

# Feasibility Report Completeness Checklist

## Chapter NR 512, Wis. Adm. Code



Revised January 2022

Waste & Materials Management  
P.O. Box 7921  
Madison, WI 53707-7921

Instructions: This checklist is intended for use by department staff for the review of landfill feasibility reports to determine completeness. This checklist is intended to be used in conjunction with the Design and Construction Criteria Completeness Checklist, Chapter NR 504, Wis. Adm. Code. Applicants may complete this checklist and submit it with a landfill feasibility report to facilitate department review. Please refer to applicable statutes and codes for exact requirements.

### General Information

Facility Name: Adams County Sanitary Landfill, License #3150

Facility Type: Municipal Soild Waste Landfill

Proposed Waste Types: Non-hazardous municipal, commercial and industrial solid waste

Proposed Total Design Capacity: 1,472,000 cubic yards (including daily and intermediate covers)

Initial Submittal: Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_ Completeness Due: \_\_\_\_/\_\_\_\_/\_\_\_\_ DNR Response: \_\_\_\_/\_\_\_\_/\_\_\_\_ (Complete:  yes  no)

Addendum # \_\_\_\_ Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_ Completeness Due: \_\_\_\_/\_\_\_\_/\_\_\_\_ DNR Response: \_\_\_\_/\_\_\_\_/\_\_\_\_ (Complete:  yes  no)

Addendum # \_\_\_\_ Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_ Completeness Due: \_\_\_\_/\_\_\_\_/\_\_\_\_ DNR Response: \_\_\_\_/\_\_\_\_/\_\_\_\_ (Complete:  yes  no)

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Addendum # \_\_\_\_ Date Received: \_\_\_\_/\_\_\_\_/\_\_\_\_ Completeness Due: \_\_\_\_/\_\_\_\_/\_\_\_\_ DNR Response: \_\_\_\_/\_\_\_\_/\_\_\_\_ (Complete:  yes  no)

Has the assigned DNR hydrogeologist started to fill out a **Feasibility Internal Procedures** form for this project?  Y  N

Facility Name: Adams County Sanitary Landfill, License #3150

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION | COMMENTS |
|--|-----------|---|----|----------|----------|
|  | Y         | N | NA |          |          |
| <b>NR 500.05 GENERAL SUBMITTAL REQUIREMENTS.</b>   |           |   |    |          |          |
| (1) Has the adequate review fee specified in s. 520.04 been submitted?   |           |   |    |          |          |
| (2) Has a cover letter detailing the desired action been submitted?  |           |   |    |          |          |
| (3) Have 5 copies (2 Regions, 3 Central Office) been submitted to the department?  |           |   |    |          |          |
| (4) Are the report and plan sheets submitted under the seals and certifications of a P.E. and P.G.?  |           |   |    |          |          |
| (5) Technical Procedures:  |           |   |    |          |          |
| Were all test procedures specified in the report?  |           |   |    |          |          |
| Were all technical procedures used to investigate the facility current standard procedures?  |           |   |    |          |          |
| Were explanations and reasons given for deviations from the current standard procedures?   |           |   |    |          |          |
| (6) Do all maps, plan sheets, drawings, isometrics, cross-sections, figures, photographs and tables meet the following requirements?       |           |   |    | Drawings |          |
| (a) No larger than 24 inches x 36 inches & no smaller than 8 ½ inches x 11 inches.   |           |   |    |          |          |
| (b) Appropriate scale to show required detail.   |           |   |    |          |          |
| (c) Do visuals meet the following requirements?  |           |   |    |          |          |
| <input type="checkbox"/> numbered <input type="checkbox"/> legends for all symbols   |           |   |    |          |          |
| <input type="checkbox"/> referenced in the narrative <input type="checkbox"/> horizontal & vertical scales                                 |           |   |    |          |          |
| <input type="checkbox"/> titled <input type="checkbox"/> drafting and origination dates  |           |   |    |          |          |
| (d) Were uniform scales used?  |           |   |    |          |          |
| (e) Were north arrows shown?   |           |   |    |          |          |
| (f) Was a USGS datum used as basis for all elevations?   |           |   |    |          |          |
| (g) Do visuals contain a survey grid based upon monuments established in the field and which is referenced to the state plane coordinates? |           |   |    |          |          |
| (h) Is the original topography and a grid system shown on the plan sheets that show construction, operation and closure topography?        |           |   |    |          |          |
| (i) Do cross-sections meet the following requirements?   |           |   |    |          |          |
| <input type="checkbox"/> Show survey grid locations,   |           |   |    |          |          |
| <input type="checkbox"/> Reference major plan sheets,  |           |   |    |          |          |
| <input type="checkbox"/> Include a reduced diagram of plan view showing cross-section location.  |           |   |    |          |          |
| (7) Was a table of contents provided listing all sections of the submittal?  |           |   |    | TOC      |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION      | COMMENTS |
|--|-----------|---|----|---------------|----------|
|  | Y         | N | NA |               |          |
| (8) Was an appendix provided listing the following?<br><input type="checkbox"/> names of all references <input type="checkbox"/> all raw data,<br><input type="checkbox"/> testing and sampling procedures <input type="checkbox"/> calculations   |           |   |    | Appendices    |          |
| <b>NR 504.04(3) LOCATIONAL CRITERIA.</b> Does the report indicate that the proposed limits of filling are within:  |           |   |    | Section 7     |          |
| (a) 1,000 feet of any navigable lake, pond or flowage not including landfill drainage or sedimentation control structures?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> If yes, was an exemption requested?  |           |   |    | Section 7.1.1 |          |
| (b) 300 feet of any navigable river or stream?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> If yes, was an exemption requested?  |           |   |    | Section 7.1.1 |          |
| (c) A 100-year flood plain?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> If yes, was an exemption requested?   |           |   |    | Section 7.1.2 |          |
| (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 any public park or state natural area?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> If yes, was a line of site study provided showing that the landfill would not be visible from the road, park or natural area through the use of screening and/or, <input type="checkbox"/> was an exemption requested?   |           |   |    | Section 7.1.3 |          |
| Note: If waste may be visible for periods of time even with the use of screening, then an exemption should be requested.   |           |   |    |               |          |
| (e) 10,000 feet of the end of an airport runway designed or planned to be designed and used by turbojet aircraft or within 5,000 feet of any airport runway designed for and used by piston type aircraft?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> Is FAA notification required?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input type="checkbox"/> Note: If the proposed limits of waste filling would be within <u>5 miles</u> (for expansions of an existing MSW landfill, initially accepting waste prior to 4/5/2000) or within <u>6 miles</u> (for new MSW landfills, after 4/5/2000) of the end of the runway of any airport used by turbojet or piston type aircraft, the applicant must provide notice to both the Federal Aviation Administration (FAA) and the affected airport. The report should contain all correspondence related to the notices including any determinations made by the FAA.<br>(Ref. 49 U.S.C. § 44718(d). <a href="#">See FAA Advisory Circular AC 150/5200-34A, dated 1/26/2006</a> ) |           |   |    | Section 7.1.4 |          |

| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION      | COMMENTS |
|---|-----------|---|----|---------------|----------|
|   | Y         | N | NA |               |          |
| <p>(f) 1,200 feet of any water supply well (i.e. public, private, irrigation or stock water supply wells)?</p> <p>___ yes <input checked="" type="checkbox"/> no</p> <p>___ was an exemption requested?</p> <p>    If yes, have the following been provided for each identified well?</p> <p>        ___ well location                            ___ former and present well owner</p> <p>        ___ well driller                            ___ well construction log</p> <p>___ Has an NR 812 well variance application been submitted?</p> <p>    (Note: This is not a feasibility completeness item; however, an NR 812 variance application must be received by the department before an NR 504.04 exemption may be granted.)</p> <p>Note: Exemptions may not be granted if the above information is not provided.</p>                             |           |   |    | Section 7.1.5 |          |
| <p>(g) 200 feet of a fault that has had displacement in Holocene time?</p> <p>___ yes <input checked="" type="checkbox"/> no</p> <p>    If yes, was an exemption requested?</p>   |           |   |    | Section 7.1.6 |          |
| <p>(h) Seismic impact zones?</p> <p>___ yes <input checked="" type="checkbox"/> no</p> <p>    If yes, was an exemption requested?</p>   |           |   |    | Section 7.1.7 |          |
| <p>(i) Unstable areas?</p> <p>___ yes <input checked="" type="checkbox"/> no</p> <p>    If yes, was an exemption requested?</p>   |           |   |    | Section 7.1.8 |          |
| <b>NR 504.04(4) PERFORMANCE STANDARDS.</b> Does the report indicate that the proposed landfill or any proposed noncommercial soil borrow source(s) will have:   |           |   |    | Section 7     |          |
| <p>(a) A significant adverse impact on wetlands?</p> <p>___ yes <input checked="" type="checkbox"/> no</p> <p>Note: If a significant adverse impact would occur to wetlands (e.g. filling or excavation) then a wetland permit would be required under s. 281.36, Stats. A wetland permit would supersede the NR 103 water quality standards for wetlands. The wetland permit application requires a practicable alternatives analysis, a wetland functional values analysis and a public comment period specific to the wetland permit application. Wetland mitigation may also be required.</p> <p>___ Has a wetland permit been submitted with the feasibility report or has a wetland application been submitted to the department?</p> <p>___ Has a wetland delineation and functional values report been submitted with the feasibility report?</p> |           |   |    | Section 7.2.1 |          |
| <p>(b) A take of an endangered or threatened species in accordance with s. 29.604, Stats?</p> <p><input checked="" type="checkbox"/> yes      ___ no</p>  |           |   |    | Section 7.2.2 |          |

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|--|-----------|---|----|---|----------------|
|  | Y         | N | NA |   |                |
| (c) A detrimental effect on any surface water?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br>Note: Exemptions are <u>not</u> granted.  |           |   |    | Section 7.2.3                               |                |
| (d) A detrimental effect on groundwater quality or will cause or exacerbate an attainment or exceedance of any preventive action limit or enforcement standard at a point of standards application as defined in ch. NR 140?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no<br><input checked="" type="checkbox"/> Has an exemption been requested to the groundwater standards in accordance with ss. NR 507.29 and NR 140.28, Wis. Adm. Code? If an exemption is required, does the feasibility report include:<br><input checked="" type="checkbox"/> A list of the specific wells and parameters for which an exemption is being requested.<br><input type="checkbox"/> A discussion of how the criteria listed in s. NR 140.28(2), (3) and (4) are met. |           |   |    | Section 7.2.4<br>Section 1.2.2<br>Table 1-1 |                |
| (e) The migration and concentration of explosive gases in excess of 25% of the lower explosive limit for such gases at any time?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no  |           |   |    | Section 7.2.5                               |                |
| (f) The emission of any hazardous air contaminant exceeding the limitations for those substances contained in s. NR 445.04 or 445.05?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no   |           |   |    | Section 7.2.6                               |                |
| <b>NR 512.04 INITIAL SITE REPORT.</b>  |           |   |    |   |                |
| Has the department rendered an initial site report opinion?<br><input checked="" type="checkbox"/> yes <input type="checkbox"/> no Date: 07/27/2022  |           |   |    |   |                |
| Has an optional pre-feasibility report been submitted?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no Date:  |           |   |    |   |                |
| <b>NR 512.05 GENERAL SUBMITTAL REQUIREMENTS.</b>   |           |   |    |   |                |
| Does the report address all of the department's review comments on the initial site report or any applicable pre-feasibility report?   |           |   |    |   |                |
| Does the report contain justification for requests for any exemptions to the locational and performance standards listed in s. NR 504.04?  |           |   | X  |   | Not Applicable |
| For an alternative design to s. NR 504.05 – 504.09 requirements, does the report include an analysis to predict whether the facility will meet or exceed performance standards of s. NR 504.04(4)(d) regarding groundwater quality?  |           |   | X  |   | Not Applicable |

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|--|-----------|---|----|--------------|----------|
|  | Y         | N | NA |              |          |
| <b>NR 512.06 PROCEDURAL REQUIREMENTS.</b>  |           |   |    |              |          |
| (1) Local approvals: Does the report contain the following:  |           |   |    | Section 2.1  |          |
| <input checked="" type="checkbox"/> Documentation that each affected municipality (towns, villages, cities, and counties) has been notified and that application has been made for applicable local approvals, at least 120 days prior to submittal.<br>Note: Act 241, effective June 18, 1998 changes the definition of affected municipalities. The new law defines affected municipality as a town, city, village or county within <u>1,500</u> feet of the facility. |           |   |    |              |          |
| <input checked="" type="checkbox"/> A copy of all requests for the specification of applicable local approvals.  |           |   |    |              |          |
| <input checked="" type="checkbox"/> Responses from all affected municipalities regarding any applicable local approvals.   |           |   |    |              |          |
| <input type="checkbox"/> The standard municipal notice required by the waste facility siting board.  |           |   |    |              |          |
| <input checked="" type="checkbox"/> Follow up applications for any applicable local approvals submitted to the clerk of the governing board of each participating municipality per s. 289.23(2), Stats.  |           |   | X  |              |          |
| (2) Documentation of and when copies of the ISR, the ISR opinion, any applicable pre-feasibility report, and the feasibility report have been submitted to each participating municipality under s. 289.33(6)(b), Stats.   |           |   |    | Section 2.2  |          |
| <b>NR 512.07 GENERAL FACILITY INFORMATION.</b> Does the report include all of the following:   |           |   |    | Section 3    |          |
| <input type="checkbox"/> Project title   |           |   |    | Section 3.1  |          |
| <input type="checkbox"/> Name, address and phone number of primary contacts, including the landfill's owner, operator and any consultants  |           |   |    | Section 3.2  |          |
| <input type="checkbox"/> Present property owner  |           |   |    | Section 3.3  |          |
| <input type="checkbox"/> Proposed owner and operator   |           |   |    | Section 3.3  |          |
| <input type="checkbox"/> Proposed landfill location by $\frac{1}{4}$ - $\frac{1}{4}$ section   |           |   |    | Section 3.4  |          |
| <input type="checkbox"/> Total acreage of property   |           |   |    | Section 3.5  |          |
| <input type="checkbox"/> Total acreage of proposed fill area   |           |   |    | Section 3.6  |          |
| <input type="checkbox"/> Proposed design capacity  |           |   |    | Section 3.7  |          |
| <input type="checkbox"/> Proposed site life in years   |           |   |    | Section 3.8  |          |
| <input type="checkbox"/> Anticipated date of closure   |           |   |    | Section 3.9  |          |
| <input type="checkbox"/> Municipalities and industries to be served  |           |   |    | Section 3.10 |          |
| <input type="checkbox"/> Anticipated waste types and characteristics   |           |   |    | Section 3.11 |          |
| <input type="checkbox"/> Anticipated volumes of each major waste stream and any seasonal fluctuations taking into account waste reduction, reuse, recycling, composting and the recovery of energy from solid waste  |           |   |    | Section 3.11 |          |
| <input type="checkbox"/> Anticipated cover frequency   |           |   |    | Section 3.12 |          |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION     | COMMENTS       |
|--|-----------|---|----|--------------|----------------|
|  | Y         | N | NA |              |                |
| <input type="checkbox"/> Mode of operation   |           |   |    | Section 3.13 |                |
| <input type="checkbox"/> Anticipated sub-base, base and final grades   |           |   |    | Section 3.15 |                |
| <input type="checkbox"/> Preliminary design concepts   |           |   |    | Section 3.16 |                |
| <b>NR 512.08 LAND USE INFORMATION.</b> Does the report include a thorough discussion of <u>any changes</u> in land uses or zoning within one mile of the proposed limits of filling since the submittal of the ISR?  |           |   |    | Section 4    |                |
| <input type="checkbox"/> Does the report include a discussion of any changes in the identification of adjacent landowners discussed? Note: this information may be presented on a plat map if it accurately shows current land ownership conditions.   |           |   |    | Section 4.2  |                |
| <input type="checkbox"/> Are any changes in zoning discussed?  |           |   |    | Section 4.3  |                |
| <input type="checkbox"/> Are any changes in present land uses discussed with emphasis on known recreational, historical, archaeological or state/local natural areas, county forest lands, and critical habitat?   |           |   |    | Section 4.4  |                |
| <input type="checkbox"/> Are any changes in existing and/or proposed transportation routes and access roads, including any new weight restrictions, discussed?   |           |   |    | Section 4.5  |                |
| <input type="checkbox"/> Does the report include any information or bird study requested by the Department or the FAA?<br><br>Note: This applies only if the owner proposes to accept putrescible waste and the limits of filling are within 5 miles (for expansions) or 6 miles (for new landfills) of the end of an airport runway.<br>[Ref. s. NR 504.04(3)(e) and 49 U.S.C. § 44718(d), See <a href="#">FAA Advisory Circular AC 150/5200-34A, dated 1/26/2006</a> ] |           |   |    | Section 4.6  |                |
| <b>NR 512.085 ALTERNATIVE GEOTECHNICAL INVESTIGATION PROGRAM.</b>  |           |   |    |              |                |
| Has the applicant proposed an alternative geotechnical investigation program that includes the following:  |           |   |    |              |                |
| <input type="checkbox"/> Detailed description of the proposed alternative program  |           |   |    |              |                |
| <input type="checkbox"/> Detailed explanation of the rationale for the proposed differences to NR 512.09 or 512.10   |           |   |    |              |                |
| <input type="checkbox"/> Anticipated benefits of the proposed alternative program  |           |   |    |              |                |
| <input type="checkbox"/> Is a copy of the accepted program included in the feasibility report?   |           |   |    |              |                |
| Note: The applicant may propose an alternative geotechnical investigation program prior to initiating the geotechnical investigations required for a feasibility report. The program may not be implemented prior to receipt of written review by the department. The formal approval of the accepted alternative geotechnical program is made in the department's feasibility determination.  |           |   | X  |              | Not Applicable |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION    | COMMENTS       |
|--|-----------|---|----|-------------|----------------|
|  | Y         | N | NA |             |                |
| <b>NR 512.09 SITE-SPECIFIC GEOTECHNICAL INFORMATION.</b>   |           |   |    |             |                |
| Has an alternate geotechnical investigation program been approved by the department in writing?  |           |   | X  |             | Not Applicable |
| ___ yes      ___ no  |           |   |    |             |                |
| ___ If yes, does the report include justification for the approved alternative geotechnical investigation program?   |           |   |    |             |                |
| (1) BORINGS. Have borings been made both inside and outside the proposed limits of filling?  |           |   |    | Section 5   |                |
| (a) Have the required number of borings been completed in or within 300 feet of the proposed limits of filling?  |           |   |    | Section 5.3 |                |
| X 10 borings for the first 5 or less acres of proposed fill area   |           |   |    |             |                |
| X 2 additional borings for each additional 5 or less acres of proposed fill area   |           |   |    |             |                |
| 8.3 acres Proposed limits of filling in acres  |           |   |    |             |                |
| 12 Number of borings required  |           |   |    |             |                |
| 16 Number of borings made within 300 feet of proposed limits of filling  |           |   |    |             |                |
| (b) Do all borings extend at least 25 feet below anticipated sub-base grades?  | X         |   |    | Section 5.3 |                |
| Note: For borings located outside the proposed limits of filling, applicable sub-base grade is the elevation of the bottom of the proposed base liner nearest to the borehole.   |           |   |    |             |                |
| (c) Has 1 boring been extended at least 5 feet into bedrock, if bedrock is within 50 feet of the lowest elevation of the proposed sub-base grades? Was bedrock drilling performed in accordance with ch. NR 141 and s. NR 507.05?  |           | X |    |             |                |
| (d) Were samples collected and retained and borings logs prepared in accordance with ss. NR 507.05 and 507.14?   | X         |   |    | Section 5.3 |                |
| Note: The following requirements refer to NR 507.05 and 507.14.  |           |   |    | Appendix E  |                |
| ___ <b>Fine-grained soils:</b> Was continuous sampling to 25 feet below sub-base grades performed?   |           | X |    |             |                |
| ___ <b>Coarse-grained soils or following continuous sampling in fine-grained soils:</b> Were samples collected from each major soil unit and at maximum 5 foot intervals?  | X         |   |    | Appendix E  |                |
| ___ <b>Sample at the depth of well screen:</b> Was a soil sample collected at the depth of the well screen of any subsequently placed monitoring well and analyzed for grain size distribution using mechanical and hydrometer methods and Atterberg limits, as appropriate for the soil type? | X         |   |    | Appendix E  |                |
| ___ <b>Bedrock samples:</b> Were continuous core samples collected?  |           | X |    |             |                |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION    | COMMENTS |
|--|-----------|---|----|-------------|----------|
|  | Y         | N | NA |             |          |
| <p>— <b>Soil samples:</b> Do descriptions of each major soil sample unit include?</p> <p>— Structure      <input type="checkbox"/> Lenses</p> <p>— Mottling      <input type="checkbox"/> Geologic origin</p> <p>— Voids      <input type="checkbox"/> USCS classified</p> <p>— Layering      <input type="checkbox"/></p>   | X         |   |    | Appendix E  |          |
| <p>— Do descriptions of continuous bedrock core samples include?</p> <p>— General rock properties      <input type="checkbox"/> Rock Quality Designation (RQD)</p> <p>— Fracture frequency      <input type="checkbox"/> Percent recovery</p>  |           |   | X  |             |          |
| <p>— Does the report contain a boring log for each boring that includes the following?</p> <p>— Elevations of land surface and bottom of boring corrected to USGS (national geodetic survey) datum</p> <p>— If converted to a well, water level at the time of drilling, date of water level measurement, and a well construction diagram on the boring log</p>  | X         |   |    |             |          |
| (e) Have all borings not converted to wells been abandoned in accordance with ss. NR 507.08 and 141.25 and been documented as instructed on Department forms (3300-5B)?  | X         |   |    | Appendix E  |          |
| (2) GROUNDWATER MONITORING WELLS.  |           |   |    |             |          |
| <p>(a) Have the required number of <b>water table observation wells</b> with screens intersecting the water table been installed to adequately define the water table surface?</p> <p>— 5 water table observation wells for the first 5 or less acres of proposed fill area</p> <p>— 1 additional water table observation well for each additional 5 or less acres of proposed fill area</p> <p>— Proposed limits of filling in acres</p> <p>— Number of water table observation wells required</p> <p>— Number of water table observation wells installed</p> |           |   |    | Section 5.4 |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION  | COMMENTS |
|--|-----------|---|----|---|----------|
|  | Y         | N | NA |   |          |
| (b) Have the required number of <b>piezometers</b> been installed?<br><input type="checkbox"/> 1 piezometer adjacent to a water table observation well at 2 separate locations for the first 5 or less acres of proposed fill area<br><input type="checkbox"/> 1 additional piezometer for each additional 10 or less acres of proposed fill area to create additional well nests<br><input type="checkbox"/> At least 1 well nest within the proposed limits of filling for every 20 acres of proposed fill area<br><input type="checkbox"/> Proposed limits of filling in acres<br><input type="checkbox"/> Number of piezometers required<br><input type="checkbox"/> Number of piezometers installed |           |   |    | Section 5.3   |          |
| (c) <b>If the proposed site is in a fine-grained soil environment</b> does each well nest required above in (b) consist of 3 wells (a water table observation well, a piezometer installed at or just below the proposed subbase grades and a deeper piezometer installed at least 15 feet below the bottom of the upper piezometer's well screen?)  |           |   | X  |   |          |
| (d) Are all wells located <b>no more than 300 feet</b> from the proposed limits of filling and are at least half of the wells located no more than 150 feet from the proposed limits of filling?   | X         |   |    |   |          |
| (e) Are all wells designed, installed, developed, documented, and sampled in accordance with ch. NR 141 and ss. NR 507.06, 507.07, 507.14 and 507.17, or have alternative methods of well design and installation been approved by the department prior to well construction?  | X         |   |    | Section 5.3<br>Appendices E, G, H, J<br>Tables 5-3, 5-7 |          |
| (3) FIELD DIRECTION. Did a Professional Geologist (P.G.) or qualified technician directly supervised by a P.G. perform the following tasks?<br><input type="checkbox"/> Observe and direct drilling of all borings<br><input type="checkbox"/> Observe and direct installation, development and abandonment of all wells<br><input type="checkbox"/> Conduct all in-field hydraulic conductivity tests<br><input type="checkbox"/> Visually describe and classify all geologic samples   |           |   |    | Section 5.2   |          |
| (4) LABORATORY AND FIELD ANALYSIS.<br>(a) Have 5 grain-size analyses per major soil unit (mechanical & hydrometer) with USCS classifications and Atterberg limits where appropriate been provided?<br><input type="checkbox"/> Number of major soil units<br><input type="checkbox"/> Number of grain size analyses required   | X         |   |    | Section 5.5<br>Appendix F                               |          |
| (b) Have <b>lab hydraulic conductivity tests</b> been provided for 2 undisturbed samples from each major fine-grained soil unit?   | X         |   |    | Section 5.5<br>Appendix F                               |          |

| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION                                 | COMMENTS |
|---|-----------|---|----|--|----------|
|   | Y         | N | NA |  |          |
| (d) Have <b><i>in-field hydraulic conductivity test</i></b> data and results been provided for each well?   | X         |   |    | Section 5.6<br>Appendix J, Table 5-4     |          |
| (e) Does report include 6 monthly water level measurements for all wells?   | X         |   |    | Table 5-3                                |          |
| (f) Does report include 6 monthly surface water level measurements for any surface water bodies including streams, lakes, ponds, drainage ditches and wetlands located within 1,000 feet of the proposed limits of filling?   | X         |   |    |  |          |
| (g) <b>Baseline groundwater quality</b> for all wells located outside the proposed limits of filling in accordance with s. NR 507.18:<br><br>NOTE: If a groundwater standard is attained or exceeded in any of the 4 baseline groundwater quality sample rounds, see ss. NR 140.28 and 507.29 for exemption criteria.   | X         |   |    | Section 5.8.5<br>Appendix H<br>Table 5-3 |          |
| Note: The following requirements refer to s. NR 507.18. <ul style="list-style-type: none"> <li>— 4 monthly rounds for each detection monitoring parameter listed in Appendix 1, Tables 1 and 2 of ch. NR 507, as appropriate, for the particular waste types to be accepted</li> <li>— 4 monthly rounds for Public Health and Welfare parameters listed in Appendix I, Table 3 of ch. NR 507</li> <li>— 2 monthly rounds for VOCs, plus 2 additional sampling rounds for any wells that have VOC concentrations above their limit of detection</li> </ul> | X         |   |    |  |          |
| (h) Has the department required other work such as groundwater modeling, pump tests, geophysical investigations, isopach maps or a fence diagram to assess the hydrogeologic conditions at the proposed facility?   |           | X |    |  |          |
| (5) SAMPLE RETENTION  |           |   |    |  |          |
| Have all soil and bedrock samples collected from the proposed property been retained in accordance with NR 507.05?  | X         |   |    | Section 5.3                              |          |
| (6) ADDITIONAL REQUIREMENTS FOR LANDFILLS WITH EXTENDED COLLECTION LINES.   |           |   |    |  |          |
| (a) Does the landfill meet the requirements of (b) and (c) below for a facility where MSW is accepted and the leachate collection lines exceed 1,200 feet from the end of each cleanout to the toe of the opposite slope?   |           |   | X  |  |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION                             | COMMENTS   |
|--|-----------|---|----|--------------------------------------|------------|
|  | Y         | N | NA |                                      |            |
| (b) Does the report include the following:   |           |   |    |                                      |            |
| <input type="checkbox"/> A minimum of one boring in the area of each proposed cell drilled to physically characterize subbase conditions for landfill foundation assessment of stability and settlement  |           |   |    |                                      |            |
| <input type="checkbox"/> Borings that extend a minimum of 50 feet below the proposed subbase grades or to competent bedrock, whichever is shallower.   |           |   |    |                                      |            |
| <input type="checkbox"/> Samples taken at each significant soil layer  |           |   |    |                                      |            |
| <input type="checkbox"/> A minimum of one sample from each fine grained layer and from each soft or compressible coarse grained layer subjected to geotechnical testing to define parameters used in assessment of stability and settlement of the liner |           |   |    |                                      |            |
| (c) Does the report include the consolidation testing data include the data summarized in the major soil unit table required by NR 512.10(2)(d)?   |           |   |    |                                      |            |
| <b>NR 512.10 SUBSURFACE DATA ANALYSIS.</b>   |           |   |    |                                      |            |
| (1) Does the subsurface investigations presented in the report include the minimum following requirements (unless an alternative geotechnical investigation plan was accepted in writing)?   |           |   |    |                                      |            |
| (2) SOIL AND BEDROCK DESCRIPTIONS.   |           |   |    |                                      |            |
| (a) Have grain size distributions, geologic origin, USCS classification been provided for each major soil unit?  | X         |   |    | Section 5.5, 5.7<br><b>Table 5-3</b> | Appendix F |
| (b) Does the report describe the lateral and vertical extent of each major soil unit including descriptions of any lenses or other heterogeneities, and if bedrock was encountered by borings, the strike and dip of any rock formations?                | X         |   |    | Section 5.7.4<br>Plan Sheets         |            |
| (c) Does the report describe the presence and frequency of joints, fractures, voids, solution openings, faults or other structural features?   |           |   | X  |                                      |            |
| (d) Does the report include a table summarizing the following testing data by major soil unit?   |           |   |    |                                      |            |
| <input type="checkbox"/> Geologic origin <input type="checkbox"/> Liquid limit   |           |   |    | Tables 5-3, 5-5                      |            |
| <input type="checkbox"/> Sample ID number <input type="checkbox"/> Plasticity index  |           |   |    |                                      |            |
| <input type="checkbox"/> Percent gravel, sand, silt and clay <input type="checkbox"/> Percent P200 content   |           |   |    |                                      |            |
| <input type="checkbox"/> Lab & field hydraulic conductivities  |           |   |    |                                      |            |
| <input type="checkbox"/> Statistical analyses for averaged values  | X         |   |    |                                      |            |
| (3) HYDROGEOLOGIC PROPERTIES AND FUNCTIONS. Does the report discuss the following properties and functions of each saturated soil unit or rock formation?  |           |   |    |                                      |            |
| (a) Hydraulic conductivity   | X         |   |    | Section 5.8.3                        |            |
| (a) Role as a confining unit   | X         |   |    | Section 5.8.3                        |            |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION                 | COMMENTS    |
|--|-----------|---|----|--------------------------|-------------|
|  | Y         | N | NA |                          |             |
| (c) Hydraulic connections to other units   | X         |   |    |                          |             |
| (d) Actual/potential use as a water supply unit  | X         |   |    |                          |             |
| (e) Depth to groundwater & seasonal variations in groundwater elevations   | X         |   |    | Section 5.8.3, Table 5-4 |             |
| (f) Location & extent of perched groundwater   |           |   | X  |                          |             |
| (f) Local & regional flow directions including the locations of groundwater divides  | X         |   |    | Section 5.8.3            |             |
| (h) Horizontal & vertical gradients  | X         |   |    | Section 5.8.3            | Plan Sheets |
| (4) APPENDIX. Does the Appendix include the following?   |           |   |    |                          |             |
| ___ All raw data<br>___ Soil boring log information forms 4400-122<br>___ Well information forms (4400-89)<br>___ Groundwater and surface water level measurements<br>___ Monitoring well development forms (4400-113B)<br>___ Baseline groundwater quality sampling<br>___ Monitoring well construction forms (4400-113A)<br>___ Soil test results<br>___ Well/drillhole/borehole abandonment forms 3300-5B |           |   |    | Appendices E through J   |             |
| <b>NR 512.11 DATA PRESENTATION.</b> Are the results from the subsurface investigation presented on 24" x 36" plan sheets?  |           |   |    |                          |             |
| (1) EXISTING CONDITIONS PLAN SHEET. Is a detailed topographical survey of all areas within 1500 feet of the proposed limits of filling provided (minimum scale 1" = 200' with maximum 2 foot contour interval) and does it show all of the following:  |           |   |    |                          |             |
| (a) 100-year floodplain area   |           |   | X  |                          |             |
| (b) Surface waters, including intermittent & ephemeral streams & wetlands  |           |   | X  |                          |             |
| (c) Residences, buildings, utility lines & other cultural features   | X         |   |    |                          |             |
| (d) Surrounding land uses (residential, commercial, agricultural & recreational)   | X         |   |    | Figure 4                 |             |
| (e) Property & proposed limits of filling, including any previous fill areas   | X         |   |    | Plan Sheet 2, Figure 3   |             |
| (f) Access control including fences & gates  | X         |   |    | Plan Sheet 2             |             |
| (g) Water supply wells including public, private, irrigation, & stock  | X         |   |    | Figure 5                 |             |
| (h) Boring, test pit, and well locations for the proposed landfill   | X         |   |    | Plan Sheet 2             |             |
| (i) Other structures including storm water control systems, agricultural drain tile systems, access & internal roads, storm & sanitary sewerage systems  | X         |   |    | Plan Sheet 2             |             |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |     | LOCATION              | COMMENTS |
|--|-----------|---|-----|-----------------------|----------|
|  | Y         | N | NA  |                       |          |
| (2) GEOLOGIC CROSS-SECTIONS.   |           |   |     |                       |          |
| Have geologic cross-sections been constructed as follows:  |           |   |     |                       |          |
| __ Through <u>all</u> borings, both perpendicular and parallel to the proposed landfill's baseline   | X         |   |     | Plan Sheets 4-20      |          |
| __ For proposed contiguous expansions, through all previous borings for the existing landfill  |           |   |     |                       |          |
| __ 1 cross-section parallel to groundwater flow  |           |   |     |                       |          |
| Do the geologic cross-sections include the following:  |           |   |     |                       |          |
| (a) Inferred/questionable lithostratigraphic boundaries shown with a dashed line or question mark  | X         |   |     |                       |          |
| (b) Numbers/symbols used to label each major soil unit with a key that describes each major soil unit including geologic description and origin, USCS classification and color         | X         |   |     |                       |          |
| (C) Boring logs show USCS classification, geologic origin, grain size analyses, Atterberg limits, and field hydraulic conductivities   | X         |   |     |                       |          |
| (d) __ Well construction details shown to scale including well screen and filter pack length, upper and any lower seals, and stabilized water levels measured on same day              | X         |   |     |                       |          |
| __ If two or more observation wells are presented, a line representing the water table surface drawn and date the measurements were taken specified in the key                         |           |   |     |                       |          |
| (3) WATER TABLE MAPS.  |           |   |     |                       |          |
| __ Are at least two water table maps (seasonal high & low) provided?   | X         |   |     | Plan Sheets 19 and 20 |          |
| __ For a proposed contiguous expansion, do the water table maps include the observation wells and measured water table elevations for each observation well for the existing landfill? | X         |   |     |                       |          |
| __ Has a bedrock piezometric map been provided if 3 or more bedrock wells have been installed?   |           |   | N/A |                       |          |
| (4) BEDROCK MAP.   |           |   |     |                       |          |
| Has a <b>bedrock contour map</b> been provided if 3 or more borings have been drilled into bedrock?  |           |   | N/A |                       |          |
| (5) FLOW NET.  |           |   |     |                       |          |
| Has a <b>flow net</b> , parallel to the direction of groundwater flow to show distribution of recharge & discharge been provided?  | X         |   |     | Plan Sheets 21 and 22 |          |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION                  | COMMENTS |
|--|-----------|---|----|---------------------------|----------|
|  | Y         | N | NA |                           |          |
| <b>NR 512.12 WASTE AND LEACHATE CHARACTERIZATION.</b>  |           |   |    |                           |          |
| (1) INDUSTRIAL WASTES. Have the physical & chemical characteristics of any high volume industrial waste anticipated to individually constitute more than 5% of the total proposed design capacity and leachates been analyzed and described?   |           |   | X  |                           |          |
| (2) MUNICIPAL WASTES. Does the report include actual field leachate data from existing landfills of similar size, design and waste type or an estimate of the anticipated leachate strength and quality?   | X         |   |    | Section 6.2               |          |
| (3) LEACHATE GENERATION. Does the report include the estimated daily volume of leachate that will be collected for unclosed and closed areas?  |           |   |    |                           |          |
| (a) A minimum of 6 inches per year for all unclosed areas of the proposed limits of filling for landfills with a composite liner and a minimum of 4 inches per year for landfills that do not have a composite liner?  | X         |   |    | Section 6.2 and Table 6-1 |          |
| (b) One inch per year for all closed areas of the proposed limits of filling for landfills with a composite cap and a minimum of 3 inches per year for all closed areas that will not have a composite cap?  | X         |   |    | Section 6.2 and Table 6-1 |          |
| <b>NR 512.13 CONSTRAINTS ON LANDFILL DEVELOPMENT.</b>  |           |   |    |                           |          |
| (1) LOCATIONAL CRITERIA AND PERFORMANCE STANDARDS. Does the report contain a demonstration that the proposed landfill will meet the locational and performance standards in s. NR 504.04?  |           |   |    | Section 7.1               |          |
| (2) GEOTECHNICAL INFORMATION. Does the report contain an analysis of the following:  |           |   |    |                           |          |
| __ geologic<br>__ hydrogeologic<br>__ topographic<br>__ hydrologic features of the proposed property that may be favorable or unfavorable for landfill development   | X         |   |    | Section 7.4               |          |
| (3) CONSTRUCTION AND OPERATION. Does the report contain a discussion of the following materials and support services required for landfill construction and operation?   |           |   |    |                           |          |
| __ Leachate treatment alternatives<br>__ Identification and detailed evaluation of the capability of any proposed wastewater treatment plant(s) to treat the leachate<br>__ Quality & quantity of liner and cap materials<br>__ Specialized engineering structures to support landfilling activities | X         |   |    | Section 7.5               |          |

| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION                                      | COMMENTS |
|---|-----------|---|----|---|----------|
|   | Y         | N | NA |   |          |
| (4) EXISTING FACILITY PERFORMANCE. For a proposed contiguous, horizontal or vertical expansion, does the report evaluate the compliance status and performance of the existing landfill?  |           |   |    |   |          |
| (a) Does the report reference the discussion on the compliance status and performance of the existing landfill contained in any applicable pre-feasibility report and include any changes since the submittal of that report?   | X         |   |    | Section 7.2                                   |          |
| (b) Does the report contain an exemption request under s. NR 140.28 and in accordance with s. NR 507.29 if a PAL or ES has been attained or exceeded at the site?   | X         |   |    | Section 1.1.2                                 |          |
| <b>NR 512.14 PROPOSED PRELIMINARY DESIGN.</b>   |           |   |    |   |          |
| (1) PRELIMINARY DESIGN REPORT.  |           |   |    |   |          |
| (a) Does the report contain preliminary materials balance calculations for the necessary volume of clay to construct the liner and final cap of the first phase of the landfill?  |           |   |    |   |          |
| (b) Does the report discuss proposed methods for leachate and gas control?<br><input checked="" type="checkbox"/> Leachate collection <input checked="" type="checkbox"/> Gas collection<br><input checked="" type="checkbox"/> Leachate containment <input checked="" type="checkbox"/> Gas containment<br><input checked="" type="checkbox"/> Leachate treatment <input checked="" type="checkbox"/> Gas treatment  | X         |   |    | Section 8.3 and 8.4                           |          |
| (c) Does the report discuss the proposed operating procedures, including the general filling sequence?  |           |   |    |   |          |
| (d) Does the report include a description of the proposed monitoring programs to be implemented to meet the requirements of chs. NR 140 and 507?<br><input checked="" type="checkbox"/> Groundwater <input checked="" type="checkbox"/> Air<br><input checked="" type="checkbox"/> Leachate <input checked="" type="checkbox"/> Unsaturated zone<br><input checked="" type="checkbox"/> Surface Water <input type="checkbox"/> N/A Other monitoring<br><input checked="" type="checkbox"/> Gas<br><input checked="" type="checkbox"/> Does the report contain a sampling plan for all monitoring devices in accordance with s. NR 507.16? |           |   |    | Section 8.7                                   |          |
| (e) <input checked="" type="checkbox"/> Does the report discuss the proposed methods for storm water control in accordance with ch. NR 216?<br><input checked="" type="checkbox"/> Does the report discuss visual screening?  |           |   |    | Section 8.8<br>Sections 7.4.3, 10.3.1, 10.4.1 |          |

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| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION    | COMMENTS |
|---|-----------|---|----|-------------|----------|
|   | Y         | N | NA |             |          |
| (f) Does the report discuss the proposed final use?   | X         |   |    | Section 8.9 |          |
| (2) PRELIMINARY ENGINEERING PLANS. (24" x 36" Plan Sheets w/max. 5-foot contours):  |           |   |    |             |          |
| (a) Does the report include an existing conditions map that shows the following?  |           |   |    |             |          |
| <input checked="" type="checkbox"/> Proposed access <input type="checkbox"/> Associated buildings<br><input checked="" type="checkbox"/> Limits of filling <input type="checkbox"/> Storm water diversions<br><input checked="" type="checkbox"/> Internal roads <input type="checkbox"/> Sedimentation basins<br><input checked="" type="checkbox"/> Load out & scale facilities <input type="checkbox"/> Phase of facility development<br><input type="checkbox"/> Sub-base & base grades <input type="checkbox"/> Slopes<br><input type="checkbox"/> Leachate collection system <input type="checkbox"/> Leachate storage tank<br><input type="checkbox"/> Lift station/sewer hook up      X |           |   |    |             |          |
| (b) Does the report include geologic cross-sections plan sheet(s) that display the following information?   |           |   |    | X           |          |
| <input type="checkbox"/> Present topography <input type="checkbox"/> Proposed final grades<br><input type="checkbox"/> Proposed sub-base grades <input type="checkbox"/> Liner and final cap configuration<br><input type="checkbox"/> Proposed base grades   |           |   |    |             |          |
| (c) Does the report include a plan sheet showing the proposed closure sequence and final grades?  |           |   |    | X           |          |
| <b>NR 512.15 IDENTIFICATION OF SOIL BORROW SOURCES.</b>   |           |   |    | X           |          |
| Note: It may be necessary to obtain federal, state and/or local permits prior to excavating soil from a borrow source near surface waters or wetlands. For example, s. 30.19(1)(c), Stats., requires a permit for grading or removing top soil from the bank of any navigable stream, lake or body of navigable water where the area exposed by such grading or removal will exceed 10,000 square feet. It is the responsibility of the applicant or property owner to request an initial site inspection in accordance with ch. NR 509 and to obtain any federal, state and/or local permits that are required.  |           |   |    | X           |          |
| (1) Does the report include a copy of the department's initial site inspection evaluation letter for the proposed borrow source(s) needed to construct, operate and close the first phase of the landfill?  |           |   |    |             |          |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION   | COMMENTS |
|--|-----------|---|----|------------|----------|
|  | Y         | N | NA |            |          |
| (2) Does the report include documentation for soil borrow sources as described in NR 504.075 for the proposed soil borrow sources designated to be used in the construction, operation or closure of the first phase of the landfill? See below.   |           |   |    | Section 9  |          |
| <b>NR 504.075 SOIL BORROW SOURCES.</b>   |           |   |    |            |          |
| (1) GENERAL.   |           |   |    |            |          |
| Is the soil borrow source being developed for the purpose of construction, operating or closing a landfill?<br>If yes, this section applies.<br>Note: Written approval from the department shall be obtained prior to initiating soil borrow activities at any borrow source subject to these requirements.                  | X         |   |    |            |          |
| (2) EXEMPTIONS. The following activities are exempt from the requirements of this section:   |           |   |    |            |          |
| (a) <input type="checkbox"/> The production of processed aggregate products.<br><input type="checkbox"/> Excavation of soils from construction projects off of the landfill property and not being used for compacted clay liner or capping layer, soil barrier layer, leachate collection layer or final cover drain layer? |           |   |    |            |          |
| (b) Is the soil borrow source within the proposed or approved limits of filling for a landfill? If yes, then the landfill is not subject to the requirements of subs. (3) and (4)(b).  |           |   |    |            |          |
| (3) INITIAL SITE INSPECTION.   |           |   |    |            |          |
| Does the report include a copy of the department's initial site inspection for each proposed borrow source?  | X         |   |    | Appendix O |          |

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| FEASIBILITY REQUIREMENTS  | COMPLETE?  |   |    | LOCATION   | COMMENTS |
|---|--|---|----|------------|----------|
|   | Y  | N | NA |            |          |
| (4) LOCATIONAL INFORMATION.   |  |   |    |            |          |
| (a) Does the submittal describe the following:  |  |   |    |            |          |
| <input type="checkbox"/> Total acreage  | <input type="checkbox"/> Ownership               |   |    | Section 9  |          |
| <input type="checkbox"/> Location (1/4-1/4 section)   | <input type="checkbox"/> Present land use        |   |    |            |          |
| <input type="checkbox"/> Transportation routes  | <input type="checkbox"/> Any access restrictions |   |    |            |          |
| <input type="checkbox"/> Travel distance to and from landfill   |  |   |    |            |          |
| (b) Does the submittal include the following:   |  |   |    |            |          |
| <input type="checkbox"/> Surface water drainage patterns  |  |   |    | Section 9  |          |
| <input type="checkbox"/> Significant hydrologic features (surface waters, springs, drainage divides and wetlands)   |  |   |    |            |          |
| <input type="checkbox"/> Areas of special natural resource interest (critical habitat or state/local natural areas)   |  |   |    |            |          |
| <input type="checkbox"/> Historical/archaeological areas within and adjacent to proposed limits of excavation   |  |   |    |            |          |
| (5) FIELD AND LABORATORY INVESTIGATIONS FOR CLAY BORROW SOURCES AND SOIL BARRIER LAYER SOURCES.   |  |   |    |            |          |
| Does the submittal for soil borrow sources include field and laboratory investigations to define the physical characteristics of any clay borrow source or soil barrier layer source designated to be used for a liner or final cover?  |  |   |    | Section 9  |          |
| Has an alternate geotechnical investigation program been approved by the department in writing prior to the field and laboratory investigation? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no<br>If yes, does the report include a copy of and justification for any approved alternative geotechnical investigation program?<br>Note: An alternative geotechnical investigation program may be submitted in cases where previous information exists regarding the proposed soil borrow source.   |  |   |    |            |          |
| (a) Have the required number of test pits or borings been completed on a uniform grid pattern across the proposed borrow source(s)?<br><input type="checkbox"/> 10 test pits/borings for the first 5 or less acres<br><input type="checkbox"/> 1 additional test pit/boring for each additional 3 or less acres<br><input type="checkbox"/> Proposed acreage of proposed borrow source(s)<br><input type="checkbox"/> Number of test pits/borings required<br><input type="checkbox"/> Number of test pits/borings made<br><input type="checkbox"/> Have logs identifying geologic origin, testing results, USCS classification, and visual description of each major soil unit encountered also been included? |  |   |    | Appendix T |          |
| (b) Does the report include Atterberg limits and grain size analyses to 0.002 mm particle size for 2 samples from each test pit/boring?   |  |   |    |            |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION  | COMMENTS |
|--|-----------|---|----|-----------|----------|
|  | Y         | N | NA |           |          |
| (c) Does the report include the relationship of water content to dry density using either the modified or standard Proctor method (curves must be developed with a minimum of 5 points) for 1 sample from each major soil unit and no fewer than 3 samples for uniform clay deposits?  |           |   |    | Section 9 |          |
| (d) Does the report include laboratory hydraulic conductivity test results for each sample used to develop the Proctor curves?   |           |   |    | Section 9 |          |
| (6) STOCKPILING.   |           |   |    |           |          |
| Does the report include discussion of segregating stockpiled soils by USCS soil type, soil gradation, Atterberg limits and compaction specifications?<br><br>Note: Stockpiling of soils obtained from clay borrow sources and soil barrier layer sources for landfill liner of final cover construction shall be conducted in an organized manner that minimizes mixing of dissimilar soil types. Soils from differing sources may not be commingled unless soil properties are similar. |           |   |    | Section 9 |          |
| (7) DATA PRESENTATION FOR ALL CLAY BORROW SOURCES AND SOIL BARRIER LAYER SOURCES. Does the submittal for soil borrow sources for clay and soil barrier layers include the following?   |           |   |    | Section 9 |          |
| (a) Calculated volume of soil needed and the volume of acceptable soil available   |           |   |    |           |          |
| (b) Property boundaries and test pit/boring locations on a topographic map (scale: 1" = 500') that extends a minimum of 500 feet beyond the proposed borrow source   |           |   |    |           |          |
| (c) Isopach map showing thickness of acceptable soil   |           |   |    |           |          |
| (d) Description of methods for separating acceptable soil from unacceptable soil   |           |   |    |           |          |
| (e) Proposal for maintaining drainage and sedimentation control  |           |   |    |           |          |
| (f) All data from the testing program  |           |   |    |           |          |
| (8) DATA PRESENTATION FOR OTHER BORROW SOURCES. Does the submittal for soil borrow sources other than those used for clay and soil barrier layers include the following?   | X         |   |    |           |          |
| (a) Property boundaries shown on a topographic map (scale: 1" = 500') that extends a minimum of 500 feet beyond the proposed borrow source   |           |   |    |           |          |
| (b) Proposal for drainage and sedimentation control  |           |   |    |           |          |
| (9) STORMWATER MANAGEMENT.   |           |   |    |           |          |
| Does the submittal for a soil borrow source include a stormwater management plan that complies with the requirements of s. NR 504.09(1)(a) to (f) and (h) to (j), unless the borrow source is subject to other permits with equivalent authority and requirements, such as a stormwater discharge permit or non-metallic mining reclamation permit?  |           |   | X  |           |          |

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| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION         | COMMENTS |
|---|-----------|---|----|------------------|----------|
|   | Y         | N | NA |                  |          |
| (10) RECLAMATION OR BORROW SITES.   |           |   |    |                  |          |
| (a) Does the report include reclamation plans for borrow sources on the landfill property that include the following:<br><input type="checkbox"/> post-mining land use that is integrated with the existing and proposed drainage<br><input type="checkbox"/> surface water discharge requirements<br><input type="checkbox"/> grades and final use of the landfill<br>Is the reclamation plan consistent with NR 135.06 to 135.12? |           |   |    | Reclamation Plan |          |
| (b) For soil borrow areas not on landfill property, is the reclamation plan consistent with NR 135?<br>If required, has a reclamation plan been submitted and a nonmetallic mining reclamation permit been received from the appropriate regulatory authority?  |           |   | X  |                  |          |
| (11) OTHER REQUIREMENTS.  |           |   |    |                  |          |
| (a) If the proposed clay borrow source(s) contains less than a five foot, but greater than 2 foot uniform clay thickness, does the report contain a construction methodology and documentation procedure to ensure the liner meets the soil index property requirements of s. NR 504.06(2)(a)?  |           |   | X  |                  |          |
| (b) Does the report include a description of measures to be taken to comply with wetlands protection requirements, runoff and sediment controls and surface water discharge permit requirements and to minimize effects on areas of special natural resource interest and historical or archaeological areas within and adjacent to the proposed limits of excavation?  | X         |   |    | Section 9        |          |
| <b>NR 512.16 ENVIRONMENTAL REVIEW.</b> To aid the department in complying with ch. NR 150, Wis. Adm. Code, the report must include an environmental analysis (EA) section. Does the EA section include the following:<br>Note: Information provided in previous sections of the ISR, any applicable pre-feasibility report, or the feasibility report may be referenced to satisfy this section's requirements.                     |           |   |    |                  |          |
| (1) PROJECT SUMMARY. Does the EA section contain a Project Summary that includes the following:   |           |   |    |                  |          |
| <input type="checkbox"/> Brief overview of the project<br><input type="checkbox"/> Listing of statutory authority<br><input type="checkbox"/> Relevant local, state and federal permits or approvals required<br><input type="checkbox"/> Need for exemptions, zoning changes & other special permits or approvals  | X         |   |    | Section 10.1     |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION       | COMMENTS |
|--|-----------|---|----|----------------|----------|
|  | Y         | N | NA |                |          |
| (2) PROPOSED PHYSICAL CHANGES. Does the EA section contain a brief description of the proposed physical changes that includes all of the following:  |           |   |    |                |          |
| (a) Changes in terrestrial resources to include a discussion of the following:<br><input type="checkbox"/> Quantity of soil to be excavated and the lateral extent of soil removal<br><input type="checkbox"/> Quantity and source of soils designated to be used in the construction, operation or closure of the landfill<br><input type="checkbox"/> Description of all earthen modifications (such as clearing & grubbing, excavation, soil placement needed to reach the proposed sub-base grades, construction of access roads, stockpiles and storm water controls).  |           |   |    | Section 10.2   |          |
| (b) Changes in aquatic resources including:<br><input checked="" type="checkbox"/> Potential impacts to streams, wetlands, ponds, lakes & flowages<br><input checked="" type="checkbox"/> Discharge rates and volumes under existing conditions as well as that anticipated during active operations and following closure for:<br><input type="checkbox"/> Groundwater control structures<br><input checked="" type="checkbox"/> Leachate collection systems<br><input checked="" type="checkbox"/> Storm water control structures<br><input checked="" type="checkbox"/> Information or reports on how the proposed landfill and soil borrow sources for the first phase of the proposed landfill comply with s. 30.19 Stats., and ch. NR 103. |           |   |    | Section 10.2   |          |
| (c) Discussion of buildings, treatment units, roads and other structures (such as sedimentation basins and fences) to be constructed including:<br><input checked="" type="checkbox"/> size of the facilities (i.e., structures)<br><input checked="" type="checkbox"/> miles of road to be constructed:   |           |   |    | Section 10.2.6 |          |
| (d) Emissions and discharges (such as dust, engine exhaust, odors, noise, gases, leachate, storm water and collected groundwater) associated with the following:<br><input checked="" type="checkbox"/> Landfill preparation <input checked="" type="checkbox"/> Closure<br><input checked="" type="checkbox"/> Construction <input checked="" type="checkbox"/> Post-closure<br><input checked="" type="checkbox"/> Operation   | X         |   |    | Section 10.2.7 |          |
| (e) Other changes anticipated with landfill development  |           |   | X  | Section 10.2.8 |          |
| (f) Maps, plans and other descriptive material to clarify the discussion such as but not limited to the following:<br><input type="checkbox"/> County map <input type="checkbox"/> Proposed service area map<br><input type="checkbox"/> USGS map <input type="checkbox"/> Plat map<br><input type="checkbox"/> Zoning map <input type="checkbox"/> County wetlands map<br><input type="checkbox"/> Soils map <input type="checkbox"/> Landfill development plan   | X         |   |    | Figures 1-6    |          |

| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION        | COMMENTS |
|--|-----------|---|----|-----------------|----------|
|  | Y         | N | NA |                 |          |
| (3) EXISTING ENVIRONMENT. Does the EA section contain a brief description of the existing environment that may be affected that includes the following:  |           |   |    |                 |          |
| (a) A description of the existing physical environment including:<br><input checked="" type="checkbox"/> Regional & local topography <input checked="" type="checkbox"/> Geology<br><input checked="" type="checkbox"/> Surface waters & drainage features <input checked="" type="checkbox"/> Hydrogeologic conditions<br><input checked="" type="checkbox"/> Air quality <input checked="" type="checkbox"/> Wetlands<br><input type="checkbox"/> Designated soil borrow sources |           |   |    | Section 10.3    |          |
| (b) A description of the following:<br><input type="checkbox"/> dominant aquatic and terrestrial plant and animal species and habitats found in the area including:<br><input checked="" type="checkbox"/> Any threatened/endangered species<br><input checked="" type="checkbox"/> Amount, type & hydraulic value of wetlands   | X         |   |    | Section 10.3    |          |
| (c) Land use including dominant features and zoning in the area  | X         |   |    | Section 10.3.9  |          |
| (d) Social and economic conditions including any ethnic or cultural groups   | X         |   |    | Section 10.3.10 |          |
| (e) Other special resources such as:<br><input type="checkbox"/> Archaeological <input type="checkbox"/> Historical<br><input type="checkbox"/> State/local natural areas <input type="checkbox"/> Prime agricultural lands  | X         |   |    | Section 10.3.11 |          |
| (4) ENVIRONMENTAL CONSEQUENCES. Does the EA section contain a brief discussion of the probable adverse and beneficial impacts including primary, indirect and secondary impacts that includes the following:   |           |   |    |                 |          |
| (a) Physical impacts associated with landfill design, construction and operation, including:<br><input type="checkbox"/> Air quality <input type="checkbox"/> Windblown paper<br><input type="checkbox"/> Dust <input type="checkbox"/> Visual impacts   | X         |   |    | Section 10.4.1  |          |
| (b) Biological impacts including:<br><input type="checkbox"/> Destruction and creation of habitat<br><input type="checkbox"/> Alteration of the physical environment<br><input type="checkbox"/> Impacts to endangered/threatened species  | X         |   |    | Section 10.4.2  |          |
| (c) Impacts on land use  | X         |   |    | Section 10.4.3  |          |
| (d) Social and economic impacts (such as effects on taxes, noise, traffic and roads, and consistency with local planning and zoning) to the following groups served by the landfill:<br><input type="checkbox"/> Local residents <input type="checkbox"/> Communities<br><input type="checkbox"/> Cultural groups <input type="checkbox"/> Industries  | X         |   |    | Section 10.4.4  |          |

Facility Name: Adams County Sanitary Landfill, License #3150

| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION       | COMMENTS |
|---|-----------|---|----|----------------|----------|
|   | Y         | N | NA |                |          |
| (e) Other special resources such as but not limited to:<br><input type="checkbox"/> Archaeological <input type="checkbox"/> Historical<br><input type="checkbox"/> State/local natural areas <input type="checkbox"/> Prime agricultural lands  | X         |   |    | Section 10.4   |          |
| (f) Probable adverse impacts that cannot be avoided including:<br><input type="checkbox"/> Groundwater and surface water impacts<br><input type="checkbox"/> Modifications of topography<br><input type="checkbox"/> Soil borrow source limitations on development around the landfill<br><input type="checkbox"/> Loss of agricultural or forest land<br><input type="checkbox"/> Displacement of wildlife [in and around the landfill]<br><input type="checkbox"/> Adverse aesthetic impacts for people | X         |   |    | Section 10.4.6 |          |
| (5) ALTERNATIVES. Does the report identify, describe and discuss feasible alternatives?   |           |   |    |                |          |
| Alternatives:<br><input type="checkbox"/> Taking no action<br><input type="checkbox"/> Enlarging, reducing or modifying the project to mitigate impacts<br><input type="checkbox"/> Other landfills, locations or methods to the proposed action and their impacts  | X         |   |    | Section 10.5   |          |
| Has particular attention been given to alternatives which might avoid some or all adverse environmental impacts, including planned and existing waste reduction & recycling, incineration, solid waste disposal, and transfer facilities that may serve to handle the waste expected to be disposed of at the proposed landfill, taking into account the economics of waste collection, transportation and disposal?  | X         |   |    | Section 10.5   |          |
| <b>NR 512.17 NEED AND DESIGN CAPACITY.</b><br><p>Note: In determining the design capacity of the proposed landfill under s. 289.29(1)(d), Stats., the department considers the effect of planned and existing waste reduction and recycling activities and other existing or proposed competing solid waste facilities, regardless of whether or not the other facilities are located within the service area, as defined under s. 289.28(1), Stats., of the proposed landfill.</p>                       |           |   |    |                |          |
| Is the proposed landfill part of a prospection or mining operation or a landfill for the disposal of waste generated by a pulp or paper mill and exempt under s. 289.28(2)?<br><input type="checkbox"/> yes <input checked="" type="checkbox"/> no  |           |   |    |                |          |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION     | COMMENTS |
|--|-----------|---|----|--------------|----------|
|  | Y         | N | NA |              |          |
| In addition to the information specified in s. 289.28(1), Stats. (below) does the report include the following:<br><input type="checkbox"/> Identification of the following activities/facilities used to manage solid wastes generated within the anticipated service area of the proposed landfill:<br><input type="checkbox"/> Identification of existing waste reduction/recycling activities<br><input type="checkbox"/> Identification of existing solid waste facilities<br><input type="checkbox"/> Remaining design capacity of each facility identified<br><input type="checkbox"/> Information for the activities/facilities, identified above, for which a significant commitment or implementation or development has been made   | X         |   |    | Section 11.2 |          |
| <b>289.28(1), Stats. DETERMINATION OF NEED.</b>  |           |   |    |              |          |
| (a) An approximate service area for the proposed facility which takes into account the economics of waste collection transportation and disposal.  | X         |   |    | Section 11   |          |
| (b) The quantity of waste suitable for disposal at the proposed facility generated within the anticipated service area.  |           |   |    |              |          |
| (c) The design capacity of the following facilities located within the anticipated service area:<br>1. Approved facilities, including the potential for expansion of those facilities on contiguous property owned or controlled by the applicant.<br>2. Nonapproved facilities which are environmentally sound.<br>3. Other proposed facilities for which feasibility reports are submitted and determined to be complete by the department.<br>4. Facilities for the recycling of solid waste or for the recovery of resources from solid waste which are licensed by the department<br>5. Proposed facilities for the recycling of solid waste or for the recovery of resources from solid waste which have plans of operation which are approved by the department.<br>6. Solid waste incinerators licensed by the department.<br>7. Proposed solid waste incinerators which have plans of operation which are approved by the department. |           |   |    |              |          |
| (d) If the applicant is a municipality and the need for a proposed facility cannot be established under the criteria listed under (a) through (c) above, does the report demonstrate need based on the extent to which the proposed facility is needed to replace other facilities of that municipality at the time those facilities are projected to be closed in the plans of operation?   | X         |   |    | Section 11   |          |

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| FEASIBILITY REQUIREMENTS   | COMPLETE? |   |    | LOCATION    | COMMENTS |
|--|-----------|---|----|-------------|----------|
|  | Y         | N | NA |             |          |
| <b>289.29(1)(d), Stats. CRITERIA FOR DETERMINATION OF FEASIBILITY.</b><br><br>Does the report indicate that the anticipated site life is between 10 to 15 years for a new facility or less than 15 years for an expansion?<br><br>__ yes   __ no   | X         |   |    | Section 3   |          |
| <b>NR 512.18 EVALUATION OF ALTERNATIVES TO LAND DISPOSAL.</b> Does the feasibility report contain an analysis of the alternatives to land disposal of waste, including potential and existing waste reduction, reuse, recycling, composting and energy recovery initiatives and services?  |           |   |    |             |          |
| (1) <b>ANALYSIS OF ALTERNATIVES TO LAND DISPOSAL.</b> Does the analysis include a discussion of the trends affecting the waste stream, an estimate of the cost per ton for each alternative, when available and an evaluation of the feasibility of implementing each potential alternative?   | X         |   |    | Section 12  |          |
| (2) <b>EVALUATION OF IMPLEMENTING ALTERNATIVES TO LAND DISPOSAL.</b> Does the feasibility report evaluate the feasibility of implementing waste reduction initiatives and recycling services in connection with the proposed landfill and describe any waste reduction incentives and recycling services to be provided at the proposed landfill?      | X         |   |    | Section 12  |          |
| <b>NR 512.19 NONCOMPLIANCE WITH PLANS OR ORDERS</b>  |           |   |    |             |          |
| Does the report include the following:<br><br>__ Identify all persons owning a 10% or greater interest in the applicant or assets of applicant<br>__ Identify other Wisconsin solid and hazardous waste facilities owned by applicants<br>__ Indicate whether all plan approvals and orders for facilities owned by applicants are being complied with | X         |   |    | Section 2.4 |          |
| <b>289.24(1)(c), Stats. COUNTY SOLID WASTE MANAGEMENT PLANS</b>  |           |   |    |             |          |
| Does the feasibility report contain a description of how the proposed facility relates to any applicable county solid waste management plan approved under s. 289.10, Stats?<br><br>Note: Applicants must address all DNR approved County plans within their proposed service area.  | X         |   |    | Section 2.5 |          |

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| FEASIBILITY REQUIREMENTS  | COMPLETE? |   |    | LOCATION    | COMMENTS |
|---|-----------|---|----|-------------|----------|
|   | Y         | N | NA |             |          |
| <b>289.24(1)(d) ADVISORY AND PUBLIC OPINION PROCESS</b>   |           |   |    |             |          |
| Does the feasibility report contain a description of the advisory process undertaken by the applicant prior to submittal of the feasibility report to provide information to the public and affected municipalities and to solicit public opinion on the proposed facility? | X         |   |    | Section 2.1 |          |

Legal Note: This document is intended solely as guidance, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.