September 29, 2022

Dan Claridge
Thompson River Lumber
P.O. Box 279
Thompson Falls, MT 59873

Sent via email: dan@thompsonriver.net

RE: Final Permit Issuance for MAQP #4643-01

Dear Mr. Claridge:

Montana Air Quality Permit (MAQP) #4643-01 is deemed final as of September 29, 2022, by DEQ. This permit is for Thompson River Lumber, a sawmill facility. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626
Enclosures

Craig Henrikson
Environmental Engineer
Air Quality Bureau
(406) 444-6711

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

Montana Air Quality Permit #4643-01

Thompson River Lumber Company
P.O. Box 279
Thompson Falls, MT 59873

September 29, 2022

MONTANA AIR QUALITY PERMIT

Issued to:	Thompson River Lumber Company Thompson Falls Sawmill P.O. Box 279 Thompson Falls, MT 59873	MAQP: #4643-01 Application Received: June 6, 2022 Application Complete: July 25, 2022 Preliminary Determination: August 24, 2022 Department's Decision: September 13, 2022 Permit Final: September 29, 2022

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Thompson River Lumber Company (TRL) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

The legal description of the site TRL's sawmill operation is located in Section 13, Township 21 North, Range 29 West, in Thompson Falls, Sanders County. A map of the site is included in the Environmental Assessment attached to this permit.

B. Current Permit Action

On June 6, 2022, the Department of Environmental Quality (DEQ) received an application to modify MAQP #4643-00. TRL seeks approval to rebuild two non-functioning lumber dry kilns and to increase the allowable permitted dry kiln production for the mill. The rebuilt kilns will allow TRL to increase dried lumber production, which will lead to additional production throughout the mill. Total kiln capacity following the reconstruction of the two kilns will be 648 mbf/charge (1000 board feet per charge). With the proposed change, the planned operating capacity will be 75,000 mbf per year and modeled emissions were based on that throughput limit. Allowable production from the sawmill and planer will increase, primarily as a result of expanded hours of operation. The application also requested removal of two older boilers identified as the York Shipley and Cleaver Brooks boilers from the list of permitted equipment. An incompleteness determination was issued by DEQ on June 30, 2022, and TRL provided a response on July 25, 2022, at which time DEQ determined the application to be complete.

A more detailed description of the permitted equipment is contained in Section I.A of the permit analysis.

Section II: Conditions and Limitations

A. Emission Limitations

1. TRL shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit

an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

2. TRL shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308)

3. TRL shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.2 (ARM 17.8.749).

4. Hurst Wood-Fired Boiler

   a. Boiler capacity shall not exceed 40,000 pounds per hour (lb/hr) steam based on a heat input capacity of 60 million British thermal units per hour (MMBtu/hr) based on a 1-hour average (ARM 17.8.749).

   b. Boiler must have a minimum stack exhaust height of at least 75 feet from ground level (ARM 17.8.749).

   c. Boiler shall not combust more than 6.25 tons per hour of bark and/or wood during any rolling 24-hour time period (ARM 17.8.749).

   d. Particulate emissions from the boiler shall be controlled by multi-cyclone mechanical collector followed by an electrified filter bed (EFB) (ARM 17.8.752).

   e. Emissions from the gravel media cleaning process shall be controlled by the EFB media baghouse (ARM 17.8.749).

   f. Boiler emissions of particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}) shall be limited to (ARM 17.8.752):

      i. 0.065 pounds per million British thermal units (lb/MMBtu); and

      ii. 3.90 pounds per hour (lb/hr), based on 1-hour average.

   g. Boiler emissions of particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$) shall be controlled by implementing best management practices and limited as follows (ARM 17.8.752):

      i. 0.065 lb/MMBtu; and

      ii. 3.90 lb/hr (based on 1-hour average).

   h. Boiler emissions of oxides of nitrogen (NOx) shall be controlled by proper boiler design and operation and using good combustion practices. NOx emissions shall be limited to (ARM 17.8.752):

      i. 0.30 lb/MMBtu; and

ii. 18.0 lb/hr (based on 1-hour average).

i. Boiler emissions of carbon monoxide (CO) shall be controlled by proper boiler design and operation and using good combustion practices (ARM 17.8.752).

j. Visible emissions from the boiler shall be limited to 20% opacity (ARM 17.8.304).

5. TRL shall limit the hours of operation of the 100-brake horsepower (bhp) (0.7 MMBtu/hr) diesel-fired, fire water pump to no more than 150 hours per year during any rolling 12-month time period (ARM 17.8.749).

6. TRL shall comply with all applicable standards and limitations, and the applicable operating, reporting, recordkeeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 63, Subpart JJJJJJ (40 CFR 63, Subpart JJJJJJ and ARM 17.8.749).

7. Combined Sawmill and Planer Process

a. Visible emissions from all emission points contained in the combined sawmill and planer process shall each be limited to 20% opacity averaged over 6 consecutive minutes (ARM 17.8.304).

b. Chipper operations shall occur in an enclosed in a building, and all chips and sawdust shall be transported using a pneumatic system (ARM 17.8.752).

c. A cyclone shall be used to control particulate emissions from the chip operation (ARM 17.8.752).

d. Planer operations shall occur in an enclosed building (ARM 17.8.752).

e. A cyclone shall be used to control particulate emissions from the planer operation (ARM 17.8.752).

8. TRL shall limit the sawmill throughput to 75,000 mbf/yr of lumber dried and planed (ARM 17.8.749).

B. Testing Requirements

1. TRL shall test the Wood-Fired boiler using wood and/or bark, for CO and NOx concurrently, to monitor compliance with the emission limits and/or conditions contained in Section II.A.4 (h) and Section II.A.4 (i). The initial performance source test must be conducted within 60 days of achieving the maximum production rate, at which the affected facility will be operated, but not later than 180 days after initial startup of the boiler. After the initial source test, testing shall continue on an every 4-year basis or according to another

testing/monitoring schedule as may be approved by DEQ in writing (ARM 17.8.105 and ARM 17.8.749).

2. TRL shall test the Wood-Fired boiler for PM_{10} to monitor compliance with the emission limit contained in Section II.A.4 (f). The initial performance source test must be conducted within 60 days of achieving the maximum production rate, at which the affected facility will be operated, but not later than 180 days after initial startup of the boiler, or according to another testing/monitoring schedule as may be approved by DEQ in writing (ARM 17.8.105 and ARM 17.8.749).

3. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

4. DEQ may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. TRL shall supply DEQ with annual production information for all emission points, as required by DEQ in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit conditions or limitations (ARM 17.8.505).

Source	Units
Hurst Wood-Fired Boiler	Pounds of steam produced, and tons of hog-fuel combusted
Diesel-fired water pump	Hours of operation
Sawmill Process	Tons of logs processed per year
Sawmill Chipper	Tons of chips per year
Chipper Cyclone	Tons of chips per year
Planer Shavings Bin	Tons of planer shavings handled
Debarkers	Tons of logs

2. TRL shall document, by month, the following information for the kilns. By the 25th day of each month, TRL shall total the emissions from the kiln for the previous month. The following information for each of the previous months shall be submitted along with the annual emission inventory:

   a) wood species and amount dried (in MBdFt)).

   b) HAP emissions shall be reported as lb HAP/MBdFt.

c) Volatile Organic Compounds (VOC) emissions shall be reported as lb VOC/MBdFt.

For the dry kilns, the calculation of VOC and HAP emissions shall be based on the species of wood, the amount of wood dried, and the most current emissions factors available, or site-specific kiln emission data (ARM 17.8.749).

3. TRL shall notify DEQ of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to DEQ, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

4. All records compiled in accordance with this permit must be maintained by TRL as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by DEQ and must be submitted to DEQ upon request (ARM 17.8.749).

D. Notification

TRL shall provide DEQ with written notification of the following dates within the specified time periods (ARM 17.8.749):

1. Actual start-up date of the reconstructed kilns within 15 days after the actual start-up date of each unit.

Section III: General Conditions

A. Inspection – TRL shall allow DEQ's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment Continuous Emissions Monitoring System (CEMS) and Continuous Emission Rate Monitoring System (CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if TRL fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving TRL of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401 *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by DEQ's decision may request, within 15 days after DEQ renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay DEQ's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of DEQ's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, DEQ's decision on the application is final 16 days after DEQ's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by DEQ at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by TRL may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin, or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762)

Montana Air Quality Permit Analysis
Thompson River Lumber Company
MAQP #4643-01

I. Introduction/Process Description

A. Permitted Equipment

Thompson River Lumber Company (TRL) owns and operates a wood products facility. Permitted equipment at TRL includes: a 1988 Hurst Wood-fired boiler (Model HR500) with a maximum steam production of 40,000 pounds per hour (up to 60 million British thermal units per hour (MMBtu/hr)) that is equipped with multi-cyclones followed by an electrified filter bed; five lumber drying kilns; sawmill building and associated equipment; and planer and chipper load-out operations with associated cyclones. The fugitive dust emission sources include, but are not limited to, debarkers, hog fuel and chips handling, and vehicle traffic.

The total facility kiln capacity broken down by kiln is as follows:

Kiln #1 216 mbf/charge
Kiln #2-144 mbf/charge
Kiln #3 144 mbf/charge
Reconstructed Kiln #4 72 mbf/charge
Reconstructed Kiln #5 72 mbf/charge
Total 648 mbf/charge

B. Source Description

TRL is an existing sawmill operation located in Section 13, Township 21 North, Range 29 West, in Thompson Falls, Sanders County.

C. Response to Comments (If received)

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations, which apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department of Environmental Quality (DEQ). Upon request, DEQ will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of DEQ, provide the facilities and necessary equipment (including instruments and sensing devices), and shall conduct test, emission

or ambient, for such periods of time as may be necessary using methods approved by DEQ.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   TRL shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, using the proper test methods, and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from DEQ upon request.

4. ARM 17.8.110 Malfunctions. DEQ must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals, or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2, Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204, Ambient Air Monitoring
2. ARM 17.8.210, Ambient Air Quality Standards For Sulfur Dioxide
3. ARM 17.8.211, Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212, Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213, Ambient Air Quality Standard for Ozone
6. ARM 17.8.214, Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220, Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221, Ambient Air Quality Standard for Visibility
9. ARM 17.8.222, Ambient Air Quality Standard for Lead
10. ARM 17.8.223, Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230, Fluoride in Forage

TRL must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions are taken to control emissions of airborne particulate matter. (2) Under this rule, TRL shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates by reference 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). TRL is not considered an NSPS affected facility under 40 CFR Part 60 and therefore is not subject to the requirements of the following subpart.

   40 CFR 60, Subpart Dc, Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This subpart applies to any boiler with a heat input capacity of less than 100 MMBtu/hr, but greater than 10 MMBtu/hr. Although the Hurst Boiler meets the heat input capacity requirement, this subpart does not apply to the boiler because was constructed before June 9, 1989.

8. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This section incorporates, by reference, 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP). Since the emission of HAPs from the TRL facility is less than 10 tons per year for any individual HAP and less than 25 tons per year for all HAPs combined, the TRL facility is not subject to the provisions of 40 CFR Part 61.

9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:

40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for area sources: Industrial, Commercial, and Institutional Boilers. An owner or operator of an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants and is subject to this subpart. An affected source is an existing source if the source commenced construction or reconstruction of the affected source on or before June 4, 2010. The Hurst boiler was constructed before June 4, 2010, and therefore, would be considered an existing source subject to this subpart.

D. ARM 17.8, Subchapter 4 – Stack Height and Dispersion Techniques, including, but not limited to:

1. ARM 17.8.401 Definitions. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.402 Requirements. TRL must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The proposed height of the new or modified stack(s) for TRL is below the allowable 65-meter GEP stack height.

E. ARM 17.8. Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to DEQ. TRL submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to DEQ by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by DEQ. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. DEQ may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

F. ARM 17.8, Subchapter 7, Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. TRL has a PTE greater than 25 tons per year of *particulate matter, particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10})*, oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOCs); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1)This rule requires that a permit application be submitted prior to installation, modification, or use of a source. TRL submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. TRL submitted an affidavit of publication of public notice for the June 9, 2022, issue of the Sanders County Ledger, a newspaper of general circulation in the Town of Thompson Falls in Sanders County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is contained in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by DEQ at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving TRL of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

11. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

13. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to DEQ.

G. ARM 17.8, Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications—Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive

emissions).

H. ARM 17.8, Subchapter 12, Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or

   c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4643-01- for TRL, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year.

   b. The facility's PTE is less than 10 tons/year for any individual HAP and less than 25 tons/year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is subject to NESHAP standards (40 CFR 61, Subparts A and JJJJJJ).

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

   h. This source is not an EPA designated Title V source.

   Based on these facts, DEQ determined that TRL will be a minor source of emissions as defined under Title V. DEQ determined that TRL is not subject to the Title V operating permit program.

III. BACT Analysis

A BACT determination is required for each new or modified source. TRL shall install on the new or modified source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized.

ARM 17.8.752 requires that the proposed new source or modification employ Best Available

Control Technology (BACT) for all pollutants not previously emitted or whose emissions would increase as a result of the new source or modification. TRL provided a BACT analysis for the two proposed additional steam-heated lumber dry kilns.

BACT is defined as the most effective control option that is technically feasible considering economic, energy, and other environmental impacts. Control options can be eliminated as BACT on a basis of technical, economic, energy, or environmental considerations. The BACT analysis procedure was conducted using the following steps:

Step 1: Identify available control technologies.
Step 2: Eliminate technically infeasible options.
Step 3: Rank remaining control technologies by control effectiveness.
Step 4: Energy, environmental and economic considerations, top-down procedure.
Step 5: Documentation including all information, calculations, assumptions, and data used in making the BACT determination.

VOC Emissions from Kilns

Step 1: Identify available control technologies.
BACT analysis requires the evaluation of available control technologies to determine if they are technically and economically feasible for the application. Changes in technology that could avoid the generation of pollutants are also considered control technologies. VOC emissions are lower for lumber dried at lower temperatures and maximum drying temperatures of 200 F are desirable. The TRL kilns are operated at temperatures less than or equal to 200 F, which minimizes formation of VOC emissions.

VOC add-on control technologies have been reviewed using technical bulletins provided by EPA in the Technology Transfer Network Clear Air Technology Center. Available VOC removal technologies fall into the categories of Thermal Incineration/Oxidation and Catalytic Incineration/Oxidation. A thermal oxidizer raises the temperature of the gas exhaust stream in the presence of oxygen to burn off the VOC compounds. The efficiency of thermal oxidation depends on the temperature of the reaction, concentration of VOC in the gas stream and residence time. Catalytic oxidation is similar to thermal oxidation and adds a catalyst bed downstream of the combustion chamber to provide a substrate for the oxidation reaction to take place.

The VOC compounds emitted from wood drying are typically C10H16 compounds, primarily pinene, occurring naturally in wood. The estimated concentration of VOC, as pinene, in the kiln exhaust is approximately 20 parts per million by volume (ppmv). At this low concentration of heavy compounds, neither thermal oxidation nor catalytic oxidation is considered viable.

Steps 2 thru Step 4
The following is a list of reasons that add-on control technology for VOC control is not considered feasible.

- Effective thermal oxidation requires residence time of 0.75 seconds at a temperature of 1,600 F. Dry kiln vent temperatures are 200 F or less, so a large amount of additional heat would be required to operate an oxidation system. Reheating the gas stream would require the use of additional fuel, which would increase emissions.

- VOC emissions from dry kilns are present in a dilute stream of high-moisture, low temperature exhaust. The low inlet VOC concentration to the oxidation equipment would lead to low removal efficiency.

- Destruction efficiencies of various VOC control equipment are necessarily based on the destruction of all volatile compounds. Many of the volatile compounds that are easily destroyed are lighter than the VOCs emitted from wood fiber. Control efficiencies for thermal oxidation would be lower for wood products emissions compared to other applications.

Step 5: Select BACT
A review of RBLC shows that BACT determinations for dry kilns consistently state that no additional control is available for VOC removal. Based on the excessive cost and additional energy consumption, it has been determined that no additional control is the best available control technology for VOC emissions from the dry kilns.

PM Emissions from Kilns

PM emissions from lumber dry kilns are very low, and result from dust and dirt on the green lumber. TRL has a clean sawmill process and makes every effort to keep the green lumber free of sawdust.

A BACT analysis was submitted by TRL in permit application #4643-01 for VOC and PM. DEQ reviewed these methods, as well as previous BACT determinations for similarly permitted sources and determined maintaining low drying temperatures is BACT for VOCs and PM.

IV Emission Inventory

Sources	PM_{10} (ton/yr)	$PM_{2.5}$ (ton/yr)	HAPS (ton/yr)	SO_2 (ton/yr)	NOx (ton/yr)	VOCs (ton/yr)	CO (ton/yr)
POINT SOURCE EMISSIONS – excluding fugitives							
Previous Permitted Totals	**28.16**	**19.43**	**15.32**	**8.67**	**97.29**	**33.64**	**89.41**
New Plant-Wide Totals	**25.76**	**23.92**	**14.79**	**6.58**	**79.00**	**71.25**	**78.87**

With the increased capacity to the permitted sawmill, minor emission increases occur for several of the criteria pollutants, but TRL has also removed two boilers from operation which has also resulted in a reduction for NOx.

V. Air Quality

As of July 8, 2020, Sanders County was redesignated as an Attainment area for PM_{10}. Previously, there was a non-attainment area mostly encompassing the town of Thompson Falls. The Environmental Protection Agency (EPA) approved the Limited Maintenance Plan (LMP) submitted by the State of Montana to EPA on November 4, 2021, for the Thompson Falls Moderate nonattainment area (NAA) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM_{10}) and concurrently redesignating the NAA to

attainment for the 24-hour PM_{10} National Ambient Air Quality Standard (NAAQS). In order to approve the LMP and redesignation, EPA determined that the Thompson Falls NAA has attained the 1987 24-hour PM_{10} NAAQS of 150 $\mu g/m^3$. This determination is based upon monitored air quality data for the PM_{10} NAAQS during the years 2015 through 2020.

VI Ambient Air Impact Analysis

Bison Engineering (Bison) conducted air quality modeling for the proposed "Dry Kiln Capacity Increase" as part of the TRL air quality permit application. This ambient air impact analysis was conducted, pursuant to the requirements of ARM 17.8.749, to demonstrate that the proposed modification would not cause or contribute to a violation of any state or federal ambient air quality standard. The proposed project is not categorized as a major Prevention of Significant Deterioration (PSD) modification.

The "Dry Kiln Capacity Increase" proposed allowable emissions are above the thresholds in MDEQ's Draft Modeling Guideline for $PM_{2.5}$, PM_{10}, and NO_2 and warrant further analyses. Emission increases were first modeled to determine if any model receptors exceeded the Significant Impact Levels (SILs), presented in Table VI-1. For those pollutant and averaging times that exceed the applicable SILs, TRL was required to demonstrate compliance with applicable NAAQS and MAAQS, also presented in Table VI-1. For this project, NO_2 1-hour, NO_2 annual, PM_{10} 24-hour, PM_{10} annual, $PM_{2.5}$ 24-hour, and $PM_{2.5}$ annual Class II SILs were exceeded, which then required NAAQS and MAAQS analyses for applicable pollutant/time periods.

Table VI-1 Applicable standards

Pollutant	Averaging Period	Class II SIL ($\mu g/m^3$)	Primary NAAQS ($\mu g/m^3$)	MAAQS ($\mu g/m^3$)
NO_2	1-hour	7.5	188	564
	Annual	1	100	94
PM_{10}	24-hour	5	150	150
	Annual	1	-	50
$PM_{2.5}$	24-hour	1.2	35	-
	Annual	0.2	12	-

The SIL and MAAQS/NAAQS compliance demonstrations were conducted using the latest available version of EPA-approved American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) and associated preprocessors. Specifically:

- AERMOD version 21112: Air dispersion model.
- AERMET version 21112: processes NWS meteorological data for input to AERMOD.
- AERMINUTE version 15272: processes 1-minute NWS wind data to generate hourly average winds for input to AERMET.
- AERSURFACE version 20060: processes National Land Cover Data surface characteristics for input to AERMET.
- AERMAP version 18081: Processes National Elevation Data from the USGS to determine elevation of sources and receptors for input into AERMOD.
- BPIPPRM version 19191_DRFT: characterizes building downwash for input to AERMOD.

- Oris Solution's BEEST Graphical User Interface, Version 12.06.

Regulatory default options were used for all model runs. Rural dispersion coefficients were applied, as all of Montana currently meets this criterion. All buildings at the site were evaluated for building downwash on each modeled point source, using BPIPPRM.

Five years of metrological data (2017-2021) ready for use in AERMOD was constructed using representative surface and upper air data. Surface air data was obtained from the closest National Weather Service (NWS) station, which is located approximately 4 km to the north-northwest of the project site, at the Missoula International Airport (WBAN 24153). This NWS station also provided the automated surface observing system (ASOS) one-minute data used with AERMINUTE. The Spokane, WA Upper Air station (WBAN 24157) was used for upper air data. The ADJ_U* option was employed in AERMET to account for stable, low wind speeds.

A series of three nested receptor grids were used in the model to calculate the ambient air impacts around the project location. Discrete receptors were placed at 25 m spacing along the site's fence line, 100 m spacing from the site's fence line to 1 km from the site, 250 m spacing from 1 km to 3 km from the site, 500 m spacing from 3 km to 10 km, and 1000 m spacing from 10 km to 50 km from the site, totaling 15,363 receptor locations. Only the significantly impacted receptors (receptors with modeled concentrations equal to or greater than their respective SILs) were used for the NAAQS/MAAQS analyses.

Receptor elevations and source elevations were determined using the terrain preprocessor AERMAP and elevation data based on 1/3 arc-second (approximately 10 m resolution) National Elevation Dataset (NED) from the United States Geological Survey (USGS).

The following NO_2, PM_{10}, and $PM_{2.5}$ monitoring sites were identified for use as background concentrations. The PM_{10}, and $PM_{2.5}$ monitors located at the Thompson Falls High School site (30-089-0007) were used as to calculate the background concentrations. Due to the limited available NO_2 monitors in Montana, Broadus (30-075-0001) was chosen as a representative rural background monitor. Three years of data (2019-2021) were used to calculate the design values. The background concentrations were calculated both including and excluding exceptional events (wildfires, windblown dust, etc.), to illustrate the impacts of wildfires on the background levels and are displayed in Table VI-2.

Table VI-2 Background concentrations

Pollutant	Averaging Time	Background Conc. ($\mu g/m^3$)[1]	Background Conc. ($\mu g/m^3$)[2]	Basis	Site
NO_2	1-hour	-	18.1 (9.7 ppb)	Avg 98% of daily 1-hour max	Broadus (30-075-0001) 2019-2021
	Annual	-	1.5 (0.8 ppb)	3-year Annual avg.	
PM_{10}	24-hour	127.7	39.3	Avg. of yearly 2nd-high 24-hour value	Thompson Falls (30-089-0007) 2019-2021
	Annual	18.6	15.5	3-year Annual avg.	

$PM_{2.5}$	24-hour	43.3	17.1	Avg. 98%-ile of yearly 24-hour values	Thompson Falls (30-089-0007) 2019-2021
	Annual	9.3	6.8	3-year Annual avg.	

(1)Data includes all exceptional event data in the calculations.
(2)Data excludes all exceptional event data in the calculations.

Data with exceptional events removed was used for all purposes in this analysis. The background concentrations are added to the modeled concentrations in the NAAQS analysis.

For the NO_2 modeling analyses, Tier 2 (Ambient Ratio Method, ARM2) was employed in AERMOD, with the EPA default minimum and maximum ambient ratios of 0.5 and 0.9, respectively (ratio of NO_2/NO_x).

Source parameters were provided by TRL, parameters were "point" and "volume" sources in AERMOD, and their descriptions are displayed in Table VI-3. "POINTHOR" is a source type in AERMOD, like "POINT", but the pollutants exhaust from a horizontal vent.

Table VI-3 Onsite Source Descriptions

SrcID	Source Description	Source Category	Source Type
BOIL	Hurst Boiler	Modified Source	POINT
MEDIA	EFB Media BH	Modified Source	POINTHOR
PSBH	Planer Shavings BH	Modified Source	POINTHOR
PCCY	Planer Chip CYC	Modified Source	POINTHOR
SAWCHIP	Sawmill Chip Cyc.	Modified Source	POINTHOR
DEBARKER	Debarker	Onsite source	VOLUME
HOG	Bark Hog	Onsite source	VOLUME
SHAVELO	Shaving bin loadout	Onsite source	VOLUME
SAWDUSTLO	Sawdust Bin Loadout	Onsite source	VOLUME
CHIPLO	Sawmill Chip Loadout	Onsite source	VOLUME
G1	Rebuilt Single Kilns	Modified Source	POINT
G2	Rebuilt Single Kilns	Modified Source	POINT
G3	Rebuilt Single Kilns	Modified Source	POINT
G4	Rebuilt Single Kilns	Modified Source	POINT
H1	Rebuilt Single Kilns	Modified Source	POINT
H2	Rebuilt Single Kilns	Modified Source	POINT
H3	Rebuilt Single Kilns	Modified Source	POINT
H4	Rebuilt Single Kilns	Modified Source	POINT
I1	Rebuilt Single Kilns	Modified Source	POINT
I2	Rebuilt Single Kilns	Modified Source	POINT
I3	Rebuilt Single Kilns	Modified Source	POINT
I4	Rebuilt Single Kilns	Modified Source	POINT
J1	Rebuilt Single Kilns	Modified Source	POINT

J2	Rebuilt Single Kilns	Modified Source	POINT
J3	Rebuilt Single Kilns	Modified Source	POINT
J4	Rebuilt Single Kilns	Modified Source	POINT
A1	Existing Double Kilns	Onsite source	POINT
A2	Existing Double Kilns	Onsite source	POINT
A3	Existing Double Kilns	Onsite source	POINT
A4	Existing Double Kilns	Onsite source	POINT
A5	Existing Double Kilns	Onsite source	POINT
A6	Existing Double Kilns	Onsite source	POINT
A7	Existing Double Kilns	Onsite source	POINT
A8	Existing Double Kilns	Onsite source	POINT
A9	Existing Double Kilns	Onsite source	POINT
A10	Existing Double Kilns	Onsite source	POINT
B1	Existing Double Kilns	Onsite source	POINT
B2	Existing Double Kilns	Onsite source	POINT
B3	Existing Double Kilns	Onsite source	POINT
B4	Existing Double Kilns	Onsite source	POINT
B5	Existing Double Kilns	Onsite source	POINT
B6	Existing Double Kilns	Onsite source	POINT
B7	Existing Double Kilns	Onsite source	POINT
B8	Existing Double Kilns	Onsite source	POINT
B9	Existing Double Kilns	Onsite source	POINT
B10	Existing Double Kilns	Onsite source	POINT
C1	Existing Single Kilns	Onsite source	POINT
C2	Existing Single Kilns	Onsite source	POINT
C3	Existing Single Kilns	Onsite source	POINT
C4	Existing Single Kilns	Onsite source	POINT
D1	Existing Single Kilns	Onsite source	POINT
D2	Existing Single Kilns	Onsite source	POINT
D3	Existing Single Kilns	Onsite source	POINT
D4	Existing Single Kilns	Onsite source	POINT
E1	Existing Single Kilns	Onsite source	POINT
E2	Existing Single Kilns	Onsite source	POINT
E3	Existing Single Kilns	Onsite source	POINT
E4	Existing Single Kilns	Onsite source	POINT
F1	Existing Single Kilns	Onsite source	POINT
F2	Existing Single Kilns	Onsite source	POINT
F3	Existing Single Kilns	Onsite source	POINT
F4	Existing Single Kilns	Onsite source	POINT

SIL Air Quality Analysis

NO_2, PM_{10}, and $PM_{2.5}$ emissions increases at the project site were modeled and compared to applicable SILs. The annual, 24-hour, and 1-hour (as applicable) emissions increases are provided

in Table VI-4. The proposed project will increase short-term and annual emissions from the boiler and other point sources. The increased emissions from the increased kiln drying capacity is modeled from 16 vents representing the rebuilt kilns.

Table VI-4 SIL Modeled Emissions Increases

SrcID	NO_2 1-hour (lb/hr)	NO_2 Annual (tpy)	PM_{10} 24-hour (lb/hr)	$PM_{2.5}$ 24-hour (lb/hr)	$PM_{2.5}$ Annual (tpy)
BOIL	5.150	34.960	1.120	1.120	7.570
MEDIA	-	-	0.061	0.049	0.215
PSBH	-	-	0.045	0.045	0.141
PCCY	-	-	0.054	0.046	0.143
SAWCHIP	-	-	0.708	0.597	1.861
G1	-	-	0.013	0.013	0.055
G2	-	-	0.013	0.013	0.055
G3	-	-	0.013	0.013	0.055
G4	-	-	0.013	0.013	0.055
H1	-	-	0.013	0.013	0.055
H2	-	-	0.013	0.013	0.055
H3	-	-	0.013	0.013	0.055
H4	-	-	0.013	0.013	0.055
I1	-	-	0.013	0.013	0.055
I2	-	-	0.013	0.013	0.055
I3	-	-	0.013	0.013	0.055
I4	-	-	0.013	0.013	0.055
J1	-	-	0.013	0.013	0.055
J2	-	-	0.013	0.013	0.055
J3	-	-	0.013	0.013	0.055
J4	-	-	0.013	0.013	0.055
B1	-	-	-	-	0.011
B2	-	-	-	-	0.011
B3	-	-	-	-	0.011
B4	-	-	-	-	0.011
B5	-	-	-	-	0.011
B6	-	-	-	-	0.011
B7	-	-	-	-	0.011
B8	-	-	-	-	0.011
B9	-	-	-	-	0.011
B10	-	-	-	-	0.011
Total:	-	**34.960**	-	-	**10.92**

Modeled NO_2, PM_{10}, and $PM_{2.5}$ Class II SIL results are presented in Table VI-5. Impacts exceeded all applicable SILs, therefore NAAQS/MAAQS analyses were performed. For the pollutants exceeding the SIL, the significant impact area (SIA) was determined, which was the furthest distance of the modeled SIL-exceeded receptor from the source.

Table VI-5 Class II Significant Impact Analysis Results

Pollutant	Avg. Period	Model Conc. (µg/m³)	SIL (µg/m³)	SIA (km)
NO_2	1-hour	84.1[(1)]	7.5	12.3
	Annual	1.42[(2)]	1.0	1.3
PM_{10}	24-hour	12.9[(3)]	5.0	0.47
$PM_{2.5}$	24-hour	9.37[(4)]	1.2	1.7
	Annual	1.53[(5)]	0.2	1.6

[(1)]Receptor with the maximum 5-year average of the maximum daily 1-hour concentration.
[(2)]Receptor with the maximum annual concentration in the 5-year period.
[(3)]Receptor with the maximum 24-hour concentration in the 5-year period.
[(4)]Receptor with the maximum 24-hour concentration averaged across 5 years.
[(5)]Receptor with the maximum annual concentration averaged across 5 years.

NAAQS/MAAQS Air Quality Analysis

For NAAQS and MAAQS analyses, it was determined that nearby source emissions did not cause significant concentration gradients, and that the background monitor in Thompson Falls adequately captured the significant particulate level impacts. All TRL sources were modeled at their potential to emit emission rates. These emissions rates are displayed in Table VI-6.

Table VI-6 Modeled Emissions for NAAQS/MAAQS Analysis

SrcID	NO_2 1-hour (lb/hr)	NO_2 Annual (tpy)	PM_{10} 24-hour (lb/hr)	PM_{10} Annual (tpy)	$PM_{2.5}$ 24-hour (lb/hr)	$PM_{2.5}$ Annual (tpy)
BOIL	18.0000	78.8400	3.9000	17.0820	3.9000	17.0800
MEDIA	-	-	0.2100	0.9386	0.1700	0.7500
PSBH	-	-	0.0860	0.2687	0.0860	0.2670
PCCY	-	-	0.0870	0.3210	0.0870	0.2700
SAWCHIP	-	-	1.3420	4.1860	1.1300	3.5250
DEBARKER	-	-	0.0847	0.3710	0.0131	0.0572
HOG	-	-	0.0073	0.0320	0.0011	0.0049
SHAVELO	-	-	0.0006	0.0025	0.0001	0.0004
SAWDUSTLO	-	-	0.0007	0.0029	0.0001	0.0004
CHIPLO	-	-	0.0009	0.0039	0.0001	0.0006
G1	-	-	0.0173	0.0361	0.0173	0.0361
G2	-	-	0.0173	0.0361	0.0173	0.0361
G3	-	-	0.0173	0.0361	0.0173	0.0361
G4	-	-	0.0173	0.0361	0.0173	0.0361
H1	-	-	0.0173	0.0361	0.0173	0.0361
H2	-	-	0.0173	0.0361	0.0173	0.0361
H3	-	-	0.0173	0.0361	0.0173	0.0361
H4	-	-	0.0173	0.0361	0.0173	0.0361
I1	-	-	0.0173	0.0361	0.0173	0.0361

I2	-	-	0.0173	0.0361	0.0173	0.0361
I3	-	-	0.0173	0.0361	0.0173	0.0361
I4	-	-	0.0173	0.0361	0.0173	0.0361
J1	-	-	0.0173	0.0361	0.0173	0.0361
J2	-	-	0.0173	0.0361	0.0173	0.0361
J3	-	-	0.0173	0.0361	0.0173	0.0361
J4	-	-	0.0173	0.0361	0.0173	0.0361
A1	-	-	0.0173	0.0361	0.0173	0.0361
A2	-	-	0.0173	0.0361	0.0173	0.0361
A3	-	-	0.0173	0.0361	0.0173	0.0361
A4	-	-	0.0173	0.0361	0.0173	0.0361
A5	-	-	0.0173	0.0361	0.0173	0.0361
A6	-	-	0.0173	0.0361	0.0173	0.0361
A7	-	-	0.0173	0.0361	0.0173	0.0361
A8	-	-	0.0173	0.0361	0.0173	0.0361
A9	-	-	0.0173	0.0361	0.0173	0.0361
A10	-	-	0.0173	0.0361	0.0173	0.0361
B1	-	-	0.0173	0.0361	0.0173	0.0361
B2	-	-	0.0173	0.0361	0.0173	0.0361
B3	-	-	0.0173	0.0361	0.0173	0.0361
B4	-	-	0.0173	0.0361	0.0173	0.0361
B5	-	-	0.0173	0.0361	0.0173	0.0361
B6	-	-	0.0173	0.0361	0.0173	0.0361
B7	-	-	0.0173	0.0361	0.0173	0.0361
B8	-	-	0.0173	0.0361	0.0173	0.0361
B9	-	-	0.0173	0.0361	0.0173	0.0361
B10	-	-	0.0173	0.0361	0.0173	0.0361
C1	-	-	0.0173	0.0361	0.0173	0.0361
C2	-	-	0.0173	0.0361	0.0173	0.0361
C3	-	-	0.0173	0.0361	0.0173	0.0361
C4	-	-	0.0173	0.0361	0.0173	0.0361
D1	-	-	0.0173	0.0361	0.0173	0.0361
D2	-	-	0.0173	0.0361	0.0173	0.0361
D3	-	-	0.0173	0.0361	0.0173	0.0361
D4	-	-	0.0173	0.0361	0.0173	0.0361
E1	-	-	0.0173	0.0361	0.0173	0.0361
E2	-	-	0.0173	0.0361	0.0173	0.0361
E3	-	-	0.0173	0.0361	0.0173	0.0361
E4	-	-	0.0173	0.0361	0.0173	0.0361
F1	-	-	0.0173	0.0361	0.0173	0.0361
F2	-	-	0.0173	0.0361	0.0173	0.0361
F3	-	-	0.0173	0.0361	0.0173	0.0361
F4	-	-	0.0173	0.0361	0.0173	0.0361

Total:	-	**78.8400**	-	**25.0836**	-	**23.8305**

The results of the NAAQS analysis are shown in Table VI-7, which show that the modeled emissions comply with NO_2, PM_{10}, and $PM_{2.5}$ NAAQS standards.

Table VI-7 NAAQS Analysis Results

Pollutant	Avg. Period	Model Design Value ($\mu g/m^3$)	Monitor Design Value ($\mu g/m^3$)	Total Conc. ($\mu g/m^3$)	Primary NAAQS ($\mu g/m^3$)	% of NAAQS
NO_2	1-hour	137[(1)]	18.1	155	188	83%
	Annual	2.74[(2)]	1.5	4.24	100	4.2%
PM_{10}	24-hour	23.6[(3)]	39.3	62.9	150	42%
$PM_{2.5}$	24-hour	14.8[(4)]	17.1	31.9	35	91%
	Annual	3.35[(5)]	6.8	10.2	12	85%

[(1)]Receptor with the 8th-highest daily 1-hour max value averaged over 5 years.
[(2)]Receptor with the maximum annual concentration in the 5-year period.
[(3)]Receptor with the 6th-highest 24-hour concentration across the 5-year period.
[(4)]Receptor with the 8th-highest 24-hour concentration per year, averaged over 5 years.
[(5)]Receptor with the maximum annual concentration averaged across the 5-year period.

A demonstration of compliance with applicable MAAQS (ARM 17.8 Subchapter 2), displayed in Table VI-1, was performed for the NO_2 and PM_{10} MAAQS standards, due to the modeled exceedance of the applicable SILs. Compliance with the 1-hour NO_2 MAAQS (ARM 17.8.211) was determined, based on the 1-hour NO_2 NAAQS being more conservative. The annual NO_2 MAAQS has a similar form, so the results from the NAAQS analysis were used. Compliance with the PM_{10} annual MAAQS (ARM 17.8.223) was also determined. The results are displayed in Table V

I-8.

Table VI-8 NO_2 MAAQS Analysis Results

Pollutant	Avg. Period	Model Design Value ($\mu g/m^3$)	Monitor Design Value ($\mu g/m^3$)	Total Conc. ($\mu g/m^3$)	Primary MAAQS ($\mu g/m^3$)	% of MAAQS
NO_2	Annual	2.74[(1)]	1.5	4.24	94	4.5%
PM_{10}	Annual	4.92[(1)]	15.5	20.4	50	41%

[(1)]Receptor with the maximum annual concentration in the 5-year period.

DEQ determined that the project related NO_2, PM_{10}, and $PM_{2.5}$ increases will not cause or contribute to an exceedance of a federal or state ambient air quality standard. This decision was based on the air dispersion modeling with qualitative/quantitative analyses. The full modeling analysis submitted with the MAQP application is on file with DEQ.

Date: August 9, 2022

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

Thompson River Lumber Company.

Final Environmental Assessment for

Montana Air Quality Permit #4643-01

Air Quality Bureau

APPLICANT: Thompson River Lumber Company. (TRL)		
SITE NAME: Thompson Falls Sawmill		
PROPOSED PERMIT NUMBER: Montana Air Quality Permit Number 4643-01		
APPLICATION DATE: Received on 06/06/2022, Application Deemed Complete on 07/25/2022		
LOCATION: Lat/Long 47.577991, -115.253162		**COUNTY: Sanders**
PROPERTY OWNERSHIP:	**FEDERAL ____ STATE ____ PRIVATE _X___**	
EA PREPARER:	**Craig Henrikson**	
EA Draft Date	**EA Final Date**	**Permit Final Date**
08/24/2022	**09/13/2022**	**09/19/2022**

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the proposed action. However, an agency is required to prepare an EA whenever, as here, statutory requirements do not allow sufficient time for the agency to prepare an EIS (ARM 17.4.607.3.c). This document may disclose impacts over which DEQ has no regulatory authority.

COMPLIANCE WITH THE CLEAN AIR ACT OF MONTANA

The state law that regulates air quality permitting in Montana is the Clean Air Act of Montana, §§ 75-2-101, *et seq*., (CAA) Montana Code Annotated (MCA). DEQ may not approve a proposed project contained in an application for an air quality permit unless the project complies with the requirements set forth in the CAA of Montana and the administrative rules adopted thereunder, ARMs 17.8.101 *et. seq*. The project is subject to approval by the DEQ Air Quality Bureau (AQB) as the site emissions exceed 25 tons per year for regulated pollutants (ARM 17.8.743.1.e). DEQ's approval of an air quality permit application does not relieve TRL from complying with any other applicable federal, state, or county laws, regulations, or ordinances. TRL is responsible for obtaining any other permits, licenses, or approvals (from DEQ or otherwise) that are required for any part of the proposed project. Any

action DEQ takes at this time is limited to the pending air quality permit application currently before DEQ's AQB and the authority granted to DEQ under the CAA of Montana—it is not indicative of any other action DEQ may take on any future (unsubmitted) applications made pursuant to any other authority (*e.g.* Montana's Water Protection Act). DEQ will decide whether to issue the pending air quality permit pursuant to the requirements of the CAA of Montana alone. DEQ may not withhold, deny, or impose conditions on the permit based on the information contained in this Environmental Assessment. § 75-1-201(4), MCA.

SUMMARY OF THE PROPOSED ACTION: TRL has applied for a Montana air quality permit under the CAA of Montana for the following equipment. The permit action has been assigned Montana Air Quality Permit (MAQP) Number 4643-01. The proposed project would allow TRL to reconstruct two dry kilns which were previously damaged to provide additional drying capacity. This would result in an increase in capacity through the sawmill. The proposed project would result in additional emissions due to the additional kiln drying, emissions from additional boiler operation and fugitive increases from the additional wood volume being processed. The project for MAQP #4643-01 is identified as the Dry Kiln Capacity Increase Project.

Table 1: Proposed Action Details

Summary of Proposed Action	
General Overview	TRL's air quality permit application consists of the following reconstructed equipment: Refurbish two kilns each with a capacity of 72 1000 board feet per charge (mbf/charge) Remove from the permit two older boilers which are no longer in operation The additional kiln drying capacity will provide for additional wood volume throughput with a proposed facility limit of 75 million board feet per year (75 mmbf/year)
Proposed Action Estimated Disturbance	
Disturbance	Minimal disturbance is expected at the site. Some construction and staging disturbance may occur. Since the footprints of the two kilns are existing, no permanent new disturbance is expected.
Proposed Action	
Duration	**Construction:** Construction or commencement could start within three years of issuance of the final air quality permit otherwise the authority to construct expires. **Construction Period:** The construction period could begin as soon as the air quality permit (and any other required permits) were in place. Seasonal

	construction activities are allowed once a Department Application Completeness Determination has been issued. **Operation Life:** Kiln drying equipment and sawmill operations would be expected to last at least thirty years.
Construction Equipment	Typical construction equipment, including cranes, earth moving equipment (bulldozer, grader, frontend loader, trackhoe, etc.), forklifts, and telehandlers.
Personnel Onsite	**Construction:** Construction jobs are expected during the reconstruction of the kilns, but no estimates were provided on totals. **Operations:** The sawmill currently employs between 50 to 100 people depending upon season and product demand. A minor increase in employment is expected with the expanded capacity.
Location and Analysis Area	**Location**: The proposed project is located on existing Thompson River Lumber Company property. The address is 241 Airport Road, Thompson Falls, 59873. This parcel is located Section 13, Township 21 North, Range 29 West, in the town of Thompson Falls, Sanders County. The sawmill resides on two parcels one of which is 152.75 acres, and the latter is 12.11 acres. **Analysis Area**: The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
Air Quality	The Draft EA will be attached to the Preliminary Determination Air Quality Permit which would include all enforceable conditions for operation of the emitting units
Conditions incorporated into the Proposed Action	The conditions developed in the Decision (Air Quality Permit) of the Montana Air Quality Permit dated September 13, 2022, set forth in Sections II.A-D.

Emission estimates for the project are located in Section IV. Emission Inventory in the Permit Analysis.

Plantwide emissions shown after limits are incorporated to remain below 100 tpy are shown below.

PTE Emissions

Sources	PM_{10} (ton/yr)	$PM_{2.5}$ (ton/yr)	HAPS (ton/yr)	SO_2 (ton/yr)	NOx (ton/yr)	VOCs (ton/yr)	CO (ton/yr)
POINT SOURCE EMISSIONS – excluding fugitives							
Previous Permitted Totals	**28.16**	**19.43**	**15.32**	**8.67**	**97.29**	**33.64**	**89.41**
New Plant-Wide Totals	**25.76**	**23.92**	**14.79**	**6.58**	**79**	**71.25**	**78.87**
Change	**-2.4**	**4.49**	**-0.53**	**-2.09**	**-18.29**	**37.61**	**-10.54**

The site emissions for all pollutants would be less than 100 tons per year (tpy) with the highest emission level being oxides of nitrogen (NOx), secondly, carbon monoxide (CO) and third VOCs.

The proposed action would be located on private land, near the town of Thompson Falls, Montana. All information included in the EA is derived from the permit application, discussions with the

applicant, analysis of aerial photography, topographic maps, consultation with DEQ staff, and other research tools.

PURPOSE AND BENEFIT FOR PROPOSED ACTION: DEQ's purpose in conducting this environmental review is to act upon TRL's air quality permit application (MAQP #4643-01) for the purpose of rebuilding two non-functioning lumber dry kilns and to increase the allowable permitted dry kiln production for the mill. These two refurbished kilns must be permitted as they generate emissions regulated by DEQ.

The benefits of the proposed action, if approved, would allow TRL to reconstruct and operate the two kilns at the proposed site to generate wood products. Authority to operate the proposed equipment would continue until the permit was revoked, either at the request of TRL or by DEQ because of non-compliance with the conditions within the air quality permit.

REGULATORY RESPONSIBILITIES: In accordance with ARM 17.4.609(3)(c), DEQ must list any federal, state, or local, authorities that have concurrent or additional jurisdiction or environmental review responsibility for the proposed action and the permits, licenses, and other authorizations required.

TRL must conduct its operations according to the terms of its permit, the CAA of Montana, §§ 75-2-101, *et seq.*, MCA, and ARMs 17.8.101, *et seq.*

Upon review of the TRL air quality permit application, the proposed limit of 75 mmbf/year is only slightly below the maximum throughput which would be possible based on average drying times and wood species and at the maximum throughput the facility remains a true minor.

No other permit applications have been submitted by TRL to DEQ at the time of this EA. And the application indicates that no other state issued permit applications will be required for the proposed project.

TRL must cooperate fully with, and follow the directives of any federal, state, or local entity that may have authority over the Thompson River sawmill. These permits, licenses, and other authorizations may include: Sanders County Weed Control Board, OSHA (worker safety), DEQ AQB (air quality) and Water Protection Bureau groundwater and surface water discharge; stormwater, MDT, and Sanders County.

The sawmill is spread over two legal parcels with acreages of 152.75 acres and 12.11 acres. The site is bordered by Highway 200 on the north and the southern property boundary is approximately 350 feet from the Clark Fork River.

Figure 1: Map of general location of the proposed project.

EVALUATION AND SUMMARY OF POTENTIAL IMPACTS TO THE PHYSICAL AND HUMAN ENVIRONMENT IN THE AREA AFFECTED BY THE PROPOSED PROJECT:

The impact analysis will identify and evaluate direct and secondary impacts. Direct impacts are those that occur at the same time and place as the action that triggers the effect. Secondary impacts means "a further impact to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action." ARM 17.4.603(18). Where impacts are expected to occur, the impacts analysis estimates the duration and intensity of the impact.

The duration of an impact is quantified as follows:

- **Short-term**: Short-term impacts are defined as those impacts that would not last longer than the proposed operation of the site.
- **Long-term**: Long-term impacts are defined as impacts that would remain or occur following shutdown of the proposed facility.

The severity of an impact is measured using the following:

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

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

1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

The site is located on the south-side of Highway 200 and to the south the Clark Fork River is approximately 350 feet due south. The TRL parcels do not extend to the river but are bounded by a narrow parcel of Montana Rail Link property which does extend to the bank of the Clark Fork River. The elevation across the site is approximately 2,450 to 2,500 feet as referenced by the topographic map contours on the Montana DEQ GIS website.

Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA and provided by the applicant as part of the permit application detailing the proposed site. Available information includes the permit application, analysis of aerial photography, topographic maps, and other research tools. None of the planned disturbance at the site is considered first time disturbance as the two kilns being reconstructed occupy the same footprint as they currently do. Some soil disturbance would occur during construction activities but would cease once the construction is completed. There is no impact expected to topography and geology.

Secondary Impacts: No secondary impacts to topography, geology, stability, and moisture would be expected.

2. WATER QUALITY, QUANTITY, AND DISTRIBUTION:

The Clark Fork is approximately 350 feet to the south. No wetlands have been identified on the site. There is a long narrow parcel of property owned by Montana Rail Link between the two parcels owned by Thompson River Lumber. Available information includes the permit application, analysis of aerial photography, topographic maps, and other research tools.

Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA and provided by the applicant for the purpose of obtaining the pending air quality permit. TRL has not submitted any water quality or MPDES permit applications to DEQ. TRL has indicated within the application that additional permits are not planned. Based on this information, DEQ does not anticipate an impact to surface water features and water quality, quantity, and distribution management.

Precipitation and surface water would generally be expected to infiltrate into the subsurface, however, any surface water that may leave the site could carry sediment from the disturbed site. However, since there is no new disturbance for the reconstruction of the kilns, storm water permitting is unlikely to be necessary for this project. If required, soil disturbances and storm water during construction would be managed under the Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharges associated with construction activity. If necessary, the applicant would need to obtain authorization to discharge under the General Permit for Storm Water Discharges associated with construction activity prior to ground disturbance. TRL would manage erosion control using a variety of Best Management Practices (BMP) including but not limited to non-draining excavations, containment, diversion and control of surface run off, flow attenuation, revegetation, earthen berms, silt fences, and gravel packs. This

plan would minimize any stormwater impacts to surface water in the vicinity of the project.

No fragile or unique water resources or values are present. Impacts to water quality and quantity, which are resources of significant statewide and societal importance are not expected.

Secondary Impacts: No secondary impacts to water quality, quantity and distribution would be expected. No secondary impacts from storm water runoff would be expected.

3. AIR QUALITY:

As of July 8, 2020, Sanders County was redesignated as an Attainment area for PM_{10}. Previously, there was a non-attainment area mostly encompassing the town of Thompson Falls. The Environmental Protection Agency (EPA) approved the Limited Maintenance Plan (LMP) submitted by the State of Montana to EPA on November 4, 2021, for the Thompson Falls Moderate nonattainment area (NAA) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM_{10}) and concurrently redesignating the NAA to attainment for the 24-hour PM10 National Ambient Air Quality Standard (NAAQS). In order to approve the LMP and redesignation, EPA determined that the Thompson Falls NAA has attained the 1987 24-hour PM_{10} NAAQS of 150 $\mu g/m^3$. This determination is based upon monitored air quality data for the PM_{10} NAAQS during the years 2015 through 2020.

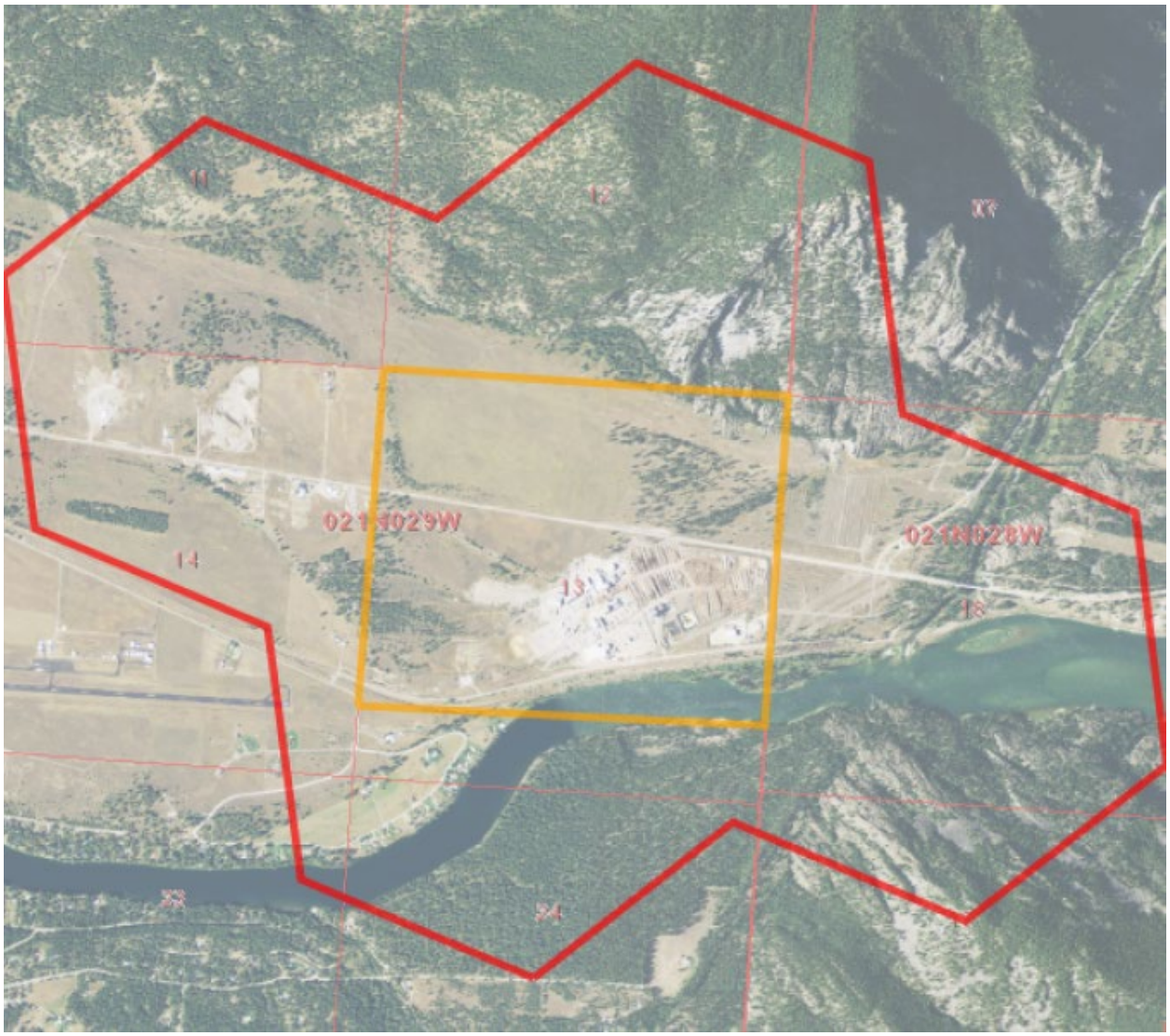
Direct Impacts: Emissions expected from the proposed action are shown below versus the original emissions permitted in MAQP #4643-00. Even though the two reconstructed kilns will increase the capacity of the facility, TRL has also requested removal of two boilers which are no longer in operation. The removal of the York and Cleaver boilers from the air quality permit results in a decrease in overall emissions for some of the pollutants. The VOC minor increase in emissions is due to the use of a newer emission factor for VOCs. The previous emission factor was noted as being "company provided", and the new emission factor uses a reference to the OSU Dry Kiln Study and uses an emission factor which is 76 percent higher than in the original TRL permit application. Emission changes associated with the reconstructed kilns would be minor.

Sources	PM_{10} (ton/yr)	$PM_{2.5}$ (ton/yr)	HAPS (ton/yr)	SO_2 (ton/yr)	NOx (ton/yr)	VOCs (ton/yr)	CO (ton/yr)
POINT SOURCE EMISSIONS – excluding fugitives							
Previous Permitted Totals	**28.16**	**19.43**	**15.32**	**8.67**	**97.29**	**33.64**	**89.41**
New Plant-Wide Totals	**25.76**	**23.92**	**14.79**	**6.58**	**79**	**71.25**	**78.87**
Change	**-2.4**	**4.49**	**-0.53**	**-2.09**	**-18.29**	**37.61**	**-10.54**

Secondary Impacts: Criteria pollutants that would be released disperse into the atmosphere and travel with the wind direction, decreasing in concentration as the pollutants are diluted with ambient air. Concentrations of these pollutants would not be allowed to exceed ambient air quality standards where the public has access which usually is considered to be the property boundary of the industrial facility. Therefore, DEQ does not anticipate impacts to air quality in the area outside the property boundary including the adjacent areas near Thompson Falls.

4. VEGETATION COVER, QUANTITY AND QUALITY:

There are no known rare or sensitive plants or cover types present in the site area. No fragile or unique resources or values, or resources of statewide or societal importance, are present. As discussed earlier, the wood products mill was incorporated in 1993 and did not receive an air quality permit until July 28, 2011. DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website and ran the query titled "Environmental Summary Report" on August 9, 2022. The proposed action is located at an existing sawmill and effectively reconstructs two drying kilns which were no longer in service. An area surrounding the sawmill site was selected for review, and the MTNHP program incorporated a larger polygon to identify potential plants and animals within the area. The polygon is shown in the below figure.



Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA and provided by the applicant. Available information includes the permit application, analysis of aerial photography, topographic maps, and other research tools. As the proposed project would be located on the existing TRL sawmill site,

and no new disturbance other than due to construction equipment; no impacts to vegetation cover, quantity and quality would be expected.

Secondary Impacts: No secondary impacts would occur.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Lumber operations have been occurring at the site since at least 1993. As described earlier in Section 4. Vegetation Cover, the larger polygon area incorporates the Clark Fork River to the south. For this reason, several of the species identified below in Section 6 Unique, Endangered Fragile or Limited Environmental Resources are likely associated with the habitat which occurs along the river.

Direct Impacts: The potential impact (including cumulative impacts) to terrestrial, avian and aquatic life and habitats would be negligible.

A list of species of concern is also identified within in Section 6. Unique, Endangered, Fragile or Limited Environmental Resources as reported from the MTNHP report on unique and endangered resources.

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

6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

DEQ conducted a search using the Montana Natural Heritage Program (MTNHP) webpage.

Species of concern (SOC) from the MTNHP identified the following species: Westslope Cutthroat Trout, Bull Trout, Long-eared Myotis, Evening Grosbeak, Lewis' Woodpecker, Cassin's Finch, Fisher, Fringed Myotis, Varied Thrush, Wolverine, Clark's Nutcracker, Grizzly Bear, Golden Eagle, Great Blue Heron, and Peregrine Falcon.

Direct Impacts: The majority species of concern from the MTNHP list are associated with the riverine habitat on the Clark Fork River, which is approximately 350 feet to the south of proposed action. These species would not be displaced by the proposed action as the site is completely industrial and the parcel in question does not contact the river or river banks. The potential impact (including cumulative impacts) to species present would be negligible.

Secondary Impacts: The proposed action would not have secondary impacts to endangered species because the permit conditions are protective of human and animal health.

7. **HISTORICAL AND ARCHAEOLOGICAL SITES:**

The Montana State Historic Preservation Office (SHPO) was notified of the application. SHPO conducted a file search and provided a letter dated July 5, 2022. The SHPO searched was conducted for Section 13 T21N R29W. The file search identified three cultural resource sites within the search area criteria.

Direct Impacts: Review of the SHPO report identified two of the three sites are eligible for the National Registry. Since the reconstruction work is not expected to disturb new areas, no impacts are expected. These are detailed and addressed below.

Site 24SA0224 is NRHP eligible as a historic road/trail but is listed with Forest Service as owner.

Site 24SA0199 is NRHP eligible as a historic railroad.

Site 24SA0674 is NHRP ineligible and is listed as a historic pipeline.

Due to the limited nature of the proposed disturbance for the construction project, and the, there will be no adverse effects to Historic Properties. If resources were discovered during operations resources, it would be TRL's responsibility to determine next steps as required by law.

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

8. **SAGE GROUSE EXECUTIVE ORDER:**

The project would not be in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: http://sagegrouse.mt.gov.

Direct Impacts: The proposed action is not located within Sage Grouse habitat; no direct impacts would occur.

Secondary Impacts: No secondary impacts to sage grouse or sage grouse habitat would be expected.

9. AESTHETICS:

Reconstructing the two drying kilns, would not change the nature of the facility. These two kilns previously operated at the site and will be reconstructed within their same approximate footprints and the only known change is that the overall kiln heights will be slightly higher than the three existing kilns because of the fans being selected. Of the approximate 2,557 acres within the MTNHP polygon, 1,208 acres are public lands and 1,349 are private or unknown ownership. The project would occur only on private land own by TRL. There are residents to the west and to the southwest from the sawmill. It is not expected that the nearest residences to the proposed site would experience any noticeable change in noise levels. Two new fans would be operating on the reconstructed kilns, but their addition would be considered minor. Standard noise

reducing methods would be employed to minimize the risk that noise levels would rise above current baseline levels. The noise levels at the TRL property boundary would not be expected to change.

Direct Impacts: The reconstruction of the slightly taller kilns would slightly change the view of the sawmill and may provide a negligible increase in noise.

Secondary Impacts: No secondary impacts to aesthetics are anticipated.

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

The site is located in an area characterized by the existing sawmill activities.

Direct Impacts: Following startup of the two reconstructed kilns there would be a minor increase in energy use to by due to the expanded sawmill capacity. Once operational, energy and electric demands would continue for the duration of the facility's lifetime provided there is product demand for the sawmill's products.

Secondary Impacts: No secondary impacts for the Demands on Environmental Resources of Land, Water, Air or Energy.

11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:

Direct Impacts: DEQ did not identify any other nearby activities that may affect the project. Therefore, impacts on other environmental resources are not likely to occur as result of this project.

Secondary Impacts: No secondary impacts to other environmental resources are anticipated as a result of the proposed project.

12. HUMAN HEALTH AND SAFETY:

The applicant would be required to continue to follow their corporate responsibility for safety and health at the facility.

Direct Impacts: Impacts to human health and safety are anticipated to be short-term and minor as a result of this project. No differences from the current operations are expected to occur with the reconstructed kilns.

Secondary Impacts: No secondary impacts to human health and safety are anticipated as a result of the proposed project.

13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:

The site is currently operating as a sawmill. The reconstruction of the two kilns provides some increase in throughput.

Direct Impacts: Some additional shipping of raw materials to the site in the form of logs, and finished product output would be expected to occur.

Secondary Impacts: No secondary impacts to industrial, commercial, water conveyance structures, and agricultural activities and production are anticipated as a result of the proposed project.

14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

A small number of contractors would be involved with the kiln reconstruction. These would continue during the construction period which is estimated to occur within 6-9 months following receipt of their revised air quality permit.

Direct Impacts: The proposed project would be expected to have only minor impacts on the distribution of employment. Increasing the planned production from the sawmill would require more log deliveries to the site and also increase the shipping of products by rail and truck.

Secondary Impacts: No known secondary impacts related to quantity and distribution of employment have been identified.

15. LOCAL AND STATE TAX BASE AND TAX REVENUES:

The proposed action would be expected to have minor impacts on the local and state tax base and tax revenue. The construction project would provide approximately 7-10 temporary contractor jobs during construction and startup. Increasing their planned production output also indicates there would be an increase in overall payroll for the site.

Direct Impacts: Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefitting from this operation. Any changes in local and state tax and tax revenues would be minor.

Secondary Impacts: No secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed action.

16. DEMAND FOR GOVERNMENT SERVICES:

The proposed action would occur at an existing sawmill.

Direct Impacts: Compliance review and assistance oversight by DEQ AQB would be conducted in concert with other area activity when in the vicinity. The change in demand for government services would be considered negligible.

Secondary Impacts: No known secondary impacts are expected.

17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

A review was conducted of the City of Thompson Falls website on August 9, 2022. The TRL property appears to be outside the zoning area for the City of Thompson Falls and therefore, the 2015 Master Plan put out by the City of Thompson Falls does not appear to apply to the TRL property.

Direct Impacts: No direct impacts have been identified. Expanding the capacity of the sawmill may provide some assurance to local residents that TRL will remain a nearby employer.

Secondary Impacts: No secondary impacts to the locally adopted environmental plans and goals are anticipated as a result of the proposed action.

18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

The current site of the proposed action is in an existing sawmill site. Recreational opportunities are located to the south of the proposed action via water-activities on the Clark Fork River. No wilderness areas or other recreational sites are in the nearby vicinity.

Direct Impacts: There would be no impacts to the access to wilderness activities as none are in the vicinity of the proposed action. Recreationalists on the Clark Fork River would likely be able to see the stacks of the two reconstructed kilns. These recreationalists might be river rafters, fishermen and others drawn to the river. The noise would be similar in nature to the existing TRL equipment currently occurring at the sawmill.

Secondary Impacts: No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed project.

19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

The proximity of the proposed action to the City of Thompson Falls, probably means some of the employees live in or near Thompson Falls.

Direct Impacts: The project would not add to the population or require additional housing, therefore, no impacts to density and distribution of population and housing are anticipated. The temporary construction workers would use the existing housing in the surrounding communities for the duration of the approximate 6–9-month construction schedule. The duration of the on-going employment would be minor and short-term.

Secondary Impacts: No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed action.

20. SOCIAL STRUCTURES AND MORES:

Based on the required information provided by TRL, DEQ is not aware of any native cultural concerns that would be affected by the proposed activity.

Direct Impacts: This proposed action is located on an existing industrial site, no disruption of native or traditional lifestyles would be expected, therefore, no impacts to social structure and mores are anticipated.

Secondary Impacts: No secondary impacts to social structures and mores are anticipated as a result of the proposed operations.

21. CULTURAL UNIQUENESS AND DIVERSITY:

Based on the required information provided by TRL, DEQ is not aware of any unique qualities of the area that would be affected by the proposed activity.

Direct Impacts: No impacts to cultural uniqueness and diversity are anticipated from this project.

Secondary Impacts: No secondary impacts to cultural uniqueness and diversity are anticipated as a result of the proposed project.

22. PRIVATE PROPERTY IMPACTS:

The proposed project would take place on privately-owned land. The analysis done in response to the Private Property Assessment Act indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person's use of private property so as to constitute a taking. (See Attached Private Property Assessment Act (PPAA) Checklist. Further, if the application is complete, DEQ must take action on the permit pursuant to § 75-2-218(2), MCA. Therefore, DEQ does not have discretion to take the action in another way that would have less impact on private property—its action is bound by a statute.

There are private residences in the area of the proposed project. The closest residence is located approximately 1150 feet to the southwest from the southern-most property boundary. Other residences are located further distances directly to the south and across the Clark Fork River from the southern property boundary.

23. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Due to the nature of the proposed action, no further direct or secondary impacts are anticipated from this project.

ADDITIONAL ALTERNATIVES CONSIDERED:

No Action Alternative: In addition to the proposed action, DEQ is considering a "no action" alternative. The "no action" alternative would deny the approval of the proposed action. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

Other Ways to Accomplish the Action:

In order to meet the project objective of increasing sawmill throughput, the only way to achieve that objective is with additional drying capacity. Since there are two previously damaged kilns available for reconstruction, rebuilding these two provides the necessary capacity increase. The objective could also have been achieved by replacing other operating existing kilns with larger kilns, but there would have been no real emission differences between these two options.

If the applicant demonstrates compliance with all applicable rules and regulations as required for approval, the "no action" alternative would not be appropriate. Pursuant to, § 75-1-201(4)(a), (MCA) DEQ "may not withhold, deny, or impose conditions on any permit or other authority to act based on" an environmental assessment.

CUMULATIVE IMPACTS:

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures. There are currently no other permit applications for this facility pending before DEQ. Although additional permits may be necessary for this facility in the future, without a pending permit application containing the requisite information, DEQ cannot speculate about which permits may be necessary or which permits may be granted or denied. For example, at this time DEQ does not have sufficient information to determine whether or not a MPDES permit would be required although TRL does not anticipate needing one, and therefore cannot predict whether there would be a new discharge associated with this facility. There may, therefore, be additional cumulative impacts (*e.g.* to water) associated with this facility in the future, but those impacts would be analyzed by future environmental reviews associated with those later permitting actions. (For example, if TRL applies for a MPDES permit DEQ will analyze the cumulative impacts of the already issued air quality permit and the then-pending MPDES permit.) This environmental review analyzes only the proposed action submitted by TRL, which is the air quality permit regulating the emissions from the equipment as listed in the "proposed action" section, above.

The facility is currently an operating sawmill, and the project provides some minor emission increases but also emission decreases with the removal of two previously permitted boilers.

No change in the attainment status would be expected with this project.

A review was also conducted of the City of Thompson Falls Master Plan which appears to have been updated in 2015. Since the sawmill is located outside of the city boundaries, there do not seem to be any elements which would directly apply to TRL's project.

DEQ considered potential impacts related to this project and potential secondary impacts. Due to the limited activities in the analysis area, cumulative impacts related to this project would be minor and short-term. The cumulative table for any direct and secondary impacts is located at the very end of this EA in Table III. Those cumulative impacts are also highlighted here regardless of the probability identified in Table III.

Soils would be disturbed to for staging equipment and for constructing kiln pads which could result in some fugitive dust. The disturbance for construction would cease after all of the equipment was installed.

The two reconstructed kilns would result in a minor amount of emissions, but which are largely off set by the removal of two previously permitted boilers.

The two reconstructed kilns would be slightly taller than the existing kilns and have two exhaust fans with a minor amount of noise.

Some increase in energy usage would occur due to the two reconstructed kilns and planned increase in operating hours which requires more boiler fuel.

The planned production increases would result in additional shipping of logs to the site as well as off-site shipping via truck and rail of finished wood products.

PUBLIC INVOLVEMENT:

Scoping for this proposed action consisted of internal efforts to identify substantive issues and/or concerns related to the proposed operation. Internal scoping consisted of internal review of the environmental assessment document by DEQ Air Permitting staff.

Internal efforts also included queries to the following websites/ databases/ personnel:
- Montana State Historic Preservation Office
- Montana Department of Environmental Quality (DEQ)
- City of Thompson Falls Website
- Montana Natural Heritage Program
- Montana Cadastral Mapping Program

OTHER GOVERNMENTAL AGENCIES WITH JURSIDICTION:

The proposed project would be fully located on privately-owned land. All applicable local, state, and federal rules must be adhered to, which, at some level, may also include other local, state, federal, or tribal agency jurisdiction. Other Governmental Agencies which may have overlapping or sole jurisdiction include, but may not be limited to: City of Thompson Falls, Sanders County Commission or County Planning Department (zoning), Sanders County Weed Control Board, OSHA (worker safety), DEQ AQB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT and Sanders County (road access).

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

Under ARM 17.4.608, DEQ is required to determine the significance of impacts associated with the proposed action. This determination is the basis for the agency's decision concerning the need to prepare an environmental impact statement and also refers to DEQ's evaluation of individual and cumulative impacts. DEQ is required to consider the following criteria in determining the significance of each impact on the quality of the human environment:

1. The severity, duration, geographic extent, and frequency of the occurrence of the impact;

   "Severity" is analyzed as the density of the potential impact while "extent" is described as the area where the impact is likely to occur. An example could be that a project may propagate ten noxious weeds on a surface area of 1 square foot. In this case, the impact may be a high severity over a low extent. If those ten noxious weeds were located over ten acres there may be a low severity over a larger extent.

   "Duration" is analyzed as the time period in which the impact may occur while "frequency" is analyzed as how often the impact may occur. For example, an operation that occurs throughout the night may have impacts associated with lighting that occur every night (frequency) over the course of the one season project (duration).

2. The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;

3. Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;

4. The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;

5. The importance to the state and to society of each environmental resource or value that would be affected;

6. Any precedent that would be set as a result of an impact of the proposed action that would commit DEQ to future actions with significant impacts or a decision in principle about such future actions; and

7. Potential conflict with local, state, or federal laws, requirements, or formal plans.

The significance determination is made by giving weight to these criteria in their totality. For example, impacts with moderate or major severity may be determined to be not significant if the duration of the impacts is considered to be short-term. As another example, however, moderate or major impacts of short-term duration may be considered to be significant if the quantity and quality of the resource is limited and/or the resource is considered to be unique or fragile. As a final example, moderate or major impacts to a resource may be determined to be not significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

Pursuant to ARM 17.4.607, preparation of an environmental assessment is the appropriate level of environmental review under MEPA if statutory requirements do not allow sufficient time for an agency to prepare an environmental impact statement. An agency determines whether sufficient time is available to prepare an environmental impact statement by comparing statutory requirements that establish when the agency must make its decision on the proposed action with the time required to obtain public review of an environmental impact statement plus a reasonable period to prepare a draft environmental review and, if required, a final environmental impact statement.

Significance Determination

The severity, duration, geographic extent, and frequency of the occurrence of the impacts associated with the proposed action would be limited. TRL proposes to increase the capacity at the existing sawmill, near the city of Thompson Falls. The estimated construction disturbance for MAQP #4643-01 is negligible.

DEQ has not identified any significant impacts associated with the proposed action for any environmental resource. Approving TRL's Air Quality Application would not set precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. DEQ would conduct a new environmental review for any subsequent air quality permit applications sought by TRL. DEQ would decide on TRL's subsequent application based on the criteria set forth in the CAA of Montana.

DEQ's issuance of an Air Quality Permit to TRL for this proposed operation does not set a precedent for DEQ's review of other applications, including the level of environmental review. The level of environmental review decision is made based on a case-specific consideration of the criteria set forth in ARM 17.4.608.

DEQ does not believe that the proposed action has any growth-inducing or growth-inhibiting aspects or that it conflicts with any local, state, or federal laws, requirements, or formal plans. Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed state action is not predicted to significantly impact the quality of the human environment. Therefore, at this time, preparation of an environmental assessment is determined to be the appropriate level of environmental review under the Montana Environmental Protection Act.

Environmental Assessment and Significance Determination Prepared By:

Craig Henrikson	**Environmental Engineer, P.E.**
Name	**Title**

EA Reviewed By:

Julie Merkel	**Permitting Services Section Supervisor**
Name	**Title**

References

Air Quality Permit Application Received June 6, 2022
Montana State Historical Preservation Office (SHPO) Report Received July 6, 2022
Montana Natural Heritage Program (Website Search Downloads) Last Download Aug 9, 2022
Montana Cadastral GIS Layer – Through-Out Project Up Until Draft Issuance
Air Quality Bureau Permitted Source List-GIS Layer
Thompson River Lumber Corporate website
http://www.thompsonriverlumber.com/about-us/

City of Thompson Falls Website – Planning Documents – Reviewed on August 9, 2022
Thompson Falls Downtown Master Plan.pdf (wsimg.com)

Table III: Summary of Potential Impacts that could Result from the Dry Kiln Capacity Increase Project.

Potential Impact	Affected Resource and Section Reference	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability[5] impact would occur	Cumulative Impacts	Measures to reduce impact as proposed by applicant	Significance (yes/ no)
Soil Disturbance/Fugitive Dust	I. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE. II. WATER QUALITY, QUANTITY, AND DISTRIBUTION III. AIR QUALITY	**S**-negligible: The pads necessary for reconstruction are located in the same areas of the existing kilns being reconstructed. **E**-small: Total surface disturbance would be minimal. **D**-The entire construction project would occur within approximately nine months assuming construction materials are available. **F**-During occasional moisture events or high wind events. **U/F**-Not unique or particularly fragile.	Certain	The construction period of approximately nine months limits the possible duration and extent of and erosion or fugitive dust.	TRL would be required to follow reasonable precautions for storm run-off and fugitive dust.	No
VOC, NOx, CO, PM emission release as well as fugitive dust	II. AIR QUALITY	**S**-low: Emissions released from the TRL reconstructed kilns are largely off-set by the removal of two previously permitted boilers. **E**-small: Total surface disturbance is minimal. **D**- The entire construction project would occur within approximately 9 months. Emissions from kiln drying would be on-going for the duration of the facility life. **F**-Daily during normal operation **U/F**-Not unique or particularly fragile.	Certain	The emission increases that would occur at TRL would largely be off set by emission decreases from the removal of two previously permitted boilers. No discernable changes in ambient air quality would be expected.	VOC control for the reconstructed kilns remains with maintaining low drying temperatures.	No

Potential Impact	Affected Resource and Section Reference	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability[5] impact would occur	Cumulative Impacts	Measures to reduce impact as proposed by applicant	Significance (yes/no)
Noise increases and visual changes	IV. AESHETICS	**S**-low: Noise increases would not be expected to increase above current baseline. Visual changes would just include two slightly taller kiln stacks. **E**-small: The equipment would be installed on the interior of an existing parcel. Not accessible to public. **D**- The entire construction project would occur within approximately nine months. Visual changes would be on-going for the duration of the facility life. **F**-Daily: During life of the TRL facility **U/F**-Not unique or particularly fragile.	Possible	Discernable changes in noise would likely not occur. Visual differences would not change the fact the site is already an operating sawmill	Equipment would be located away from exterior of property boundary.	No
Energy use increase onsite and transportation energy use increases	V. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	**S**-low: Increases in energy use at TRL for the additional drying capacity. **E**-small: Shipping increases of logs and off-site shipping of finished products. **D**- Energy use at TRL would be on-going for the duration of the facility. **F**-Daily during life of the TRL facility **U/F**-Not unique or particularly fragile.	Certain	Overall energy use would increase slightly.	None proposed	No

Potential Impact	Affected Resource and Section Reference	Severity[1], Extent[2], Duration[3], Frequency[4], Uniqueness and Fragility (U/F)	Probability[5] impact will occur	Cumulative Impacts	Measures to reduce impact as proposed by applicant	Significance (yes/ no)
Traffic Increases	VI. HUMAN HEALTH AND SAFETY	**S**-low: Increases in shipping to TRL and off-site shipping of finished products. **E**-low: **D**- Traffic and employee personnel impacts would be on-going for the duration of the facility. **F**-Daily during life of the TRL facility **U/F**-Not unique or particularly fragile.	Possible	Overall traffic could see some minor increases.	None proposed.	No

Definitions are quantified as follows:

- Short-term: Short-term impacts are defined as those impacts that would not last longer than the proposed operation of the site.
- Long-term: Long-term impacts are defined as impacts that would remain or occur following shutdown of the proposed facility.

The severity of an impact is measured using the following:

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

1. Severity describes the density at which the impact may occur. Levels used are low, medium, high.
2. Extent describes the land area over which the impact may occur. Levels used are small, medium, and large.
3. Duration describes the time period over which the impact may occur. Descriptors used are discrete time increments (day, month, year, and season).
4. Frequency describes how often the impact may occur.
5. Probability describes how likely it is that the impact may occur without mitigation. Levels used are: impossible, unlikely, possible, probable, certain