FINAL Environmental Assessment – Renewable Fuels and Biomass Energy Facility Conversion Project

Montana Renewables, LLC

Department of Energy Loan Programs Office – Title XVII – Energy Implementation Reinvestment ("EIR") Program

DOE/EA-2275

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Acronyms and Abbreviations

µg/m^3	micrograms per cubic meter
APE	area of potential effects
ASTM	American Society for Testing and Materials
BACT	best available control technology
BBER	Bureau of Business and Economic Research
BETO	Bioenergy Technologies Office
BMPs	best management practices
bpd	barrels per day
CFR	Code of Federal Regulations
CH_4	methane
City	City of Great Falls
CMR	Calumet Montana Refining
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
dBA	A-weighted decibels
DOE	U.S. Department of Energy
EA	environmental assessment
EAP	Emergency Action Plan
EIR	Energy Infrastructure Reinvestment
EJ	environmental justice
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 2005
EPCRA	Emergency Planning and Community Right to Know Act
Facility	renewable fuels and biomass energy facility
FONSI	Finding of No Significant Impact
GHGs	greenhouse gases
gpd	gallons per day
HAPs	hazardous air pollutants
HDO	hydrodeoxygenation
HFCs	hydrofluorocarbons
LPG	liquid petroleum gas
LPO	Loan Programs Office
MAQP	Montana Air Quality Permit
max	maximum
MDEQ	Montana Department of Environmental Quality
mgd	million gallons per day
MMSCFD	million standard cubic feet per day
MRL or Applicant	Montana Renewables, LLC
MW	megawatt
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxics Assessment
NCore	National Core Monitoring Site
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act

NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NRHP	National Register of Historic Places
NSR	New Source Review
O_3	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PFCs	perfluorocarbons
PM	particulate matter
PM_{10}	PM less than 10 microns in diameter
$PM_{2.5}$	PM less than 2.5 microns in diameter
PMA	polymer-modified asphalt
Project	Renewable Fuels and Biomass Energy Facility Conversion Project
Proposed Action	a federal loan guarantee for Phase 2 of the Project and purchase of some equipment installed and commissioned during Phase 1
PSD	prevention of significant deterioration
PTE	potential to emit
PTU	pretreatment unit
RD	renewable diesel
RDU	renewable diesel unit
RFU	renewable fuels unit
SAF	sustainable aviation fuel
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Office
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasure
SPK	synthetic paraffinic kerosene
tpy	tons per year
U.S.C.	United States Code
VOCs	volatile organic compounds
WMP	Waste Management Plan
WWTP	wastewater treatment plant

1. PURPOSE AND NEED

1.1 Introduction

Montana Renewables, LLC (MRL or Applicant), is a manufacturer of renewable diesel (RD) and sustainable aviation fuel (SAF). The company's objective is to meet the growing demand for RD and SAF by converting a portion of an existing refinery operated by Calumet Montana Refining (CMR) in the city of Great Falls, Montana, into a renewable fuels and biomass energy facility (renewables Facility). The renewables Facility will be capable of converting 100 percent renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into RD, SAF, hydrogen, renewable off-gases (such as renewable natural gas), and renewable naphtha.

MRL has applied for a loan guarantee pursuant to the U.S. Department of Energy's (DOE's) Title XVII Clean Energy Financing Program, as authorized by the Energy Policy Act of 2005 (EPAct), as amended. Under Title XVII, the Secretary of Energy is authorized to provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States.

The Title XVII Program is administered by DOE's Loan Programs Office (LPO), which originates, underwrites, and services loans and loan guarantees to eligible applicants for projects that accelerate the commercial deployment of innovative energy technology. LPO has reviewed MRL's application and determined that it is eligible for a potential loan guarantee (10 Code of Federal Regulations [CFR] Parts 609.3 and 609.5).

The decision whether to provide a loan guarantee (federal financial assistance) constitutes a major federal action, which requires DOE to conduct an environmental review under the National Environmental Policy Act (NEPA). The decision to prepare an Environmental Assessment (EA) was made in accordance with the requirements of NEPA, the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500–1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021)[1]. LPO is using the NEPA process to inform its decision whether to issue a loan guarantee to the Applicant to support the Project.

1.2 Purpose and Need for Agency Action

The purpose and need for DOE's proposed action, the issuance of a federal loan guarantee to MRL of up to $1.44 billion to support the Renewable Fuels and Biomass Energy Facility Conversion Project (Project), are tied to implementing DOE's authority under Title XVII of the EPAct, which was reauthorized, amended, and revised by the Inflation Reduction Act of 2022 to create the Energy Infrastructure Reinvestment (EIR) Program (Section 1706). The purpose of the EIR Program is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operation or enable operation of energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases (GHGs) (42 U.S.C. 16517[a][2]).

[1] The DOE LPO is aware of the November 12, 2024, decision in *Marin Audubon Society v. Federal Aviation Administration*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality regulations implementing NEPA are not judicially enforceable or binding on this agency action, the DOE has nonetheless elected to follow those regulations at 40 CFR Parts 1500–1508, in addition to the DOE's procedures/regulations implementing NEPA at 10 CFR Part 1021, to meet the agency's obligations under NEPA, 42 United States Code (U.S.C.) Sections 4321 et seq.

1.3 Background

Phase 1 of the Project was completed with the use of private financing; therefore, Phase 1 was not subject to a federal loan guarantee. For Phase 2, MRL has applied to LPO's EIR Program for financial support. This will allow MRL to complete the Project, which includes purchasing renewable diesel and SAF refinery equipment, some of which was commissioned during Phase 1 of the Project and is currently leased and operated by MRL; constructing new infrastructure; and retrofitting existing equipment within the boundaries of the existing CMR, which is on previously disturbed land. LPO has reviewed the application and determined that it meets the goals of the EPAct. The Applicant has accepted and entered into LPO's due diligence process.

The EIR Program is central to LPO's mission to serve as a "bridge to bankability" for clean energy projects, which are critical to decarbonizing the energy sector. With the EIR Program, LPO can support projects that reinvest in energy infrastructure throughout the United States. This includes upgrading or uprating energy infrastructure so it can restart or operate more efficiently, at higher output, or with lower emissions; replacing retired energy infrastructure with clean energy infrastructure; and building new facilities for clean energy purposes that use legacy energy infrastructure.

1.4 Scope of Environmental Assessment

LPO is preparing this EA to evaluate DOE funding for Phase 2 of the Project—specifically, for the purchase of renewable diesel and SAF refinery equipment, some of which was installed and commissioned during Phase 1 and currently leased and operated by MRL. DOE funding would also be used to construct new infrastructure and retrofit existing equipment within the boundaries of the existing CMR refinery, which is on previously disturbed land. MRL has already completed Phase 1 of the Project with the use of private funds. This entailed the acquisition, conversion, construction, and modification of equipment and infrastructure within preexisting refinery boundaries. If no significant impacts are identified during preparation of this EA, DOE will issue a Finding of No Significant Impact (FONSI). If potentially significant impacts are identified, LPO will prepare an Environmental Impact Statement.

Section 1.4.1 of this EA provides an overview of the Project and describes the site development and construction activities that have been completed and therefore are not subject to federal financial support. Section 1.4.2 establishes the scope of the environmental review, given LPO's Proposed Action (a federal loan guarantee for Phase 2), existing site conditions, and permit status. As presented in Section 1.4.2, natural, physical, and socioeconomic resources that may be subject to potentially significant environmental effects are identified, as are resources that would not be subject to potentially significant environmental issues, thereby narrowing the scope of the environmental review to environmental issues deserving of study.

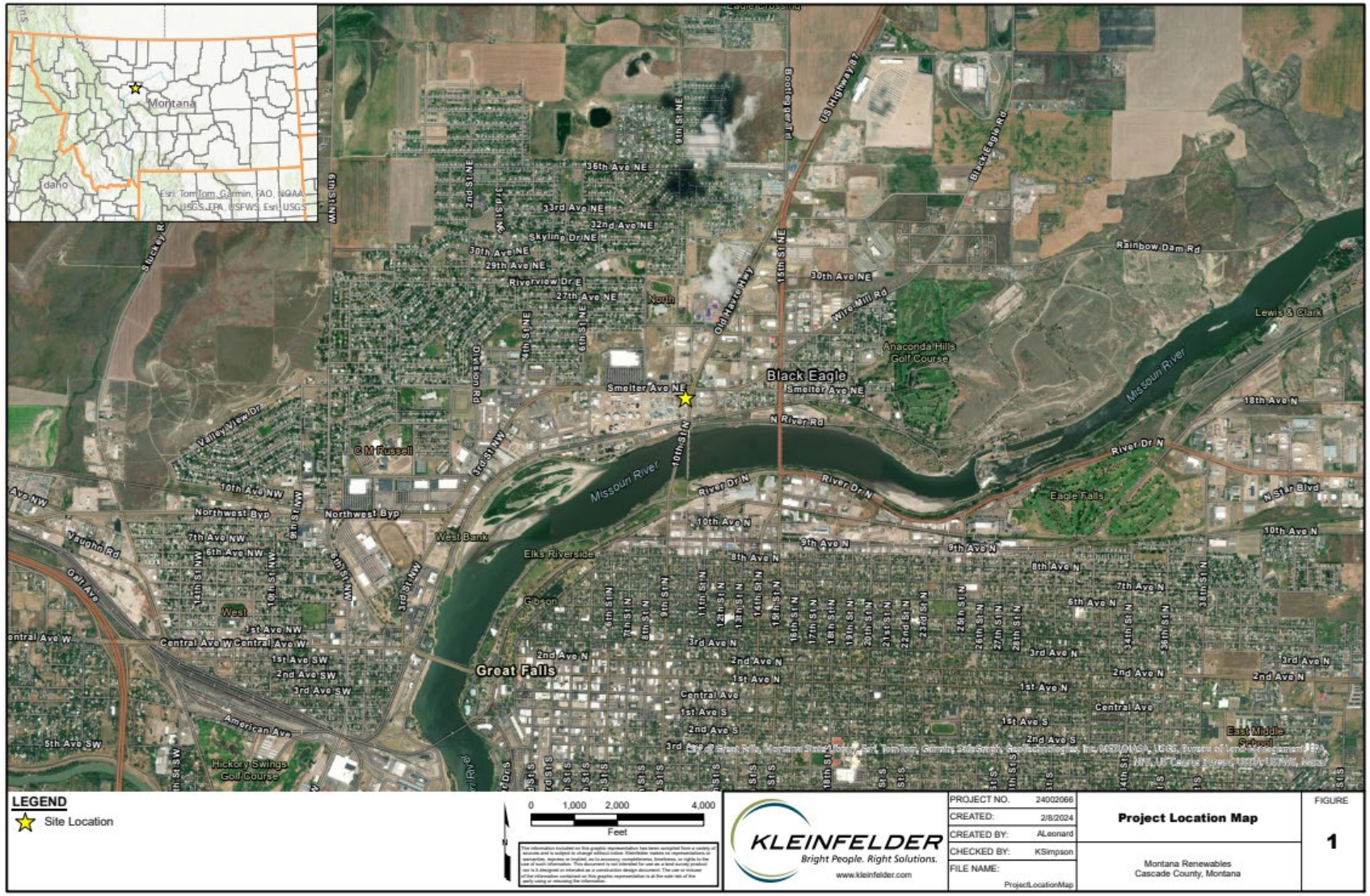
Section 1.5 describes the public comment period for the Draft EA. All comments and DOE responses are in Appendix D, Public Comments on Draft Environmental Assessment.

1.4.1 Project Overview and Development Status

MRL is converting a portion of an existing refinery at 1900 10th Street NE in Great Falls, Montana (see Figure 1-1). Between August 2022 and April 2023, MRL successfully completed Phase 1 of the renewables Facility in accordance with applicable permits and approvals (see Appendix A). MRL is a legally separate entity from the adjacent CMR and operates within individual Standard Industrial Classification (SIC) system codes. For simplicity, the conventional CMR refinery assets and MRL renewables Facility assets are collectively referred to herein as "the Plant." Phase 1 included the activities in the bulleted list below; this represents the baseline conditions for the Project:

- Acquisition of existing CMR refinery assets for conversion to renewable fuels production, including a hydrocracker with the capacity for approximately 24,000 barrels per day (bpd), hydrogen plant with the capacity for 15 million standard cubic feet per day (MMSCFD), sour water stripper, tanks, rails, and other facilities with the purpose of processing renewable feedstock into high-value RD and SAF

Figure 1-1. Project Location Map



- Conversion of an existing hydrocracker to an approximately 15,000 bpd renewable fuels unit (RFU)
- Construction of a renewable hydrogen plant to convert renewable propane and other RFU off-gases into renewable hydrogen and achieve sufficient production alongside the existing hydrogen plant for the RFU
- Installation of a feedstock pretreatment unit (PTU) to clean feedstock and protect the RFU catalyst system
- Modification of, and upgrades to, tanks, rails, and utilities in support of the RFU, including the installation of approximately eight new tanks for the storage/sale of SAF
- Initial production of SAF (MRL is actively producing approximately 12,000 bpd [or 182 million gallons per year] of RD and SAF)

The Phase 1 activities associated with construction, site development, and equipment installation that have been completed are not subject to the federal financial support request under review by LPO. However, the purchase, as well as operation, of some of the leased equipment that was installed and commissioned during Phase 1, along with other eligible costs associated with support of Phase 1, is within the scope of the federal financial support request and this EA. Under Phase 2 of the Project, which is the focus of this review, MRL will expand its capacity for renewable fuel production through various elements that will directly increase capacity, support capacity, provide product flexibility, and/or reduce the carbon footprint of the Plant. MRL will also incorporate innovative technological solutions for hydrogen production and increase processing capacity by more than 50 percent. This includes the ability to produce approximately 21,500 bpd, or 330 million gallons per year, of RD and SAF.

1.4.2 Resources Considered

This EA evaluates LPO's Proposed Action (i.e., a loan guarantee for Phase 2 of the Project) and its potential impacts on multiple resources. The scope of the Proposed Action to be analyzed in this EA is limited to Project activities subject to LPO financial assistance. Activities included for LPO financing involve SAF blending and product storage, renewable hydrogen plant retrofit, gas compression controls (for the renewable fuels unit), debottleneck pretreatment unit, water disposal/recycling, renewable electricity/steam (cogeneration unit), maximum (max) SAF production, expansion of railcar loading capability, and SAF truck loading and employee parking. These Project components are described in more detail in Chapter 2.

To identify potentially significant issues that warrant detailed review in this EA, LPO considered:

- The scope of the Proposed Action
- The location of the new renewables Facility, which is within the existing Calumet facility (in operation for approximately 100 years) and designated as a Heavy Industrial zone by the City of Great Falls (City)
- The site conditions at the onset of the federal action
- The proposed workforce once the Plant is fully operational
- The permits that have been issued to CMR and MRL by regulatory authorities for the Plant, including:
  - Title V operating permit for CMR
  - CMR Montana Air Quality Permit (MAQP) Construction Permit
  - Calumet Industrial Wastewater Discharge Permit
  - Multi-Sector General Industrial Stormwater Permit (covering the entire Plant site)

Any necessary permits that are not currently held by MRL will be obtained from the appropriate federal, state, or local regulating authority prior to the commencement of construction or prior to or subsequent to commencement of operations, as applicable (Appendix B, Permits and Approvals). These permit applications were at various stages of development, submission, and review at the time of writing, including:

- Phase 1 Title V operating permit (permit application has been submitted; permit issuance pending)
- Phase 2 application for permit to construct, including prevention of significant deterioration (PSD) permit, if applicable (permit application to be submitted subsequent to completion of process engineering design)
- Modified Title V operating permit (permit application to be submitted within 6 months of commencement of operation of Phase 2)
- Wastewater pretreatment permit, applicable to MRL Phases 1 and 2
- Renewable PTU wastewater pretreatment permit, applicable to MRL Phase 2
- Multisector general industrial stormwater permit, applicable to the entire Plant (CMR is the permit holder of the stormwater permit; CMR provides stormwater management services for the entire Plant, including MRL)

Based on a review of the Project scope, existing site conditions, and permit status, the resource areas assessed in this EA consist of:

- Water resources, including groundwater and surface water
- Air quality
- Noise
- Transportation
- Aesthetic and visual resources
- Socioeconomics and environmental justice
- Health and safety
- Waste management
- Cultural resources

These resource areas were identified as potentially being affected by the Project, and each was assessed to determine the nature, extent, and significance of those impacts (see Chapter 3). The assessment combined desktop research and analysis of existing available information with select field studies, including site assessments related to the presence/absence of wetlands, water bodies, biological resources (species and habitat), and cultural resources.

Impacts on the following resources are not anticipated to be significant; therefore, they are not included in the scope of this EA. A brief rationale is provided for each resource in Table 1-1.

Table 1-1. Resources Dismissed from Detailed Analysis

Resource	Rationale for Dismissal
Land use and recreation	The Project will occur entirely within the footprint of an existing refinery, which is more than 100 years old, where there are no opportunities for recreation. The land use will stay the same under the Proposed Action; the land is zoned for Heavy Industrial uses and cannot be accessed by the general public.
Biological resources	The Project will occur entirely within the footprint of an existing refinery where there are no biological resources (no trees or vegetation and no habitat for wildlife).
Wetlands	The Project will occur entirely within the footprint of an existing refinery. Although there are features mapped by the National Wetlands Inventory's online wetlands mapper tool within the refinery footprint, these features do not hold relatively permanent waters, do not have hydric soils, and do not have hydrophytic vegetation and, therefore, are not jurisdictional wetlands.
Floodplains	The site is entirely outside the 500-year floodplain.
Geology, soils, and prime farmland	The Project will occur entirely within the footprint of an existing refinery. The ground surface consists of bare ground (imported fill), gravel, asphalt, and concrete. There are no prime farmlands or geologic features present.

DOE LPO representatives visited the site on November 14 and 15, 2023, and April 4, 2024, and performed a detailed walk-through of the site, including areas planned for construction, other site elements, and utilities. DOE LPO representatives confirmed the potential impacts discussed in this EA during the site visit.

1.5 Public Involvement

The Draft EA with Draft Mitigated FONSI was released for a 30-day public comment period from September 11, 2024, through October 14, 2024. The EA was posted on the DOE LPO's NEPA-Related Public Involvement website. The website also provided an email address for reviewers to submit comments. Comments on the EA were received from 30 individuals. The nature of the comments received was as follows:

- One commenter (with multiple comment emails), who was opposed to the Project and DOE's funding of the Project, incorrectly asserted Project involvement with an unrelated U.S. Environmental Protection Agency (EPA) project (EPA Class V Underground Injection Control Permits);
- Two commenters (one with multiple comment emails) requested that the Final EA provide an estimate of baseline and Project impacts from the off-site transport of PTU wastewater by truck and a revised estimate of baseline and Project water use and wastewater discharge. The comments also requested construction of an on-site wastewater treatment plant by MRL to treat, re-use, or recycle wastewater generated by the Project; and
- Twenty-eight commenters were in support of the Project, including six elected officials.

Appendix D includes a matrix with the commenters' names, their comments, and DOE's responses to the comments. DOE's responses indicate if a change was made to the Final EA in response to the comment.

2. DESCRIPTION OF THE PROPOSED ACTION

2.1 Overall Project Description

The Project is co-located with an existing conventional petroleum refinery owned and operated by CMR at 1900 109th Street NE in Great Falls, Montana. The Project, which entails two phases, involves converting part of the existing refinery into a renewable fuels/biomass energy facility at the same address. As described in Chapter 1, Phase 1 is complete and not included in the proposed federal funding of the Project.

This renewables Facility will process 100 percent renewable feedstocks (e.g., canola oil, distillers corn oil, used cooking oil, soybean oil, mustard seed oil, camelina oil, beef tallow, and similar feeds) into RD and SAF, renewable liquid petroleum gas (LPG), renewable naphtha, and other light-end gases, which are feedstock for renewable hydrogen production. All Project activities will be within the boundaries of the existing CMR refinery on previously disturbed and developed acreage. For simplicity, the combined conventional CMR refinery assets and the MRL renewable fuels assets and operations are referred to herein as the Plant. The Plant encompasses approximately 60 acres on land that has been zoned for Heavy Industrial uses. The Plant is bordered by a mix of commercial, highway commercial, and residential areas to the west, north, and east. The Great Falls Wastewater Treatment Plant (WWTP) is directly south of the Plant, with the Missouri River directly south of the WWTP.

The following subsections describe the Phase 2 activities associated with the Proposed Action (i.e., the purchase of RD and SAF refinery equipment, construction of new infrastructure, and retrofit of existing equipment within the boundaries of the existing refinery on previously disturbed land).

2.2 Proposed Action – Facility Retrofits and Expansions

Under Phase 2 of the Project, MRL will expand its capacity for renewable fuels production through various elements that either directly increase capacity, support capacity, provide product flexibility, and/or reduce the carbon footprint of the Plant. MRL will also incorporate innovative technological solutions for hydrogen production and increase processing capacity by more than 50 percent, giving MRL the ability to produce approximately 330 million gallons of RD and SAF per year. Table 2-1 summarizes the major activities that are being evaluated under Phase 2. Figure 2-1 is a conceptual layout of the development areas within the Plant that will be involved in the renewables Project.

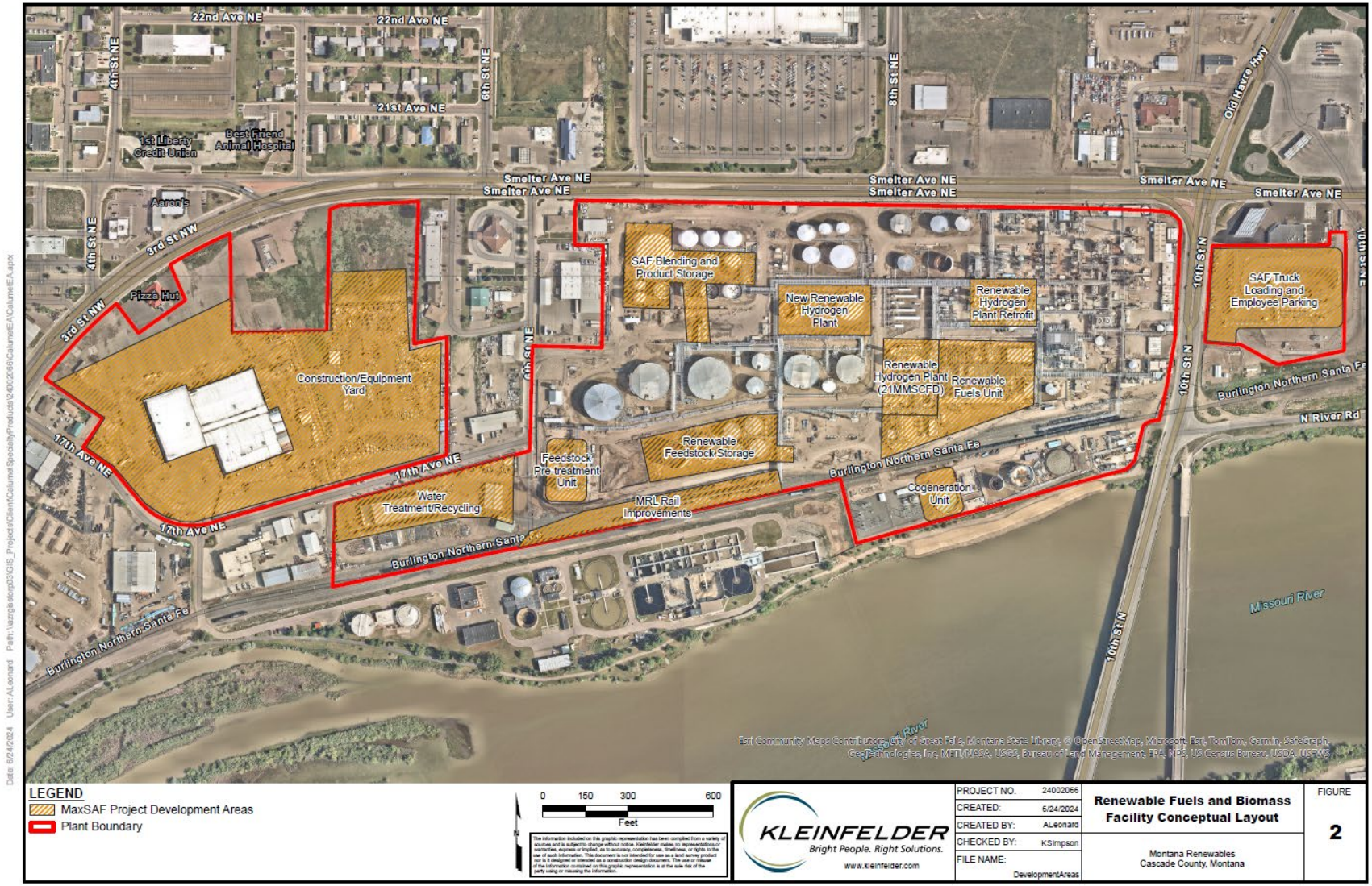
Table 2-1. Summary of Proposed Action Project Elements

Location in Figure 2	Project Element	Project Element Details
SAF Blending and Product Storage	SAF Blending and Product Storage	This Project element will provide the local capacity needed to blend and store the various SAF recipes to be exported by the SAF truck loading capability in commercial support of Department of Defense facilities, Malmstrom Air Force Base, Montana Air National Guard, commercial airlines (United, Delta, Alaska), seasonal firefighting, and Montana and regional airports. This SAF blending element involves approximately 2 acres within the existing Plant. A new 10,000-barrel blending and storage tank will be located within the existing tank farm.
Renewable Hydrogen Plant Retrofit	Renewable Hydrogen Retrofit	LPO funding will be used to purchase the existing 15 MMSCFD hydrogen plant. This Project element will reduce the renewables Facility's carbon footprint by taking the lessons learned from the existing 21 MMSCFD renewable hydrogen plant and applying them to make additional retrofits at the 15 MMSCFD hydrogen plant, increase overall capacity, and reduce emissions. Specifically, the existing 15 MMSCFD hydrogen plant will be modified to accept

Location in Figure 2	Project Element	Project Element Details
		renewable off-gas and/or naphtha as feedstock for producing renewable hydrogen. Additional retrofits will consist of installing a pre-reformer vessel (approximately 800 square feet in size) and modifying the existing heat integration unit and furnace to recover heat and send it back into the process. The renewable hydrogen retrofit element involves approximately 0.7 acre within the existing Plant.
Renewable Fuels Unit	Gas Compression Controls	This Project element has a direct impact on capacity as well as the renewables Facility's carbon footprint. Advanced compression controls will be installed on the multi-stage reciprocating compressors for makeup hydrogen. The controls will allow the compressors to be more efficient by reducing the amount of "spillback," which is gas that is compressed and then recycled. At a given capacity, a power savings occurs from reducing the amount of recycled spillback. Three compressors associated with the RFU will have this opportunity to incorporate advanced compression controls: two makeup hydrogen compressors and one RFU off-gas compressor. The technology proposed is a HydroCOM control system by Hoerbiger that eliminates step-loading and wasteful interstage spillbacks. The gas compression controls element will occur in the RFU, which occupies approximately 2.8 acres within the Plant.
Feedstock Pretreatment Unit	Debottleneck Pretreatment Unit	This Project element will execute process debottlenecks and the upgrades required to retrofit the renewable feedstock PTU and increase overall capacity to approximately 20,000 bpd. The retrofit will consist of a hydraulic debottleneck for the existing PTU equipment, with any new equipment located within or around the PTU. The debottleneck PTU element involves approximately 0.7 acre within the existing Plant.
PTU Water Treatment/ Recycling	Water Treatment/ Disposal/Recycling	Non-hazardous wastewater from the renewable feedstock PTU is currently transported by truck and/or rail to permitted disposal locations in Idaho. Under the Project, a PTU water treatment process will be implemented that will be capable of treating PTU wastewater on-site, thereby reducing wastewater truck trips and transportation-related carbon emissions. The PTU water treatment process is also being evaluated for its ability to recycle and reuse this treated water. It will be sized for approximately 300,000 gallons per day and treat water to specification for onward discharge to the City's publicly owned WWTP and/or for internal water recycling. The PTU wastewater treatment process is designed to include an initial buffer tank, ferric sulfate coagulant tank, lime neutralization tank, flocculation tank, primary clarifier, clarifier treatment tank, equalization tank, bio reactors with integral clarifiers, sludge tanks with centrifuges, and an effluent tank. Additional technologies, such as membrane and evaporation technologies, may be used to facilitate water recycling. Most of the equipment will be located within an existing building (see "Water Treatment/Recycling" in Figure 2-1), with the exception of the bioreactors and small ancillary equipment, which will be adjacent to the existing building. A carbon-steel effluent pipe will also be installed to connect to the City's WWTP. This effluent pipe will be approximately 3,000 feet long, 4 inches diameter, and constructed primarily within existing overhead piperacks at the Plant and then connected to existing wastewater piping for discharge to the City WWTP. The PTU wastewater disposal/recycling element involves approximately 2.4 acres within the existing Plant.

Location in Figure 2	Project Element	Project Element Details
Cogeneration Unit	Renewable Electricity/Steam	This Project element will construct a cogeneration plant to produce renewable electricity and steam from renewable fuels (off-gases, naphtha). The cogeneration unit will be sized to completely replace the fossil steam and electric requirements of the Plant. The approximately 18- to 20-megawatt (MW) cogeneration plant will be located on the south side of the Plant and consist of the following elements: approximately two small gas turbines, duct-fired burners for additional steam generation, selective catalytic reduction for nitrogen oxide (NO_X) control, electrical switchgear, and required auxiliary support equipment. The footprint will occupy approximately 0.35 acre. Fuels will come from the RFU through piping, and export steam from the cogeneration unit will tie back into the Plant through piping. The electrical crossties will be at the Plant substation. The priority for this Project element is the production of renewable electricity for MRL. Excess renewable electricity (if available) will be sold to the CMR refinery and then to the grid. The renewable electricity/steam element involves approximately 0.5 acre within the existing Plant.
Renewable Fuels Unit	Max SAF	This Project element will retrofit the RFU to increase overall capacity to approximately 24,000 bpd and provide the flexibility to shift product yield toward high SAF. The new equipment will consist of a second reactor and a separator system that includes associated heat exchangers, pumps, and piping, along with associated tankage to support the expanded SAF production capability. This equipment will be located in appropriate areas of the RFU. Additional Project enhancements, such as the SAF truck loading discussed in the last row of this table as well as the rail improvements discussed in Section 2.2.3, will also be installed to support enhanced capacity. The max SAF element occurs within the RFU, as shown in Figure 2-1, which occupies approximately 2.8 acres within the Plant.
New Renewable Hydrogen Plant	New Renewable Hydrogen Plant	The new renewable hydrogen plant will be sized to support the renewable fuels unit's increased capacity, estimated at 40 MMSCFD. The feedstock for the new hydrogen unit will consist of the renewable fuels unit's off-gases and/or light naphtha for producing renewable hydrogen. New equipment includes a pre-reformer, steam methane reformer, heat recovery unit, and pressure swing adsorber. The site for the new renewable hydrogen plant covers approximately 2 acres.
MRL Rail Improvements	MRL Rail Improvements	An anticipated increase in renewable feed and product railcars (i.e., longer trains and/or larger-capacity railcars) for both receiving and shipping will require improvements to the existing rail system to allow increased railcar storage and provide operational flexibility to sort and index incoming and outgoing railcars. Proposed rail improvements will include construction of an additional 500 feet of track along the existing rail spur and loading/offloading railcar area in the southeastern portion of the Plant. Construction of the additional track will also require construction of a 500-foot-long fill wall along the length of the track that is rated for railroad loading. See Section 2.2.3 for more information.
SAF Truck Loading and Employee Parking	SAF Truck Loading	This Project element includes installing an SAF truck loading station on the east side of 10th Street N for an estimated five truckloads per day. Alternatively, the SAF loading station may integrate better as part of the existing asphalt loading rack nearer the west side of the Plant. Final engineering will determine the exact placement; however, in all cases, it will be installed within an existing disturbed area owned by MRL within the Plant. The addition of the truck loading station will give MRL the ability to truck approximately 1,000 bpd of blended SAF product to local destinations such as Malmstrom Air Force Base and Great Falls International Airport. As with other elements of the Project, the truck loading station will be installed within an existing disturbed area owned by MRL.

Figure 2-1. Renewable Fuels and Biomass Facility Conceptual Layout



The Phase 2 Project elements described in Table 2-1 will be completed entirely within the existing footprint of the Plant and located approximately as shown in the conceptual development areas depicted in Figure 2-1. The specific footprint of each Project element within the Plant will depend on final engineering. As presented in Section 3.5.3.1, Project designs will be engineered to integrate air emission control systems into the final design in coordination with the Montana Department of Environmental Quality (MDEQ). Materials and equipment for Project construction will be staged within an existing approximately 4-acre disturbed portion of the Plant. Additional aspects and details of the proposed conversion are described in the sections that follow.

2.2.1 Fencing, Grading, and Foundations

Approximately 800 feet of new fencing will be installed within the Plant to enclose feedstock/product storage tanks. To facilitate the equipment conversions/upgrades required for the Project, approximately 7.6 acres of previously disturbed ground within the Plant will be re-graded to ensure suitability and safety for construction. Grading will occur where new foundations are planned. In addition, an estimated 174,000 square feet of concrete will be poured over already-disturbed soils to provide stable and safe foundations for equipment. MRL maintains a Plant-wide stormwater plan, and site-specific stormwater best management practices (BMPs) will be identified and implemented as needed for Phase 2 infrastructure.

2.2.2 Power and Utilities

Infrastructure (e.g., natural gas, water, sewer, power connections) to support the Project within the existing Plant already exists. The existing power substation will be upgraded by MRL to support the new renewable cogeneration unit and additional electrical loads. Upgrades will include replacement of the components that connect the transformers to a bus bar and the addition of new wiring and switches to connect the new cogeneration equipment to the existing refinery power distribution equipment; however, MRL's ultimate goal is to produce its own electricity and no longer require power from the existing grid.

2.2.3 Access

Access to the Project site is limited to employees and contractors approved for entry into the Plant. Employees do not have direct vehicle access to the Plant; employees park on 10th Street N and at the other end of the Plant near the Westgate complex and walk or take a bus. There are multiple gated entry points into the Plant (i.e., one along 17th Avenue NE, two along 6th Avenue NE, three along 10th Street N).

MRL currently receives, on average, approximately 21 railcars of feedstock per day. At full capacity, the number of railcars delivering feedstock will increase to an average of 44 per day. The number of railcars that transport RD and SAF products from MRL will increase from approximately 20 railcars per day to approximately 40 to 45 railcars per day. The additional railcars for both shipping and receiving will be added to current trains. Additional train trips will not be required; rather, the trains will carry more railcars per trip. The anticipated longer trains and/or larger-capacity railcars for both receiving and shipping will require improvements to the existing rail system to increase railcar storage and provide the operational flexibility needed to sort and index incoming and outgoing railcars. Rail improvements will be completed by MRL as part of Phase 2. Proposed rail improvements will include the construction of an additional 500 feet of track along the existing rail spur and loading/offloading railcar area in the southeastern portion of the Plant. Construction of the additional track will also require construction of a 500-foot-long fill wall along the length of the track; the wall will be rated for railroad loading. Renewable products produced by MRL are and will continue to be delivered to markets on the West Coast and in Canada via rail.

No new roads are proposed for the Project.

2.3 Schedule

Engineering for the Phase 2 elements is ongoing. Construction will begin in October 2025. Construction activities will typically occur 10 hours a day, 6 days a week. Phase 2 is expected to be fully constructed by November 2027. Start-up will begin in December 2027, and Phase 2 is expected to be operational by January 2028.

2.4 Operations

Operation of the renewables Facility starts with the receipt of raw material (i.e., feedstock), followed by pretreatment of the feedstock, refining the feedstock into renewable fuels, fuel blending, and product shipment by rail and truck. The manufacturing process is described further in Section 2.4.1. The Project will be operated and maintained in accordance with the specifications for the individual pieces of equipment as well as applicable regulations, codes, standards, and permit requirements.

2.4.1 Manufacturing Process Summary

Renewable feedstocks, including, but not limited to, canola oil, distillers corn oil, used cooking oil, soybean oil, mustard seed oil, camelina oil, and beef tallow, arrive at the Plant by rail. From the rail loading and offloading area at the southeastern border of the renewables Facility, feedstocks are transported through on-site piping to heated storage tanks. To ensure stable operation, the feedstock inventory volume is stored about 2 weeks at full production.

The renewable feedstocks consist of a mixture of fats (triglycerides) and fatty acids that must be pretreated at the PTU to remove soluble and insoluble phosphorus and metals, which are detrimental to the performance of the RFU. The stored feedstock is transported by pipe to the PTU. The pretreatment process involves washing, through turbulent mixing, the renewable feedstocks with water and citric acid at a temperature of up to 500°F. The pretreated renewable oil is sent by pipe to be heated and mixed at the RFU feed tankage. The spent wash water (PTU wastewater) produced during the pretreatment process is non-hazardous and trucked primarily to permitted out-of-state disposal locations. Additional information on current and future (i.e., under Phase 2) PTU wastewater disposal and treatment is discussed in Section 3.3. The PTU produces no solid waste.

The pretreated feedstock is sent to tankage and then transported by pipe to the RFU for processing into renewable diesel and synthetic paraffinic kerosene (SPK), which, when blended with fossil kerosene, is SAF. MRL's RFU uses hydrogen and a solid catalyst (similar to the catalytic converter in a car) to chemically transform the feedstock into high-quality RD and SPK. Two primary chemical transformations occur, as outlined below.

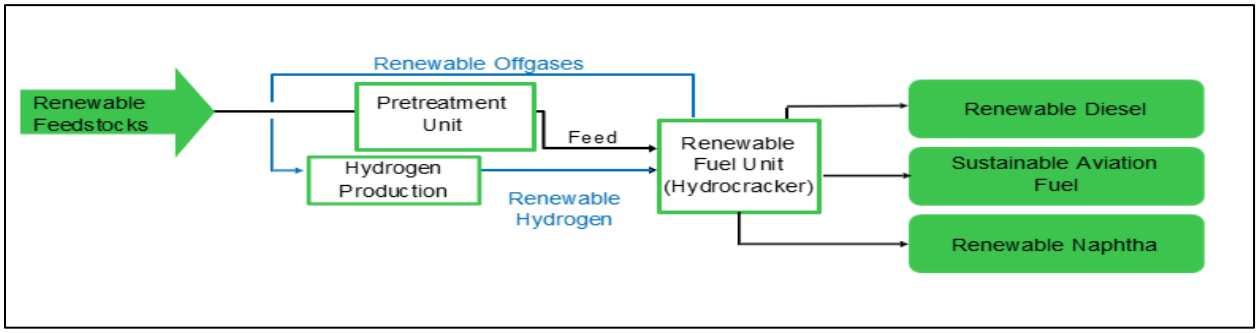
- The renewable feedstocks contain oxygen bound in the triglycerides and fatty acids. The oxygen must be removed for the products to have properties similar to those of fossil kerosene and diesel. This is termed hydrodeoxygenation, or HDO, where hydrogen chemically replaces the oxygen.
- Once the oxygen is removed, the resulting molecules are C14, C16, and C18 straight chain hydrocarbons. These molecules must be isomerized—meaning the shape of the molecule is changed—so that the resulting products meet the appropriate American Society for Testing and Materials (ASTM) specifications (ASTM D7566 Annex 2 for SPK and ASTM D975 for renewable diesel).

Renewable off-gases such as renewable natural gas and renewable propane from the RFU are used to produce the hydrogen required for the RFU; therefore, nothing is wasted. This is achieved by steam reforming. The renewable natural gas and propane are mixed with steam, and in the presence of a catalyst at very high temperature, the hydrocarbons and water react to form hydrogen and carbon dioxide. The mixture is separated and the renewable hydrogen is used in the RFU.

The renewables Facility produces steam from surplus heat to maximize the thermal efficiency of the manufacturing process. The HDO reaction in the RFU is exothermic (i.e., releases heat); there is more energy available than the process uses. Rather than wasting the energy by air or water cooling, steam is produced that can be used in the hydrogen production process and in other areas of the Plant.

Exhibit 1 illustrates the RD and SAF manufacturing process.

Exhibit 1. RD and SAF Manufacturing Process Flowchart



2.4.2 Staffing and Operational Timeframe

During construction, the number of construction workers at the peak is expected to be approximately 350, with a typical bell curve (i.e., lower numbers at the holiday periods and increased numbers during planned outages). During construction, one single shift is anticipated; however, it is expected that critical-path activities (e.g., equipment cleaning prior to maintenance, catalyst replacement) will be worked by multiple shifts during planned outages.

Currently, approximately 187 employees support MRL operations. Once full production is reached, MRL anticipates having 233 employees, increasing the number of employees by approximately 46; 16 full-time jobs will support Project operations (typically four individuals are hired to cover each position due to the nature of shift work and the need for the Plant to operate 24 hours a day). Full production and staffing are expected to be reached by the second half of 2027. The Plant will continue to operate 24 hours a day, 7 days a week, with hourly operations employees running on two 12-hour shifts. Each 12-hour shift will have an on-site team and an on-call team for as-needed staffing support. Plant staffing will also include a maintenance team that works 5 days a week, 8 hours a day, along with salaried engineering and management personnel.

2.4.3 Shipping and Receiving

Feedstock is delivered to MRL and renewable fuels are shipped from MRL by the existing rail line that runs along the south side of the Plant. MRL currently receives approximately 21 railcars with feedstock each day. At full capacity, the number of railcars with feedstock will increase to an average of 44 per day. Upon completion of the Project, the number of railcars for transporting RD and SAF from MRL will increase from approximately 20 per day to approximately 40 to 45 per day. Under the Project, there will be no increase in the number of train trips per day; rather, additional railcars will be added to the existing trains. In addition, and as previously discussed, MRL is proposing installation of a new SAF truck loading station that will give MRL the ability to ship five truckloads (approximately 1,000 bpd) of SAF per day to the regional market. Currently, the Plant ships five truckloads of non-renewable fuel products per day. Once Phase 2 is complete, these five truckloads will be used for shipping renewable SAF (i.e., no net increase or decrease in local truck deliveries). As with other elements of the Project, the truck loading station will be installed within an existing disturbed area.

2.4.4 Waste Management

During operations, the renewables Facility will generate both solid and liquid nonhazardous waste from the renewables manufacturing process as well as general solid nonhazardous waste from routine building operations and maintenance. All solid wastes generated at the renewables Facility will be collected, categorized, and disposed of and/or recycled in accordance with the Plant's waste management practices and all applicable federal, state, and local environmental regulations.

Under current MRL operations, wastewater generation totals approximately 380,000 gallons per day (gpd) (i.e., approximately 80,000 gpd MRL PTU wastewater + 300,000 gpd MRL process wastewater). PTU wastewater is currently transported to permitted out-of-state disposal facilities; the majority is trucked to permitted disposal wells in Kuna, Idaho. The current wastewater truck hauling volume requires approximately 17 to 24 trucks per day. Other MRL process-generated wastewater (approximately 300,000 gpd) is pretreated on-site and then piped to the City WWTP.

Under Phase 2 of the Project, MRL wastewater generation is estimated to increase to approximately 670,000 gpd (i.e., MRL PTU wastewater + MRL process wastewater). Of this, the PTU wastewater (approximately 232,000 gpd) will initially be transported to permitted out-of-state disposal facilities, resulting in a temporary increase in wastewater haul traffic amounting to 34 to 48 trucks per day until the new on-site PTU wastewater treatment process is operational. At the completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, PTU wastewater hauling will be discontinued. All MRL wastewater will be pretreated on-site for reuse or disposal at the WWTP. Therefore, the Project will increase wastewater discharges to the City WWTP from 300,000 gpd (Phase 1, process wastewater only) to up to 670,000 gpd (Phase 2, PTU wastewater and process wastewater) after the PTU wastewater treatment process is operational, an increase of 370,000 gpd. The City WWTP treats about 4 billion gallons of water per year (or approximately 11 million gallons per day [mgd]) (City of Great Falls 2023) and has the capacity to accept and treat the additional treated wastewater from MRL Phase 2 operations.

A carbon-steel effluent pipe will be installed to send the PTU wastewater discharge to the City's WWTP. This effluent pipe will be approximately 3,000 feet long, 4 inches in diameter, and constructed within the Plant's existing overhead piperacks; it will then connect to existing wastewater piping for discharge to the City's WWTP.

2.4.5 Emergency Preparedness

CMR and MRL maintain a robust Safety Procedures Plan as well as an Emergency Action Plan (EAP) that provide safety guidance and requirements for work within the Plant; these are applicable to all MRL personnel, processes, and infrastructure. The Plant also has a Spill Prevention Control and Countermeasure (SPCC) Plan that covers chemical management, routes of possible spills, and spill prevention and control measures. The Safety Procedures Plan, EAP, and SPCC Plan are discussed more in Section 3.9. CMR and MRL also participate in monthly Cascade County Local Emergency Planning Committee meetings and participate in the annual Montana Liquid and Gas Pipeline Association incident command exercise.

3. ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

In each of the following sections, a specific resource area is addressed with both qualitative and, where applicable, quantitative information to concisely describe the nature and characteristics of the resource that may be affected by the Project as well as the potential direct and indirect impacts on that resource from the Project given proposed Project controls. A conclusion regarding the significance of impacts is provided for each resource area.

Section 3.11 provides a review of the present and reasonably foreseeable federal and nonfederal actions that may contribute to a cumulative impact when added to the impacts of the Proposed Action. The impacts of past actions were reviewed and included as part of the affected environment to establish the current condition of the resource (i.e., the baseline condition) that may be affected by the Proposed Action.

3.2 Aesthetic and Visual Resources

The Project is within the footprint of a refinery that has been operating since 1922. As seen in Figure 3-1**,** the visual character of the Project would reflect the Heavy Industrial zoning of the property where the Plant is located as well as the character of the surrounding City WWTP, BNSF Railway line to the south, and the commercial buildings and Walmart to the north. Residential areas are approximately 0.09 mile to the northwest, 0.32 mile to the east, and 1.07 miles to the south (across the Missouri River).

The Plant does not appear to be visible from the residences south of the Project area, which are across the river; the view is obscured by commercial and industrial infrastructure and trees. Tanks within the Plant would continue to be visible from some of the houses to the northeast. In addition, tanks and other equipment would continue to be visible from some of the residences to the east.

Construction of the Project would result in permanent visual changes on the Project site (e.g., the addition of a 130-foot-tall reactor next to an existing 145-foot-tall primary reactor); however, the appearance of the equipment to be installed would be similar to that of existing equipment. Industrial infrastructure is already the dominant visual element in the immediate and surrounding landscape. Project operations could result in minor increases in nighttime light but should not adversely affect residential receptors. Light pollution is currently minimized by a 12- to 14-foot wall that surrounds the perimeter of the Plant.

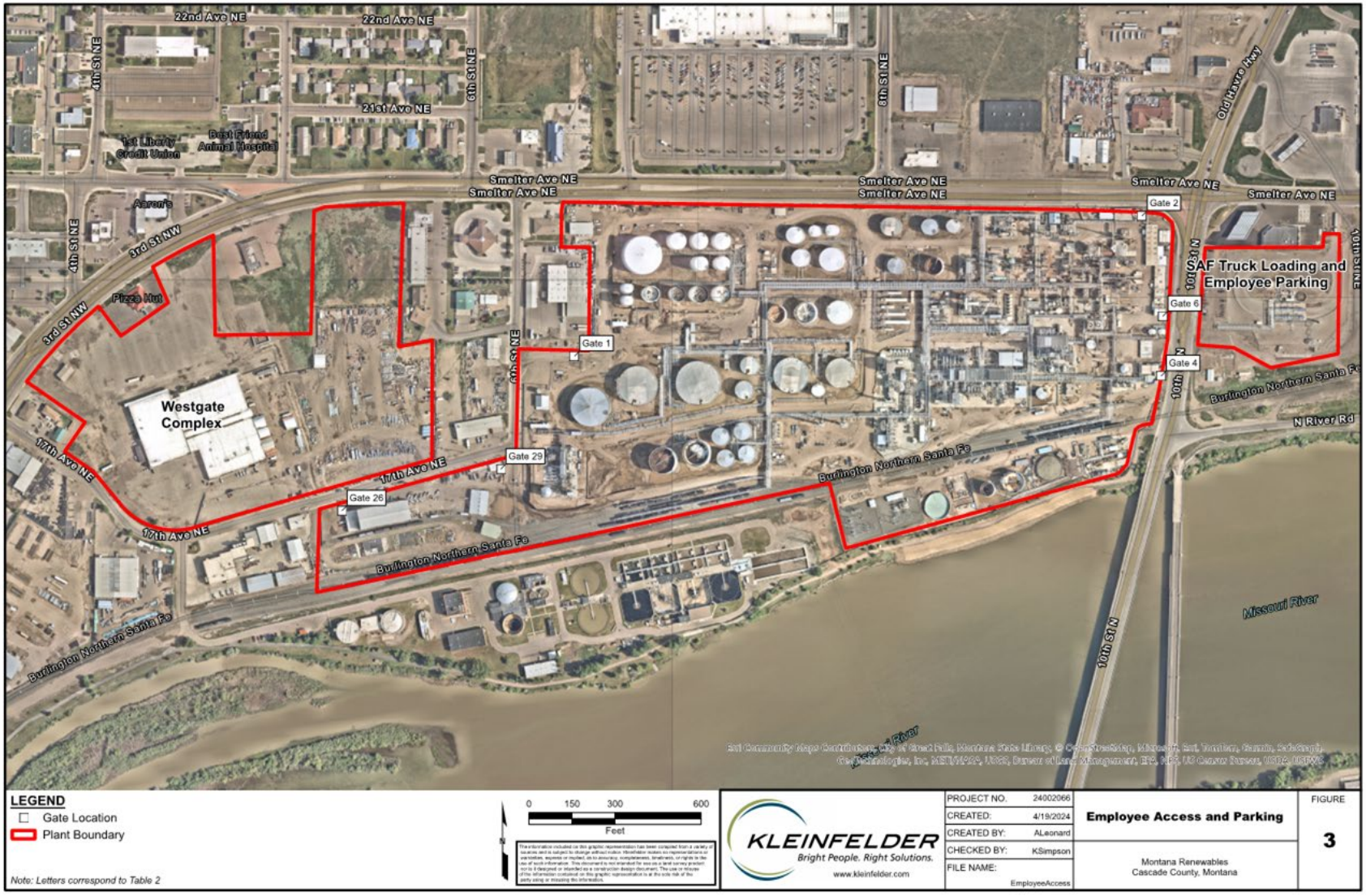
Because the Project site is in an area that has been zoned for Heavy Industrial uses and the design of the Project would be similar to that of the existing Plant, impacts on aesthetic and visual resources as a result of the Project would not be significant.

3.3 Water Resources

There are no surface water features inside the Plant. Furthermore, CMR and MRL do not own or operate any groundwater supply wells. All water for existing MRL operations is purchased from the City. MRL anticipates that all water for Phase 2 MRL operations would continue to be purchased from the City. Water is supplied to MRL by the City through existing pipelines. The volumes are measured by an existing utility meter. MRL does not use and does not anticipate using groundwater or surface water for existing operations or Phase 2 operations.

Under current MRL operations, MRL uses approximately 560,000 gpd of City-purchased water. Under Phase 2 of the Project, the anticipated volume of water needed to support MRL operations is expected to increase to approximately 900,000 gpd.

Figure 3-1. Employee Access and Parking



The City has adequate capacity to accommodate MRL's demand for water in support of Project operations in addition to demand from CMR and other customers. Specifically, the 2023 *City of Great Falls Water Treatment Plant Consumer Confidence Report* (City of Great Falls 2023) states that municipal water demand ranges from approximately 7 mgd in winter to 33 mgd in summer; a 2023 news article published by KRTV Great Falls (KRTV 2023) states that the capacity of the WWTP is 48 mgd. As such, the additional City-purchased water for the Project would not adversely affect water supply and availability.

MRL maintains a Plant-wide SPCC Plan, which is a written set of procedures required under 40 CFR 112.3. The SPCC Plan outlines MRL's procedures and requirements involving petroleum products, liquids, and liquid chemical management; routes of possible spills; spill prevention; spill handling; and reporting measures. Implementation of the SPCC Plan, including regular inspection and maintenance of spill containment BMPs (e.g., earthen or mechanical berms around tanks), ensures that, in the event of a spill, any spilled substance would be safely contained.

Stormwater control would continue to be managed through a combination of MRL's Plant-wide Stormwater Management Plan as well as measures from the SPCC Plan. Tanks at MRL are surrounded by man-made dikes that were constructed for the sole purpose of meeting the SPCC Plan's emergency response requirements. The dikes are constructed of sand and structural soil. Within the dikes, MRL has excavated depressions to create artificial swales; these are used to collect rainwater temporarily. Following a storm event, rainwater that has collected in the artificial swales drains to MRL's wastewater pretreatment system under a controlled process. Within 24 to 48 hours of a rain event, a locked valve is manually opened by an MRL employee; the rainwater then drains through a grate into MRL's pretreatment system. From the pretreatment system, the water goes into the City's WWTP, which is south of MRL. The hydrology of the man-made dikes and swales is temporary, not permanent, due to the controlled draining of rainwater on dry land. As part of the Stormwater Management Plan, stormwater flow is also controlled through a suite of site-specific BMPs, including, first and foremost, proper grading and drainage design. MRL would adhere to the Plant's existing Montana Pollutant Discharge Elimination System permit. There would be no changes to impervious surfaces as a result of the Project.

Given MRL's plans to continue to purchase water from the City, treat all wastewater, and recycle/reuse water when possible, along with the absence of on-site water features and the stormwater and SPCC Plan controls that would continue to be used during construction and operation, impacts on water resources as a result of the Project would not be significant.

3.4 Cultural Resources

The *Cultural Resources Technical Report for the Montana Renewables, LLC, Renewable Fuels Facility, Great Falls, Montana,* was completed for the Project in November 2023 and then revised, based on meetings with the Montana State Historic Preservation Office (SHPO) in May 2024. The area of potential effects (APE) for the Project includes the direct (archaeological) and indirect (architectural) APE. The direct APE, which comprises the area of potential ground disturbance and any property, or any portion thereof, that would be physically altered or destroyed by the undertaking, is the approximately 56-acre co-located renewables Facility and conventional petroleum refinery. The indirect APE, which consists of the area in which the Project has the potential to introduce visual elements that would diminish or alter the setting, including the landscape, and the setting is a character-defining feature of a historic property, is made up of approximately 15.7 acres adjacent to the direct APE. Factors such as the design of the Project, the density of the surrounding built environment, and the presence of mature trees were taken into consideration when defining the indirect APE.

In July 2023, a records search was conducted using the Montana Cultural Resource Database maintained by the SHPO. This records search was initiated to identify any previously recorded prehistoric and/or historic archaeological resources as well as historic built-environment resources within the direct APE and the

indirect APE. An archaeological inventory was completed on September 26 and 27, 2023. Given the negative records search results, negative survey results, and previous ground disturbance in the vicinity of the APE, impacts on archaeological resources as a result of the Project would not be significant.

According to the results of the field survey and historical research, four previously unrecorded buildings and structures that have reached the age for consideration as historic properties and one previously recorded property that was recommended as eligible for listing in the National Register of Historic Places (NRHP) (24CA0371, Great Northern Railway) are within the direct APE. Although the Great Northern Railway is recommended as eligible for listing in the NRHP, the previously recorded segment does not appear to retain the historic integrity needed to convey its historical significance; therefore, it is not recommended as a historic property for the purposes of Section 106 of the National Historic Preservation Act (NHPA). In the *Cultural Resources Technical Report for the Montana Renewables, LLC, Renewable Fuels Facility, Great Falls, Montana*, Calumet refinery Building 1 (24CA1975) and Building 2 (24CA1976) were recommended as eligible for the NRHP under Criterion A for their association with the important role the Calumet refinery played in shaping the development of Montana's oil industry and the impact it had on the industrial and economic growth of Great Falls. According to the Project description, no physical modifications of any kind would be made to Calumet refinery Building 1 (24CA1975) or Building 2 (24CA1976) as a result of this Project; therefore, the Project would have no direct effect on the buildings. The refinery itself has undergone many changes over time. Additional changes to the buildings and structures at the refinery would not result in an adverse effect on Calumet refinery Building 1 (24CA1975) or Building 2 (24CA1976), nor would the construction of new buildings and structures. Because of the absence of adverse impacts on historic resources within and surrounding the Project site, the impact on historic resources as a result of the Project would not be significant.

DOE consulted the SHPO and provided the revised *Cultural Resources Technical Report for the Montana Renewables, LLC, Renewable Fuels Facility, Great Falls, Montana,* on June 12, 2024. The Montana SHPO provided concurrence on July 10, 2024, stating that no historic properties would be affected (see Appendix A).

If cultural resources, such as human remains, lithics, pottery, or remnants of older construction, are discovered during Project activities, work would cease in the vicinity of the discovery, and the SHPO, the Office of the State Archaeologist, and all tribes with vested interest in the area would be notified. A qualified archaeologist or a designated representative of the Office of the State Archaeologist or Tribal Historic Preservation Office would evaluate any such discovery and, in consultation with the SHPO, implement appropriate measures before construction would resume.

Because of the absence of adverse impacts on cultural resources within and surrounding the Project site, as well as the controls that are in place to address an unanticipated discovery of such resources, the impact on cultural resources as a result of the Project would not be significant.

3.4.1 Native American Interests

In conjunction with this EA and the NHPA Section 106 historic and archeological review process, DOE sent a request in January 2024 to four separate federally recognized tribes (Apache Tribe of Oklahoma, Fort Belknap Indian Community of the Fort Belknap Reservation of Montana, Crow Tribe of Montana, and Little Shell Tribe of Chippewa Indians of Montana) for information on nearby cultural resources and for them to express any comments or concerns they had on the potential for those resources to be affected by construction of the Project (see sample request letter in Appendix A). Following submission of the letter, each tribe was contacted by telephone to ensure receipt of the letter and respond to any immediate questions or concerns. No responses or comments were received, and no comment letters were received during the public comment period for the Draft EA.

Because of the absence of adverse impacts on Native American interests within and surrounding the Project site, impacts on Native American interests as a result of the Project would not be significant.

3.5 Air Quality

3.5.1 Setting

Air quality in an area is generally influenced by the pollutants released within and upwind of the area. It can be highly dependent upon the pollutants' chemical and physical properties. Air quality regulations and source-specific permits limit the pollutants that may be emitted from air emissions sources. Topography, weather, and land use in an area affect how pollutants are transported and dispersed as well as the resulting ambient air pollutant concentrations.

National Ambient Air Quality Standards (NAAQS) have been set by EPA to protect human health and welfare with an adequate margin of safety. The criteria pollutants for which standards have been established are ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), lead (Pb), and particulate matter (PM), including PM less than 10 microns in diameter (PM_{10}) and PM less than 2.5 microns in diameter ($PM_{2.5}$). The Project does not involve the use of lead; therefore, lead is not discussed further in this EA.

Ground-level O_3 is a secondary pollutant formed by a chemical reaction between NO_x and volatile organic compounds (VOCs) in the presence of heat and sunlight. Airborne PM consists of tiny coarse-mode (PM_{10}) or fine-mode ($PM_{2.5}$) particles or aerosols combined with dust, dirt, smoke, and liquid droplets. $PM_{2.5}$ is derived primarily from the incomplete combustion of fuel sources and secondarily formed aerosols, whereas PM_{10} is derived primarily from the crushing, grinding, or abrasion of surfaces. Hazardous air pollutants (HAPs) are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects due to adverse environmental impacts. EPA has classified 187 air pollutants as HAPs.

MRL is co-located with CMR, a traditional crude oil refinery in Great Falls, Cascade County, Montana. This area is designated as an attainment area for all criteria pollutants, meaning the area achieves the NAAQS. To determine NAAQS attainment status, federal regulations require each state to establish an ambient air monitoring network (refer to 40 CFR Part 58, Appendix D) to measure pollutant concentrations. Per the MDEQ Air Quality Bureau's 2023 Annual Monitoring Network Plan, an evaluation of EPA monitoring site setup criteria, historical monitoring data, and meteorological patterns, in combination with MDEQ's professional judgment, determined that ambient air monitoring in the Great Falls Metropolitan Statistical Area was warranted for only $PM_{2.5}$ (MDEQ 2023). The 24-hour average NAAQS for $PM_{2.5}$ is 35 micrograms per cubic meter ($\mu g/m^3$); the annual average NAAQS is 9.0 $\mu g/m^3$. The sole Great Falls air quality monitoring station is within 2 miles of the Project site. The next-closest multi-pollutant monitoring station is the National Core Monitoring Site (NCore), located in a wilderness area north of Helena, Montana. Per the 2023 Annual Monitoring Network Plan, the average monitored $PM_{2.5}$ concentration in calendar year 2022 was 5.3 $\mu g/m^3$ at the Great Falls station. However, data from this monitoring station are for informational purposes; the station is not certified to present data for comparison to the 24-hour average NAAQS. The NAAQS design value (a statistic used for relative comparison to the NAAQS) at the NCore station in calendar year 2020–2022 was 30 $\mu g/m^3$ for the 24-hour average NAAQS and 4.3 $\mu g/m^3$ for the annual NAAQS, respectively. The NCore monitoring data showed no exceedances of the NAAQS for any pollutant in 2022.

3.5.2 Emissions Analysis

Project emissions occur during two primary phases: the construction/development phase and the operations phase.

3.5.2.1 Project Construction Air Emissions

During the construction phase, fugitive dust would be generated by grading and clearing, the removal of equipment or structures, vehicular traffic on paved and unpaved roads, and wind erosion on disturbed soil. In addition, other pollutants, including CO, VOCs, and NO_x, would be generated as the result of fuel combustion (gasoline, diesel, and/or natural gas) in construction vehicles and equipment. BMPs to reduce fugitive dust emissions from Project construction include water applications, reduced vehicle speeds, and the use of cleaner equipment, including combustion equipment that meets EPA Tier IV emissions standards for heavy diesel equipment, where possible. Additional information on EPA engine tiers is available at the EPA website (EPA 2024a). Construction-related emissions would be temporary, and BMPs would minimize the overall impact.

Table 3-1a estimates temporary mobile-source emissions during Phase 2 construction activities (e.g., emissions from construction workers' vehicles, excavators, backhoes, concrete trucks, and skid-steer loaders that would be on-site and operating within the Plant perimeter).

As discussed in Section 2.3, Phase 2 construction would begin in October 2025; the Project is expected to be fully constructed by November 2027.

MRL intends to bus construction workers to the renewables Facility from the employee parking areas on 10th Street N and at the other end of the Plant near the Westgate building complex. This would reduce emissions from local passenger vehicles during the construction phase.

3.5.2.2 Project Operation Air Emissions

During Project operation, criteria pollutants and HAPs, including CO, NO_x, VOCs, PM, and SO_2, would be emitted from stationary combustion sources; storage tank vents; and leaks in equipment. HAPs would be emitted from these same three sources. Table 3-1b estimates stationary-source criteria pollutant and HAP emissions from operation of the renewables Facility. The emissions estimates in Table 3-1b are based on the preliminary engineering design and indicative of controlled emissions. MRL cannot specify in more detail what air emission control systems would be implemented until the engineering design is completed and MRL's coordination with MDEQ is completed for the Phase 2 permit to construct and PSD permit (if applicable). MRL anticipates that, as part of the Phase 2 permitting process, a pre-application meeting between MRL and MDEQ would take place prior to the design being completed. If the Project is subject to a PSD permit, the Project would be classified as a major modification to an existing facility.

During Project operation, emissions would also be generated from mobile sources, including passenger vehicles, wastewater and RD/SAF haul trucks, and trains. Table 3-1c estimates mobile emissions for both current MRL operations and max SAF production. Mobile emissions have been estimated for vehicle traffic, including employee transportation, local contractor traffic, local RD and SAF deliveries by truck, and trucking of PTU wastewater during three phases:

1. Current MRL operations
2. Phase 2 MRL operations, with temporary PTU wastewater hauling to permitted disposal locations in Idaho
3. Phase 2 MRL operations when PTU wastewater treatment is operational

Table 3-1d reflects estimated emissions associated with rail switches. As previously discussed, although MRL anticipates adding additional railcars under Phase 2, there would be no increase in the number of trains or switches. As such, there would be no net increase or decrease in rail emissions between current MRL operations and Phase 2 MRL operations.

Table 3-1a. Nonroad Equipment Emissions during Phase 2 Construction

Emissions Source	Operational Phase	Year	Emissions (tons per year)									
			NO_X	VOC	CO	PM_{10} – Total	$PM_{2.5}$ – Total	SO_2	CO_2	CH_4	N_2O	CO_2e
Nonroad Equipment	Phase 2 Construction	Average Annual	84.0	9.4	38.1	5.2	5.1	0.2	72,102.3	0.6	3.3	72,429.7

Source: Ramboll. 2024b. Calumet Emissions Inventory. Confidentially prepared for Montana Renewables, LLC. November 12.

Notes: NO_X = nitrogen oxides, VOC = volatile organic compound, CO = carbon monoxide, PM_{10} = particulate matter less than 10 microns in diameter, $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter, SO_2 = sulfur dioxide, CO_2 = carbon dioxide, CH_4 = methane, N_2O = nitrous oxide, CO_2e = carbon dioxide equivalent

Table 3-1b. Renewables Facility Operation, Estimated Actual Emissions, and Prevention of Significant Deterioration in Major Modification Significance Levels

Pollutant	Quantity (tons per year)			
	PSD Major Modification Significance Level[a]	Phase 1	Phase 2	Estimated Actual Emissions (Total)
SO_2	40	5.91	13.15	19.06
NO_x	40	89.37	153.41	242.78
CO	100	78.10	123.16	201.26
PM	25	2.88	7.31	10.19
PM_{10}	15	9.06	25.02	34.08
$PM_{2.5}$	10	8.87	25.02	33.89
VOCs	40	94.96	58.22	153.18
Lead	0.6	—	—	—
Fluorides	3	—	—	—
Sulfuric acid mist	7	—	—	—
Hydrogen sulphide	10	—	—	—
Single HAP[b]	10	7.83	5.49	13.32
Total combined hazardous air pollutants	25	8.19	5.84	14.03

Source: Ramboll. 2024a. Preliminary Emissions Estimates in Support of Max SAF Operation. Confidentially prepared for Montana Renewables LLC. March 19.

a. Significance levels (i.e., significant emissions increases) are the net incremental increases in emissions from proposed major air emissions sources or proposed major modifications to existing air emissions sources that are defined as "significant" under PSD regulations at 40 CFR 52.21(b)(23) and at which PSD permitting program requirements are triggered.

b. N-hexane was identified as the largest single HAP in the preliminary engineering design emission estimates. Actual emissions would be calculated later as appropriate to the permit application.

Notes: SO_2 = sulfur dioxide, NO_X = nitrogen oxides, CO = carbon monoxide, PM = particulate matter, PM_{10} = particulate matter less than 10 microns in diameter, $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter, VOCs = volatile organic compounds, HAP = hazardous air pollutant

Table 3-1c. Mobile Emission Sources by Operational Phase

Emissions Source	Operational Phase	Year	Emissions (tons per year)									
			NO_X	VOC	CO	PM_{10} – Total	$PM_{2.5}$ – Total	SO_2	CO_2	CH_4	N_2O	CO_2e
On-road – Trucks and Passenger Vehicles	Current MRL Operations (with PTU Wastewater Trucking)[a]	Average Annual	16.9	0.4	11.1	0.8	0.3	0.0	9,151.1	0.1	1.2	9,433.0
On-road – Trucks and Passenger Vehicles	Max Operations with PTU Wastewater Trucking[b]	Average Annual	33.7	0.8	20.9	1.5	0.6	0.1	18,152.2	0.2	2.4	18,442.6
On-road – Trucks and Passenger Vehicles	Max Operations with PTU Wastewater Treatment	Average Annual	0.1	0.0	1.9	0.0	0.0	0.0	223.3	0.0	0.0	496.7

Source: Ramboll. 2024b. Calumet Emissions Inventory. Confidentially prepared for Montana Renewables, LLC. November 12.

a. ***Emissions Inventory for Current Operations Assumed:***
187 employee vehicle trips per day (local), 365 days per year
27 contractor trips per day (local), 260 days per year
24 disposal truck trips per day (transporting PTU wastewater to permitted disposal locations in Idaho), 365 days per year
5 local SAF and RD truck deliveries (local), 365 days per year

b. ***Emissions Inventory for Max SAF Operations Assumed:***
233 employee vehicle trips per day (local), 365 days per year
27 contractor trips per day (local), 260 days per year
48 disposal truck trips per day (transporting PTU wastewater to permitted disposal locations in Idaho), 365 days per year
5 local SAF and RD truck deliveries (local), 365 days per year

Notes: NO_X = nitrogen oxides, VOC = volatile organic compound, CO = carbon monoxide, PM_{10} = particulate matter less than 10 microns in diameter, $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter, SO_2 = sulfur dioxide, CO_2 = carbon dioxide, CH_4 = methane, N_2O = nitrous oxide, CO_2e = carbon dioxide equivalent

Table 3-1d. MRL Rail Switch Emissions

Emissions Source	Operational Phase	Year	Emissions (tons per year)									
			NO_X	VOC	CO	PM_{10} – Total	$PM_{2.5}$ – Total	SO_2	CO_2	CH_4	N_2O	CO_2e
Rail	Rail: Current and Max SAF Operations[a]	Average Annual	3.5	0.2	0.7	0.1	0.1	0.0	259.4	0.0	0.0	532.6

Source: Ramboll. 2024b. Calumet Emissions Inventory. Confidentially prepared for Montana Renewables, LLC. November 12.

a. *Emissions inventory assumed two switches per day with average duration of 2 hours per switch.*

Notes: NO_X = nitrogen oxides, VOC = volatile organic compound, CO = carbon monoxide, PM_{10} = particulate matter less than 10 microns in diameter, $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter, SO_2 = sulfur dioxide, CO_2 = carbon dioxide, CH_4 = methane, N_2O = nitrous oxide, CO_2e = carbon dioxide equivalent

Phase 1 Permitting

The MDEQ Air Quality Bureau is the agency with jurisdictional authority to issue and enforce air quality permits. Phase 1 elements of the renewables Facility are currently operating under MAQP #5263-02. The MRL Title V operating permit application for existing Phase 1 MRL operations and equipment was submitted in November 2023 and awaiting issuance. MDEQ has not provided a timeframe for issuance of the Phase 1 Title V operating permit. As previously discussed, MRL is a legally separate entity and not under the ownership or control of CMR; it operates within its own SIC codes (i.e., 2911 and 2869). For reference, CMR operates under the following air permits: MAQP #2161-39 and Title V operating permit #OP2161-17.

Part 70 Source Determination

MDEQ determined that the renewables Facility, including Phase 1 and Phase 2, would have a separate Title V operating permit; the renewables Facility and CMR would not be permitted as a single source under Part 70. The Title V applicability determination was completed on a Plant-wide basis. Under the Title V operating permit program, sources are required to obtain a federal Title V operating permit if the potential to emit (PTE) exceeds 100 tons per year (tpy) for any criteria pollutant, 10 tpy for any individual HAP, or 25 tpy for total HAPs. The Project PTE exceeds the major-source threshold for CO and NO_x. The Project is therefore required to obtain a Title V operating permit.

3.5.2.3 *Phase 2 Permitting*

MRL estimated emissions associated with the Project. The permitting thresholds for stationary sources applicable to the Project are presented in Table 3-1b. Point sources associated with estimated emissions for Phase 1 and Phase 2 include the reformer heater in the renewable hydrogen plant, low-pressure steam boilers in the cogeneration plant, gas turbines in the cogeneration unit, the PTU hot oil heater, new storage tanks, and loading and unloading activities. Table 3-1b includes the PTE for point-source emission sources and fugitive emission sources. The emission calculations would be finalized following Project engineering and prior to submittal of the air permit application.

3.5.2.4 *Permitting Thresholds*

The Project site is in an attainment area for all criteria pollutants. As shown in Table 3-1b, the PTE for the Project would exceed the PSD major-source threshold of 100 tpy for CO and NO_x; the estimated criteria pollutant emissions from the Project would exceed PSD significance levels for CO, NO_x, PM_{10}, $PM_{2.5}$, and VOCs. Therefore, the Project is expected to be subject to the Clean Air Act New Source Review (NSR) permitting program (i.e., construction permitting) and PSD provisions for sources in areas that have been classified as attainment areas, along with the Title V operating permit program.

Under the PSD program, major stationary sources are defined as those with a PTE of 100 tpy for any criteria pollutant within the 28 source categories specifically listed in 40 CFR Part 51.166, along with those that emit 250 tpy under all other source categories. Because the renewables Facility falls into one of the listed source categories (chemical processing plant), the Project would require a PSD permit if the anticipated Project PTE exceeds the 100 tpy PSD major-source threshold.

3.5.2.5 PSD Permitting Process

MRL anticipates, pending completion of the engineering design, that the Project's PTE would exceed the NO_x and CO major-source threshold of 100 tpy under the NSR permitting program. Therefore, MRL expects to submit a PSD permit application to MDEQ and obtain an MDEQ-issued PSD permit prior to commencing Phase 2 construction. The PSD permit application would include an analysis of Project air emissions and air quality impacts, along with Project GHG emissions. The issuance of permits by MDEQ would be subject to regulatory requirements, including Project conformance to the applicable NAAQS.

MRL expects to complete the engineering design for Phase 2 air emissions sources and controls, as required for preparation of the PSD permit application, in a timely manner. Subsequently, MRL expects to submit an application for a permit to construct Phase 2, as well as a PSD permit application, to MDEQ, based on the engineering design. MRL expects to participate in a pre-application meeting with MDEQ to review the Project design and discuss emissions and emission controls prior to preparation of the Phase 2 application for a permit to construct and a PSD permit application. MDEQ would provide input to MRL concerning PSD analysis methods, applicable requirements, and air emissions and control systems. Pre-application meetings were conducted with MDEQ prior to preparation of the application for a permit to construct Phase 1.

MRL has preliminarily identified the air emissions sources and control systems that are anticipated to be included in the Phase 2 application for a permit to construct and the PSD permit application. As part of the permit application process, MRL would perform a “best available control technology” (BACT) analysis to evaluate, by pollutant, the various emissions control technologies and their suitability to the Project’s particular equipment and engineering design. As part of the air permit application process, the selected control technologies would require agency approval prior to the permit being issued. The BACT analysis would consider the availability and engineering feasibility of the control technology(ies), the emissions reductions achieved, and the cost to control. Some of the available control technologies to be evaluated involve:

- CO (combustion air emissions sources)
  - Burner design
  - Heater design
  - Burner minimum oxygen levels
- NO_X (combustion air emission sources)
  - Combustion management
  - Post-combustion controls
  - Heater design
- VOC (combustion air emissions sources)
  - Heater burner design
  - Heater design
- VOC (vent and fugitive emissions sources)
  - Leak detection and repair standards for equipment leaks
  - Tank emission controls (applicable to storage tanks)
  - Loading designs/controls (applicable to both incoming feedstock and outgoing product)
- PM (combustion air emission sources)
  - Burner design
- SO_2 (combustion air emission sources)
  - Complying with Montana regulations regarding maximum fuel sulfur content

3.5.2.6 *Title V Operating Permit Process*

MRL submitted an application for a Title V operating permit for Phase 1 in November 2023; MDEQ reported that issuance of the Phase 1 Title V operating permit is pending. In accordance with Title V permitting procedures and the source determination (established through an iterative process with MDEQ between 2021 and 2023), MRL would be required to submit a revised Title V operating permit application to MDEQ to incorporate Phase 2 into the Phase 1 Title V operating permit. Specifically, MRL would be required to submit the revised Title V operating permit application within 6 months of Phase 2 start-up. The Title V permit would incorporate all elements of the Project PSD permit when issued, including all required emission controls. In addition, in Montana, MDEQ issuance of PSD permits and Title V operating permits requires review and approval by EPA Region 8.

Appendix B summarizes the permits MRL currently holds and the permits that would be needed for the Project.

The Project would result in fugitive air emissions from sources such as the additional employees' vehicles, along with a temporary increase in the number of truck trips to haul PTU wastewater directly to out-of-state disposal locations. As further discussed in the Transportation section (Section 3.7), the estimated number of vehicle trips includes the 46 additional trips involving workers' vehicles each day. Because MRL is focused on providing local jobs, workers' vehicle trips would generally be short, originating in local communities. Similarly, the five tanker trucks per day would be delivering to local customers, such as Malmstrom Air Force Base and Great Falls International Airport. Minor mobile-source emissions during operations would come from the trains that would deliver feedstock to the renewables Facility. As discussed further in Section 3.7, an additional 20 to 25 railcars would be added to rail operations at the renewables Facility; these railcars would be used to store feedstock on-site or transport product off-site. However, no additional trains or switches would be required to move the additional railcars. As such, there would be only a negligible increase in mobile-source emissions from locomotive operations. The majority of mobile-source emissions during operations would come from the 24 to 48 truck trips per day needed to haul PTU wastewater until the PTU wastewater treatment process is operational. However, once the PTU wastewater treatment process is operational, the PTU wastewater truck trips (and associated emissions) would be eliminated.

Construction and operation of Phase 1 and Phase 2 would be subject to the permit conditions included in the Project permit to construct, PSD permit, and Title V operating permit. MRL anticipates conducting pre-application meetings with MDEQ prior to submittal of the permit applications to determine expected permit conditions, air emissions and control system requirements, and applicable standards and procedures for preparation of the PSD permit application. Permit conditions developed for and included in the applicable permits for the Project are expected to conform to regulatory requirements, including the NAAQS; therefore, construction and operation of the Project, in accordance with permit conditions, would not be expected to result in an exceedance of the NAAQS or an exceedance of other applicable requirements.

Given the above evaluation, as well as the mitigation measures presented in the Mitigation Action Plan (see Appendix C), Project impacts on air quality would not be significant. Construction and operation of the renewables Facility would not affect existing CMR operations. The two operations would function with separate feedstocks; any unplanned interruption at MRL would not affect CMR operations, or vice versa.

3.6 Noise

The Project site is within the boundaries of the existing Plant, which is in an area that has been zoned for Heavy Industrial uses. Existing sources of human-induced noise in and near the Project site include ongoing refining operations within the Plant; train engines and railcars along the BNSF Railway line south of the Plant, including railcars with deliveries to the renewables Facility; vehicular traffic to the west along

6th Street NE, to the north along Smelter Avenue NE, to the east along 10th Street N, and on the bridge over the Missouri River; the City Sanitation Department, approximately 0.6 mile northeast of the Plant; the Electric City Speedway, approximately 0.7 mile northeast of the center of the Plant; and airplanes.

The Project would generate temporary noise during construction. Such noise would be typical of construction activities (e.g., the use of heavy machinery, activation of backup beepers) and intermittent. Construction activities would also result in additional vehicular traffic to and from the renewables Facility; however, this impact would also be temporary. MRL would manage noise from construction by limiting activities to daytime hours, as permitted by City ordinance; using mufflers on construction equipment; and complying with local noise ordinances. Noise impacts from the operation of new equipment would be associated primarily with pumps.

The addition of more railcars on existing trains to deliver feedstock to the renewables Facility, as well as transport RD and SAF from the renewables Facility, could lead to increased rail noise in the immediate area and along the BNSF Railway line. However, the logistics plan calls for pulling longer strings of railcars but not more often; therefore, additional train trips would not be required. Because this rail line has been in operation for more than 50 years, receptors in and near the Project site, as well as along the rail line, have most likely acclimated to noise from trains. Any additional noise would not be a novel source of noise in the area.

As stated in Chapter 2, the Project would result in the hiring of approximately 46 additional employees, many of whom would share a job or be shift workers. Therefore, the Proposed Action would result in nine new day workers (18 vehicle trips a day) and seven shift new shift workers (28 vehicle trips per day, because there would be two shifts per day), for a total of 46 additional vehicle trips a day related to the Project. Associated vehicle noise from employees traveling to and from the renewables Facility would occur 5 or 6 days a week.

The five tanker trucks proposed for operations at the SAF loading station each day would also increase vehicle noise along 10th Street N; however, because the new loading station would be bound on three sites by active roads, the increase in vehicle noise would be minimal.

Under Phase 2 of the Project, PTU wastewater generation would increase, which would temporarily double the number of wastewater-related truck trips to 48 per day until the new on-site PTU wastewater treatment process is operational. When PTU wastewater is being hauled, the additional truck trips would temporarily generate additional traffic, truck noise, and fugitive dust along the travel corridors and through cities and towns along the primary route between Great Falls, Montana, and Kuna, Idaho. MRL contractually requires its water haulers to “comply with all federal, state and local laws, regulations, rules and ordinances.” As such, the effects of this temporary increase in wastewater-related haul traffic would be felt primarily by landowners living in towns, cities, or unincorporated areas that do not have reduced speed requirements, Jake brake laws, or vehicle noise ordinances. However, at completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, the hauling of PTU wastewater by truck would be eliminated altogether, resulting in a net reduction in wastewater-related haul traffic on these travel routes and elimination of the MRL-related truck noise along the travel corridors.

MRL’s Site Safety Plan (discussed more in Section 3.9) includes provisions regarding hearing protection for employees and contractors. Specifically, employees and contractors are required to participate in MRL’s Hearing Conservation Program and receive audiometric testing prior to being assigned to work in an area with elevated noise levels. Hearing protection is available for all employees and required for employees who work in areas where noise levels exceed 82 A-weighted decibels (dBA). Double hearing protection is required in areas where noise levels exceed 103 dBA.

Noise resulting from construction activities would be temporary, limited to daytime hours, in compliance with local noise ordinances, and dampened by the use of mufflers on construction equipment. The industrial processes required to produce RD and SAF would not significantly affect

ambient noise levels because the Project site is within an active Plant and surrounded by multiple sources of human-induced noise. Employees would be protected from noise and hearing impacts through participation in and compliance with MRL's Hearing Conservation Program.

The logistics plan for receiving and shipping would not require additional train trips or additional trucks. Rather, trains would add extra railcars, and the trucks that currently transport non-renewable fuels would transport the renewable fuels produced under the Project. Under the Project, the number of trucks that would transport wastewater would be significantly reduced (see Section 3.10).

Because of the controls that would be implemented during construction, and because operations and maintenance under the Project would be very similar to current Plant operations and maintenance, as indicated in this analysis, impacts related to noise as a result of the Project would not be significant.

3.7 Transportation

As previously discussed in Chapter 2, access to the Project site is limited to employees and contractors who have been approved for entry into the Plant. Currently, approximately 187 employees support MRL operations. Employees do not have direct vehicle access to the Plant; they either park on 10th Street N or at the other end of the Plant near the Westgate complex. No additional parking would be required for the Project. Other employees walk or are bused to the Plant. Employee access is controlled by card readers at the gates. There are multiple gated entry points at the Plant: one along 17th Avenue NE, two along 6th Avenue NE, and three along 10th Street N (refer to Figure 3-1). No widening or improvements along local access roads are proposed or needed.

During construction, construction workers would be bused to the Plant.

As part of daily operations, there would be two categories of workers at the Plant, including the renewables Facility: shift workers and day workers. For a shift, one person would come and go every 12 hours, 365 days a year. Multiple employees would be hired for the same position to ensure coverage during each shift and for backup coverage during illness and vacation. For day workers, whether union or management, one person would be hired for each position; the worker would come to the Plant for an 8-hour day, 5 days a week. The Project would result in nine new day workers (18 vehicle trips a day) and seven shift new shift workers (28 vehicle trips per day, because there are two shifts per day) traveling to and from the Plant each day, for a total of 46 additional vehicle trips a day related to the Project.

The addition of up to five tanker trucks each day at the SAF loading station on 10th Street N would result in a minimal amount of additional truck traffic along that street as well as the other roads and highways leading to the end customers who receive SAF deliveries (e.g., Malmstrom Air Force Base [8.2 miles east of the Plant] and Great Falls International Airport [7 miles to the southwest]). This additional RD and SAF truck traffic is not anticipated to have a measurable impact on traffic flow or volumes because it would be offset by a reduction in the number trucks carrying jet fuel to the same end customers. At full capacity, the number of deliveries of feedstock by railcar would increase from about 21 to an average of 44 per day; the number of deliveries of RD and SAF by railcar from MRL to end customers would increase from approximately 20 per day to approximately 40 to 45 per day. MRL has a dedicated rail spur with a loading and offloading facility; the additional railcars would not be anticipated to cause issues with rail schedules or result in congestion because additional train trips would not be necessary; rather, the existing trains coming in and out of the Plant would pull additional railcars.

Under current MRL operations, PTU-generated wastewater is trucked (in approximately 17 to 24 trucks per day) to permitted disposal wells at out-of-state disposal facilities, primarily in Kuna, Idaho. Under Phase 2 of the Project, PTU wastewater generation would increase, which would temporarily double the

number of truck trips to as many as 48 per day until the new on-site PTU wastewater treatment process is operational. When PTU wastewater is being hauled, the additional truck trips would temporarily generate additional traffic, truck noise, and fugitive dust along the travel corridors and through cities and towns along the primary route between Great Falls, Montana, and Kuna, Idaho. MRL contractually requires its water haulers to "comply with all federal, state and local laws, regulations, rules and ordinances."[1] As such, the effects of this temporary increase in wastewater-related haul traffic would be felt primarily by landowners living in towns, cities, or unincorporated areas that do not have reduced speed requirements, Jake brake laws, or vehicle noise ordinances. However, at completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, the hauling of PTU wastewater by truck would be eliminated, resulting in a net reduction in wastewater haul traffic on the travel routes and elimination of the MRL-related traffic, noise, and dust impacts along the travel corridors.

Given MRL's proposed busing for construction workers traveling to and from the site, the minimal additions to local vehicle traffic from employees, and the long-term net reduction in traffic from wastewater hauling, along with no net increase in the number of trains or train trips, impacts related to transportation as a result of the Project would not be significant.

3.8 Socioeconomics and Environmental Justice

3.8.1 Socioeconomics

The Project site is in the city of Great Falls, Cascade County, Montana, immediately adjacent to Black Eagle, Montana, approximately 0.5 mile northeast/east of the Project area. Within the jurisdiction of Great Falls, the Project site occupies an area zoned for Heavy Industrial uses. The site is surrounded on the north and northwest by areas that have been zoned for General Commercial uses, which transition to areas that have been zoned Single-Family Medium Density. Northeast of the Project site, within the jurisdiction of Black Eagle, additional properties with Industrial zoning exist. East of the Project site are scattered mixed-use and residential properties. The City WWTP is directly south of the Project site; the Missouri River is directly south of the WWTP. The nearest hospital is approximately 2.7 miles southeast of the Project site, and the nearest school is approximately 0.5 mile to the north.

The beneficial socioeconomic impacts from implementation of the Proposed Action include the increased employment opportunities, the tax revenue generated, and the direct and indirect spending in the local economy. In June 2023, the University of Montana Bureau of Business and Economic Research (BBER) conducted a study titled *The Economic Impact of the Calumet Montana Refineries*. The BBER carried out an extensive economic assessment and examination of the Plant's past and proposed operational impacts and determined that it would ultimately support jobs, individual income and spending, and the state economy. Project expansion efforts would be expected to generate new investments in local businesses, and the demand for seed and tallow-based feedstock would enable MRL to source its purchases from producers in the region.

Although Montana does not have a sales tax, construction and operation of the Project would be anticipated to have beneficial impacts with respect to the sales revenue of local businesses (e.g., the sale of consumables and fuel). MRL and its contractors would very likely purchase materials locally. This would benefit establishments in the area that sell the necessary materials for the Project.

Payroll taxes would be collected from both local workers and temporary non-local workers (i.e., the specialized workers or contractors who could be on-site during Project construction). Payroll taxes would temporarily increase revenue for the State of Montana as well as Cascade County. During operation of the Project, MRL would continue to pay property taxes to Cascade County for the land on which the

[1] From confidential commercial terms between MRL and its water hauling vendor.

Project site is located. Local governments typically use tax revenues for infrastructure improvements, such as roads, but also for schools, health facilities, and other needs of the community. In addition, after implementation of Phase 2 (the Proposed Action), MRL estimates that the Plant would employ approximately 233 full-time employees, which would increase full-time employment by approximately 46. Full production and staffing are expected to be reached by the second half of 2027. The Plant would continue to operate 24 hours a day, 7 days a week, with hourly operations employees working two 12-hour shifts. Each 12-hour shift would have an on-site team and an on-call team for as-needed staffing support. Plant staffing would also include a maintenance team that would work 5 days a week, 8 hours a day, along with salaried personnel. A need for new housing or supporting infrastructure is not anticipated. The Great Falls area has ample housing and associated infrastructure and would be able to support the slight influx in residents due to job creation at the Plant.

MRL has a Montana-first hiring policy, which would apply to construction workers as well as Plant employees. MRL also ensures that its contractors abide by Montana-first hiring preferences. For example, in recent contracts, MRL has included a clause that requires a hiring preference for bona fide Montana residents with the needed qualifications. All Phase 1 construction contractors certified their adherence to this requirement. Phase 2 contractors would also be held to this standard.

Although the Project site is near a school (0.5 mile away from the Plant), given the security procedures currently implemented at the Plant (e.g., perimeter fencing, lighting, 24-hour surveillance), which would continue with the Project, trespassing on the Project site by children is not possible; therefore, children would not be affected disproportionately with respect to safety risks. In addition, given the jobs that would be created during construction and operation of MRL's renewables Facility and the availability of housing and public services in the Greater Great Falls area, impacts on socioeconomics would not be significant.

3.8.2 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs federal agencies to address environmental and human health conditions in minority and low-income communities. EPA's EJScreen environmental and socioeconomic indicators data were used in the baseline analysis of impacts. The evaluation of environmental justice (EJ) is dependent on determining if high and adverse impacts from the Project would disproportionately affect minority or low-income populations in the affected community.

In accordance with EPA's EJ guidelines, minority populations should be identified when either 1) the minority population of the affected area exceeds 50 percent or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. In this case, the recommended percentage set by EPA would be 10 percent above the reference baseline population.

Low-income populations are characterized by limited economic resources. EPA's EJ guidelines designate the U.S. Census Bureau's annual poverty measure as the official metric for the analysis of low-income populations, although other definitions exist. If a family's total income falls below the poverty threshold, then that family and every individual in it is defined as being in poverty. Unlike its treatment of poverty, the U.S. Census Bureau does not provide an official definition of low income. Additional socioeconomic characteristics can be used to further analyze the geographic area for the potential presence of low-income populations.

Populations of census block groups within or near the Project area were reviewed using EPA's EJScreen tool. This analysis used Montana as the reference population for consistency. As a result, each block group is compared to the same baseline information. The ethnic and racial composition of the Project area, the county, and the block groups within or near the Project area, as well as the state, are presented in Table 3-2.

Table 3-2. Population, Ethnicity, and Income

Analysis Area	Total Population	Population of Color	Low Income
State of Montana	1,132,812	15%	32%
Cascade County	84,78	16%	32%
Block Group 1, Census Tract 18 (300130018001)	1,048	13%	43%
Block Group 2, Census Tract 19 (300130019002)	2,120	6%	24%
Block Group 2, Census Tract 101 (300130101002)	672	16%	61%
Great Falls, Montana	60,500	17%	34%

Note: All population, race/ethnicity, and low-income data were gathered from EPA'S EJScreen. Accessed July 15, 2024.

Table 3-2 summarizes data regarding the population of color as well as the low-income population in Montana, Cascade County, Great Falls, and three block groups within or near the Project area. The Project site falls within Block Group 1, Census Tract 18 (300130018001), and Block Group 2, Census Tract 101 (300130101002). In addition, Block Group 2, Census Tract 19 (300130019002), was included in the analysis because of its proximity to the Project site. Table 3-2 is populated with EJScreen data for each geographic area, as derived from U.S. Census Bureau decennial census information from 2020 as well as 2018–2022 American Community Survey data. As seen in Table 3-2, only Block Group 1, Census Tract 18 (300130018001), and Block Group 2, Census Tract 101 (300130101002), have a meaningfully greater percentage of low-income populations compared with the county and state, at 43 percent and 61 percent, respectively (see highlights in Table 3-2). The population of color makes up less than 20 percent of the overall population in the state, Cascade County, the block groups, and Great Falls.

Table 3-3 provides information from EPA's National Air Toxics Assessment (NATA) AirToxScreen tool for the two block groups identified as well as the EJ communities. The NATA cancer risk indicator is a way to compare localized cancer incidences to those in the identified EJ block groups, the state, and the entire U.S. The NATA cancer risk indicator (i.e., lifetime risk per million) for the geographies presented in Table 3-3 is below the 50th percentile, meaning the Project site is not in an area that, historically, has been at a high risk with respect to cancer from air quality.

Table 3-3. EPA's National Air Toxics Assessment Statistics (based on the census block groups identified as EJ communities)

	Block Group 1, Census Tract 18 (300130018001)	Block Group 2, Census Tract 101 (300130101002)	State Average	Percentile in State	U.S. Average	Percentile in U.S.
NATA* cancer risk (i.e., lifetime risk per million)	20	20	16	1	25	1

**More information on the NATA can be found at https://www.epa.gov/national-air-toxics-assessment (EPA 2024b).*

The existing refinery has been operating in the area since 1922. Although NATA data show that the Project site is not in an area with increased cancer risks, it should be noted that the identified EJ block groups have a slightly higher risk than the state. MRL would obtain new air permits and/or modify existing air permits through the MDEQ Air Quality Bureau to account for changes in emissions from implementation of Phase 2 of the Project. To secure a permit that conforms to MDEQ's permitting programs, MRL would commit to work with MDEQ to ensure that Project equipment and emissions would be in compliance with applicable state and federal requirements and emission controls would be commensurate with industry standards. MRL has indicated that a timely air permit application to authorize Phase 2 of the Project would be submitted after final Project design. The changes in emissions would not

be expected to have a disproportionately high and adverse impact on the surrounding communities, which are not experiencing increased NATA-identified cancer risks from the Plant under current conditions. The Project's ultimate goal is greater use of RD and SAF in the market, thereby reducing overall national emissions of air pollutants and GHGs, as further discussed in Section 3.11.2. As such, disproportionately high and adverse impacts related to the air quality experienced by EJ communities would not be anticipated with implementation of the Project.

In order to identify EJ communities within and near the Project site, the same geographies identified in Table 3-2 were used to analyze additional EJScreen reports and determine various EJ community risk factors, as described in Table 3-4.

EPA uses the 80th percentile as a threshold for identifying populations of concern that may be experiencing a disproportionate burden within the community. Percentiles are a way to see how an area of analysis compares to every other area in a region, state, or the entire United States (EPA 2023). As shown in Table 3-4, the identified EJ block groups exceed the 80th percentile for at least one value associated with pollution, socioeconomic indicators, health indicators, and/or critical service gaps (as indicated by the shaded cells).

Of the values in Table 3-4, the two identified EJ block groups have meaningfully greater (80th percentile or above) toxic releases to the air compared with the state or county. Block Group 1, Census Tract 18 (300130018001), has almost six times more toxic releases than the state; Block Group 2, Census Tract 101 (300130101002), has two times more toxic air releases than the state. This may be caused by the proximity to industrial facilities. As described in Section 3.5.2, Emissions Analysis, the Project would be subject to the conditions included in its permits to construct, the potential PSD permit, and the Title V operating permit. MRL anticipates conducting pre-application meetings with MDEQ prior to the submittal of permit applications to determine expected permit conditions, air emissions and control system requirements, and applicable standards and procedures for preparation of the PSD permit application, if needed. Permit conditions are expected to conform to applicable regulatory requirements, including the NAAQS. The Project is not expected to result in an exceedance of the NAAQS or other applicable requirements and therefore would not result in a disproportionately high and adverse impact on EJ communities.

The identified EJ block groups have nearly twice as many facilities for hazardous waste storage and disposal compared with the state or county. All waste generated by the Project would be collected, categorized, and disposed of and/or recycled in accordance with a Waste Management Plan (WMP) and all applicable federal, state, and local environmental regulations, as outlined in Section 3.10, Waste Management.

Within Block Group 2, Census Tract 101 (300130101002), the percentage of the population with less than a high school education is approximately 10 percent more than the percentage for the state or the county. In addition, there are critical service gaps in the Project area related to internet access and a lack of health care.

The Project would not require additional land development. Rather, the Project would convert a portion of an existing refinery, which is located on previously disturbed land. MRL would expand its renewable fuels operation through various elements that would directly increase capacity, support capacity, provide product flexibility, and/or reduce the carbon footprint of the Plant. None of the anticipated Project elements would result in disproportionately high and adverse impacts on minority or low-income populations in the affected area; therefore, impacts on EJ communities as a result of the Project would not be significant.

Table 3-4. EPA EJScreen Indicators for the Project Area

Indicators	Montana State Average	Cascade County	Percentile	Block Group 1, Census Tract 18 (300130018001)	Percentile	Block Group 2, Census Tract 101 (300130101002)	Percentile	Great Falls	Percentile
Pollution and Sources									
Toxic releases to air	590	400	78	3,400	95	1,200	89	530	81
Hazardous waste proximity (facility count/kilometer)	0.86	1.5	77	1.5	76	2	84	1.8	82
Wastewater discharge (toxicity-weighted concentration/meter)	4,200	680	73	610	72	1,200	78	690	73
Socioeconomic Indicators									
Less than high school education	6%	7%	65	6%	63	17%	95	6%	64
Low life expectancy	19%	19%	49	15%	12	21%	74	21%	76
Health Indicators									
Heart disease	6	6.2	52	6.1	50	6.5	60	6.4	56
Cancer	7.3	7.3	45	8	66	7.2	43	7.5	50
Persons with disabilities	14.8%	15.1%	58	13%	38	10.2%	18	16.4%	67
Critical Service Gaps									
Broadband internet	14%	15%	59	31%	92	20%	74	15%	57
Lack of health insurance	9%	7%	46	4%	15	15%	89	7%	46

3.9 Health and Safety

Increased risks to human health and safety would be highest during Project construction (e.g., with employees working in and around heavy equipment and construction vehicles). The operational risks of the Project involve potential equipment failures, a release of chemicals, exposure to chemicals, an accidental release of hydrogen or contact with hydrogen, employee errors, emergency or security situations, and slips, trips, and falls that result in employee injury.

CMR and MRL maintain a robust Safety Procedures Plan as well as an EAP. These provide guidance and safety requirements for work within the Plant. The plans are applicable to all MRL personnel. Combined, the Safety Procedures Plan and EAP address all aspects of physical safety and site security through procedures that involve emergency preparedness and emergency response, fire prevention, incident management and reporting, personal protective equipment, elevated work, confined-space work, safety data sheets, emergency evacuation procedures, industrial hygiene, and other elements critical to keeping employees and the entire Plant safe.

CMR and MRL operating practices contained within the Site Safety Plan and EAP would continue for operation of the Project. Federal Occupational Safety and Health Administration (OSHA) regulations, EPA rules, Emergency Planning and Community Right to Know Act (EPCRA) emergency planning requirements, state rules under the Montana Occupational Safety and Health Act, and industry safety standards (e.g., American Petroleum Institute standards) for construction and operation would continue to be implemented to ensure the safety of workers and the public.

As previously discussed, during operation of the Project, the chemicals and materials needed for RD and SAF production would continue be delivered to the renewables Facility by rail and stored and labeled in accordance with OSHA and EPA requirements. MRL is subject to the requirements under Section 112(r) of the Clean Air Act, which includes stringent requirements for chemical accident prevention. Table 3-5 summarizes the chemicals stored on-site for use in the production of RD and SAF as well as the chemicals that are used for legacy CMR refining activities. Under the Project, the chemicals listed in Table 3-5 would continue to be stored on-site in the same or very similar quantities. As demonstrated, the Project would not result in a substantial increase in the types or volumes of chemicals stored on-site.

Table 3-5. Chemicals Used by MRL in Production of RD and SAF

MRL Chemicals Stored On-Site for Renewables Refining		
Product	**Application**	**Total Gallons On-Site**
BBIO1500-95	RDU emulsion breaker	1,950
BBIO3000-330	RDU antifoulant	2,557
CMR Chemicals Stored On-Site for Crude Refining		
BBPR27140-330	Emulsion breaker	1,760
BBPR81150-330OW	Neutralizer	2,864
BBPR81232-10	Corrosion inhibitor	236
BEXCAL7760-330OW	Amine removal	4,096
BLFS3120R-330	Antifoulant	1,534
BLFS3120R-95	Antifoulant	0
BLFS3301R-330	Antifoulant	762
BSX9272-330OW	H_2S scavenger	990
BT3034-330OW	Pour point depressant	535
BT3922-95	Jet fuel antioxidant	1,095
BT4695-330	Antioxidant	240
BT9711-10	Cu/Ag corrosion inhibitor	55
BT9711-95	Cu/Ag corrosion inhibitor	260
BTGD1345R-330	Corrosion inhibitor	782

RDU = renewable diesel unit; H_2S = hydrogen sulfide; Cu/Ag = copper/silver

As previously discussed, CMR and MRL maintain a Plant-wide SPCC Plan that outlines procedures and requirements for petroleum products, liquids, and liquid chemical management; routes of possible spills; spill prevention; spill handling; and reporting measures. Continued implementation of the SPCC Plan during Phase 2, including regular inspection and maintenance of spill containment BMPs (e.g., earthen or mechanical berms around tanks), would ensure that, in the event of a spill, any spilled substance would be safely contained.

To ensure site security, access to the Plant would be limited. Employee access would be controlled by card readers at gates, turnstiles, and doors that would create a record of every person entering and exiting the Plant. The CMR and MRL internal security department would monitor entry points and conduct regular patrols of the grounds. CMR and MRL would also employ a dedicated four-person safety team with day-shift and night-shift representatives, ensuring 24/7 access to safety personnel. These safety and security measures would continue with the addition of the Project.

In the event of an emergency, emergency response and medical services for the Project would be provided largely by Great Falls Fire Rescue, the Great Falls Police Department, the Cascade County Sheriff's Department, and the CMR Security Department. Firefighters with Great Falls Fire Rescue receive training regarding the unique potential hazards associated with the Plant. The EAP includes requirements to inform first responders of potential hazards associated with both construction and operations. This ensures that first responders, as well as the public, would be protected from exposure to potentially hazardous situations in the event of a fire or industrial accident. Site plans would continue to be regularly updated by CMR and MRL and provided to the fire department.

The CMR and MRL Site Safety Plan, EAP, and SPCC Plan would continue to be used by both CMR and MRL personnel and adapted and updated as needed to minimize human health and safety concerns. With implementation of these robust health and safety standards and processes, increases in risks to human health and safety as a result of the Project would not be significant.

3.10 Waste Management

The Project would have a direct beneficial waste management impact because RD and SAF production would use feedstocks, such as used cooking oil and beef tallow, that would otherwise be discarded.

CMR and MRL maintain a robust WMP that covers all aspects of waste management (e.g., waste types, waste minimization, training requirements, waste determinations, waste handling and storage requirements, record keeping and documentation). Per the WMP, with respect to employees who work with hazardous wastes, all personnel "must successfully complete a program of classroom instruction, online training…, or on-the-job training that teaches them to perform their duties in a way that ensures compliance with [hazardous waste handling requirements]." All wastes generated from the Project would be collected, categorized, and disposed of and/or recycled in accordance with the WMP and all applicable federal, state, and local environmental regulations.

During construction, the Project would generate construction debris. Such debris would be stored in appropriate construction waste containers, such as roll-off boxes, and disposed of at the High Plains Landfill operated by Republic Services, approximately 20 miles northeast of the Plant.

During operations, MRL would generate three principal waste streams: wastewater, sludge from the feedstock PTU, and spent catalysts. As previously discussed in Section 2.4.4 and Section 3.3, wastewater from the renewable feedstock PTU (approximately 80,000 gpd) is currently transported to permitted disposal locations, approximately 17 to 24 truckloads per day. Under the Project, MRL would increase the capacity of the feedstock PTU and generate an additional 152,000 gpd of PTU wastewater, for a total of 232,000 gpd. This would result in a temporary increase in wastewater haul traffic, approximately 34 to 48 truckloads per day, until the new on-site PTU wastewater treatment process is operational. However, at the completion of Phase 2 of the Project, when the on-site PTU wastewater

treatment process is operational, the hauling of PTU wastewater would be discontinued. All MRL wastewater (PTU wastewater and MRL process wastewater) would be treated on-site for reuse or disposal at the City WWTP.

The solid waste stream that results from the production of RD and SAF includes the sludge from the lime and other materials used to pretreat wastewater. Under Phase 2 operations, the wastewater pretreatment process would produce approximately 50 to 75 tons per day of non-hazardous sludge that would be transported to the High Plains Landfill, requiring two truckloads per day. MRL has confirmed that the landfill has the capacity to accept this volume of waste.

Various catalysts would be used in the renewable diesel unit (RDU), hydrogen plant, and cogeneration process. During the refining process, catalytic refiners, also known as *refining catalysts* or *catalysts*, get contaminated with impurities and become deactivated over a period of time. Once catalysts become inactive, they are withdrawn from the process and replaced with new catalysts. ”Spent” catalysts that contain metals are sent for metal reclamation before being disposed of at landfill permitted for nonhazardous waste. Spent catalysts that do not contain metals are sent directly to permitted landfills. Project operations would result in the production of approximately 12,400 to 15,000 cubic feet of spent catalyst per year.

MRL’s planned solid waste management practices for the Project would be aligned with those of existing operations. Such practices would include compliance with the WMP and beneficial use of feedstocks that would otherwise be disposed of. As previously discussed, construction of the wastewater pretreatment process would allow pretreated wastewater to be piped, thereby eliminating the transport of wastewater. Given these Project features, impacts from waste management as a result of the Project would not be significant.

3.11 Cumulative Impacts

Cumulative impacts are potential effects on the environment from the incremental impact of the Project when added to other past, present, and reasonably foreseeable future actions undertaken by other agencies (federal or nonfederal) or persons (40 CFR Part 1508.1[g]). Projects were identified through a review of active project lists and planning documents from the Cascade County Planning Department, City Planning Department, City WWTP website, and the Montana Department of Transportation Projects Department; phone calls with the Cascade County planning staff; a review of regional newspapers; and a review of additional information provided by the Applicant. The Project review was conducted within a radius of approximately 1 mile around the Plant.

Identified past, present, and reasonably foreseeable projects within the region include the following:

- Current and past crude oil refining at the refinery and current RD and SAF production at the renewables Facility.
- Replacement of an existing gas transmission line by Northwestern Energy adjacent to the Plant.
- The City Sanitary Sewer Force Main Project, which involves installing a new force main from the City WWTP (located just south of the Plant) to a lift station. The main would extend under the Missouri River, then continue to the lift station on the south side of the river, across from the Plant. This project is currently involved in a lengthy permitting process, and construction is not anticipated to begin for 2 to 3 years.
- The City Missouri Riverbank Stabilization Phase 2 Project, which would occur along approximately 500 feet of the Missouri River, just west the Plant. Construction of this project was scheduled to commence in summer 2024 and take no more than 3 months to complete.
- New commercial development, including a hotel, approximately 1 mile west of the Plant on the same side of the Missouri River and just north of 421 3rd Street NW.

LPO reviewed the identified projects in the region to determine the resources that may be subject to a cumulative impact. The review focused on the resources affected by the Project as well as identified resources that may be affected by both the Project and other projects in the region. Following the review, the following resources were evaluated for cumulative impacts:

- Water resources
- Air quality
- Greenhouse gases and climate change
- Noise
- Transportation

The Project, when considered together with the identified projects in the region, would not have the potential to result in significant cumulative impacts on other resources due to the geographic location and separation of the projects, the disturbed and industrial nature of the Project site and surrounding region, and/or the lack of construction or operational overlap that could result in an incremental impact on a particular resource.

3.11.1 Water Resources

Given MRL's plans to continue to purchase municipal water directly from the City, increase wastewater pretreatment through the PTU wastewater treatment process, and treat, recycle/reuse, and/or or dispose of wastewater at the City WWTP, along with the absence any on-site surface water features and the stormwater and SPCC controls that would continue to be used during construction and operation, impacts on surface water or groundwater, or floodplains, from the Project would not be significant. Past, current, and reasonably foreseeable activities associated with traditional oil refining at the CMR refinery would continue to occur in accordance with relevant permits (e.g., National Pollutant Discharge Elimination System permits) and plans (e.g., SPCC Plans and Stormwater Pollution Prevention Plans). Other proposed development projects in the region would need to obtain construction stormwater permits and use BMPs to protect resources from stormwater impacts. With continued and proper application of federal, state, and local permit conditions, cumulative impacts on water resources as a result of the Project and reasonably foreseeable actions would not be significant.

3.11.2 Air Quality

The Project is expected to generate temporary emissions of criteria pollutants and HAPs, including formaldehyde, benzene, toluene, and xylenes, primarily as the result of diesel fuel combustion during construction and ongoing emissions during operations (e.g., facility process emissions, employee commute emissions). The temporary increase in emissions due to construction is not expected to be significant. Traditional oil refining at the Plant would continue to produce emissions of criteria pollutants and HAPs but in accordance with applicable air permits. Other development projects in the region would result in temporary emissions during construction, mostly dust and tailpipe emissions from construction vehicles and equipment. In addition, although it is MRL's intent to treat all PTU wastewater on-site and eliminate PTU wastewater disposal by truck, there would be a temporary increase in the number of wastewater trucks used to haul water from the PTU to permitted disposal locations until the wastewater treatment system is complete. These additional truck trips would result in mobile emissions and fugitive dust, which, when combined with other past, present, and reasonably foreseeable industrial truck traffic, would contribute to cumulative impacts. As demonstrated in Table 3-1c, there would be a temporary increase in mobile emissions during Phase 2 of the Project while the PTU wastewater treatment system is being constructed. However, once operational, the truck traffic from PTU wastewater hauling and the emissions associated with that truck traffic would be eliminated. As such, the cumulative effects on air quality from wastewater disposal trucks would minor in the short term and would decrease with long-term operation of the Project.

As previously discussed, although the Project would require additional railcars to transport feedstock to the Plant, as well as transport RD and SAF from the Plant, the additional railcars would be added to current trains. There would be no additional train emissions and no additional train trips. The trains would pull more railcars per trip. As such, the Project would have no net impact on cumulative rail-related emissions.

Overall, given that the region is currently in attainment with respect to all NAAQS and no exceedances of the standards have been reported for measured pollutants (e.g., $PM_{2.5}$) at ambient air quality monitors, the Project, when combined with past, current (including existing operations at CMR), and reasonably foreseeable actions, would not result in significant cumulative impacts on air quality. According to preliminary engineering calculations, the Project is expected to exceed NO_X and CO major-source thresholds under the NSR permitting program and therefore require an MDEQ-issued PSD permit prior to commencing construction and a revised Title V permit application for Phase 1 and Phase 2 within 6 months of Phase 2 start-up.

3.11.3 Greenhouse Gas Emissions and Climate Change

The current science and study of the Earth's climate now shows with 95 percent certainty that human activity is the dominant cause of observed global warming since the mid-20th century (Intergovernmental Panel on Climate Change 2013). Since the beginning of the industrial era, circa 1750, human activities have increased the concentration of GHGs, primarily carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6), in the atmosphere. The increased concentrations of GHGs in the atmosphere results in global warming caused by the incoming solar radiation that passes through the atmosphere to the Earth's surface. The rising global temperatures have been accompanied by changes in weather and climate, resulting in more floods, droughts, intense rain, rising sea levels, Arctic Sea ice decline, and more frequent and severe heat waves. It is now well established that rising atmospheric GHG concentrations are significantly affecting the Earth's climate (Council on Environmental Quality 2016).

Most of the state of Montana has warmed by roughly 2 degrees Fahrenheit in the last century. Heat waves have become more common, winter snowpack depth is declining, and snow melt is taking place earlier (EPA 2016). Rising temperatures and changes in rainfall could have impacts on forest growth and health, wildfire occurrence, and agriculture.

Impacts Associated with GHG Emissions and Climate Change

According to the 1990–2021 U.S. national GHG inventory, the transportation sector accounted for the largest contribution to anthropogenic GHG emissions in this country (29 percent); of that 29 percent, aircraft contributed 8 percent (EPA 2023). DOE's Bioenergy Technologies Office has determined that SAF has a smaller carbon footprint than conventional petroleum-refined jet fuel and that, depending on the renewable feedstocks used, the life cycle of the GHG emissions may be considerably reduced. Even a net-negative GHG footprint may be achieved (U.S. Department of Energy n.d.a). Because of the wide range of sustainable feedstocks and reduction in GHG emissions, increased use of SAF would have a net benefit with respect to combating global climate change. As stated in Chapter 1, DOE's financial support of MRL's Project would help bring renewable diesel and SAF to market and into greater use, thereby reducing overall national emissions of air pollutants and human-caused GHGs.

Project-related CO_2e Emission Impacts

In general, rising GHG concentrations result in increases in atmospheric temperature, changes in precipitation, increases in the frequency and intensity of some extreme weather events, and rising sea levels. These climate-change impacts endanger human health by affecting food and water sources, air,

weather, and human interactions with the built and natural environments. As the climate continues to change, the risks to human health continue to grow. Across the U.S., people and communities differ in their exposure, inherent sensitivity, and adaptive capacity to respond to and cope with climate change–related health threats. Vulnerability to climate change varies across time and location, across communities, and among individuals within communities.

The Project is expected to generate GHG emissions during construction; however, the emissions would be temporary and minor. Once fully operational, stationary sources associated with the Project are expected to emit 641,647 tpy of carbon dioxide equivalent (CO_2e) annually (calculated using GHG global warming potentials from the Intergovernmental Panel on Climate Change Fourth Assessment Report). The demand for aviation fuel is increasing, and although the Project would contribute to anthropogenic atmospheric levels of GHG, the expected GHG emissions associated with producing the same quantity of aviation fuel by conventional refining methods would be far greater (U.S. Department of Energy n.d.b).[2] In a GHG comparison for the Project, Ramboll determined that renewable diesel and SAF may result in 64 percent and 53 percent lower CO_2e emissions, respectively, than equivalent amounts of conventional fossil diesel and jet fuel on a kilogram-per-million-British-thermal-units basis (Ramboll 2024c). The evaluation used published life-cycle pathway resourcing, transportation, and combustion data for conventional and renewable feedstocks in the emissions calculations and showed that the Project's incremental production of renewable diesel and SAF would result in a reduction in GHG emissions amounting to approximately 1,022 million kilograms of CO_2e per year (diesel) and 196 million kilograms of CO_2e per year (SAF). In general, the potential benefits associated with reducing CO_2 emissions would support a reduction in GHG concentrations and reduce the associated climate-change impacts (e.g., increases in atmospheric temperature, changes in precipitation, increases in the frequency and intensity of extreme weather events, rising sea levels). Because the Project would support net GHG emissions reductions through the development of RD and SAF, impacts on atmospheric GHG levels and climate change would be beneficial in the long term.

3.11.4 Noise

Construction of the Project would temporarily result in additional noise at the Plant; such noise would be limited to daytime hours, in accordance with local ordinances. Following construction, the Project would not affect ambient noise levels significantly because the Project site is within an active refinery and surrounded by multiple sources of human-induced noise. In addition, portions of refining processes would be conducted within enclosed buildings.

Employee vehicle trips and associated contributions to cumulative noise sources in the local area would be minimal because local traffic to and from MRL is expected to increase by only 46 vehicle trips per day.

The additional railcars pulled by trains would have a minor cumulative noise impact because longer trains would take a longer time to travel through municipalities along the travel route. This impact would be felt primarily by residences and/or businesses near rail crossings along the delivery routes to and from MRL.

As previously discussed, the number of trips made by haul trucks with PTU wastewater would temporarily increase to 24 to 48 per day on the route between Great Falls, Montana, and Kuna, Idaho, resulting in temporary increases in truck noise along the travel routes. In the context of cumulative impacts, this temporary increase in noise from 24 to 48 trucks, as well as area interstate highways and state highways, would be nominal, especially when considering that all PTU wastewater traffic would be eliminated in the long term.

[2] SAF has the potential to reduce GHG emissions by up to 94 percent compared to conventional jet fuel.

Employees working inside buildings would be protected from noise and hearing impacts through participation in MRL's Hearing Conservation Program; therefore, there would be no increase in cumulative impacts related to hearing.

The commercial development near 421 3rd Street N would be completed before construction of the Project. However, other developments in the region would result in temporary construction noise from vehicles and equipment. Such development would not be expected to permanently increase ambient noise levels. Temporary construction activities associated with the Project, as well as other planned development, would temporarily increase ambient noise within the Heavy Industrial area; however, because the Project and other reasonably foreseeable actions would not be anticipated to increase ambient noise levels significantly on a permanent basis, cumulative impacts related to noise as a result of the Project and reasonably foreseeable actions would not be significant.

3.11.5 Transportation

Construction and full operation of the Project would add approximately 46 employee-related roundtrips per day on local streets and approximately 35 railcars per day at the Plant. With the addition of railcars to existing train trips, wait times could be longer for vehicles and/or people at rail crossings along the delivery routes to and from MRL.

There would be a short-term increase in the number of PTU wastewater haul trucks (up to 48 per day) while the PTU wastewater treatment process is being constructed. However, once the PTU wastewater treatment process is operational, PTU wastewater hauling would be eliminated. There would be a net decrease in truck traffic to off-site disposal locations. In the context of cumulative impacts, this temporary increase of 24 to 48 trucks on interstate highways and state highways would be nominal, especially when considering that all PTU wastewater traffic would be eliminated in the long term.

With no identified significant expansion involving other projects or existing infrastructure in the reasonably foreseeable future, the volume of vehicle traffic would remain relatively static. However, there could be additional temporary traffic from other development in areas near the Plant, which could cause temporary congestion on surface streets. Given the slight permanent increase in employee vehicle traffic, the long-term net decrease in wastewater hauling, and the static and temporary nature of other transportation impacts associated with the identified reasonably foreseeable actions, cumulative impacts on transportation as a result of the Project and reasonably foreseeable actions would not be significant.

4. MITIGATED FINDING

Based on this EA, DOE has determined that providing a federal loan guarantee to Montana Renewables, LLC, to convert a portion of the existing CMR refinery in the city of Great Falls, Montana, into a renewable fuels and biomass energy facility to produce RD and SAF will not have a significant effect on the human environment, provided that Montana Renewables, LLC, adheres to the MDEQ permitting and consultation process provided in Section 2.2 and Section 3.5.2 and obtains final air operating permits in a timely manner. Incorporation of emission control technologies into the final design and operation in consultation and coordination with MDEQ will mitigate potential air quality impacts. The permit status reports, final design, and emission levels provided by MRL to LPO, in accordance with the Mitigation Action Plan (see Appendix C), will enable LPO to monitor progress and ensure impacts on air quality will not be significant. Preparation of an environmental impact statement is therefore not required, and DOE is issuing this Mitigated FONSI.

This Mitigated FONSI should not be construed as a final decision about the issuance of a loan guarantee.

TODD STRIBLEY

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Date: 2024.12.16 09:25:05 -07'00'

12/16/2024

Todd Stribley — Date

NEPA Compliance Officer

DOE Loan Programs Office

5. LIST OF PREPARERS

Name	Project Role	Company	Qualifications	Years of Experience
Anna Eskridge	Loans Program Office	DOE	Ph.D., Policy Studies M.A., Geography B.S., Environmental and Natural Resources	16
Don Brown	Loans Programs Office	DOE	B.S., Geography (Urban Studies) M.S., Urban and Regional Planning	27
Elyse Mize	Loans Programs Office	DOE	B.S., Natural Resource Management	14
Karen Simpson	Project Manager	Kleinfelder	B.S., Biology	24
Dawn Martin	NEPA Planner	Kleinfelder	B.S., Natural Resources M.S., Wildlife Biology	26
Amal Hijazi	Air Quality Subject Matter Expert	Kleinfelder	B.S., Environmental, Population, and Organismic Biology M.S., Environmental Science	30
Annie Daniel	NEPA Planner	Kleinfelder	B.A., English Writing M.S., Applied Science, Environmental Policy and Management	15
Francesca Fernandez	NEPA Planner	Kleinfelder	B.S., Environmental Science	4
Alex Leonard	GIS	Kleinfelder	B.S., Geography and GIS	12
Charles Prokop	NEPA Planner	Kleinfelder	B.S., Geography Resource and Environmental Studies	4

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APPENDIX A AGENCY AND TRIBAL CONSULTATION

Appendix A - Agency and Tribal Correspondence

Organization	Contact Date	Summary of Contact
Montana Legislative Environmental Policy Office, Environmental Quality Council	January 17, 2024	Intent to Prepare an Environmental Assessment
	September 11, 2024	EA with the draft Mitigated FONSI
Apache Tribe of Oklahoma*	January 18, 2024	Notification of Federal Project per NHPA Section 106
	September 11, 2024	EA with the draft Mitigated FONSI
Apache Tribe of Oklahoma*	January 18, 2024	Notification of Federal Project per NHPA Section 106
	September 11, 2024	EA with the draft Mitigated FONSI
Crow Tribe of Montana*	January 18, 2024	Notification of Federal Project per NHPA Section 106
	September 11, 2024	EA with the draft Mitigated FONSI
Fort Belknap Indian Community*	January 18, 2024	Notification of Federal Project per NHPA Section 106
	September 11, 2024	EA with the draft Mitigated FONSI
Little Shell Tribe of Chippewa Indians of Montana*	January 18, 2024	Notification of Federal Project per NHPA Section 106
	September 11, 2024	EA with the draft Mitigated FONSI
Montana State Historic Preservation Office	June 12, 2024	Section 106 Consultation Initiation Letter
	July 10, 2024	SHPO Concurrence with Determination of Eligibilities and Determination of No Adverse Effect to Historic Properties.
*An individual letter was submitted to each Tribe. To reduce the file size and the overall number of pages, the letter to the Crow Tribe of Montana is included as an example, and all responses are included.		

Department of Energy
Washington, DC 20585

January 17, 2024

Trevor Graff
Legislative Research Analyst
Legislative Environmental Policy Office, Environmental Quality Council
P.O. Box 201704
Helena, Montana 59620-1704

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Montana Renewables, LLC (MRL) for a Renewable Fuels and Biomass Energy Facility in Great Falls, Montana

Dear Mr. Graff,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a Federal loan guarantee program for certain projects that employ innovative technologies and authorizes the Secretary of Energy to make loan guarantees available for those projects. Montana Renewables, LLC (MRL) has applied for a loan guarantee pursuant to the U.S. Department of Energy's (DOE's) Clean Energy Financing Program, authorized by the EPAct. DOE is evaluating whether to provide a Federal loan guarantee to MRL to support the proposed conversion of a portion of an existing refinery into a renewable fuels and biomass energy facility in the City of Great Falls, Cascade County, Montana (the Project).

The DOE Loan Programs Office (LPO) is preparing an Environmental Assessment (EA) for the Project. The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] parts 1500-1508), and DOE's implementing regulations for compliance with NEPA (10 CFR part 1021). The purpose and need for agency action is to comply with DOE's mandate under Title XVII of the EPAct to select projects that meet the goals of the EPAct. The primary goal of the Clean Energy Financing Program is to finance projects and facilities in the United States that employ innovative and renewable or efficient energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases. The DOE LPO has determined that the Project, as proposed by MRL, is eligible pursuant to Section 1706 of the EPAct and that it complies with DOE's mandate as defined in the EPAct.

The Project would be co-located with an existing conventional petroleum refinery at 1900 10th Street NE in Great Falls, Montana (see Figure 1). Under the Project, MRL would use Federal financial assistance to purchase renewable diesel and sustainable aviation fuel (SAF) refinery equipment, construct new infrastructure, and retrofit existing equipment within the boundaries of the existing refinery on previously disturbed land (see Figure 2). The proposed renewable fuels and biomass energy facility would process 100 percent

renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into renewable diesel and SAF, hydrogen, natural gas, and renewable naphtha.

New infrastructure would include an approximately 300,000 gallon/day capacity feedstock pre-treatment unit (PTU) wastewater treatment facility to maximize water recycling; a 20-megawatt (MW) gas turbine/heat recovery steam generator (HSRG) co-generation (cogen) plant to produce electricity and steam from renewable fuels; an approximately 10,000 barrel per day (BPD) SAF blending facility within the existing tank farm; and a SAF truck loading facility within the existing truck loading rack.

Major equipment modifications would include retrofitting the existing steam methane reforming (SMR) hydrogen plant to accept renewable offgas and/or naphtha as feedstock for producing renewable hydrogen; installing a pre-reformer reactor with heat exchangers adjacent to the existing natural gas SMR hydrogen plant; installing advanced compression controls on the multi-stage makeup hydrogen reciprocating compressors to minimize energy wasting spillback streams between stages; installing new equipment (including a second reactor) on the existing Renewable Fuels Unit to increase overall capacity to approximately 24,000 BPD; and retrofitting the feedstock PTU to increase capacity to approximately 20,000 BPD.

The DOE NEPA implementing regulations provide for the notification of host states of NEPA determinations and for the opportunity for host states to review EAs prior to DOE approval. This process is intended to improve coordination and facilitate early and open communication.

If you or your staff would like to receive further information concerning this project or DOE's NEPA process, please contact me at 202-578-4573, or via email at LPO_Environmental@hq.doe.gov.

Sincerely,

ELYSE MIZE Digitally signed by ELYSE MIZE Date: 2024.01.17 11:00:57 -05'00'

Elyse Mize
NEPA Document Manager
Loan Programs Office

Attachments:
Figure 1: Renewable Fuels and Biomass Facility Project Location
Figure 2: Renewable Fuels and Biomass Facility Conceptual Layout

Figure 1. Renewable Fuels and Biomass Facility Project Location

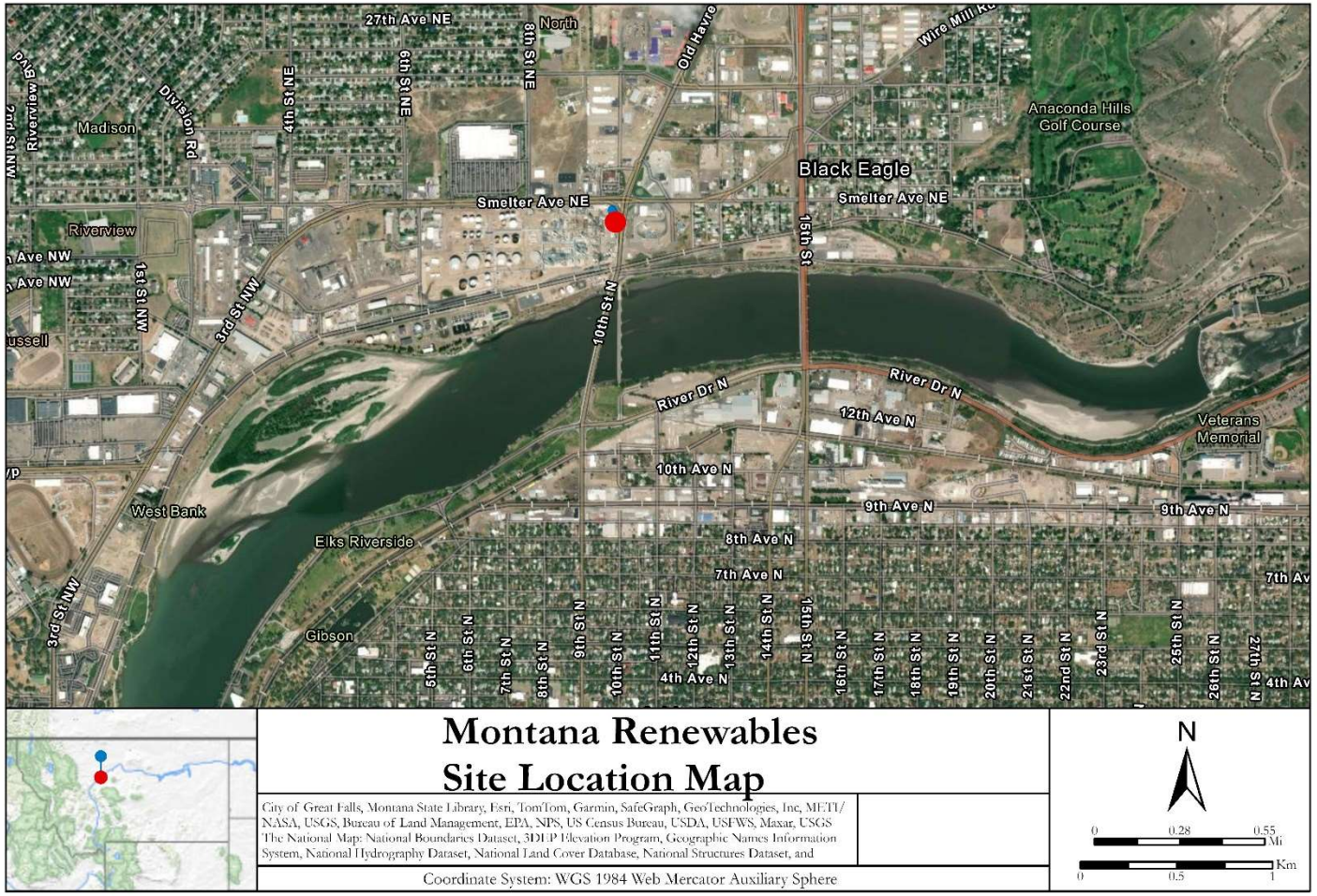
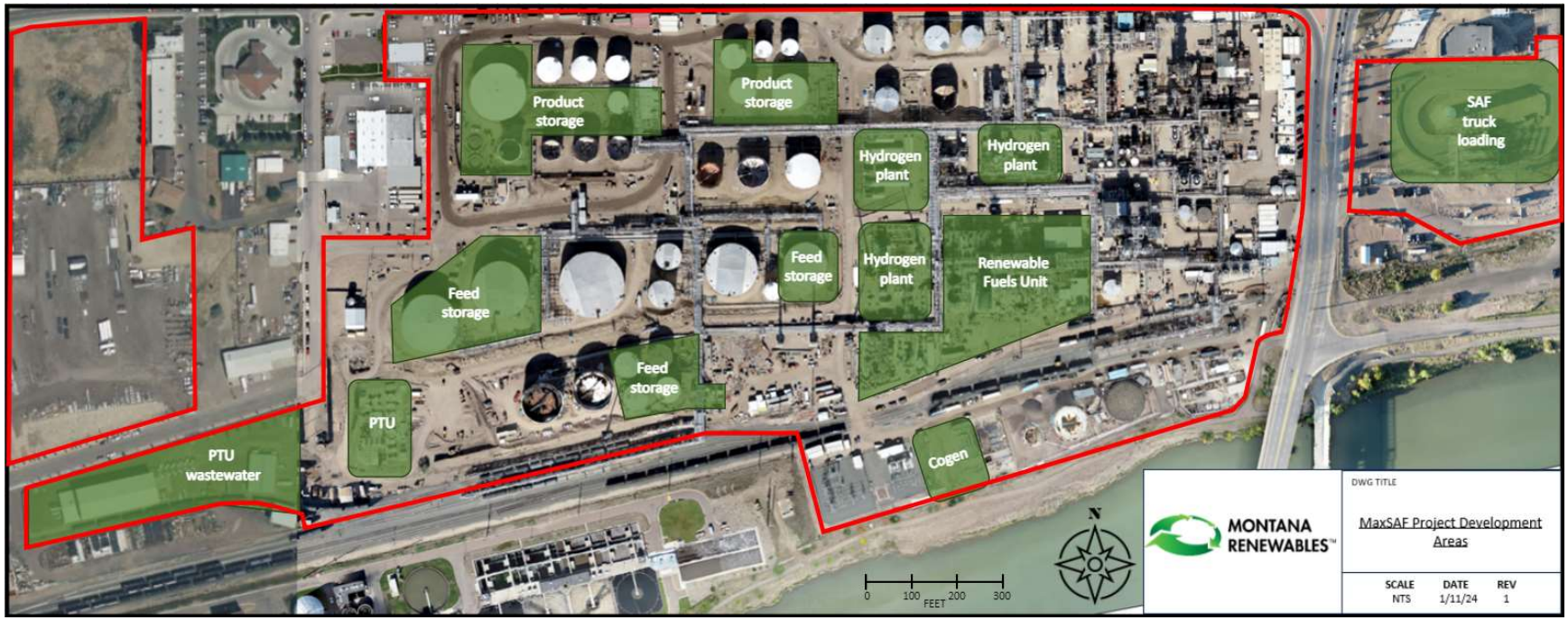


Figure 2. Renewable Fuels and Biomass Facility Conceptual Layout



Department of Energy
Washington, DC 20585

September 11, 2024

Mr. Trevor Graff
Legislative Research Analyst
Legislative Environmental Policy Office, Environmental Quality Council
P.O. Box 201704
Helena, Montana 59620-1704

SUBJECT: U.S. Department of Energy (DOE), Proposed Federal Loan Guarantee to Montana Renewables, LLC (MRL) for a Renewable Fuels and Biomass Energy Facility in Great Falls, Montana

Dear Mr. Graff,

The U.S. Department of Energy (DOE), Loan Programs Office (LPO) prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to consider the environmental impacts of its decision whether or not to provide a Federal loan guarantee to Montana Renewables, LLC (MRL) to support the proposed conversion of a portion of an existing refinery into a renewable fuels and biomass energy facility in the City of Great Falls, Cascade County, Montana (the Project). The decision to prepare an EA was made in accordance with the requirements of NEPA, the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

LPO provides loans and loan guarantees under four programs – the Innovative Energy Loan Guarantee Program, the Advanced Technology Vehicles Manufacturing Program, the Tribal Energy Financing Program, and the Carbon Dioxide Transportation Infrastructure Program. The loan guarantee under consideration to MRL is under Title 17, Section 1706 of the EPAct, which provides loan guarantees for projects that either: (1) retool, repurpose, or replace energy infrastructure that has ceased operations; provided that if the project involves electricity generation through the use of fossil fuels, it is required to have controls or technologies to avoid, reduce, utilize, or sequester air pollutants and anthropogenic emissions of greenhouse gases; or (2) projects that enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.

The Project would be co-located with an existing conventional petroleum refinery at 1900 10th Street NE in Great Falls, Montana. Under the Project, MRL would use Federal financial assistance to purchase renewable diesel and sustainable aviation fuel (SAF)

refinery equipment, construct new infrastructure, and retrofit existing equipment within the boundaries of the existing refinery on previously disturbed land. The proposed renewable fuels and biomass energy facility would process 100 percent renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into renewable diesel and SAF, hydrogen, natural gas, and renewable naphtha.

As an interested party and in accordance with DOE NEPA regulations, the EA with the draft Finding of No Significant Impact (FONSI) is included in the following link: https://www.energy.gov/lpo/environmental-assessments. If you have trouble accessing the link or need a copy, please contact LPO at LPO_Environmental@hq.doe.gov.

Please review and provide any comment you may have **by Monday, October 14, 2024 (comments must be received by this date):**

Email:
Please include "Montana Renewables EA" in the subject line
LPO_Environmental@hq.doe.gov

Mail:
Montana Renewables Environmental Assessment
Department of Energy – Loan Programs Office
1000 Independence Avenue, SW
Washington, DC 20585

Sincerely,

DONALD BROWN

Digitally signed by DONALD BROWN
Date: 2024.09.18 09:46:44 -04'00'

Donald Brown
NEPA Document Manager
Loan Programs Office

Department of Energy
Washington, DC 20585

January 18, 2024

Chairman Frank Whiteclay
Crow Tribe of Montana
Batacheeche Avenue
Crow Agency, Montana 59022

SUBJECT: U.S. Department of Energy, Montana Renewables, LLC. Renewable Fuels and Biomass Energy Facility in Great Falls, Montana

Dear Chairman Whiteclay,

The U.S. Department of Energy (DOE) is preparing an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to assist in determining whether to issue a Federal loan guarantee to Montana Renewables, LLC (MRL) to support the proposed conversion of a portion of an existing refinery into a renewable fuels and biomass energy facility in the City of Great Falls, Montana (the Project). DOE has determined that issuance of this loan guarantee constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA). Therefore, as a part of this environmental review process, DOE is also conducting a historic resource review in compliance with Section 106 of the NHPA.

The Project would be co-located with an existing conventional petroleum refinery at 1900 10th Street NE in Great Falls, Montana (see Figure 1). Under the Project, MRL would use Federal financial assistance to purchase renewable diesel and sustainable aviation fuel (SAF) refinery equipment, construct new infrastructure, and retrofit existing equipment within the boundaries of the existing refinery on previously disturbed land (see Figure 2). The proposed renewable fuels and biomass energy facility would process 100 percent renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into renewable diesel and SAF, hydrogen, natural gas, and renewable naphtha. Based on preliminary estimates, the Project would generate approximately 50 jobs.

New infrastructure would include an approximately 300,000 gallon/day capacity feedstock pre-treatment unit (PTU) wastewater treatment facility to maximize water recycling; a 20-megawatt (MW) gas turbine/heat recovery steam generator (HRSG) co-generation (cogen) plant to produce electricity and steam from renewable fuels; an approximately 10,000 barrel per day (BPD) SAF blending facility within the existing tank farm; and a SAF truck loading facility within the existing truck loading rack.

Major equipment modifications would include retrofitting the existing steam methane reforming (SMR) hydrogen plant to accept renewable offgas and/or naphtha as feedstock

for producing renewable hydrogen; installing a pre-reformer reactor with heat exchangers adjacent to the existing natural gas SMR hydrogen plant; installing advanced compression controls on the multi-stage makeup hydrogen reciprocating compressors to minimize energy wasting spillback streams between stages; installing new equipment (including a second reactor) on the existing Renewable Fuels Unit to increase overall capacity to approximately 24,000 BPD; and retrofitting the feedstock PTU to increase capacity to approximately 20,000 BPD.

This letter is intended to notify you of the proposed Federal project (a potential loan guarantee to MRL), identify if you have an interest in the Project site, and provide you with the opportunity to comment and engage DOE in government-to-government consultation on the Project. Any comments or concerns you provide will help ensure that DOE considers Tribal interests and complies with its NEPA and NHPA Section 106 responsibilities. We want to give you the opportunity to raise any issues or concerns you may have regarding the site.

I would greatly appreciate notification if you do or do not have an interest in the project site, as well as any comments or concerns you may have, within thirty (30) days of receipt of this letter (February 19, 2024). Should you have an interest in the project site, I will provide you with additional information pursuant to NEPA and the NHPA as it becomes available. Please provide your notification of interest and any comments or concerns by email at lpo_environmental@hq.doe.gov, or contact me at 202-578-4573.

Respectfully,

ELYSE MIZE Digitally signed by ELYSE MIZE
Date: 2024.01.18 15:16:27 -05'00'

Elyse Mize
NEPA Document Manager
Loan Programs Office

Attachments:

Figure 1: Renewable Fuels and Biomass Facility Project Location
Figure 2: Renewable Fuels and Biomass Facility Conceptual Layout

cc: Aaron Brien, Tribal Historic Preservation Officer

Figure 1. Renewable Fuels and Biomass Facility Project Location

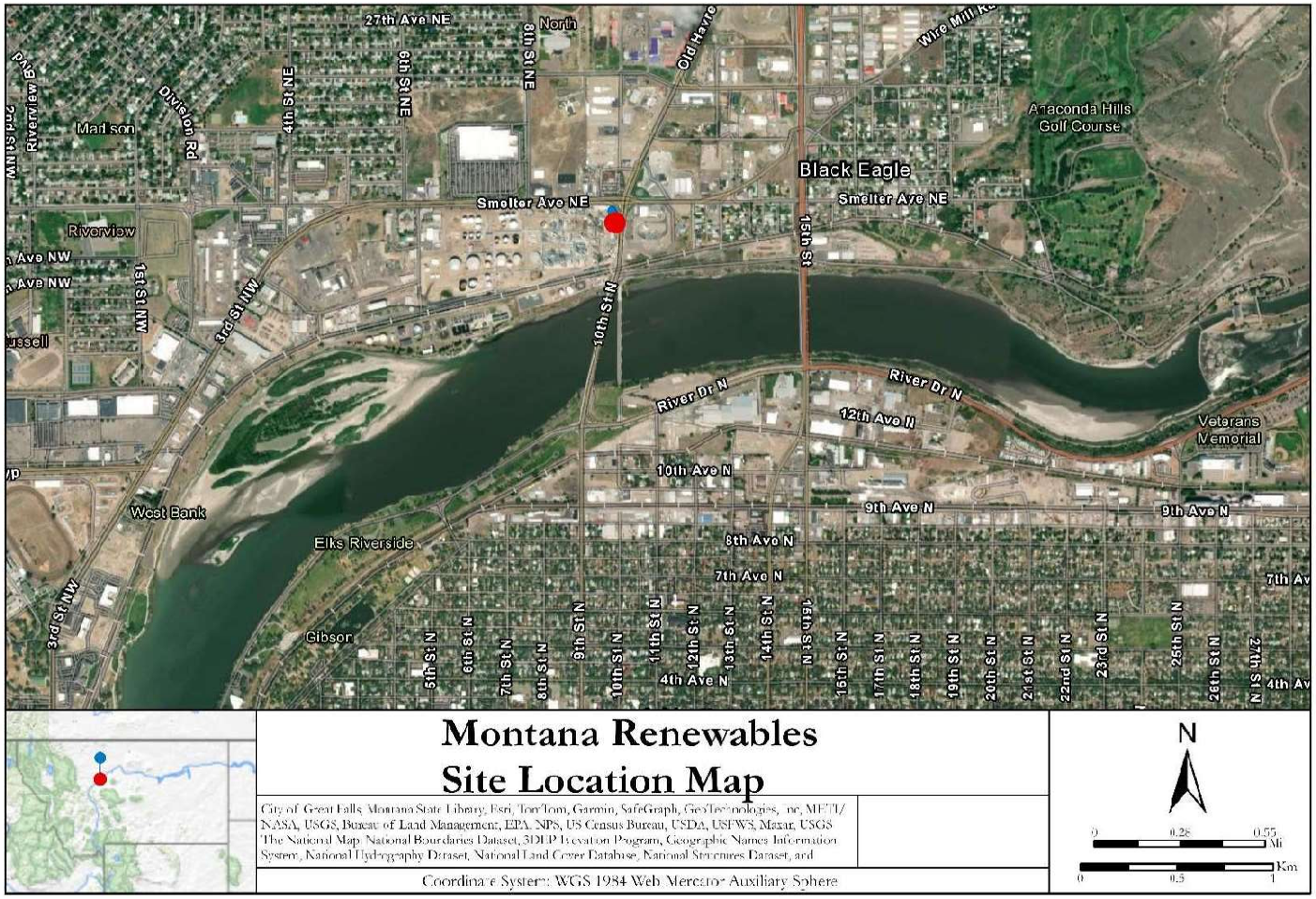
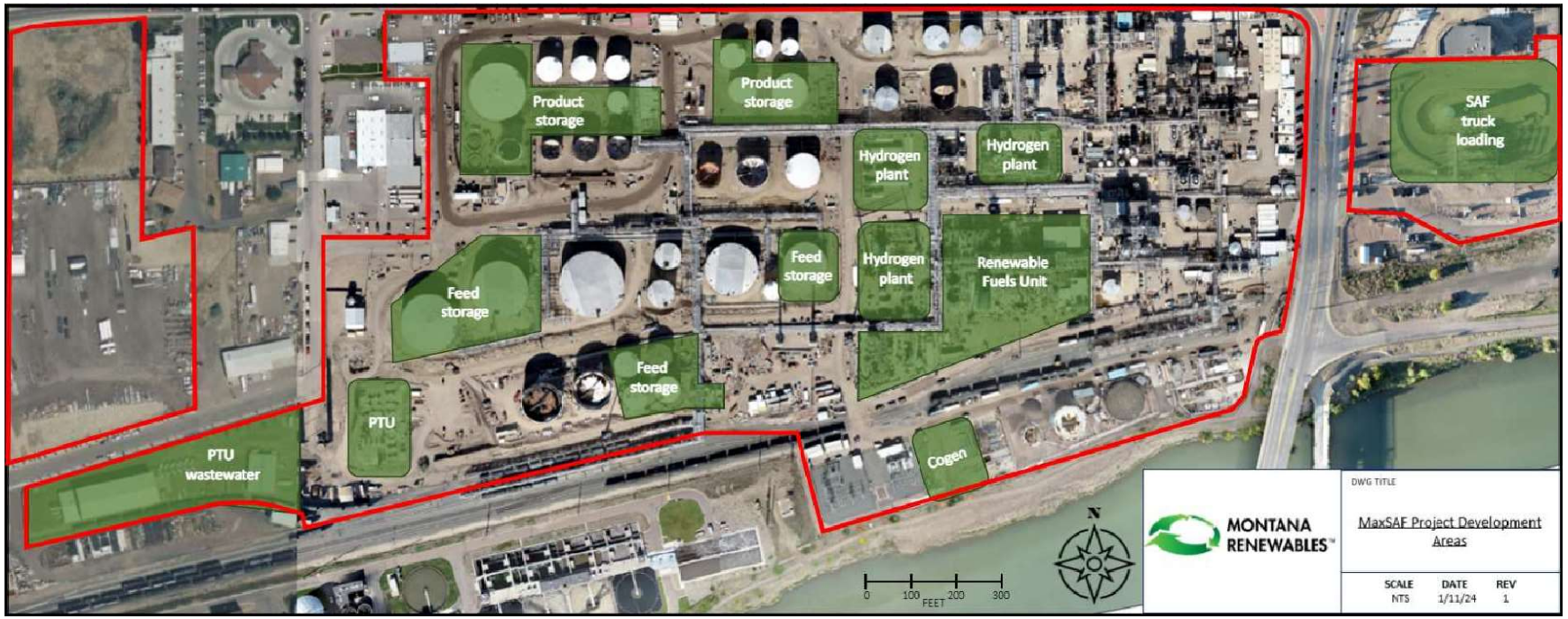


Figure 2. Renewable Fuels and Biomass Facility Conceptual Layout



Department of Energy
Washington, DC 20585

September 11, 2024

Chairman Frank Whiteclay
Crow Tribe of Montana
Batacheeche Avenue
Crow Agency, Montana 59022

SUBJECT: U.S. Department of Energy (DOE), Proposed Federal Loan Guarantee to Montana Renewables, LLC (MRL) for a Renewable Fuels and Biomass Energy Facility in Great Falls, Montana

Dear Chairman Whiteclay,

The U.S. Department of Energy (DOE), Loan Programs Office (LPO) prepared an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to consider the environmental impacts of its decision whether or not to provide a Federal loan guarantee to Montana Renewables, LLC (MRL) to support the proposed conversion of a portion of an existing refinery into a renewable fuels and biomass energy facility in the City of Great Falls, Cascade County, Montana (the Project). The decision to prepare an EA was made in accordance with the requirements of NEPA, the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

LPO provides loans and loan guarantees under four programs – the Innovative Energy Loan Guarantee Program, the Advanced Technology Vehicles Manufacturing Program, the Tribal Energy Financing Program, and the Carbon Dioxide Transportation Infrastructure Program. The loan guarantee under consideration to MRL is under Title 17, Section 1706 of the EPAct, which provides loan guarantees for projects that either: (1) retool, repurpose, or replace energy infrastructure that has ceased operations; provided that if the project involves electricity generation through the use of fossil fuels, it is required to have controls or technologies to avoid, reduce, utilize, or sequester air pollutants and anthropogenic emissions of greenhouse gases; or (2) projects that enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.

The Project would be co-located with an existing conventional petroleum refinery at 1900 10th Street NE in Great Falls, Montana. Under the Project, MRL would use Federal financial assistance to purchase renewable diesel and sustainable aviation fuel (SAF) refinery equipment, construct new infrastructure, and retrofit existing equipment within

the boundaries of the existing refinery on previously disturbed land. The proposed renewable fuels and biomass energy facility would process 100 percent renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into renewable diesel and SAF, hydrogen, natural gas, and renewable naphtha.

As an interested party and in accordance with DOE NEPA regulations, the EA with the draft Finding of No Significant Impact (FONSI) is included in the following link: https://www.energy.gov/lpo/environmental-assessments. If you have trouble accessing the link or need a copy, please contact LPO at LPO_Environmental@hq.doe.gov.

Please review and provide any comment you may have **by Monday, October 14, 2024 (comments must be received by this date):**

Email:
Please include "Montana Renewables EA" in the subject line
LPO_Environmental@hq.doe.gov

Mail:
Montana Renewables Environmental Assessment
Department of Energy – Loan Programs Office
1000 Independence Avenue, SW
Washington, DC 20585

Sincerely,

DONALD BROWN Digitally signed by DONALD BROWN
Date: 2024.09.18 11:55:58 -04'00'

Donald Brown
NEPA Document Manager
Loan Programs Office

Department of Energy
Washington, DC 20585

June 12, 2024

Pete Brown
Montana State Historic Preservation Office
225 North Roberts
PO Box 201201
Helena, MT 59620-1201

SUBJECT: U.S. Department of Energy, Montana Renewables, LLC; Section 106 Initiation

Dear Mr. Brown:

Pursuant to its authority under Title XVII of the Energy Policy Act of 2005 (EPAct) which established a federal loan guarantee program for certain projects that employ innovative technologies and authorizes the Secretary of Energy to make loan guarantees available for those projects, the U.S. Department of Energy (DOE), Loan Programs Office (LPO) is evaluating whether to provide a Federal loan to Montana Renewables, LLC (MRL) to support the proposed Renewable Fuels and Biomass Energy Facility in Great Falls, Montana (DOE's proposed action and undertaking). The purpose of this letter is to consult with the Montana State Historic Preservation Office under Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR part 800, present the DOE undertaking, present the archaeological and architectural areas of potential effects (APE), present DOE's findings, and seek your concurrence with the delineation of the APEs, the recommendations of eligibility for newly recorded resources, and DOE's recommendation of effect on historic properties.

DOE Undertaking and APE

The Undertaking would be co-located with an existing conventional petroleum refinery at 1900 10th Street NE in Great Falls, Montana (see Figure 1). Under the Undertaking, MRL would use Federal financial assistance to purchase renewable diesel and sustainable aviation fuel (SAF) refinery equipment, construct new infrastructure, and retrofit existing equipment within the boundaries of the existing refinery on previously disturbed land (see Figure 2). The proposed renewable fuels and biomass energy facility would process 100 percent renewable feedstocks (such as canola oil, distillers corn oil, used cooking oil, and beef tallow) into renewable diesel and SAF, hydrogen, natural gas, and renewable naphtha.

New infrastructure would include an approximately 300,000 gallon/day capacity feedstock pre-treatment unit (PTU) wastewater treatment facility to maximize water recycling; an 18-20-megawatt (MW) gas turbine/heat recovery steam generator (HSRF) co-generation (cogen) plant to produce electricity and steam from renewable fuels; an approximately 10,000 barrel per day (BPD) SAF blending facility within the existing tank farm; a SAF truck loading facility within the existing truck loading rack; and approximately 500-feet of track along the existing rail spur and loading/offloading rail car area in the southeastern portion of the refinery.

Major equipment modifications would include retrofitting the existing steam methane reforming (SMR) hydrogen plant to accept renewable offgas and/or naphtha as feedstock for producing renewable hydrogen; installing a pre-reformer reactor with heat exchangers adjacent to the existing natural gas SMR hydrogen plant; installing advanced compression controls on the multi-stage makeup hydrogen reciprocating compressors to minimize energy wasting spillback streams between stages; installing new equipment (including a second reactor) on the existing Renewable Fuels Unit to increase overall capacity to approximately 24,000 BPD; and retrofitting the feedstock PTU to increase capacity to approximately 20,000 BPD.

The area of potential effects (APE) for the undertaking includes the Direct (archaeological) APE, which comprises the area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyed by the undertaking. Accordingly, the Direct APE is the approximately 56 acre co-located renewable fuels facility and conventional petroleum refinery. The APE also includes the Indirect APE (architectural), which consists of the area in which the Undertaking has the potential to introduce visual elements that diminish or alter the setting, including the landscape, where the setting is a character-defining feature of a historic property (see Figure 3). Accordingly, the Indirect (architectural) APE is comprised of approximately 15.7 acres adjacent to the Direct APE. Factors such as the design of the undertaking, the density of the surrounding built environment, and the presence of mature trees were taken into consideration when defining the Indirect APE.

DOE Finding

In accordance with Section 106 to identify historic properties and assess adverse effects, DOE has reviewed the *Cultural Resources Technical Report for the Montana Renewables LLC Renewable Fuels Facility, Great Falls, Montana* dated June 2024 (attached with this letter).

Based on the results of the field survey and historical research, four previously unrecorded buildings and structures that have reached sufficient age for consideration as historic properties and one previously recorded property that was recommended eligible for listing on the NRHP (24CA0371, Great Northern Railway) are located within the direct APE. Kleinfelder concurs with the previous recommendation that the Great Northern Railway is eligible for listing in the NRHP; however, the recoded segment within the direct APE does not appear to retain sufficient historic integrity to convey its historical significance and is therefore not recommended to be a historic property for the purposes of Section 106 of the NHPA. Kleinfelder recommends that Calumet Refinery-Building 1 (24CA1975) and Building 2 (24CA1976) are eligible for the NRHP under Criterion A for their association with the important role the Calumet Refinery played in shaping the development of Montana's oil industry and the impact it had on the industrial and economic growth of Great Falls. Despite the alterations over time, the changes to Calumet Refinery-Building 1 (24CA1975) and Building 2 (24CA1976) are seen as a record of their continued use over time, preserving several critical aspects of integrity, and justifying its eligibility for the National Register of Historic Places (NRHP). Therefore, they are both recommended to be historic properties for the purposes of Section 106 of the NHPA. DOE seeks your concurrence with this recommendation.

Based on the undertaking description, there will be no physical modifications of any kind made to Calumet Refinery-Building 1 (24CA1975) and Building 2 (24CA1976) as a result of this undertaking and therefore, the undertaking will have no direct effect on the buildings. The refinery itself has undergone many changes over time, and any additional exterior physical changes to the other buildings and structures at the refinery or the construction of new buildings and structures will not result in an adverse effect to Calumet Refinery-Building 1 (24CA1975) and Building 2 (24CA1976). Based on this analysis, Kleinfelder recommends that there is a no adverse effect to the historic properties present within the direct APE. DOE seeks your concurrence with this recommendation.

Kleinfelder conducted a review of the indirect APE, extending from the direct APE one parcel in all directions for this undertaking. Four historic-era resources were identified within the indirect APE (24CA1972, 24CA1973, 24CA1974, and 24CA1979). All four resources were evaluated for the NRHP and are recommended ineligible for inclusion in the NRHP and are therefore not recommended to be historic properties for the purposes of Section 106 of the NHPA. Three previously recorded built environment resources are within the indirect APE (24CA1368, 24CA1346, and 24CA1345). Based on field observations, these three previously recorded resources are no longer extant. Two archaeological resources are located within the indirect APE (24CA1751 and 24CA0656). These are subsurface archaeological resources and, therefore; there will not be potential to indirectly effect these historic properties. Based on this analysis, Kleinfelder recommends that there is a no adverse effect to the historic properties present within the indirect APE. DOE seeks your concurrence with this recommendation.

The report concluded that two newly recorded properties eligible for the NRHP are located within the direct APE (Calumet Refinery-Building 1 and Building 2) and that two previously recorded historic properties (24CA1751 and 24CA0656) are located within the indirect APE. The DOE recommends that Calumet Refinery-Building 1 and Building 2 are both eligible for the NRHP and that the proposed undertaking will result in no adverse effect to these two properties or to 24CA1751 and 24CA0656. DOE recommends that the undertaking will have no adverse effect on historic properties and is requesting the SHPO's concurrence.

We look forward to SHPO’s concurrence on the APE, the eligibility of the newly recorded sites, and on DOE’s recommendation of no adverse effect on historic properties. If you have any questions or would like to discuss this project further, please contact me at 202-913-3477, or email at lpo_environmental@hq.doe.gov.

Respectfully,

DONALD BROWN Digitally signed by DONALD BROWN
Date: 2024.06.12 16:15:43 -04'00'

Don Brown
NEPA Document Manager
Loan Programs Office

Attachments:
Figure 1: Project Location

Figure 2: Conceptual Layout
Figure 3: Area of Potential Effects
Cultural Resources Technical Report for the Montana Renewables LLC Renewable Fuels Facility, Great Falls, Montana, June 2024

Cc: Jessica Bush, Office of the State Archaeologist

Date: 2/8/2024 User: ALeonard Path: \\azrgisstorp03\GIS_Projects\Client\CalumetSpecialtyProducts\24002066\CalumetEA\CalumetEA.aprx

LEGEND

★ Site Location

0 1,000 2,000 4,000

Feet

N

KLEINFELDER
Bright People. Right Solutions.
www.kleinfelder.com

PROJECT NO.	24002066
CREATED:	2/8/2024
CREATED BY:	ALeonard
CHECKED BY:	KSimpson
FILE NAME:	ProjectLocationMap

Project Location Map

Montana Renewables
Cascade County, Montana

FIGURE 1

LEGEND

- MaxSAF Project Development Areas
- Plant Boundary

0 125 250 500

Feet

N

KLEINFELDER
Bright People. Right Solutions.
www.kleinfelder.com

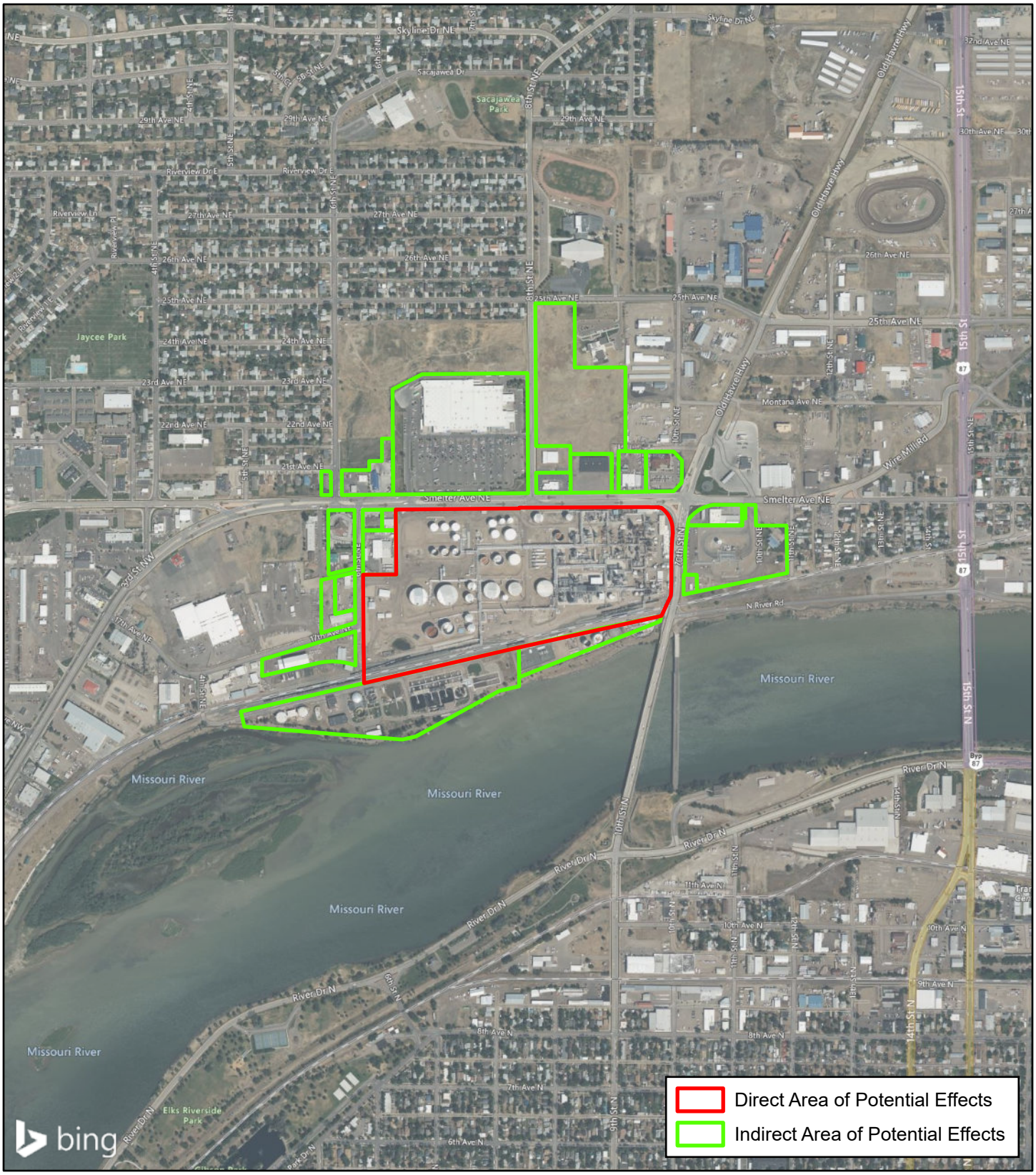
PROJECT NO.	24002066
CREATED:	3/21/2024
CREATED BY:	ALeonard
CHECKED BY:	KSimpson
FILE NAME:	DevelopmentAreas

Renewable Fuels and Biomass Facility Conceptual Layout

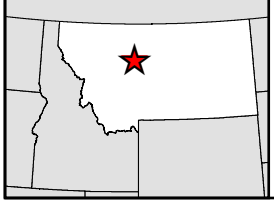
Montana Renewables
Cascade County, Montana

FIGURE
2

Date: 3/21/2024 User: ALeonard Path: \\azrgisstorp03\GIS_Projects\Client\CalumetSpecialtyProducts\24002066\CalumetEA\CalumetEA.aprx



Project Location



Source: Bing Maps

0 500 1,000 Feet

0 150 300 Meters

N

Scale 1:12,000
1 inch = 1,000 feet

Figure 3: Area of Potential Effects
Calumet Refinery Project
Cascade County, Montana

KLEINFELDER
Bright People. Right Solutions.

Montana State Historic Preservation Office
225 N. Roberts St.
P.O. Box 201201
Helena, MT 59620-1201

July 10, 2024

Mr. Don Brown
Department of Energy – Loan Program Office
Washington, DC 20585

Re: Montana Renewables, LLC Project / Cascade County, Montana

Dear Mr. Brown,

Thank you for your letter and associated materials (received March 27, 2024) and additional material (received June 12, 2024) regarding the proposed Montana Renewables, LLC Project in Cascade County, Montana. We concur with the following eligibilities:

24CA1975 – Eligible (A)	24CA1976 – Eligible (A)	24CA1977 – Not Eligible
24CA1978 – Not Eligible	24CA1972 – Not Eligible	24CA1973 – Not Eligible
24CA1974 – Not Eligible	24CA1979 – Not Eligible	

We also concur with your determination of No Adverse Effects to Historic Properties.

Please note that our concurrence does not substitute for a good faith effort to consult with interested parties, local government authorities, and American Indian tribes. If you receive a comment that substantially relates to a historic property located within or adjacent to the Area of Potential Effect, please submit it to our office for review. Include documentation of how the comment was addressed. If you have any questions or concerns, do not hesitate to contact me at (406) 444-6485 or Samantha.Gilk@MT.gov. Thank you for consulting with us.

Sincerely,

Samantha Gilk, M.S.
Compliance Officer
Montana State Historic Preservation Office

FILE: DOE/GENERAL – 2024 – 20240614002

APPENDIX B PERMITTING

APPENDIX B: PERMITTING

The permits required for construction of Phase 1 were issued by the MDEQ following public notice and comment periods. There was no community opposition during public comment periods for the MDEQ permit, and the state has continued to be supportive of the renewables Facility.

Table B-1 provides a summary of the environmental permits CMR and MRL currently hold for the Plant.

Table B-2 identifies additional permits required for construction and operation of the renewables Facility, including Phase 2 construction and operation.

Table B-1: Applicable CMR and MRL Facility Construction and Operational Permits

Agency	Permit	Notes*
MDEQ – Air Quality Bureau	Title V Operating Permit for CMR	■ 3/31/20 – OP2161-15, update for NO_x limit changes. ■ 12/11/20 – OP2161-16, complete update. ■ 6/23/23 – OP2161-17, updated Title V operating permit for minor air emission limits updates within refinery sources.
	CMR MAQP Construction Permit	■ 2/10/20 – 2161-33 CMR for revised NO_x emission limits on 2102 and 4102 heaters (30-day average and 3-hour average emission limits). ■ 2/19/21 – 2161-34 CMR for AOC16 remediation catalytic oxidizer. ■ 8/30/21 – 2161-35 CMR for polymer-modified asphalt (PMA) process unit replacement and associated tank changes. ■ 10/22/21 – 2161-36 CMR transfer of air emissions sources to MRL and operational changes at CMR. ■ 4/28/22 – 2161-37 CMR update to fix firing rates of various pieces of combustion equipment. ■ 11/9/22 – 2161-38 CMR update for PMA and minor update for refinery reconfiguration with renewable transfers. ■ 5/10/23 – 2161-39 CMR update for consent decree NO_x limits correction, ambient station shutdown approval, and consent decree citation corrections.
	MRL MAQP Construction Permit (permit applicable to Phase 1 construction and operation)	■ MRL currently operating under construction permit. MAQP construction permits authorize both construction and operation of the equipment. ■ 10/26/21 (5263-00) – MRL construction permit and air emissions source transfer from CMR to MRL. ■ 7/11/22 (5263-01) – MRL permit for PTU construction and sustainable aviation fuel project integration. ■ 11/7/2023 (5263-02) – MRL permit for increased heater firing rates and addition of new boilers and generators. ■ Title V permit application submitted 11/3/23. The Title V permit modification application to incorporate Phase 2 will be submitted within 6 months of start of operations.
MDEQ – Montana Pollutant Discharge Elimination System	Calumet Industrial Wastewater Discharge Permit	■ 12/7/16 – Permit #01-17, industrial wastewater discharge permit for the low-sulfur fuels expansion. ■ 2/14/22 – Permit #01-22, industrial wastewater discharge permit for the conversion of mild hydrocracker to renewable fuels unit; no significant limit changes or new categorical standards.
	Multi-Sector General Industrial Stormwater Permit	■ 4/13/23 – Issued an updated MTR000556 for multi-sector general industrial stormwater permit for CMR and MRL operations.

*Any permits with expiration dates would be renewed by CMR/MRL in accordance with the relevant regulation(s).

Table B-2: Additional Permits Required for Max SAF Production at MRL

Agency	Permit	Status/Schedule
MDEQ	Clean Air Act Title V Operating Permit	MDEQ received initial application for Phase 1 on 11/3/2023. Project changes would require an update to the application within 6 months of start-up of new sources.
City of Great Falls	Wastewater Pretreatment Permit #01-22	Application for scope in development with Project.
City of Great Falls	Renewable PTU Wastewater Pretreatment Permit	Process water condition and appropriate pretreatment system in design.
MDEQ	Multisector General Industrial Stormwater Permit	Requirement in Project scope review. Minimal changes to fence line or off-site sheet discharge points will require no update.
MDEQ	MRL MAQP for Max SAF	Draft PTE developed by MRL; working on preparation of draft application pending completion of engineering required for preparation of the permit application. Engineering was in progress at the time of this EA and expected to be completed by Q2 of 2025 to a point that a permit application can be drafted. The application for a permit to construct can be submitted to MDEQ shortly thereafter. MRL environmental personnel will work closely with MDEQ; MRL engineering to finalize the construction permit. The permit to construct (and associated PSD permit, see below) will serve as a permit to operate for Phase 2 until a Title V operating permit is issued for Phase 2.
MDEQ	PSD Permit	MRL expects, from preliminary air emissions calculations, the Project will exceed PSD thresholds and that a PSD permit will be required for Phase 2 in addition to the MDEQ permit to construct. Process engineering will be sufficient for preparation of a PSD permit application; PSD analyses expected to be completed by Q2 of 2025. MRL expects to submit PSD permit application for Phase 2 subsequent to completion of engineering design.
MDEQ	MRL Federal Title V Operating Permit Update for Max SAF	Within 6 months of max SAF start-up, MRL will submit an application to modify the federal Title V operating permit for Phase 1 (pending issuance).

APPENDIX C MITIGATION ACTION PLAN

APPENDIX C: MITIGATION ACTION PLAN

This Mitigation Action Plan identifies mitigation measures applicable to the Renewable Fuels and Biomass Energy Facility Conversion Project by Montana Renewables, LLC, for the production of RD, SAF, hydrogen, renewable off-gasses (such as natural gas), and renewable naphtha. This Mitigation Action Plan for the Proposed Action includes integral elements and commitments made in the EA to mitigate potential adverse environmental impacts.

The Proposed Action includes commitments by MRL to design the Project in coordination with MDEQ so as to receive the appropriate air permits as planned and so emissions are protective of human health and the environment. To ensure this, MRL will provide LPO with routine status updates on Project designs and coordinate with MDEQ on air permitting, including the status of the Phase 1 Title V permit, Title V permit modifications associated with Phase 2, and the PSD permit (if applicable); a summary of permit conditions and control technologies incorporated into the final design will also be provided. The Mitigation Action Plan status reports will be provided 3 months after closure of the loan guarantee and continue quarterly through the air permits to construct, then semi-annually until MRL is in receipt of the operating air permits.

If you have any general questions about the Project, please contact the project manager, Eldon Fink (direct telephone 281-406-1490 or Eldon.Fink@calumet.com). If you have questions about this Mitigation Action Plan, contact the LPO NEPA document manager for the environmental review, Don Brown (direct telephone 202-913-3477 or Donald.Brown@hq.doe.gov). You may also contact the LPO environmental monitoring lead, Angela Ryan (direct telephone 240-220-4586 or Angela.Ryan@hq.doe.gov).

LPO may amend this Mitigation Action Plan if revisions are necessary due to new information or Project adjustments.

APPENDIX D PUBLIC COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT

Comment Number	Commenter	Date	EA Comment	DOE Response
1	Angela Otero	10/07/2024, 4:58 p.m.	Why was Draft EA-2275 released to the public online and dated September 2024, without an actual date? When is the public comment period? Further, why did the DOE LPO office fail to inform the public that public comments could be made, especially since the public has critical information clearly lacking from Draft EA-2275?	DOE LPO's NEPA-Related Public Involvement website (with a link to the EA) states that the comment period was from September 11 to October 14, 2024. The website also provided an email address for reviewers to submit comments. 
2	Angela Otero	10/07/2024, 4:58 p.m.	Why is there no mention of two pending EPA Draft Permits and two Madison Aquifer Exemption Draft Records of Decision for almost 16,000,000 barrels Montana Renewables SAF wastewater to be injected into the Madison Aquifer, and no mention of EPA plans – found in the Technical Analysis/Narrative documents – to exempt the entire Madison Aquifer to accept even greater volumes of SAF wastewater to be generated by MRL's MaxSAF program and refinery expansion which will be financed through the DOE by $600,000,000 taxpayer dollars?	EPA Draft Class V Underground Injection Control (UIC) Permits MT52443-12513 and MT52439-12514 are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. Class V UIC permits are issued by EPA, and the Class V UIC permitting process includes an assessment of potential impacts from UIC well construction and operation. Included is a public notice and public comment process. Public notice for the MT52443-12513 and MT52439-12514 permit process was issued by EPA on December 7, 2023; the public comment period closed April 8, 2024. The public notice and comment process included a public hearing. EPA also prepared a Draft Climate and Environmental Justice Analysis in November 2023 as part of the Class V UIC permitting process. The public notice and other documentation for the Draft UIC permits and associated aquifer exemptions are posted on the EPA Region 8 website. The Draft UIC permits were issued to Montalban Oil and Gas Operations, an independent company that owns the wells, for the disposal of oil and gas production and other industrial wastewater (https://www.epa.gov/uic/ mogo-jody-field-34-1-34-2-disposal-well-pondera-county-montana-permit-s-mt52443-12513-mt52439). As described in Final EA Section 2.4.4, Waste Management, under current MRL operations, wastewater generation totals approximately 380,000 gpd (i.e., approximately 80,000 gpd MRL on-site feedstock PTU wastewater + 300,000 gpd MRL process wastewater). PTU wastewater is being transported to permitted out-of-state disposal facilities; the majority is trucked to permitted disposal wells in Kuna, Idaho. Wastewater hauling for current MRL operations requires approximately 17 to 24 trucks per day. Other MRL process-generated wastewater (approximately 300,000 gpd) is pretreated on-site and then piped to the City WWTP. Under Phase 2 of the Project, MRL wastewater generation is estimated to increase to approximately 670,000 gpd (i.e., MRL PTU wastewater + MRL process wastewater). Of this, the PTU wastewater (approximately 232,000 gpd) would initially be transported to permitted out-of-state disposal facilities, resulting in a temporary increase in wastewater haul traffic ranging from 17 to 24 trucks per day to 34 to 48 trucks per day until the new on-site PTU wastewater treatment process is completed. At the completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, the hauling of PTU wastewater would discontinue, and all MRL wastewater would be pretreated on-site for reuse or disposal at the City WWTP. The MRL Project design does not depend upon the availability of the injection wells to be permitted by Montalban Oil and Gas Operations, and MRL does not anticipate using disposal sites within Montana for current operations or Phase 2 operations. Therefore, the MRL Project would not affect the Madison Aquifer or underground sources of drinking water (USDW). Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.

Comment Number	Commenter	Date	EA Comment	DOE Response
3	Angela Otero	10/07/2024, 4:58 p.m.	EPA Draft Permit MT52443-12513 to allow 8,811,350 barrels total, or 370,076,700 gallons, of MRL's refinery wastewater to be pressure-injected into the Madison Aquifer, an EPA identified USDW, with 179,752 barrels previously injected into the well. (Note: 8,811,350 less 179,752 = 8,631,598 barrels, or 362,527,116 gallons, of additional Refinery “bio fuel” waste to be injected at this site.)	EPA Draft Permit MT52443-12513 is not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. See response to Comment No. 2, above. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.
4	Angela Otero	10/07/2024, 4:58 p.m.	EPA Draft Permit MT52439-12514 for 7,156,173 barrels total, or 300,559,266 gallons, of MRL's refinery wastewater to be pressure-injected into the Madison Aquifer, an EPA identified USDW, with 205,090 barrels previously injected into the well. (Note: 7,156,173 less 205,090 = 6,951,083 barrels, or 291,945,486 gallons, of additional Refinery “bio fuel” waste to be injected at this site.)	EPA Draft Permit MT52439-12514 is not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. See response to Comment No. 2, above. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.
5	Angela Otero	10/07/2024, 4:58 p.m.	EPA Draft Aquifer Exemption Records of Decision for injection wells 34-1 and 34-2 to allow a stated total of 15,967,523 barrels, or 670,635,966 gallons, of MRL's refinery “biofuels” waste to be pressure injected into the Madison Aquifer, an EPA identified USDW (an underground source of drinking water protected by the EPA's Safe Drinking Water Act) that currently serves five U.S. states and three Canadian provinces and millions of people. Note: With 179,752 + 205,090 equalling 384,842 barrels previously injected, this will result in a total of 15,582,681 barrels, or 654,472,602 gallons, of additional Refinery “bio fuel” waste to be injected at this site into another body of water, the Madison Aquifer.	EPA issued aquifer exemption records of decision (RODs) for Draft Class V UIC Permits MT52443-12513 and MT52439-12514 in December 2023. The RODs and related documentation for Permits MT52443-12513 and MT52439-12514 are posted on the EPA Region 8 website. The exemptions issued to Montalban Oil and Gas Operations include the Madison Aquifer at depths greater than 3,400 feet within a 126-acre area at each wellsite. The aquifer exemptions are limited to a 0.25-mile radius around each wellbore. No additional exemptions regarding the Madison Aquifer were granted to the applicant outside of the 0.25-mile radius (https://www.epa.gov/uic/mogo-jody-field-34-1-34-2-disposal-well-pondera-county-montana-permit-s-mt52443-12513-mt52439). EPA Draft Permits MT52443-12513 and MT52439-12514 and the Madison Aquifer are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. As described in Final EA Section 2.4.4, Waste Management, wastewater generated from MRL’s existing operations is being transported to permitted out-of-state disposal facilities, primarily permitted injection wells in Idaho. Wastewater from MRL Project operations would initially be transported to out-of-state facilities for disposal. At the completion of Phase 2 of the Project, when the PTU wastewater treatment process is operational, hauling of PTU wastewater by truck to out-of-state disposal facilities would be discontinued, and all MRL wastewater would be pretreated on-site for reuse or disposal at the City WWTP. The MRL Project design does not depend upon the availability of the injection wells to be permitted by Montalban Oil and Gas Operations, and MRL does not anticipate using disposal sites within Montana for current operations or Phase 2 operations. Therefore, the MRL Project would not affect the Madison Aquifer or USDW. See response to Comment No. 2, above. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
6	Angela Otero	10/07/2024, 4:58 p.m.	According to the U.S. Geological Survey website (Karst Aquifers: Madison Aquifer), it states that: The Madison aquifer underlies eight states in the U.S. and Canada: Montana, North Dakota, Wyoming, South Dakota, Nebraska, Alberta, Saskatchewan, and Manitoba. It is an important water resource in the northern plains states where surface water supplies are limited and population is increasing. Several of the larger communities and national parks in western South Dakota and Wyoming rely on water from the Madison aquifer. These include Rapid City, Spearfish, Hot Springs, and Wind Cave National Park in South Dakota and Gillette, Douglas, Sheridan, Buffalo, Devils Tower National Park, and the Wind River Indian Reservation in Wyoming. A growing population in western Montana may soon result in development of the Madison aquifer as a water supply. Declining water levels are a major issue for many of these communities. The response of Madison aquifer storage to changes in recharge rates is a critical issue because decreases in storage related to current drought conditions will continue if long-term climate change results in extended drought. The Madison aquifer is part of a major aquifer system located in the northern Great Plains. During the U.S. Geological Survey investigations in this area, five major subdivisions of the aquifer system were recognized - the Cambrian-Ordovician, Madison, Pennsylvanian, Lower Cretaceous, and Upper	The EPA Draft Permits MT52443-12513 and MT52439-12514 and the Madison Aquifer are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. See responses to Comment No. 2 and Comment No. 5, above. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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			Cretaceous aquifers. Each of these is an aggregate of permeable horizons and low-permeability, semiconfining material; each has been identified as an aquifer, primarily because vertical hydraulic-head differences within the unit tend to be smaller than those between it and the adjacent unit. To some extent, the division is arbitrary and was made to assist in analysis and discussion. Together, these five major aquifers comprise one of the largest confined aquifer systems in the United States.	
7	Angela Otero	10/07/2024, 4:58 p.m.	To accommodate MRL's MaxSAF processes and refinery expansion, these pending EPA Draft Permits and two Draft Aquifer Exemption Records of Decision – if approved – will create major, adverse, negative impacts to the public health of citizens throughout Montana, as well as future generations, Montana's environment, wildlife, endangered species (and specifically grizzly bears), water used for crop irrigation and livestock, as well as downstream communities that currently source their drinking water from the Madison Aquifer and will continue to do so without being warned that this MaxSAF wastewater will be injected into the Madison Aquifer. DOE, where are the calculations which address what will most likely become billions of gallons of SAF wastewater to be injected into the Madison Aquifer over the next several years? These MAJOR, ADVERSE, NEGATIVE IMPACTS WILL BE SIGNIFICANT AND IRREVERSIBLE, AND THIS D.O.E. DRAFT EA-2275 MUST TAKE THESE IMPACTS INTO ACCOUNT, AND MITIGATE THEM COMPLETELY, OR DENY THIS FUNDING. Clearly, water in the Madison aquifer is NOT “situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical,” because it is currently being recovered and utilized for drinking water across “eight states in the U.S. and Canada: Montana, North Dakota, Wyoming, South Dakota, Nebraska, Alberta, Saskatchewan, and Manitoba” as well as for the City of Cascade, the City of Stanford and over 900 wells surrounding Great Falls, Montana.	As discussed in the responses to Comment No. 2 and Comment No. 5, above, the EPA Draft Permits MT52443-12513 and MT52439-12514 and the Madison Aquifer are not within the direct, indirect, or cumulative scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
8	Angela Otero	10/07/2024, 4:58 p.m.	According to the Russell County News, "This new well in Stanford (Montana) is capable of producing 1,100 gallons per minute, compared to other existing wells producing 50 gallons per minute. Drilling activities to reach the Madison aquifer were completed in January 2019 at 3,450 feet." [correction provided in 10/7/24 email] Critical Note: This is the same depth that MRL's MaxSAF wastewater will be injected, using high pressure, into the Madison Aquifer outside of Valier, Montana – which is only 123.6 miles from Stanford as a crow flies. This is not insignificant. Pumping millions of gallons of MaxSAF wastewater into the Madison Aquifer – into a karst aquifer, known for having underground lakes and flowing rivers – means this MaxSAF wastewater will travel. According to ScienceDirect.com, 50% of potable water comes from Karst aquifers. Further, According to the authors of “Karst: Environment and Management of Aquifers,” published in 2024, and featured on The Groundwater Project website, “Karst comprises complex systems of soluble rocks and water forming a surface and underground environment with rich but vulnerable aquifer systems that produce the world’s largest proportion of pristine water. The interactions of soluble rocks and water create landscapes and subsurface forms that are not found in any other rock or aquifer. These features range from springs that discharge groundwater that forms large rivers to arid or high-altitude terrains without surface water—but with abundant groundwater reserves at great depth that are difficult to access. Karst is of global importance as a source of potable water. Nearly one billion people rely on karst for health, sanitation, food production, and economic development. However, karst’s heterogeneity and anisotropy combine to create highly dynamic water regimes rendering the groundwater system sensitive to a changing climate and vulnerable to pollution. These topics are important to water managers and decision makers.”	The referenced well in Stanford and the Madison Aquifer are not within the direct, indirect, or cumulative impacts scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the responses to Comment No. 2 and Comment No. 5, above, the MRL Project design does not depend upon the availability of the injection wells to be permitted by Montalban Oil and Gas Operations, and MRL does not anticipate using disposal sites within Montana for current operations or Phase 2 operations. Therefore, the MRL Project would not affect the Madison Aquifer or USDW. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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9	Angela Otero	10/07/2024, 4:58 p.m.	While the Madison Aquifer may contain contaminated hotspots that require treatment to render it safe for human consumption, cities and communities in eight states and provinces have found ways that are “economically and technologically” feasible to “render this water fit for human consumption”. The Madison aquifer’s deep water supply is being recovered and treated to supply drinking water to millions of people right now. This is not hypothetical, it is already happening now, and there is no reason to assume it will not continue into the future.	The Madison Aquifer as well as the referenced EPA draft permits and RODs are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the responses to Comment No. 2 and Comment No. 5, above, the MRL Project design does not depend upon the availability of the injection wells to be permitted by Montalban Oil and Gas Operations, and MRL does not anticipate using disposal sites within Montana for current operations or Phase 2 operations. Therefore, the MRL Project would not affect the Madison Aquifer or USDW. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.
10	Angela Otero	10/07/2024, 4:58 p.m.	In Draft EA-2275, why is there no mention of potential and highly consequential MAJOR, ADVERSE IMPACTS TO the Missouri River, the Madison Aquifer, public water systems and private drinking water wells? While the benefits of MaxSAF are glorified in this Draft EA-2275, why is there no mention or consideration of resulting environmental justice issues, road and air quality impacts, impacts to protected species – specifically grizzly bears – and wildlife, to be created by the EPA's potential decision to approve these two permits and two corresponding Madison Aquifer Exemptions? Why is it necessary for the EPA to exempt the ENTIRE Madison Aquifer? Why were these impacts omitted from Draft EA-2275? Did MRL and the EPA fail to inform the DOE LPO staff of these pending permits and ROD's? Did the DOE LPO office fail to perform their due diligence to uncover and address all significant impacts? Based on the blatant omission of facts, data and calculations within Draft EA-2275, this document clearly failed to include all significant impacts.	The Madison Aquifer as well as the referenced EPA draft permits and RODs are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the responses to Comment No. 2 and Comment No. 5, above, the MRL Project design does not depend upon the availability of the injection wells to be permitted by Montalban Oil and Gas Operations, and MRL does not anticipate using disposal sites within Montana for current operations or Phase 2 operations. Therefore, the MRL Project would not affect the Madison Aquifer or USDW. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
11	Angela Otero	10/07/2024, 4:58 p.m.	Why were the glaring and significant impacts of Montana Renewables MaxSAF wastewater disposal plan, wastewater transportation activities, and wastewater injection plan not mentioned, addressed and mitigated, given that these plans and activities – which the EPA also failed to fully disclose to the public – will create MAJOR, ADVERSE IMPACTS to public health and the environment? Why did Draft EA-2275 fail to mention and mitigate the MAJOR, ADVERSE IMPACTS – that will result from a 10x increase in SAF production using MaxSAF – to Pondera County, county residents, the county's tax base, county roads, public and private drinking water sources, surface water and natural springs that support livestock and irrigation of crops throughout Pondera County and the state of Montana? Where will the funding come from to mitigate these impacts once they are fully integrated into our environment and water sources, and the adverse impacts become known?	The Madison Aquifer as well as the referenced EPA draft permits and RODs are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. As described in Final EA Section 2.4.4, Waste Management, wastewater generated from MRL’s existing PTU operations is being transported to permitted out-of-state disposal facilities, primarily permitted injection wells in Idaho. PTU wastewater from MRL Phase 2 operations would initially be transported to out-of-state facilities for disposal. At the completion of Phase 2 of the Project, when the PTU wastewater treatment process is operational, the hauling of PTU wastewater by truck to out-of-state disposal facilities would be discontinued, and all MRL wastewater would be pretreated on-site for reuse or disposal at the City WWTP. Therefore, the MRL Project would not affect USDW in Pondera County. Potential impacts on Montana roads are discussed in Final EA Section 3.7, Transportation. When PTU wastewater is being hauled by truck to out-of-state disposal facilities, additional truck trips resulting from the MRL Project would temporarily generate additional traffic, truck noise, and fugitive dust along the travel corridors and through cities and towns along the primary route between Great Falls, Montana, and Kuna, Idaho. Upon completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, truck hauling of PTU wastewater would be eliminated, resulting in a net reduction in wastewater haul traffic on travel routes and elimination of the MRL-related traffic, noise, and dust impacts along the travel corridors. Potential impacts on surface water are discussed in Final EA Section 3.11.1, Water Resources. MRL plans to continue to purchase municipal water directly from the City. Phase 2 of the MRL Project would increase wastewater pretreatment capacity through the PTU wastewater treatment process. MRL process wastewater would continue to be treated within the existing treatment system for recycling/reuse or discharge to the City WWTP. There are no surface water features on the MRL Project site; stormwater and SPCC controls would continue to be used during MRL Project construction and operation. Therefore, impacts on surface water or groundwater, or floodplains, from the Project would not be significant. Potential impacts on socioeconomics are discussed in Final EA Section 3.8.1, Socioeconomics. The beneficial socioeconomic impacts from implementation of the Proposed Action include the increased employment opportunities, the tax revenue generated, and direct and indirect spending in the local economy. MRL Project expansion efforts would be expected to generate new investments in local businesses, and the demand for seed and tallow-based feedstock would enable MRL to source its purchases from producers in the region.

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				Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 2 and Comment No. 5.
12	Angela Otero	10/07/2024, 4:58 p.m.	Why is MRL's total water use understated by more than 50%?	Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. As discussed in Final EA Section 3.3, Water Resources, all water for existing MRL operations is purchased from the City. MRL anticipates that all water for the MRL Project and Phase 2 MRL operations would continue to be purchased from the City. Water is supplied to MRL by the City through existing pipelines; volumes are measured by an existing utility meter. MRL uses approximately 560,000 gpd of City-purchased water under existing operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. MRL does not use and does not anticipate using groundwater withdrawal or surface water withdrawal for existing operations or Phase 2 operations.
13	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to reveal baseline water use by MRL? According to the DNRC, Montana Refining Company holds a 566 acre-foot water right that entitles them to use 325,851 gallons of water per acre-foot, for a total of 184,431,666 now? This is a "use it or lose it" water right, which means for the year ending June 30, 2024,, Montana Renewables used this volume in addition to the water purchased from the City of Great Falls. This can be verified through the DNRC website using a water rights query.	CMR owns a Montana water right. CMR's water rights and baseline water use are separate and distinct from MRL's baseline and Project water use. MRL is a legally separate entity from the adjacent CMR and operates within separate SIC system codes. The 566 acre-feet of water rights referred to in the comment belong to CMR, not MRL. CMR's water right is being put to beneficial use for purposes unrelated to MRL operations, including CMR's emergency fire response. The MRL Project would not affect the water rights or water use of CMR or the amount of water used by CMR. CMR's water rights are unrelated to MRL's current and Project Phase 2 operations. MRL's current operation obtains water from the City. Phase 2 would continue to purchase water from the City. MRL does not use and does not anticipate using groundwater withdrawal or surface water withdrawal for existing operations or Phase 2 operations. MRL uses approximately 560,000 gpd of City-purchased water under existing (baseline) operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. MRL does not use and does not anticipate using groundwater or surface water withdrawal for existing operations or Phase 2 operations. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 12.
14	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to reveal that the City of Great Falls sold 43,289,300 cubic feet of water to Montana Renewables for the year ending June 30, 2024,? Each cubic foot of water is 7.48052 gallons, for a total of 323,826,474 gallons. This can be verified through a records request.	Montana Refining Company (a.k.a. CMR) water rights and baseline water use are separate and distinct from MRL's baseline and Project water use. The MRL Project would not affect CMR water rights or water use or the amount of water used by CMR. MRL uses approximately 560,000 gpd of City-purchased water under existing (baseline) operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. The City has adequate capacity to accommodate MRL's demand for water in support of Project operations in addition to demand from CMR and other customers. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 12.
15	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to reveal that these two figures [water available under CMR's water right and water purchased from the City], added together, equal 508,258,140 gallons of water used in one year by MRL to produce 30M gallons of SAF, and other products?	As discussed above in the response to Comment No. 13, CMR's water rights and baseline water use are separate and distinct from MRL's baseline and Project water use. CMR's water rights referred to in the comment are owned by CMR, not MRL. CMR's water use for refinery operations would not affect the amount of water currently used by MRL or the amount of water that would be used by Phase 2. The Project would not affect the water rights or water use of CMR, affect the amount of City water purchased by CMR, or affect the amount of groundwater withdrawal or surface water withdrawal for use by CMR. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.

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16	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to illustrate how it is possible for Montana Renewables to increase from 30M gallons of SAF to 330M gallons of SAF, and other products, using MaxSAF – without a corresponding 10x increase in water use? Let's unpack this. Given MRL's use of 508,258,140 gallons to produce their publicly projected 30M gallons of SAF, and other products, for 2024, this will require the original 508,258,140 gallons of water, plus an ADDITIONAL 10x more water, or 5,082,581,400 gallons, to produce 300M gallons using the MaxSAF process. Ultimately, it will require 5,590,839,540 gallons (508,258,140 + 5,082,581,400 = 5,590,839,540) to produce a total of 330,000,000 gallons of SAF, and other products. DOE LPO staff, why was baseline water use not explored and extrapolated, and why was the cumulative water use required for a 10x increase not taken into account and evaluated for significant impacts? After all, this will be annual water use after the MaxSAF refinery operations are fully built-out and realized.	Phase 2 would not increase SAF production capacity by a factor of 10 from existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 184 million gallons per year, or approximately 12,000 bpd, of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase production capacity for RD and SAF to 330 million gallons per year, or approximately 21,500 bpd, and use 900,000 gpd of purchased water to do so. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
17	Angela Otero	10/07/2024, 4:58 p.m.	Draft EA-2275 states that 600,000-700,000 gallons of water will be used per day. As excerpted from Draft EA-2275, "The Project is anticipated to use 600,000 to 700,000 gallons of fresh water each day; the water would require post-use treatment." Based on MRL's 566 acre-feet of water, plus the 43,289,300 cubic feet sold by the City of Great Falls, this is clearly an understatement.	As discussed in the response to Comment No. 13, CMR's water rights and baseline water use are separate and distinct from MRL's baseline and Project water use. The 566 acre-feet of water rights referred to in the comment belong to CMR, not MRL. MRL is a separate legal entity from CMR. CMR's water use for refinery operations does not affect the amount of water currently used by the MRL or the amount of water that would be used by Phase 2. The Project would not affect the water rights or water use of CMR, affect the amount of City water purchased by CMR, or affect the amount of groundwater or surface water withdrawn for use by CMR. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 13, above.
18	Angela Otero	10/07/2024, 4:58 p.m.	If Montana Renewables is using 566 acre-feet obtained by Montana Refining Company's water right, plus 43,289,300 cubic feet of water sold by the City of Great Falls, they are already using 508,258,140 gallons of water in one year to produce 30M gallons of SAF, and other products. Mapped out on a daily basis, this equals 1,392,488 gallons of water used at the refinery each day. The volume stated in Draft EA-2275, "600,000 to 700,000 gallons of fresh water each day," is understated by nearly 50%.	See response to Comment No. 13. Project operation would not affect the amount of water used by CMR for refinery operations. The City has adequate capacity to accommodate MRL's demand for water in support of Project operations in addition to demand from CMR and other customers. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.
19	Angela Otero	10/07/2024, 4:58 p.m.	Draft EA-2275 fails to state if MRL has a direct intake pipeline into the Missouri River, and if this is true, that should be clarified and made public. If this pipeline is already in existence, are there monitoring valves and regulating systems which provide an independent reading/measurement of the total volumes taken from the Missouri River daily? If so, who monitors this taking? How is the Missouri River protected from additional takings?	MRL does not have a direct intake pipeline to the Missouri River. MRL's current operation uses water purchased from the City, which is transported from the City to MRL by pipeline. Phase 2 would also use water purchased from the City. MRL does not use and does not anticipate using groundwater or surface water for existing operations or Phase 2 operations. Final EA Section 3.3, Water Resources, has been revised to clarify that all water for existing MRL operations is purchased from the City. MRL anticipates that all water for future MRL operations would continue to be purchased from the City.
20	Angela Otero	10/07/2024, 4:58 p.m.	Draft EA-2275 states that "approximately 150,000 gallons of wastewater per day is being generated currently. Note: This was confirmed at the January 3rd, 2024, public hearing when the owner of the trucking company stated that 12 trucks, each carrying 6,300 gallons, would make two deliveries per day to these injection wells. The Draft EA failed to mention that each diesel-operated semi-tanker will hold 6,300 gallons of wastewater, which means that 24 trucks x 6,300 gallons equals 151,200 gallons per day, or at 365 days, it equals 55,188,000 gallons per year. That's the volume of wastewater being generated now to create 30M gallons of SAF, and transported for disposal. As excerpted from the Draft EA: "As previously discussed, wastewater from the renewable feedstock PTU (approximately 150,000 gallons per day) is currently transported to permitted disposal locations in approximately 17 to 24 truckloads per day; however, under the Project, MRL would increase the capacity of the feedstock PTU. MRL would generate an additional 150,000 gallons per day, or a total of 300,000 gallons per day, requiring approximately 34 to 48 truckloads a day to transport for disposal."	As described in Final EA Section 2.4.4, under current MRL operations, wastewater generation is approximately 380,000 gpd (i.e., approximately 80,000 gpd MRL PTU wastewater + 300,000 gpd MRL process wastewater). PTU wastewater is currently transported to permitted out-of-state disposal facilities; the majority is trucked to permitted disposal wells in Kuna, Idaho. Under current operations, approximately 17 to 24 trucks per day are used to transport PTU wastewater. Other MRL process-generated wastewater (approximately 300,000 gpd) is pretreated on-site and then piped to the City WWTP. Under Phase 2 of the Project, MRL wastewater generation would increase to approximately 670,000 gpd (i.e., 232,000 gpd MRL PTU wastewater + 438,000 gpd MRL process wastewater). PTU wastewater would initially be transported to permitted out-of-state disposal facilities, resulting in a temporary increase in wastewater haul traffic (i.e., 34 to 48 trucks per day) until the new on-site PTU wastewater treatment process is completed. At the completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, the hauling of PTU wastewater would be discontinued. All MRL wastewater would be pretreated on-site for reuse or disposal to the WWTP.

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				Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
21	Angela Otero	10/07/2024, 4:58 p.m.	Why did the Draft EA-2275 fail to realize – and state – that an increase in the number of trucks from 24 to 48 represents only a doubling of SAF wastewater when in actuality, the volume of wastewater will be 10x greater once MaxSAF processes increase production from 30M gallons to 330M gallons of SAF?	Phase 2 would not increase SAF production capacity by a factor of 10 from existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from existing wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF (approximately 184 million gallons per year) and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to 330 million gallons per year, or approximately 21,500 bpd, and use 900,000 gpd of purchased water to do so. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project.
22	Angela Otero	10/07/2024, 4:58 p.m.	Likewise, why did Draft EA-2275 fail to realize – and state – that an increase from 150,000 gallons of waste to 300,000 gallons of waste represents only a doubling of waste? After all, MRL is not proposing to limit production to 2x the current volume, or 60M gallons of SAF. MRL is proposing to use MaxSAF to produce 10x more SAF than that which is being produced now. Therefore, wastewater will have a corresponding increase of (most likely) 10x greater volume. Calculating this volume, 150,000 x 10 = 1,500,000 for 300M gallons of SAF + 150,000 for 30M gallons of SAF, or a likely total of 1,650,000 gallons of wastewater per day to produce 330M gallons of SAF. Even if Montana Renewables is able to treat, reuse and recycle 300,000 gallons of wastewater per day according to this Draft EA-2275, we can see now that this effort will be clearly insufficient since it will fail to treat total volume.	Phase 2 would not increase SAF production capacity by a factor of 10 from existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from existing wastewater generation. Under current MRL operations, PTU-generated wastewater is trucked primarily to permitted out-of-state disposal facilities in Kuna, Idaho. Under current operations approximately 17 to 24 trucks per day are used to transport wastewater. Under Phase 2 of the Project, PTU wastewater generation would increase, which would temporarily double the number of wastewater truck trips to as many as 48 per day until the new on-site PTU wastewater treatment process is completed. Once the PTU wastewater treatment process is completed, the off-site transport of wastewater would be eliminated. All MRL-generated wastewater would be treated on-site prior to transport by pipeline to the City WWTP. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also responses to Comment No. 20 and Comment No. 21.
23	Angela Otero	10/07/2024, 4:58 p.m.	What will happen to the remaining 1,350,000 gallons of wastewater to be generated by the MaxSAF process? It will be trucked, or shipped by rail, to disposal sites elsewhere. MRL's wastewater management plan lacks one significant, critical element, and that is a true wastewater treatment process to treat ALL wastewater generated on-site via the MaxSAF process so it need not be shipped, or injected into another body of water which it will contaminate. This would eliminate the need for MRL to use over 5B gallons of water each year from the Missouri River, if MRL were to reduce, reuse, recycle, reclaim and recapture water and secondary products with a monetary value.	Wastewater from MRL's current operations is transported to out-of-state disposal facilities primarily by truck. Under Phase 2 of the Project, PTU wastewater generation would increase, which would temporarily double the number of wastewater truck trips to as many as 48 per day until the new on-site PTU wastewater treatment process is completed. Once the PTU wastewater treatment process is completed, the off-site transport of wastewater would be eliminated. All MRL-generated wastewater would be treated on-site prior to transport by pipeline to the City WWTP. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also responses to Comment No. 20, Comment No. 21, and Comment No. 22.
24	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to calculate the number of trucks and rail cars that will be needed to transport this volume of waste on a daily and yearly basis, and the air emissions that will result? If MRL can treat 300,000 gallons of waste per day, this will leave 1,350,000 gallons to be transported, and this will result in 214 semi-diesel operated trucks each transporting 6,300 gallons, or 53.57 railcars. If MRL cannot treat their waste, then 1,650,000 gallons of wastewater will create a need for 261.9 trucks or 65.47 railcars to transport this waste. There is NO WAY that a 10x increase in production will result in a 2x increase in water use, wastewater generated, or transportation requirements to haul that wastewater. Draft EA-2275 must examine and mitigate all cumulative impacts that this MaxSAF process will unleash with a 10x increase in SAF production.	Phase 2 would not increase SAF production capacity by a factor of 10 from existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from existing wastewater generation. As discussed in Final EA Chapter 2, Description of the Proposed Action, and Section 3.3, Water Resources, MRL is currently producing approximately 12,000 bpd of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to approximately 21,500 bpd and use 900,000 gpd of purchased water to do so. As discussed in Final EA Section 3.7, Transportation, PTU wastewater from Phase 2 would be temporarily transported by truck to out-of-state disposal facilities, primarily to permitted disposal wells in Kuna, Idaho. PTU wastewater generation would increase, which would temporarily double the number of wastewater truck trips from approximately 17 to 24 per day to a maximum of 48 per day until the new on-site PTU wastewater treatment process is completed. Once the PTU wastewater treatment process is completed, the off-site transport of wastewater would be eliminated. All MRL-generated wastewater would be treated on-site prior to transport by pipeline to the City WWTP. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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25	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to calculate baseline air emissions of trucks leaving the refinery, stated as 17 to 24 trucks daily? Further, after the MaxSAF expansion, why did the EA fail to calculate the proposed 48 trucks, and the volume of diesel air emissions to be released from these semi-tankers that will be traveling almost 200 miles roundtrip every day from the refinery in Great Falls through foothills to the injection wells in Valier, Montana if the EPA approves these two injection-well permits and corresponding Madison Aquifer Exemptions?	Sections 3.5 and 3.11.2 of the Final EA have been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail operations. Final EA Table 3 1b, Renewables Facility Operation, Estimated Actual Emissions, and Prevention of Significant Deterioration in Major Modification Significance Levels; Table 3-1c, Mobile Emission Sources by Operational Phase; and Table 3-1d, MRL Rail Switch Emissions, include baseline (Phase I) and Project (Phase 2) air emissions from process operations as well as truck and rail transport. MRL does not anticipate using disposal sites within Montana for current MRL operations or Phase 2 operations. Estimates of air emissions from mobile sources are based on emissions from the transport of PTU wastewater by truck to Idaho for disposal, as noted in Final EA Table 3-1c. As discussed in the response to Comment No. 2 and Comment No. 5, the draft permits for the Montalban injection wells and the Madison Aquifer are not within the scope of this NEPA review of direct, indirect, or cumulative impacts.
26	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to mention and calculate the number of trucks – and air emissions from those trucks – that are currently hauling Montana Renewables wastewater to the train yards in Shelby and Butte, Montana, as well as to a disposal site in Boise, Idaho? Currently, 24 trucks x 365 days equals 8,760 truck deliveries. However, 48 trucks x 365 days equals 17,520 truck trips. Where are those emissions addressed and mitigated in this Draft EA-2275? What about resulting, almost continuous noise, fugitive dust and road damages?	See response to Comment No. 25. Sections 3.5 and 3.11.2 of the Final EA have been revised to include existing (Phase 1) and future (Phase 2) air emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail operations.
27	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to mention that these two EPA draft permits, if approved, will result in over 100,000 semi-tankers traveling almost 200 miles round-trip to deliver almost 16,000,000 gallons of SAF wastewater from the refinery in Great Falls to two injection wells located in Valier, Montana, for injection into another body of water, the groundwater of the Madison Aquifer?	As discussed in the responses to Comment No. 2 and Comment No. 5, the Madison Aquifer and the referenced EPA injection well permits are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
28	Angela Otero	10/07/2024, 4:58 p.m.	Why did Draft EA-2275 fail to mention that two more wells are slated for fast-track approval at the same farm in Valier should the EPA approve these first two permits and the aquifer exemptions to accept MRL's SAF wastewater, which will potentially double MRL's SAF wastewater volume to 32,000,000 barrels (1,344,000,000) to be injected at the same location, using the same gravel roads, in the same county, past the same homes and businesses to be permitted for a decade? What volume of air emissions will be produced by transporting 1,344,000,000 gallons almost 200 miles roundtrip? At 6,300 gallons per truck, this will equal over 213,000 truck deliveries if the EPA allows two more wells to accept MRL's SAF wastewater.	As discussed in the responses to Comment No. 2 and Comment No. 5, the Madison Aquifer and the referenced EPA injection well permits are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. Water use, wastewater disposal, and wastewater treatment from the Project are discussed in Section 3.3 of the EA. MRL does not anticipate using disposal sites within Montana for current MRL operations or Phase 2 operations. Estimates of air emissions from mobile sources are based on emissions from the transport of PTU wastewater by truck to Idaho for disposal, as noted in Final EA Table 3-1c. As discussed in the response to Comment No. 25, Section 3.5.3.1 has been revised to include existing (Phase 1) and future (Phase 2) emissions from MRL nonroad equipment during construction, on road vehicle trips, and rail emissions.
29	Angela Otero	10/07/2024, 4:58 p.m.	Why did the DOE LPO staff fail to consult with the EPA to request more information, and perform their due diligence properly?	As discussed in the responses to Comment No. 2 and Comment No. 5, the Madison Aquifer and the referenced EPA injection well permits are not within the direct, indirect, or cumulative impact scope of this NEPA review or the associated loan guarantee application to DOE LPO. Relevant agency and tribal consultations are addressed in Final EA Appendix A.
30	Angela Otero	10/07/2024, 4:58 p.m.	As excerpted from Draft EA-2275, "Wastewater is currently pretreated on-site and trucked to permitted disposal locations; however, as described in Chapter 2, MRL is proposing a wastewater treatment process for nonhazardous water from the feedstock PTU. This process would be capable of treating water on-site, thereby reducing transportation-related carbon emissions. The water treatment process is being evaluated to determine if treated water could be recycled and reused. The process would be sized for approximately 300,000 gallons per day and would meet the specifications for discharge to the City WWTP and/or internal uses that rely on recycled water." Based on the DNRC Water Right of 566 AF, plus City water of 43,289,300 CF, MRL is using 1,392,488 gallons of water used at the refinery each day. So, if MRL can treat 300,000 gallons of water, then what happens to the other	As discussed in the response to Comment No. 13, CMR's water rights and CMR's water use are separate and distinct from MRL water use. Current MRL operations use approximately 526,000 gpd of water purchased from the City. Phase 2 would use approximately 900,000 gpd of water purchased from the City. As discussed in the responses to Comment No. 2 and Comment No. 5, MRL would temporarily transport PTU wastewater to out-of-state disposal facilities until completion of the PTU wastewater treatment process. MRL process wastewater is and would continue to be treated within the existing on-site wastewater treatment system. Once the PTU wastewater treatment process is completed, truck transport of MRL PTU wastewater to out-of-state disposal facilities would be eliminated. All wastewater generated from MRL operations (e.g., PTU and process wastewater) would be treated on-site prior to transport by pipeline to the City WWTP.

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			1,092,488 gallons of wastewater being used each day now? [correction provided in 10/7/24 & 10/9/24 emails] Note: the water treatment process is not guaranteed – rather, it's being evaluated. If this wastewater could be recycled and reused now, then why would MRL be spending millions of dollars to load trucks and railcars to ship their SAF wastewater across the country to Texas, Wyoming and Wisconsin as Bruce Fleming, CEO, told the Montana Free Press?	CMR manages the wastewater generated from CMR's refinery operations within the existing wastewater treatment system. MRL operations would not affect CMR's water use, CMR's water rights, or CMR's wastewater treatment. Therefore, CMR's wastewater operations are not within the scope of DOE LPO's NEPA review.
31	Angela Otero	10/07/2024, 4:58 p.m.	As previously discussed, wastewater from the renewable feedstock PTU (approximately 150,000 gallons per day) is currently transported to permitted disposal locations in approximately 17 to 24 truckloads per day; however, under the Project, MRL would increase the capacity of the feedstock PTU. MRL would generate an additional 150,000 gallons per day, or a total of 300,000 gallons per day, requiring approximately 34 to 48 truckloads a day to transport for disposal. Under the Project, MRL also would construct and operate a wastewater pretreatment process to treat nonhazardous wastewater from the feedstock PTU for discharge by pipeline to the City WWTP or for internal recycling, where feasible. This would eliminate 300,000 gallons per day of non-pretreated wastewater that would otherwise be transported off-site by truck for disposal. Note: This language combines "wastewater from the renewable feedstock PTU (approximately 150,000 gallons per day)" PLUS "an additional 150,000 gallons per day, for a total of 300,000 gallons per day, requiring approximately 34 to 48 truckloads a day to transport for disposal." In the next sentence, it states that MRL also would construct and operate a wastewater pretreatment process to treat non-hazardous wastewater from the feedstock PTU (pretreatment unit). This is confusing because it seems to be describing the PTU (pretreatment unit) process for treating raw feedstocks, not a process which treats wastewater after it has been generated. Further, "This would eliminate 300,000 gallons per day of non-pretreated wastewater that would otherwise be transported off-site by truck for disposal." First, where in this Draft EA-2275 does it state that non-pretreated wastewater would be transported off-site for disposal? According to the DEQ Air Quality permit dated November 9, 2023, pretreatment of feedstocks results in PTU wastewater that must be disposed of off-site and there will be no co-mingling of SAF wastewater with other wastes generated at MRL's refinery. PTU wastewater is not "pretreated" to state or federal safe wastewater discharge and disposal standards. Blending of these sentences leads the reader to believe that the first 300,000 gallons generated per day will be eliminated by the treatment of 300,000 gallons per day, thus eliminating the need for the trucking, as well. Coupling waste to be generated and transported with waste that will be treated and disposed of on-site – when these are two different waste streams – is deceptive. If MRL will be treating all 300,000 gallons of wastewater to be generated daily, then why will 34 to 48 truckloads a day be required for SAF wastewater disposal? This portion of the Draft EA needs to be clearly stated, with clear separation between how each type of waste stream is addressed, and/or treated, and/or not treated, and disposed of off-site by truck and rail transportation, and disposed of on-site by way of a pipeline to the City water treatment plant. It's not clear. What is feasibility contingent upon? Again, if 300,000 gallons is treated, then what happens to the other 1,092,488 gallons of water being used by MRL on a daily basis now to produce 30M gallons of SAF, and other products? What happens to overall water use when MaxSAF production increases to 330,000,000 gallons – a 10x increase – on top of current water use? This logic is not clear, and it appears to be circular doubletalk intended to confuse the reader.	As discussed in the responses to Comment No. 2 and Comment No. 5, MRL would temporarily transport PTU wastewater to out-of-state disposal facilities until completion of the PTU wastewater treatment process. This would require approximately 34 to 48 trucks per day to transport the wastewater generated from Phase 2 operations. Once the PTU wastewater treatment process is completed, truck transport of MRL PTU wastewater to out-of-state disposal facilities would be eliminated. All wastewater generated from MRL operations would be treated on-site prior to transport by pipeline to the City WWTP. As discussed in the response to Comment No. 13, MRL uses approximately 560,000 gpd of City-purchased water under existing (baseline) operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. MRL does not use and does not anticipate using groundwater or surface water withdrawal for existing operations or Phase 2 operations. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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32	Angela Otero	10/07/2024, 4:58 p.m.	Since MRL is currently using 55,188,000 gallons per year to produce 30M gallons of SAF, and other products, when MaxSAF increases production to 330M gallons, this will require significantly more water and it will generate significantly more wastewater that has to be transported by diesel trucks and rail cars across the country, increasing air emissions that will contribute to adverse climate change conditions, and increasing the total volume to be dumped into the Madison aquifer. It's no wonder these draft aquifer exemptions aim to exempt the entire Madison aquifer from the Safe Drinking Water Act, yet this Draft EA-2275 fails to address the total cumulative volume of contamination and pollution that will occur to the Madison Aquifer if this loan is approved, MaxSAF processes are installed, and the EPA approves these two permits and the two aquifer exemptions. With 24 trucks hauling 6,300 gallons each day now (151,200 gallons), over 365 days (24 x 6,300 x 365) this equals 55,188,000 gallons of SAF wastewater annually at only 30M gallons of SAF. A 10x increase in SAF production cannot occur without a corresponding 10x increase in the volume of water to be used, contaminated, wasted and disposed of. Outside of Valier, will county residents be looking at 264 trucks racing past our homes each day to accommodate an additional 10x volume of SAF wastewater? This water will be taken from the Missouri River, contaminated, then loaded into diesel operated trucks for delivery and injection into another body of water - the Madison Aquifer. The Madison Aquifer is a karst aquifer with underground lakes and flowing rivers, and with groundwater in some parts of the aquifer that is so clean, it needs no filtering or treatment, as described in the EPA's Denial of Aethon's aquifer exemption for the Madison Aquifer – and none of this is addressed in DRAFT EA-2275.	As discussed in the response to Comment No. 13, MRL uses approximately 560,000 gpd of City-purchased water under existing (baseline) operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. MRL does not use and does not anticipate using groundwater or surface water withdrawal for existing operations or Phase 2 operations. As discussed in the responses to Comment No. 2 and Comment No. 5, the Madison Aquifer is not within the direct, indirect, or cumulative impacts scope of DOE LPO's NEPA review. As discussed in the responses to Comment No. 2 and Comment No. 5, MRL would temporarily transport PTU wastewater generated from MRL operations to out-of-state disposal facilities until completion of the PTU wastewater treatment process. Once the PTU wastewater treatment process is completed, truck transport of PTU wastewater would be eliminated. All wastewater generated from MRL operations would be treated on-site prior to transport by pipeline to the City WWTP. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
33	Angela Otero	10/07/2024, 4:58 p.m.	Why does Montana Renewables need these two EPA permits and the Madison Aquifer exemptions if they are going to treat their waste on-site? Because, even if it is true, MRL's solution is completely insufficient to mitigate total volumes of wastewater that will be generated on a daily basis. Since neither the DEQ nor EPA is monitoring nor regulating MRL's wastewater disposal trucking operations, where are the restrictions and limitations on the number of trucks leaving the refinery, transporting waste, and returning for additional loads throughout the day? While it is stated that 34-48 truckloads will occur daily – which represents only a doubling of SAF production from 30M gallons to 60M gallons of SAF, those same trucks could be making multiple trips. What happens if truck traffic increases 2x, 4x, 10x? Which federal or state agency is responsible and accountable when roads used by these truckers are ruined and require repair? County gravel roads were never designed or built to handle an endless fleet of industrial trucks. Who is accountable when residents' peace and quiet is destroyed by diesel trucks passing in front of our homes every 10 minutes, 24 hours a day, seven days a week for the next 10 - 20 years? Who is accountable for the health impacts of diesel pollution and mile-long plumes of dust created by these trucks as they drive by homes and businesses? Environmental justice? Who shoulders the liabilities?	As discussed in the responses to Comment No. 2 and Comment No. 5, the Madison Aquifer and the referenced EPA permits are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. Sections 3.5 and 3.11.2 of the Final EA have been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts. Environmental Justice is addressed in Section 3.8.2 of the EA.
34	Angela Otero	10/8/2024, 6:02 a.m.	The central issue is one of failure: Failure by Montana state and federal agencies to require Montana Renewables to do the right thing – to reduce, reuse, recycle, reclaim and recapture water and secondary products, all of which have a monetary or economic value, none of which have not been identified, assessed or measured. An increased need for water, whether it's provided through a DNRC water right or the City of Great Falls, will be costly. Since MRL has a 566 acre-feet water right, this equates to 184,431,666 gallons (566 acre-feet x 325,851 gallons) per year, or 505,292 gallons (184,431,666 divided by 365) per day. The City of Great Falls provided 43,289,300 cubic feet for the year ending June 30, 2024.	As discussed in the response to Comment No. 13, CMR owns a Montana water right. CMR's water rights and baseline water use are separate and distinct from MRL's baseline and Project water use. The 566 acre-feet of water rights referred to in Comment 34 belong to CMR, not MRL. CMR's water right is being put to beneficial use for purposes unrelated to MRL operations, including CMR's emergency fire response. The MRL Project would not affect the water rights or water use of CMR. CMR's water rights are unrelated to MRL's current and Phase 2 operations. As discussed in the response to Comment No. 16, Phase 2 would not increase SAF production capacity by a factor of 10 from the existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF and using

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			To summarize, currently, Montana Renewables is using their own 566 acre-foot water right allocation, or 184,431,666 gallons per year, plus 323,826,474 (43,289,300 cubic feet x 7.48052 gallons) gallons of water as supplied by the City for the year ending June 30, 2024. Combined, this equals 508,258,140 gallons of water which was used by MRL to create 30M gallons of SAF, and other products in 2024. A 10x increase in MaxSAF production will (most likely) lead to a 10x increase in water requirements to "ramp up" production by an additional 300M gallons for a total of 330M gallons of SAF each year. The City of Great Falls probably does not realize – yet – how much more water MRL may require once their MaxSAF processes crank up production to achieve 330M gallons of SAF annually. Divide 508,258,140 gallons of annual water use by 365 days, and this equals 1,392,488 gallons per day water use for 30M gallons of SAF, and other products. To achieve an additional 10x increase from 30M gallons of SAF to 330M gallons of SAF, MRL's water use will (most likely) increase 10x as well to 13,924,880 gallons per day. Added together, 1,392,488 for the first 30M gallons plus 13,924,880 for the next 300M gallons will (most likely) lead to an increased need for an approximate total of 15,317,368 gallons per day. Annually, this will be 15,317,368.6 x 365 days, which maps out to 5,590,839,320 gallons per year, excluding fractional amounts. The City will have to sell all but 184,431,666 gallons to MRL. This increased need for almost 5.4B gallons of water each year from the City of Great Falls does not bode well for MRL. More on that below.	approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to 21,500 bpd (or 330 million gallons per year) and use 900,000 gpd of purchased water to do so. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also responses to Comment Nos. 5, 12, and 19.
35	Angela Otero	10/8/2024, 6:02 a.m.	In the meantime, according to Draft EA-2275, if the City's plant is currently treating 32 million gallons per day (mgd) and the plant has the capacity to treat 48 mgd, the total wastewater that may be generated by Montana Renewables on a daily basis – once production and water use increase to accommodate a 10x – is (most likely) between 13 and 15 million gallons per day. Add this volume to 32,000,000 gallons per day, and the result is 45,000,000 to 47,000,000 gallons per day. So, the City will have the capacity to treat this volume of MRL's wastewater without further expansion, but not much capacity left to accommodate future increases from any other wastewater generator. This Draft EA-2275 is deceptively written to state that the waste will be treated, however, the language is nuanced. *"The Project is anticipated to use 600,000 to 700,000 gallons of fresh water each day; the water would require post-use treatment. The City's treatment plant handles approximately 32 million gallons per day (mgd) and has the capacity to treat 48 mgd."* *"**Wastewater is currently pretreated on-site and trucked to permitted disposal locations**; however, as described in Chapter 2, MRL is proposing a wastewater treatment process for nonhazardous water from the feedstock PTU. This process would be capable of treating water on-site, thereby reducing transportation-related carbon emissions. The water treatment process is being evaluated to determine if treated water could be recycled and reused. The process would be sized for **approximately 300,000 gallons per day** and would meet the specifications for discharge to the City WWTP and/or internal uses that rely on recycled water."* The reality – as described in Montana Renewables' Final Air Quality Permit – is that the "pretreatment on-site" these statements refer to is the pretreatment unit (PTU) that treats incoming feedstocks to strip out oils and fats. That PTU wastewater then goes to a PTU wastewater holding tank, then to the truck tanker and rail car infrastructure for offloading and shipping offsite. It's not treated to safe wastewater discharge and disposal standards – not by any shade of the imagination. However, this is written to sound as if it's being treated before it's delivered to the injection wells. It is not. The final DEQ Air	As discussed in the responses to Comment No. 2 and Comment No. 5, EPA permits and the Madison Aquifer referred to in the comment are not within the direct, indirect, or cumulative impact scope of DOE LPO's NEPA review. As discussed in the response to Comment No. 20, under current MRL operations, wastewater generation is approximately 380,000 gpd, including approximately 80,000 gpd of PTU wastewater and 300,000 gpd of process wastewater. PTU wastewater is currently transported to permitted out-of-state disposal facilities. Other process-generated wastewater (approximately 300,000 gpd) is pretreated in the existing on-site treatment system and then piped to the City WWTP. Under Phase 2 of the Project, MRL wastewater generation is estimated to increase to approximately 670,000 gpd, including process wastewater and PTU wastewater. At the completion of Phase 2 of the Project, when the on-site PTU wastewater treatment process is operational, the hauling of PTU wastewater would be discontinued. All MRL wastewater would be pretreated on-site for reuse or disposal at the WWTP. Therefore, the Project would increase wastewater discharge to the City WWTP from 300,000 gpd (Phase 1, process wastewater only) to up to 670,000 gpd (Phase 2, PTU wastewater, and process wastewater) after the PTU wastewater treatment process is completed, an increase of 370,000 gpd. The City WWTP has adequate capacity to accept and treat the additional treated wastewater from MRL Phase 2 operations. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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			Quality permit dated November 9, 2023 provides clarification. The following two excerpts can be found at: https://deq.mt.gov/files/Air/AirQuality/Documents/ARMpermits/5263-02.pdf. *"MRL has not submitted any water quality or MPDES permit applications to DEQ. MRL has indicated within the application that additional permits are not planned except for a renewal for their wastewater pretreatment permit with the City of Great Falls (Wastewater Treatment Plant). This permit limits the allowable discharge of flow, pH, solids and metals from the CMR/MRL site as well as oil and grease. Based on communication with MRL, the permit limits are not expected to change with the addition of the MRL equipment but must be updated to reflect the additional process equipment connected to the wastewater system related to MAQP #5263-00. Based on this information, DEQ does not anticipate an impact to surface water features and water quality, quantity, and distribution management.* ***Wastewater generated from the PTU will not be commingled with the wastewater from the rest of the facility. All PTU wastewater will be shipped directly off-site using railcars."*** *"The application was submitted under the name Renewable Feed Flexibility Project.* ***The primary change in the plant design entailed installing a pretreatment unit (PTU) to allow the facility to treat raw renewable materials such as fats and oils which will result in the need to handle and transfer additional wastewater from the facility. The additional wastewater generation also required an additional storage tank as well as load-out facilities that use trucks, existing rail load-out infrastructure, or the installation of new rail load-out facilities.*** *Finally, kerosene and a sustainable aviation fuel were added as products produced from the renewable fuels unit."*	
36	Angela Otero	10/8/2024, 6:02 a.m.	Regarding air emissions, fugitive dust and cumulative impacts of both, as a hypothetical illustration, and as it relates to transportation of wastewater from the refinery in Great Falls to a farm outside of Valier, Montana, if 48 diesel semi-trucks travel 200 miles roundtrip, this equates to 9,600 miles in one day. At 365 days, this adds up to 3,504,000 miles in one year. If these 48 trucks carry 6,300 gallons, this equates to 302,400 gallons of wastewater to be delivered daily, or 110,376,000 gallons (or 2,628,000 barrels) of waste to be delivered in a single year. That's a significant number of miles, as well as a significant volume of wastewater and resulting diesel air emissions, pollution and plumes of dust coming off miles of gravel roads. If 48 trucks are traveling roundtrip on 20-22 miles of gravel roads each day, the mile-long plumes of dust permeate homes, shops, businesses, and impact public health and the health of nearby livestock with constant drivebys that kick up gravel road dust again and again, all day and all night long. Factor in actual miles to be traveled by diesel trucks and diesel rail cars to each permitted wastewater disposal site, and a more accurate level of air emissions can be calculated, as will MRL's contributions to climate change. While the transportation companies' diesel operations will directly contribute to climate change impacts, it is Montana Renewables' SAF wastewater that will be driving the need for these trucks and rail cars to travel from the refinery in Great Falls to various disposal sites. Draft EA-2275 must take into account all cumulative impacts and calculate total miles, total air emissions and total fugitive dust pollution along almost 20-22 miles of gravel roads for all daily transportation requirements to and from the refinery. The following excerpt from Draft EA-2275 completely failed to take into account the transportation element required by SAF wastewater disposal off-site, resulting air pollution emissions, fugitive dust pollution and other cumulative environmental and public health impacts: *"The Project would result in fugitive air emissions from sources such as the additional employees' vehicles, along with additions to trucking and railcar operations for transporting SAF from the renewables Facility to customers. As*	Air quality impacts from mobile sources (e.g., passenger vehicles, trucks, locomotives) are described in Section 3.5, Air Quality. Table 3-1c describes air emissions from passenger vehicles and trucks for MRL Phase 1 and Phase 2. Air emissions estimates are based on max SAF operating conditions. As discussed in the response to Comment No. 2, off-site transport of PTU wastewater by truck would be eliminated once the PTU wastewater treatment process is completed. Table 3-1d describes air emissions from rail operations. An additional 20 to 25 railcars would be added to rail operations; these railcars would be used to deliver feedstock to MRL and transport renewable products off-site. No additional engines or switches would be required to move the additional railcars under Phase 2. As such, there would be no net increase or decrease in rail emissions from current MRL operations to Phase 2 MRL operations. The increase in air emissions from the Project would not be significant. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project. Sections 3.5, 3.7, and 3.11.5 have been revised to include analysis of potential transportation-related impacts.

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			further discussed in the Transportation section (Section 3.7), additional vehicle trips are estimated to include 46 additional trips from workers' vehicles each day and five trips involving tanker trucks each day. Because MRL is focused on providing local jobs, workers' vehicle trips would generally be short, originating in local communities. Similarly, the five additional tanker trucks per day would be delivering to local customers, such as Malmstrom Air Force Base and Great Falls International Airport. Minor mobile-source emissions during operations would also come from the trains that would deliver feedstock to the renewables Facility. As discussed further in Section 3.7, an additional 20 to 25 railcars would be added to rail operations at the renewables Facility; these railcars would be used to store feedstock on-site or transport product off-site. No additional engines would be required to move the additional railcars. As such, there would be a negligible increase in mobile-source emissions from locomotive operations."	
37	Angela Otero	10/8/2024, 6:02 a.m.	Addressing local employee vehicular traffic, yet failing to address baseline, long-haul, diesel semi-truck traffic occurring now to train yards in Shelby and Butte, Montana, and to a disposal site in Boise, Idaho, plus rail traffic to sites in Texas, Wyoming and Wisconsin, means "negligible increase" and "minor mobile-source emissions" do not begin to accurately reflect current or proposed future air emissions on the streets of Great Falls, on interstates across multiple counties, in small towns and countrysides, or across the country, where Montana Renewables' MaxSAF wastewater is proposed to be transported for disposal.	Sections 3.5, 3.7, and 3.11.2 of the Final EA have been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Baseline air emissions and Project air emissions from mobile sources, including passenger vehicles, trucks, and locomotives, are summarized in Final EA Tables 3-1b and 3-1d. As stated in the EA, the increase in mobile-source air emissions from the Project would not be significant. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 36. Sections 3.5, 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts.
38	Angela Otero	10/8/2024, 6:02 a.m.	Since Montana Renewables is currently consuming 566-acre-feet (184,431,666 gallons) plus 43,289,300 cubic feet (323,826,474 gallons) now to produce 30M gallons of SAF, and other products, when MaxSAF is fully operational, this will (most likely) create a need for 10x more water – or, well over 5B gallons to be taken from the Missouri River each year. If it's true that Montana Renewables will be treating 300,000 gallons of wastewater per day, and they are currently generating over a million gallons each day, then it stands to reason that the majority of this wastewater will not be treated for safe discharge back to the Missouri River, but trucked off-site for disposal. Once this water is extracted from the river, and disposed of off-site, then the Missouri River will be degraded and diminished further each year by over 5B gallons to be taken, and buried underground in the Madison Aquifer. Most grade-school kids could identify the adverse consequences and environmental effects on the Missouri River, specifically on fish and aquatic species, migratory birds and nesting sites, insects, wildlife, flora and fauna, trees and riverbanks. Downstream users below MRL's refinery site will likely discover their creeks and tributaries drying up, and fish dying due to higher water temperatures caused by reduced water levels and flows.	As discussed in the response to Comment No. 13, the 566 acre-feet of water rights referred to in the comment belongs to CMR, not MRL. The MRL Project would not affect CMR water use or water rights. As discussed in the responses to Comment No. 2 and Comment No. 5, PTU wastewater from Project operations would be temporarily transported to permitted out-of-state disposal facilities until the PTU wastewater treatment process is completed, at which time PTU wastewater would be discharged to the City WWTP. MRL process wastewater is and would continue to be treated within the existing on-site treatment systems before discharge to the WWTP. Wastewater from MRL operations is not and would not be discharged to the Missouri River. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
39	Angela Otero	10/8/2024, 6:02 a.m.	Based on the Draft EA-2275, it appears that DOE LPO staff failed to recognize the need for and consult with Montana's Fish and Wildlife staff to identify, assess and mitigate potential environmental impacts that may be caused by over 5B gallons of water vanishing from the Missouri River each year to accommodate a 10x increase in industrial production uses by MRL This consultation should occur now, and results should be added to the Draft EA-2275 for public review and comment. Further, DOE LPO staff should consult with Fish & Wildlife staff to address impacts to wildlife, grizzly bears, and other endangered species. Each diesel semi-truck will be making an almost 200-mile trip for one load, which – at speeds typically witnessed by residents and traveled by long-haul truckers on gravel roads – increases the chances for vehicular strikes which will result in higher bear mortality and maiming. Grizzly bears are a protected species, and	As described in Final EA Table 1-1, the Project would occur within the footprint of an existing refinery where there are no biological resources. There are no trees or vegetation on the Project site and no habitat for wildlife. Therefore, as discussed in Final EA Table 1-1, Resources Dismissed from Detailed Analysis, biological resources were dismissed from detailed analysis in the EA. Grizzly bear activity in Dupuyer and Valier, Montana, is not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in Final EA Section 3.3, all water for existing MRL operations is purchased from the City. MRL anticipates that all water for Phase 2 operations will continue to be purchased from the City. Direct consumption of water from the Missouri River has not been proposed by MRL; as such, water withdrawal from the Missouri River is not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO.

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			there are other protected species in this particular area. Fish and Wildlife staff can supply the DOE LPO staff with data that show interactions and sitings of grizzly bears throughout the same corridor and on the same roads to be used by these truckers. Recently, after drones were put up to count bears in the cornfields owned by Hutterites, the Fish and Wildlife staff estimated 30 bears were present prior to mechanical harvesting. Thirty bears is a significant number, and a truer reflection of actual grizzly bear activities in the area between Dupuyer and Valier, Montana.	As discussed in Sections 2.4.4, 3.3, 3.7, 3.10, 3.11.1, and 3.11.5 of the Final EA, there would be a temporary increase in PTU wastewater haul traffic, with up to 48 trucks per day traveling from Great Falls to permitted out-of-state disposal facilities, including permitted disposal wells in Kuna, Idaho.
40	Angela Otero	10/8/2024, 6:02 a.m.	While the Draft EA-2275 states that 36 to 48 truck loads will be delivered each day to the injection wells, in 2023, these same truckers were making deliveries night and day, seven days a week, at a rate of one truck arriving and departing every 10-15 minutes to the injection site's Poseidon holding tank. Since the trucking companies operations are not regulated by the Montana DEQ or EPA, there are no enforceable limits or restrictions on any of their activities, which means these 48 trucks can make multiple trips per day, at any hour of the day or night, traveling past homes at high speeds, passing cars on narrow gravel roads at high speed and making traffic especially difficult during and after snow or rain; kicking up mile-long plumes of dust, and blasting their Jake brakes at all hours of the day and night to announce their arrival. The DOE Draft EA-2275 must address cumulative trucking operations, air pollution, dust pollution, noise pollution and road damages that will result from a 10x increase in wastewater transportation to accommodate a 10x increase in SAF wastewater to be generated by the MaxSAF processes and the refinery's expansion. This must be done by the DOE LPO staff prior to awarding any taxpayer dollars to subsidize MRL's ambitions at the expense of people who live near the refinery and near these injection wells. Draft EA-2275 failed to identify, address and include these cumulative impacts in this Environmental Assessment.	The referenced Poseidon holding tank is not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Based on information provided by MRL to DOE, the Poseidon tanks were dismantled and removed in December 2023. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 2 and Comment No. 5. Sections 3.5 and 3.11.2 of the Final EA have been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts.
41	Angela Otero	10/8/2024, 6:02 a.m.	Damage to gravel roads alone will have a major, direct, adverse impact to residents and businesses along those roads due to the overall damage created by trucks which includes washboarded roads, loss of gravel off roads into ditches and gravel pounded deep into road surfaces which make roads as slick as ice after rain and snowfall events. None of this was identified, addressed or proposed to be mitigated, and this needs to occur in a revised Draft EA to be provided to the public for review and comment. A 10x increase in SAF production – resulting from new MaxSAF processes – will result in a 10x increase in wastewater hauling and transportation impacts. These must be addressed. As referenced earlier in my first set of comments today, these EPA permits will create a need for over 100,000 trucks to travel in one direction to the injection well site, and back in another direction, which will totally ruin both roads, and these impacts will occur every 10 minutes night and day, as permitted by the EPA to occur for over a decade.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts.
42	Angela Otero	10/8/2024, 6:02 a.m.	Draft EA-2275 fails to address total wastewater volumes to be generated by SAF and all "renewables" production, as well as cascading and rippling effects of diesel rail and trucking operations, resulting traffic on city streets, interstates, highways and county gravel roads, resulting noise and air pollution, vast dust plumes and the resulting, cumulative detrimental impacts to public health (for instance, impaired health, respiratory impacts, exacerbation of asthma, mental health impacts due to lack of sleep from constant trucking traffic), and adverse environmental impacts.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project. Sections 3.5 and 3.11.2 of the Final EA have been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts.
43	Angela Otero	10/8/2024, 6:02 a.m.	Further, while the DOE LPO staff consulted with several tribes to prepare this Draft EA-2275, why was there no consultation with council members of the Blackfeet Nation? The EPA's proposed SAF wastewater injection wells are less than 25 miles from Heart Butte – a small, impoverished town of several hundred Native Americans who are living below the poverty line. The Environmental Justice Analysis performed by the EPA was fraudulently prepared to yield false results – achieved by combining a Disadvantaged	DOE LPO uses the federally recognized Department of Housing and Urban Development Tribal Directory Assessment Tool (TDAT) to identify tribal nations for project-specific consultation purposes. This tool provides contact information for tribal leaders and Tribal Historic Preservation Officers, along with counties where the tribes have current and ancestral interest. DOE LPO consulted with all tribes identified in the TDAT analysis for the Project. Tribal consultation is addressed in Section 3.4 and Appendix A of the Final EA.

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			Census Tract with a Non-Disadvantaged Census Tract. At best, the EPA's EJ Analysis efforts were pathetic, their results were flawed and their analysis was total rubbish. The EPA made no attempt to accurately identify, assess or mitigate potential hazards or impacts to the Heart Butte community or any homeowners who live near these injection wells or along proposed and alternate transportation routes. Draft EA-2275 must be amended to take into consideration the consequential environmental justice issues that will be created by truckers delivering millions of gallons of SAF wastewater – and potentially billions of gallons of wastewater produced by MaxSAf processes – for high-pressure injection into the Madison Aquifer.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Therefore, the Heart Butte community would not be affected by wastewater transport for MRL's Phase 2 operations.
44	Angela Otero	10/8/2024, 6:02 a.m.	The entire Rocky Mountain Front has been peppered with seismic testing using shot-hole drilling. This involves drilling underground, detonating a charge of dynamite, then listening for sounds of oil to be picked up on electronic equipment below the rubble. Translated, this means the potential has been greatly increased for SAF wastewater to travel from the Madison Aquifer to sources of drinking water (private wells and public water systems, surface waters and natural springs) through the fissures, gaps and cracks that were created by seismic testing activities. The EPA Technical Analysis/Narrative for each well states that the Madison Aquifer is most likely hydraulically connected – without stating how it's connected, to what it's connected, or to what degree the water flow and exchange can occur between the Madison Aquifer and sources of drinking water. The DOE Draft EA-2275 must take into account the potential for SAF wastewater produced by MRL's MaxSAF processes to travel and circulate within the Madison Aquifer to all sources of drinking water, surface waters and natural springs, resulting in contamination and pollution that must then be addressed, mitigated and remedied to make parties injured by this SAF wastewater contamination and pollution whole again. While the EPA failed to address geology and hydrology concerns, and potential major adverse impacts from high-pressure injection of MRL's SAF wastewater into the Madison Aquifer, the DOE LPO staff must address these issues as well as cumulative impacts.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA technical analyses and Madison Aquifer comments are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO.
45	Angela Otero	10/8/2024, 6:02 a.m.	Two companies can treat MRL's wastewater: IX Power Clean Water, Inc. (https://ixwater.com/about/why-ix-water), and Northland Industrial Specialties, LLC (https://nisprocess.com), and there may be others within the wastewater treatment industry. Treatment of MRL's SAF wastewater to be generated by MaxSAF processes will allow valuable water resources to be reduced, recycled, reclaimed, recaptured and reused by Montana Renewables. Instead of using fresh water to strip oils and fats from feedstocks and animal fats, then contaminating this water beyond their own re-use, then loading their SAF wastewater into diesel semi-tankers and rail cars to be transported to waste disposal sites all over Montana and the United States, then injecting millions – and ultimately billions – of gallons of their SAF wastewater into another body of USDW designated sources of drinking water – the Madison Aquifer – none of this will be necessary if MRL's SAF wastewater is treated at the refinery in Great Falls, and re-used for their industrial production processes. On-site treatment will reduce MRL's overall water consumption, as well as total daily and annual volumes to be extracted from the Missouri River and provided by the City of Great Falls. On-site, full-circle wastewater treatment will eliminate the need for diesel trucking and diesel rail transportation of wastewater, and the resulting cumulative, major, adverse impacts to public health, the environment, downstream users, wildlife, livestock, crop irrigation and other impacts listed previously. The DOE Draft EA-2275 should absolutely require MRL to use some of these $600M taxpayer funded dollars to build an on-site wastewater treatment plant to treat 100% of MRL's SAF wastewater.	As discussed in the responses to Comment No. 2 and Comment No. 5, all wastewater generated from MRL's current operations and Phase 2 operations would be treated on-site once the PTU wastewater treatment process is completed; treated wastewater would be discharged to the City WWTP by a pipeline. The wastewater treatment proposed for the Project is discussed in Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the EA.

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46	Angela Otero	10/8/2024, 6:02 a.m.	The DOE LPO staff are probably not aware of online public conversations regarding the use of the $600M loan, but should there be any excess funds after the refinery expansion and MaxSAF buildout, those funds should not be used to pay down debt owned by Calumet or Montana Renewables. The DOE LPO staff should stipulate that any and all unused funds from the $600M loan must be used to build a full-circle, cradle-to-grave on-site wastewater treatment plant that will treat 100% of all wastewaters generated at the refinery to reduce, mitigate and eliminate significant, cumulative impacts generated by the refinery, as well as MaxSAF production processes. The DOE LPO staff should require an audit review of how this $600,000,000 is used, and this audit review should be made available online to the public.	As discussed in the responses to Comment No. 2 and Comment No. 5, all wastewater generated from MRL's current operations and Phase 2 operations would be treated on-site once the PTU wastewater treatment process is completed; treated wastewater would be discharged to the City WWTP by a pipeline. The wastewater treatment proposed for the Project is discussed in Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the EA. The Project is applying for a loan guarantee under the Section 1706 EIR Program. One goal of DOE's financial assistance for projects under the EIR Program is to support the construction and start-up of projects that avoid, reduce, or sequester anthropogenic emissions of GHGs or accelerate the commercial deployment of innovative energy technologies. Any loan funding received from DOE for the MRL Project would not be used to fund CMR activities.
47	Angela Otero	10/8/2024, 6:02 a.m.	Excerpted from an online article at SeekingAlpha: *"Subsidiary Montana Renewables modified its existing agreements with Stonebriar to allow for their early termination upon receiving proceeds from an eligible capital event, including a loan guarantee from the U.S. Department of Energy."* *And, from Yahoo Finance, "They are doing and will likely do exactly what they say 1) Partial sell, fully sell or IPO MRL soon, 2) Use proceeds from this and free cash flow to reduce debt, 3) Focus on creating a world class specialty chemicals firm. They could easily do $600mm plus in cash flow over next 12 months. As this cash flow along with MRL proceeds goes to pay down 11% debt, the cash flow just compounds."*	The Project is applying for a loan guarantee under the Section 1706 EIR Program. One goal of DOE's financial assistance for projects under the EIR Program is to support the construction and start-up of projects that avoid, reduce, or sequester anthropogenic emissions of GHGs or accelerate the commercial deployment of innovative energy technologies. Any loan funding received from DOE for the MRL Project would not be used to fund CMR activities.
48	Angela Otero	10/8/2024, 6:02 a.m.	In addition to an on-site wastewater treatment plant, DOE LPO staff should recognize the obvious need for local air quality monitoring stations given that the closest station is two miles from the refinery, and the next closest station is located in the wilderness near Helena – miles from the refinery with almost no ability to monitor any air emissions, or pollutants, from any point-source in Great Falls. As excerpted from Draft EA-2275: *"The sole Great Falls air quality monitoring station is within 2 miles of the Project site. The next-closest multi-pollutant monitoring station is the National Core Monitoring Site (NCore), located in a wilderness north of Helena, Montana."* If there are any unused funds leftover after the refinery expansion and MaxSAF buildout are complete, the DOE LPO staff should stipulate the buildout of four air quality monitoring stations on all four sides of the refinery (including one station directly across the Missouri River) to fully measure fugitive air emissions and resulting air pollution created at the MRL refinery site in Great Falls. Most drivers, and residents in the surrounding areas, are well aware and constantly reminded that any travel past the Calumet/Montana Renewables refinery usually results in vehicles being completely engulfed by fugitive stench and fumes from the refinery. These fumes are nauseating, overwhelming, and constantly present unless the wind is blowing the fumes away from Walmart and nearby residential areas.	Regional air quality monitoring is not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Air quality monitoring in Montana is regulated by MDEQ and EPA and implemented by MDEQ. Any requirements for air quality monitoring would be determined as part of the ongoing air permitting process conducted by MDEQ and EPA. Air quality–related permitting for the Project is discussed in Sections 3.5.3.1 and 3.5.3.2 and Appendix B of the Final EA. No modification to the EA is required.
49	Angela Otero	10/8/2024, 6:02 a.m.	Taxpayer dollars should not be used to pay down debt, or reduce debt loads, and excess funding should be returned to the DOE if these funds will not be used to resolve, reduce and/or mitigate significant impacts created by the Calumet/Montana Renewables refinery, or any aspect of their production processes.	The Project is applying for a loan guarantee under the Section 1706 EIR Program. One goal of DOE's financial assistance for projects under the EIR Program is to support the construction of and start-up of projects that avoid, reduce, or sequester anthropogenic emissions of GHGs or accelerate the commercial deployment of innovative energy technologies. Excess funding would not occur because DOE proceeds are funded for Title XVII-eligible expenses approved by LPO. No modification to the EA is required.
50	Angela Otero	10/8/2024, 6:02 a.m.	With regard to Section 3.8.1 SocioEconomics, excerpted from Draft EA-2275, *"During operation of the Project, MRL would continue to pay property taxes to Cascade County for the land on which the Project site is located. Local governments typically use tax revenues for infrastructure improvements, such as roads, but also for schools, health facilities, and other needs of the community."*	CMR's negotiations with Cascade County officials regarding property valuations and taxation, as well as information reported in *The Electric* article referred to in the comment, are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. The Project is applying for a loan guarantee under the Section 1706 EIR Program. One goal of DOE's financial assistance for projects under the EIR Program is to support the construction of and start-up of projects that avoid, reduce, or sequester anthropogenic emissions of GHGs or accelerate the commercial deployment of innovative energy technologies.

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			Residents of Great Falls, and City staff, are well aware that Montana Renewables does not willingly pay their property taxes. According to an ongoing and interesting story written by Jen Rowell, at "The Electric," https://theelectricgf.com/2024,/06/13/montana-renewables-calumet-have-pending-tax-appeals-before-state-board/:, Calumet has initiated several attempts to avoid paying what they owe. One example: *"During a November (2023) hearing, Calumet asked the Cascade County Tax Appeal Board to lower their valuation for the buildings, equipment and improvements to $109,881,000 for a total of $109,999,944. That's a reduction of $189.5 million. The county board denied the request. In mid-December, Calumet appealed the decision to the Montana Tax Appeal Board as they did in 2018."* Now, if Montana Renewables plans to increase SAF production from 30M gallons to 330M gallons using their MaxSAF process, there will be a corresponding need for more water that can only be provided by the City. This volume of water could be well over 5 billion gallons to achieve SAF production goals. Failure to pay one's property taxes in a timely fashion, without initiating multiple challenges which ultimately shortchange schools, health facilities, roads and infrastructure improvements throughout the city of Great Falls, is probably not the wisest course of action. A reasonable person could conclude that if these challenges continue, this may not bode well for Montana Renewables. Given that SAF fuel blends should command a handsome profit, MRL should become highly profitable, and if taxes on profits increase significantly, that usually indicates profits have increased significantly as well.	Proposed water use by MRL is discussed in Sections 3.3 and 3.11.1 of the EA.
51	Angela Otero	10/8/2024, 6:02 a.m.	Finally, given the major, adverse impacts to public health and the environment, especially with regard to fresh water use and SAF wastewater generation, transportation and disposal by way of high-pressure injection into another body of drinking water identified by the EPA as a USDW, it is difficult to fathom how the DOE LPO staff determined there was a "Finding of No Significant Impact" for this Draft Environmental Assessment.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater disposal, and wastewater treatment under the Project. See also response to Comment No. 5. Sections 3.7 and 3.11.5 have been revised to include additional analysis of potential transportation-related impacts.
52	Matt Epstein	9/12/2024, 9:23 a.m.	I saw a notice about a public "involvement" period for the proposed Montana Renewables conversion project (EA-2275). I believe the comment/involvement period closes on 10/14/24. Will this comment period need to be fully closed before the DOE would be in a position to announce a commitment for a loan to MRL? If you don't know the answer to this question, is there someone else I should reach out to?	The public comment period closed on October 14, 2024. DOE announced its conditional commitment for the Project on October 16, 2024. See link to press release here: LPO Announces Conditional Commitment to Montana Renewables to Significantly Expand U.S. Sustainable Aviation Fuel Production | Department of Energy. No modification to the EA is required.
53	Angela Otero	10/08/2024, 11:38 p.m.	Attached is Montana Refining Company's 566 acre-feet water right, and a grid reflecting total water sales of 43,289,300 cubic feet, by the City of Great Falls, for the year ending June 30, 2024. Also attached is a water right for Montana Refining Company that was withdrawn. These documents support my public comments provided to you in my two emails sent yesterday, October 7, 2024. (PDFs labeled Montana Refining Company 41Q 202265-00 - 566 ac-ft water right & Montana Refining Company 41Q 202264-00 566 ac-ft water right withdrawn. Case info 2264 attached to email)	As discussed in the response to Comment No. 13, CMR's water rights and CMR's baseline water use are separate and distinct from MRL's baseline and Project water use. The 566 acre-feet of water rights referred to in the comment belong to CMR, not MRL. MRL is a separate legal entity from CMR. CMR's water use for refinery operations does not affect the amount of water currently used by MRL or the amount of water that would be used by MRL for Phase 2 of the Project. The Project would not affect the water rights or water use of CMR or affect the amount of water used by CMR. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.
54	Corrine A Rose	10/09/2024, 5:50 p.m.	Greetings, Here in Pondera County we support economic development along with new options for the marketing of our agricultural products that the production of biofuels will create for North Central MT. We adamantly believe that Montana Renewables should treat the high strength industrial wastewater, generated from the production of SAF, to a level that allows them to reuse the water or send it to the Great Falls wastewater treatment facility. The water can be recycled - put back into the Missouri River and then be available for other	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits in Pondera County are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. Sections 2.4.4, 3.3, 3.7, 3.10, and 3.11.1 of the Final EA have been revised to clarify water use, wastewater transport, wastewater disposal, and wastewater treatment under the Project.

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			uses. There is no mention in the attached DOE EA for MT Renewables how the wastewater is currently being disposed of or the pending EPA Class V Injection well permits located here in Pondera County – if approved, these permits will allow the disposal of this high strength industrial wastewater into the Madison Aquifer which is currently classified as an USDW. There were two public comment meetings held and the majority of comments were in opposition to the approval of these two injection wells. There are two more wells that are in line to be fast-tracked for EPA approval once the first two are approved. Again, the treatment of the wastewater is a very good thing. I am concerned that they are proposing to treat only part of the wastewater that they generate (and propose to generate) as a symbolic gesture of being a "green" manufacturer of "sustainable" energy. PLEASE require that ALL of the wastewater generated by MT Renewables go through the necessary treatment, so it can be recycled and available for reuse, as a condition of granting them this very generous DOE loan. These are our tax-payer dollars.	
55	Ryan E McCormick	10/11/2024, 5:47 a.m.	I am writing today in support of MRL expansion. I am an agricultural producer from Kremlin Montana and this would open an inviting market for oil seeds produced in the Golden triangle. Montana by and large is an export state and whenever we have the opportunity to create end use products within our state it bolsters Montana's overall economy. Not to mention the environmental benefits of using a renewable source of energy.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
56	Bill OHaire	10/11/2024, 7:37 a.m.	Please support Montana Renewables their efforts are bringing needed options for the Montana farmers and other businesses here in the state of Montana	Section 1.5 of the EA has been modified to note commenters' support for the Project.
57	Marlena Halko	10/11/2024, 1:39 p.m.	I am writing to express my for support Montana Renewables - MRL and the opportunities they provide in Montana. They are committed to doing business in Great Falls and provide a positive economic impact for the City of Great Falls and Cascade County.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
58	Senator Mike Lang	10/11/2024, 12:34 p.m.	I support Montana Renewables, LLC (MRL), as a manufacturer of renewable diesel (RD) and sustainable aviation fuel (SAF). Their objective is to meet the growing demand for RD and SAF by converting a portion of an existing refinery operated by Calumet Montana Refining (CMR) in the city of Great Falls, Montana, into a renewable fuels and biomass energy facility (renewables Facility or the Project). MRL will also incorporate innovative technological solutions for hydrogen production and increase processing capacity by more than 50 percent. Montana agriculture does, can and will produce many different whole products. A fuel manufacturer such as MRL and the vision of CMR is the consumer of these products as they are developed into oils. The MRL and CMR relationship is very strong and able to handles the challenges of the United States energy structure. I support their project within the LPO as we need renewables in Montana and it's agriculture production.	Section 1.5 of the EA has been revised to note Senator Lang's and other public officials' support for the Project.
59	Paige Culver	10/11/2024, 12:30 p.m.	I support Montana Renewables - MRL and the opportunities they provide in MT.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
60	Representative Ross H Fitzgerald	10/11/2024, 11:53 a.m.	Be advised that I am in full support of Montana Renewables, LLC endeavors in Montana that will surely benefit both the Agricultural economy as well as the State of Montana. We are striving every day to bring and expand business to Montana through our legislative efforts.	Section 1.5 of the EA has been revised to note Representative Fitzgerald's and other public officials' support for the Project.
61	Lee Diedrich	10/11/2024, 11:50 a.m.	I support Montana Renewables and the opportunities they provide Montanans.	Section 1.5 of the EA has been modified to note commenters' support for the Project.

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62	Arleen Rice	10/11/2024, 10:43 a.m.	Please receive my support for Montana Renewables. Agriculture faces many obstacles in Montana, and Montana Renewables provides opportunity based on sound environmental sources, markets, and advancing technologies that help our Montana Agriculture Industry. Please provide them a pathway to help agriculture. As a crop consultant and also an agricultural producer I urge your support.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
63	Amy Warner	10/11/2024, 10:03 a.m.	I support Montana Renewables. MRL provides growth and opportunities across Montana that have never been here before. They are paving the way for a brighter future in best using our natural resources.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
64	David A. Galt	10/11/2024, 9:54 a.m.	The Montana Petroleum Association offers our support for a pending loan application for the expansion of renewable diesel, sustainable aviation fuel, and other renewable products at the existing Calumet Special Products facility in Great Falls, Montana. The refinery has been operating at the existing location in Great Falls for over 100 years. Calumet's operations in Great Falls provide over 200 jobs that offer wages and benefits among the highest in the State. The facility provides transportation fuels in the center of Montana, (the fourth largest in the USA), and serves a large central part of what is called Montana's Golden Triangle. The Golden Triangle is the name for the largest grain producing region in Montana which expands over 100 miles to the east and nearly the same to the north. Calumet's decision several years ago to divide their legacy facility and turn one half of the plant to renewable fuels has been successful. Montana Renewables LLC stands alone as one of the largest, if not the largest, sustainable aviation fuel manufacturers in the western hemisphere. Besides the development of fuel, Montana Renewables provides a base demand for feedstock from a variety of different grains and animal by products. The Great Falls location has excellent transportation facilities in the area which opens markets to the western United States, the Midwest as well as Canada. We urge your continued support of Montana Renewables.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
65	Jay Whitaker	10/11/2024, 9:44 a.m.	I support Montana renewables and all of the opportunities that they provide for the state of Montana they are a HUGE asset!	Section 1.5 of the EA has been modified to note commenters' support for the Project.
66	Senator Josh Kassmier	10/11/2024, 9:37 a.m.	As a farmer and Montana Senator I support Montana Renewables and the opportunities that they provide for Montana, Montana agriculture and our environment.	Section 1.5 of the EA has been revised to note Senator Kassmier's and other public officials' support for the Project.
67	Ron Gersack	10/11/2024, 9:28 a.m.	I am writing in support of the Calumet project in Great Falls. This will be great economic impact to the state!	Section 1.5 of the EA has been modified to note commenters' support for the Project.
68	Sreekala Bajwa	10/11/2024, 9:28 a.m.	I am writing this email in support of the loan application from Montana Renewables for the expansion of their Great Falls facility. The Montana State University College of Agriculture has been exploring partnership with the company in expanding our bioenergy crops and downstream processing to support the renewable diesel and SAF production operations at MRL. The expansion of MRL facility will benefit Montana's economy and Montana State University as a supplier of workforce to MRL and in cementing future collaborations in the bioenergy/bioproduct production and thus strengthening the bioeconomy of Montana. I support the proposed expansion and urge DOE is consider their application favorably.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
69	Dale Flikkema	10/11/2024, 9:18 a.m.	I support Montana Renewables-MRL and the opportunities for Montana and Montana Farmers.	Section 1.5 of the EA has been modified to note commenters' support for the Project.

Comment Number	Commenter	Date	EA Comment	DOE Response
70	Walt Sales	10/11/2024, 8:52 a.m.	Please use this as my support for the advancement in the Montana Renewables project. This will be a long standing benefit for the future of the community as well as fitting the demand for cleaner fuels.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
71	Representative Llew Jones	10/11/2024, 8:26 a.m.	I support Montana Renewables and the opportunity they provide for Montana.	Section 1.5 of the EA has been revised to note Representative Jones' and other public officials' support for the Project.
72	Krista Lee Evans	10/11/2024, 8:25 a.m.	Ms. Evans is a strong supporter of MRL and the opportunities they provide.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
73	Rob Cook, Executive Director Pondera Regional Port Authority	10/11/2024, 8:25 a.m.	The Pondera Regional Port Authority is pleased to support Montana Renewables request for a DOE loan to complete Phase 2 of their proposed facility expansion project. The expansion of the facility will increase production capacity which directly benefits regional agricultural producers. The inclusion of an on-site wastewater treatment facility will eliminate the current need to transport and inject production wastewater into non-producing oil wells in Pondera County. I thank you for your time and consideration in this matter and I look forward to hearing that Montana Renewables has been successful in their request for this loan.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
74	Ryan Helmer	10/11/2024, 8:07 a.m.	I would like to voice my support for Montana Renewables. The opportunities they create for our local economy and statewide agriculture are tremendous.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
75	Tom Gersack	10/11/2024, 4:59 p.m.	I write this in support Montana Renewables - MRL - and the opportunities they provide in MT.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
76	Dan Carter	10/11/2024, 7:06 p.m.	I am writing to give my personal support for Montana Renewables and its application. As a lifelong Montanan, I value what this proposal does for agriculture and our economy.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
77	Jim Keough	10/11/2024, 7:48 p.m.	I support	Section 1.5 of the EA has been modified to note commenters' support for the Project.
78	Matt Smith	10/11/2024, 7:51 p.m.	As a representative of BASF, I would like to express our support for the proposed Montana Renewables expansion. At BASF, we are actively developing drought and heat tolerant canola hybrids for Montana growers. One of our goals is to have a large portion of the oil produced from these hybrids refined into renewable diesel fuel at the Great Falls facility. In time, expansion of the Montana Renewables facility will directly benefit the entire agricultural channel in the greater region by increasing demand of oilseed acres that produce a more sustainable end product.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
79	Zach Brown, Gallatin County Commissioner	10/12/2024, 9:19 a.m.	I support Montana Renewables - MRL and am grateful for the opportunities they provide in Montana. They are doing important work to support our communities that depend on agriculture, and they are helping to support our country's transition away from fossil fuels. Please support their loan application!	Section 1.5 of the EA has been revised to note Commissioner Brown's and other public officials' support for the Project.
80	Karen Sowers	10/12/2024, 11:42 a.m.	On behalf of the Pacific Northwest Canola Association (PNWCA), I am writing in support of the Renewable Fuels and Biomass Energy Facility Project at the Montana Renewables LLC (MRL) site in Great Falls, Montana. This project is very much in alignment with the mission of the PNWCA: To grow the canola industry in the Pacific Northwest (PNW) through education, advocacy, and marketing. Our organization strives to bring canola producers, the entire canola industry supply chain, and academia together to increase the adoption of canola in the four-state Northwest region. The expansion of MRL would result in increased demand for canola, and increased production of renewable energy and sustainable aviation fuel (SAF), all of which are positive opportunities for Montana growers, and citizens.	Section 1.5 of the EA has been modified to note commenters' support for the Project.

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			The PNWCA believes the above proposal is timely, as canola acreage is on the rise in Idaho, Montana, Oregon, and Washington. Montana ranks second in the U.S. in canola acreage, and we fully expect acreage to continue to increase, particularly with demand from facilities like MRL. The innovative technologies that will be part of MRL's expansion are also in line with the PNWCA and U.S. Canola Association goals of environmental sustainability and reduced carbon emissions, and providing local economic opportunities. In closing, we fully support this project, and urge you to provide the requested funding for the facility expansion to provide continued demand for canola production, and increased renewable energy and SAF production in Montana.	
81	Ed Brown	10/13/2024, 4:18 p.m.	The Great Falls Area Chamber of Commerce supports Montana Renewables for the economic benefits they bring to Montana. By promoting renewable energy, the company creates jobs, attracts investment, and fosters innovation, contributing to a cleaner energy future. This aligns with the Chamber's commitment to boosting the local economy and supporting sustainable growth across the state.	Section 1.5 of the EA has been modified to note commenters' support for the Project.
82	Angela Otero	10/15/2024, 12:00 a.m.	Attached are the water rights for the City of Great Falls. While they are complicated to interpret, perhaps someone more knowledgeable about water rights can determine if the City of Great Falls has the capacity to provide Montana Renewables with a significant increase in water to accommodate their projected increase in production from 30M gallons of "sustainable" aviation fuel to 330M gallons of "sustainable" aviation fuel. Montana Renewables, by way of Montana Refining Company's legal water right, used 566 ac-ft of water, plus 43,289,300 cubic feet of water sold by the City of Great Falls for the year ending June 30, 2024. 566 acre-feet of water x 325,851 gallons/acre-foot = 184,431,666 gallons of water. 43,289,300 cubic feet x 7.48052 gallons/cubic foot = 323,826,474 gallons Total use ending June 30, 2024, would have been approximately 508,258,140 gallons. Bruce Fleming, CEO of Montana Renewables, has stated publicly that Montana Renewables will produce 30M gallons of SAF for 2024. Additionally, the D.O.E. is planning to award a $600M loan to Montana Renewables to build-out the refinery for MaxSAF production which will increase production by an additional 10x – or 300M gallons – of SAF for a total of 330M gallons, each year. Why is there no mention of the need for 10x more water anywhere in this DOE Draft EA-2275? How can production increase by an additional 10x, yet water use remains relatively minor – 600,000 to 700,000 additional gallons of water? Seriously? Can you please explain how this will work? If 600,000 divided by 508,258,140 = .001180 additional usage, and if 700,000 divided by 508,258,140 = .001377 additional usage, then how will Montana Renewables produce 300M additional gallons of fuel, on top of current projected production of 30M gallons of SAF, and other products, with a miniscule increase in water use especially when over half a billion gallons of water was used to achieve current production? Where will this water come from? Looking at the City's water rights, it seems Montana Renewables may need almost half of the City's total water supply to accommodate production ambitions. How can the City of Great Falls spare that much water to one entity for industrial production uses? The City has other water needs to address each year.	As discussed in the response to Comment No. 12, MRL uses approximately 560,000 gpd of City-purchased water for existing operations. Under Phase 2 of the Project, the anticipated volume of water to support MRL operations is expected to increase to approximately 900,000 gpd. MRL does not use and does not anticipate using groundwater withdrawal or surface water withdrawal for existing operations or Phase 2 operations. The City has sufficient capacity to supply purchased water for MRL's Phase 2 operations. As discussed in the response to Comment No. 13, CMR does own a Montana water right. The 566 acre-feet referred to in the comment is owned by CMR, not MRL; MRL Phase 2 operations would not affect CMR's water use or water rights. CMR's water right is being put to beneficial use for purposes unrelated to MRL operations, including emergency fire response. Therefore, CMR's water right is not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the response to Comment No. 16, Phase 2 would not increase SAF production capacity by a factor of 10 from the existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to approximately 21,500 bpd and use 900,000 gpd of purchased water to do so. As discussed in the responses to Comment No. 2 and Comment No. 5, the transport of PTU wastewater to off-site disposal facilities by truck would be eliminated upon completion of the PTU wastewater treatment process. Wastewater (both PTU and process wastewater) generated from MRL operations would be treated on-site and then discharged to the City WWTP. Section 3.3 of the Final EA has been revised to clarify that all water for existing MRL operations is purchased from the City, and MRL anticipates that all water for future MRL operations will continue to be purchased from the City. Agency and tribal consultations are summarized in Appendix A of the Final EA. Permits and approvals required for the Project, including max SAF production, are listed in Appendix B of the Final EA. Permits and approvals required for the Project include permits from MDEQ and the City.

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			How is it possible to accommodate a 10x increase in industrial water use that will be consumptive in nature? After all, this water – after it has been contaminated by the Pretreatment Unit process which will treat raw feedstocks – will be loaded into trucks and rail cars for disposal at permitted disposal sites, according to the Montana DEQ's Air Quality Permit dated November 9,2023. This water will not be treated to safe wastewater discharge standards and returned to the Missouri River. According to the DEQ permit, this water will be loaded into trucks and rail cars, and transported for disposal. According to EPA Draft permits, MT52439-12514 and MT52443-12513, locally, Montana Renewables' wastewater will be injected into the Madison Aquifer, an EPA identified USDW, and an important source of groundwater for people in Montana, Wyoming, Nebraska, North Dakota, South Dakota, Manitoba, Saskatchewan and Alberta. Just north of Great Falls, outside the town of Valier, the EPA is in the process of permitting over 15M barrels of "bio fuel" wastewater (over 630,000,000 gallons) from Montana Renewables to be injected into the Madison Aquifer. Once this water is removed from the Missouri River – EACH YEAR – cumulative impacts to the environment, wildlife, fish, birds, insects, livestock, crop irrigation, and all downstream users along the way, will be major, adverse and irreversible. Doing the math, 508,258,140 gallons of water was used through June 30, 2024. To produce a 10x increase in SAF production, or 300M gallons, this would (most likely) require a 10x increase in water. 508,258,140 x 10 = 5,082,581,400 gallons to produce a 300M gallon increase in SAF. Excluding the 566 ac-ft right, or 184,431,666 gallons, this means the City of Great Falls would have to supply 5,082,581,400 plus the original 323,826,474 gallons for a total of 5,406,407,874 gallons to accommodate a 10x increase in MaxSAF total production from 30M gallons to 330M gallons of SAF, and other products. The DOE LPO staff must require Montana Renewables to prove that only 600,000 to 700,000 additional gallons of water will be needed to produce an additional 300M gallons of SAF. More importantly, the DOE should consult with the City of Great Falls, the Bureau of Reclamation, the DNRC and the Montana Fish, Wildlife & Parks Division to determine if any of these entities is willing to share their water supply with Montana Renewables. The Montana Water Court should be consulted as well. Where is this water going to come from? Why have DOE LPO staff been led to believe only a miniscule amount of water will be needed, and who actually believed that this was true – enough to put it in writing? The DOE LPO staff's conclusion that there is a Finding of No Significant Impact is not based on simple math or logic. It is bogus. Please deny this $600M loan to Montana Renewables, and perform a fact-based Environmental Assessment for public review and comment. (Twelve PDFs attached to email)	
83	Christy Clark	10/15/2024, 1:07 p.m.	To Whom It May Concern, On behalf of the Montana Department of Agriculture (MDA), please consider this letter as written confirmation of our full support for Montana Renewables (MRL) loan application to the U.S. Department of Energy (DOE). I see this project as a direct contribution to our state's agriculture industry. Proposed expansions and conversions will significantly increase the renewable fuel production at their Great Falls facility therefore expanding the need for agricultural contracts. Furthermore, this project has the potential to create 40 additional jobs to support expanded project operations.	Section 1.5 of the EA has been revised to note Director Clark's and other public officials' support for the Project.

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			The Montana Department of Agriculture's mission is to serve Montana Agriculture and grow prosperity under the Big Sky. The department is dedicated to supporting Montana's agricultural programs and Montana producers. We appreciate MRL leading the movement towards innovation, longevity, and economic vitality of the agriculture industry here in Montana.	
84	Angela Otero	10/28/2024, 10:59 p.m.	Dear Mr. Brown and Ms. Ryan, I am submitting the following corrections/clarifications for your review, as they relate to public comments I sent to you on October 7, 2024, for Draft EA-2275 published by the DOE LPO team. I will be sharing and publishing my public comments to include the corrections and clarifications stated below. **Corrections/Clarifications:** 2). Why is there no mention of two pending EPA Draft Permits and two Madison Aquifer Exemption Draft Records of Decision for almost 16,000,000 barrels Montana Renewables SAF wastewater to be injected into the Madison Aquifer, and no mention of EPA plans – found in the Technical Analysis/Narrative documents – to exempt the entire Madison Aquifer to accept even greater volumes of SAF wastewater to be generated by MRL's MaxSAF program and refinery expansion which will be financed through the DOE by **$1,440,000,000 (NOT $600,000,000)** taxpayer dollars? 2 f). According to the Russell County News, "This new well in Stanford (Montana) is capable of producing 1,100 gallons per minute, compared to other existing wells producing 50 gallons per minute. Drilling activities to reach the Madison aquifer were completed in **January 2019 (NOT 2109)** at 3,450 feet." 9 b.) Why did Draft EA-2275 fail to calculate the number of trucks and rail cars that will be needed to transport this volume of waste on a daily and yearly basis, and the air emissions that will result? If MRL can treat 300,000 gallons of waste per day, this will leave 1,350,000 gallons to be transported, and this will result in 214 semi-diesel operated trucks each transporting 6,300 gallons, or 53.57 railcars. If MRL cannot treat their waste, then 1,650,000 gallons of wastewater will create a need for 261.9 trucks or 65.47 railcars to transport this waste **EACH AND EVERY DAY.** There is NO WAY that a 10x increase in production will result in a 2x increase in water use, wastewater generated, or transportation requirements to haul that wastewater. Draft EA-2275 must examine and mitigate all cumulative impacts that this MaxSAF process will unleash with a 10x increase in SAF production. 10 b). Why did Draft EA-2275 fail to mention that these two EPA draft permits, if approved, will result in over 100,000 semi-tankers traveling almost 200 miles round-trip to deliver almost 16,000,000 **barrels (NOT gallons)** of SAF/**bio fuels** wastewater from the refinery in Great Falls to two injection wells located in Valier, Montana, for injection into another body of water, the groundwater of the Madison Aquifer – **an EPA-identified USDW**? 11). Why did Draft EA-2275 fail to mention that two more wells are slated for fast-track approval at the same farm in Valier should the EPA approve these first two permits and the aquifer exemptions to accept MRL's SAF wastewater, which will potentially double MRL's SAF wastewater volume to 32,000,000 barrels **(or** 1,344,000,000 **gallons)** to be injected at the same location, using the same gravel roads, in the same county, past the same homes and businesses to be **EPA-**permitted for **over** a decade? 15). Since MRL is currently **generating (NOT using)** 55,188,000 gallons **of wastewater** per year to produce 30M gallons of SAF, and other products, when MaxSAF increases production to 330M gallons, this will require significantly more water and it will generate significantly more wastewater that has to be transported by diesel trucks and rail cars across the country, increasing air emissions that will contribute to adverse climate change conditions, and increasing the total volume to be dumped into the Madison aquifer. It's no wonder these draft aquifer	As discussed in the response to Comment No. 2 and Comment No. 5, the referenced EPA permits, Madison Aquifer exemptions, and additional prospective injection wells in Valier, Montana, are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the response to Comment No. 16, Phase 2 would not increase SAF production capacity by a factor of 10 from the existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to approximately 21,500 bpd and use 900,000 gpd of purchased water to do so. Section 3.3 of the Final EA addresses water use, wastewater disposal, and wastewater treatment. Section 3.5.3.1 has been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.4 address transportation-related impacts. Section 3.7 has been modified to include additional analysis of direct and indirect impacts on roads. Section 3.11.4 has been revised to include additional analysis of cumulative impacts on roads.

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			exemptions aim to exempt the entire Madison aquifer from the Safe Drinking Water Act, yet this Draft EA-2275 fails to address the total cumulative volume of contamination and pollution that will occur to the Madison Aquifer if this loan is approved, MaxSAF processes are installed, and the EPA approves these two permits and the two aquifer exemptions. Outside of Valier, will county residents be looking at 264 trucks racing past our homes each day to accommodate an additional 10x volume of SAF wastewater? This water will be taken from the Missouri River, contaminated, then loaded into diesel operated trucks for delivery and injection into another body of **EPA-identified UNDERGROUND SOURCE OF DRINKING** water - the Madison Aquifer. The Madison Aquifer is a karst aquifer with underground lakes and flowing rivers, and with groundwater in some parts of the aquifer that is so clean, it needs no filtering or treatment, as described in the EPA's Denial of Aethon's aquifer exemption for the Madison Aquifer – and none of this is addressed in DRAFT EA-2275. I appreciate your consideration of these corrections and clarifications to my first set of public comments made on October 7, 2024, for Draft EA-2275. In light of the DOE LPO Team's errors and omissions made on this Draft Environmental Assessment-2275 that resulted in a faulty "Finding of No Significant Impact," your team should correct the blatant shortcomings of this EA, and establish baseline figures/data for Montana Renewable's current water use, current wastewater production, and air emissions created by trucking and rail operations for current wastewater disposal, and then extrapolate the projected cumulative figures for a 10x increase in MaxSAF production from 30M gallons of SAF and other products, to 330M gallons of SAF and other products. This Draft Environmental Assessment should be revised to include corrections and clarifications, and then be provided to the public for 30 days for review and comments. Please ask your team to properly date the revised Draft EA to include a Month, Day and Year, as well as the process for submitting public comments. Until the DOE LPO team can address total cumulative significant impacts, there should be no funding of Montana Renewables' MaxSAF project in Great Falls, Montana. That your LPO team could arrive at a conclusion of No Significant Impact given the obvious potential for MAJOR, ADVERSE and IRREVERSIBLE IMPACTS to the environment and public health – if this loan is granted and these impacts are not fully mitigated – is beyond comprehension.	
85	Angela Otero	10/28/2024, 11:55 p.m.	Dear Mr. Brown and Ms. Ryan, I am submitting the following corrections/clarifications for your review, as they relate to my second set of public comments I sent to you on October 7, 2024, for Draft EA-2275 published by the DOE LPO team. I will be sharing and publishing my public comments to include the corrections and clarifications stated below. Draft EA-2275 must take into account all cumulative impacts and calculate total miles, total air emissions and total fugitive dust pollution along almost **200 miles total, including almost** 20-22 miles of gravel roads **in several directions** for all daily transportation requirements to and from the refinery. If it's true that Montana Renewables will be treating 300,000 gallons of wastewater per day, and they are currently generating over a million gallons each day **(NOTE: Total wastewater production on a daily basis has not been independently established and verified, rather Draft EA-2275 states that 150,000 gallons of wastewater is currently being produced each day without taking into account that 1,392,488 gallons of water is used each day.)**, then it stands to reason that the majority of this wastewater will not be treated for safe discharge back to the Missouri River, but trucked off-site for disposal.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits, Madison Aquifer exemptions, and additional prospective injection wells in Valier, Montana, are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the response to Comment No. 16, Phase 2 would not increase SAF production capacity by a factor of 10 from the existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to approximately 21,500 bpd and use 900,000 gpd of purchased water to do so. Section 3.3 of the EA addresses water use, wastewater disposal, and wastewater treatment. Section 3.5.3.1 has been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.4 address transportation-related impacts. Section 3.7 has been modified to include additional analysis of direct and indirect impacts on roads. Section 3.11.4 has been revised to include additional analysis of cumulative impacts on roads.

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			As referenced earlier in my first set of comments today, these EPA permits will create a need for over 100,000 trucks to travel in one direction to the injection well site, and back in another direction, which will totally ruin both roads **leading to the injection well site, approximately 20-22 miles of gravel roads in all directions**, and these impacts will occur every 10 minutes night and day, as permitted by the EPA to occur for over a decade **simply to accommodate Montana Renewables' increase in SAF/bio fuels production that will be enabled by this DOE $1.44 million dollar taxpayer-funded loan**. Instead of using fresh water to strip oils and fats from feedstocks and animal fats, then contaminating this water beyond their own re-use, then loading their SAF wastewater into diesel semi-tankers and rail cars to be transported to waste disposal sites all over Montana and the United States, then injecting millions – and ultimately billions – of gallons of their SAF wastewater into another body of **an EPA-identified** USDW, a designated source of drinking water **protected by the Safe Drinking Water Act** – the Madison Aquifer – none of this will be necessary if MRL's SAF wastewater is treated at the refinery in Great Falls, and re-used for their industrial production processes. The DOE Draft EA-2275 should absolutely require MRL to use some of these **$1.44M (not $600M)** taxpayer funded dollars to build an on-site wastewater treatment plant to treat 100% of MRL's SAF wastewater. The DOE LPO staff should stipulate that any and all unused funds from the **now disclosed sum of $1.44M (not $600M)** loan must be used to build a full-circle, cradle-to-grave on-site wastewater treatment plant that will treat 100% of all wastewaters generated at the refinery to reduce, mitigate and eliminate significant, cumulative impacts generated by the refinery, as well as MaxSAF production processes. The DOE LPO staff should require an audit review of how this **$1,440,000 loan (not $600,000,000)** is used, and this audit review should be made available online to the public. Thank you for your consideration of these corrections and clarifications.	
86	Angela Otero	10/24/2024, 2:00 a.m.	Dear Mr. Brown and Ms. Ryan, In my comments in the email above, I stated the following: *Why is there no mention of the need for 10x more water anywhere in this DOE Draft EA-2275? How can production increase by an additional 10x, yet water use remains relatively minor – 600,000 to 700,000 additional gallons of water? Seriously?* *Can you please explain how this will work? If 600,000 divided by 508,258,140 = .001180 additional usage, and if 700,000 divided by 508,258,140 = .001377 additional usage, then how will Montana Renewables produce 300M additional gallons of fuel, on top of current projected production of 30M gallons of SAF, and other products, with a miniscule increase in water use especially when over half a billion gallons of water was used to achieve current production?* My apologies. It is not an increase of 0.001180 to 0.001377; my calculation failed to take into account this volume of water (600,000 to 700,000 gallons) is for daily use. Therefore, at 365 days, this will equal 219,000,000 to 255,500,000 gallons of water each year. If true, this would be about 50% of current water use. This figure of 600,000 to 700,000 gallons daily water use is not only confusing, it does not make sense. MRL is currently using over 508M gallons of water each year now to produce 30M gallons of SAF, and other products. How can only 600,000 to 700,000 gallons of water each day be needed to produce 330M gallons of SAF, and other products? This "anticipated" volume of daily water use cannot be accurate. These figures appear to be false, and unable to be substantiated on any level.	As discussed in the responses to Comment No. 2 and Comment No. 5, the referenced EPA permits, Madison Aquifer exemptions, and additional prospective injection wells in Valier, Montana, are not within the scope of this NEPA review or the associated loan guarantee application to DOE LPO. As discussed in the response to Comment No. 16, Phase 2 would not increase SAF production capacity by a factor of 10 from the existing MRL SAF production capacity and would not increase wastewater generation by a factor of 10 from current wastewater generation. MRL is currently producing approximately 12,000 bpd of RD and SAF and using approximately 560,000 gpd of City-purchased water to do so. Phase 2 would increase the production capacity for RD and SAF to approximately 21,500 bpd and use 900,000 gpd of purchased water to do so. Section 3.3 of the EA addresses water use, wastewater disposal, and wastewater treatment. Section 3.5.3.1 has been revised to include existing and future emissions from MRL nonroad equipment during Phase 2 construction, on-road vehicle trips, and rail emissions. Sections 3.7 and 3.11.4 address transportation-related impacts. Section 3.7 has been modified to include additional analysis of direct and indirect impacts on roads. Section 3.11.4 has been revised to include additional analysis of cumulative impacts on roads. Section 1.2 of the Final EA has been revised to clarify DOE LPO's conditional commitment of up to $1.44 billion.

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			DOE Draft EA-2275 states: *"There are no surface water features inside the Plant. Furthermore, CMR and MRL do not own or operate any groundwater supply wells."* DOE LPO staff failed to take into account the annual 566 acre-feet water right owned by Montana Refining Company. View the withdrawn water right for the duplicative 566 acre-feet, and it will show that Montana Refining Company's address is 1900 10th Street NE, Great Falls, MT 59404 – the same address as Calumet's Great Falls office. This volume of 566 ac-ft x 325,851 gallons per acre foot = 184,431,666 gallons. Draft EA-2275 continues: "*All water needed for both existing operations and for Phase 2 of the Project would be purchased from the City. Water is supplied to the Plant by the municipality from a utility meter."* DOE LPO staff failed to take into account the total volume of water, 43,289,300 cubic feet for the year ending June 30, 2024,, sold by the City of Great Falls to MRL. 43,289,300 x 7.48052 gallons per cubic foot = 323,826,474 gallons in one year. *"The Project is anticipated to use 600,000 to 700,000 gallons of fresh water each day; the water would require post-use treatment."* This last statement fails to mention that 508,248,140 gallons are being used each year now. That's over a half billion gallons of water – to produce only 30M gallons of SAF and other products now. Further, the last statement does not point to an additional water use of 600,000 to 700,000 gallons each day. Rather, it states this will be the total daily water use for "The Project" – a project described within this EA that involves increasing fuel production by an additional 10x. Lastly, it states **the water will require post-use treatment**. Where in Draft EA-2275 does it state that MRL will be treating 600,000 to 700,000 gallons of wastewater each day? Nowhere. DOE LPO staff should identify and describe this treatment in this EA. So, the question is, how can MRL produce a 10x increase in production of SAF and other products by using only half of the water they are using now? (700,000 divided by 1,392,488 = 0.50269). How were these "anticipated" volumes of 600,000 to 700,000 gallons per day derived? MRL is using almost twice this volume of water now. Going back to earlier calculations, MRL is currently using 508,258,140 gallons of water each year now. This figure, divided by 365 days, is 1,392,488 gallons of water per day to produce 30M gallons of SAF, and other products. This is based on their 566 acre-feet water right, and the 43,289,300 cubic feet of water sold to MRL by the City of Great Falls, for the year ending June 30, 2024. However, if the DOE LPO staff's statement is meant to reflect additional water use, then adding 600,000 to 700,000 gallons to 1,392,488 gallons will result in 1,992,488 to 2,092,488 gallons of water to be used each and every day. Realistically speaking, a 700,000 gallon increase in daily water use only reflects a 50% increase from current use. This increase in volume would be sufficient if MRL were proposing a 50% production increase from 30M gallons to 45M gallons of SAF, and other products. However, the MaxSAF process is projecting an additional 300M gallons, or a 10x increase in the production of SAF, and other products – on top of the current 30M gallons of SAF, and other products.	

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			With MRL using over half a billion gallons of water each year to produce 1/11th of the volume (or 30M gallons of SAF, and other products) projected in this Draft EA-2275, MRL will (most likely) need 10x more water, or about 5.4 billion gallons of water each and every year, to be taken from the Missouri River. This is NOT an insignificant sum of water, and this taking will produce irreversible, major adverse impacts to the environment, wildlife, fish, birds, all downstream users, and to crop irrigation and stock water use. Even if there is NOT a direct correlation of water use – meaning even if a 10x increase in production does not require a corresponding 10x increase in water use, clearly 600,000 to 700,000 gallons of water use each day is significantly understated, and unable to be substantiated. There's no logic to these figures. Why did the DOE LPO staff fail to identify and establish MRL's daily baseline water use, and then fail to accurately calculate the total volume of additional water MRL will need to produce a 10x increase in SAF, and other products? How will a mere 600,000 to 700,000 gallons of water each day produce 300M more gallons of SAF when current water use each day is already twice this amount? Further, why did DOE LPO staff fail to circle-back to the stated "post-use treatment" of this 600,000 to 700,000 gallons daily. That topic was simply dropped. The DOE LPO staff's water use figures represent a major failing in the DOE FONSI finding. In my email above, I provided water rights for the City of Great Falls, and while my knowledge of water rights is limited, it appears the City will be unable to meet the increased water needs of MRL's MaxSAF Project. With the DOE LPO's recent announcement of a loan commitment of $1.44B, this is 2.4 times more money than the $600,000,000 MRL anticipated receiving originally. An extra $844 million dollars in U.S. taxpayer funds will be more than enough to pay for a water treatment plant that will reduce, reuse, recycle, reclaim and recapture water for the refinery's continuous daily use. MRL has no excuse now to use millions, if not billions, of gallons of water from the Missouri River each year, contaminate this water beyond their own reuse, then load it into diesel tankers and rail cars for delivery to disposal sites throughout the U.S., and in Montana, for injection into the Madison Aquifer. Montana Renewables must build a wastewater treatment plant in Great Falls. If MRL wants to hold itself out as a "renewable" and "sustainable" producer of fuels, then it must be a responsible and conscientious shepherd of Montana's water resources. The DOE LPO staff must address the shortcomings and failures of this Environmental Assessment, then provide the public with 30 days to respond with public comments.	