



DRAFT ENVIRONMENTAL ASSESSMENT

May 16, 2025

**Montana Department of Environmental Quality
Waste Management and Remediation Division**

PROJECT/SITE NAME:		Flathead County Landfill	
APPLICANT/COMPANY NAME:		Flathead County Solid Waste District	
PROPOSED LICENSE NUMBER:		Solid Waste License No. 18b	
LOCATION: 4098 US Hwy 93 N, Kalispell, MT 59901		COUNTY:	Flathead
PROPERTY OWNERSHIP:		Flathead County	

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1. OVERVIEW OF PROPOSED ACTION

1.1. AUTHORIZING ACTION

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The Proposed Action is considered to be a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608.

1.2. DESCRIPTION OF DEQ REGULATORY OVERSIGHT

DEQ implements the Montana Solid Waste Management Act (SWMA or the Act), overseeing the development of solid waste management facilities. DEQ has authority to issue solid waste licenses under the SWMA and associated administrative rules. DEQ is also responsible for the regulation of air and water quality under the Clean Air Act of Montana (CAA) and the Montana Water Quality Act (WQA), respectively. DEQ continuously oversees solid waste management facility operation and management (e.g., annual inspections, groundwater monitoring reports, annual license renewal, etc.) for the life of the facility including post-closure monitoring and care.

1.3. PROPOSED ACTION

The Flathead County Solid Waste District has applied for a solid waste management license under the SWMA to expand the existing Flathead County Landfill. The project subject to the proposed action would be located on government property in Flathead County, Montana. All information included in this EA is derived from the license application, discussions with the applicant, analysis of aerial photography, topographic maps, site visits, and other research tools.

Table 1. Summary of Proposed Action

Proposed Action	
General Overview	Upon issuance of the new solid waste management license, Flathead County Solid Waste District will build a landfill expansion bringing their total licensed boundary for waste management activities to 390 acres. This will add approximately 81 years of lifespan to the facility.
Duration & Hours of Operation	Construction: 8:00 a.m. to 5:00 p.m. Construction can last between 6 months to a year. Operation: 8:00 a.m. to 5:00 p.m. (81 years lifespan for the expansion)
Estimated Disturbance	121 acres total, 74 acres of refuse disposal
Construction Equipment	Contractor supplied/TBD

Personnel Onsite	Construction: Contractor supplied/TBD Operation: Operations Manager, Working Foreman (2), Heavy Equipment Operators/Truck Drivers (9), Equipment Maintenance Staff (1), Building Maintenance Operator (1), Maintenance Laborer (1), General Laborer/Spotter (2), Scale House Attendant (3), Site Attendant (1), District Staff (2)
Location and Analysis Area	Location: 4098 US Hwy 93 N, Kalispell, MT 59901 Analysis Area: The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	
Air Quality	The applicant proposes to employ dust suppression methods during construction and operation.
Water Quality	The applicant proposes to collect and manage leachate with a liner system, monitor groundwater semi-annually, and employ run-on and run-off controls.
Erosion Control and Sediment Transport	The applicant proposes to re-vegetate closed portions of the facility and limit the size of the active landfilling area.
Cultural Resources	The applicant proposes not to disturb or alter historic structures.
Hazardous Substances	The applicant proposes to properly screen incoming waste and divert household hazardous waste to appropriate containment areas onsite.
Closure and Post-Closure	The applicant proposes to manage the landfill after it is closed for a minimum of 30 years. This will include maintaining a vegetative cover, and continuing methane and groundwater sampling.

Cumulative Impact Considerations	
Past Actions	The Flathead County Landfill was built in 1971 and has operated continuously since.
Present Actions	The Flathead County Landfill seeks to expand current operations to meet community solid waste management needs.
Related Future Actions	The Flathead County Landfill may have future expansions and will have closure/post-closure care of closed landfill cells.

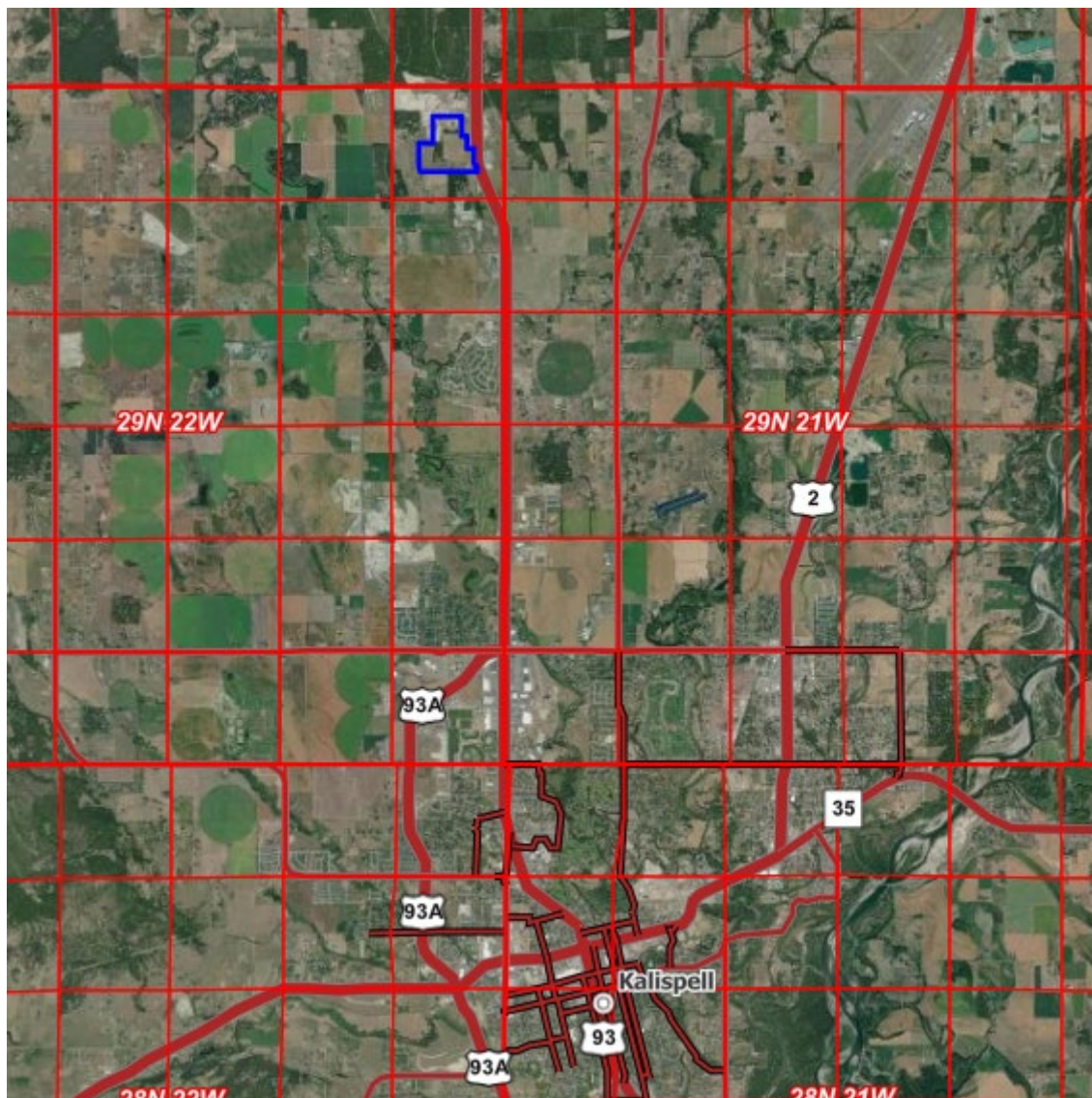
1.4. PURPOSE, NEED, AND BENEFITS

DEQ's purpose in conducting this environmental review is to act upon Flathead County Solid Waste District's application for a license to expand the existing Flathead County Landfill by 121 acres as proposed

in its application. DEQ's action on the permit application is governed by the SWMA, Title 75, chapter 10, part 2, MCA, and DEQ's Solid Waste Rules at ARM Title 17, chapter 50.

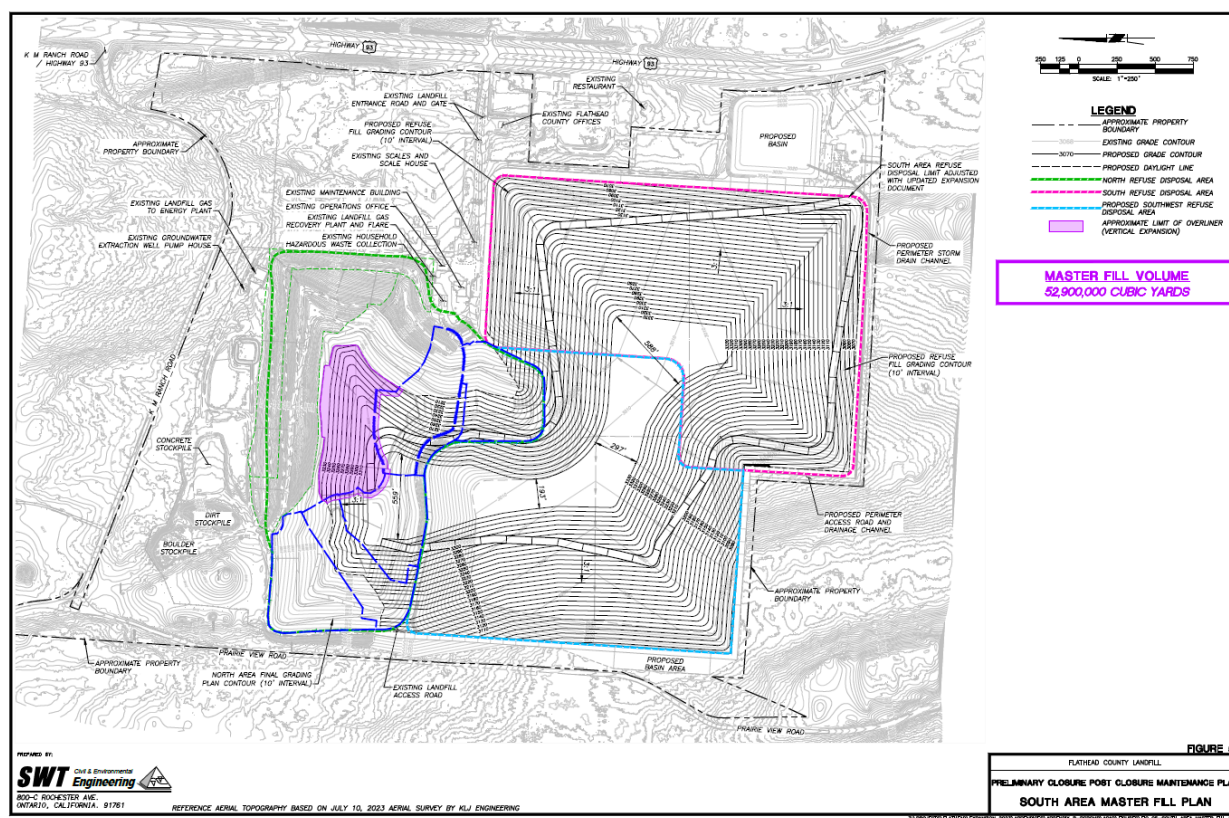
The applicant's purpose and need, as expressed to DEQ in seeking this action, is to expand the current landfill as proposed so that its present operations continue to serve Flathead County after the current portion of active landfill reaches capacity.

Figure 1. General Location of the Proposed Project



Location outlined in blue

Figure 2. Location of the Proposed Project



1.5. OTHER GOVERNMENTAL AGENCIES AND PROGRAMS WITH JURISDICTION

The proposed action would be located on government property. 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: Flathead County including the Flathead County Health Department.

2. EVALUATION OF AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE

The impact analysis will identify and evaluate direct and secondary impacts to the physical environment and human population in the area to be affected by the proposed project. *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 would occur, the impacts will be described in this analysis.

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The projects identified in Table 1 were analyzed as part of the cumulative impacts assessment for each resource.

The duration is quantified as follows:

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

The intensity of the impacts is measured using the following:

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

2.1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE

The project site lies between the Swan Range and Salish Mountains in the northern Rocky Mountain segment of the North American Cordillera today. Late Pleistocene continental glaciation advanced from surrounding mountains and southward through the Rocky Mountain Trench north of Kalispell to deposit tills (largely silts/clays variably mixed with sands and rocks) beneath the base of the glacial ice sheets. As the glaciers paused or retreated during warmer periods, a sequence of weaker lakebed and outwash gravels were deposited within the sequences of glacial tills.

Under the No Action Alternative, the landfill would not be expanded and there would no impact on the geology of the proposed Site.

Direct Impacts:

No impacts to geology are anticipated for the SE landfill because of the Proposed Action. The geology of the area remains unaltered or unaffected by agricultural or construction activities that disturb the shallow unconsolidated rock, including utilization of soils during operation or closure of the landfill.

Secondary Impacts:

There will be no secondary impacts to geology. The geology of the area remains essentially unaltered or unaffected by agricultural or construction activities that disturb the shallow unconsolidated rock

Cumulative Impacts:

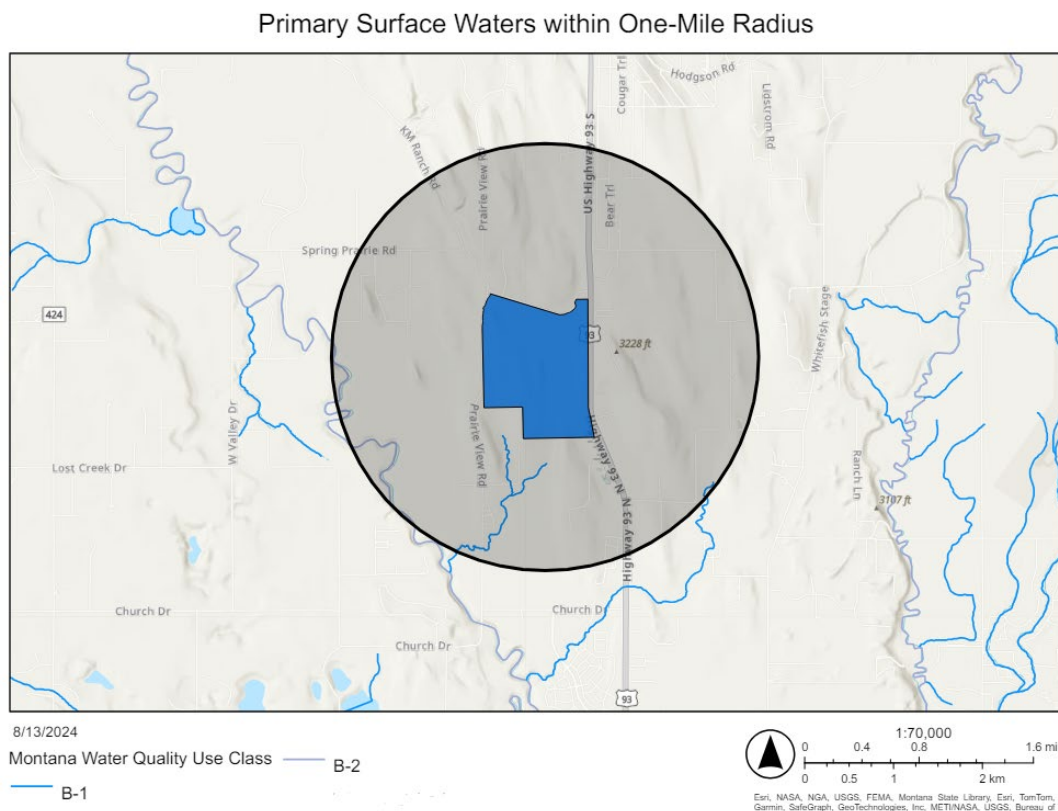
No cumulative impacts are expected.

2.2. WATER QUALITY, QUANTITY, AND DISTRIBUTION

Precipitation in the area has an annual accumulation of approximately 17 inches. The Federal Emergency Management Agency (FEMA) has characterized the area as having minimal to no flood potential (Federal Emergency Management Agency. (2015, November) FEMA Flood Map Service Center, [FEMA Flood Map Service Center | Search By Address](#)). Primary surface water bodies within one mile of the property are two ephemeral streams, and the Stillwater River. **Figure 2** below shows the primary surface water features within a one-mile radius of the property boundary. The river flowing west to east across the Site's radius edge is the Stillwater River. Two ephemeral drainages are seen within the radius to the south of the facility. An aquifer is also located in the proposed area, located 180 to 270 ft below the ground's surface.

The proposed expansion area does not contain any areas that are designated as wetland habitat by the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) or the Montana National Heritage Program (MTNHP, 2023). However, an onsite survey did account for a 6-acre seasonal wetland area that did not have any inlet or outlet for water flow. This kind of wetland is supported by runoff from an agricultural field to the northwest are common, and often lack quality wildlife habitat.

Figure 2. Surface Waters



(Source: from Discover DEQ Throughout Montana Web Map – Water Quality Map)

Direct Impacts

Minor direct impacts could occur for current surface water systems from the proposed action. However, during construction and operations of the facility, there will be earthwork disturbances with equipment such as compactors, bulldozers, and excavators. Construction of the new cell will require the use of excavators, compactors, and bulldozers, to reshape the terrain for solid waste disposal (i.e. making a hole, and then compacting waste to the shape of a hill). These disturbances will change how surface water systems travel within the facilities boundaries. Run-on and run-off ditches and stormwater holding ponds will mitigate contamination to other surface water bodies and the uppermost aquifer in accordance with the Montana Pollutant Discharge Permit (MPDES). Contamination is limited as the water meeting waste will be directed to stormwater ponds, instead of travelling into neighboring vegetation. Stormwater ponds are designed to withstand a 25-year 24-hour storm event. No direct impacts are expected for groundwater systems.

Secondary Impacts

Negligible secondary impacts could occur to surface and groundwater systems from the proposed action. The Stillwater River is located half a mile southeast from the proposed expansion area. If a flood were to occur, or if there is a great precipitation event, on-site drainage and stormwater controls are put into place by the Storm Water Pollution Prevention

Plan (SWPPP) to control any potential pollution. Appropriate measures such as a leachate collection and removal system (LCRS), and a composite liner system will be installed to protect the aquifer located beneath the site and prevent any vertical migration of contaminants. The SWPPP coupled with the LCRS will collect any leachate produced from the landfill through a system of piping and will prevent contaminants from reaching groundwater. Semi-annual groundwater monitoring also occurs to ensure there is no degradation of water quality. DEQ has reviewed drainage maps, the LCRS designs, and the Groundwater Sampling and Analysis Plan (GWSAP) to ensure the facility will operate within ARM 17.50.13.

Cumulative Impacts

No cumulative impacts should occur with the development of the proposed action. Potential runoff discharge would be seasonal and short-term and will be controlled by the SWPPP and MPDES. The LCRS coupled with the GWSAP will both control the vertical migration of contaminants and ensure negative impacts to the groundwater's quality does not occur.

2.3. AIR QUALITY

Licensees are required to comply with all laws relating to air, such as the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS). The nearest Class I airshed to the proposed expansion is Glacier National Park, which is 29 miles away from the proposed landfill expansion. This is outside the analysis area and the proposed action would have no impact on this airshed.

Direct Impacts

Minor direct impacts on air quality could result from the proposed action. Pollutants such as landfill gas emissions will be produced but will be mitigated through the active landfill gas collection and control system (GCCS) in accordance with ARM 17.50.1106. This rule dictates that methane concentrations from the landfill does not exceed 25% of the lower explosive limit. If measurements are found to exceed this, the operators are required to notify the department immediately, take steps to ensure the protection of human health, and implement a plan for remediation. For the expansion, the GCCS will install new multi-depth perimeter probes to ensure subsurface gas migration does not occur. Dust and airborne particulate matter will also be produced during the construction and operation of the landfill and will adhere to ARM 17.8.308. ARM 17.8.308 requires that facilities take reasonable precautions to control emissions of airborne particulate matter from the production, handling, and storage of any material and to apply reasonable precautions to any street, road, or parking lot. Impacts to air quality would be caused by construction dust and daily operations. Dust control will occur through maintenance of haul roads, frequent application of water spray on active work areas, soil excavation, and stockpile areas, application of organic dust suppressant, and limiting vehicle speeds to 15 mph.

Secondary Impacts

Minor secondary impacts on air quality could result from the proposed action. The decay of waste containing degradable carbon under anaerobic conditions would cause landfill gases containing methane and carbon dioxide to occur. The GCCS coupled with the Landfill Gas Monitoring Plan will mitigate the secondary impacts of the facility considering the GCCS

collects gas emitted from the landfill, and the quarterly monitoring of gas emissions will ensure concentrations of gas do not exceed state regulations.

Cumulative Impacts

No cumulative impacts from the development of the proposed action are expected. Once the expanded landfill has met its' life expectancy, a final cover of soil and native plants will cap the expanded landfill. Post-closure care and monitoring will occur to ensure the final cap is well maintained, and landfill gas is not escaping.

2.4. VEGETATION COVER, QUANTITY, AND QUALITY

Land cover in the project area is characterized by the Montana Natural Heritage Program (MTNHP) as follows:

- 57% Human Land Use
- 28% Grassland Systems
- 13% Forest and Woodland Systems

The MTNHP identified the Spalding's Catchfly as a plant species of concern in the vicinity of the area the expansion will be developed in. No rare cover types are present within the proposed expansion area.

Direct Impacts

Minor direct impacts to vegetation cover, quantity, and quality are expected from the proposed action. As construction occurs, there will be significant earthwork disturbances and landfilling activities, which would alter the current state of the land and remove existing vegetation in the areas where disturbance occurs. The site neighbors an area that has undergone disturbance from construction and operation of the previous landfill. Once the new landfill expansion area has reached capacity; the site will be revegetated within one year of the final closure of the landfill. This would restore the land to resemble the surrounding area.

Secondary Impacts

Negligible secondary impacts are anticipated from the development of the site. Any future direct disturbances to the vegetation will be minor and would include the potential for more noxious weeds. If there are noxious weeds growing on site, the operators will adhere to 17-22-2116, MCA, and will enter a Noxious Weed Management Program through Flathead County.

Cumulative Impacts

No cumulative impacts are expected.

2.5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS

The affected area is characterized by the MTNHP as being mixed quarries, strip mines, and gravel pits. The

MTNHP identified Hoary Bat, Canada Lynx, North American Wolverine, Grizzly Bear, Bull Trout, Yellow-billed Cuckoo, Brown Creeper, Bald Eagle, Lewis's Woodpecker, Great Blue Heron, Evening Grosbeak, Cassin's Finch, and the Monarch Butterfly as species of concern within the vicinity of the project. However, since the affected area has already been developed for landfilling, no habitat would be found here suitable for aquatic, terrestrial, or avian life. The proposed expansion area does not contain any areas that are designated as wetland habitat by the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) or the Montana National Heritage Program (MTNHP, 2023).

Direct Impacts

Minor direct impacts from construction or operations are expected because of the proposed action. The proposed site is in an area that has ample amounts of surrounding suitable habitat for the species described above. Transient wildlife populations, including whitetail deer, mule deer, many bird species, and more occupy the habitat within and surrounding the Site boundary. Transient, by definition, means "lasting only for a short time", or "impermanent". Such species exhibit transient behavior, relocating regularly and rarely remaining in one area for long periods of time. The development of the Site may require relocation of local and transient animals, but much of the surrounding areas offer similar habitats, which may result in short term and minor impacts to such transient wildlife. Additionally, none of the species of concern listed in the area have been found in this habitat upon previous inspection of the Site. If such animals are found, the proper state agencies will be contacted immediately.

Secondary Impacts

No secondary impacts from construction or operations are expected from the proposed project. Groundwater monitoring and quality requirements, coupled with air monitoring and quality requirements, and dust control would protect aquatic, avian, and terrestrial life from direct and indirect impacts.

Cumulative Impacts

No cumulative impacts are anticipated from the proposed project.

2.6. HISTORY, CULTURE, AND ARCHAEOLOGICAL UNIQUENESS

As part of the Flathead County Landfill Expansion Application, a Cultural Resource Inventory was completed by the Montana Historical Society, State Historic Preservation Office in February 2024. No cultural resources were discovered that would be impacted by the proposed project.

Direct Impacts

No impacts on historical and archeological sites are anticipated because of the Proposed Action.

Secondary Impacts

No impacts on historical and archeological sites are anticipated because of the Proposed Action.

Cumulative Impacts

No impacts on historical and archeological sites are anticipated because of the Proposed Action.

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

The current demands on environmental resources will continue unchanged under the expansion of the landfill. The facility currently harvests landfill gas which is used in an on-site gas to energy plant. The plant produces enough energy to power over 1900 local homes.

Direct Impacts

No impacts on environmental resource demands are expected because of the Proposed Action.

Secondary Impacts

A minor beneficial secondary impact in the form of energy returned to the grid from the on-site gas to energy plant is expected because of the Proposed Action.

Cumulative Impacts

No impacts on environmental resource demands are expected because of the Proposed Action.

2.8. HUMAN HEALTH AND SAFETY

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.

Under the Proposed Action, mitigation for impacted environmental resources would alleviate any potential impact to human health and safety. Measures taken in the current permitted footprint for dust control, spill prevention, pollution control, and stormwater pollution prevention would be extended to the expansion Site.

Flathead County also implements a safety program for staff members to limit damage or injury to themselves or the public. This includes trainings, first aid supplies, and listing emergency phone numbers. A fire safety plan is also currently implemented at the landfill that would extend to the expansion Site.

Direct Impacts

There are no direct impacts to human health and safety because of the Proposed Action beyond what already exists on the Site.

Secondary Impacts

There are no secondary impacts to human health and safety because of the Proposed Action beyond what already exists on the Site.

Cumulative Impacts

There are no cumulative impacts because of the proposed action.

2.9. AESTHETICS

Class II solid wastes produce gases, primarily hydrogen sulfide and ammonia, from the bacterial breakdown of waste material, resulting in odors. The amount of gas produced depends on the type of waste present, the age of the waste, oxygen content, the amount of moisture, and temperature, and the amount of time and conditions under which the waste stockpiled or disposed. Gas formation increases as the temperature and moisture content increase.

Furthermore, landfill odors occur from various stages of decomposition of refuse. This may start prior to the delivery of the waste and continue for some time after placement. Delivered wastes, particularly in hot weather, often will have objectionable odors, but also contain a source of potential litter. The working disposal face shall therefore be kept as small as practical for spreading the daily amount of incoming waste. The daily cover, combined with both intermediate (after 90 days) and final closure soil covers, would ultimately provide the most effective control of such odors and litter. Truckloads of waste delivered to the landfill site must be covered by a secured tarp or some other means to control littering. Additional odors could occur from the landfilling activities on the site such as construction contractors, machinery, and associated equipment and materials. Heavy equipment would be necessary to run the facility and would likely produce small amounts of exhaust odor.

To control windblown litter, the landfill would be required to compact and cover waste as soon as possible, limit the active waste disposal working face to the smallest practical size, orient the working face away from prevailing winds, deploy portable litter fence near the working face, regularly patrol the property to pick up litter that escapes the working area, and shut down operations when high wind conditions warrant. In addition, all waste loads travelling to the landfill shall be secured.

Vectors include flies, mosquitoes, rodents, and birds. Vectors would be best controlled by proper spreading, compaction, and covering of incoming waste.

Under the Proposed Action, traffic would continue to reach the landfill via US Highway 93 and use gravel access roads to reach waste disposal areas. This is also the traffic configuration at the current landfill; thus, existing public traffic patterns, bridges, and/or culverts would not be further impacted on a permanent basis.

Noise at the Site would be generated by vehicles and heavy equipment hauling waste to the landfill and managing waste at the landfill. Vehicle and machinery noise would be controlled by the proper maintenance of mufflers to factory specifications. Noise would only be generated during daytime hours of operation.

Direct Impacts

Implementing the Proposed Action would have a minor impact regarding odors and litter. Odors from the Proposed Action are not expected to differ in any significant way from the odors produced at the existing Flathead County Landfill; however, the expansion would be closer to nearby residences to the south and north. The closer proximity of the Site could increase the intensity of odors to surrounding residences. Implementation of the Proposed Action would likely have minor impacts due to the potential increase of vectors in the area. Facility staff would mitigate vectors regularly by implementing best management practices throughout the facility. There would be temporary, minor impacts to traffic from the

Proposed Action during construction activities. Since the operational portion of the landfill would be closer to neighboring residences to the south and north, minor impacts from noise are anticipated because of the Proposed Action.

Secondary Impacts

No secondary impacts are expected beyond what currently exist at the landfill.

Cumulative Impacts

There are no cumulative impacts because of the Proposed Action.

2.10. SOCIOECONOMICS

This section includes the following resource areas, as required in ARM 17.4.609: Social Structures and Mores; Access to and Quality of Recreational and Wilderness Activities; Local and State Tax Base and Tax Revenues; Agricultural or Industrial Production; Quantity and Distribution of Employment; Distribution and Density of Population and Housing; Demands for Government Services; Industrial and Commercial Activity; Locally Adopted Environmental Plans and Goals; Other Appropriate Social and Economic Circumstances

Under the Proposed Action, the landfill would be expanded and would maintain existing landfill-related jobs for up to 81 years. Additionally, there would be a short-term influx in local employment during the construction phases of the expansion. The job security of current facility staff and addition of temporary construction workers would have a minor beneficial impact on the quantity of employment in the region.

The analysis area is one mile around the Site. There are approximately 20 homes within a mile of the Site. Because the Site is simply an expansion of the current landfill, negligible impacts to property values could occur.

In the past 30 years, various research has been done on the effects of landfills on property values. These studies have yielded inconsistent results. Typically, hedonic regression models have been used to try to isolate the effects of landfills on property values holding all other variables constant. Surveys have also been used in studies. Some studies show statistically significant adverse effects of landfills on property values. Generally, larger effects on property values are seen from larger landfills, less modern landfills, landfills that accept hazardous waste or pose health risks, areas with negative perceptions of landfills, landfills that are more visible, and higher end properties. However, even these effects are not robust across all studies and not all these effects were studied in every study. A study by Bouvier, RA., et al. entitled, "The Effect of Landfills on Rural Residential Property Values: Some Empirical Evidence," does not provide grounds for broad generalization about the effect of rural landfills on property values (2000, The Journal of Regional Analysis & Policy). It finds that in five of the landfills studied (in rural to semi-rural areas), no statistically significant evidence of an effect from landfills was found. In the remaining case, evidence of an effect was found, indicating that houses near this landfill suffered an average loss of about six percent in value. This significant case was a landfill that was unlined and uncapped and is on EPA's "potential health risk" list. Bouvier suggests that each landfill be studied on a case-by-case basis. A study by C.P. Cartee, entitled "A Review of Sanitary Landfill Impacts on Property Values," found that while it generally is believed that landfills negatively impact property values, in some cases, the development of a sanitary landfill may enhance a property's value (1989, Real Estate Appraiser and Analyst). It finds that the introduction of new roads, utilities, and drainage may stimulate development

and lead to increases in land values.

Direct Impacts

There would be no direct impacts beyond what currently exist at the landfill.

Under the Proposed Action, the short-term influx in local employment during construction phases of the project and the added benefit of job security for current facility employees would result in a minor beneficial impact to the local tax base assuming local laborers were utilized in construction. Based on the lack of conclusive data, the effect of the Proposed Action on property values is unknown. However, it is reasonable to assume there would be a minor, long-term beneficial impact on the overall tax base and property values within the communities served by the landfill given the Proposed Action would provide local property owners with access to waste disposal services for the next 81 years.

Under the No Action alternative, there would be no impacts to the demand for government services in conjunction with oversight of the property. Flathead County would continue to operate the adjacent, existing landfill normally, in conjunction with DEQ, and the Site would continue to be vacant residential, forested, and agricultural land.

Under the Proposed Action, the Site would be approved and incorporated into a Class II SWMS. Operation of this facility would still require DEQ regulation, oversight, and compliance. The Flathead County sanitarian would conduct periodic inspections as needed. Existing Flathead County Landfill staff would oversee operations and maintenance. No additional DEQ staff will be acquired because of the Proposed Action.

No impacts to the demand for government services are expected because of the Proposed Action.

Under the Proposed Action, the Site would no longer be available for agricultural activities. However, since Flathead County has owned the land for over a decade and no agricultural activities have occurred on the site in the intervening years, the Proposed Action would have no effect on agricultural operations.

Construction of the proposed landfill expansion project would result in a minor and temporary increase in industrial activity due to the need for construction contractors and associated equipment and materials. Due to the increase of industrial activity from the Proposed Action, minor impacts to industrial and commercial operations are anticipated.

Secondary Impacts

There would be no secondary impacts beyond what currently exist at the landfill.

Cumulative Impacts

There are no cumulative impacts beyond what currently exist at the landfill.

2.11. PRIVATE PROPERTY IMPACTS

The proposed project would take place on land owned by Flathead County. Therefore, DEQ's approval of Flathead Solid Waste District's license would not have private property-taking or damaging implications.

2.12. GREENHOUSE GAS ASSESSMENT

Issuance of this permit would authorize use of various equipment and vehicles to construct and assist in proper disposal of approximately 33.7 million tons of waste. Currently, operations dispose 460 tons of waste per day. The development of the new cells, and landfilling operations will require the use of pickup trucks, dump trucks, bobcats, front end loaders, water trucks, compactors, bull dozers, and excavators. Annual consumption of diesel and fuel is estimated to be 126,400 gallons.

The analysis area for this resource is limited to the activities regulated by the issuance of the Class II Solid Waste Management License which is construction and operation of a Class II Solid Waste Management System, or the Proposed Action. The amount of diesel and gasoline fuel utilized at this site may be impacted by a number of factors including seasonal weather impediments and equipment malfunctions. To account for these factors DEQ has calculated the range of emissions using a factor of +/- 10% of the Applicant's estimate.

Direct Impacts

For the purpose of this analysis, DEQ has defined greenhouse gas emissions as the following gas species: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), 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 being carbon dioxide (CO₂), nitrous oxide (N₂O) and much smaller concentrations of uncombusted fuel components including methane (CH₄) 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 (CO₂), nitrous oxide (N₂O), and methane (CH₄) and reports the total as CO₂ equivalent (CO₂e) in metric tons CO₂e. The calculations in this tool are widely accepted to represent reliable calculation approaches for developing a GHG inventory. DEQ has determined EPA's Scope 1 GHG impacts as defined in the Inventory Guidance for Greenhouse Gas Emissions are appropriate under MEPA for this Proposed Action. Scope 1 emissions are defined as direct GHG emissions that occur from sources that are controlled or owned by the organization (EPA Center for Corporate Climate Leadership). DEQ's review of Scope 1 emissions is consistent with the agency not evaluating downstream effects of other types of impacts.

This review does not include an assessment of GHG impacts in quantitative economic terms, otherwise known as evaluating the social cost of carbon. DEQ instead calculates potential GHG emissions and provides a narrative description of GHG impacts. This approach is consistent with Montana Supreme Court caselaw and the agency's discussion of other impacts in this EA. See *Belk v. Mont. DEQ*, 2022 MT 38, ¶ 29.

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

Applicant estimates that between approximately 139,040 and 113,760 gallons of fuel would be utilized per year. To account for variability due to the factors described above, DEQ has calculated the range of emissions using a factor of +/- 10% (This number can be identified based on professional opinion of the actions complexity and duration) of the Applicant's estimate. Using the Environmental Protection Agency's (EPA) simplified GHG Emissions Calculator for mobile sources, between 1431.1 and 1170.9 metric tons of CO₂e would be produced per year.

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).

Per EPA's website "Climate Change Indicators", the lifetime of carbon dioxide cannot be represented with a single value because the gas is not destroyed over time. The gas instead moves between air, ocean, and land mediums with atmospheric carbon dioxide remaining in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments. Methane remains in the atmosphere for approximately 12 years. Nitrous oxide has the potential to remain in the atmosphere for about 109 years (EPA, Climate Change Indicators). The impacts of climate change throughout the northwest of Montana include changes in flooding and drought, rising temperatures, and the spread of invasive species (BLM 2021).

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 this 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 CO₂e. The SIT consists of eleven Excel based modules with pre-populated data that can be used with 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 of the data into a single file. Within the synthesis file, several worksheets display the output data in a number of formats such as GHG emissions by sector and GHG 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 the estimated total annual greenhouse gas inventory by year. The SIT data from EPA is currently only updated through the year 2021, as it takes several years to validate and make new data available within revised modules. DEQ maintains a copy of the output results of the SIT.

DEQ has determined that the use of the default data provides a reasonable representation of the GHG inventory for all of the state sectors, and an estimated total annual GHG inventory by year. At present, Montana accounts for 47.77 million metric tons of CO₂e based on the EPA SIT for the year 2021. This project may contribute up to 98,831 metric tons per year of CO₂e. The estimated emission of 98,931 metric tons of CO₂e from this project would contribute 0.206% of Montana's annual CO₂e emissions.

GHG emissions that would be emitted as a result of the proposed activities would add to GHG emissions from other sources. The No Action Alternative would contribute more than the Proposed Action of GHG emissions. Once current operations close, all waste produced in Flathead County would be transported to an alternate location to be landfilled in the same manner, producing the same amount of GHGs. Additional mileage required to transport the waste will contribute more GHGs than the current proposed expansion. The current land use of the area is for landfilling activities.

3. DESCRIPTION OF ALTERNATIVES

No Action Alternative: In addition to the proposed action, DEQ must also considered a "no action" alternative. The "no action" alternative would deny the application for a solid waste management license. The applicant would lack the authority to conduct the proposed activity. Under the "no action" alternative all solid waste generated in Flathead County would need to be transported to another solid waste management facility when the current landfill reaches capacity. 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.

Other Reasonable Alternative(s): N/A

4. 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 environmental assessment document by DEQ staff. External scoping efforts also included queries to the References noted in Section 8.

5. PUBLIC INVOLVEMENT

After publication of this document on May 16, 2025, there will be a 30-day public comment period that ends on June 15, 2025. Adjacent landowners and other parties of interest including state and county officials will be notified of the publication of the document and the opportunity to submit comments regarding the proposed action.

6. SIGNIFICANCE OF POTENTIAL IMPACTS AND NEED FOR FURTHER ANALYSIS

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.

7. CONCLUSIONS AND FINDINGS

The Proposed Action would meet the minimum requirements of the Solid Waste Management Act and associated administrative rules regulating solid waste disposal. Adherence to the solid waste, water quality, and air quality regulations and the DEQ-approved facility Operation and Maintenance plan would mitigate the potential for harmful releases and impacts to human health and the environment by the Proposed Action.

Based on consideration of all the criteria set forth in ARM 17.4.608, DEQ has determined that the Proposed Action would not significantly affect the human environment. Therefore, an environmental assessment is the appropriate level of environmental review and preparation of an environmental impact statement is not required.

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Name, Title

Department of Environmental Quality

5/16/2025

Date

8. REFERENCES

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