

October 23, 2018

Pat Drynan Helena Sand & Gravel, Inc. P.O. Box 5960 Helena, MT 59604

## Dear Mr. Drynan:

Montana Air Quality Permit #3225-01 is deemed finals as of October 23, 2018, by the Department of Environmental Quality (Department). This permit is for a portable concrete batch plant. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel

Permitting Services Section Supervisor

Julio A Merkl

Air Quality Bureau

(406) 444-3626

JM:RP Enclosure Rhonda Payne Air Quality Scientist Air Quality Bureau (406) 444-5287

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

Montana Air Quality Permit #3225-01

Helena Sand & Gravel, Inc. P.O. Box 5960 Helena, MT 59604

October 23, 2018



## MONTANA AIR QUALITY PERMIT

Issued To: Helena Sand & Gravel, Inc. MAQP #3225-01

P.O. Box 5960 Application Complete: 8/10/18

Helena, MT 59604 Preliminary Determination Issued: 9/19/18
Department Decision Issued: 10/5/18

Permit Final: 10/23/18

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Helena Sand & Gravel, Inc. (Helena Sand & Gravel) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.701, et seq., as amended, for the following:

SECTION I: Permitted Facilities

#### A. Plant Location

Helena Sand & Gravel operates a portable concrete batch plant which would initially operate in Section 23, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. However, MAQP #3225-01 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM10) nonattainment areas. A Missoula County air quality permit will be required for locations within Missoula County, Montana. An addendum will be required for locations in or within 10 km of certain PM10 nonattainment areas.

## B. Current Permit Action

On July 28, 2018, the Department received an application to modify MAQP #3225-00 from Helena Sand & Gravel, to replace the concrete batch plant that is currently operating with a newer plant. The new concrete batch plant is identical in terms of equipment and size as the existing batch plant. Additional information was received on August 10, 2018 and August 21, 2018. Helena Sand & Gravel will construct the new plant onsite while operating the current plant. The throughput limits contained in MAQP #3225-00 will be maintained in MAQP #3225-01; however, the site will have two plants onsite during the transition. Section I.A of the Permit Analysis contains a detailed list of new equipment onsite. No further limits were established as part of this permit action. MAQP #3225-01 makes the requested change, as well as updates the emissions inventory, rule references and permit conditions currently used by the Department.

#### Section II: Limitations and Conditions

- A. Emission Control Requirements and Limitations
  - 1. Helena Sand & Gravel shall install, operate, and maintain:
    - a. Fabric filter systems on any cement silo vent and fly ash silo vent (ARM 17.8.749 and ARM 17.8.752); and
    - b. Particulate containment boots for product loadout (ARM 17.8.749 and ARM 17.8.752).
  - 2. Helena Sand & Gravel shall not cause or authorize to be discharged into the atmosphere from a ready-mix plant:
    - a. Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752); and
    - b. Any fugitive emissions, including but not limited to, truck loading and unloading operations or any material transfer operations, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
  - 3. Helena Sand & Gravel 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 and ARM 17.8.752).
  - 4. Helena Sand & Gravel shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749 and ARM 17.8.752).
  - 5. Total plant production shall be limited to 1,752,000 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
  - 6. Helena Sand & Gravel shall not operate the 2 plants simultaneously upon completion of construction of the replacement concrete batch plant, regardless of the location of either plant (ARM 17.8.749).
  - 7. If the permitted equipment is used in conjunction with any other equipment owned or operated by Helena Sand & Gravel, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

## B. Emissions Monitoring

- 1. Helena Sand & Gravel shall inspect the fabric filter vent systems on the cement and fly ash silos every 6 months of operation to ensure that the collector is operating at the optimum efficiency. Records of inspections, repairs, and maintenance shall be kept for a minimum of 5 years (ARM 17.8.749).
- 2. Helena Sand & Gravel shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by Helena Sand & Gravel as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

## C. Testing Requirements

- 1. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- 2. The Department may require testing (ARM 17.8.105).

## D. Operational Reporting Requirements

- 1. If a concrete batch plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
- 2. Helena Sand & Gravel shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by Helena Sand & Gravel as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM17.8.749).
- 3. Helena Sand & Gravel shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department. 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).

- 4. Helena Sand & Gravel shall notify the Department 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 the Department in writing, 10 days prior to start-up 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(1)(d) (ARM 17.8.745).
- 5. Helena Sand & Gravel shall document, by month, the total plant production. By the 25th day of each month, Helena Sand & Gravel shall total the plant production during the previous 12 months to verify compliance with the limitation in Section II.A.5. A written report of the compliance verification shall be submitted annually to the Department along with the annual emission inventory (ARM 17.8.749).

#### Section III: General Conditions

- A. Inspection Helena Sand & Gravel shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment such as Continuous Emission Monitoring Systems (CEMS) or Continuous Emissions Rate Monitoring System (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if the recipient fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Helena Sand & Gravel of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.701, *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 as specified in Section 75-2-401, *et seq.*, MCA.

- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, 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 the Department'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 Bard postpones the effective date of the Department'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, the Department's decision on the application is final 16 days after the Department'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 Department personnel at the location of the permitted source.
- G. Air Quality Operation Fees Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Helena Sand & Gravel 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).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Helena Sand & Gravel shall comply with conditions contained in this permit while operating at any location in Montana, except within those areas having a Department approved permitting program or areas considered tribal lands.

## Montana Air Quality (MAQP) Analysis Helena Sand & Gravel MAQP #3225-01

## I. Introduction/Process Description

Helena Sand & Gravel, Inc. (Helena Sand & Gravel) owns and operates a portable ready mix concrete batch plant that will originally locate in Section 23, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. The facility includes a concrete batch plant (maximum capacity 200 cubic yards per hour) and associated equipment. Particulate emissions from the cement silo vent and the fly ash silo vent are controlled by the fabric filters. A particulate containment boot controls particulate emissions from the concrete batch plant during truck loading operations.

## A. Permitted Equipment

Helena Sand & Gravel proposes to operate a concrete batch plant which includes, but is not limited to:

- Fine aggregate material conveyor
- Coarse aggregate material conveyor
- Cement storage silo
- Cement supplement storage silo
- Fabric filter baghouse
- Weigh hopper loader and cement scale
- Water heater/boiler
- Rubber boot load-out spout
- Associated equipment and material piles

## B. Source Description

For a typical operational setup, stockpiles of sand and gravel for concrete production are stored on site. Sand and gravel from the stockpiles is transferred to a weight hopper. Cement and fly ash (supplement) is transferred from storage silos. The sand, gravel, cement, fly ash, and water are then loaded into mixing trucks where the materials are mixed together to form concrete. The concrete is then transferred to various construction operations.

## C. Permit History

MAQP #3225-00 was issued to Helena Sand & Gravel for the operation of a portable concrete batch plant on November 30, 2002.

#### D. Current Permit Action

On July 28, 2018, the Department received an application to modify MAQP #3225-00 from Helena Sand & Gravel, to replace the concrete batch plant that is currently operating with a newer plant. The new concrete batch plant is identical in terms of equipment and size as the existing batch plant. Additional information was received on August 10, 2018 and August 21, 2018. Helena Sand & Gravel will construct the

new plant onsite while operating the current plant. The throughput limits contained in MAQP #3225-00 will be maintained in MAQP #3225-01; however, the site will have two plants onsite during the transition. Section I.A of the Permit Analysis contains a detailed list of new equipment onsite. No further limits were established as part of this permit action. MAQP #3225-01 makes the requested change, as well as updates the emissions inventory, rule references and permit conditions currently used by the Department. **MAQP #3225-01** replaces MAQP #3225-00.

#### E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

## 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. Upon request, the Department will provide references for locations 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. <u>ARM 17.8.101 Definitions</u>. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, 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 the Department.
  - 3. <u>ARM 17.8.106 Source Testing Protocol.</u> The requirements of this rule apply to any emission source testing conducted by the Department, 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 Montana Clean Air Act, 75-2-101, et seq., Montana Code Annotated (MCA).
    - Helena Sand & Gravel shall comply with all 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 the Department upon request.
  - 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department 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. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to:
  - 1. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
  - 2. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Helena Sand & Gravel must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Helena Sand & Gravel 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 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
  - 4. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of an affected source for any NSPS subpart defined in 40 CFR 60.
- 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 the Department. Helena Sand & Gravel submitted the appropriate permit application fee, as required 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 the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This 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, as described above, shall take place on a calendar-year basis. The Department 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 which pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7 Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
  - 1. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 When Permit Required-Exclusions</u>. 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 more than 25 tons per year of any pollutant. Helena Sand & Gravel has the potential to emit (PTE) greater than 25 tons per year of particulate matter (PM); therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. 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. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Helena Sand & Gravel submitted the required permit application for the current permit action. (7) This rule 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. Helena Sand & Gravel submitted an affidavit of publication of public notice for the August 3, 2018 issue of the Helena Independent Record, a newspaper of general circulation in the City of Helena in Lewis and Clark County, as proof of compliance with the public notice requirements.

- 6. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the permits issued by the Department 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. <u>ARM 17.8.752 Emission Control Requirements</u>. This rule requires a source to install the maximum air pollution control capability, which is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
- 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. <u>ARM 17.8.756 Compliance with Other Statutes and Rules</u>. This rule states that nothing in this permit shall be construed as relieving Helena Sand & Gravel of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.701, *et seq*.
- 10. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department'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 17.8.762 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.
- 12. <u>ARM 17.8.763 Revocation of Permit</u>. 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).

- 13. 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 in emissions because of those changed conditions of operation. 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.
- 14. ARM 17.8.765 Transfer of Permit. (1) An air quality permit may be transferred from one location to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification—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 Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because the facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions) and therefore does not requires a New Source Review (NSR) analysis.

- G. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any stationary 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 the Department may establish by rule, or
    - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> non-attainment area.

- 2. <u>ARM 17.8.1204 Air Quality Operating Permit Program Applicability</u>. 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 #3225-01 for Helena Sand & Gravel, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for all criteria pollutants.
  - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> non-attainment 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 V affected source nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Helena Sand & Gravel will be a minor source of emissions as defined under Title V.

#### III. BACT Determination

A BACT determination is required for each new or modified source. Helena Sand & Gravel shall install on the new or modified source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be utilized.

#### A. Particulate Emissions

All visible emissions from the cement silo and fly ash silo vents, truck loading or unloading operations, or any material transferring operations shall be limited to less than 20% opacity. Helena Sand & Gravel must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general plant property.

Helena Sand & Gravel has proposed the use of a fabric filter baghouse to capture the particulate matter from the cement and fly ash silo vents and a particulate containment boot on the load-out spout to maintain compliance with the opacity limitations. The efficiency of capture of particulate matter for the fabric filter baghouse is expected to be 99.9%. Because Helena Sand & Gravel has proposed a particulate matter emissions control technology that is the best performing for these types of applications, no other technologies were considered. The Department determined that this equipment that is required to be operated to ensure compliance with the general opacity rule of 20% opacity, constitutes BACT for this source. The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and can achieve the appropriate emission standards.

#### B. Fugitive Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions that result from the operation of equipment and associated activities. These two control methods are water and chemical dust suppressant. Both suppressants could be used from dust control for the area surrounding the concrete plant and for emissions from the handling of aggregate materials. However, since water is more readily available, more cost effective, is equally effective as chemical dust suppressant, while presenting less potential environmental quality degradation, water has been identified as the most appropriate method of pollution control of particulate emissions. In addition, water suppression has been required of recently permitted similar sources. However, Helena Sand & Gravel has the option to use chemical dust suppressant to assist in controlling particulate emissions.

The Department determined that using water spray, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitation constitutes BACT for the operation for the additional equipment.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and can achieve the appropriate emission standards.

#### IV. **Emission Inventory**

	TPY					
Emission Source	PM	$PM_{10}$	NO <sub>x</sub>	CO	VOC	$SO_2$
Aggregate delivery to ground storage (3-05-011-21)	5.64	2.70				
Sand delivery to ground storage (3-05-011-22)	1.31	0.62				
Aggregate transfer to conveyor (3-05-011-23)	5.64	2.70				
Sand transfer to conveyor (3-05-011-24)	1.31	0.62				
Aggregate transfer to elevated storage (3-05-011-04)	5.64	2.70				
Sand transfer to elevated storage (3-05-011-05)	1.31	0.62				
Cement delivery to silo (3-05-011-07)	0.21	0.07				
Cement supplement delivery to silo (3-05-011-17)	0.28	0.16				
Weigh hopper loading (3-05-011-08)	6.92	4.04				
Truck Mix Loading (3-05-011-10)	24.21	6.50				
Total Emissions	52.48	20.71	0.00	0.00	0.00	0.00

\*\*CO = carbon monoxide

(fil) = filterable

HAPs = hazardous air pollutants

hp = horsepowerlb = pound

N/A = not applicableND = no data available

 $NO_X$  = oxides of nitrogen PM = particulate matter

Footnotes:

 $PM_{10}$  = particulate matter with an aerodynamic diameter of 10 microns or less

 $PM_{2.5}$  = particulate matter with an aerodynamic diameter of 2.5 microns or less  $SO_2$  = sulfur dioxide

TPH = tons per hour TPY = tons per year

VOC = volatile organic compounds

yr = year

a. Inventory reflects maximum allowable emissions for all pollutants based on maximum production and year-round operation (8,760 hours) of one concrete batch plant set up. Although there will be two plants onsite until the replacement is made, this emissions inventory calculates emissions based on operating one plant at 1,250,000 yd^3/yr.

#### CONCRETE BATCH PLANT EMISSIONS

Based on 1  $vd^3 = 4024$  lbs and the following avg material composition (AP 42, Chapter 11.12, 6/06)

1865 lb/yd^3 coarse aggregate per yd^3

1428 lb/yd^3 sand per yd^3

491 lb/yd^3 cement per yd^3

73 lb/yd^3 cement supplement per yd^3

167 lb/yd^3 water (~20 gal) per yd^3

Maximum Process Rate = 200 vd^3/hr (max concrete capacity)

Maximum Hours of Operation = 8,760 hrs/yr

#### Aggregate delivery to ground storage (3-05-011-21)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0069 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0069 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **5.64 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.0033 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0033 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **2.70 ton/yr** 

#### Sand delivery to ground storage (3-05-011-22)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0021 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0021 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **1.31 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.00099 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.00099 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.62 ton/yr** 

## Aggregate transfer to conveyor (3-05-011-23)

## **PM** Emissions:

Based on AP-42

Emission Factor = 0.0069 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0069 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 5.64 \text{ ton/yr}$ 

## $PM_{10}$ Emissions:

Based on AP-42

Emission Factor = 0.0033 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0033 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **2.70 ton/yr** 

#### Sand transfer to conveyor (3-05-011-24)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0021 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0021 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **1.31 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.00099 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.00099 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.62 ton/yr** 

Aggregate transfer to elevated storage (3-05-011-04)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0069 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0069 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **5.64 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.0033 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1865 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0033 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 2.70 \text{ ton/yr}$ 

Sand transfer to elevated storage (3-05-011-05)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0021 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0021 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **1.31 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.00099 lb/ton (uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (1428 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.00099 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.62 ton/yr** 

Cement delivery to silo (3-05-011-07)

#### PM Emissions:

Based on AP-42

Emission Factor = 0.00099 lb/ton (controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (491 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.00099 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.21 ton/yr** 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.00034 lb/ton (controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (491 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.00034 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.07 ton/yr** 

Cement supplement delivery to silo (3-05-011-17)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.0089 lb/ton (controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (73 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0089 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.28 ton/yr** 

## PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.0049 lb/ton (controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (73 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0049 \text{ lb/ton}) * (ton/2000 \text{ lb}) =$ **0.16 ton/yr** 

Weigh hopper loading (3-05-011-08)

## PM Emissions:

Based on AP-42

Emission Factor = 0.0048 lb/ton (aggregate & sand, uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (3293 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0048 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 6.92 \text{ ton/yr}$ 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.0028 lb/ton (aggregate & sand, uncontrolled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (3293 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0028 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 4.04 \text{ ton/yr}$ 

Truck Mix Loading (3-05-011-10)

#### **PM** Emissions:

Based on AP-42

Emission Factor = 0.098 lb/ton (cement & supplement, controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (564 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.098 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 24.21 \text{ ton/yr}$ 

#### PM<sub>10</sub> Emissions:

Based on AP-42

Emission Factor = 0.0263 lb/ton (cement & supplement, controlled, AP 42, Table 11.12-2, 6/06)

Calculation:  $(200 \text{ yd}^3/\text{hr}) * (564 \text{ lb/yd}^3) * (ton/2000 \text{ lb}) * (8760 \text{ hrs/yr}) * (0.0263 \text{ lb/ton}) * (ton/2000 \text{ lb}) = 6.50 \text{ ton/yr}$ 

## V. Existing Air Quality

This permit is for a portable facility to be initially located at 2750 Canyon Ferry Road in Section 23, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. Lewis and Clark County, and in those areas for which this facility is permitted to operate, have been designated unclassified/attainment with all ambient air quality standards, and where there are no major air pollution sources in the surrounding area.

## VI. Ambient Air Quality Impacts

Based on the information provided and the conditions established in MAQP #3225-01, the Department determined that the impact from this permitting action will be minor. Due to the portable nature and intermittent operation of the source, the Department did not require an ambient air impact analysis.

#### VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted the following private property taking and damaging assessment.

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)

YES	NO	
	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)

## VIII. Environmental Assessment

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

#### DEPARTMENT OF ENVIRONMENTAL QUALITY

Air, Energy & Mining Division Air Quality Bureau P.O. Box 200901, Helena, Montana 59620 (406) 444-3490

## **ENVIRONMENTAL ASSESSMENT (EA)**

Issued To: Helena Sand & Gravel, Inc.

P.O. Box 5960 Helena, MT 59604

Montana Air Quality Permit number (MAQP): 3225-01

EA Draft: 9/19/18 EA Final: 10/5/18 Permit Final: 10/23/18

- 1. Legal Description of Site: The concrete batch plant would be originally located at 2750 Canyon Ferry Road in Section 23, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. However, the concrete batch plant is a portable source and could operate at other locations.
- 2. Description of Project: This permit would allow Helena Sand & Gravel, Inc. (Helena Sand & Gravel) to replace the concrete batch plant that is currently operating with a newer plant. The new concrete batch plant is identical in terms of equipment and size as the existing batch plant. No increase in throughput at the facility would occur because of this permit action.
- 3. Objectives of the Project: This concrete batch plant would be used to supply wet mix concrete to various construction projects. The proposal would increase business and revenue for the company.
- 4. Alternatives Considered: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality permit to the Helena Sand & Gravel. This would mean that Helena Sand & Gravel would not be able to replace the concrete batch plant with a newer plant. However, the Department does not consider the "no-action" alternative to be appropriate because Helena Sand & Gravel demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
- 5. A Listing of Mitigation, Stipulations, and Other Controls: A list of enforceable conditions, including a BACT analysis, would be contained in MAQP #3225-01.
- 6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

# SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

## A. Terrestrial and Aquatic Life and Habitats

This project would replace the existing plant with a newer plant. Additional impacts above what would already be present from the operation of the current plant are not expected. While deposition of particles would continue to occur, as explained in Section 7.F of this EA, due to the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the atmosphere, and conditions placed in MAQP #3225-01, any impacts would be minor. Therefore, the new concrete batch plant operation would present only minor impacts to the terrestrial life and aquatic life in any given area of operation.

## B. Water Quality, Quantity, and Distribution

This project would replace the existing plant with a newer plant. Additional impacts above what would already be present from the operation of the current plant are not expected. While deposition from air emissions would continue occur, the Department determined that any impacts from deposition would be minor. As described in Section 7.F of this EA, due to the small amount of emissions, dispersion characteristics of particles and the atmosphere, and conditions placed in MAQP #3225-01, the impacts on water quality from the air emissions from the concrete batch plant would be minor.

Further, water would be required for making the concrete and for dust suppression. However, because of the relatively small size and temporary nature of the operation, any impacts from the operation of the concrete batch plant on water quantity and distribution would be minor. Any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations. Overall, the replacement concrete batch plant operation would result in only minor impacts to water quality, quantity, and distribution.

## C. Geology and Soil Quality, Stability, and Moisture

There would continue to be minor impacts to the geology and soil quality, stability, and moisture near the plant's operational area due to proposed project, the use of water to control dust, and deposition of pollutants from concrete batch operations. Due to the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the atmosphere, and conditions placed in MAQP #3225-01, any impacts would be minor.

## D. Vegetation Cover, Quantity, and Quality

There would continue to be minor impacts on the vegetative cover, quantity, and quality because particle deposition would occur on the surrounding vegetation. However, as explained in Section 7.F of this EA, the Department determined that, due to the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the atmosphere, and conditions placed in MAQP #3225-01, any impacts from deposition would be minor. Also, because the water usage would be minimal (as described in Section 7.B of this EA) and the associated soil disturbance would be minor (as described in Section 7.C of this EA) corresponding vegetative impacts would also be minor.

#### E. Aesthetics

The replacement concrete batch plant would be in an existing industrial area. MAQP #3225-01 would include conditions to control emissions, including visible emissions, from the concrete batch plant. Pollution control devices, including a particulate containment boot and fabric filter dust collectors, would be used to control particulate emissions from the plant. Since the proposed project is relatively small and temporary, any aesthetic impact to a given area would be minor.

## F. Air Quality

This project would replace the existing plant with a newer plant. Additional impacts above what would already be present from the operation of the current plant are not expected. Air quality impacts from the proposed project would be minor because the concrete batch plant would be relatively small and operate on an intermittent and temporary basis. Deposition of particles would occur because of operating the concrete batch plant; however, the Department determined that any air quality impacts from the deposition of particles would be minor due to dispersion characteristics of the atmosphere (wind speed, wind direction, etc.), and conditions placed in MAQP #3225-01. MAQP #3225-01 would include conditions limiting the opacity from the plant as well as requiring fabric filter dust control on the cement and fly ash silo vents and a particulate containment boot on the load-out spout of the batch plant to control air emissions. In addition, MAQP #3225-01 would include conditions requiring reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, and the general work area. Further, MAQP #3225-01 would also limit total emissions from the concrete batch plant and any additional Helena Sand and Gravel equipment operated at the same site to 250 tons per year or less. The Department determined that the proposed project would be a minor source of emissions as defined under the Title V Operating Permit Program because the facility's potential emissions would be below 100 tons/year for any pollutant generated.

#### G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP), to identify any species of concern associated with the proposed initial location. Search results identified 31 animal species of concern in the area. These are the Black-tailed Prairie Dog, the Canada Lynx, the Hoary Bat, the Spotted Bat, the American Bittern, the American White Pelican, the Black-backed Woodpecker, the Black-crowned Night-Heron, the Black-necked Stilt, the Bobolink, the Brewer's Sparrow, the Cassin's Finch, the Clark's Nutcracker, the Common Tern, the Evening Grosbeak, the Ferruginous Hawk, the Forster's Tern, the Franklin's Gull, the Golden Eagle, the Great Blue Herron, the Green-tailed Towhee, the Horned Grebe, the Lewis's Woodpecker, the Long-billed Curlew, the Northern Goshawk, the Pinyon Jay, the Sharp-tailed Grouse, the Veery, the Plains Spadefoot, the Westslope Cutthroat Trout and the Western Pearlshell. Specific effects of operating the proposed project in this area would be minor since the project is small, temporary, and operates on an intermittent basis. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

#### H. Sage Grouse Executive Order

The Department recognizes that the site location is not within a Greater Sage Grouse General Habitat Area as defined by Executive Order No. 12-2015.

## I. Demands on Environmental Resource of Water, Air, and Energy

There would continue to be minor impacts on the environmental resource of water, air and energy. The replacement plant would continue to require only small quantities of water, air, and energy for proper operation due to the relatively small size of the facility. Small amounts of water would be used as part of the concrete mixture and for dust control on the surrounding roadways and the associated job site. In addition, as described in Section 7.F. of this EA, air emissions generated from the facility would continue to have minor impacts on air quality in the immediate and surrounding area. A relatively small amount of energy would continue to be required to operate the facility. Due to the small size and temporary operation of the concrete batch plant, the demand on energy to operate the facility would be minor. Overall, the demands on the environmental resources of water, air, and energy would be minor.

## J. Historical and Archaeological Sites

To identify any historical and archaeological sites that may be present in the area proposed for the initial concrete batch plant operation, the Department previously contacted the Montana Historical Society, State Historic Preservation Office (SHPO). SHPO indicated that there have been no previously recorded historic or archaeological sites within the area. SHPO further commented that the absence of cultural properties in an area does not mean that they do not exist but rather may reflect the absence of any previous cultural resource inventory in the area. However, SHPO did note that because the concrete batch plant would locate in an existing open cut pit, it is not likely that cultural properties would be impacted.

If portable concrete batch plants move to new locations, they typically move to a previously disturbed industrial location such as an open cut pit. As noted above, SHPO has indicated in the past that there is low likelihood of disturbance to any known archaeological or historic sites given previous industrial disturbance in those areas. Therefore, it is unlikely that the concrete batch operation would have an effect on any known historic or archaeological site at any future location.

## K. Cumulative and Secondary Impacts

The replacement concrete batch plant would cause minor effects to the physical and biological aspects of the human environment because the continued operations would generate relatively small amounts of particulate matter and PM<sub>10</sub>. Noise impacts would be minor due to the relatively small size of the operation. Impacts from noise would be seasonal and possibly temporary because the concrete batch plant is permitted as a portable source and would have the potential to move to other locations. Limitations established in MAQP #3225-01 would minimize air pollution.

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

#### A. Social Structures and Mores

The proposed project would cause no disruption to native or traditional lifestyles or communities (Social Structures and Mores) because of the relatively small size and temporary nature of the concrete batch plant. In addition, it would be unlikely that the

concrete batch plant would have an impact on social structures and mores of any future area of operation because the facility would likely be operated in a previously disturbed industrial area typically used for such operations. Therefore, such operations would have no impacts on the social structures and mores of any future site.

## B. Cultural Uniqueness and Diversity

The replacement concrete batch operation would not impact the cultural uniqueness and diversity of the proposed area because of the relatively small size and temporary nature of the concrete batch plant. The replacement concrete batch plant's proposed initial location is an existing gravel pit so industrial activity is not new to the area. In addition, it would be unlikely that the replacement concrete batch plant would have an impact on the cultural uniqueness and diversity of any future area of operation because the facility would likely be operated in a previously disturbed industrial area typically used for such operations. Therefore, such operations would have no impacts to the cultural uniqueness and diversity of any future site.

#### C. Local and State Tax Base and Tax Revenue

The replacement concrete batch plant would have little effect on local and state tax base and tax revenue because the facility would be a relatively small and temporary source. No new employees are expected to be added as a result of the replacement of the concrete batch plant. Any revenue created by the concrete batch plant in any future area would be for a relatively short time period.

#### D. Agricultural or Industrial Production

Under normal circumstances, the concrete batch operations would take place in a previously disturbed industrial area. Therefore, the Department does not expect that the permitted operation would affect or displace any agricultural land or production. Further, the concrete batch operations are relatively small by industrial standards and would, therefore, have only a minor impact on any local industrial production.

#### E. Human Health

MAQP #3225-01 would incorporate conditions to ensure that the concrete batch plant would be operated in compliance with all applicable rules and regulations. These rules and regulations are designed to be protective of human health. As described in Section 7.F of this EA, while deposition of pollutants would occur, the Department determined that any impacts from deposition would be minor due to dispersion characteristics of air emissions and the atmosphere and conditions placed in MAQP #3225-01. Pollution controls and opacity limitations on the concrete batch plant, associated equipment, and the surrounding operational area would minimize the air emissions from this facility. Therefore, any impacts to human health would be minor.

## F. Access to and Quality of Recreational and Wilderness Activities

The concrete batch operations would not affect any access to recreational and wilderness activities because the facility would typically be operating in an existing industrial pit. However, minor effects on the quality of recreational activities might be created by noise from equipment operations. Any impacts from the site would be temporary due to the portable nature of the concrete batch plant.

## G. Quantity and Distribution of Employment

Given the relatively small size and temporary nature of the operation, there would be a minor impact on the quantity and distribution of employment in any given area. No new employees would be expected to be hired because of issuing MAQP #3225-01.

## H. Distribution of Population

The operation of the replacement concrete batch plant would not have long-term affects upon the quantity and distribution of employment in any given area of operation. The application stated no new employees would be employed because of the proposed project. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

## I. Demands of Government Services

Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be expected to be minor.

## J. Industrial and Commercial Activity

This project would replace the existing plant with a newer plant. Additional impacts above what would already be present from the operation of the current plant are not expected. No additional industrial or commercial activity would result solely from the concrete batch plant operations, but some of the product may be supplied to industrial and commercial sources.

## K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals at the proposed site for the facility. The state standards identified in MAQP#3225-01 would govern the proposed site and the environment surrounding the site and future sites; therefore, there would not be any impacts expected on locally adopted environmental plans and goals.

## L. Cumulative and Secondary Impacts

Overall, the social and economic cumulative and secondary impacts from this project would be minor because new businesses would not be drawn to the area and no new jobs would be expected to be created due to the operation of the replacement concrete batch plant. In addition, any social and economic impacts would be minor and short-lived because of the relatively small size and temporary nature of the operation. Recommendation: No Environmental Impact Statement (EIS) is required.

The current permitting action is for the construction and operation of concrete batch plant. MAQP #3225-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society - State Historic Preservation Office (SHPO), Montana Natural Heritage Program - National Resource Information System (NRIS), and the Department of Environmental Quality, Industrial and Energy Minerals Bureau.

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Quality Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program.

EA prepared by: R. Payne

Date: 9/13/18