July 29, 2022

Neil Mauws, Manager
CHS Inc.
CHS Big Sky, Kershaw Grain
37252 Highway 87
Fort Benton, MT 59442

Sent via email: neil.mauws@chsinc.com

RE: Final Permit Issuance for MAQP #5276-00

Dear Mr. Mauws:

Montana Air Quality Permit (MAQP) #5276-00 is deemed final as of July 26, 2022, by DEQ. This permit is for a Grain Storage Facility. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

John P. Proulx
Environmental Scientist 2
Air Quality Bureau
(406) 444-5391

Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

Montana Air Quality Permit #5276-00

CHS Inc.
CHS Big Sky – Kershaw Grain
Section 29, Township 24 North, Range 8 East
Fort Benton, MT 59037

July 26, 2022

MONTANA AIR QUALITY PERMIT

Issued To: CHS, Inc. – CHS Big Sky
Kershaw Grain
37252 Highway 87
Fort Benton, MT 59442

MAQP: #5276-00
Application Complete: 5/20/2022
Preliminary Determination Issued: 6/17/2022
Department Determination Issued: 7/8/2022
Permit Final: 7/26/2022

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to CHS, Inc. – CHS Big Sky - Kershaw Grain (CHS), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Permitted Equipment

CHS operates a grain elevator facility known as CHS Big Sky – Kershaw Grain with a permanent grain storage capacity of 876,000 bushels and a receiving and load-out capacity each of 15,000 bushels per hour (bu/hr). There is permanent grain storage capacity of four 219,000-bushel bins and a single 1.5-million-bushel temporary ground storage pile. The facility has truck and railcar receiving pits, truck and railcar loadout station, and uses a self-propelled conveyor for loading and unloading of grain to the storage pile. The facility also has several unpaved haul roads leading to the grain elevators and the temporary storage pile. Emission points at the Kershaw site include:

1. Grain Receiving – Truck
2. Grain Receiving - Railcar
3. Grain Handling
4. Grain Storage – Bin
5. Grain Storage – Pile
6. Grain Shipping - Truck
7. Grain Shipping – Railcar
8. Unpaved Roads

B. Plant Location

The Kershaw grain handling facility is located approximately 2 miles west of Fort Benton, Montana. The site is an existing grain elevator that did not previously require an MAQP; however, it is seeing increased levels of grain throughput that results in potential emission levels that trigger the need for an MAQP. The legal description of the facility is NE/NW Section 29, Township 24 North, Range 8 East, Choteau County, Montana. The physical address is 37252 Highway 87, Fort Benton, Montana 59037.

Section II: Conditions and Limitations

A. Emission Limitations

1. CHS shall install, operate, and maintain the following emission control equipment and/or practices in accordance with any manufacturer's instructions to provide maximum pollution control (ARM 17.8.752):

    a. Grain Receiving – Railcar and Truck:

        i. Minimize drop distances.
        ii. Use of baghouse at truck receiving.

    b. Grain Shipping:

        i. Installation and use of a loadout spout or similar apparatus from the hopper discharge to the railcar to minimize drop distance.
        ii. Use of baghouse at rail shipping.

2. CHS shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

3. CHS shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

4. CHS shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary (ARM 17.8.752).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

2. The Department of Environmental Quality (DEQ) may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. CHS shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request would include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

    Production information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify

compliance with permit limitations (ARM 17.8.505). CHS shall submit the following information annually to DEQ by February 15th of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505):

a. annual grain throughput (bushels), and

b. annual temporary storage pile throughput (bushels).

2. CHS shall notify DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to DEQ, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by CHS as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by DEQ, and must be submitted to DEQ upon request. These records may be stored at a location other than the plant site upon approval by DEQ (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – CHS shall allow DEQ's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if CHS fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving CHS of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally affected in an adverse manner by DEQ's decision may request, within 15 days after DEQ renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the

Montana Administrative Procedures Act. The filing of a request for a hearing does not stay DEQ's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA.

The issuance of a stay on a permit by the Board postpones the effective date of DEQ's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, DEQ's decision on the application is final 16 days after DEQ's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by DEQ at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by CHS may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis
CHS, Inc. – CHS Big Sky - Kershaw Grain
MAQP #5276-00

I. Introduction/Process Description

CHS, Ing. operates a grain handling facility approximately 2.5 miles west of Fort Benton, Montana referred to as CHS Big Sky - Kershaw Grain (CHS). The site is an existing grain elevator that did not previously require an MAQP; however, it is seeing increased levels of grain throughput that results in potential emission levels that trigger the need for an MAQP. The legal description of the facility is NE/NW Section 29, Township 24 North, Range 8 East, Choteau County, Montana. The physical address is 37252 Highway 87, Fort Benton, Montana 59037.

A. Permitted Equipment

CHS operates the Kershaw grain elevator facility with a permanent grain storage capacity of 876,000 bushels and a receiving and load-out capacity each of 15,000 bushels per hour (bu/hr). There is permanent grain storage capacity of four 186,000-bushel bins and a single 1.5-million-bushel temporary ground storage pile. The facility has truck and railcar receiving pits, truck and railcar loadout station, and uses a self-propelled conveyor for loading and unloading of grain to the storage pile. The facility also has several unpaved haul roads leading to the grain elevators and the temporary storage pile. Emission points at the Kershaw site include:

1. Grain Receiving – Truck
2. Grain Receiving - Railcar
3. Grain Handling
4. Grain Storage – Bin
5. Grain Storage – Pile
6. Grain Shipping - Truck
7. Grain Shipping – Railcar
8. Unpaved Roads

B. Source Description

The truck and rail grain handling facility is designed to receive grain from local farms for storage until it is shipped to market. The annual throughput capacity of the facility is 12,000,000 bushels. Locally grown grains are hauled to the facility via truck and railcars. Grain deliveries would be discharged into the truck or railcar receiving pits. All transferring of grain is done using enclosed conveyors from the point of the receiving pits to the storage bins. The main elevator legs and conveyor system are fully enclosed to minimize the release of dust to the atmosphere.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (DEQ). Upon request,

DEQ would provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by DEQ.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   CHS shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from DEQ upon request.

4. ARM 17.8.110 Malfunctions. In (2) of this rule, DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. In (1) of this rule, no person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. As described in (2) of this rule, no equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
2. ARM 17.8.221 Ambient Air Quality Standard for Visibility
3. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

CHS must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. In (1) of this rule, it requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. As described in (2) of this rule, CHS shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. In (3) of this rule, no person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

8. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Subpart DD, Standards of Performance for Grain Elevators, indicates that grain terminal elevators that have a permanent storage capacity of more than 2.5 million U.S. bushels are subject to the requires of this subpart. CHS does not have a permanent storage capacity of 2.5 million bushels or more; therefore, NSPS Subpart DD does not apply to this facility.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to DEQ. CHS submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to DEQ by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by DEQ. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. DEQ may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. The Kershaw site has a PTE greater than 25 tons per year of particulate matter (PM); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. In (1) of this rule, it requires that a permit application be submitted prior to installation, modification, or use of a source. CHS submitted the required permit application for the current permit action. In (7) of this rule, it requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit.

   CHS submitted an affidavit of publication of public notice for the May 18, 2022, issue of the *River Press*, a newspaper of general circulation in the Town of Fort Benton in Choteau County, Montana, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter.

This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by DEQ at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving CHS of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes DEQ's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes DEQ's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to DEQ.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to DEQ for incineration facilities subject to 75-2-215, Montana Code Annotated (MCA).

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 9 – Permit Requirements for Major Stationary Sources or Major Modifications Locating Within Nonattainment Areas, including, but not limited to:

This facility is not a major source nor considered a major modification.

H. ARM 17.8, Subchapter 10 – Preconstruction Permit Requirements for Major Stationary Sources of Modifications Located Within Attainment or Unclassified Areas, including, but not limited to:

ARM 17.8.1004 When Air Quality Preconstruction Permit Required. This current permit action does not constitute a major modification. Therefore, the requirements of this subchapter do not apply.

I. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or

c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5276-00 for the Kershaw site, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is not subject to any current NESHAP.

   f. This source is not a Title IV affected source,

   g. This source is not a solid waste combustion unit.

   h. This source is not an EPA designated Title V source.

   Based on these facts, DEQ determined that the Kershaw site is a minor source of emissions as defined under Title V.

III. BACT Determination

A best available control technology (BACT) determination is required for each new or modified source. CHS shall install on the new or modified source the maximum air pollution control technology, which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by CHS in the permit application for MAQP #5276-00, addressing some available methods of controlling particulate matter emissions from the grain elevator facility. DEQ reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by DEQ in order to make the following BACT determination.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

A. Electrostatic Precipitator

An ESP ionizes the contaminated air flowing between oppositely charged electrodes. These charged particles migrate towards the oppositely charged plates, which are eventually removed and collected at the bottom of the ESP. An ESP can handle large gas volumes and are very efficient at removing small particles with high removal efficiencies

ranging from approximately 90% to 99%. While an ESP can achieve high removal efficiencies, the footprint, construction, installation, operation, and maintenance costs of an ESP are significantly higher than other control technologies and best management practices. In addition, there are corresponding energy and environmental impacts associated with the operation of an ESP. For these reasons, CHS did not select ESP as BACT for this location.

B. Baghouse

Fabric dust filtration equipment (baghouse) is used to collect dry particles from a gas stream. As the gas stream passes through the fabric at removing small particles and high particulate mass loadings, with removal efficiencies in excess of 99%. The construction, installation, and operation of a baghouse for the control of a small amount of particulate matter is not cost effective, especially due to the seasonal nature of the operations. However, CHS has installed a baghouse with grain receiving via truck and grain shipping via railcar.

C. Enclosed Equipment/Building

The use of enclosed equipment and building for receiving, handling, mixing, and loading activities serves to isolate these activities from emissions and wind disturbance that could mobilize dust generated during transfer activities. Control efficiencies of enclosures around conveyors and legs are up to 99. CHS has determined that the use of enclosed equipment constitutes BACT for the operations at this location.

CHS has proposed the following emission control options as BACT.

Grain Receiving – Railcar and Truck:

- Drop distance from hopper truck bottoms to grate will be approximately 2 feet or less to minimize particulate emissions
- Use of a fabric filter baghouse at truck receiving.

Grain Shipping – Railcar:

- Installation and use of a loadout spout from the hopper discharge to the railcar
- Use of baghouse at rail shipping

Unpaved Haul Roadway and Parking:

- Fugitive dust emissions generated from truck traffic associated with the grain operations will be addressed as needed. Control measures will consist of the application of chemical compounds and/or water as appropriate during dry conditions. Vehicle speed will be limited to a maximum of 15 miles per hour while on-site.

Based on the above information and previously permitted sources, DEQ concurs with CHS that use of a fiber fabric baghouse, minimizing drop distance, loadout spout, enclosed equipment, and vehicle speed limitations constitute BACT.

IV. Emission Inventory

CONTROLLED	tons/year		
Emission Source	**PM**	**PM_{10}**	**$PM_{2.5}$**
Truck Receiving - Straight	**0.71**	**1.63**	**0.28**
Truck Receiving - Hopper	**0.14**	**0.02**	**0.03**
Rail Receiving	**0.13**	**0.02**	**0.03**
Handling	**1.20**	**0.67**	**0.11**
Storage	**49.3**	**12.4**	**2.17**
Rail Loadout	**0.43**	**0.24**	**0.04**
Truck Loadout	**0.90**	**2.13**	**2.13**
Haul Roads	**5.77**	**1.54**	**0.15**
Total Emissions	**58.55**	**18.67**	**4.94**

Truck Receiving - Straight		
Operational Capacity: 450 ton/hr	450	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.180 lb/ton	0.18	**lb/ton**
Calculation: ((0.180 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.002 control efficiency) = 0.710 ton/yr	0.71	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.059 lb/hr	0.059	**lb/hr**
Calculation: ((0.059 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 control efficiency) = 1.628 ton/yr	1.63	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.010 lb/hr	0.01	**lb/hr**
Calculation: ((0.010 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 controls efficiency) = 0.276 ton/yr	0.28	**ton/yr**
Truck Receiving - Hopper		
Operational Capacity: 450 ton/hr	450.0	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.035 lb/ton	0.0	**lb/ton**
Calculation: ((0.035 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.002 control efficiency) = 0.138 ton/yr	0.14	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.001 lb/hr	8E-04	**lb/hr**
Calculation: ((0.001 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 control efficiency) = 0.022 ton/yr	0.02	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.001 lb/hr	0.001	**lb/hr**
Calculation: ((0.001 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 control efficiency) = 0.028 ton/yr	0.03	**ton/yr**
Rail Receiving		
Operational Capacity: 450 ton/hr	450	**ton/hr**

Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.032 lb/ton	0.032	**lb/ton**
Calculation: ((0.032 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.002 control efficiency) = 0.126 ton/yr	0.13	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.001 lb/hr	8E-04	**lb/hr**
Calculation: ((0.001 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 control efficiency) = 0.022 ton/yr	0.02	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.001 lb/hr	0.001	**lb/hr**
Calculation: ((0.001 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (0.014 control efficiency) = 0.028 ton/yr	0.03	**ton/yr**
Handling		
Operational Capacity: 450 ton/hr	450	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.061 lb/ton	0.061	**lb/ton**
Calculation: ((0.061 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 1.2 ton/yr	1.20	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.034 lb/hr	0.034	**lb/hr**
Calculation: ((0.034 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.7 ton/yr	0.67	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.006 lb/hr	0.006	**lb/hr**
Calculation: ((0.006 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.1 ton/yr	0.11	**ton/yr**
Storage Bin		
Operational Capacity: 450 ton/hr	450	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.025 lb/ton	0.025	**lb/ton**
Calculation: ((0.025 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) = 49.3 ton/yr	49.3	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.006 lb/hr	0.006	**lb/hr**
Calculation: ((0.006 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 12.42 ton/yr	12.4	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.001 lb/hr	0.001	**lb/hr**
Calculation: ((0.001 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 2.17 ton/yr	2.17	**ton/yr**
Rail Loadout		
Operational Capacity: 1,800 ton/hr	1800	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.027 lb/ton	0.027	**lb/ton**

Calculation: ((0.027 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.4 ton/yr	0.43	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.002 lb/hr	0.002	**lb/hr**
Calculation: ((0.002 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.014% control efficiency) = 0.2 ton/yr	0.24	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.000 lb/hr	4E-04	**lb/hr**
Calculation: ((0.000 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.0 ton/yr	0.04	**ton/yr**
Rail Loadout		
Operational Capacity: 1,200 ton/hr	1200	**ton/hr**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.086 lb/ton	0.086	**lb/ton**
Calculation: ((0.086 lb/ton) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.9 ton/yr	0.90	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.029 lb/hr	0.029	**lb/hr**
Calculation: ((0.029 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.014% control efficiency) = 2.1 ton/yr	2.13	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.005 lb/hr	0.005	**lb/hr**
Calculation: ((0.005 lb/hr) * (450 ton/hr) * (8,760 hr/yr) * (ton/2000 lb) * (.01% control efficiency) = 0.4 ton/yr	0.36	**ton/yr**

Haul Roads-- Receving		
Vehicle Miles Traveled (VMT) per Day = 5 VMT/day	5.21	VMT/day
VMT per hour = (5.20815384615385 VMT/day) * (day/24 hrs) = 0.65 VMT/hr	0.65	VMT/hr
VMT per year=	1354.12	VMT/year

PM Emissions:		
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 8.53 lb/VMT	8.53	lb/VMT
Where: k = constant = 4.9 lbs/VMT	4.9	lbs/VMT
s = surface silt content = 6 %	6	%
W = mean vehicle weight = 30.2 tons	30.2	tons
a = constant = 0.7	0.7	
b = constant = 0.45	0.45	
P = 117.2days	117.2	days
Control Efficiency = 50%	50	%
Calculation: (1,354.12 VMT/year) * (8.53 lb/VMT) * (ton/2000 lb) = 5.77 tons/yr	5.77	tons/yr
Calculation: (5.77 tons/yr) * (1-50/100) = 2.89 tons/yr	2.89	tons/yr

PM10 Emissions:		
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 2.27 lb/VMT	2.27	lb/VMT
Where: k = constant = 1.5 lbs/VMT	1.5	lbs/VMT
s = surface silt content = 6 %	6	%

W = mean vehicle weight = 30.2 tons	30.2	tons
a = constant = 0.9	0.9	
b = constant = 0.45	0.45	
Control Efficiency = 50%	50	%
Calculation: (8.5265558830731 lb/VMT) * (2.27 lb/VMT) * (ton/2000 lb) = 1.54 tons/yr	1.54	tons/yr
Calculation: (8.5265558830731 lb/VMT) * (0.00) * (2.27 lb/VMT) * (ton/2000 lb) * (1-50/100) = 0.77 tons/yr	0.77	tons/yr

PM2.5 Emissions:

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 0.23 lb/VMT	0.23	lb/VMT
Where: k = constant = 0.15 lbs/VMT	0.15	lbs/VMT
s = surface silt content = 6 %	6	%
W = mean vehicle weight = 30.2 tons	30.2	tons
a = constant = 0.9	0.9	
b = constant = 0.45	0.45	
Control Efficiency = 50%	50	%
Calculation: (8.5265558830731 lb/VMT) * (0.23 lb/VMT) * (ton/2000 lb) = 0.15 tons/yr	0.15	tons/yr
Calculation: (8.5265558830731 lb/VMT) * (0.00) * (0.23 lb/VMT) * (ton/2000 lb) * (1-50/100) = 0.08 tons/yr	0.08	tons/yr

V. Existing Air Quality

CHS's Kershaw facility would operate 3 miles west of Fort Benton, Montana in Section 29, Township 24 North, Range 8 East, in Choteau County. The facility has particulate matter emissions and this area is classified as attainment or unclassified for particulate matter. The limitations and conditions in MAQP #5276-00 ensure the facility would not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS).

VI. Ambient Air Impact Analysis

DEQ determined that based on the proposed emission sources and controls, the impacts from this permitting action would be minor. DEQ believes it would not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, DEQ conducted a private property taking and damaging assessment which is discussed in the attached Environmental Assessment.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

CHS, Inc. – CHS Big Sky, Kershaw Grain

Draft EA Environmental Assessment for the

Preliminary Decision Montana Air Quality Permit #5276-00

Montana Department of Environmental Quality
Air Quality Bureau
Air Permitting Services Section
ENVIRONMENTAL ASSESSMENT

APPLICANT: CHS, Inc. – CHS Big Sky		
SITE NAME: Kershaw Grain		
PROPOSED PERMIT NUMBER: Montana Air Quality Permit Number 5276-00		
APPLICATION DATE: May 20, 2022		
APPLICATION COMPLETE DATE: May 20, 2022		
LOCATION: Section 29, Township 24 North, Range 8 East		**COUNTY: Choteau**
PROPERTY OWNERSHIP:	**FEDERAL ____ STATE ____ PRIVATE _X_**	
EA PREPARER:	**John P. Proulx – Environmental Scientist 2**	
EA Draft Date	**EA Final Date**	**Permit Final Date**
June 17, 2022	**July 7, 2022**	**July 26, 2022**

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the proposed action. However, an agency is required to prepare an EA whenever statutory requirements do not allow sufficient time for the agency to prepare an EIS. This document may disclose impacts over which DEQ has no regulatory authority.

COMPLIANCE WITH THE CLEAN AIR ACT OF MONTANA

The state law that regulates air quality permitting in Montana is the Clean Air Act of Montana (§ 75-2-201, et seq., Montana Code Annotated (MCA). DEQ may not approve a proposed project contained in an application for an air quality permit unless the project complies with the requirements set forth in the Clean Air Act of Montana and the administrative rules adopted thereunder. DEQ's approval of an air quality permit application does not relieve the CHS Inc. – CHS Big Sky, Kershaw Grain (CHS), from complying with any other applicable federal, state, or county laws, regulations, or ordinances. CHS is responsible for obtaining any other permits, licenses, approvals, that are required for any part of the proposed project. DEQ will decide whether to approve the permit in accordance with the requirements of the Clean Air Act of Montana. DEQ may not withhold, deny, or impose conditions on the permit based on the information contained in this Environmental Assessment. § 75-1-201(4), MCA.

SUMMARY OF THE PROPOSED ACTION: CHS has applied for a new Montana air quality permit under the Clean Air Act of Montana for the installation of four 219,000-bushel bins and a single 1.5-million-bushel temporary ground storage pile. The facility has truck and railcar receiving pits, truck and railcar loadout station, and uses a self-propelled conveyor for loading and unloading of grain to the storage pile. All information included in the EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools.

PURPOSE AND BENEFIT FOR PROPOSED ACTION: DEQ's purpose in conducting this environmental review is to act upon CHS's air quality permit application to operate a grain handling facility with both truck and railcar receiving and loadout station capable of receiving 15,000 bushels per hour, storage silos with the capacity to house 876,000 bushels of grain, a 1,500,000-bushel temporary storage pile along with equipment used for handling grain. The addition of the 1,500,000-bushel temporary storage pile results in maximum facility emissions that trigger the need for an MAQP. DEQ's action on the permit application is governed by the Clean Air Act of Montana, § 75-2-201, et seq., MCA and the Administrative Rules of Montana (ARM) 17.8.740, *et seq*.

The benefits of the proposed action include: CHS is proposing to operate the grain silos and associated equipment for the purpose of receiving, storing, and transporting grain from local farms.

REGULATORY RESPONSIBILITIES: In accordance with ARM 17.4.609(3)(c), DEQ must list any federal, state, or local authorities that have concurrent or additional jurisdiction or environmental review responsibility for the proposed action and the permits, licenses, and other authorizations required.

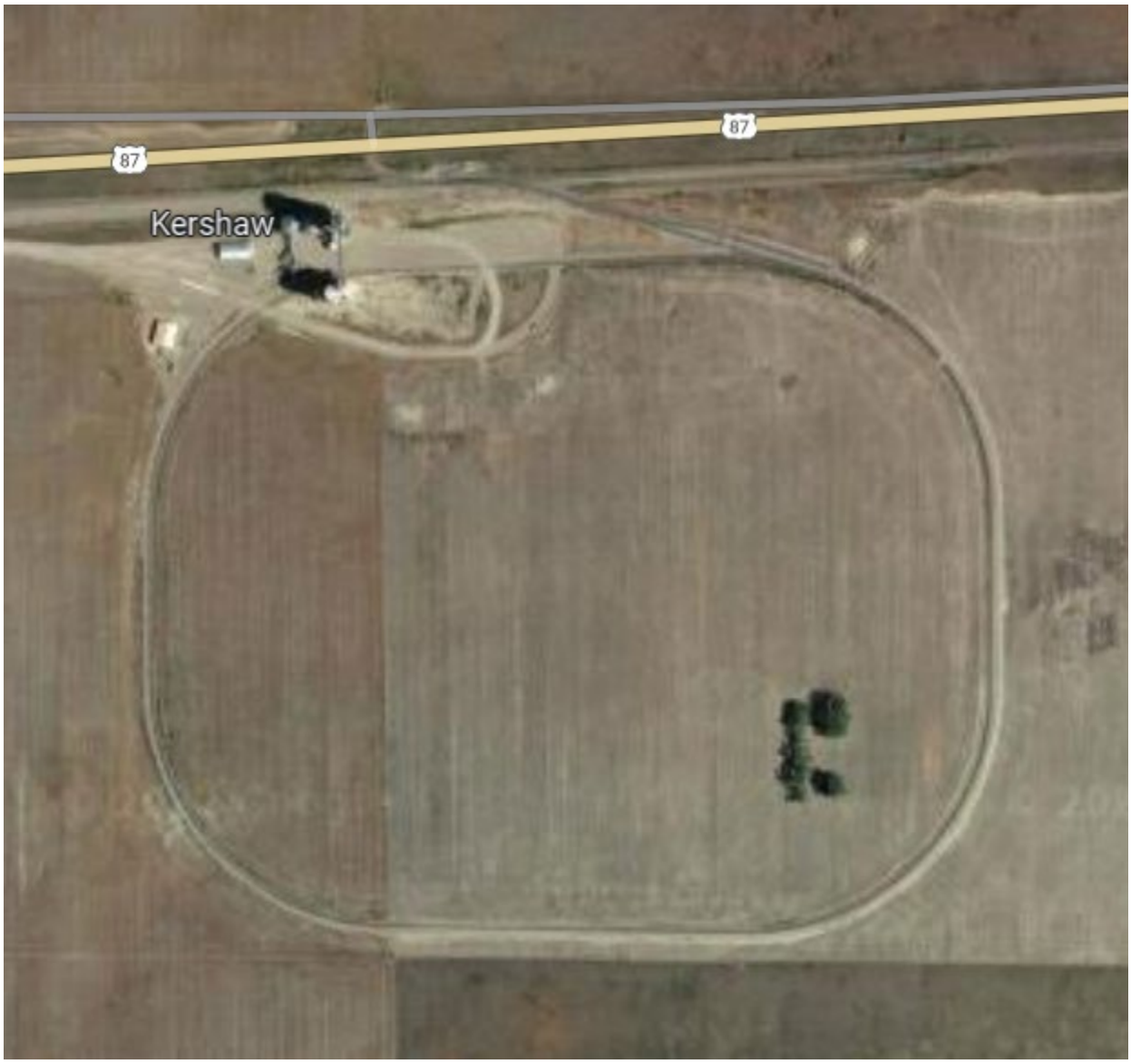
CHS must conduct its operations according to the terms of its permit. CHS further agrees to be legally bound by the permit, The Clean Air Act of§ 75-2-201, et seq., MCA and ARM 17.8.740, *et seq*.

CHS must cooperate fully with, and follow the directives of any federal, state, or local entity that may have authority over CHS's generating operations. These permits, licenses, and other authorizations may include: Richland County and DEQ AQB (air quality).

Table 1: Proposed Action Details

Summary of Proposed Action	
General Overview	CHS's air quality permit application consists of the following equipment: • 4 grain silos • 1 ground pile • Associated equipment and infrastructure The facility would be permitted to operate until CHS requested permit revocation or until the permit were revoked by DEQ due to gross non-compliance with the permit conditions.
Proposed Action Estimated Disturbance	
Disturbance	Minimal disturbance is estimated with the current permit action.
Proposed Action	
Duration	**Construction:** No construction would occur due to the permit action. **Construction Period:** No construction would occur due to the permit action. **Operation Life:** Until permit is either revoked at the request of the permittee or DEQ has determined the need for revocation.
Construction Equipment	None
Personnel Onsite	**Construction:** No construction would occur due to the permit action. **Operations:** Current number of employees.
Location and Analysis Area	**Location**: Section 29, Township 24 North, Range 8 East, in Choteau County, MT **Analysis Area**: The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
Air Quality	This EA will be attached to the Air Quality Permit which would include all enforceable conditions for operation of the emitting units
Conditions incorporated into the Proposed Action	The conditions developed in the Preliminary Determination of the Montana Air Quality Permit dated June 17, 2022, set forth in Sections II.A-D, and updated in the Decision Air Quality Permit if needed.

Figure 1: Map of general location of the proposed project.



EVALUATION AND SUMMARY OF POTENTIAL IMPACTS TO THE PHYSICAL AND HUMAN ENVIRONMENT IN THE AREA AFFECTED BY THE PROPOSED PROJECT:

The impact analysis will identify and evaluate direct and secondary impacts. Direct impacts are those that occur at the same time and place as the action that triggers the effect. Secondary impacts means "a further impact to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action." ARM 17.4.603(18). Where impacts are expected to occur, the impacts analysis estimates the duration and intensity of the impact.

The duration of an impact is quantified as follows:

- **Short-term**: Short-term impacts are defined as those impacts that would not last longer than the proposed operation of the site.

- **Long-term**: Long-term impacts are defined as impacts that would remain or occur following shutdown of the proposed facility.

The severity of an impact is measured using the following:

- **No impact**: There would be no change from current conditions.
- **Negligible**: An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor**: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate**: The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major**: The effect would alter the resource.

1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Direct Impacts:

Proposed Action: The proposed project would result in increases in particulate matter (PM), particulate matter of 10 microns or less in diameter (PM10), and particulate matter of 2.5 microns or less in diameter (PM2.5) emissions. Conditions requiring control mechanisms have been placed within MAQP #5276-00 to ensure that only minor air quality impacts would occur. Overall, any adverse impact on terrestrial and aquatic life and habitats is anticipated to be minor.

Secondary Impacts:

Proposed Action: No secondary impacts to topography, geology, stability, and moisture are anticipated with the proposed action.

2. WATER QUALITY, QUANTITY, AND DISTRIBUTION:

Direct Impacts:

Proposed Action: No primary impacts to water quality, quantity, and distribution would be expected because the proposed project would occur near an already existing facility. Water is not required for normal operation of the proposed equipment.

Secondary Impacts:

Proposed Action: No secondary impacts are anticipated with the proposed action.

3. AIR QUALITY:

Direct Impacts:

Proposed Action: Minor impacts to air quality would be expected with the proposed action due to the facility's potential to emit particulate matter.

Secondary Impacts:

Proposed Action: Negligible impacts could be expected with the proposed action in the event of equipment malfunction.

4. VEGETATION COVER, QUANTITY AND QUALITY:

Direct Impacts:
Proposed Action: Minor impacts are expected with the proposed permit action due to temporary ground storage pile. The proposed area is currently operated as a grain elevator.

Secondary Impacts:
Proposed Action: Negligible impacts to land disturbance at the site may result in propagation of noxious weeds.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Direct Impacts:
Proposed Action: No primary impacts are anticipated for aquatic life because there are no aquatic habitats. Minor impacts are anticipated for terrestrial and avian habitats because the area may have small populations of terrestrial and avian life.

Secondary Impacts:
Proposed Action: No secondary impacts to terrestrial, avian and aquatic life and habitats stimulated or induced by the direct impacts analyzed above would be anticipated for the proposed action.

6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Impacts:
Proposed Action: According to a Montana Natural Heritage Program, there are twelve (12) species of concern; Bald Eagle, Great Blue Heron, Greater Sage-Grouse, Brewer's Sparrow (bird), Blue Sucker, Sauger, Pallid Sturgeon (fish) Grizzly Bear (mammal) and the Spiny Softshell, Greater Short-horned, Lizard (reptile). The area being developed is small when compared to an industrial scale and would likely not have any of the species of bird, mammal, or reptile as a permanent presence due to vehicle and human activities. There is no water freely flowing through the site and the proposed action would have no impact on either species of fish.

7. HISTORICAL AND ARCHAEOLOGICAL SITES:

Impacts:
Proposed Action: According to the State Historical Preservation Society, there have been no previously recorded sites within the project area. No impacts to historical and archaeological sites are anticipated with the proposed action.

8. SAGE GROUSE EXECUTIVE ORDER:

The current permit action is not located in the Greater Sage Grouse habitat area.

9. AESTHETICS:

Direct Impacts:
Proposed Action: Negligible impacts may be associated with the current permit application due to the new outdoor storage pile at an already existing facility.

Secondary Impacts:
Proposed Action: No secondary impacts to aesthetics and noise are anticipated with the proposed action.

10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Direct Impacts:
Proposed Action: Negligible impacts to air and energy resources associated with the operational needs of the proposed equipment are anticipated. Minor impacts to land and water are expected with the proposed permitting action due to new disturbances of existing agricultural land.

Secondary Impacts:
Proposed Action: No secondary impacts to land, water, air or energy resources are anticipated with the proposed action.

11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:

Direct Impacts:
Proposed Actions: No primary impacts to other environmental resources are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to other environmental resources are anticipated as a result of the proposed action.

12. HUMAN HEALTH AND SAFETY:

Direct Impacts:
Proposed Action: Impacts to human health and safety are anticipated to be short-term and minor as a result of this project. The proposed equipment will be operated with Best Available Control Technology to minimize emissions from the new equipment.

Secondary Impacts:
Proposed Action: No secondary impacts to human health and safety are anticipated as a result of the proposed action.

13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:

Direct Impacts:
Proposed Action: Negligible industrial impacts are anticipated due to new outdoor storage pile. No impacts to commercial and agricultural activities are anticipated.

Secondary Impacts:
Proposed Action: No secondary impacts to industrial, commercial, water conveyance structures, and agricultural activities and production are anticipated as a result of the proposed action.

14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Direct Impacts:
Proposed Action: No impacts to quantity and distribution of employment are anticipated for the proposed action because CHS indicated that no new employees would be required due to this action.

Secondary Impacts:
Proposed Action: No changes in quantity and distribution of employment are anticipated as a result of the proposed action.

15. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Direct Impacts:
Proposed Action: Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefitting from this operation.

Secondary Impacts:
Proposed Action: No secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed action.

16. DEMAND FOR GOVERNMENT SERVICES:

Direct Impacts:
Proposed Action: Minor impacts are anticipated for demand for government services. The air quality permit and physical site associated with the current permit action would require inspections from state government representatives to ensure the facility is operating within the limits and conditions listed in the air quality permit.

Secondary Impacts:
Proposed Action: No secondary impacts are anticipated with the proposed action.

17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

Direct Impacts:
Proposed Action: No primary impacts to the locally adopted environmental plans and goals are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to the locally adopted environmental plans and goals are anticipated as a result of the proposed action.

18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Direct Impacts:
Proposed Action: No primary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed action. The proposed area is already existing site with no recreational areas in the immediate area.

Secondary Impacts:
Proposed Action: No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed action.

19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Direct Impacts:
Proposed Action: No primary impacts to density and distribution of population and housing are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed action.

20. SOCIAL STRUCTURES AND MORES:

Direct Impacts:
Proposed Action: No primary impacts anticipated to social structures and mores are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to social structures and mores are anticipated as a result of the proposed action.

21. CULTURAL UNIQUENESS AND DIVERSITY:

Direct Impacts:
Proposed Action: No primary impacts anticipated to cultural uniqueness and diversity are anticipated from the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to cultural uniqueness and diversity are anticipated as a result of the proposed action.

22. PRIVATE PROPERTY IMPACTS:

The proposed action would take place on privately owned property and is not expected impact other privately owned properties. The analysis below in response to the Private Property Assessment Act indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person's use of private property. Further, if the application is complete, DEQ must take action on the permit pursuant to § 75-2-218(2), MCA. Therefore, DEQ does not have discretion to take the action in another way that would have less impact on private property—its action is bound by a statute.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, DEQ determined there are no taking or damaging implications associated with this permit action.

23. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Due to the nature of the proposed action, no further direct or secondary impacts are anticipated from this project.

ADDITIONAL ALTERNATIVES CONSIDERED:

No Action Alternative: In addition to the proposed action, DEQ is considering a "no action" alternative. The "no action" alternative would deny the approval of the proposed action. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from

which the impacts of the proposed action can be measured.

If the applicant demonstrates compliance with all applicable rules and regulations as required for approval, the "no action" alternative would not be appropriate. Pursuant to, § 75-1-201(4)(a), (MCA) DEQ "may not withhold, deny, or impose conditions on any permit or other authority to act based on" an environmental assessment.

CUMULATIVE IMPACTS:

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures. This environmental review analyzes the proposed action submitted by CHS.

DEQ considered potential impacts related to this project and potential secondary impacts. Due to the limited activities in the analysis area, cumulative impacts related to this project would be minor and short-term.

PUBLIC INVOLVEMENT:

Scoping for this proposed action consisted of internal efforts to identify substantive issues and/or concerns related to the proposed operation. Internal scoping consisted of internal review of the environmental assessment document by DEQ Air Permitting staff.

Internal efforts also included queries to the following websites/ databases/ personnel:
- Montana State Historic Preservation Office
- Montana Department of Environmental Quality (DEQ)
- Montana Natural Heritage Program

OTHER GOVERNMENTAL AGENCIES WITH JURSIDICTION:

The proposed project would be fully located on privately-owned land. All applicable local, state, and federal rules must be adhered to, which, at some level, may also include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapping or sole jurisdiction include, but may not be limited to: Choteau County, OSHA (worker safety), DEQ AQB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

Under ARM 17.4.608, DEQ is required to determine the significance of impacts associated with the proposed action. This determination is the basis for the agency's decision concerning the need to prepare an environmental impact statement and also refers to DEQ's evaluation of individual and cumulative impacts. DEQ is required to consider the following criteria in determining the significance of each impact on the quality of the human environment:

1. The severity, duration, geographic extent, and frequency of the occurrence of the impact;

   "Severity" is analyzed as the density of the potential impact while "extent" is described as the area where the impact is likely to occur. An example could be that a project may propagate ten noxious weeds on a surface area of 1 square foot. In this case, the impact may be a high severity over a low extent. If those ten noxious weeds were located over ten acres there may be a low severity over a larger extent.

   "Duration" is analyzed as the time period in which the impact may occur while "frequency" is analyzed as how often the impact may occur. For example, an operation that occurs throughout the night may have impacts associated with lighting that occur every night (frequency) over the course of the one season project (duration).

2. The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;

3. Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;

4. The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;

5. The importance to the state and to society of each environmental resource or value that would be affected;

6. Any precedent that would be set as a result of an impact of the proposed action that would commit DEQ to future actions with significant impacts or a decision in principle about such future actions; and

7. Potential conflict with local, state, or federal laws, requirements, or formal plans.

The significance determination is made by giving weight to these criteria in their totality. For example, impacts with moderate or major severity may be determined to be not significant if the duration of the impacts is considered to be short-term. As another example, however, moderate or major impacts of short-term duration may be considered to be significant if the quantity and quality of the resource is limited and/or the resource is considered to be unique or fragile. As a final example, moderate or major impacts to a resource may be determined to be not significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

Pursuant to ARM 17.4.607, preparation of an environmental assessment is the appropriate level of environmental review under MEPA if statutory requirements do not allow sufficient time for an agency to prepare an environmental impact statement. An agency determines whether sufficient time is available to prepare an environmental impact statement by comparing statutory requirements that establish when the agency must make its decision on the proposed action with the time required to obtain public review of an environmental impact statement plus a reasonable period to prepare a draft environmental review and, if required, a final environmental impact statement.

SIGNIFICANCE DETERMINATION

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed action would be limited. CHS proposes to operate the proposed action on private land located in Section 29, Township 24 North, Range 8 East, Choteau County**,** Montana.

DEQ has not identified any significant impacts associated with the proposed action for any environmental resource. Approving CHS's Air Quality Application would not set precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If CHS submits another permit application, DEQ is not committed to approve those applications. DEQ would conduct a new environmental review for any subsequent air quality permit applications sought by CHS. DEQ would make a decision on CHS's subsequent application based on the criteria set forth in the Clean Air Act of Montana.

DEQ's issuance of an Air Quality Permit to CHS for this proposed operation does not set a precedent for DEQ's review of other applications, including the level of environmental review. The level of environmental review decision is made based on a case-specific consideration of the criteria set forth in ARM 17.4.608.

DEQ does not believe that the proposed action has any growth-inducing or growth-inhibiting aspects or that it conflicts with any local, state, or federal laws, requirements, or formal plans. Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed state action is not predicted to significantly impact the quality of the human environment. Therefore, at this time, preparation of an environmental assessment is determined to be the appropriate level of environmental review under the Montana Environmental Protection Act.

Environmental Assessment and Significance Determination Prepared By:

John P. Proulx	**Environmental Scientist 2**
Name	**Title**

EA Reviewed By:

Ed Warner	**Lead Engineer**
Name	**Title**

Responses to Substantive Comments are located in the Permit Analysis Section of the Air Quality Permit.

References

Montana Air Quality Permit Application – 5275-00_2022_05_20_APP

https://mtnhp.org/mapviewer