OPERATING PERMIT APPLICATION

MONTANA LIMESTONE RESOURCES

APPENDIX A-10

BASELINE TRANSPORTATION REPORT

October, 2014

BASELINE TRANSPORTATION STUDY

MONTANA LIMESTONE RESOURCES PROJECT,

GRANITE COUNTY, MONTANA

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1.0 INTRODUCTION AND STUDY AREA

This report describes the existing transportation networks and systems in the vicinity of the Montana Limestone Resources Project. The Project will be developed on private land located in northeastern Granite County, approximately one mile west of Drummond, Montana. The study area (Figure 1) is located in all or portions of Sections 1 and 2, T10N, R13W; Section 31, T11N, R12W; and Sections 23, 25-28 and 34-36, T11N, R13W, comprising the former Bar-Four-Bar Ranch and totaling 3,520 acres (5.5 square miles). The northeast boundary of the study area is located less than one mile southwest of the Clark Fork River and Interstate-90 (I-90). The transportation study includes roadways within the study area, the city of Drummond, and northern Granite County.

2.0 METHODS

This study reviewed all forms of transportation within a four-mile radius of the center of the study area. The following information sources were consulted for the baseline transportation study:

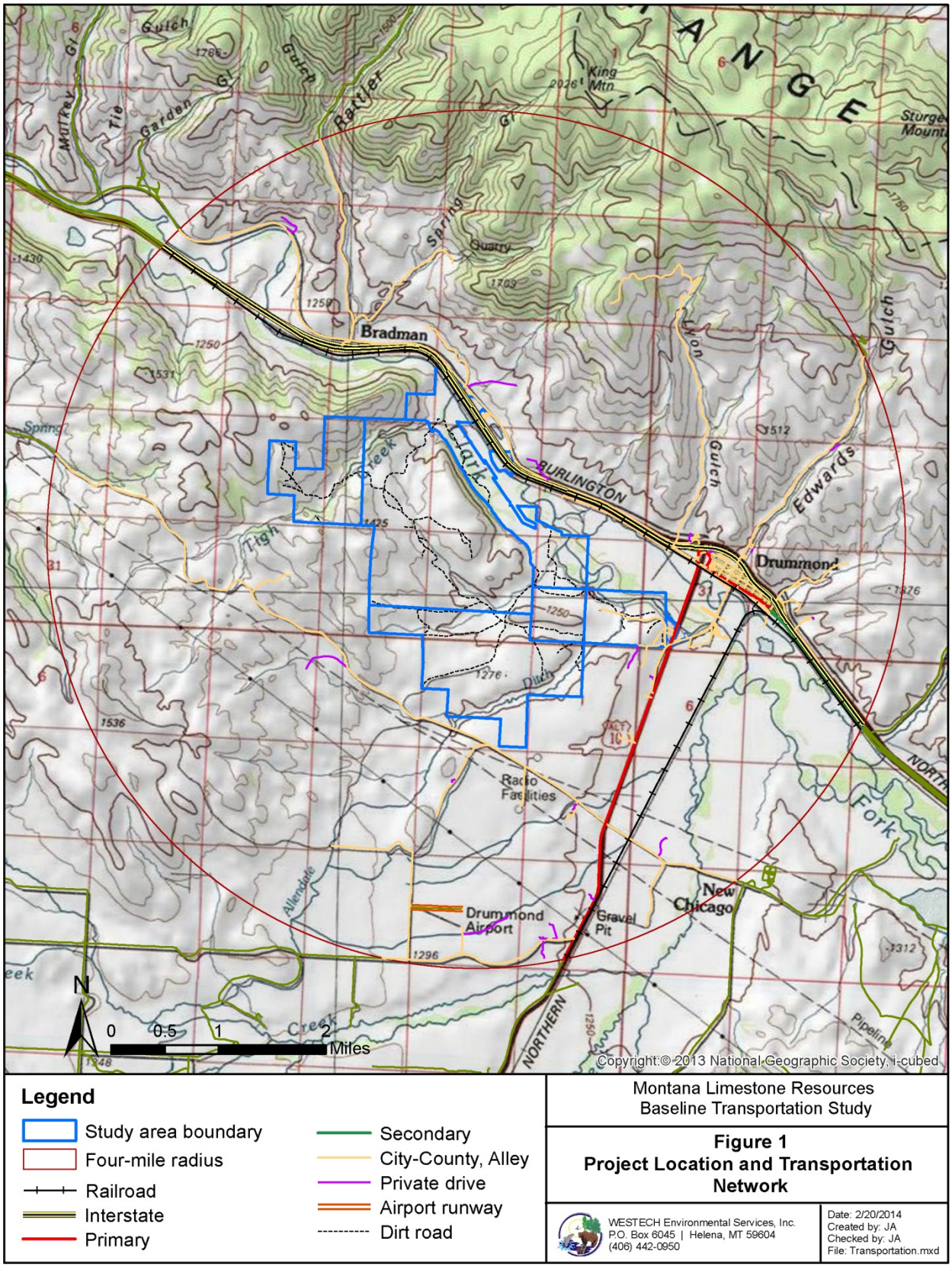
- Montana Department of Transportation (MDT) route maps and traffic count data
- Montana State Rail Plan (2010)
- Montana Rail Link (MRL) website and route map
- Federal Aviation Administration (FAA) airport information
- Montana State Library transportation framework
- Aerial photography
- U.S. Geological Survey (USGS) topographic maps

Road information was collected from various MDT resources. All roadways discussed in this investigation are described according to their functional classification and assigned highway system. Functional classes are used to define routes by characteristics related to the level of access and mobility they provide. An explanation of functional classes is presented in Table 1 below.

Table 1
Highway Functional Classification System

Functional Class	Definition and Characteristics	Example
Arterials	Highest level of mobility at the greatest speed, with longest uninterrupted travel. Arterials are additionally categorized as either principal or minor depending on the nature of the area they serve (rural versus urban).	Interstate highway
Collectors	Lower degree of mobility at lower speeds for shorter distances. Collectors are typically two-lane roads that gather and distribute traffic from the arterial routes. In rural areas, collectors are defined as major or minor.	State highway, County road
Local	Lowest degree of mobility at slower speeds with highest degree of access. Local roads connect residential and commercial properties and funnel traffic to higher order roadways.	City streets

Source: MDT 2010



Legend

- Study area boundary
- Four-mile radius
- Railroad
- Interstate
- Primary
- Secondary
- City-County, Alley
- Private drive
- Airport runway
- Dirt road

Montana Limestone Resources
Baseline Transportation Study

Figure 1
Project Location and Transportation Network

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For the purposes of allocating government funds, public highways and streets in Montana are placed into highway systems. Montana has both federal- and state-designated highway systems. Federally designated highway systems are the National Highway System (NHS), which includes Interstates, and the Non-Interstate NHS, which are principal arterial roadways other than Interstate highways. State-designated highway systems in Montana include the Primary Highway System (roads that have been functionally classified as principal or minor arterials), the Secondary Highway System (minor arterials or major collectors), the Urban Highway System (arterials or collectors in cities with a population greater than 5,000 selected by MDT and the municipality to be placed within the Urban Highway System), and the State Highway System (roads maintained by MDT that are not part of the Primary, Secondary, or Urban systems)(MDT 2010a).

Railroad information for the transportation investigation was obtained from the Montana State Rail Plan (Cambridge Systematics 2010) and the MRL website and route map.

Airport information was acquired from FAA records (FAA 2014) and from AirNav, LLC (2014), a private enterprise providing airport and navigation information to pilots via the internet.

3.0 RESULTS

3.1 ROADS

Access to the study area is provided by Montana Highway 1 (MT Highway 1) and local roads approximately one mile south of Drummond (Figure 1). The study area is bounded on the north by I-90/U.S. Highway 12, the interstate frontage road, and the railroad. To the east of the study area is MT Highway 1, a remnant portion of the old state highway route, a railroad spur line, and local roads connecting residential property to the highway. A discussion of the railroad lines is provided below. U.S. Highway 12 joins I-90 in Missoula and overlaps with the Interstate until Garrison, Montana, where it heads east. The West Mullan Trail Road borders the study area to the south. It consists of an unpaved county road connecting MT Highway 1 to an I-90 frontage road about 10 miles to the west. To the east of MT Highway 1, the East Mullan Trail Road is paved and terminates at a ranch property near the Clark Fork River (MDT 2010b).

I-90 spans the contiguous United States from Boston, Massachusetts to Seattle, Washington. It is a paved, multilane, federal highway that permits travel at high speeds. U.S. Highway 12 is an east-west highway running from Detroit, Michigan to Grays Harbor, Washington. Within Granite County, I-90/US-12 is comprised of two east bound lanes and two west bound lanes. Access onto and off of the interstate is controlled by numbered exit ramps. Drummond has two interstate exits, Exit 153 and Exit 154 (MSL 2014). The MDT collects traffic count data on road networks within the state. The 2013 annual average daily traffic (AADT) for the section of I-90 within Granite County ranged between 8,710 and 9,430 vehicles per day (MDT 2014). The AADT is an estimate of the amount of traffic on a road segment on a given day. Approximately 20 percent of the traffic along I-90 within Granite County was commercial truck traffic.

MT Highway 1 is a two-lane, paved, primary state route connecting Drummond and Opportunity, Montana. The highway is accessed from I-90 in Drummond and serves as a main route through downtown before turning south to the Granite County seat of Phillipsburg, Montana, 26 miles south of Drummond. The 2013 average AADT from four traffic sites on MT Highway 1 in downtown Drummond is 1,555 vehicles per day (MDT 2014). The AADT for MT Highway 1 between Drummond and Phillipsburg in 2013 ranged between 1,010 and 1,440 vehicles per day (MDT 2014). On average, a little over seven percent of the traffic was commercial traffic (trucks with two or more axles excluding school buses). The higher AADT of 1,440 vehicles was measured on the segment of MT Highway 1 closest to Drummond.

Within the Project area boundary, there are approximately 18 miles of unpaved roads traversing the property (Figure 1). The roads are a mix of established gravel roads and less-frequented dirt or grass two-track roads. The established gravel roads are primarily located on the east side of the study area and include Lorensen Ranch Road; an unnamed road that provides access to agricultural fields within the floodplain; and an unnamed gravel road that provides access to hay fields above the river, near the center of the study area.

Table 2 presents the functional classes, highway system designations, and lengths of the roads within a four-mile radius of the study area center.

Table 2
Road Networks within Four Miles of the MLR Study Area Center

Highway Functional Classification	Montana Highway System Designation	Road Type	Approximate Length (miles)
Arterial	National Highway System (NHS) Interstate, Primary Highway	I-90/US-12, MT Highway 1	14
Collector	Secondary Highway	Montana Route 271	1
Local	None	City/County Roads, Alleys	48
Other	None	Private driveway	4

3.2 RAILROADS

Two railroad lines are present in the vicinity of the study area. One located to the east, north and west of the study area parallels I-90, and a second spur line located east of the study area follows MT Highway 1. Both rail routes are controlled by Montana Rail Link (MRL), a Class II regional railroad who operates 875 miles of track within Montana (Cambridge Systematics 2010).

The railways managed by MRL in Montana are divided into eleven subsystems. The railroad north of the study area is referred to as MRL Subdivision 3, which consists of 119.3 miles of main line track connecting Helena (MP 0.0) and Missoula (MP 119.3). Drummond is one of the fourteen stations along the route at MP 70.7. The route is primarily comprised of single main track, with the exception of areas around Helena and Missoula where two main tracks are used (Cambridge Systematics 2010). The speed

limit on the main track is between 20 and 45 miles per hour. The northern study area boundary overlaps with approximately 0.75 miles of the railroad.

The rail line east of the study area is a 26-mile long railroad spur line between Drummond and Phillipsburg. The line is currently out of service. As the route is inoperative, MRL has not assigned it a subdivision number. As of 2010, there are no plans to reopen the Drummond-Phillipsburg line, but also no plans to formally abandon the track (Cambridge Systematics 2010).

3.3 AIRPORTS

The Drummond public airport is located three miles southwest of Drummond, and approximately two miles south of the study area, on the west side of MT Highway 1 (Figure 1). The airport is owned by Granite County and managed locally out of Drummond. Facilities at the airport consist of a grass airstrip measuring 2,400 feet long, a single airport hangar, tie-downs, and a lighted wind indicator. There are no fuel services at the airport or other structures (FAA 2014). Airport operations were reported in 2013 to be 175 airplanes, with fifty-seven percent of the traffic comprised of general aviation and forty-three percent comprised of local air traffic (AirNav 2014). The airport can be accessed from Drummond Airport Road, a partially paved road that connects to MT Highway 1.

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