DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Water Protection Bureau

Name of Project: Educational Meat Processing Facility
Missoula County Public Schools Vo-Ag Center

Type of Project: Proposed discharge of non-domestic wastewater to ground water under the Montana Ground Water Pollution Control System (MGWPCS) permit program.

Location of Project: Latitude: 46.845318º; Longitude: -114.069579º
Section 36, Township 13 North, Range 20 West

City/Town: Missoula **County:** Missoula

Description of Project: This Environmental Assessment (EA) is for a new MGWPCS discharge permit (MTX000237) for an Educational Meat Processing Facility (facility) to be located within Missoula County Public School's existing Vocational-Agriculture Education Complex. The proposed MGWPCS permit authorizes Missoula County Public Schools (permittee) to discharge treated wastewater from a subsurface discharge structure (Outfall 001) into Class I ground water. The scope of this EA addresses the installation, operation and discharge of the proposed wastewater treatment and disposal system. The magnitude and significance of potential impacts are summarized below (bullet #26). Additional information is provided within the Fact Sheet document available at the following website: http://deq.mt.gov/Public/notices/wqnotices.

Agency Action and Applicable Regulations: The proposed action is to issue an individual MGWPCS permit that contains effluent limits and effluent monitoring requirements. The permit is issued under the authority of the Montana Water Quality Act (MCA 75-5-101 *et seq.*), the Montana Ground Water Pollution Control System (ARM 17.30.1001-1045), and the Montana Numeric Water Quality Standards in the Department Circular DEQ-7.

Summary of Issues: The purpose of this action is to regulate the discharges of pollutants to state waters from the regulated facility. Issuance of an individual permit will require the permittee to implement, monitor, and manage practices to prevent pollution and the degradation of ground water.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).
N = Not Present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	**[N]** No significant impacts have been identified. The discharge will increase the amount of moisture in the vadose zone. No limiting layers were identified in the soil profile.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	**[N]** No significant impacts have been identified. Ground water in the vicinity of proposed discharge structure is Class I ground water with a specific conductance less than 1,000 µS/cm. DEQ has developed effluent limitations based on nondegradation-nonsignificance criteria to maintain the beneficial uses of all statewaters (see Fact Sheet). The proposed permitting action will not individually or cumulatively have a significant impact on the human environment, and does not have a reasonable potential to exceed surface water standards. As discussed in the Fact Sheet document, DEQ has established permit conditions that require the permittee to establish and maintain Best Management Practices (BMPs) and Standard Operating Procedures (SOPs) to prevent wastes from entering into the wastewater collection system. These practices and procedures will assist with the school's current plan to collect and recycle (or compost) wastes collected from the meat processing. The permittee has submitted tentative BMPs to DEQ as part of the application materials; they are displayed in Appendix VIII of the Fact Sheet document. Future BMP permit condition requirements are discussed in Section VI of the Fact Sheet document.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	DEQ performed projections to demonstrate the significance of the proposed activity. In use of recent site specific information, projections indicate that nitrate in ground water will not exceed the significance criteria. These projections are conservative in that they do not credit potential losses of nitrogen due to chemical transformation, or attenuation that may occur within the vadose zone, ground water aquifer, or hyporheic zone. These projections include all potential cumulative impacts including upgradient (ambient) sources; and downgradient with an estimation of downgradient septic systems. DEQ has not identified any additional ground water sources of nitrate to the local ground water system. The projections indicate that the discharge is not a significant activity. These projections may be reanalyzed every permit cycle to factor in up-to-date site specific information including the potential of new upgradient or downgradient sources of nitrates. The projections have been summarized within Appendix IX of the Fact Sheet document. In addition to the applicant certifying their request for a discharge to ground water (and not surface water); DEQ also performed a reasonable projection analysis to demonstrate whether aquatic life standards may be exceeded at the nearest projected downgradient surface water. The projections used recent site specific information (Fact Sheet, Appendix IX). These projections are conservative-in-nature in that they do not credit potential losses of nitrogen due to chemical transformation, or attenuation that may occur within the vadose zone, ground water aquifer, or hyporheic zone. These projections include all potential cumulative impacts including upgradient (ambient) sources obtained from on-site water well samples; and downgradient with ground water quality data collected from a monitoring well located downgradient of the nearby septic systems. DEQ has not identified any additional permitted discharge systems, or additional ground water sources of nitrate in the vicinity of the facility. The projections indicate that the activity will not result in a reasonable potential to exceed aquatic life standards in downgradient surface water. These projections may be reanalyzed every permit cycle to factor in up-to-date site specific information including the potential of new upgradient or downgradient sources of nitrate. The projections have been

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	summarized within Appendix IX of the Fact Sheet document. The facility covered under this permit must show evidence of treatment capable of meeting the established effluent limitation which was derived from the most restrictive ground water quality standards and nondegradation-nonsignificance criteria. This effluent limitation, along with special conditions and standard conditions of the permit has been developed to maintain the beneficial uses of all state ground waters including drinking water. The permittee must be able to meet this restrictive effluent limitation prior to discharge. Construction activities may impact water quality by contributing discharges of sediment to surface waters. The permittee may be required to obtain permit coverage under a Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharges Associated with Construction Activity. The permittee may be required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which includes best management practices to protect nearby surface waters. Additional information can be found at the following website: http://deq.mt.gov/Water/WPB/mpdes/stormwater The facility is located within the boundary of the Missoula Sole Source Aquifer (https://www.epa.gov/dwssa).
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	**[N]** No significant impacts have been identified. Best management practices are encouraged during construction of the replacement treatment system and drainfield to mitigate particulates produced. For additional information, the permittee is encouraged to contact the Montana DEQ Air Resources Management Bureau: http://deq.mt.gov/Air

IMPACTS ON THE PHYSICAL ENVIRONMENT	
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	**[N]** No significant impacts have been identified. All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. Based on a search of the Natural Heritage Database, there are no vegetative species listed as either S1, S2, LE, or LT (http://fieldguide.mt.gov/statusCodes.aspx#msrc:rank) in the general vicinity of the facility.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	**[N]** No significant impacts have been identified. All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. Based on a search of the Natural Heritage Database, there are five species listed as either S1, S2, LE, or LT (http://fieldguide.mt.gov/statusCodes.aspx#msrc:rank). The following species were listed to be in the regional area surrounding the proposed facility, *Oncorhynchus clarkii lewisi,* *Salvelinus confluentus,* *Isocapnia crinita,* *Margaritifera falcate, and,* *Stygobromus tritus.* There were no species listed in the local vicinity of the proposed facility.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	**[N]** See #4 and #5 above. Site and habitat inventories for the applicable species were recommended in consultation with the Montana Natural Heritage Program. The applicant is encouraged to contact and consult with this program or other Natural Resource Information Programs available at the Montana State Library: http://nris.msl.mt.gov/

IMPACTS ON THE PHYSICAL ENVIRONMENT	
7. SAGE GROUSE EXECUTIVE ORDER: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: https://sagegrouse.mt.gov/	**[N]** The project site is not listed as being located within sage grouse habitat. DEQ referred to the Habitat and Occurrence mapping program at https://sagegrouse.mt.gov/projects/. If there are questions about Sage Grouse at this site, the applicant must contact and consult with the Sage Grouse Habitat Conservation Program at: https://sagegrouse.mt.gov/.
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	**[N]** All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. A general recommendation by the Montana State Historic Preservation Office (MSHPO) states that in the event that cultural materials are inadvertently discovered, the permittee should contact the MSHPO office for investigation.
9. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	**[N]** No significant impacts have been identified. All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. The wastewater treatment system and discharge structure will be located subsurface.
10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR, OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded power line or other energy source be needed?	**[N]** All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. The source water well to be used was first installed in 1985 and has since been extensively used by the complex. The well is a public water supply (http://deq.mt.gov/Water/PWSUB/pws) that draws water from the Missoula Sole Source Aquifer (https://www.epa.gov/dwssa).
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	**[N]**

IMPACTS ON THE HUMAN ENVIRONMENT	
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	**[N]** All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex. The permittee should secure all components of the wastewater system.
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	**[N]** All proposed activities may take place within Missoula County Public School's existing Vocational-Agriculture Education Complex.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	**[Y]** The construction of the facility may result in the creation of several temporary jobs until construction is completed. The long-term operation and maintenance of the wastewater treatment system and discharge structure may be completed by the existing staff.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	**[N]**
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	**[N]** Traffic may increase during the construction of any new wastewater treatment systems and discharge structures. Once construction is complete, there may be minimal traffic for the operation and maintenance of the wastewater treatment system.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	**[Y]** Missoula County may have local regulations in which the permittee may also need to comply with. The permittee is encouraged to contact the Missoula County Water Quality District at 406-258-4781. http://www.co.missoula.mt.us/wq/default.htm
18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	**[N]**

IMPACTS ON THE HUMAN ENVIRONMENT	
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	**[N]**
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	**[N]**
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	**[N]**
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	**[N]**
23(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	**[N]**
23(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	**[N]**
23(c). PRIVATE PROPERTY IMPACTS: If the answer to 23(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	**[N]** No significant impacts were identified in 23(b).

24. **Description of and Impacts of other Alternatives Considered:**

A. No Action: Under the "No Action" alternative, the Department would not issue this ground water discharge permit. "No Action" may lead to the creation of non-permitted wastewater systems. This may result in a net negative impact to ground water quality as the permit would prevent pollution and degradation of state waters.

B. Approval with Modification: The Department has not identified any necessary modifications to grant approval.

25. **Cumulative Effects:**

Cumulative effects were analyzed as part of this EA and permitting determination. The proposed permitting action will not individually or cumulatively have a significant impact on the human environment, and does not have a reasonable potential to exceed surface water standards.

DEQ has established permit conditions that require the permittee to establish and maintain Standard Operating Procedures (SOPs) in use of Best Management Practices (BMPs) to prevent wastes from entering into the wastewater collection system. This may minimize the likelihood of additional nutrients being added to the aquifer. This and other permit special conditions are discussed in Section VI of the Fact Sheet document.

DEQ performed projections to demonstrate the significance of the proposed activity. The-projections included all potential cumulative impacts including upgradient (ambient) sources obtained from on-site water well samples; and downgradient with an estimation of downgradient septic systems. The projections, which included recent aquifer monitoring, indicated that nitrate in ground water will not exceed the significance criteria. This is further discussed in Section VIII of the Fact Sheet document.

DEQ performed a reasonable projection analysis to demonstrate whether aquatic life standards may be exceeded at the nearest projected downgradient surface water. The projections included all potential cumulative impacts including upgradient (ambient) sources obtained from on-site water well samples; and downgradient in use of water quality data obtained from an existing downgradient ground water monitoring well. The projections indicate that the activity will not result in a reasonable potential to exceed aquatic life standards in the potential downgradient receiving surface water body. This is further discussed in Section VIII of the Fact Sheet document.

These projections and analyses may be reanalyzed every permit cycle to factor in up-to-date site specific information including the potential of new upgradient or downgradient sources of nitrate.

DEQ has developed effluent limitations based on water quality standards to maintain the beneficial uses of this state ground water. The permit prohibits pollution and degradation of all state waters. The permit includes monitoring, reporting, and corrective action requirements to establish, confirm, and maintain compliance with permit limitations. Please refer to the Fact Sheet document for additional information.

26. **Summary of Magnitude and Significance of Potential Impacts:**
Impacts were assessed with the assumption that the facility will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. Violations of the permit are not an effect of the agency action since the permit itself forbids such activities. However, the Department has taken steps to ensure that violations do not occur. The Department provides assistance to applicants in understanding and implementing the requirements of the permit. The Department also conducts periodic inspections of permitted facilities, and identifies potential problems with design or management practices. If violations of the permit do occur, the Department will take appropriate action under the water quality act (75-5-617, MCA). Enforcement sanctions for violations of the permit include injunctions, civil and administrative penalties, and cleanup orders.

27. **Preferred Action Alternative and Rationale**: The preferred action is to issue the existing individual MGWPCS discharge permit. This action is preferred since the permit provides a regulatory mechanism for protecting ground water quality by applying effluent limits and monitoring requirements to the discharged wastewater.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [**X**] No Further Analysis

Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act because the project lacks significant adverse effects to the human and physical environment.

28. **Public Involvement:** Legal notice information for water quality discharge permits are listed at the following website: http://deq.mt.gov/Public/notices/wqnotices. Public comments on this proposal are invited any time prior to close of business on March 15, 2017. Comments may be directed to:

DEQWPBPublicComments@mt.gov

or at:

Water Protection Bureau
PO Box 200901
Helena, MT 59620

All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit. DEQ will respond to all substantive comments pertinent to this permitting action and may issue a final decision within thirty days of the close of the public comment period.

All persons, including the applicant, who believe any condition of the draft permit is inappropriate, or that DEQ's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing). All public comments received for this draft permit will be included in the administrative record and will be available for public viewing during normal business hours.

Copies of the public notice were mailed to the applicant, state and federal agencies and interested persons who have expressed interest in being notified of permit actions. A copy of the distribution list is available in the administrative record for this draft permit. Electronic copies of the public notice, draft permit, fact sheet, and draft environmental assessment are available at the following website: http://deq.mt.gov/Public/notices/wqnotices.

Any person interested in being placed on the mailing list for information regarding this permit may contact the DEQ Water Protection Bureau at (406) 444-3080 or email DEQWPBPublicComments@mt.gov. All inquiries will need to reference the permit number (MTX000237), and include the following information: name, address, and phone number.

During the public comment period provided by the notice, DEQ will accept requests for a public hearing. A request for a public hearing must be in writing and must state the nature of the issue proposed to be raised in the hearing.

29. **Persons and/or Agencies Consulted or Referenced in the Preparation of this Analysis**:

Historical Preservation Society
Missoula County
Montana Natural Heritage Program
Montana Bureau of Mines and Geology:

- Ground Water Information Center
- Ground Water Investigation Program
- Ground Water Assessment Program

Natural Resource Information System, Montana State Library
United States Department of Agriculture, Natural Resources Conservation Service Soil Survey
United States Environmental Protection Agency
United States Geological Survey
Washington State Department of Health
World Health Organization

EA Checklist Prepared By:

Chris Boe February 03, 2017

Approved By:

Jon Kenning, Chief
Water Protection Bureau

DRAFT

Signature Date