FINAL PROGRAMMATIC ENVIRONMENAL ASSESSMENT

Installation permit under the Underground Storage Tank Act of Montana to construct a new underground storage tank (UST) facility

Underground Storage Tank Section
Tanks, Brownfields, and Federal Facilities Bureau
Waste Management and Remediation Division
Montana Department of Environmental Quality

July 11, 2024

1. PURPOSE AND NEED FOR PROPOSED ACTION

1.1 AUTHORIZING ACTION

The Montana Department of Environmental Quality (DEQ) must prepare an environmental review, through completion of either an Environmental Assessment (EA) or Environmental Impact Statement (EIS), in accordance with requirements of the Montana Environmental Policy Act (MEPA) for the installation of underground storage tank systems (USTs) at a new facility. The proposed action may have an impact on the human environment; therefore, DEQ must prepare an environmental review. This Programmatic EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed action and alternative actions. DEQ will determine if the proposed action will require additional environmental review, beyond a programmatic EA or site-specific EA based on consideration of the criteria set forth in the Administrative Rules of Montana (ARM) 17.4.608.

1.2 DESCRIPTION OF DEQ REGULATORY OVERSIGHT

DEQ implements the Underground Storage Tank Act of Montana, overseeing the installation of USTs. USTs are defined in section 75.11.503(8), Montana Code Annotated (MCA). DEQ has authority to analyze if the proposed UST installation meets the criteria for approval. The criteria are that the installation complies with applicable statutes and rules and that it is conducted in such a place and manner as to protect the environment and the public's health, welfare and safety (ARM 17.56.1305).

UST Installers are licensed by the department and certified by the manufacturer for UST system components to be installed (i.e., tank manufacturer, piping manufacturer, containment sump manufacturer, and leak detection manufacturer). Individuals that are licensed by the department and authorized to complete UST system installations in Montana must pass a comprehensive exam after their initial application is approved by the department. They must also have met the minimal historical work experience obligations per the department UST program requirements. Installers are required to be familiar with and abide by the Petroleum Equipment Institute (PEI) RP 100 "Recommended Practices for Installation of Underground Liquid Storage Systems", American Petroleum Institute (API) RP 1615 "Installation of Underground Hazardous Substances or Petroleum Storage Systems", and the National Fire Protection Association (NFPA) Standard 30 "Flammable and Combustible Liquids Code".

These UST installation performance standards are incorporated by reference in ARM 17.56.201 "Performance Standards for New Tank Systems". Additionally, all new UST system installations must meet the requirements outlined in ARM 17.56.201. Regulated product is only added to the tank and/or piping system after the manufacturer's required tank and piping integrity tests have been properly performed and passed testing. This includes preinstallation inspection, tank testing, and piping testing requirements. Finally, before activating the tank into service, all functionality testing must be performed and pass testing requirements per PEI RP 1200 "Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities".

1.3 PROPOSED ACTION

The applicant has applied for a new installation permit under the Underground Storage Tank Act of Montana to construct a new UST facility. This permit would allow for the installation of USTs containing petroleum products and associated piping to fuel dispensers and any ancillary equipment designed to prevent, detect, or contain a release from a UST. Once installed, the facility would be issued a UST Operating Permit and a new UST facility ID number. The applicant has submitted information in a permit application that DEQ has reviewed and determined would fall under this programmatic EA.

The proposed action includes the following:

Table 1: Summary of Proposed Action

Proposed Action	
General Overview	This EA is for the Installation of USTs containing petroleum products and associated piping to fuel dispensers and any ancillary equipment designed to prevent, detect, or contain a release from an underground storage tank at a new facility.
Duration & Hours of Operation	**Construction:** Construction is estimated to take between 2 days and 6 weeks, anywhere between the hours of 6 a.m. to 9 p.m. **Operation:** The tank systems will be operated for 24 hours/day **Tank Operational Life**: 30-50 years
Estimated Disturbance	**Tank basin dimensions**: Tank basin dimensions typically range from approximately 60'x38'x8' to 70'x70'x15' and a facility can contain multiple tank basins. **Piping trench linear feet**: Piping trenches typically range from approximately 100 – 500' **Electrical supply trench linear feet**: Electrical trenches typically range from 100 – 500' The estimated construction is approximately 2 acres of disturbance. After construction is complete, the UST equipment would be buried and the only permitted above ground equipment would include vertical vent standpipes and submerged fill pipes for each tank to reduce and disperse vapors from petroleum products stored in the tanks. Stage 1 vapor recovery would be installed on all gasoline underground storage tank systems to recover vapors during the transfer of gasoline from the delivery vehicle into the UST.
Construction Equipment	Excavators, gravel shooter, backhoe, skid steer, dump trucks, crane to set, passenger service truck, concrete trucks, semi-trucks and trailers and other heavy earth moving equipment.
Personnel Onsite	**Construction:** Generally, 1-10 equipment operators and laborers.
Location and Analysis Area	**Location**: Location is given in application **Analysis Area**: The area being analyzed as part of this environmental review includes the immediate project area, as well as the area where secondary impacts are possible, for a UST installation. The secondary impact of most concern is a tank leak, releasing petroleum into the environment. For this proposed action an area of 1000 feet from all tanks and piping is analyzed.
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	

Air Quality	During Installation – applicant would follow accepted excavation protocol. Minimal excavation would be done to limit airborne dust, and equipment would be operated only when needed, limiting idle times. The applicant would use dust suppression during construction, as necessary, to keep dust down. Once constructed - the proposed UST system would include vertical vent standpipes and submerged fill pipes for each tank to reduce and disperse vapors from petroleum products stored in the tanks. Stage 1 vapor recovery would be installed on all gasoline underground storage tank systems to recover vapors during the transfer of gasoline from the delivery vehicle into the UST.
Water Quality	Stormwater would be managed under the Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharges associated with construction activity. Water used for containment sump testing must follow all applicable regulations, including proper disposal. Best management practices would be used to keep any sediment, waste, from entering waterways. Examples are straw berms or straw bales placed at areas of potential runoff from construction. The use of secondarily contained, non-corroding underground tanks and piping and continuous system monitoring would protect ambient water quality, drinking water quality and use, and prevent degradation of surface and ground water quality. Proper operation of this system would decrease the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, and the degradation of water quality. Secondary containment and leak detection systems serve to mitigate the potential impacts by immediately reducing the amount of fuel available for release to the environment and by making early detection of releases possible. Tank leak detection equipment would be installed at the facility, including tank interstitial monitoring sensors. Additional piping leak detection equipment would also be utilized, and liquid sensors would be placed in the tank top and transition sumps. If a leak occurred, the fuel pumping system would automatically shut down and could not be energized again until the source of the leak is identified and addressed. Further, leak detection systems must meet leak rate detection standards of a 95% probability of detection with a maximum of 5% probability of a false alarm. Finally, these systems are designed and programmed to immediately shut down if a leak as small as 0.2 gallons per hour is detected.

	The applicant would install an overfill prevention valve on the tank systems and use secondary containment sumps. A single-wall round tank top sump would be installed around the piping accesses to the tank. Sump boots, which provide a seal around each piping and conduit penetration to the sump, would be compatible with the piping and installed at each sump penetration. All sumps would be hydrostatically tested (filling it with water and pressurizing it to test for strength and leaks) according to the specific installation conditions.
Erosion Control and Sediment Transport	During Installation – minimal ground disturbance is expected by following appropriate excavation protocol. Excavated soil would be removed from the site using appropriate equipment or utilized elsewhere on the site, as needed. Erosion control and other limits and conditions would be accomplished using a variety of Best Management Practices (BMP). Examples are straw berms or straw bales placed at areas of potential runoff from operations. This would mitigate impacts to surface water quality from stormwater/sediment discharges associated with construction of the facility.
Solid Waste	The applicant would provide waste cannisters during the UST system installation and operation to collect miscellaneous solid wastes, which would be disposed at a Montana-licensed solid waste management facility.
Hazardous Substances	The applicant proposes to store hazardous substances in original labeled containers. Fuel and lubricants for equipment would be necessary on-site during construction of the UST system and will be kept to minimum quantities. The Montana state licensed UST installer would be performing daily inspections on his equipment to ensure that they are in good operating condition. Contractors would be trained in hazardous substance containment and cleanup. Spill kits and absorbent pads would be available on the construction site.
UST Installation, Operation, and Monitoring Requirements	The following compliance, testing, and inspection requirements would be followed regarding this proposed UST installation project: 1. Double-walled, non-corrodible, continuously monitored tanks and piping systems are required for any new UST installation project. 2. A UST installation permit is required to be issued by the DEQ UST program before installation of the regulated UST systems. 3. A DEQ UST program One Time Fill Permit is issued with the UST installation permit. The One Time Fill Permit is issued only to fill the tanks

	for the purpose of testing the UST systems. A One Time Fill Permit is not a permit to dispense fuel or otherwise operate the UST facility. Testing must be conducted on each tank when no less than 90 percent full. 4. The UST installation permit requires numerous tank and piping test requirements including: • 0.1 gallon per hour (gph) or 0.2 gph EPA-certified tank test conducted on the tank when at least 90 percent full, • a department approved 0.1 gph or 0.2 EPA-certified ullage (testing the empty part of the tank) test, • PEI RP 1200 functional testing of all UST system tank and piping interstitial liquid sensors, • Primary pipe installation line testing, • Secondary pipe installation line testing, • PEI RP 1200 Tank Monitor setup and diagnostic testing, • Tank Monitor programming requirements for tank and piping shutdown on alarms and failed tests, • Tank Monitor programming for tank and piping leak detection, • Hydrostatic sump test of all containment sumps (tank top sumps, transition sumps, and under-dispenser sumps), • PEI RP 1200 spill bucket tightness testing of the spill containers, • PEI RP 1200 function testing of the overfill prevention devices (automatic shutoff valve, flapper valve, outside high level overfill alarm, etc.), • Certification of compliance signed by the licensed installer, • Signed UST installation permit, • Signed One Time Fill Permit, and • Unique GPS coordinates at the fill pipe of these newly installed tanks. 5. If all installation permit requirements and testing mandates have been satisfied, a Conditional Operating Permit is issued. The Conditional Operating Permit requires an inspection to be completed by a State Licensed UST inspector between 90 and 120 days from the date of issuance. 6. DEQ must review the compliance inspection conducted by a State Licensed UST Inspector to ensure it meets the requirements of the Conditional Operating Permit. 7. If DEQ determines that the UST owner/operator meets the requirements of the Conditional Operating Permit inspection, then DEQ issues a three-year UST operating permit to the owner/operator. 8. The facility is required to perform 30-day and annual walkthrough inspections. The facility also must perform annual and triennial testing and have a third-party compliance inspection every three years.

	Requirements are described here: http://mtrules.org/gateway/ChapterHome.asp?Chapter=17%2E56 9. Disposal of water used for containment sump testing must follow all applicable regulations, including proper disposal of spent test water. 10. Requirements at ARM 17.56 subchapter 5 must be followed for release reporting, investigation, confirmation, abatement measures and corrective action. State statutory authority for corrective actions is found in the Montana Underground Storage Tank Act, 75-11-501, MCA, et seq.

Table 2: Cumulative Impact Considerations

Cumulative Impact Considerations		DEQ has conducted the necessary research regarding *Past/Present/Future Cumulative Impact Considerations
Past Actions – any previous actions given in the application. Past actions can range from commercial/industrial use to agricultural use, to remediation for tank cleanup or superfund actions.	DEQ staff carefully review the location and records for potential cumulative impacts and no past cumulative effects have been found.	X
Present Actions – any action that has been both applied for and approved, whether construction has started or not	No current FWP, DNRC, BLM, USFS, county or locally regulated projects were identified within 1000 feet of the proposed project. If the permit is approved, USTs containing petroleum products would be installed, along with associated piping to fuel dispensers and any ancillary equipment designed to prevent, detect, or contain a release from an underground storage tank at a new facility, and include a general stormwater permit for construction activities.	X
Related Future Actions – any action that has been applied for but not yet approved, and therefore has not begun.	No related future actions are known that may contribute to cumulative impacts.	X

*If cumulative effects are found, they are detailed in a facility-specific attachment to the Categorical Exclusion document.

1.4 PURPOSE, NEED, AND BENEFITS

DEQ's purpose in conducting this EA is to conduct an environmental review of the proposed action provided in the application for a permit to install a new UST system(s).

DEQ's action on the permit application is governed by MCA 75.11.212 and ARM 17.56.1305. Montana DEQ does not approve the building permit for the convenience store, canopy, or other building structures.

The applicant's purpose and need, as expressed to DEQ in proposing this action, is to supply fuel in the proposed location in the application.

1.5 OTHER GOVERNMENTAL AGENCIES AND PROGRAMS WITH JURSIDICTION

The proposed project would be located on private land. All applicable local, state, and federal rules must be adhered to, which may also include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapped, or additional jurisdiction include but may not be limited to, the local City where the facility operates, the local County Commission or local County Planning Department (zoning), local County Weed Control Board, Occupational Safety and Health Administration (worker safety), DEQ Air Quality Bureau (air quality), DEQ Water Protection Bureau (groundwater and surface water discharge; stormwater), The Department of Natural Resources and Conservation (DNRC) (water rights), The Montana Department of Transportation (MDT), the local County (road access) and U.S. Environmental Protection Agency (EPA).

2. AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE

2.1 EVALUATION AND SUMMARY OF POTENTIAL IMPACTS

The impact analysis will identify and evaluate direct and secondary impacts to the physical environment and human population in the area affected by the proposed action.

Direct impacts occur at the same time and place as the action that causes the impact. *Secondary impacts* are a further impact to the human environment that may be stimulated, induced by, or otherwise result from a direct impact of the action. ARM 17.4.603(18). Where impacts may occur, the impacts analysis estimates the duration and intensity of the impact.

Cumulative impacts are the collective impacts on the human environment when considered in conjunction with other past, present, and future actions related to the Proposed Action by location and generic type. Related future actions must be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. ARM 17.4.603(7). See cumulative impacts table in section 1.3 for more information.

The duration of an impact is quantified as follows:

- **Construction Impacts (short-term):** These are impacts to the environment during the construction period. When analyzing duration, a specific range of time is included.

- **Operation or post-shutdown Impacts (long-term)**: These are impacts to the environment during the operational period or impacts that would remain following shutdown. When analyzing duration, a specific range of time is included.

The intensity of the impacts is measured using the following:

- **No impact**: There would be no change from current conditions.

- **Negligible Impact**: An adverse or beneficial effect would occur but would be at the lowest levels of detection.

- **Minor Impact**: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.

- **Moderate Impact**: The effect would be easily identifiable and would change the function or integrity of the resource.

- **Major Impact**: The effect would alter the resource.

a. 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?

A map of the area where the tanks are proposed to be installed is included with the application, as well as a soil series map with a description of soil series characteristics. Montana soils are typically silts or clays, shallow to moderately deep, and derived from limestone parent material. To best evaluate accurate impacts on geology or soil quality, the United States Department of Agriculture (USDA) Web Soils Survey (WSS) was consulted for the project based on its proposed location. To further identify soil characteristics, the Natural Resources Conservation Service's (Soil Survey Staff, 1999) taxonomic guide was referenced. The prospective site does not contain fragile, erosive, compaction susceptible, or unstable soils.

Geologic information was compiled from records gathered from the Montana Bureau of Mines and Geology and United States Geological Survey and includes a map of the relevant quadrangle. To further identify geologic characteristics, submitting an optional geotechnical report prepared by a geotechnical engineer or consulting firm was recommended. A geotechnical report would include in-depth site-specific information to better identify subsurface geologic, soil, and ground water conditions. Additional services provided during the proposed action in order to mitigate soil quality, stability and moisture can include site preparation for excavation, excavation consulting and professional considerations, and buoyancy calculations. There are no known special reclamation considerations at the prospective site.

The information provided above is based on the information provided to DEQ for this project detailing the geology of the local area. Available information includes the registration application, analysis of aerial photography, topographic maps, information provided for this application from the applicant and other research tools.

Direct Impacts

Direct impacts are those that occur at the same time and place as the tank installation. There would be moderate and short-term impacts from the disturbance to the topography and geology during construction from leveling and excavation of UST basins and trenches. Utilization of Best Management Practices would reduce the impact of wind and water derived erosion. After the initial construction is complete, no new disturbances would be anticipated with the operation of the facility.

Secondary Impacts

Minor secondary impacts and moderate and long-term impacts to topography, geology, stability, and moisture would be expected because this action would result in a new structure with backfill and concrete pad within the property boundaries. Special reclamation considerations from secondary impacts to geologic characteristics would be major, potentially requiring full excavation and back fill of degraded resources. No unusual or unstable geologic features have been identified.

Cumulative Impacts

Cumulative impacts are collective impacts on the human environment when considered in conjunction with other past, present, and future actions related to the proposed action by

location and generic type. After the initial construction is complete, minor cumulative impacts are anticipated as any future projects would not be considered first time disturbance.

b. WATER QUALITY, QUANTITY AND DISTRIBUTION

Are any surface or groundwater resources present in the analysis area? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels or degradation of water quality?

A map of the area where the tanks are proposed to be installed, depth to groundwater, location of and number of nearby wells, and surface water features within 1,000 feet is included with the application. The 1,000 feet determination was chosen for the following reasons: An American Petroleum Institute study from 1998 found that the 75th percentile of plume length in the United States was 400 feet; however most underground storage tank plumes are less than 200 feet in length and are stable or shrinking (Newell and Connor, 1998) and the DEQ petroleum mixing zone rule recommends a 500-foot set back from the edge of the petroleum plume to a drinking water well or surface water (ARM 17.56.607(10)(k)). Therefore, an approximate 1,000-foot radius from proposed tank or piping is appropriate when evaluating potential worst-case scenario effects of equipment malfunction/failure that may lead to a petroleum release.

No domestic or public drinking water wells or surface water intakes were identified within 100 feet of tank or piping. A 100-foot fixed radius control zone (exclusion zone) is the most critical source water protection area delineated around a wellhead. The purpose of the control zone is to prevent the direct introduction of contaminants into the subsurface area closest to the well. For more information, please see the Public Water Supply Circular 1 (DEQ, 2022), accessible under the References section.

If any drinking water well or surface water is within 1000 feet of the tank or piping, the applicant would evaluate long-term protection of human health and safety, based on site-specific circumstances, and attach the evaluation to the application.

Direct Impacts

Direct impacts to surface and/or ground water are not expected due to the requirements for tank installation as described in section 1.2.

Soil disturbances and storm water runoff during construction are regulated under the Montana Pollution Discharge Elimination System (MPDES) Authorization. The applicant proposes to follow all permit stipulations under the MPDES General Permit for Storm Water Discharge during construction of the UST system, preventing water quality impacts from soil disturbances and storm water runoff during construction.

Disposal of water used for containment sump testing must follow all applicable regulations, including proper disposal of spent test water.

Direct impacts to surface or ground water are not expected during installation of the tank system. However, should a release occur that is not properly contained, the impacts could be long-term and minor.

Secondary Impacts

No secondary impacts to water quality, quantity and distribution would be expected, nor any impacts from stormwater runoff. However, should a release of petroleum product occur that is not properly contained, it could secondarily impact the nearby soil, ground water and surface water.

If a release of petroleum fuel did occur from the underground tank and piping system, it would enter the tank basin, which is approximately 15 feet below ground surface, including bedding, tank, and backfill.

Inspections and walk throughs reduce the likelihood of a petroleum fuel product release to the environment. The UST facility is required to have trained Class A, B, and C Operators. The facility must perform monthly and annual walkthrough inspections to prevent and quickly detect releases. The facility would be required to perform yearly tests of primary release detection equipment, and triennially test spill buckets and overfill prevention equipment. In addition, the facility must have a compliance inspection by a third-party licensed UST inspector every three years.

In the event of a release, under the authority of section 75-11 part 3, MCA and associated Administrative Rules of Montana, 17.56 parts 5 and 6, an owner or operator must immediately investigate and confirm all suspected releases of regulated substances within 7 days of discovery and repair, replace, upgrade or close the UST system if the test results indicate a release exists. If a release is confirmed, the owner or operator would perform a full environmental investigation to determine impact. The investigation would include soil borings, groundwater sampling, hydrography analysis, surface water and vegetation analysis, wetland survey, and analysis of other impacted media as determined by DEQ based on potential human and environmental receptors and other factors at the time of the release. Depending upon the quantity of a release, how quickly a response is mobilized, and methods used for containment, petroleum product could move into native soil and potentially reach groundwater. Direct impacts may include groundwater contamination above DEQ-7 groundwater standards and/or health-based screening levels, resulting in a department tracked “release”. If a release is confirmed, DEQ would require remediation to below department standards and health-based screening levels. Should a release occur that is not properly contained, the impacts could be long term and minor to moderate, depending on the extent of the release.

Cumulative Impacts

Cumulative impacts are collective impacts on the human environment when considered in conjunction with other past, present, and future actions related to the proposed action by location and generic type. No cumulative impacts are anticipated to water quality, quantity and distribution due to the required testing, monitoring and secondary containment measures required by all projects.

c. AIR QUALITY

Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?

According to the Clean Air Act of 1977, any national park that is greater than 6,000 acres and any wilderness area greater than 5,000 acres are considered Class 1 airsheds. Although Class 1 airsheds are managed and regulated by the National Park Service, U. S. Fish and Wildlife Service, U. S. Forest Service and native American Tribes, the state may still redesignate areas to be considered Class 1 air sheds to better protect the air quality of a certain area. A map of Class 1 airsheds in reference to the proposed site is included in the application.
The Clean Air Act requires EPA to set National Ambient Air Quality Standards for pollutants. Primary standards include: protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards include: protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The chart below shows the pollutants and the standards that must not to be exceeded.

Pollutant [links to historical tables of NAAQS reviews]		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		primary and secondary	Rolling 3 month average	0.15 µg/m^3 (1)	Not to be exceeded
Nitrogen Dioxide (NO_2)		primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O_3)		primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	$PM_{2.5}$	primary	1 year	9.0 µg/m^3	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m^3	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)		primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Direct Impacts
During construction and installation of the Underground Storage Tank System, dust particulate may become airborne, however, the applicant would be required to comply with industry standard Best Management Practices (BMP) for dust control. These BMP's include using water to suppress dust. The construction phase of the Proposed Action would last up to six weeks. Direct impacts to air quality during the UST installation project would be short-term and minor.

Secondary Impacts
During operation of the UST system, natural air currents and tank vents would dissipate hydrocarbon vapors to a safe level. Petroleum vapors would be mitigated by natural air currents, submerged fill pipes, and properly designed vent pipes to control hydrocarbon vapors from the UST system. Impacts to air quality would be long-term and minor.

Cumulative Impacts
There would be minor cumulative impacts with the addition of tanks at a new facility. GHG Emissions would be produced as a result of the proposed action. Those impacts are addressed in Section K of this Environmental Analysis. The addition of GHG emissions and VOC emissions to statewide emissions is minor (see section K); therefore, cumulative impacts would be long-term and minor.

d. VEGETATION COVER, QUANTITY AND QUALITY

Will any vegetative communities be significantly impacted? Are any rare plants or cover types of present?

The Montana Natural Heritage Program compiles an on-line report to classify plant Species of Concern and Potential Concern in the state, employing a standardized ranking system to denote global (range-wide) and state status. Species are assigned numeric ranks ranging from 1 (highest risk, greatest concern) to 5 (demonstrably secure), reflecting the relative degree of risk to the species' viability, based upon available information. Species of Concern are native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors. Designation as a Montana Species of Concern or Potential Species of Concern is based on the Montana Status Rank, and is not a statutory or regulatory classification. The applicant identified plant species of concern within 1000 feet of the proposed site. No plant species of concern are at the prospective project site (MTNHP, 2022). No rare plants or cover types at the proposed site are reported to this reviewer. No vegetative communities would be significantly impacted at the proposed site.

Direct Impacts
Direct impacts would be those that occur at the same time and place as the tank installation. If the Proposed Action were to occur in an area that has no previous human disturbance, the vegetation would be impacted during the construction and operation of the Proposed Action. The disturbance could be up to two acres during construction and potentially less during operation. Direct impacts to rare vegetation or cover types could not occur. Negative direct impacts to rare vegetation or cover types and the general vegetative community are not expected given the location and absence of rare vegetation and cover types. DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website for the identification of rare or species of concern of plants. Direct impacts to the vegetative communities from the proposed permit activities are expected to be long-term and minor.

Secondary Impacts
Secondary impacts would be minor with a new facility, due to the soil disturbance and potential minor loss of vegetation. Overall, the impacts would be contained to the construction site. Secondary impacts to the vegetative communities from the proposed permit activities are expected to be long-term and minor.

Cumulative Impacts
Moderate impacts would be anticipated due to the construction and operation of a new facility, but any modifications in the future would have minor impacts due to it no longer being a first-time disturbance to the area. Cumulative impacts are expected to be long-term and minor.

e. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS

Is there substantial use of the area by important wildlife, birds, or fish? Characterize wildlife in the area. Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern? Impacts related to the Montana Sage Grouse Executive Order?

Montana Animal Species of Concern are native Montana animals that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution and are reported jointly between the Montana Natural Heritage Program (MTHP) and Montana Department of Fish, Wildlife, and Parks (MFWP). Species of Concern are native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors. Designation as a Montana Species of Concern or Potential Species of Concern is based on the Montana Status Rank, and is not a statutory or regulatory classification. There are no identified species of concern observed within 1000 feet of the project site (MTHP, 2022).

The United States Fish and Wildlife Service (USFWS) reports federally endangered species defined in the Endangered Species Act (ESA). There are no known unique, endangered, fragile, or limited environmental resources necessary for Listed Endangered (LE) or Listed Threatened (LT) species located at the project site.

The Montana Sage Grouse Habitat Conservation Program (SGHCP) works to sustain viable sage grouse populations and conserve habitat. Applicants are required to submit a development project application through SGHCP if the prospective site is in core, general, connectivity habitats, or BLM priority areas. If the proposed site is located in one of these areas, the approved plan will be provided as an attachment to the EA.

Direct Impacts

Direct impacts would be those that occur at the same time and place as the tank installation. Direct impacts to Species of Concern, Listed Endangered, or Listed Threatened are not expected. The potential impact to terrestrial, avian, and aquatic life and habitats would be negligible due to the low level of disturbance from the proposed tank installation activities. Important terrestrial, avian, and aquatic life areas and their habitats are not expected to be disturbed by the proposed action in the facility area. DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website. The direct impacts are expected to be short-term and minor.

Secondary Impacts

No secondary impacts to terrestrial, avian, and aquatic life and habitats stimulated or induced by the direct impacts analyzed above would be expected. Inspections and walk throughs reduce the likelihood of a petroleum fuel product release to the environment. Should a release occur, inspections and walk throughs also reduce the amount of product released to the environment. Immediate reporting and containment of any spills or overfills is required and would reduce surface and groundwater impacts. Direct impacts to surface and/or ground water are not expected. However, should a release occur that is not properly contained, the impacts to terrestrial, avian, and aquatic life and habitats could be long term and minor.

Cumulative Impacts

No cumulative impacts to terrestrial, avian, and aquatic life and habitats stimulated or induced by the direct impacts analyzed above would be expected.

f. HISTORY, CULTURE AND ARCHEOLOGICAL UNIQUENESS

Are there any historical, archaeological or paleontological resources present? Will the action cause a shift in some unique quality of the area?

The Montana Cultural Resource Database under the State Historic Preservation Office (SHPO) indicates where there are both inventoried and historical sites present within the greater Montana state area. The SHPO was consulted and conducted an archeological resource file search for the area. The report results are included in the application.

It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are within the area of potential effect, and are over fifty years old, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place. As long as there would be no disturbance or alteration to structures over fifty years of age, SHPO determined that there is a low likelihood that cultural properties would be impacted and a recommendation for a cultural resource inventory is unwarranted at this time. However, should structures need to be

altered or if cultural materials were to be inadvertently discovered during this project, SHPO and DEQ are to be contacted, and the site investigated.

Direct Impacts
There are no known historical, archaeological, or paleontological resources present within the project area. There is a low potential for intact buried deposits. No direct impacts to historical and archaeological sites are expected.

Secondary Impacts
No secondary impacts to historical and archaeological sites are expected.

Cumulative Impacts
No cumulative impacts to historical and archaeological sites are expected.

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

The proposed activity would use energy, water, air, and land resources in the area. No activities near the project area were identified that would affect the project.

Direct Impacts
This UST installation project would need a minimal amount of environmental resources of land, water, air, and energy. Land for the tank basin and associated dispensers/piping would be needed. Electricity would be used during installation of the pump and fuel dispensers. Water would be trucked in for dust control. A vent for the compartmented tank would be installed and release some fuel vapors. This UST installation project would not otherwise use existing environmental resources of land, water, air, or energy. The direct impacts (impacts that occur at the same time and place as the action that triggers the effect) to environmental resources of land, water, air, and energy are expected to be short-term and minor.

Secondary Impacts
The land would continue to be used by the tank basin and associated dispensers during operation of the tanks, electricity would be used during operation, and the tanks would be vented to release fuel vapors, see the Air Quality and Water Quality sections of the EA to review potential impacts from the proposed action regarding air and water resources. The secondary impacts, impacts that occur as a result of the action to environmental resources of land, air and energy are expected to be long-term and minor.

Cumulative Impacts
Cumulative impacts to the environmental resources of land, water, air, or energy would be expected to be long-term and minor with the addition of new tanks and dispensers/piping as it is an increase from previous land and energy uses. Once operational, the energy and land usages should remain constant.

h. HUMAN HEALTH AND SAFETY

Will this project add to health and safety risks in the area?

The applicant would be required to adhere to all applicable state and federal safety laws. The Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. Few, if any, members of the public would be in immediate proximity to the project during construction or operations.

Direct Impacts
Impacts to human health and safety from the proposed permit activities are mitigated by adherence to OSHA rules and guidelines. Licensed UST installers ensure the installation and construction crews further reduce the probability of mistakes during installation that may lead to human health or safety threats. Direct impacts to human health and safety from the proposed activity are not expected to occur. If impacts do occur, they are expected to be short-term and minor.

Secondary Impacts
Once installed, the UST facility would produce vapors that pose a risk to human health and safety from the stored petroleum products. Required vents and procedures for dissipating or collecting vapors will be enforced to ensure public exposure to hydrocarbon vapors is minimal. Monitoring equipment would be installed to detect and contain any potential leaks in components of the UST system before serious environmental, health or safety problems occur. Continuous monitoring of interstitial space of tanks and piping between the inner and outer walls of product-containing systems is required by law. Ambient water quality standards, drinking water maximum contaminant levels, and degradation of water quality would be protected by secondarily contained non-corroding underground tanks and piping with continuous system monitoring. The risk of a petroleum release into the environment is reduced by frequent inspection, maintenance, and operation of the installed leak detection systems and compliance with DEQ requirements.

Impacts to human health and safety are mitigated by the early detection of releases and immediate reduction of the amount of fuel available to be released into the environment.

In the event of a release, it is possible that groundwater could be contaminated and pose threats to human health and safety, as covered under the water section. In addition, contaminated soil or groundwater can cause vapor intrusion into nearby buildings. Vapor intrusion occurs when vapors migrate from a subsurface source, such as contaminated groundwater, into an overlying building. Vapor intrusion can cause explosive concentrations of vapors to accumulate and adversely affect health from inhalation exposure to toxic chemicals. As noted in the Montana Petroleum Vapor Intrusion (PVI) Guide "*Although PVI may be possible under certain environmental conditions, McHugh et al. (2010) noted that "the most common cause of petroleum vapor intrusion is dissolved PHCs [petroleum hydrocarbons] or LNAPL [light nonaqueous phase liquid] in direct contact with building structures such as sumps, basements, or elevator pits.*" (DEQ, 2021).

To assess the risk to human health and safety from vapor intrusion, building use of up to a radius of 500 feet from the proposed tanks and piping would be identified. This radius covers

the worst-case scenario of a release, assuming a 400-foot radius plume and 30 feet from the clean edge of the plume as the target area for potential vapor intrusion evaluations. In addition, the presence of preferential pathways, soil type, groundwater flow direction, and depth to groundwater would be examined, along with other factors. Particular attention would be given to structures where dissolved petroleum hydrocarbons or light nonaqueous-phase liquid/nonaqueous-phase liquid could come in direct contact with building structures. Generally, areas where groundwater is 15 feet or greater and 30 feet from the contaminant source are outside of PVI concern (DEQ, 2021). In the event of a petroleum release, DEQ requires petroleum vapor intrusion sampling of all buildings where PVI may occur and where concentrations exceed risk thresholds, mitigation to safe levels is required. More information about Montana's requirements on petroleum vapor intrusion can be found in the Montana Vapor Intrusion Guide (DEQ, 2021).

Due to the regulations in place to prevent, stop and remediate releases to the environment, where impacts to human health and safety may occur, impacts would be expected to be short-term and minor.

Cumulative Impacts
No cumulative impacts to human health and safety would be expected.

i. SOCIOECONOMICS

Will the project add to or alter industrial or agricultural activities? Will the project create, move or eliminate jobs? If so, estimated number. Will the project create or eliminate tax revenue? Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed? Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect? Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract? Will the project add to the population and require additional housing? Is some disruption of native or traditional lifestyles or communities possible?

This project would occur on private land and is subject to any plans or rules set forth by local government such as City and County in the area. Current land use and the proposed impacts to land use are described in the application. Local permits and approvals are provided with the application. There are no public access recreation areas bordering or accessed through the proposed site and therefore no recreational land would be blocked by the proposed project.

Economic impacts would include creation of jobs during the construction phase of the proposed project, as well as for the lifetime of the UST system for operation and maintenance. The proposed project is anticipated to generate additional local and state tax revenue due to the associated job creation, increase in property value, and sales of fuel. Installation of the UST system is not expected to affect the population or require additional housing nor disrupt native or traditional communities.

Direct Impacts
Direct impacts would be those that occur at the same time and place as the tank installation. The project would occur on private land and be subject to any City and County plans and rules, i.e. building permits, local traffic plans and growth plans. The proposed UST installation may

occur on previously disturbed and human impacted land. Installation activities would take between 2 days and 6 weeks and would create between 1 to 10 new jobs for UST installers, equipment operators and construction workers. During the installation period, construction traffic would be expected to increase for heavy equipment and haul trucks. No additional government services would be expected. Local businesses in the region could see an increase in sales. The direct impacts are predicted to be short-term and minor.

Secondary Impacts
Secondary impacts mean "a further impact to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action." Tax revenue would be generated through fuel sales, increased property value, and job creation. Regulations require at least one Class A, Class B and Class C Operator to manage the tanks, a technician to perform annual and triennial tests, and a Montana licensed compliance inspector to inspect the UST system every three years. Additional jobs may be generated if the UST system requires additional modifications, upgrades, or repairs beyond the standard maintenance protocol. Secondary impacts are predicted to be long-term and minor.

Cumulative Impacts
Minor cumulative impacts to local and state tax base and tax revenues due to installation activities may occur from the UST installation and fuel tax revenue would also be generated once the UST system is in operation. Cumulative impacts are predicted to be long-term and minor.

j. PRIVATE PROPERTY IMPACTS

The proposed project would take place on private land owned by the applicant. DEQ's approval of a construction permit for a new UST facility would affect the applicant's real property. DEQ has determined, however, that the permit conditions are reasonably necessary to ensure compliance with applicable requirements under the Montana Underground Storage Tank Act, which would minimize risk of petroleum impacts on neighboring properties, and compliance with UST requirements has been agreed to by the applicant. Therefore, DEQ's approval of a construction permit for a new UST facility would not have private property-taking or damaging implications.

k. GREENHOUSE GAS ASSESSMENT

Issuance of this permit would authorize use of various equipment and vehicles to install underground storage tanks and associated piping.

The analysis area for this resource is limited to the activities regulated by the issuance of an installation permit for underground storage tanks and their associated piping and dispensers. For this programmatic EA, DEQ has assumed a large tank installation event of 6 tanks and 12 dispensers. Therefore, if the proposed tank installation is less than 6 tanks and 12 dispensers, this analysis will be applicable. If the proposed installation is larger than 6 tanks and 12 dispensers, a site-specific analysis will be performed and attached as an appendix to the programmatic EA. The amount of diesel fuel utilized for tank installations may be impacted by several factors, including

seasonal weather impediments and equipment malfunctions so a range of +/- 10% was added to the calculated GHG emissions value.

For the purpose of this analysis, DEQ has defined greenhouse gas emissions as the following gas species: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and many species of fluorinated compounds. The range of fluorinated compounds includes numerous chemicals which are used in many household and industrial products. Other pollutants can have some properties that also are similar to those mentioned above, but the EPA has clearly identified the species above as the primary GHGs. Water vapor is also technically a greenhouse gas, but its properties are controlled by the temperature and pressure within the atmosphere, and it is not considered an anthropogenic species.

The combustion of diesel fuel at the site would release GHGs: primarily carbon dioxide (CO_2), nitrous oxide (N_2O) and much smaller concentrations of uncombusted fuel components, including methane (CH_4) and other volatile organic compounds (VOCs).

DEQ has calculated GHG emissions using the EPA Simplified GHG Calculator, version May 2023, for the purpose of totaling GHG emissions. This tool totals carbon dioxide (CO_2), nitrous oxide (N_2O), and methane (CH_4) and reports the total as CO_2 equivalent (CO_2e) in metric tons CO_2e. The calculations in this tool are widely accepted to represent reliable calculation approaches for developing a GHG inventory.

Direct Impacts

Operation of diesel-fueled vehicles throughout the life of the proposed installation project would produce exhaust fumes containing GHGs.

DEQ estimates that approximately 2,280 gallons of fuel would be utilized per tank installation event (6 tanks, 12 dispensers). To account for variability due to the factors described above, DEQ has calculated the predicted maximum emissions and added a factor of +/- 10%. Using the Environmental Protection Agency's (EPA) simplified GHG Emissions Calculator for mobile sources up to 23,279 +/- 2,328 kilograms of CO_2e would be produced per tank installation event. This is equal to approximately 25.7 US Tons.

DEQ made the following assumptions in the calculation: DEQ assumed a large tank installation event of 6 tanks and 12 dispensers. DEQ assumed a semi-truck would bring the tanks to the site for placement, an excavator would dig the tank basin, the canopy footings, and piping trenches, a backhoe would be used for piping and to move gravel, a skid steer for lighter dirt movement and work, a dump truck for bringing in backfill material and removing excavated soil from the tank hole, canopy footings and piping trenches, and a crane would be used to set the tanks. A dump truck gravel shooter would be used to lay gravel on the tank top and to the subgrade after piping and electrical is installed. A concrete truck would be used to pour the tank slab, canopy footings and under canopy dispenser fueling slab. In addition, up to 4 passenger service trucks would be on site for construction and management personnel.

GHG Model Assumptions For Tank Installation Event			
Equipment	**Operating Hours needed for project**	**Gallons of fuel per hour of operation**	**Gallons of diesel fuel for the project**

excavator to dig tank hole	40	10	400
backhoe piping trench moving gravel	80	5	400
skid steer	120	2	240
dump truck	40	8	320
crane to set	16	12	192
semi truck	10	10	100
dump truck gravel shooter	16	8	128
concrete trucks for concrete under canopies, tank top slab	40	8	320
passenger service truck (4)	30	6	180
Total gallons of Diesel fuel per tank installation event			2280

For the construction and heavy-duty vehicles, it is assumed they are diesel and 10 years old (2014) with 6 mile per gallon fuel economy. The exception is the passenger service trucks that are considered light duty diesel trucks and assumed to get 18 miles per gallon.
Direct impacts are expected to be long-term and minor.

Secondary Impacts

GHG emissions contribute to changes in atmospheric radiative forcing, resulting in climate change impacts. GHGs act to contain solar energy loss by trapping longer wave radiation emitted from the Earth's surface and act as a positive radiative forcing component (BLM, 2021). The impacts of climate change throughout Montana may include changes in flooding and drought, rising temperatures and the spread of invasive species (EPA, 2016).
The operation of underground storage tanks at service stations and other fueling facilities results in VOC emissions during dispensing. The VOCs can be estimated based on AP-42 Chapter 5.2 (EPA, 2008). The VOC emissions for gasoline fuel dispensing are calculated to be 0.743 pounds/1,000 gallons and for diesel to be 0.028 pounds/1,000 gallons (South Coast AQMD, 2022). Of the VOCs, a minor portion of them are considered to be greenhouse gases, and methane is excluded from the VOC calculation due to negligible weight fraction contributions to evaporative emissions from gasoline (EPA, 2008).
Currently, greenhouse gas emissions during and resulting from the installation of underground storage tanks are based on combustion of diesel during installation and not from fugitive VOC emissions from underground storage tank fills or from loss upon vehicle fueling at the station. DEQ will continue to monitor the science on this topic and adjust and update the UST programmatic EA as necessary.
Secondary impacts are expected to be long-term and minor.

Cumulative Impacts

Montana recently used the EPA State Inventory Tool (SIT) to develop a greenhouse gas inventory in conjunction with preparation of a possible grant application for the Community Planning Reduction Grant (CPRG) program. This tool was developed by EPA to help states develop their own greenhouse gas inventories and relies upon data already collected by the federal government through various agencies. The inventory specifically deals with carbon

dioxide, methane, and nitrous oxide and reports the total as CO_2e. The SIT consists of eleven Excel based modules with pre-populated data that can be used as default settings or in some cases, allows states to input their own data when the state believes their own data provides a higher level of quality and accuracy. Once each of the eleven modules is filled out, the data from each module is exported into a final "synthesis" module which summarizes all the data into a single file. Within the synthesis file, several worksheets display the output data in a number of formats such as emissions by sector and emissions by type of greenhouse gas.

DEQ has determined the use of the default data provides a reasonable representation of the greenhouse gas inventory for the various sectors of the state, and an estimated annual greenhouse gas inventory by year. The SIT data is currently only updated through the year 2021, as it takes several years to validate and make new data available within revised modules.

Future GHG emissions from operations such as this site would be represented within the module Carbon Dioxide Emissions from Fossil Fuel Combustion, and emissions from the Transportation Sector within the Commercial and Industrial sectors. As of 2021, the Industrial Sector accounts for 4.4 million metric tons of CO_2e ($MMTCO_2e$) and the Transportation Sector accounts for 8.1 million $MMTCO_2e$ annually. 25.7 tons of CO2e would be produced per tank installation event. For the industrial sector, this would be .0006% of the GHG emissions in a year or .0003% of the GHG emissions of the transportation sector. All of Montana's GHG emissions in 2021 were modeled to be 47.8 $MMTCO_2e$, and the installation would be .00005% of this total.

The cumulative effects are expected to be long-term and minor.

3. DESCRIPTION OF ALTERNATIVES

3.1 ADDITIONAL ALTERNATIVES CONSIDERED

No Action Alternative: In addition to the proposed action, DEQ must also considered a "no action" alternative. The "no action" alternative would deny the approval of the permit to install a new UST system. 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 required for approval, the "no action" alternative would not be appropriate. Pursuant to section 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.

3.2 CONSULTATION

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the permit application and environmental assessment document as well as consultation with DEQ's Archeologist Technician, James Strait. External scoping efforts also included queries to the following websites/databases/personnel:

- Montana State Historic Preservation Office
- Montana Sage Grouse Habitat Conservation Program
- Montana Fish, Wildlife, and Parks
- United States Geological Society
- Montana Natural Heritage Program
- Montana Cadastral Mapping Program
- Montana Groundwater Information Center
- Montana Bureau of Mines and Geology
- United States Environmental Protection Agency
- United States Department of Fish and Wildlife Service
- United States Natural Resources Conservation Service
- Google Maps and Google Earth

3.3 NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- 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;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

4. PUBLIC INVOLVEMENT

DEQ determines if a permit application falls under a programmatic EA after a careful review of the application materials. Once the determination has been made, the application and programmatic EA are published on Montana DEQ's website for a 10-day public comment period. The programmatic EA will undergo a public comment period from May 6, 2024 to June 4, 2024 and should DEQ receive any comments they would be addressed below.

5. CONCLUSIONS AND FINDINGS

The severity, duration, geographic extent, and frequency of the occurrence of the primary, secondary, and cumulative impacts associated with the proposed action would be limited.

DEQ has not identified any significant impacts associated with the proposed action for any environmental resource. UST installation and operation does not set precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If the applicant submits another license application, DEQ is not committed to issue those authorizations. DEQ would conduct another environmental review for any subsequent authorizations sought by the applicant. DEQ would then decide based on the criteria set forth in the Underground Storage Tank Installer and Inspector Licensing and Permitting Act, section 75-11-212, MCA, et seq, and the Montana Underground Storage Tank Act, section 75-11-501, MCA, et seq. and administrative rules adopted under those Acts at ARM Title 17, chapter 56. DEQ would conduct a new environmental assessment for any subsequent permit applications sought by the applicant. DEQ would make a decision on the applicant's subsequent application based on the criteria set forth in the permit application.

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 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 EA is determined to be the appropriate level of environmental review under MEPA.

Programmatic Environmental Assessment and Significance Determination Prepared By

Joseph Kane, Underground Storage Tank Specialist; Kitrina Persson, Underground Storage Tank Specialist; and Dylan Lang, Underground Storage Tank Specialist.

Programmatic Environmental Assessment Reviewed By

Emma Gronda, MEPA-MFSA Coordinator; Craig Jones, MEPA-MFSA Coordinator; Brett Smith, Underground Storage Tank Specialist; Seth Hendrix, Underground Storage Tank Supervisor; Ann Kron, Waste Management and Remediation Division Policy Analyst; Paul Nicol, Waste Management and Remediation Division legal; and James Strait, Archaeologist Technician.

Approved By

SIGNATURE DocuSigned by: Terri Dorrington 37B40DEAD25E45E... Date 07/10/2024

Terri Dorrington,
Tanks, Brownfields and Federal Facilities Bureau Chief
Department of Environmental Quality

6. REFERENCES

1. American Petroleum Institute (API), (2011). API RP 1615 (R2020). Installation of Underground Hazardous Substances or Petroleum Storage Systems, Sixth Edition.

2. Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: https://www.blm.gov/content/ghg/2021/. Accessed February 28, 2024.

3. DEQ, (2022) *Circular DEQ-1. Standards for Water Works.* https://deq.mt.gov/files/Water/WQInfo/Documents/Circulars/Circulars/2022DEQ-_1_FINAL.pdf

4. DEQ (2021). Montana Vapor Intrusion Guide. Retrieved March 18, 2024 from https://deq.mt.gov/Files/Land/StateSuperFund/Documents/VI_Guide/MontanaVI_Guide_FINAL.pdf

5. DEQ (1999) *Department Circular PWS 6. Source Water Protection Delineation*. https://deq.mt.gov/files/Water/WQInfo/Documents/Circulars/Circulars/Cirpws6.pdf

6. EPA (2008) Compilation of Air Pollutant Emissions Factors from Stationary Sources (AP-42). Fifth Edition, Volume 1, Chapter 5: Petroleum Industry. Section 2 Transportation and Marketing of Petroleum Liquids.

7. EPA (2016) What Climate Change means for Montana. Accessed April 15, 2024 from https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-mt.pdf

8. Montana Bureau of Mines and Geology Ground Water Information Center (GWIC) Database https://gis-data-hub-mbmg.hub.arcgis.com/apps/d226763591a0433285c0057031d22d60/explore

9. Montana Natural Heritage Program, (2022) *Animal Species of Concern Report.* https://mtnhp.org/SpeciesOfConcern/?AorP=a

10. Montana Natural Heritage Program, (2022) *Plant Species of Concern Report*. https://mtnhp.org/SpeciesOfConcern/?AorP=p

11. Montana Sage Grouse Habitat Conservation Program Map. https://sagegrouse.mt.gov/ProgramMap

12. National Fire Protection Association (NFPA), 2024. Standard 30, Flammable and Combustible

Liquids Code.

13. Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey Geographic Database (SSURGO). https://websoilsurvey.nrcs.usda.gov/

14. Natural Resources Conservation Service, Soil Survey Staff. 1999. *Soil Taxonomy, A Basic System of Soil Classification for Making and Interpreting Soil Surveys.* https://www.nrcs.usda.gov/sites/default/files/2022-06/Soil%20Taxonomy.pdf

15. Natural Heritage Map Viewer. Montana Natural Heritage Program http://mtnhp.org/MapViewer/

16. Newell and Connor, American Petroleum Institute (1998). Ver. 1.1 Characteristics of Dissolved Petroleum Hydrocarbon Plumes, Results from four studies. https://www.api.org/~/media/files/ehs/clean_water/bulletins/08_bull.pdf

17. Petroleum Equipment Institute (PEI) (2022). RP 100, Recommended Practices for Installation of Underground Liquid Storage Systems.

18. South Coast AQMD (2022) Guidelines for Fuel Dispensing Operations. Accessed April 16, 2024. file:///C:/Users/cb0414/OneDrive%20-%20MT/Desktop/ust/ea/GHG/guidelines-for-fuel-dispensing-operations.pdf

19. Thomas McHugh, Robin Davis, George Devaull, Harley Hopkins, John Menatti & Tom Peargin (20 10) Evaluation of Vapor Attenuation at Petroleum Hydrocarbon Sites: Considerations for Site Screening and Investigation, Soil and Sediment Contamination: An International Journal, 19:6, 725-745, DOI: 10.1080/15320383.2010.499923

20. United States Environmental Protection Agency, (2024) Criteria Air Pollutants. NAAQS Table. https://www.epa.gov/criteria-air-pollutants/naaqs-table

21. United States Fish and Wildlife Service Critical Habitat for Threatened and Endangered Species Map. http://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77

22. United States Fish and Wildlife Service National Wetlands Inventory Wetlands Mapper. http://www.fws.gov/wetlands/Data/Mapper.html

23. U.S Forest Service (2024) *Air Resource Management.* Wilderness Air Quality. https://www.fs.usda.gov/air/wilderness_monitoring.htm

II. COMMENT SUMMARY AND RESPONSES TO SUBSTANTIVE COMMENTS

Responses to substantive comments.

DEQ received no comments during the public comment period, May 6, 2024-June 4, 2024.

DEQ made the following modifications for accuracy and readability:

Page 14: The construction phase length was changed from up to 7 days to up to six weeks to be consistent with the rest of the Programmatic EA.

Change “mitigation and monitoring plan” to “inspections and walk throughs” in 3 locations: page 13 and page 17.