



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

August 11, 2021

Trevor Schuurman
Beneficial Reuse Management/Gypsoil LLC
372 West Ontario Street, Suite 501
Chicago, Ill 60654

Re: Beneficial Reuse Management/Gypsoil, LLC
Permit- Short Term
Approval
Beneficial Use
Out of State
BENU024148

Re: Beneficial Reuse Management/Gypsoil, LLC
Exemption
Approval
Beneficial Use
Out of State
BENU024148

**Subject: Beneficial Reuse Management/Gypsoil, LLC
Land Application Management Plan Permit Approval and Exemption
Flue Gas Desulfurization Gypsum**

Effective Date: August 11, 2021

Expiration Date: August 11, 2026

Dear Mr. Schuurman,

The Ohio Environmental Protection Agency ("Ohio EPA") has reviewed the land application management plan ("LAMP") Permit application submitted by Beneficial Reuse Management/Gypsoil, LLC ("BRM") on January 3, 2020. That LAMP Permit application sought authorization for the land application of flue gas desulfurization ("FGD") gypsum generated by the Cardinal Operating Company located at 306 County Road 7E in Brilliant, Ohio ("Cardinal Operating Company"), as a soil amendment for agronomic benefit to agricultural fields in Ohio.

FGD gypsum systems use a limestone-water slurry, created by mixing pulverized limestone with water, to remove sulfur dioxide that results from coal combustion. The flue gas passes through the slurry and that produces a calcium sulfate material called synthetic gypsum or FGD gypsum. BRM intends to transport the FGD gypsum from the Cardinal Operating Company via covered truck to distribution sites. From these locations the FGD gypsum will be transported to and distributed by the owner/operators of the farms or the companies contracted by the receiving farm for distribution.

This LAMP Permit is issued pursuant to Chapters 3734 and 6111 of the Ohio Revised Code (“ORC”) for the land application of FGD gypsum as a soil amendment for agronomic benefit to agricultural fields in Ohio, subject to compliance with all conditions below.

Further, the Director of Ohio EPA (“Director”) has determined that granting an exemption from the applicable solid waste provisions of ORC Chapter 3734 to land apply FGD gypsum, in the quantities and under the circumstances specifically authorized in this LAMP Permit, is unlikely to adversely affect the public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), the Director hereby exempts BRM from the licensing, permitting, and state solid waste disposal fee provisions of ORC Chapter 3734 and rules adopted thereunder, specific to the land application of FGD gypsum as authorized by and in compliance with this LAMP Permit.

CONDITIONS

General Conditions

1. Only FGD gypsum that meets all the following is eligible for land application as a soil amendment on agricultural fields for agronomic benefit pursuant to this LAMP Permit:
 - a. FGD gypsum that is generated by Cardinal Operating Company;
 - b. FGD gypsum that is not a hazardous waste; and
 - c. FGD gypsum that is managed in accordance with this LAMP Permit.
2. This LAMP Permit shall not be construed to authorize any other use of FGD gypsum. All other FGD gypsum must be separately approved for land application by Ohio EPA.
3. BRM shall conduct all activities in compliance with all local, state, and federal laws, ordinances, and regulations pertaining to environmental protection, including but not limited to the control of air pollution, leachate, and storm water run-on and run-off and protection of groundwater and surface water.
4. BRM shall provide a copy of the attached guidance document, “Best Management Practices for the Land Application and Storage of Waste Gypsum”, to each distributor and each end user that receives FGD gypsum from BRM.
5. BRM shall obtain a written agreement from each distributor that receives FGD gypsum from BRM. The written agreement shall require that each distributor agree to comply with all of the following:
 - a. Comply with the attached guidance document, “Best Management Practices for the Land Application and Storage of Waste Gypsum”, including all restrictions and best management practices (“BMPs”) set forth therein;
 - b. The distributor will provide a copy of the attached guidance document, “Best Management Practices for the Land Application and Storage of Waste Gypsum”, to everyone receiving FGD gypsum; and
 - c. The distributor will maintain and make available to Ohio EPA upon request records of the name, address, and telephone number of each recipient of FGD gypsum, the

location(s) where FGD gypsum was stored or placed on the land, and the tonnage provided to each recipient.

6. BRM shall obtain a written agreement from each end user that receives FGD gypsum from BRM. The written agreement shall require that each end user agrees to comply with the attached guidance document, “Best Management Practices for the Land Application and Storage of Waste Gypsum.”
7. FGD gypsum is a solid waste and BRM would be required to obtain a permit and license under ORC Chapter 3734 and the rules promulgated thereunder to permanently place it upon the land. The Director has determined that granting an exemption from the licensing, permitting, and state solid waste disposal fee provisions of ORC Chapter 3734 and the rules promulgated thereunder when FGD gypsum is land applied in the quantities and under the circumstances specifically authorized in this LAMP Permit is unlikely to adversely affect public health or safety or the environment.
8. Pursuant to ORC Section 3734.02(G) and OAC Rule 3745-27-03(B), BRM is hereby exempted from the licensing, permitting, and state solid waste disposal fee provisions of ORC Chapter 3734 and the rules adopted thereunder except as specifically stated in Condition 29 when the FGD gypsum is stored and land applied as authorized in this LAMP Permit subject to compliance with all conditions in this LAMP Permit.
9. BRM shall collect and remit all applicable solid waste management district disposal and generation fees levied under ORC Sections 3734.57(B) or 3734.573 and any host community fee levied under ORC Section 3734.57(C).
10. Nothing in this LAMP Permit shall be construed as a waiver from the requirements of ORC Chapter 3734 or the regulations promulgated thereunder, except as expressly provided herein. This LAMP Permit shall not be interpreted to release BRM from responsibility under ORC Chapters 3704, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.
11. BRM shall not cause pollution of waters of the state or place or cause to be placed any FGD gypsum in a location where it causes pollution of waters of the state except in accordance with an effective National Pollutant Discharge Elimination System (“NPDES”) Permit. BRM shall report to Ohio EPA any unauthorized discharges to waters of the state that it causes or of which it is aware within 24 hours of discovery.
12. BRM shall notify the Director, in writing, within seven days of discovering noncompliance with this LAMP Permit.
13. The Director may add, delete, or change any conditions of this LAMP Permit to protect human health or safety or the environment. Ohio EPA specifically reserves the right to add constituents and applicable limits and rates to Table 1 and Table 2 as it deems necessary to protect public health, safety, or the environment, without modifying this LAMP Permit, by providing 30-days written notice to BRM. At the conclusion of the 30-day notice period, each constituent added, together with its related limits and rates, shall be considered part of Table 1 or Table 2 as appropriate.

14. BRM shall furnish to the Director, or an authorized representative of Ohio EPA, within 30 days of receiving a written request, any information that the Director or an authorized representative of Ohio EPA requests to determine whether cause exists for revoking coverage under or determining compliance with this LAMP Permit
15. This LAMP Permit to land apply FGD gypsum from the Cardinal Operating Company shall expire at midnight on the expiration date shown above. In order to receive authorization to land apply FGD gypsum beyond the above date of expiration, BRM shall submit such information and forms as are required by Ohio EPA no later than 180 days prior to the above expiration date.
16. To the extent that any provision in this LAMP Permit conflicts with a provision in BRM's LAMP Permit application, or in any attachment to BRM's LAMP Permit application, BRM shall comply with this LAMP Permit and this LAMP Permit shall supersede any inconsistent requirement in BRM's LAMP Permit application, in any attachment to BRM's LAMP Permit application, or any document submitted pursuant to this LAMP Permit.
17. The Director, or the Director's authorized representative(s), may, upon presentation of credentials or other documents as may be required by law, enter upon the premises of Cardinal Operating Company or BRM or any site where FGD gypsum land application takes place, at any reasonable time, for the purpose of conducting inspections, collecting samples of FGD gypsum, conducting tests, taking photographs, or examining records or reports pertaining to the installation, modification, or operation of the land application system for FGD gypsum.
18. Issuance of this LAMP Permit does not relieve BRM of the duty to comply with all applicable federal, state, and local laws, ordinances, and regulations, except as specifically exempted herein.
19. BRM is responsible for identifying and obtaining any additional authorizations necessary to land apply FGD gypsum as described in this LAMP Permit. Except for the applicable solid waste provisions of ORC Chapter 3734 and rules adopted thereunder exempted by this LAMP Permit, issuance of this LAMP Permit to BRM neither relieves BRM of the duty to comply with nor authorizes BRM to conduct activities in violation of any applicable federal, state, or local laws, ordinances, or regulations. All activities shall be accomplished in compliance with all federal, state, or local laws and regulations pertaining to environmental protection, including but not limited to the control of air pollution, leachate, and storm water run-on and run-off and protection of ground water and surface water.

Sampling and Analysis

20. Only FGD gypsum that is not a hazardous waste as defined by ORC Chapter 3734, Ohio Administrative Code ("OAC") Rule 3745-50-10(A), and OAC Rule 3745-51-03, is eligible for land application under this LAMP Permit. Analysis submitted to Ohio EPA with the LAMP Permit application demonstrated the FGD gypsum is not a hazardous waste.
21. BRM shall notify Ohio EPA if it anticipates a change in the generating process or if the raw materials used in the generating process of FGD gypsum substantially change, as defined in Condition 22. If deemed necessary, the Director may request that BRM submit a revised LAMP Permit application for approval.

22. BRM shall collect and analyze at least one composite sample per calendar year of the FGD gypsum intended for land application pursuant to this LAMP Permit. BRM shall collect and analyze an additional composite sample if there is a substantial change in the generation process or the raw materials used. For the purposes of this LAMP Permit, a “substantial change” in the generation process or in the raw materials used is a change that could reasonably be anticipated to result in an exceedance of any constituent limit specified in Table 1. BRM shall ensure that the collection and analysis conform to the following:
- The FGD gypsum samples collected shall be representative of the FGD gypsum to be land applied.
 - Samples of cast gypsum shall be collected using a strategy to obtain representative samples as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)*¹;
 - Each composite sample of FGD gypsum shall be collected by taking a minimum of two discrete samples of FGD gypsum and compositing the discrete samples into one composite sample for analysis;
 - Each sample(s) shall be analyzed for total metals, as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, for the constituents listed in Table 1.
 - The reported detection limits for the analyses shall be below the limits specified for each constituent in Table 1.

Table 1: Constituent Limits

Constituents²	Ceiling Concentration Limits (mg/kg)
Arsenic	41
Barium	15,000
Beryllium	160
Boron	16,000
Cadmium	39
Chromium, total	180,000
Copper	1,500
Lead	300
Mercury	11
Molybdenum	75
Nickel	420
Selenium	100

¹ EPA publication SW-846, “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846),” as amended through July 2016.

² Limits for Barium, Beryllium, Boron, Mercury, and Thallium are US EPA Regional Screening Levels; Residential Soil. Those for Arsenic, Cadmium, Copper, Lead, Molybdenum, Nickel, Selenium, and Zinc are US EPA 40 Code of Federal Regulations Part 503 Pollutant Concentrations (Table 3 of 503.13)

Thallium	0.78
Zinc	2,800

23. If there is a substantial change in the generation process or the raw materials used in generating the FGD gypsum, BRM shall collect and analyze an additional composite sample of cast gypsum for the Resource Conservation and Recovery Act heavy metals (RCRA 8 metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) for leaching potential using the Toxicity Characteristic Leaching Procedure (TCLP) Method 1311 as described in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)*, to demonstrate that the FGD gypsum is not a hazardous waste as defined in ORC Section 3734.01, OAC Rule 3745-50-10(A), OAC Chapter 3745-51-03.
24. BRM shall not designate, make available, or distribute for land application any FGD gypsum for which any analytical result indicates that a constituent concentration exceeds the ceiling concentration limit specified in Table 1 (“exceeded FGD gypsum”). Upon receipt of such an analytical result, BRM shall immediately cease land application of the exceeded FGD gypsum and shall dispose of the exceeded FGD gypsum at a licensed solid waste facility not later than ninety days (90) after receiving the analytical result. BRM shall not designate, make available, or distribute for land application any FGD gypsum produced after the exceeded FGD gypsum.
25. BRM shall also dispose of FGD gypsum produced after the exceeded FGD gypsum (“newly-produced FGD gypsum”) at a licensed solid waste facility until analytical results demonstrate that the newly-produced FGD gypsum meets all Ceiling Concentration Limits in Table 1. BRM may land apply newly-produced FGD gypsum only upon receipt of analytical results demonstrating that the newly-produced FGD gypsum meets all applicable constituent concentration limits.
26. BRM shall analyze the FGD gypsum for the constituents listed in Table 2 so that users may determine the appropriate maximum agronomic application rate. When calculating the appropriate application rate, end users shall perform all of the following:
 - a. Consult Ohio State University Bulletin 945, Gypsum as an Agricultural Amendment: General Use Guidelines (or subsequent updated versions);
 - b. Base the application rate on the ideal fertilizer range for the crop to be grown and the existing nutrient status of the soil at the land application site (as determined by the most recent sampling results of the FGD gypsum and the soil);
 - c. Consider the potential for runoff of the FGD gypsum, either by itself or carried in storm water.

Table 2: Agronomic Testing Parameters

Parameters
Calcium
Chloride

Moisture (%)
pH
Sulfur

Storage Conditions

27. BRM shall use BMPs when storing FGD gypsum pursuant to this LAMP Permit including, at a minimum, all of the following:
- a. Storing FGD gypsum at the land application site for not more than 90 days prior to land application;
 - b. Storing FGD gypsum in a manner that minimizes horizontal transport of material and prevents direct runoff into waters of the state through the construction of dikes or berms;
 - c. Minimizing the exposure of FGD gypsum to precipitation, snowmelt, and runoff throughout the storage, processing, and staging of the material (including loading and unloading, disposal, cleaning, and maintenance operations);
 - d. The use of grading, berming, or curbing to prevent FGD gypsum runoff and divert runoff away from storage areas;
 - e. Providing and maintaining a 50-foot undisturbed natural buffer around surface waters of the state, directing storm water to vegetated areas to increase sediment removal and maximize storm water infiltration;
 - f. Locating all FGD gypsum storage areas at least 300 feet from an occupied structure;
 - g. Locating all FGD gypsum storage areas at least 300 feet from public water system and private wells and surface waters used for drinking water or watering livestock and at least 100 feet from other surface waters of the state;
 - h. Unless otherwise provided in a Permit issued under ORC Chapter 6111, creating surface diversions to catch any solids in runoff or to divert runoff away from waters of the state or adjacent properties at each site where FGD gypsum is stored on land;
 - i. Not storing FGD gypsum in areas that are either over or within a sensitive groundwater area, including any of the following:
 - (i) Karst terrain;
 - (ii) A sand and gravel pit;
 - (iii) A limestone or sandstone quarry;
 - (iv) A drinking water source protection area with less than ten feet of low permeability clay rich glacial till between the bottom of the storage area

and the aquifer used by the applicable public water supply well as a source of ground water;

- (v) An aquifer designated on an Ohio Department of Natural Resources Ground Water Resources map for the county in which the land application will take place as capable of yielding one hundred gallons-per-minute or more, which has less than ten feet of separation between the bottom of the storage area and the aquifer;
 - j. Taking measures to control fugitive dust and other air emissions that may result from activities authorized through this LAMP Permit.
28. Except for storage as authorized by Condition 27, BRM shall obtain any other applicable authorizations from Ohio EPA Division of Surface Water prior to storing FGD gypsum.

Land Application Conditions

29. BRM shall not land apply FGD gypsum pursuant to this LAMP Permit at a rate that exceeds two tons of FGD gypsum per acre per year for each land application site.
30. Notwithstanding any other provision of this LAMP Permit, BRM shall use BMPs when applying FGD gypsum on the ground for agronomic benefit as a soil amendment pursuant to this LAMP Permit including, at a minimum, all of the following:
- a. FGD gypsum shall not be land applied within 300 feet of public water system wells and surface waters used for drinking water or watering livestock or within 100 feet of public water system wells and surface waters used for drinking water or watering livestock if there is a 100-foot grass buffer between the land application area and public water system wells and surface waters used for drinking water or watering livestock;
 - b. FGD gypsum shall not be land applied within 33 feet of any waters of the state that are not referenced in Condition 30.a, unless approved in writing by Ohio EPA's Division of Surface Water;
 - c. FGD gypsum shall not be land applied during precipitation events;
 - d. FGD gypsum shall not be land applied to saturated soil;
 - e. FGD gypsum shall not be land applied onto frozen or snow-covered ground; and
 - f. Measures to control fugitive dust and other air emissions that may result from activities authorized through this LAMP Permit shall be taken.
31. BRM shall not place FGD gypsum in any area described in ORC section 3734.02(M), including within the boundaries of a state park, a state park purchase area, any unit of the national park system, any property that lies within the boundaries of a national park or recreation area that is located in this state, or any candidate area located in this state and identified for potential inclusion in the national park system.

32. BRM may land apply and store FGD gypsum only in accordance with this LAMP Permit and shall not create a nuisance or adversely affect public safety or health or the environment. The Director may revoke this LAMP Permit if the Director determines that a nuisance condition or a threat to human health, safety, or the environment exists. Immediately upon the effective date of any written notification from the Director of revocation of this LAMP Permit, BRM shall cease distribution and land application under this LAMP Permit. The Director may require BRM to remove the material, remediate the site, or to take other action as appropriate to eliminate the nuisance or threat.

Recordkeeping and Reporting

33. BRM shall maintain daily tracking logs for each day that FGD gypsum is received, transferred or land applied, which include, at a minimum, the following information:
- a. Daily and cumulative FGD gypsum quantities delivered to each site during the calendar year;
 - b. Daily and cumulative FGD gypsum quantities land applied during the calendar year, including the locations; and
 - c. Daily and cumulative FGD gypsum quantities stored during the calendar year, including the storage pile locations and initial accumulation dates.
34. BRM shall maintain the following records for a minimum of 5 years after the land application of FGD gypsum pursuant to this LAMP Permit, and shall make the records available to Ohio EPA upon request:
- a. Records of the annual tonnage of FGD gypsum that is land applied pursuant to this LAMP Permit;
 - b. The name, address, and telephone number of each recipient of FGD gypsum, the location(s) where FGD gypsum was stored or placed on the land, and the tonnage provided by BRM and any distributors to each recipient;
 - c. Written agreements with all distributors and end users that receive FGD gypsum from BRM, as required in Conditions 5 and 6;
 - d. The tracking log required by this LAMP Permit as required in Condition 33;
 - e. A description of the process, including raw materials, used to generate FGD gypsum;
 - f. The sampling plan detailing where and how samples of FGD gypsum were collected, as well as dates that the annual samples were collected;
 - g. The laboratory reports of all sampling and analyses of FGD gypsum; and
 - h. Documentation demonstrating that the FGD gypsum is not a hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.

35. By April 1st of each year, BRM shall submit to Ohio EPA a report identifying the material characterization and the land application activities involving FGD gypsum for the previous calendar year. At a minimum, the annual report shall include:

- a. Records of the annual tonnage of FGD gypsum that is land applied;
- b. Records of the recipient(s) and the location(s) where FGD gypsum were stored or placed on the land and the tonnage provided by BRM to each recipient;
- c. The analytical results for the most recent year's sampling and analyses;

36. In the annual report, BRM shall include the following annual certification statement. The certification statement shall be printed out and signed beginning one year after the effective date of this approval and annually thereafter:

"I certify, under penalty of law, that the information contained in this annual report that will be used to determine compliance with the requirements contained in Chapters 6111 and 3734 of the ORC, and all rules thereunder, for the period beginning (insert date of last certification statement) and ending (insert current certification statement date) was prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

37. For the first certification statement, insert the initial effective date of this LAMP Permit as the beginning date for the certified period of time. The certification statement shall constitute personal affirmation that all statements or assertions of fact in the records are true and complete and comply fully with applicable state requirements, shall subject the signatory to liability under ORC Section 2921.13, and shall be signed by one of the following persons:

- a. In the case of a corporation, by a principal executive officer of at least the level of vice president or the principal executive officer's duly authorized representative, if such representative is responsible for the overall operation of the facility.
- b. In the case of a partnership, a general partner.
- c. In the case of a sole proprietorship, the proprietor.

38. BRM shall send the annual report to one of the following:

For digital submittals, submit files to the Division of Materials and Waste Management's virtual dropbox:

https://fileshare.epa.ohio.gov/filedrop/co_dmwm_submittals

or

For mailings, use the post office box number:

Ohio Environmental Protection Agency
Division of Materials and Waste Management

Attn: Beneficial Use Unit
P.O. Box 1049
Columbus, Ohio 43216-1049

or

For deliveries to the building:

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Materials and Waste Management
Attn: Beneficial Use Unit
50 West Town Street
Columbus, Ohio 43215

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to ORC Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
30 East Broad Street, 4th Floor
Columbus, Ohio 43215

Questions concerning this LAMP Permit should be directed to Ohio EPA's Beneficial Use Unit at (614) 644-2621 or submit a digital request to Division of Materials and Waste Management's virtual dropbox at the following address: https://fileshare.epa.ohio.gov/filedrop/co_dmwm_submittals.

Sincerely,

A handwritten signature in blue ink, appearing to read "Laurie A. Stevenson".

Laurie A. Stevenson
Director

LAS/PC

Attached: "Best Management Practices for the Land Application and Storage of Waste Gypsum"

Best Management Practices for the Land Application and Storage of Waste Gypsum

This document is intended to provide practical best management practices ("BMPs") for use when storing or land applying waste gypsum as a soil amendment on agricultural fields in Ohio. For purposes of this document, waste gypsum includes gypsum that results from flue gas desulfurization processes, gypsum molds, and gypsum derived from other solid waste or construction and demolition debris. These BMPs are designed to minimize potential adverse impacts to public health, safety, and the environment, thus benefitting businesses, the environment, and the citizens of Ohio.

Storage BMPs

Any person storing waste gypsum prior to land application on agricultural fields should take measures to minimize the waste gypsum's potential impact on human health and the environment by employing the following BMPs:

- Waste gypsum shall not be stored at the site of land application for more than 90 days prior to land application.
- Waste gypsum shall be stored in a manner that minimizes exposure of the stored waste gypsum to any potential runoff from precipitation or any other source of surface water runoff.
- Waste gypsum shall not be stored in areas that are either over or within a sensitive groundwater area, including: karst terrain, sand and gravel pits, limestone or sandstone quarries, and drinking water source protection areas. Karst terrain is generally located within western Ohio. If you need assistance in determining whether your potential storage location is over or within a sensitive groundwater area, please contact Ohio EPA at the phone number or email address provided below.
- Waste gypsum shall be stored in a manner that prevents any waste gypsum from entering surface waters of the state. Surface waters of the state include streams, lakes, reservoirs, ponds, marshes, wetlands, ditches, and other waterways.
- Waste gypsum shall be stored at least 300 feet away from any occupied structures. An occupied structure is a structure where one or more human beings may be present.
- All waste gypsum storage areas shall be at least 300 feet away from any water used for drinking or for watering livestock, including public water system wells and private wells.
- All waste gypsum storage areas shall be at least 100 feet away from any surface waters of the state including: streams, lakes, reservoirs, ponds, marshes, wetlands, ditches, or other waterways.
- Waste gypsum shall be managed in a manner that minimizes dust and other air emissions that may result from its storage and transportation.

Best Management Practices for the Land Application and Storage of Waste Gypsum

Land Application Conditions

When land applying waste gypsum, measures should be employed to prevent it from entering nearby surface water and to prevent dust and other air emissions. Any person land applying waste gypsum as a soil amendment on agricultural fields should at a minimum employ the following BMPs:

- Waste gypsum shall not be land applied at a rate greater than two tons of waste gypsum per acre per year.
- Waste gypsum shall not be land applied any closer than 100 feet to public water system wells and surface waters used for drinking water or watering livestock. For all other surface waters of the state, including streams, lakes, reservoirs, ponds, marshes, wetlands, ditches, and other waterways, waste gypsum shall not be land applied closer than 33 feet.
- Waste gypsum shall not be land applied during precipitation events.
- Waste gypsum shall not be land applied to saturated soil.
- Waste gypsum shall not be land applied onto frozen or snow-covered ground.
- Waste gypsum shall be managed in a manner that minimizes dust and other air emissions that result from its land application.
- Waste gypsum shall not be land applied within the boundaries of a state park, a state park purchase area, any unit of the national park system, any property that lies within the boundaries of a national park or recreation area that is located in this state, or any candidate area located in this state and identified for potential inclusion in the national park system.

More Information

If you have questions regarding the BMPs described in this document or need additional information or assistance, please contact Ohio EPA's Division of Materials and Waste Management Beneficial Use Group at (614) 644-2621 or email us at Maera.Flynn@epa.ohio.gov. Additional resources may also be found on the Beneficial Use Program's website: <https://www.epa.state.oh.us/dmwm/Home/Beneficial-Use>.

Disclaimer

The BMPs set out in this document are intended solely for guidance. The BMPs in this document are not intended and cannot be relied upon to create rights, enforceable by any party against Ohio EPA. All applicable laws and regulations remain binding and enforceable. Ohio EPA reserves the right to vary this guidance to change it any time without public notice and also reserves the right to deviate from this guidance on a case-by-case basis.