BUREAU OF WATER QUALITY
PROCEDURAL INSTRUCTIONS

Wisconsin Department of Natural Resources
101 S. Webster Street, P.O. Box 7921
Madison, WI 53707-7921

Land Application Management Plans for WPDES Permitted Contract Haulers:
How to Review and Approve

January 2, 2019

EGAD Number: 3500-2017-09

This document is intended solely as procedural instructions, and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This document does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. This document 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 on any matter addressed by this document will be made by applying the governing statutes and administrative rules to the relevant facts.

APPROVED:

Adrian Stocks, Director
Bureau of Water Quality

1/10/19
Date
# Table of Contents

1.0 Definitions .................................................................................................................. 3
2.0 Acronyms ..................................................................................................................... 7
3.0 Applicability ............................................................................................................... 8
4.0 Background .................................................................................................................. 9
5.0 Land Application Management Plan Requirements .................................................. 10
   5.1 Cover Page .............................................................................................................. 10
   5.2 Waste Source Information ..................................................................................... 10
   5.3 Waste Storage Units (Storage Outfalls) ................................................................. 11
   5.4 Direct Land Application Outfalls ........................................................................... 12
   5.5 Waste Characterization ......................................................................................... 12
   5.6 Waste Transport .................................................................................................... 13
   5.7 Landspreading Submittal Procedures for Requesting New Sites ......................... 14
   5.8 Landspreading ....................................................................................................... 15
   5.9 Mixing Industrial Wastes into Manure Storage Units ........................................... 17
   5.10 Lagoon Desludge Projects .................................................................................. 18
   5.11 Additional Disposal Options ............................................................................... 19
   5.12 Record Keeping and Reporting ............................................................................ 20
6.0 Land Application Management Plan Review ................................................................ 20
7.0 SWAMP Documentation ............................................................................................ 21
8.0 Landspreading Management Plan Updates .................................................................. 21
9.0 Appendix ..................................................................................................................... 22
   9.1 Appendix A: Checklist for Reviewing Land Application Management Plans .......... 23
   9.2 Appendix B: Template Approval Letter for Land Application Management Plans ...... 29
10.0 Acknowledgements .................................................................................................... 30
1.0 Definitions

1. **Bedrock**: means the rocks that underlie soil material. Bedrock may be present at the earth’s surface when the earth’s surface when the weathered in-place consolidated material, larger than 2mm in size, is greater than 50% by volume (referenced from s. NR 113.03(7), NR 204.03(9), and NR 214.03(3), Wis. Adm. Codes).

2. **By-product solids**: means waste materials from the animal product or food processing industry including, but not limited to remains of butchered animals, paunch manure, and vegetable waste materials such as leaves, cuttings, peelings, and actively fermenting sweet corn silage (referenced from s. NR 214.17(4) Wis. Adm. Code).

3. **Commingled wastes**: different types of waste(s) that are mixed together (examples include but are not limited to: industrial + sewage sludge, industrial + septage, sewage sludge + septage, industrial + municipal + septage).

4. **Community well or community public water supply system**: means a public well which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any public well serving 7 or more homes, 10 or more mobile homes, 10 or more apartment units, or 10 or more condominium units shall be considered a community well, unless information is available to indicate that 25 year-round residents will not be served. (referenced from s 204.03(12) and 214.03(6), Wis. Adm. Codes).

5. **Department**: means the Wisconsin Department of Natural Resources (referenced from s. NR 204.03(15) and NR 214.03(8), Wis. Adm. Codes).

6. **Detrimental effect**: means contamination of the lands or waters of the state, or making the same injurious to public health, harmful for commercial or agricultural use, or deleterious to animal or plant life (referenced from s. NR 204.03(16) and NR 214.03(10) Wis. Adm. Codes).

7. **Direct land application outfalls**: permitted sampling locations (outfalls) for the direct transfer of wastewater or sludge from a client to a landspreading field registered under the contract hauler’s WPDES permit.

8. **Drainageway or dry run**: means a drainage pathway, either natural or artificial, with defined banks, which contains confined flow during periods of natural runoff (referenced from s. NR 204.03(18), Wis. Adm. Code).

   *Note: For the purposes of these procedural instructions, the terms “dry run” and “drainageway” are interchangeable.*

9. **Grease interceptor** (aka grease trap): means a watertight receptacle designed to intercept and retain grease or fatty substances contained in kitchen and other food wastes (referenced from s. NR 113.03(21), Wis. Adm. Code). This term should not to be confused with a receptacle
for grease collected from fryers (and similar cooking processes) and retained in onsite containers for removal/reuse.

A) **Industrial/process grease interceptor** (aka food processing grease): means a watertight receptacle designed to intercept and retain grease connected through process piping (not sanitary plumbing). See s. NR 214.18 Wis. Adm. Code.

B) **Sanitary grease interceptor**: means a watertight receptacle designed to intercept and retain grease connected through sanitary plumbing in and/or from kitchens and restaurants. Sanitary grease contains human pathogens. See ch. NR 113 Wis. Adm. Code.

10. **Groundwater**: means any of the waters of the state, as defined in s. 299.01 (5), Stats., [ss. 280.01 (2)] occurring in a saturated subsurface geological formation of permeable rock or soil. (referenced from s NR 204.03(27) and NR 214.03(16), Wis. Adm. Codes).

11. **Holding tank**: means an approved watertight receptacle for the collection and holding of sewage (referenced from s. NR 113.03(26), Wis. Adm. Code).

  A) **Domestic holding tank**: a watertight receptacle for the collection and holding of domestic wastewater [See definition of wastewater-domestic below].

  B) **Nondomestic or mixed (domestic + nondomestic) holding tank**: a watertight receptacle for the collection and holding of nondomestic wastewaters or a mix of domestic/nondomestic wastewaters [See definition of wastewater-nondomestic below].

12. **Incorporation**: means the mixing of sludge with topsoil to a minimum depth of 4 inches by such means as discing, mold-board plowing, chisel plowing, rototilling, or other tillage methods (referenced from s. NR 204.03(31), Wis. Adm. Code).

  *Note: Section NR 214.03(22), Wis. Adm. Code defines incorporation as “the mixing of a waste with topsoil by injecting, discing, moldboard plowing, chisel plowing, or rotary tillng to a minimum depth of 4 inches.”*

13. **Industrial liquid waste or industrial wastewater or liquid waste**: means process wastewater (non-agricultural process wastewater) and waste liquids, including silage leachate, whey, whey permeate, whey filtrate, contact cooling water, cooling or boiler water containing water additives, and wash water generated in industrial, commercial, and agricultural operations which results in a point source discharge to a land treatment system (referenced from s NR 214.03(27), Wis. Adm. Code).

14. **Injection**: means the subsurface placement of liquid sludge to a depth of 4 to 12 inches (referenced by s. NR 204.03(32) and NR 214.03(26), Wis. Adm. Code).

15. **Land application**: means the spraying or spreading of sludge onto the land surface, the injection of sludge below the land surface, or the incorporation of sludge into the soil.
Sludge can either condition or fertilize crops or vegetation grown in the soil (referenced from s. NR 204.03(33), Wis. Adm. Code).

16. **Land application management plan** or **landspreading management plan** or **sludge management plan**: means a document that outlines how wastes are stored, transported, and land applied on department approved fields. Management plans are required per s. NR 214.17(6)(c) and NR 214.18(6)(c), Wis. Adm. Code. Management plans may be required per s. NR 204.11, Wis. Adm. Code.

17. **Landspreading system** (landspreading): means a system where a controlled quantity of liquid or by-product is uniformly applied onto, or incorporated into, the surface soil of designated sites by means of a vehicle with a spreader bar, spray gun, or sub-surface injector. The wastes are to be applied for the benefit of the vegetative cover. Landspreading systems also include those systems where industrial sludges are occasionally applied through temporary irrigation piping at a frequency similar to that of application by vehicle (referenced from s. NR 214.03(26), Wis. Adm. Code).

18. **Land treatment system**: means a system that utilizes the physical, chemical, and biological abilities of the soil to decompose pollutants in the wastes. Land treatment systems include:
   A. Absorption or seepage pond systems,
   B. Ridge and furrow systems,
   C. Spray irrigation systems,
   D. Overland flow systems,
   E. Subsurface absorption field systems,
   F. Landspreading systems for liquid wastes or organic by-products,
   G. Sludge spreading systems, and
   H. Any other land area receiving liquid wastes, by-products, or sludge discharges (referenced from s. NR 214.03(24) Wis. Adm. Code).

19. **Manure** (animal waste): means a material that consists primarily of litter or excreta, treated or untreated, from livestock, poultry or other animals. Manure includes material mixed with runoff, bedding contaminated with litter or excreta, or process wastewater (referenced from s. NR 243.03(36), Wis. Adm. Code).

20. **Manure storage unit**: means any above or below ground unit designed (NRCS 313 standards) and approved to store manure. Manure storage units may be approved by the county land and water conversation department or pursuant to ch. NR 243, Wis. Adm. Code requirements.

   *Note: For the purposes of these procedural instructions, manure digesters are considered a manure transfer structure that transfers waste into manure storage units.*

21. **Non-Permitted farm**: a farm that does not have a WPDES permit (general or individual) that authorizes the application of liquid industrial waste or manure to cropland.
22. **Permitted contract haulers**: a business that has been issued a WPDES permit to haul, comingle, store, and land apply wastes.

23. **Permitted farm**: a livestock operation that has a WPDES permit (example: Concentrated Animal Feeding Operation or CAFO) that authorizes the application of liquid and/or solid manure to croplands or authorizes a discharge to surface waters.

24. **Portable restroom**: means fixtures, incorporating holding tank facilities, designed to directly receive human excrement. Portable restrooms are self-contained units, may be designed for one or more person’s use at a given time and are readily transportable (referenced in s. NR 113.03(41), Wis. Adm. Code).

25. **Private water supply well or private well**: means a residential water supply or a livestock water supply. (referenced from s. NR 123.03(16), Wis. Adm. Code)

26. **Privy**: means a cavity in the ground or a portable above ground device constructed for toilet uses which receive human excrement either to be partially absorbed directly by the surrounding soil or stored for decomposition and periodic removal (referenced in s. NR 113.03(43), Wis. Adm. Code).

27. **Septage**: means the wastewater or contents of septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies, or portable restrooms (referenced from s. NR 113.03(55), Wis. Adm. Code). Note: this does not include non-domestic wastewater/septage (non-domestic examples include, but are not limited to process grease, car wash waste, catch basin waste, etc.).

28. **Sewage sludge** (or biosolids): means the solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works (referenced from s. NR 204(55), Wis. Adm. Code). Sewage sludge includes scum or solids removed in primary, secondary or advanced wastewater treatment processes and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

29. **Sludge** (industrial sludge): means the accumulated solids generated during the biological, physical or chemical treatment, coagulation or sedimentation of water or wastewater (referenced from s. NR 214.18(34), Wis. Adm. Code).

30. **Sludge spreading system**: system where a controlled quantity of industrial sludge is uniformly applied onto, or incorporated into, the surface soil of designated sites by means of a vehicle with a spreader bar, spray gun, or sub-surface injector. The sludge is landspread as a soil amendment or for nutrient reuse. Only sludges which have been exempted from regulation under ch. NR 518, Wis. Adm. Code, and have been shown to have beneficial properties as a soil conditioner or fertilizer, and not have detrimental effects on the soil crops or groundwater may be spread on the land.
31. **Storage structure**: a lagoon, slurry store, storage pad, etc. that has been reviewed and approved by the department to store industrial wastes, sewage sludges, septage wastes, and/or comingled wastes. These structures are registered under the contract hauler’s WPDES permit.

32. **Total volume** (of manure storage unit): means the total gallons of manure retained in the storage unit just prior to land application.

33. **Wastewater-Domestic**: wastewater originating solely from human and domestic activities such as sanitary, bath, laundry, dishwashing, garbage disposal, and the cleaning of domestic areas or utensils. Wastewater from restaurants is considered to be domestic wastewater. [clarified pursuant to DSPS (DComm) and DNR Memo of Understanding dated December 16, 1999].

34. **Wastewater-Non-Domestic**: includes, but is not limited to, wastes collected from non-residential garages used for storage, maintenance, or washing of motor vehicles, commercial food processing, commercial laundromats, animal shelters or kennels, animal rendering, metal fabricating, electronic component manufacturing, chemical manufacturing, milkhouses and other industrial and commercial process water. [clarified pursuant to DSPS (DComm) and DNR Memo of Understanding dated December 16, 1999].

   *Note: Nondomestic wastewater may include a mix of nondomestic and domestic wastes.*

35. **Wetland**: means areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which have soils indicative of wet conditions (referenced from s. NR 204.03(72) and NR 214.03(38), Wis. Adm. Codes).

### 2.0 Acronyms

1. **CAFO**: Concentrated Animal Feeding Operation
2. **DMR**: Wastewater Discharge Monitoring Report
3. **DNR**: Department of Natural Resources (“department”)
4. **DSPS**: Department of Safety and Professional Services (formerly Department of Commerce)
5. **LMP**: Land Application (or Landspreading) Management Plan
6. **MSDS**: Material Safety Data Sheet (aka Safety Data Sheet or SDS)
7. **NMP**: Nutrient Management Plan
8. **NRCS**: Natural Resource Conservation Service (formerly known as the U.S. Soil Conservation Service (SCS))
3.0 Applicability

These procedural instructions outline the landspreading management plan requirements (LMPs) for Wisconsin Pollution Discharge Elimination Systems (WPDES) permitted contract haulers.

The following wastes and situations are excluded from the use of this document as well as other wastes and situations:

- Septage wastes (septage, holding tank, sanitary grease, portable restroom, privy, etc.) landspread under a Wisconsin septage business license and pursuant to chs. NR 114 and NR 113, Wis. Adm. Code;
- Industrial wastes (industrial liquid wastes, by-product solids, sludges including process grease, non-domestic wastes, etc.) landspread by the waste generator, or by contractors operating under the waste generator’s WPDES permit and applied to sites approved for that generator pursuant to ch. NR 214, Wis. Adm. Code;
- Sewage sludge landspread by the sludge generator (example: WWTF) pursuant to ch. NR 204, Wis. Adm. Code;
- Wastes landspread as part of a lagoon desludge project;
- Wastes landspread as part of a digester, aeration basin, or recirculating media filter cleanout project;
- Wastes excluded per s. NR 214.02(3) Wis. Adm. Code;
- Farm process wastewater regulated per ch. NR 243 Wis. Adm. Code;
- Lime sludges generated and directly land applied by paper mills or water supply treatment facilities; and
- Hazardous wastes as defined by ch. NR 518, Wis. Adm. Code.

Note: Process wastewater (milhouse waste, silage leachate, etc.) generated at the agricultural facility (permitted and non-permitted) and discharged into a manure storage unit is typically classified as an agricultural waste. In contrast, process wastewater generated at an industrial facility and discharged as a waste is considered an industrial liquid waste (regulated pursuant to s. NR 214.17, Wis. Adm. Code). Wastes from agricultural and industrial facilities may be characteristically similar but are regulated pursuant to the type and/or origin of waste generation.
4.0 Background

WPDES permitted contract haulers throughout the State of Wisconsin temporarily store, mix, and landspread wastes from numerous waste generators (clients). Contract haulers often have complex permits, involving multiple influent clients and storage unit locations, storage units containing comingles wastes (examples include but are not limited to: industrial + sewage sludge, industrial + septage, sewage sludge + septage, industrial + municipal + septage), direct land application outfalls, and multiple landsparing techniques.

WPDES permitted contract haulers are required to submit a land application management plan (LMP). Land application management plans outline how wastes are stored, transported, and land applied on department-approved fields. The LMP typically serves as a standard operating procedure (SOP) for the contractor’s employees and/or sub-contractors to reference and implement. Department staff utilize the LMP to allow flexibility in permittee operations while ensuring the permittee meets WPDES permit and code requirements when land applying.

LMPs include information such as a waste volume and characterization, storage unit locations, sampling procedures, land application outfalls, type of transportation vehicles, land application equipment, pathogen control requirements, vector attraction reduction control requirements, contingency plans for periods of adverse or inclement weather, spill response procedures, reporting requirements, and any other pertinent information.

Note: The LMP must account for direct land application outfalls. These outfalls apply to clients where waste (industrial liquid wastewater, industrial sludge, by-product solids, and/or sewage sludge) is hauled and directly spread on department-approved fields without temporary storage.

Given the increasing complexity of these permits as well as the growing number of permitted contract haulers in the State of Wisconsin, the department developed these procedural instructions to standardize an outline of items for permitted contract haulers to address in their management plans. The permittee must submit a management plan that optimizes performance and demonstrates compliance with chs. NR 113, NR 204, and/or NR 214 Wis. Adm. Code (as applicable).

Following approval by the department, the permittee must operate in conformance with the LMP. If the permittee wishes to operate differently than specified in the approved plan, a written request must be submitted to the department for approval to amend the management plan.

Legale note: this document is intended solely as procedural instructions and does not contain any mandatory requirements, except requirements found in state statute or administrative rule. This guidance does not establish or affect legal rights or obligations, and is not finally determinative of any of the issues addressed. These procedural instructions do 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 these procedural instructions will be made by applying the governing statutes and
administrative rules to the relevant facts. Each item on the outline must be adequately discussed in the plan. If an item is omitted, the permittee must have an explanation as to why the requested information is not relevant.

5.0 Land Application Management Plan Requirements

Land application management plans include the following sections:
1) Cover Page;
2) Waste Source Information;
3) Storage Structures (Storage Outfalls);
4) Direct Land Application Outfalls
5) Waste Characterization;
6) Waste Transport;
7) Land Application;
8) Mixing Industrial Wastes into Manure Storage Units (if applicable);
9) Lagoon Desludge Projects (if applicable).
10) Additional Disposal Options; and
11) Record Keeping and Reporting.

5.1 Cover Page

The cover page includes the following information:
1. Permittee name,
2. WPDES permit number,
3. Mailing address of facility,
4. Authorized representative for permittee,
5. Contact information (phone, email address, etc.) of authorized representative,
6. Management plan developer,
7. Contact information (phone, email address, etc.) of LMP developer, and
8. Version number or draft number and date of the land management plan.

5.2 Waste Source Information

The waste information section includes the following information:
1. A description of all influent waste types (including, but not limited to: by-product solids, industrial wastes, industrial sludges, sewage sludge (biosolids), septage, manure). If waste is grease, indicate whether it is a process or sanitary grease. If waste originates from holding tanks, indicate whether wastewater is domestic or non-domestic.

2. A list of all influent clients. The client information must include the following information:
   a. DNR designated sample point number
   b. Client name (or client confidential number),
c. Type of waste,
d. Description of the industrial or commercial processes that generate the wastewater and/or solids,
e. Treatment processes (if applicable),
f. Listing of chemicals used in industrial and/or treatment process and corresponding material safety data sheets (MSDS or SDS, as applicable),
g. Standard industrial code (SIC),
h. Estimated yearly volume, and
i. How changes in wastewater characteristics are identified and communicated to the department.

3. A description for how waste volume is quantified and reported (to the department) for each influent client.

4. Identification of any potential pollutants of concern in the waste is also provided. This may include, but is not limited to chloride, metals (arsenic, copper, lead, mercury, molybdenum, nickel, and selenium), radium, and PCBs.

5. A procedure for submitting additional influent waste clients.

   *Note: Each time a new client is approved under the permittee’s WPDES permit, the above information must be provided as an amendment to the LMP.*

### 5.3 Waste Storage Structures (Storage Outfalls)

This section relates to storage structures with outfalls (not including manure storage structures used for disposal):

1. A list of all DNR approved storage structures including the following information:
   a) DNR designated sample point number,
   b) Storage structure name,
   c) Legal description of unit,
   d) Construction description (type, materials, approval date, approval number),
   e) Storage capacity (gallons, cubic yards, tons) of structure,
   f) Types(s) of waste (examples: industrial liquid wastewater, cake sludge, sewage sludge, septage, etc.) stored in structure,
   g) Approximate waste volume stored annually in each structure.

   *Note: The landspreading management plan must detail leachate containment for storage units containing industrial cake sludge, by-product solids, and/or municipal cake sludge.*

2. The location of each storage structure on aerial photographs.

3. Flow diagram detailing how wastes are discharged into and removed from each storage structure.
4. The procedures for regularly inspecting and maintaining each storage unit. This procedure includes spill management, leakage, feasibility for secondary containment, and structural failure mitigation procedures.

5. A template inspection and maintenance/repair log. It is recommended that this log include the following information:
   a) Date and time of inspection,
   b) Storage structure(s) inspected,
   c) Inspector(s),
   d) Observations,
   e) Recommended repairs/maintenance, and
   f) Date of repairs/maintenance.

6. When a new or different storage structure is approved by the department (as part of a WPDES permit modification or reissuance), the specific information as outlined above should be provided as an amendment to the LMP.

5.4 Direct Land Application Outfalls

This section relates to direct land application approved under the contract hauler’s WPDES permit.

1. A list of all DNR approved direct land application outfalls including the following information:
   a. DNR designated sample point number (outfall),
   b. Client name/confidential number,
   c. Legal description of client’s storage unit,
   d. Construction description of client’s storage unit (type, materials, approval date),
   e. Storage capacity (gallons, cubic yards, tons) of client’s structure,
   f. Type of waste, and
   g. Approximate volume of waste discharged annually from each outfall.

2. A procedure for submitting additional direct land application outfalls for new waste clients.

   Note: Each time a direct land application outfall is approved under the permittee’s WPDES permit, the above information must be provided as an amendment to the LMP.

5.5 Waste Characterization

This section provides information related to the wastewater and/or waste characteristics, where and how samples are collected and other related information. The following information is expected to be included in the LMP:
1. A detailed description of how and where representative samples are collected from each sample location (storage and direct land application outfalls).

   Note: To obtain representative samples, some contract haulers mix storage tanks prior to landspreading. If mixing is utilized to obtain representative samples, the LMP details mixing procedures. If mixing is not used to obtain representative samples, the LMP details how the sample is determined to be representative.

2. A list of all waste parameters and the monitoring frequency associated for each outfall.

3. A list of current state certified laboratories used to analyze the permittee’s samples.

4. A template sampling log that includes the following information:
   a. Date, exact place, method, and time of sampling or measurement;
   b. Individuals who performed the sampling or measurements;
   c. Laboratory that completed the analysis;
   d. Analytical techniques or methods used; and
   e. Results of the analysis.

5. A table summarizing of the most recent characteristic data for each outfall. The department recommends calculating an average concentration (last 5 calendar years) for each pollutant. A range of data may be included as well to show expected range of data results.

5.6 Waste Transport

The waste transport section of the landspreading management plan includes the following:
1. A description of methods for pumping liquid waste from the storage unit to the hauling vehicle. When transporting a solid material (example: cake sludge), a description for how solids are loaded into the hauling vehicle is provided.

2. A description of each vehicle used for hauling detailing the type (year, make, model) and capacity (gallons, cubic yards, tons). The department recommends that the permittee update these descriptions each time a new vehicle is used to haul waste.

3. A listing of all contractor(s) or sub-contractor(s) used for removing liquids/solids (if applicable).

4. A description for measuring the total volume hauled and the types of records that will be maintained. The department recommends that a transport log be kept. This log records the following information:
   a. Permittee name,
   b. Date/time waste is removed from storage structure,
   c. Truck identification number,
   d. Driver name,
e. Disposal location (land application field, WPDES permitted facility, manure storage unit, landfill, etc.),
f. Date/time of disposal, and
g. Approximate volume (gallons, tons, cubic yards).

5. An explanation of how each application vehicle is unloaded at disposal location(s). If land applying with the same vehicle, then further explanation is needed of all types of equipment (including but not limited to high pressure spraying guns, spreader bars, splash plates, or other devices).

6. A description of contingency plans developed for periods of adverse or inclement weather.

7. A spill response plan for transportation and land application spills. This plan should include an SOP for clean-up of both minor (<50 gallons) and large spills (>50 gallons). This plan should include notification of the DNR 24-hour spill hotline (1-800-943-0003). The plan should also include local emergency response information, including but not limited to, contacts for the local police department, sheriff’s department, and state patrol. Smaller WWTFs should consider a mutual assistance agreement with other local municipalities and/or septage businesses. The permittee may consider including emergency after-hours contacts for facility personnel.

5.7 Landspreading Submittal Procedures for Requesting New Sites

The site submittal section of the LMP includes the following information describing how to obtain new sites/fields for land applying:

1. A complete Land Application Site Request Form (Form 3400-053) is provided for each requested site.

2. The location of each land application site/field on an aerial photograph.

3. A soil map for each site.

4. Proof of ownership is provided for each site. Proof of ownership can be obtained from a county’s tax parcel website or office of land records.

5. All potential site restrictions are provided, including, but not limited to:
   a. Bedrock,
   b. Groundwater,
   c. Permeability and available water holding capacity,
   d. Slope and erodibility,
   e. Residences,
   f. Private and community wells,
   g. Surface water (streams, rivers, ponds, lakes, etc.)
   h. Wetlands,
i. Drainageways and dry runs,

j. Drainage tiles, and

k. Other site-specific information.

6. Proposed areas that are suitable for land application are clearly identified on a site map (per ch. NR 204, Wis. Adm. Code).

7. Potential crops to be grown and/or the dominant vegetation on the land application site are provided along with the anticipated harvest and removal schedule.

8. The adjacent land use (commercial, residential, industrial, forest, etc.) is described and mapped as well as any other relevant land features associated with the site.

9. A copy of the completed landowner permission form is included.

10. A recent (within the last 4 calendar years) soil test report is provided per s. NR 204 and/or s. NR 214.18, Wis. Adm. Code(s) (if applicable). The locations of each composite soil test result are delineated on an aerial photograph.

11. If other sources of nitrogen (commercial fertilizers, manure, etc.) will be applied to each field an estimate of proposed additional fertilizer use is provided.

   Note: Fields may have an approved nutrient management plan (NMP). The NMP may further limit the waste’s application rate (pounds nitrogen/acre/crop year). The permittee may need to adjust land application rates accordingly

5.8 Landspreading

This section details the actual practices used during the landspreading activities and includes the following:

1. Detailed procedures for obtaining and regularly requesting a list of department-approved land application sites/fields (“Approved Site List”).

2. Example field loadings that show nitrogen and chloride calculations for each outfall.

3. Example field loadings that show metal calculations for each outfall.

4. Detailed procedures for collecting soil composite samples, submitting the composite samples to a soil testing laboratory, and providing the final reports to the department.

   Note: Soil test reports are required for actively used land application fields every four years per s. NR 204.06(6)(c) and s. NR 214.18 (4) and (5), Wis. Adm. Codes.

5. Estimates that show approximate acreage needed to land apply waste from all outfalls. Approximate acreage can be estimated by averaging the past five years wastewater and/or sludge characteristic data.
6. Spreading method descriptions for each outfall (examples include, but are not limited to: splash plate, spray gun, manure spreader, incorporation, injector, etc.).

7. Procedures for meeting pathogen control and vector attraction reduction requirements per s. NR 113.07(3), s. NR 204.07 (6) and (7), and s. NR 214.17(4)(c) Wis. Adm. Codes (as applicable).

8. Identification of potential restrictions on cropping practices based on type of waste and/or spreading method.

9. Explanation for outlining how setbacks and restricted areas are identified on each site/field (examples include: flagging, cones, rangefinder, GPS unit, etc.)

10. Templates or copies of the daily landspreading log. Generally, a landspreading log contains the following information:

   a. Permittee name,
   b. Date,
   c. Sample point number (storage or direct land application outfall),
   d. DNR site number,
   e. Site/field name,
   f. Property owner,
   g. Time of each application event,
   h. Gallons/Tons/Cubic yards of each application event,
   i. Total daily volume landspread,
   j. Application rate (gallons/acre, tons/acre, cubic yard/acre),
   k. Application method (incorporation, injection, surface),
   l. Total acres landspread,
   m. Crop year and intended cover crop,
   n. Applicator name,
   o. Wind direction if using a spray gun, and
   p. Other relevant information.

11. Examples of daily landspreading maps. These maps identify the locations where waste is land applied on each approved site/field per day.

12. Detailed description explaining how waste is uniformly spread across each site/field. Describe how the start and stop location is identified for each field (examples include but are not limited to: injection “tracks” for drag line system; cones or flags when using a splash plate).

13. Detailed description for how hydraulic application rates are calculated for each type of spreading equipment. For tractors using an on-board flow meters, the LMP should detail the frequency of meter calibration.
14. When spray guns (truck-mounted, hose reel, etc.) are utilized by the permittee, detailed
descriptions are provided for how “misting” or “drift” is minimized (examples:
monitoring and recording of wind direction, identification of optimal fields for spray
equipment, increasing setbacks from roadways/houses when using equipment, etc.).

15. Description for how additional nitrogen sources are tracked for each site/field to ensure
nitrogen loading rate limits are not exceeded. The department recommends that the
permittee develop a SOP for communicating with each site owner and renter/farmer (if
applicable).

16. Description of procedures to minimize and respond to odors.

17. Describe temporary and/or permanent staging areas and how they are managed as
approved and specified in the WPDES permit.

18. Description that explains how the permittee complies with the time requirements between
waste application and for meeting minimum incorporation requirements into the surface
soils if required by the WPDES permit or code requirements.

19. Describe the method for notifying the department prior to land application. The
description must include method of communication, department contact, and the number
of hours of advance notice.

5.9 Mixing Industrial Wastes into Manure Storage Units

When industrial wastes are proposed to be mixed into manure storage structures the following
information is provided as part of the LMP:

1. A description explaining how industrial liquid waste (<10% exemption total volume) is
handled and discharged into manure storage structures. If liquid manure storage
structures are used to store a mixture of manure and wastewater, the permittee submits a
“Notice of Intent to Store Industrial Wastes in Existing Off-Site Manure Storage
Structure” (form 3400-196) detailing information on the structure’s volume, the
wastewater volume to be discharged, evidence to show the structure meets or exceeds
USDA NRCS Technical Bulletin Section IV Design Criteria 313 (2/86), 425 (10/83),
or equivalent sealing specifications, and who is responsible for landspreading the
manure/wastewater mixture. Staff should reference the “Mixing Industrial Wastes
(Industrial Liquid Wastewaters and Sludges) into Manure Storage Units: How to Review
and Approve” procedural instructions for discharge request submittal requirements.

2. Once a manure structure is approved, the permittee maintains a list of all manure storage
units approved under their WPDES permit within the LMP, containing the following
information:
   a. Manure storage unit name,
   b. Legal description of unit,
   c. Construction description,
d. Structure capacity,
e. Typical waste(s) and sources stored in structure, and
f. Approximate waste volume (gallons) discharged annually into each manure storage unit.

3. A template or photocopy of the daily discharge log into the manure storage structure is included with the LMP, including, but not limited to the following:
   a. Permittee name,
   b. Outfall number,
   c. Date and time the waste is removed from storage structure,
   d. Truck identification number,
   e. Driver name,
   f. Disposal location (manure storage unit name, DNR #),
   g. Disposal date and time to manure storage unit,
   h. Approximate volume (gallons, tons, cubic yards), and
   i. Other relevant information.

4. A brief outline describing the procedure(s) for regularly inspecting and maintaining each manure storage unit is included in the LMP.

5. A description for who is responsible for updating the farm’s NMP (if applicable), providing industrial wastewater characteristic data to the unit owner, and landspreading the manure mixture is included in the LMP.

6. A template or photocopy of the inspection and maintenance log for the manure storage structure is part of the LMP. This log should include, but is not limited to, the following information:
   a. Date and time of inspection,
   b. Storage structure(s) inspected,
   c. Inspector(s),
   d. Observations,
   e. Recommended repairs/maintenance, and
   f. Date of repairs/maintenance.

5.10 Lagoon Desludge Projects

This section includes lagoons approved and registered under the contract hauler’s WPDES permit. This section may also include lagoons registered under other WPDES permits, where the WPDES permitted contract hauler has requested and received approval for a direct land application outfall. For lagoon desludging projects, additional information is provided in the LMP, including the following:
1. A list of all lagoon(s) that are included in the desludge project.
2. Detailed explanation describing how the industrial and/or municipal facility will continue to function during the lagoon drawdown. Description should include how surface water and groundwater discharge limits will be met (if discharging and/or dewatering).

3. Detailed description for whether liquids, solids, or both are landspread. Estimate total volume of each and provide calculations for estimated water depth and sludge thickness for each lagoon.

4. Estimates detailing the expected nitrogen, chloride, and metal loading rates. These rates must be based on analysis of representative sludge samples (see the “Waste Characterization” section above). Using this rate, provide calculations detailing the total number of acres needed to meet the agronomic needs of the intended crop(s).

5. Estimates explaining the hydraulic loading rate proposed for landspreading (total gallons, tons or cubic yards per day, and total volume per week). Using the hydraulic application rate, calculate the total number of acres needed to landspread the contents of the lagoon(s).

6. Collect fecal samples (composite samples) for each lagoon (if applicable). The permittee should verify that sample results meet WPDES permit and ch. NR 204, Wis. Adm. Code requirements.

7. A list of all approved sites/fields for which industrial waste and/or sewage sludge will be land applied. New landspreading sites need to be submitted to the department for review (see the “Landspreading Site Submittal Procedures for Requests New Sites” section above).

8. A detailed explanation describing how the wastes will be removed and hauled to spreading sites (equipment types and hauling vehicle capacity). Provide a description of precautions to prevent liner damage and spillage.

9. An adverse or inclement weather plan.

10. Notification details describing how the department will be notified prior to landspreading, including the number of hours advanced notice.

### 5.11 Additional Disposal Options

As part of the LMP, information relating to other disposal options should be included:

1. A list of all the potential disposal options is included. Disposal locations may include, but are not limited to:
   a. Incineration,
   b. Landfill,
   c. Hauling to another WWTF, or
   d. Authorized WPDES permitted entity.
2. A template or photocopy of the daily discharge log for using these other disposal methods include the location of these other disposal location(s). The disposal log may include, but is not limited to, the following information:
   a. Permittee name,
   b. Outfall number,
   c. Date/Time waste is removed from storage structure,
   d. Truck identification number,
   e. Driver name,
   f. Disposal location (WWTF, WPDES permitted contract hauler, landfill, etc.),
   g. WPDES permit number,
   h. Date/Time of disposal,
   i. Approximate volume (gallons, tons, cubic yards), and
   j. Other relevant information.

5.12 Record Keeping and Reporting

Identify the person responsible for compliance with WPDES permit conditions and ensuring reports are submitted as necessary for maintaining compliance. The LMP should include:
   1. Identification of the person responsible for maintaining the daily log records and identifying the location where the records are kept.
   2. Include a list of all required monthly and annual reports, the general due date for each report, and the name of the person who is responsible for submitting those reports to the department.
      a. Monthly Discharge Monitoring Reports (DMRs),
      b. Wastewater Characteristic Reports (form 3400-049),
      c. Other Methods of Disposal and Distribution Reports (form 3400-052), and
      d. Annual Land Application Reports (form 3400-055).

6.0 Land Application Management Plan Review

Once received, review of the Land Application Management Plan is typically conducted by the department’s facility regulator. Appendix A includes a checklist that can be used to review the draft LMP. Once the review has been completed, the facility regulator sends an approval or denial letter to the WPDES permitted contract hauler’s authorized representative (see Appendix B). If the LMP is not complete, the land application management plan should be denied and returned. Assistance may be necessary to help the applicant complete a satisfactory LMP.
7.0 SWAMP Documentation

For consistency efforts, and to better query activities within the wastewater program, wastewater staff are required to update SWAMP after the Landspreading Management Plan review is complete.

1. Event Tracker:
   a. Add the submittal and review date for the management plan into SWAMP’s Event Tracker tab under “Contact Events.”

2. Permit Documents:
   a. Add the management plan summary letter into SWAMP’s Permit Documents tab.
   b. Title the document “LMP Approval Letter.”
   c. Add the final LMP into SWAMP’s Permit Documents tab (if possible depending on the size of the document).
   d. Title the document “LMP Approved [Enter Approval Date]”

8.0 Landspreading Management Plan Updates

Following approval by the department, the permittee must operate in conformance with the landspreading management plan. If the permittee wishes to operate differently than specified in the approved plan, a written request must be submitted to the department for approval to amend the management plan (per WPDES permit requirements and ss. NR 204.11, NR 214.17(6)(c), and/or NR 214.18(6)(c), Wis. Adm. Codes). Deviating from the LMP without department approval may result in violations of the facility’s WPDES permit and/or code requirements. Further, the department may implement stepped enforcement on a case-by-case basis.
Appendix

**LAND APPLICATION MANAGEMENT PLAN CHECKLIST**
Contract Haulers

<table>
<thead>
<tr>
<th>DNR REVIEWER:</th>
<th>NAME OF FACILITY:</th>
<th>DATE SUBMITTED:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FID:</th>
<th>PERMIT NUMBER:</th>
<th>WASTE(S) TYPES:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE: FOR ADDITIONAL DETAILS REFER TO GUIDANCE**

### 1. LAND APPLICATION MANAGEMENT PLAN REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cover Page</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Waste Source Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Waste Storage Structure Outfalls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Direct Land Application Outfalls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Wastewater Characterization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Wastewater Transport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Land Application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Manure Storage Structure Disposal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Lagoon Desludge Projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Additional Disposal Options</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Record Keeping and Reporting</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

### 2. COVER PAGE

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Permittee name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. WPDES permit number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mailing address of facility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Authorized representative for permittee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Contact information of authorized rep</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Management plan developer and contact information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Draft number &amp; date of management plan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**
3. WASTE SOURCES INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Summarize all influent waste types</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Provide a list of all influent clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Detail how volume is quantified and reported for each influent client</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Identification of pollutants of concern that may be present in waste hauled</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Detail procedures for submitting additional influent waste clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Note: Each time a new client is approved under the permittee’s WPDES permit, the above information must be provided as an amendment to the land application management plan.

Comments:

4. WASTE STORAGE STRUCTURE

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. List all DNR approved storage structures</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Identification of each storage structure on aerial photograph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Flow diagram</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4 Inspection and maintenance procedure</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Template inspection and maintenance log</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Note: Each storage structure is approved by the Department, the above information must be provided as an amendment to the land application management plan.

Comments:

5. DIRECT LAND APPLICATION OUTFALL

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. List all direct land application outfalls</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Procedure for new direct outfall requests</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Note: Each time a direct land application client is added to the permit, the permittee must update the land application management plan.

Comments:
## 6. WASTE CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Detail where and how representative samples are collected from each outfall</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. List all waste parameters and the monitoring frequency associated for each outfall</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Identify the current state certified laboratory</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Sample collection log</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Comments:

## 7. WASTE TRANSPORT

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe method of pumping liquid waste from storage unit to hauling vehicle</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Detail type and capacity hauling vehicle(s)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Listing of all contractor or subcontractors used for removing liquids/solids</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Detail how total volume hauled is measured and what kind of records will be kept</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Explain how each vehicle is unloaded at disposal location</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Contingency plan for inclement weather</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Outline spill response plan or transportation and land application spills. Must include DNR 24-hour spill hotline (1-800-943-0003)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Comments:

## 8. LANDSPREADING SITE REQUESTS (NEW SITES)

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Include complete land application site request form (3400-053)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Show each landspreading field on map</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. NRCS soil map data</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Proof of ownership</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
3. Map showing suitable conditions for land application | ☐ | ☐ | ☐
4. Crops / dominant vegetation & harvest schedule | ☐ | ☐ | ☐
5. Describe adjacent land use, drainage, and land features | ☐ | ☐ | ☐
6. Explain of site ownership and site number used | ☐ | ☐ | ☐
7. Copy of land owner permission form | ☐ | ☐ | ☐
8. Copy of soil test report (if applicable) | ☐ | ☐ | ☐
9. Determination if other sources of nitrogen will be applied to each field | ☒ | ☐ | ☐

Note: Fields may have an approved NMP. The facility may need to adjust land application rates accordingly

Comments:

9. LAND APPLICATION

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Details of obtaining approved sites list</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Example nitrogen &amp; chloride calculations for each outfall</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Example metal calculations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Estimate approximate acreage needed to landspread waste from all outfalls.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Description of how department will be notified prior to landspreading</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. Describe how wastes are land applied from each outfall</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. Describe special restrictions on cropping practices to reflect the type(s) of waste land applied</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. Outline how setbacks and restricted soils are identified on each site/field</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. Provide a blank copy of the daily land application log</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. Provide a copy of daily land application map</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11. Details how waste is uniformly spread</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12. Hydraulic rate calculation (for each type of spreading equipment)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13. Details how &quot;misting&quot; and &quot;drift&quot; are minimized (spray gun)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14. Outline of additional nitrogen sources</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
10. DISPOSAL INTO MANURE STORAGE UNITS

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong> Industrial wastewater (&lt;10% exemption total volume). If liquid manure storage structures are used to store a mixture of manure and wastewater, the permittee must submit a 3400-196 form detailing information on the volume of the structure, the volume of wastewater to be discharged, evidence to show the structure meets or exceeds USDA NRCS Technical Bulletin Section IV Design Criteria 313 (or equivalent sealing specifications), and identify who is responsible to land apply the manure/wastewater mixture.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> By-product solids, industrial sludge, biosolids, septage, and industrial wastewater (&gt;10% total volume). The permittee must request and receive approval to use these structures prior to discharge into the unit. Once approved, information on these structures must be added to the land application management plan.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 1. List of approved storage structures | ☐ | ☐ | ☐ |
| 2. Provide a blank copy of the daily discharge log to the manure storage structure | ☐ | ☐ | ☐ |

**Comments:**

11. ADDITIONAL DISPOSAL OPTIONS

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. List all potential disposal options (landfill, WWTF, non-permitted farm, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Provide blank copy of daily discharge log to the disposal location(s)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Comments:**
## 12. RECORD KEEPING & REPORTING

<table>
<thead>
<tr>
<th></th>
<th>Sufficient</th>
<th>Not Sufficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify who is responsible for maintaining daily log records &amp; where records are stored</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Identify who is responsible for sample collection for required monitoring and detailing how sampling results are recorded</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. List all monitoring discharge reports (DMR), including the general due date for each report</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. List all required annual reports and who is responsible for submitting those reports to the department</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Comments:**

**13. ADDITIONAL COMMENTS**

[Enter Date]

[Enter WPDES Permittee Contact Information]

RE: Approval of land application management plan for
[enter waste generator facility name] (WPDES permit # [enter WPDES permit #])

Dear [Enter name],

Thank you for submitting a draft copy of [enter WPDES permittee name’s] land application management plan. The Department of Natural Resources (department) has reviewed and approved this draft document.

Effective immediately, the [enter WPDES permittee name] must operate in conformance with this land management plan.

If [enter WPDES permittee name] wishes to operate differently than specified in the approved management plan, a written request must be submitted to the department for approval to amend the management plan. Deviating from the management plan without department approval may result in violations of [enter WPDES permittee name’s] WPDES permit and/or code requirements.

If you have any questions regarding this approval letter, please call me at [enter phone number] or email me at [enter email address].

Sincerely,

[Enter Signature Block]

cc. permit file
[enter Wastewater Supervisor name]
10.0 Acknowledgements

This guidance was developed by the WDNR Wastewater Program Landspreading Work Group. This group is composed of the following members: Lacey Hillman, Kelley O’Connor, Fred Hegeman, Steve Warrner, Emily James, Leanne Hinke, Michelle Balk, Alison Canniff, Danielle Luke, Trevor Moen, Alexis Heim Peter, Ian Hansen, and Nate Willis. The Wastewater Program Landspreading Work Group thanks the following staff for assistance drafting this guidance document: Doris Thiele, Heidi Schmitt-Marquez, Mark Corbett, Ken Denow, Dan Heim. For any questions regarding this guidance document, please contact the group’s co-coordinators: Fred Hegeman and Steve Warrner.