eight locations...to a depth of 25 feet below base grade. We are amending the proposal to include continuous coring at the same eight locations to borehole termination.”

WDNR Response: The Department assumes the above quote is in reference to NR 507.05(2), Wis. Adm. Code. Since very little bedrock information exists for this site, it is important to gather as much bedrock

information as possible. However, continuous coring in eight of the proposed new boring locations should be sufficient to determine crucial bedrock data. Therefore, the Department will allow an exemption to this code which specifies that all borings extending five or more feet into bedrock be continuously cored.

- 5) "NR 512.11 (2) requiring that geologic cross sections be constructed so they include all borings on site. The alternate plan is to omit duplication of borings installed within 50 feet of each other, if the lithology is consistent, and only show the deeper boring."

WDNR Response: The Department will allow cross sections to be constructed in the above-stated manner. However, all other provisions of this code must be followed. Borings that are not included in the construction of a given cross section must be noted in the text or on a map. With the exception of the above, an exemption to NR 512.11(2), Wis. Adm. Code, in its entirety, will not be allowed.

As an additional note, Plan Sheet #1 illustrates footprint dimensions of the new proposed south expansion to be approximately 1724 feet by 1636 feet. Plans of this detail were not supplied with the Initial Site Report and contain information that may necessitate the need to apply for an exemption request for leachate collection line lengths pursuant to NR 504.06(5).

If you have any additional questions regarding this matter, please contact Brian Kalvelage, Hydrogeologist, at (608) 785-9983.

Sincerely,



David R. Lundberg
Waste Team Supervisor

Cc: Brian Kalvelage/Marty Herrick-WDNR-Lacrosse Service Center/files
Jack Connelly/Dennis Mack-WDNR-Madison GEF 2/Files
Jim Anklam/Lori Rosemore-Ayres Associates, Eau Claire, WI



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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Darrell Bazzell, Secretary
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May 21, 2002

Mr. Mark Vinall, General Manager
Superior Services Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703

FID # 618045450
Eau Claire County
SW/Approvals

Subject: Conditional Plan of Operation for the Proposed Vertical Expansion of the Superior Seven Mile Creek Sector 2 Landfill, License # 03097

Dear Mr. Vinall:

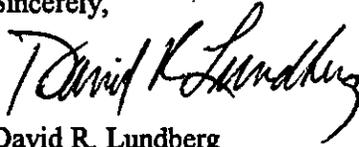
We have completed our review of your plan of operation for the proposed Superior Seven Mile Creek Vertical Expansion Landfill and determined that it is consistent with Wisconsin's solid waste regulations. Therefore, the plan of operation is approved and you can begin construction of the landfill, subject to compliance with chs. NR 500-590, Wis. Adm. Code, the conditions in the attached approval and the June 20, 1988 Plan of Operation Approval and its subsequent plan modifications. This approval should be maintained with the June 20, 1988 Plan of Operation Approval. This approval does not replace the existing approvals for this facility nor does it replace the requirements of approved features with the exception of the final grades.

Conditions for construction, operation, groundwater monitoring and reporting have been included in the approval. Your request for a variance for the depth of gas extraction wells has been granted. Approval is being given to accept PCB Bulk product waste in accordance with the TSCA requirements. The sampling protocol for shredder fluff has been revised to reflect the current procedures for the BFI Lake Area East Expansion Landfill, which also accepts shredder fluff from NorthStar Steel. Note that while we have not included any conditions dealing with fire retardents, which may have been applied to the shredder fluff when the material was manufactured, the Department is concerned about these constituents and will likely be requiring additional measures in the near future. We have also revised the waste to alternate daily cover ratio from the 5:1, proposed during recent discussions between the Superior Services and Marty Herrick, to 12.5% by volume or 7:1.

The maximum design capacity of the proposed vertical expansion is limited to 940,000 cubic yards, including daily and intermediate cover. The maximum design capacity of the vertical expansion plus the previously approved design capacity is limited to 3.84 million cubic yards. You are reminded this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements.

If you have questions regarding this approval, please contact Brian Kalvelage, Hydrogeologist at (608) 785-9983, Marty Herrick, Environmental Engineer at (608) 789-5518, or Jack Tritt, Waste Management Specialist at (715) 839-3768.

Sincerely,



David R. Lundberg
Waste Program Supervisor
West Central Region

CC: Donna Austad, Clerk - City of Eau Claire
Joanne Lester, Clerk - Eau Claire County
Suzanne Turner, Clerk - Town of Seymour
Steven Bischoff - Ayres Associates
Timm Speerschneider - DeWitt, Ross & Stevens, S.C.
Patti Cronin - Waste Facility Siting Board
David Lundberg - WCR - Eau Claire
Jack Tritt - WCR - Eau Claire
Marty Herrick/Brian Kalvelage-LaCrosse
Dennis Mack - WA/3
Steve Karklins - DG/3

**PROJECT SUMMARY
SUPERIOR SEVEN MILE CREEK LANDFILL
SECTOR 2 VERTICAL EXPANSION**

GENERAL INFORMATION

AUTHORIZED CONTACT: Mark Vinall, General Manager
Superior Seven Mile Creek Landfill
8001 Olson Drive
Eau Claire, WI 54703
Phone Number (715) 830-0284

LICENSEE AND PROPERTY OWNER: Superior Seven Mile Creek Landfill (SSMCL), LLC

SITE LOCATION: SSMCL is proposing to construct a contiguous, vertical expansion at their existing Sector 2 Sanitary Landfill. The proposed facility would be located in the SE 1/4, Section 8, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.

PROPOSED CAPACITY AND SITE LIFE: The existing Sector 2 facility has a design capacity of 2.9 million cubic yards and the vertical expansion will add .94 million cubic yards for a total capacity of 3.84 million cubic yards. Based on a filling rate of 250,000 tons per year the vertical expansion will add approximately four years of site life with an expected closing date of 2008.

The proposed site is a vertical expansion with no increase in the landfill's footprint. The existing Sector 2 Landfill occupies 37 acres of the 157 acres owned by SSMCL.

WASTE TYPES AND GENERATORS SERVED: The facility will continue to accept non-hazardous, municipal, industrial as well as approved special wastes. Typical wastes include municipal solid waste (MSW), shredder fluff, paper mill sludge, foundry sand and light industrial demolition waste. Shredder fluff, paper mill sludge and foundry sand are approved for use as alternate daily cover. The chemical characteristics of the leachate generated from this expansion are expected to be similar to the operating Sector 2 Landfill.

The approximate service area for the SSMCL includes the counties of Buffalo, Chippewa, Dunn, Eau Claire, part of Jackson, Pepin, Pierce, Polk, St. Croix, Trempealeau, and the City of Rice Lake in Wisconsin. It would also include the counties of Anoka, Dakota, Goodhue, Hennepin, Olmsted, Ramsey, Wabasha, Washington, Winona and the City of Duluth in Minnesota.

PRESENT LAND USE AND ZONING: SSMCL is currently using a portion of the 157 acre parcel for solid waste disposal and its associated facilities. The majority of the SSMCL property is located within the City limits of Eau Claire and the remaining portion within the Town of Seymour. The landfill property is zoned public properties within the Eau Claire City Limits and non-sewered industrial within the Town of Seymour. The property also has two additional closed landfills with the Town of Seymour and Sector 1 Landfills located approximately 300 feet to the southeast and 200 feet to the southwest of the

Sector 2 Landfill respectively. The Sector 2 Landfill is located upgradient of the closed Sector 1 and Town of Seymour Landfills.

Land uses adjacent to the SSMCL include rural residential, agricultural, scrap yards and Eau Claire County Forest land. The County Forest is located approximately 1500 feet from the Sector 2 Landfill footprint. The Department recently approved the removal of 88 acres of land from the County Forest located south of the Sector 1 and the Town of Seymour Landfills. SSMCL has submitted an initial site report to site a new landfill in this area of the facility.

Because this is a vertical expansion, the previous determination that no historical, archaeological or environmentally unique areas are known to be present within a mile of the proposed landfill or borrow sites is applicable.

Currently SSMCL has three Department approved borrow sites for the facility including the Eau Claire County property known as the North Borrow area located adjacent to HWY 93, the clay borrow from the Monroe County Landfill in Ridgeville and the Doug Nesja property located on CTH DD in Chippewa County. SSMCL is also obtaining barrier soils from the Brick property.

SITE CHARACTERISTICS: The site geology and hydrogeology has been previously described in the feasibility report for the existing Sector 2 Landfill. The geology in the vicinity of the site consists of alluvial sand and gravel deposits overlying the Cambrian age sandstone bedrock. The alluvial material is 15 to 60 feet thick with occasional silt layers in the Sector 2 area. Below the alluvium, the sandstone bedrock is part of the Eau Claire and Mount Simon Formation. Below this is the Precambrian crystalline rock.

Local soils are sands and loamy sands with high permeabilities.

The water table is approximately 35 feet below the ground surface along the eastern side of the Sector 2 area and about 45 feet below the ground surface on the western side. The direction of groundwater flow beneath the site is towards the south-southwest. The horizontal gradient varies from .006 ft/ft near Seven Mile Creek on the facilities western side to .025 ft/ft on the eastern side. Hydraulic conductivity in the sandstone averages 5.5×10^{-5} cm/s. Hydraulic conductivity in the unconsolidated sands average 3.3×10^{-3} cm/s. Vertical gradients are generally downward around the site with upward gradients along Seven Mile Creek.

Preventive Action Limits (PALs) and Alternative Concentration Limits (ACLs) have been established at this facility for certain parameters at specific monitoring points. Tables A and B in the attached Environmental Monitoring Summary specify this in greater detail.

FACILITY DESIGN: The Sector 2 Landfill has seven phases. The proposed vertical expansion would not change the currently approved liner design or horizontal limits of waste filling. The vertical expansion would increase the final waste grades in phases 4 through 7.

The landfill is designed with a composite liner system. The clay component of the liner in phases 1 through 4 is 5 feet thick and in phases 5 through 7 it is 4 feet thick. Above the clay a 60-mil High Density Polyethylene (HDPE) geomembrane is placed. Above the geomembrane is a 12 to 18 inch thick granular layer with a minimum hydraulic conductivity of 1×10^{-2} cm/s. Eighteen inches of granular material is placed above the v-shaped collection trenches. Phases 1 through 4 of the landfill were designed with

sidewall penetrations to route the collected leachate through the liner to the 30,000 gallon leachate collection tank. Phases 5 through 7 use sideslope risers and a lift station to pump the collected leachate into the collection tank. Ultimately leachate is pumped from the collection tank and recirculated through a series of surface injection trenches. SSMCL is also allowed surface application of leachate on a trial basis. When leachate can not be recirculated it is sent to the City of Eau Claire, WI wastewater treatment plant for treatment and discharge. The Plainwell Tissue wastewater treatment plant is also available to treat leachate as well. Leachate headwells are used to monitor the head elevations in the waste mass

The Sector 2 Landfill has an active gas extraction system, which incorporates a series of vertical extraction wells and laterals, a header system, blower and flare. Gas is currently being collected from the extraction wells, the leachate recirculation piping and the leachate collection header manholes. The gas is collected and burned with a flare rated at 67.2 MMBTU/HR and 2800CFM. Gas probes are located beyond the landfill footprint to check for the migration of gas. As part of the plan of operation for the vertical expansion of the Sector 2 Landfill, SSMCL will explore options for energy recovery in the gas generated from the landfill. SSMCL has applied for a permit from the Department's Air Management program and will be required to incorporate additional controls in the future as the gross tonnage of the landfill increases.

Final cover for the landfill includes from the top of the waste up a 6 inch soil grading layer, a 2 foot soil barrier layer, a geosynthetic clay layer, a 40 mil LLDPE geomembrane, a geocomposite drainage layer, 3 feet of protective cover soil and 6 inches of topsoil. The upper foot of the soil barrier layer is required to be fine grained soil with at least 40% of the material passing the P200 sieve. The topsoil will be seeded, mulched and measures will be implemented to prevent erosion.

The surface water control system was designed for a 25 year, 24 hour time concentration storm event. Surface water control measures were established as part of the initial construction for the Sector 2 Landfill including waterways, diversion berms, culverts, sedimentation and infiltration basins. The only revision to the existing system will be using one of the infiltration basins as a sedimentation basin, which will require periodic sediment removal.

The final use for the landfill is green space.

ENVIRONMENTAL MONITORING:

Environmental and performance monitoring will extend through the period of active site operation and perpetual long-term care. Monitoring data will be reported to the Department electronically in a format supplied by the Department, as specified in s. NR 507.26(3), Wis. Adm. Code.

To determine exceedances of groundwater standards, analytical results shall be compared to the indicator PALs in Table A and the ACLs in Table B of the attached approval, or the standards in ch. NR 140, Wis. Adm. Code.

Environmental monitoring shall be conducted in accordance with the attached Environmental Monitoring Summary.

SSMCL has applied for a permit under the Department's Air Management Program. The Department's Air Management program determined that air monitoring for particulates would not initially be required

for the vertical expansion of the Sector 2 Landfill. However additional measures may be imposed as a result of the permit which will be issued for the facility.

CLOSURE AND LONG TERM CARE COSTS: The vertical expansion of the Sector 2 Landfill will be developed in phases to match the existing filling activities from east to west. Phases 1 through 5 have already been constructed and work is ongoing for the phase 6 liner. Capping has been completed for all of phase 1, the majority of phase 2 and the northern and southern edges of phase 3. The remaining portion of the landfill cap will be revised for higher elevations allowed in the vertical expansion. All phases are required to complete closure in accordance with NR 506.08, Wis. Adm. Code. Closure costs are based on a worst case closure scenario where the highest cost would be incurred if the landfill had to prematurely close. For the vertical expansion of the Sector 2 Landfill this would occur when phase 6 is actively filling and with no additional sections of the landfill cap installed. The premature closure cost estimate includes installing the final cover system, seeding and vegetating the final cover system, completing construction of the gas extraction system and preparing a closure documentation report. The final cover system is composed of the 6 inch grading layer, 2 feet of barrier soils, the geocomposite clay layer, the 40 mil LLDPE geomembrane layer, the geocomposite drainage layer, 3 feet of cover soils, 6 inches of topsoil, vegetative cover and constructing the surface water management features on the cap.

SSMCL will use a performance bond as the financial mechanism to cover the closure costs.

CLOSURE COSTS:

Item	Quantity	Unit Cost	Estimated Cost
Composite Cover (20.5 Acre)			
Grading Layer (6 in.)	16540 CY	\$2.00 CY	\$33080
Lower 1ft Barrier Soil	33100 CY	\$2.00 CY	\$66200
Upper 1 ft Barrier Soil	33100 CY	\$5.00 CY	\$165500
Geocomposite Clay Liner	900000 SF	\$0.37 SF	\$333000
Geocomposite Drainage System	900000 SF	\$0.35 SF	\$315000
Geomembrane (40mil LLDPE)	900000 CY	\$0.31 SF	\$279000
Rooting Zone Layer (36 in)	99300 CY	\$2.00 CY	\$198600
Topsoil (6 in)	16540 CY	\$9.50 CY	\$157130
Seed, Fertilizer, Lime, Mulch	20.5 Acre	\$1300 Acre	\$26700
Miscellaneous	1	5%	\$78710
Construction	20.5 Acre	\$7000Acre	\$143500
Documentation & Administration			
Total Composite Cover Cost			\$1796420

Gas Extraction System

Gas Extraction Wells (9)	700	\$ 70.00 VF	\$49000
Gas Extraction Well Head	9	\$ 500.00 unit	\$4500
6" Gas Lateral	2440	\$ 20.00 LF	\$48800
6" Gas Header & GCL	190	\$ 30.00 LF	\$5700
Construction	1	\$15000	\$ 15000
Documentation & Administration			
Total Landfill Gas Extraction System			\$123000
Subtotal			\$1919420
Contingency (10%)	1	%	\$191942
Total Worst Case Closure Cost			\$2111362
Cost/Acre			\$102993.27

Although SSMCL will be perpetually responsible for the long term care of the landfill, proof of owner financial responsibility for a long term care period of 40 years is required. Actions to be taken during closure and the 40 year owner financial responsibility period, along with the associated cost estimates, are summarized below.

LONG TERM CARE COSTS:

The long term care costs are itemized below and reflect the estimated yearly expenses for:

Item	Quantity	Unit Cost	Estimated Cost/Year
Site Inspections			
Annual Inspection & Report	1	\$750	\$750
Land Surface Repair			
<u>Erosion Repair & Seeding</u> (4 %)	1.5	\$ 1300 Acre	\$1950
Maintenance			
General Site Maintenance/Repairs/ Sediment Basin Cleaning	30	\$ 60hr	\$1800
Leachate and Condensate Haul and Treatment (1"	1,000,000	\$.031gal	\$31000

over 37 Acres)			
Leachate Line Cleaning	1	\$1000	\$1000
Leachate Tank Replacement (\$40000 over 40 yrs.)	1	\$1000	\$1000
Lift Station Pump Replacement (\$5000 over 5yrs.)	1	\$1000	\$1000
Leachate Sump Pump Replacement (\$2000 over 5 years)	1	\$400	\$400
Gas System Operation and Maintenance (cost split between Sector 1 &2)	1	\$8000	\$4000
Gas Well Replacement (One Well/5 yrs.)	1	\$1000	\$1000
Blower Replacement (Cost Split between Sector 1&2)	0.5	\$1000	\$500
Environmental Monitoring			
Gas System Blower and Well Monitoring (8 hrs/month)	96	\$45 hr	\$4300
Leachate, Ground Water Monitoring and Gas Probes	1	\$26000	\$26000
Reports			
Annual Report	1	\$4000	\$4000
Subtotal			\$78700
Contingency (10%)	1	10%	\$7870
Yearly Total			\$86570
40 Year Total			\$3462800

PERIOD OF LONG TERM CARE RESPONSIBILITY: SSMCL has, by law a 40 year proof of financial responsibility period for long term care following landfill closure. However, SSMCL will be responsible for the long term care of the facility in perpetuity. SSMCL will use a performance bond for demonstrating compliance with the long term care requirements in NR 520.06(6), Wis. Adm. Code.

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN OF OPERATION APPROVAL
FOR
SUPERIOR SEVEN MILE CREEK
SECTOR 2 VERTICAL EXPANSION, SANITARY LANDFILL
CITY OF EAU CLAIRE,
EAU CLAIRE COUNTY, WISCONSIN
LICENSE #03097
FINDINGS OF FACT

The Department finds that:

1. SSMCL has proposed to construct a vertical expansion on their Sector 2 Municipal Solid Waste (MSW) landfill. The facility would be located in the SE1/4, Section 8, T27N, R8W, City of Eau Claire, Eau Claire County, Wisconsin.
2. The proposed vertical expansion of the Sector 2 facility is intended to serve the needs of western Wisconsin and eastern Minnesota. Materials disposed at this site will consist of residential, commercial and non-hazardous industrial waste. The vertical expansion of the Sector 2 Landfill would have a design capacity of .94 million cubic yards with an estimated operational life of four years.
3. On March 29, 2001 the Department made a favorable feasibility determination for the proposed vertical expansion of the SSMCL Sector 2 Sanitary Landfill.
4. On October 10, 2001, the Bureau of Waste Management received a report entitled "Plan of Operation Superior Seven Mile Creek Landfill Sector 2, Eau Claire County, Wisconsin." The report, which was prepared by Ayres Associates, included 56 plan sheets and was dated October 2001. The Plan of Operation review fee, invoice SWK-0253, for \$7000 was received by the Department on November 28, 2001.
5. The information submitted in connection with the plan of operation review includes the following:
 - a. On March 28, 2002 the Department requested additional information for the review of the plan of operation for the proposed vertical expansion of the Sector 2 Landfill. On April 8, 2002, Ayres Associates on behalf of SSMCL provided responses to the Department's letter. The response included a narrative, additional groundwater data and revised plan sheets.
 - b. A January 23, 2002 letter from Ayres Associates titled "Addendum to the Sector 2 Vertical Expansion Plan of Operation." As part of the addendum SSMCL requested a revised sampling protocol for the Shredder Fluff from Northstar Steel to match other landfills in Wisconsin.

c. An April 24, 2002 letter from Ayres Associates revising the geonet specifications.

6. Additional Documents considered in the review of the Plan of Operation include the following:

a. Quarterly monitoring results for shredder fluff from North Star Steel since 1997.

b. March 29, 2001, WDNR Feasibility Determination for the Proposed Vertical Expansion.

c. April 22, 2002, WDNR Final Plan Modification to the Environmental Monitoring Section of the Plan of Operation Approval.

d. May 13, 2002, WDNR Corrected Environmental Monitoring Schedule Tables for the Plan Modification Approval dated April 22, 2002.

7. Additional facts relevant to the review of the plan of operation include:

a. "PCB bulk product waste", as defined in s. 761.3, TSCA, includes shredder fluff with PCB concentrations ≥ 50 ppm in solid form. PCB bulk product waste is derived from manufactured products containing PCBs in a non-liquid state, and several such wastes have been shown or can be demonstrated to show limited leaching behavior for PCBs.

b. Shredder fluff, regardless of PCB concentration, is a solid waste under Wisconsin statutes.

c. Shredder fluff from processing automobiles with average PCB concentrations of <50 ppm have been used, with Department approval, for reuse as daily cover at several landfills in Wisconsin.

d. S. 761.62(b)(1), TSCA allows certain PCB bulk product waste to be disposed of in a licensed nonhazardous solid waste landfill, with Department approval. This includes shredder fluff from the processing of automobiles and household appliances from which PCB capacitors have been removed.

e. Disposal of shredder fluff that meets the definition of PCB bulk product waste in an approved solid waste landfill that meets modern standards for design and operation should not result in unacceptable concentrations of PCBs in leachate.

f. Reuse of shredder fluff, including compliance with restrictions against placement of shredder fluff on exterior slopes or in areas where runoff from the shredder fluff would leave the waste mass, should not result in PCBs leaving the landfill.

g. Daily cover is necessary at municipal solid waste landfills to limit windblown debris, odors, and vectors.

h. Selected solid waste materials can be approved by the Department as an alternative daily cover under the provisions of secs. NR 506.055(1) and (3), Wis. Adm. Code.

- i. Solid wastes used as approved alternative daily cover materials are exempted from the environmental tipping fees under subch. VI. Of ch. 289, Stats.
 - j. Observations and experience statewide indicates that soil or approved alternate daily cover in excess of 6 inches is not necessary to accomplish the purposes of daily cover and, if used in excess, can interfere with the routing and extraction of water and decomposition gas within the landfill waste mass.
 - k. SSMCL is considered a large landfill with a high daily waste acceptance tonnage rate when compared to the MSW landfill population statewide.
 - l. Large MSW landfills with high daily waste acceptance tonnage rates and efficient landfill operations use relatively less daily cover on a per cubic yard basis than landfills which have lower daily waste acceptance tonnage rates.
 - m. Through discussions with Ayres Associates, Superior Services consultant for the SSMCL facility, a 5:1 waste to alternative daily cover ratio by volume has been proposed. This appears low given the size and tonnage rate accepted at the landfill and may cause problems as noted in findings of fact 7. (j) above.
 - n. Section NR 506.105(1), Wis. Adm. Code limits untreated petroleum contaminated soil, a common form of alternate daily cover, to 12.5% of the annual volume of waste received by the landfill. This percentage equates to a 7:1 waste to daily cover volume ratio.
8. The Plan of Operation Report included Preventive Action Limits (PALs) for indicator parameters to groundwater standards. These PALs were approved by the Department on June 5, 2000. See Table A.
 9. The Plan of Operation Report included Alternative Concentration Limits (ACLs) to groundwater standards. These ACLs were approved by the Department on June 5, 2000. See Table B.
 10. The Department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:
 - a. Baseline groundwater monitoring data provided in the Feasibility Report, Addenda to the Feasibility Report, the Plan of Operation Report, and the additional response report,
 - b. Well construction details and boring logs provided in the Feasibility Report,
 - c. Well location plan sheets and water table maps provided in the Feasibility Report.
 11. Neither the applicant, nor any person owning a 10% or greater legal or equitable interest in the applicant or in the assets of the applicant:
 - a. Is in noncompliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin,
 - b. Owns or previously owned a 10% or greater legal or equitable interest in a

person, or in the assets of a person, who is not in compliance with a plan approval or order issued by the Department for a solid or hazardous waste facility in Wisconsin.

12. The Department has complied with the requirements of NR 150, Wis. Adm. Code, and s. 1.11, Stats., and has adopted all practical means to avoid or minimize environmental harm consistent with social, economic and other essential considerations.
13. The conditions set forth below are needed to assure that construction, operation, closure, and monitoring of the SSMCL are conducted in conformance with NR 500 to 590, Wis. Adm. Code, and modern landfill practice.

CONCLUSIONS OF LAW

1. The Department has authority under s. 289.30, Stats. to approve a plan of operation with special conditions if the conditions are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
2. The Department has authority under NR 500.08(4), Wis. Adm. Code, to approve exemptions to the requirements of chs. NR 500 to 590, Wis. Adm. Code in special cases except as otherwise provided.
3. The Department has the authority under s. NR 140.28, Wis. Adm. Code and ss. 160.19 (8) and (9), Stats., to grant exemptions to groundwater standards and to specify terms and conditions under which the Department may seek remedial action relating to standards for which an exemption has been granted. This may include establishing alternative concentration limits.
4. The Department has the authority under s. 160.15(3), Stats., and s. NR 140.20, Wis. Adm. Code, to establish preventive action limits for indicator parameters.
5. The conditions of approval set forth below are needed to ensure compliance with chs. NR 500 to 590, Wis. Adm. Code.
6. In accordance with foregoing, the Department has the authority under ch. 289, Stats., to issue the following conditional approval.

GRANT OF EXEMPTIONS

1. SSMCL has demonstrated circumstances that warrant an exemption from s. NR 504.08(2)(b), Wis. Adm. Code, requiring that all vertical gas extraction wells extend to 10 feet above the leachate collection system. The Department is granting the exemption request to extend the perimeter vertical gas extraction wells to a depth of five feet above the sand drainage layer. This includes gas extraction wells numbered GEW 1 through 21 with their respective locations shown on Plan Sheet No 11.

2. SSMCL has demonstrated circumstances that warrant an exemption to the groundwater standards for Iron, Zinc, Cadmium, and Nitrate + Nitrite (as N) in ch. NR 140, Wis. Adm. Code, as specified in s. NR 140.28, Wis. Adm. Code. This exemption would allow the expansion of a MSW in an area where the background concentrations of a substance exceeds the Preventive Action Limit or enforcement standard. The Department granted the above-stated exemptions on June 5, 2000. See Tables A and B.
3. SSMCL has demonstrated circumstances that warrant an exemption from the requirements of s. NR 504.04(3)(f), Wis. Adm. Code, to allow construction of a municipal solid waste landfill, where the limits of filling would be within 1,200 feet of any private water supply well. This exemption was granted in the Department's Feasibility Determination on March 29, 2001.

CONDITIONAL PLAN OF OPERATION APPROVAL

The Department hereby approves the Plan of Operation for the vertical expansion of the Superior Seven Mile Creek Sector 2 Landfill subject to compliance with chs. NR 500 to 590 Wis. Adm. Code, and the following conditions:

General

1. The capacity of this facility shall not exceed its design volume of 3.84 million cubic yards.
2. All aspects of construction, operation, monitoring and closure of the landfill shall be performed in accordance with the June 20, 1988 Plan of Operation and subsequent plan modifications where not superceded by subsequent approvals, the Plan of Operation for the vertical expansion, the requirements of chs. NR 500 to 590, Wis. Adm. Code, and the conditions of this approval. In the case of any discrepancies between the approval conditions and the respective Plan of Operations and their associated plan sheets, the approval conditions shall take precedence.
3. Any proposed changes to the plan or this approval shall be presented to the Department. If the changes are compatible with the desired performance of this landfill, as determined by the Department, an addendum will be added to this approval accepting those changes. Written Department approval is necessary prior to implementing any changes with the exception of minor field modifications that are documented in accordance with NR 516.04(3)(d), Wis. Adm. Code. All field modifications shall be discussed with the Department prior to implementation. Other changes may be handled as expedited plan modifications under s. NR 514.09, Wis. Adm. Code as appropriate.

Design, Construction, and Operations

4. The leachate collection lines shall be cleaned annually and after any construction events where the liner or alterations to the leachate collection system have occurred.
5. The secondary containment system for the leachate collection tank shall be checked monthly.

6. SSMCL shall notify the Department's environmental engineer assigned to this site a minimum of one week prior to beginning each of the construction events, listed below, for the purpose of allowing the Department to inspect the work. A construction documentation report shall be submitted in accordance with the requirements in NR 516, Wis. Adm. Code for the liner and final cover construction in the respective cells as noted below. Fees shall be paid to the Department in accordance with s. NR 520.04(5), Wis. Adm. Code for each of the inspections and associated construction documentation reports as noted below.

Construction Phases	Liner for Phase 7	Phases 6,7 and Final Cap Construction
Inspections	Subbase & Clay Soil Placement Geomembrane installation Leachate collections system components Drainage blanket	Grading Layer & Barrier Soil Placement GCL, Geomembrane installation Geocomposite Drainage Layer Rooting zone & Topsoil Placement

Environmental Monitoring

7. SSMCL shall perform environmental monitoring during both the active and post closure perpetual care periods in accordance with the attached Environmental Monitoring Summary. (See Tables A, B, and 2A-2E)
8. SSMCL shall provide all environmental monitoring data as required in the Department's electronic format.
9. SSMCL shall conduct semi-annual environmental monitoring in April and October. Annual monitoring shall be conducted in April.
10. SSMCL shall report monthly monitoring results with the semi-annual monitoring.
11. SSMCL (Sector 2) shall conduct environmental monitoring as specified in the attached Environmental Monitoring Summary. See Tables A, B and 2A- 2E. The attached Environmental Monitoring Summary includes Preventive Action Limits (PALs) and Alternate Concentration Limits (ACLs) which are established in Tables A and B, respectively. PALs and ES (Enforcement Standards) for all other substances shall be as specified in ch. NR 140, Wis. Adm. Code. When submitting monitoring data to the Department, SSMCL shall compare the groundwater sampling results with the aforementioned standards to determine whether exceedances have occurred.
12. For new or replacement wells, SSMCL shall collect eight baseline monitoring samples no more than 90 days apart for the first two years following installation.

13. Superior Services Inc., shall collect water supply well samples in accordance with s. NR 507.20(1), Wis. Adm. Code and the Waste Management program guidance document entitled "Monitoring Water Supply Wells For VOCs Around Solid Waste Disposal Facilities [chs.] NR 507.19 and NR 507.20., Wis. Adm. Code." Superior Services, Inc. shall collect samples at any private well that is required to be sampled as part of the monitoring schedule for Superior Seven Mile Creek and analyze them for the compounds listed in Appendix 1. The maximum detection limits for SDWA compounds included in Appendix 1 and identified in the column labeled "NR 809 Status" shall be:

Vinyl Chloride	0.3 ug/L
EDB	0.01 ug/L
DBCP	0.02 ug/L
All other SDWA VOCs	0.5 ug/L

If the following VOCs are not detected, their Limits of Quantitation shall not exceed their respective Preventive Action Limits (listed in Appendix 1):

Acetone
Carbon Disulfide
Fluorotrichloromethane
Tetrahydrofuran
1,2 - Dichlorobenzene
Methyl ethyl ketone
Methyl isobutyl ketone

14. Proof of financial responsibility for closure and long term care shall be provided within 45 days of the date of this approval, in accordance with ch. NR 520, Wis. Adm. Code. Proof of financial responsibility shall be established using the approved costs contained in the attached summary document.
15. SSMCL and its successors and assigns shall be responsible for site maintenance, monitoring, and any necessary remedial activities identified by the Department in perpetuity.
16. If SSMCL elects to perform partial liner construction prior to winter freeze thaw cycles, the top foot of clay placed shall be reworked and documented in accordance with NR 504, Wis. Adm. Code and NR 516, Wis. Adm. Code standards.
17. The Department may require that leachate recirculation cease at any time if the Department believes that it is causing operational, nuisance or environmental problems.
18. The quantities of approved alternate daily cover materials applied at the SSMCL for the preceding year shall be reported to the Department by March 31 of the following year. The report shall include:
- The types of materials applied and the respective generators,
 - The volumes and tonnages used,
 - Estimated density of the daily cover materials,
 - Coverage ratio,

- e. Alternate applications such as dikes, berms or other structures in the landfill,
- f. The ratio of waste to alternative daily cover by volume for the year,
- g. Discussion of problems encountered and recommendations.

19. Condition 1 of the Department's April 24, 1998 Plan of Operation Modification for Alternate Daily Cover Materials is rescinded and replaced by the following: Shredder fluff from North Star Steel shall be sampled and tested as follows below. The results of all testing shall be submitted to the Department on a semi-annual basis.

- a. On a semi-annual basis, 10 samples of each source of shredder fluff shall be collected over a five day period. Each sample shall be obtained by removing a shovel full of fluff from the conveyor once an hour for a four hour period in the morning and then again for another four hour period in the afternoon. Each day's sampling shall be composited into a single sample. The resulting sample shall be coned and quartered until 10 gallons of fluff remain. Each 10-gallon sample shall be coned and quartered into two five-gallon samples. The samples shall be stored in sealed containers made of inert material until they are analyzed in a laboratory. The 10 resultant five-gallon samples shall then be tested as outlined in (b) and (c) below.
- b. On a semi-annual basis, three samples from each source of shredder fluff shall be randomly selected and analyzed at a lab for lead, cadmium and mercury, using the TCLP testing method and PCB's using a total elemental extraction testing method. If all three samples test below the regulatory limit, then the simple arithmetic mean for the three samples shall be reported as one test result. If any of the three samples tests above the regulatory limit, then the remaining seven samples shall also be tested and the simple arithmetic mean for the ten samples shall be reported as one test result. A rolling average shall then be used to determine the regulatory status of the shredder fluff. The rolling average shall be based upon the ten most recent test values for the above parameters. The oldest test value shall be dropped from the average as each new value is added. If the rolling average for any of the parameters exceeds 80% of the regulatory limit, more frequent testing shall be implemented as determined by the Department. If at any time the rolling average for the metals exceeds the regulatory limit, SSMCL shall immediately cease acceptance of that source of shredder fluff material. If at any time the rolling average for PCBs exceeds the regulatory limit, SSMCL shall cease use of that source of shredder fluff as daily cover and shall revert to disposing of that source of shredder fluff in the waste mass, with the shredder fluff to be covered by other wastes and daily or intermediate cover at the end of each day. Use of shredder fluff for daily cover shall not resume until the rolling average is less than 80% of the regulatory limits defined below.

Regulatory Limits

TCLP leach test

Lead	5.0 mg/l
Cadmium	1.0 mg/l
Mercury	0.2 mg/l

Solids analysis

PCB	50 mg/kg
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