DRAFT ENVIRONMENTAL IMPACT STATEMENT

COQUILLE INDIAN TRIBE
FEE-TO-TRUST AND GAMING FACILITY PROJECT

July 2022

LEAD AGENCY:

U.S. Department of the Interior
Bureau of Indian Affairs
911 Northeast 11th Avenue
Portland, Oregon 97232

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EXECUTIVE SUMMARY

COQUILLE INDIAN TRIBE FEE-TO-TRUST AND GAMING FACILITY PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT

ES.1 INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared pursuant to the National Environmental Policy Act (NEPA) to assess the environmental effects of the Coquille Indian Tribe's (Tribe) proposed 2.4-acre fee-to-trust transfer (Proposed Action) and subsequent remodel of an existing bowling alley into a 30,300-square-foot gaming facility (Alternative A) in the City of Medford, Oregon. For the purpose of this EIS, the BIA serves as the Lead Agency for compliance with NEPA, with the Tribe, the Oregon Department of Transportation (ODOT), the City of Medford, and Jackson County serving as Cooperating Agencies.

ES.2 PURPOSE AND NEED FOR PROPOSED ACTION

The federal Proposed Action is the acquisition of the 2.4-acre site in trust pursuant to the Secretary's authority under the Indian Reorganization Act (25 United States Code [USC] 5108). The purpose of the Proposed Action is to facilitate tribal self-sufficiency, self-determination, and economic development, thus, satisfying both the Department of the Interior's (Department) land acquisition policy as articulated in the Department's trust land regulations at 25 Code of Federal Regulations (CFR) Part 151, and the principle goal of the Indian Gaming Regulatory Act (IGRA) as articulated in 25 USC § 2701. The need for the Department to act on the Tribe's application is established by the Department's regulations at 25 CFR § 151.10(h) and 151.12.

ES.3 SUMMARY OF THE PROPOSED ACTION AND ALTERNATIVES

This document describes and analyzes three development alternatives and the No Action/No Development Alternative, which are described in detail in **Section 2.0** and are summarized below. Other off-site alternatives were considered and rejected; these alternatives are described in **Section 2.7**. The alternatives analyzed in this EIS vary in the degree to which they meet the purpose and need of the Tribe and the BIA. The Executive Summary Table (Table 1 of **Appendix A**) summarizes potential effects to each environmental issue area from each alternative, mitigation measures to avoid or minimize impacts, and levels of significance for each environmental impact.

ALTERNATIVE A – PROPOSED PROJECT

Alternative A, the Proposed Project, includes the transfer of approximately 2.4 acres of the 7.24-acre Medford Site from fee to trust status. The Medford Site is located within the incorporated boundaries of the City of Medford, adjacent to the northeastern boundary of Oregon State Highway 99 (OR 99, also

South Pacific Highway and South Riverside Avenue), between Charlotte Ann Lane and Lowry Lane. The foreseeable consequence of this action would be the remodel of the existing bowling alley within the proposed trust parcel boundaries into an approximately 30,300-square-foot gaming facility. The gaming component of the facility would consist of 650 gaming machines within a 16,700-square-foot gaming floor area. Other facilities within the gaming facility would include a bar/deli and space devoted to gaming support services. The remainder of the Medford Site would remain in fee status and would be used as parking for the Proposed Project.

ALTERNATIVE B – PHOENIX SITE

Alternative B consists of approval of the transfer of approximately 49.34 acres into federal trust status, and the construction of a gaming facility and surface parking on the Phoenix Site. The Phoenix Site is located off North Phoenix Road northeast of the City of Phoenix in Jackson County, Oregon. The gaming facility and other aspects of Alternative B development would be similar to Alternative A. The Alternative B gaming facility would be constructed on approximately 7.8 acres within the 49.34-acre Phoenix Site.

ALTERNATIVE C – EXPANSION OF THE MILL CASINO

Alternative C consists of the expansion of the Tribe's existing 30,000-square-foot Mill Casino on a 10.95-acre property currently held in federal trust for the Tribe located at 3201 Tremont Street in the City of North Bend, Coos County, Oregon. The expanded gaming component of the facility would consist of 650 additional gaming machines within a 5,000-square-foot gaming floor area to be located on the north end of the existing building currently developed as a parking lot. No changes would occur to the site access, signage, lighting, or landscaping.

ALTERNATIVE D – NO ACTION/NO DEVELOPMENT

Under the No Action/No Development Alternative, none of the three development alternatives (Alternatives A, B, and C) considered within this EIS would be implemented. The No Action/No Development Alternative assumes that no parcels within the Medford Site or Phoenix Site would be taken into trust and the Tribe would continue to operate the existing Roxy Ann Lanes bowling alley and on-site Oregon Video Lottery Terminals (VLT). Under this alternative, the BIA would not take any action.

ES.4 AREAS OF CONTROVERSY

The BIA published a Notice of Intent (NOI) in the *Federal Register* on January 15, 2015, describing the Proposed Action, and announcing the BIA's intent to prepare an EIS (**Appendix B**). The results of the scoping period were made available in a scoping report published by the BIA in June 2015. This report is available for review at http://www.coquille-eis.com/ or upon request to the BIA's Northwest Region Office at 911 Northeast 11th Avenue, Portland, Oregon 97232. Issues raised during scoping generally fell into the following categories:

- Alternatives and Purpose and Need
- Geology and Soils
- Water Resources
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Socioeconomic and Environmental Justice
- Transportation
- Land Use
- Public Services
- Hazardous Materials
- Aesthetics
- Cumulative Impacts
- Procedural and Non-EIS Issues

To the extent required by NEPA, this EIS has incorporated the issues and concerns identified during the scoping process.

ES.5 SUMMARY MATRIX

The potential adverse and beneficial effects as well as mitigation measures relevant to each alternative are presented in Table 1 of **Appendix A**. For a detailed discussion of environmental consequences and mitigation measures, see **Sections 4.0** and **5.0**.

SECTION 1.0
INTRODUCTION

1.1 SUMMARY OF THE PROPOSED ACTION AND ENVIRONMENTAL IMPACT STATEMENT PROCESS

This Environmental Impact Statement (EIS) has been prepared pursuant to the National Environmental Policy Act (NEPA) to assess the environmental impacts of the Coquille Indian Tribe's (Tribe) proposed 2.4-acre fee-to-trust transfer (Proposed Action) and remodel of an existing bowling alley into an approximately 30,300-square-foot gaming facility (Alternative A) in the City of Medford, Oregon.

NEPA requires the lead agency to review and analyze the environmental impacts associated with the Proposed Action. This document provides a detailed description of a reasonable range of alternatives, including three development alternatives and the no action alternative, an analysis of the potential environmental consequences associated with the four alternatives, and a discussion of avoidance and mitigation measures. A detailed description of the four alternatives is included in **Section 2.0** of this EIS.

For the purpose of this EIS, the BIA serves as the lead agency for compliance with NEPA, with the Tribe, Oregon Department of Transportation (ODOT), City of Medford, and Jackson County serving as cooperating agencies. The U.S. Environmental Protection Agency (USEPA), the National Indian Gaming Commission (NIGC), and Rogue Valley Sewer Services declined invitations to serve as cooperating agencies.

1.2 PURPOSE AND NEED FOR PROPOSED ACTION

The federal Proposed Action is the acquisition of the 2.4-acre site in trust pursuant to the Secretary's authority under the Indian Reorganization Act, 25 USC § 5108. The purpose of the Proposed Action is to facilitate tribal self-sufficiency, self-determination, and economic development, thus, satisfying both the Department of the Interior's (Department) land acquisition policy as articulated in the Department's trust land regulations at 25 CFR Part 151, and the principle goal of IGRA as articulated in 25 USC § 2701. The need for the Department to act on the Tribe's application is established by the Department's regulations at 25 CFR § 151.10(h) and 151.12.

1.3 BACKGROUND

The Tribe is responsible for providing programs and services to its membership that will help address their health needs, overcome education and employment obstacles, remedy deficiencies in housing and health care, and perpetuate their cultural identity. The Tribe has a total enrollment of 1,100 members, of which, approximately 43% were under the age of 24 and 7% were over the age of 65 (Coquille Tribe, 2019). It is estimated that approximately 52% of tribal members live in the Tribe's congressionally-designated five-county service area, covering 15,603 square miles of Coos, Curry, Douglas, Jackson, and Lane counties.

The purpose and need for the Proposed Action is to advance and promote tribal self-determination, self-sufficiency, and economic development. The Proposed Action would fulfill this purpose and need by improving the economic status of the Coquille Tribal Government, thereby enabling it to provide essential programs and services to its membership, including but not limited to health care, educational resources, housing, social services, employment resources, public safety, utilities, cultural preservation, and environmental and natural resource management. In 2013 and 2014, the Tribe summarized its present economic situation, and basic needs associated with providing governmental programs for its members including health care, education, social services, elder services, housing, cultural preservation, and environmental protection (Coquille Tribe, Unmet Tribal Needs Report, 2013a and, 2014). As described by the Tribe, the annual supplemental income needed by the Tribe to fund existing programs and services is estimated to exceed $13 million by 2022, at which time the Tribe would have a cumulative deficit in excess of $74 million. Without new revenue, the Tribe will not be able to sustain its existing level of services. For the Tribe to continue to provide enhancements to existing programs and make investments in the development of infrastructure and programs to support future generations, it will require over $300 million dollars in new revenues over a 10-year period. Further, as discussed in more below, budget shortfalls are expected to be even more severe than those than the Tribe described in 2013 due to recent developments.

The Tribe currently operates The Mill Casino, Hotel, and RV Park (Mill Casino), a gaming facility in North Bend, Oregon, along U.S. Route 101 (U.S. 101) adjacent to Coos Bay. Historically, the Mill Casino was the leading revenue producer for the Tribe. However, changes in Oregon coast demographics, a declining economy, isolation from the Interstate 5 (I-5) corridor, a growing Tribal population with an increasing need for support services, and the general inflation of program costs have created a situation where revenues from the Mill Casino are no longer able to keep pace with the needs of the Tribe. The failure of economic development efforts in the region have driven job seekers out of the community, contributing to a diminishing population and a lack of financial prospects. This situation was further worsened with the addition of tribal gaming competition within the Mill Casino's limited local market, combined with increasing costs, including those associated with the future impacts of Oregon’s minimum wage law. Based on the underlying causes of the Mill Casino’s trend of declining revenue, it is unlikely that the Mill Casino, with its current limitations, will experience revenue growth in the foreseeable future.

Further, the Mill Casino is located in an inundation zone for a tsunami triggered by an earthquake originating from the Cascadia Subduction Zone (Oregon Military Department, 2012). Since 1854, 21 tsunamis have impacted the Oregon Coast. The last two damaging tsunamis were in 1964 as a result of the Great Alaskan Earthquake, and in 2011 as a result of the Great Tohoku Japan Earthquake that caused severe damage and contributed to the deaths of four people on the Oregon Coast (Oregon Office of Emergency Management, 2022). While the next tsunami cannot be predicted, it is estimated that the chance of a tsunami event occurring in the next 50 years is 16-22% for the central to northern Oregon Coast and 37-42% for the southern Oregon Coast (National Tsunami Hazard Mitigation Program, 2019). If this event were to occur, the Mill Casino and the infrastructure to reach the Mill Casino could very likely be damaged or destroyed and recovery could take years, leaving the Tribe without an economic engine to sustain the tribal economy. The Mill Casino is a major source of tribal revenue providing for the Coquille tribal government and its members (Coquille Tribe, 2013b).

Another Tribal revenue source is the sale of timber from the 5,410-acre Coquille Forest. The Coquille Forest was transferred by an act of Congress into trust for the benefit of the Tribe in 1998. The chief purpose of this Forest is to provide revenue to the Tribe; all net revenue from the Forest timber harvest is deposited into the Tribe's general fund, where it is used to provide basic governmental services, such as health care, housing, education assistance, and cultural education. Revenues and revenue growth from the Coquille Forest are both limited due to the tribe’s non-industrial approach to timber management, the

Forest Stewardship Council's certification of its timber management, the protection afforded to listed species and the growing impacts of disease and wildfire. Despite the 2019 transfers of 14,742 acres to the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians and 17,519 acres to the neighboring Cow Creek Band of Umpqua Indians (P.L. 115-103), no lands have been added to the Coquille Forest since it went into trust in 1998.

The proposed gaming facility would be operated pursuant to the requirements of federal law and tribal law. As required by federal law, the Tribe would provide intensive regulation of the gaming facility with oversight by the NIGC. Gaming-related activities at the gaming facility would be regulated by the Coquille Indian Tribal Gaming Commission (Commission), as authorized by the Coquille Tribal Gaming Ordinance (Coquille Indian Tribal Code Chapter 198) in compliance with all applicable federal and tribal laws and all such rules and regulations as the Commission adopts. Revenues from the gaming facility are intended to mitigate a portion of the probable risk of loss due to a natural disaster at the Mill Casino, provide economic diversification and redundancy, provide an economic engine to sustain basic tribal government services in times of need and supplement tribal economic stability, and provide the Tribe with a long-term, sustainable revenue source from which to fund government operations and tribal programs. The Tribal government plans to use revenues to fund and enhance a variety of programs for its members including health care, education, social services, elder services, housing, cultural preservation, and environmental protection.

In summary, revenues from the Proposed Action would be used to sustain existing programs, enhance existing services, and help fund new initiatives critical to meeting the needs of the Tribe's growing and changing membership, which would enhance the Tribe's efforts to maintain self-determination and self-sufficiency.

1.4 OVERVIEW OF THE ENVIRONMENTAL REVIEW PROCESS

NEPA requires that an EIS be prepared for major federal actions that could significantly affect the quality of the human environment. This document has been completed in accordance with applicable requirements, including those set out in NEPA (42 § USC 4321 *et seq.*); the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR §§ 1500 – 1508)[1]; the Department's NEPA implementing regulations at 43 CFR Part 46, and the BIA's NEPA Policy (516 DM 10) and Guidebook (59 IAM 3-H).

The BIA issued the Notice of Intent (NOI) for the Proposed Action in the *Federal Register* on January 15, 2015 (**Appendix C**). The NOI described the Proposed Action and announced the initiation of the formal scoping process and a 30-day public scoping comment period. A newspaper notice announcing the scoping process and date and location of the public scoping meeting was published in the Medford Mail Tribune on January 16 and 18, 2015. Direct mailings were also sent to interested parties. On February 19, 2015, notices extending the comment period for an additional 30 days to March 19, 2015 were mailed to interested parties, and a newspaper notice announcing the extension was published in the Medford Mail Tribune on February 24, 2015. A scoping report was published by the BIA in June 2015 as described in **Section 1.5** below. During the scoping process, the BIA identified four cooperating agencies: (1) Tribe, (2) ODOT, (3) City of Medford, and (4) Jackson County.

On September 3, 2020, the BIA published a Notice of Cancellation of the EIS for the Proposed Action in the *Federal Register*. The Notice of Cancellation was subsequently withdrawn with publication of a notice entitled "Resumption of Preparation of an EIS for the Proposed Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project, Medford, Oregon" in the *Federal Register* on December 27, 2021.

[1] As the NOI for this proposed action was issued prior to September 14, 2020 this document uses the 1978, as amended NEPA regulations.

This Draft EIS will be distributed to federal, Tribal, State, and local agencies and other interested parties for a 45-day review and comment period. The review and comment period begins after the Notice of Filing with the USEPA in the *Federal Register*. The Notice of Availability (NOA) issued by the BIA provides the time and location of public hearing(s) to receive comments from the public concerning this Draft EIS. Substantive comments received on the Draft EIS during the comment period, including those submitted or recorded at public hearing(s), will be addressed in the Final EIS.

1.5 SCOPING

The CEQ regulations for implementing NEPA require a "scoping" process to determine and narrow the range of issues to be addressed during the environmental review of a Proposed Action (40 CFR § 1501.9). The scoping process entails a determination of the issues that will be addressed in the EIS by soliciting comments from agencies, organizations, and individuals. The issuance of the NOI on January 15, 2015, as described above, initiated the scoping period during which comments were accepted. The issues that were raised during the NOI comment period have been summarized within the Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project Scoping Report. This report was published by the BIA in June 2015 and is available for review at http://www.coquille-eis.com/ or upon request to the BIA's Northwest Region Office at 911 NE 11th Avenue, Portland, Oregon 97232. This EIS for the proposed fee-to-trust acquisition addresses the issues and concerns summarized in the Scoping Report and evaluates a reasonable range of alternatives, including three development alternatives and the no action alternative, to meet the purpose and need for the Proposed Action.

1.6 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

The proposed alternatives, as described in **Section 2.0**, may require federal, state, and local permits and approvals. **Table 1-1** identifies each responsible agency and the potential permit or approval required.

TABLE 1-1
POTENTIAL PERMITS AND APPROVALS REQUIRED

Agency	Permit or Approval	Alternatives
Federal/State		
Secretary of the Interior	Transfer of land into trust	A, B
USEPA	Approval of coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges From Construction Activities as required by the Clean Water Act (CWA).	A, B, C
Oregon State Historic Preservation Office	Consultation under Section 106 of the National Historic Preservation Act (NHPA).	A, B, C
ODOT	Approval of an Encroachment Permit for the construction of intersection and utility improvements within the Oregon State 99 (Hwy 99) right-of-way	A, B
	Approval of access permits to Hwy 99	A
U.S. Army Corps of Engineers (USACE)	Approval of a 401 Water Quality Certification permit prior to discharge of dredged or fill material into Waters of the U.S.	B, C
	Approval of a Nationwide 404 Permit prior to discharge of dredged or fill material into Waters of the United States.	B, C
	Consultation in accordance with Section 7 of the Endangered Species Act (ESA) regarding potential effects to endangered species and measures to minimize disturbance and mobilization of sediment during bulkhead reinforcement.	C
National Marine Fisheries Service	Consultation in accordance with Section 7 of the ESA regarding potential effects to endangered species and measures to minimize disturbance and mobilization of sediment during bulkhead reinforcement.	C
City of Medford	Approval of an encroachment permit for access improvements within City of Medford-owned right of ways.	A
	Approval of utility connections and encroachment permits for installation of utilities within City of Medford-owned owned right of ways.	A
	Approval of permits associated with alteration to facilities within fee parcels, if any.	A
Jackson County	Approval of an encroachment permit for access improvements within Jackson County-owned right-of-ways.	B
	Approval of utility connections and encroachment permits for installation of utilities within Jackson County-owned right of ways.	B
City of Phoenix	Approval of utility connections and encroachment permits for installation of utilities within City of Phoenix-owned right of ways.	B
	Expansion of the Urban Growth Boundary (UGB) to include Phoenix Site	B
Rogue Valley Sewer Services	Connection permit for new construction	A, B

SECTION 2.0
ALTERNATIVES

2.1 INTRODUCTION

Consistent with CEQ regulations (40 CFR § 1502.14), this section includes a detailed discussion and comparison of the alternatives analyzed in this EIS. These alternatives include three development alternatives, Alternative A – Proposed Project, Alternative B – Phoenix Site, and Alternative C – Mill Casino Expansion, as well as the No Action/No Development Alternative (Alternative D). Development alternatives are considered for three alternative site locations described in **Section 2.2**. Alternatives that were considered but are not analyzed in this EIS are also described in **Section 2.7**. A reasonable range of alternatives has been selected based on consideration of the purpose and need of the Proposed Action, the recommendations of commenters during the scoping process, and opportunities for potentially reducing environmental effects.

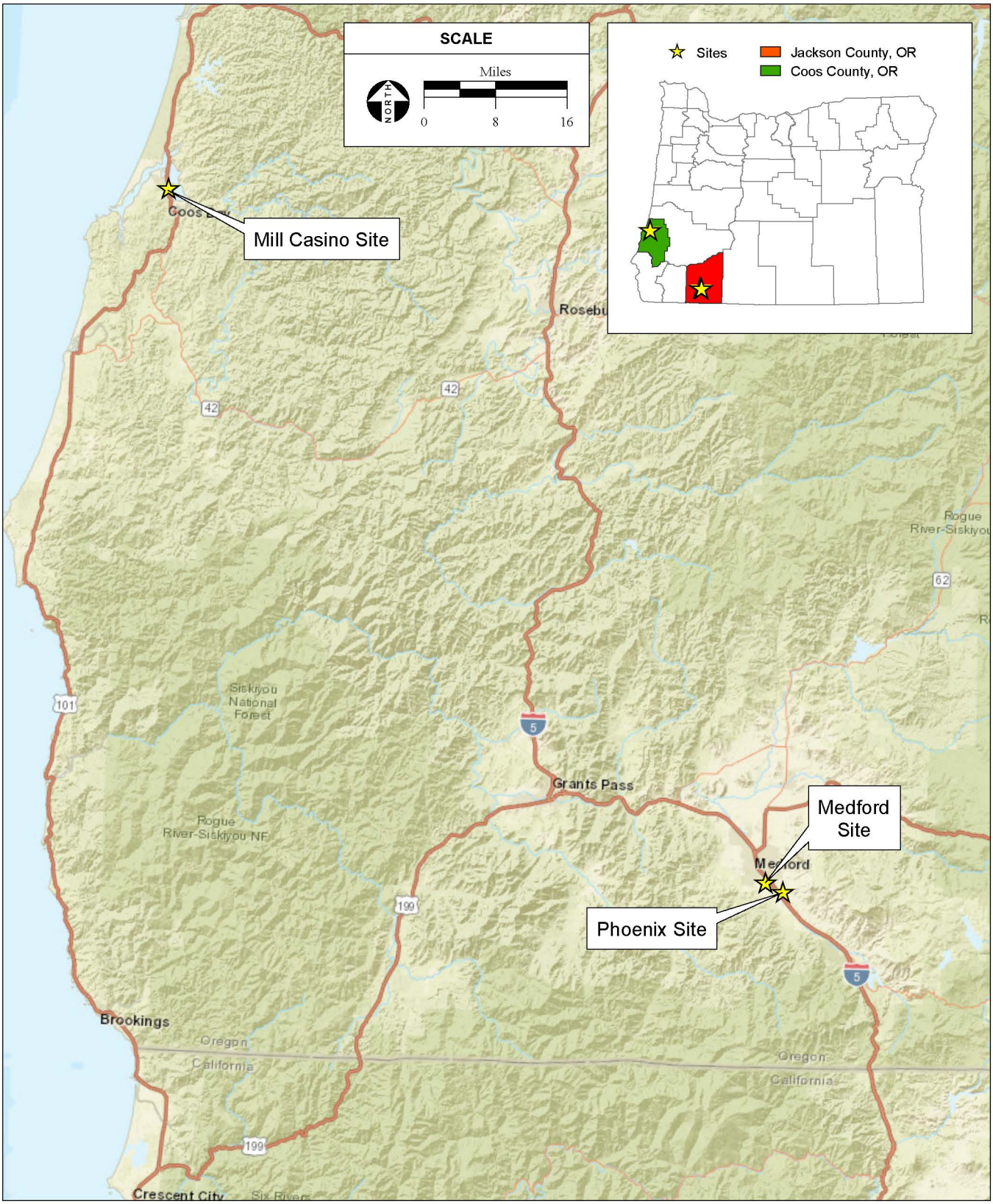
2.2 ALTERNATIVE SITE LOCATIONS

Three alternative site locations are considered for the development alternatives and are described below. Alternative A, if chosen, would be built on the 7.24-acre Medford Site and would include placing approximately 2.4 acres into federal trust status. Alternative B, if chosen, would be built on the Phoenix Site and would include placing approximately 49.34 acres into federal trust status. Alternative C would be built within the Mill Casino Site, which is currently in federal trust for the Tribe.

2.2.1 MEDFORD SITE – ALTERNATIVE A

The Medford Site is located within the incorporated boundaries of the City of Medford, adjacent to the northeastern boundary of Oregon State Highway 99 (OR 99, also South Pacific Highway and South Riverside Avenue), between Charlotte Ann Road and Lowry Lane (**Figure 2-1** and **2-2**). The site is approximately 7.24 acres and consists of nine tax lots (Tax Lots 37-1W-32C-800, -900, -1000, -1100, -4200, -4300, -4400, -4500, and -4701) currently owned by the Tribe and a portion of another tax lot (Tax Lot 37-1W-32C-4700) that is currently leased by the Tribe. Project parcels are listed in **Table 2-1**. Regional access to the Medford Site is provided by I-5, a major four-lane interstate freeway approximately 0.3 miles to the northeast of the site that runs north to south and links major cities, and OR 99, a two-lane highway that runs adjacent to the western border of the site.

The Medford Site is zoned for regional commercial and heavy commercial development (City of Medford, 2019). The adjacent parcels to the northwest, northeast, southeast and east consist of commercial and residential uses, including the recently approved Compass Hotel (also known as the Cedars) that is expected to be completed in spring 2022. Current land uses within the Medford Site include a bowling alley and its associated parking area, a parking area for the Bear Creek Golf Course in the central portion of the site, and a lot formerly developed with a restaurant and homes in the central



SOURCE: ESRI Data, 2015; AES, 5/7/2019

Figure 2-1
Regional Location

SOURCE: ESRI Data, 2016; AES, 5/9/2019

Figure 2-2
Site and Vicinity

portion of the site, and a vacant and paved lot in the northern portion of the site.[1] The existing bowling alley, Roxy Ann Lanes, is an approximate 23,300-square-foot, 24-lane bowling alley containing a pro shop, video arcade, pool table, bar and grill, and lottery games (Roxy Ann Lanes, 2019). Oregon Video Lottery Terminals (VLT) are the only form of gaming currently occurring on the site. An aerial photograph of the Medford Site is provided as **Figure 2-3**.

TABLE 2-1
MEDFORD SITE PROJECT PARCELS

Tax Lot Number		Existing Land Uses	
37-1W-32C-800	0.61	Vacant lot	No
37-1W-32C-900	0.44	Vacant lot	No
37-1W-32C-1000	0.44	Vacant lot	No
37-1W-32C-1100	0.44	Vacant lot	No
37-1W-32C-4200	0.45	Vacant lot	No
37-1W-32C-4300	0.45	Vacant lot	No
37-1W-32C-4400	0.57	Vacant lot	No
37-1W-32C-4500	0.83	Vacant lot	No
37-1W-32C-4701	2.42	Roxy Ann Lanes Bowling Alley and associated surface parking	Yes – 2.42 acres
37-1W-32C-4700	0.59	Surface parking for Bear Creek Golf Course	No
Total	***7.24 acres***		***2.42 acres***

Notes: Tax Lot 37-1W-32C-4700 consists of 18.14 acres; however, only 0.59 acres of this parcel that is leased by the Tribe is included within the Medford Site boundaries.
Source: Jackson County GIS, 2019

2.2.2 PHOENIX SITE – ALTERNATIVE B

The Phoenix Site consists of a 49.34-acre property (Tax Lots 38-1W-09A-100 and 38-1W-04-500) located northeast of the City of Phoenix in Jackson County, Oregon (**Figure 2-1** and **2-2**). The Phoenix Site is located off N. Phoenix Road and within view of the I-5 corridor. The site is zoned exclusively for farm use (Jackson County GIS, 2019). The site is not actively farmed, but has been used for cattle grazing. An aerial photograph of the Phoenix Site is provided as **Figure 2-4**.

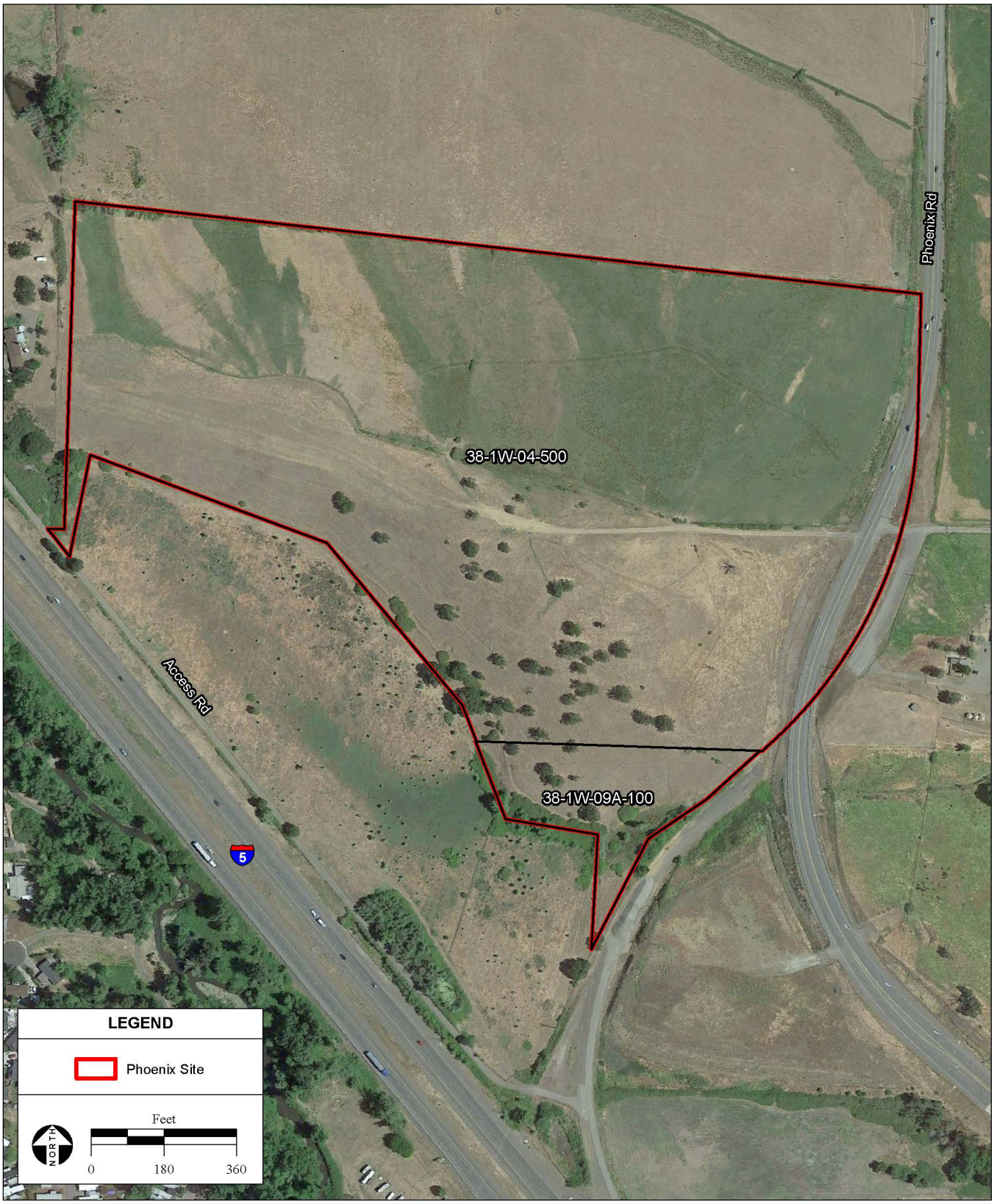
2.2.3 MILL CASINO SITE – ALTERNATIVE C

The Mill Casino Site is located at 3201 Tremont Street in the City of North Bend, Coos County, Oregon (**Figure 2-1** and **2-2**) and consists of a 10.95-acre property currently held in federal trust for the Tribe. The site is partially located on a pier that extends over Coos Bay. The Mill Casino Site is currently occupied by the 30,000-square-foot Mill Casino owned by the Tribe, which consists of a gaming area with over 700 gaming devices, table games, five restaurants and dining establishments, meeting and

[1] The restaurant and homes in the central portion of the site were demolished by the Tribe in 2015 due to safety and vandalism concerns. The restaurant had been vacant since operations ended in 2005. Demolition activities were authorized under City of Medford permits and resulting debris were removed from the site.

SOURCE: Kennedy Jenks, 2015; DigitalGlobe aerial photograph, 6/29/2018;

Figure 2-3
Alternative A – Medford Site Aerial Photograph



SOURCE: Jackson County GIS 2012; National Geographic, 2015; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 2-4

Alternative B – Phoenix Site Aerial Photograph

convention facilities, a live entertainment venue, and a 203-room hotel, as well as associated surface parking. An aerial photograph of the Mill Casino Site is provided as **Figure 2-5**.

2.3 ALTERNATIVE A – PROPOSED PROJECT

Alternative A consists of the following components: (1) the transfer of approximately 2.4 acres (Tax Lot 37-1W-32C-4701; **Figure 2-6**) within the Medford Site from fee to trust status as part of the restoration of lands for the Tribe by the Secretary in accordance with the Coquille Restoration Act of 1989 (25 USC 715); (2) the subsequent retrofit and remodel of the existing bowling alley within the proposed trust parcel boundaries into a 30,300-square-foot gaming facility with 650 Class II gaming machines; and (3) utilization of adjacent fee land within the Medford Site as parking for the Alternative A. Components of the Alternative A are described below.

2.3.1 LAND TRUST ACTION

The Tribe has submitted an application to the BIA for the transfer of 2.4 acres of land within the Medford Site into federal trust for the development of a casino and related facilities (Proposed Action). The proposed trust parcel boundaries are shown in **Figure 2-6.** The Secretary will make its determination regarding the proposed fee-to-trust acquisition in accordance with the Coquille Restoration Act (25 USC 715). Pursuant to the Coquille Restoration Act, the Secretary may accept into trust any acreage in the five-county (Coos, Curry, Douglas, Jackson, and Lane counties) service area of the Tribe; land transferred shall be taken in the name of the United States in trust for the Tribe as part of its reservation.

As described in **Section 1.1**, the IGRA (25 USC § 2701*et seq.*) was enacted by Congress in 1988 to regulate the conduct of gaming on Indian lands. Under Section 20 of IGRA (25 USC § 2719), gaming on lands acquired in trust by the Secretary after October 17, 1988 is prohibited, with some exceptions. In this case, the relevant exception is the "restored land exception" that allows gaming on land acquired in trust after October 17, 1988, when lands are taken into trust as part of the restoration of lands for an Indian tribe that is restored to federal recognition (25 USC § 2719[b][1][B][iii]).

2.3.2 PROJECT REGULATION

Congress enacted IGRA with the stated purpose of providing a statutory basis for the operation and regulation of gaming by Native American tribal governments. As part of its regulatory function, the NIGC, which was established under IGRA, is charged with the authority to approve management contracts between tribal governments and outside management groups. The Tribe will construct and operate the gaming facility without requesting a gaming development and management contract from the NIGC. As required by federal law, the Tribe will provide intensive regulation of the gaming facility, with oversight by the NIGC. Gaming-related activities will be regulated by the Coquille Indian Tribal Gaming Commission (Coquille Commission), as authorized by the CITC (Chapter 198) in compliance with all applicable federal and Tribal laws and all such rules and regulations as the Coquille Commission adopts. [2]

[2] The Coquille Tribe's current Gaming Ordinance is available here: https://www.coquilletribe.org/wp-content/uploads/2020/12/20200130Ordamendmentapproval-1.pdf

SOURCE: Jackson County GIS 2012; DigitalGlobe aerial photograph, 5/2015; AES, 5/7/2019

Figure 2-5
Alternative C – Mill Casino Site Aerial Photograph

SOURCE: Kennedy Jenks, 2015; DigitalGlobe aerial photograph, 6/29/2018;

Figure 2-6
Alternative A - Site Plan

2.3.3 ALTERNATIVE A PROJECT COMPONENTS

Gaming Facility

The Alternative A includes retrofitting and remodeling the existing Roxy Ann Lanes bowling alley into an approximately 30,300-square-foot gaming facility, which is approximately 7,000 square feet larger than the existing bowling alley. The gaming facility structure would be developed consistent with applicable seismic codes and International Building Code (IBC) standards and would maintain the height of the existing building. A site plan for the proposed facilities is presented as **Figure 2-6** and an architectural rendering is presented as **Figure 2-7**. The gaming component of the facility would consist of 650 Class II gaming machines within a 16,700-square-foot gaming floor area. Other facilities within the gaming facility include a bar/deli and space devoted to gaming support services. A loading dock shielded by 6-foot concrete walls would be located on the east side of the facility. **Table 2-2** provides a breakdown of the gaming facility with associated square footages.

TABLE 2-2
ALTERNATIVES A AND B – PROPOSED GAMING FACILITY

Area	Approximate Square Footage
Gaming Floor	16,700
Food and Beverage (bar/deli)	5,100
Cage	312
Kitchen	2,485
Back of House	3,779
Slot Club	143
Restrooms	725
Surveillance	740
Server Room	300
Total	**30,284**

Source: Coquille Tribe, 2013b.

Site Access

Access to the Medford Site would be provided via two existing driveways located along OR 99. Additional site ingress/egress to the proposed parking areas may be provided through future driveways located along Charlotte Ann Road. This site access situation is illustrated in **Figure 2-6**. Improvements to these access intersections would be made as described in **Section 5.0** to manage the ingress and egress of traffic at the Medford Site.

Parking

At least 520 surface parking spaces would be established on the Medford Site described in **Section 2.2.1**. As shown on **Figure 2-6**, a portion of surface parking spaces will be provided within the proposed 2.4-acre trust property immediately adjacent to the east and west of the gaming facility. The remaining parking spaces will be provided within the two northern portions of the Medford Site owned by the Tribe immediately to the northwest and southeast of Charlotte Ann Road. Access to these spaces would be

SOURCE: EDOBA Design, 2013; AES, 5/7/2019

Figure 2-7
Alternative A - Architectural Rendering

provided through the existing parking lot for the golf course leased by the Tribe and through an existing access point on Charlotte Ann Road.

Signage, Lighting, and Landscaping

Exterior signage would enhance the architecture of the building and the natural characteristics of the site by incorporating native materials in combination with architectural trim. Illuminated signs would be designed to blend with the light levels of the building and landscape lighting in both illumination levels and color characteristics. The exterior lighting of the project would be integrated into components of the architecture and would be strategically positioned to minimize off-site lighting and any direct site lines to the public. Light fixtures would not extend above 30 feet in height, and the lighting would be designed to confine direct rays to the premises. Signage would be architecturally compatible with the buildings and of appropriate size and content. The architectural design of the project would be enhanced by landscaping using plants native to the region.

Water Supply and Storage

Potable water is currently being provided to the proposed trust property within the Medford Site by the Medford Water Commission (MWC) through a 2-inch diameter service connection and meter tapped to a 16-inch diameter water main located along OR 99. Under Alternative A, potable water would continue to be provided by the MWC and the Tribe would continue to pay water service fees. As shown in **Table 2-3**, the estimated average daily water consumption for the gaming facility would be approximately 21,778 gallons per day (GPD). Additionally, the gaming facility would require 1,250 gallons per minute (GPM) of fire flow. While the existing service connection is capable of meeting potable water demands, the fire suppression flow requirements exceed the capacity of the existing service connection. To meet fire flow requirements, Alternative A would require a separate standby fire protection service connection from the 16-inch water line in OR 99 to supply the automatic sprinkler system. The Tribe intends to work with the MWC to enter into an agreement to compensate the MWC for providing water service, including system upgrades to connect for fire protection flows.

TABLE 2-3
ALTERNATIVE A – WATER DEMAND SUMMARY

Area	Units	Unit Quantity	Unit Water Consumption Rate (GPD/sf)	Average Daily Demand (GPD)
Gaming Area	square feet	16,700	0.48	7,979
Bar/Deli and Kitchen	square feet	7,585	1.56	11,799
Irrigation	--	--	--	2,000
Total Average Daily Demand (GPD)				**21,778**
Peak Day Demand[1] (GPD)				**44,556**

Notes: GPD – gallons per day; GPD/sf – gallons per day per square foot; [1] A peaking factor of 2.0 was used for potable water demand, and conservative evapotranspiration rates were used for peak irrigation demand.
Source: Kennedy and Jenks, 2016; **Appendix D**

Alternative A has a requirement of 150,000 gallons of fire suppression storage capacity. This storage capacity will be accommodated in the 500,000-gallon MWC Barneburg Storage Reservoir. The Barneburg Storage Reservoir is located northeast of the Medford Site across I-5.

Wastewater Treatment and Disposal

Under Alternative A, wastewater treatment and disposal would be provided by the current wastewater collection system serving the Medford Site, which is owned and operated by Rogue Valley Sewer Services (RVSS), and the Tribe would continue to pay sewer service fees. The proposed trust property is currently served by a wastewater connection to a 12-inch diameter sewer main located in OR 99. The collection system conveys wastewater flows to the Medford Regional Water Reclamation Facility (RWRF) in White City, Oregon. As shown in **Table 2-4**, the estimated average daily wastewater flow for the gaming facility would be approximately 17,800 GPD.

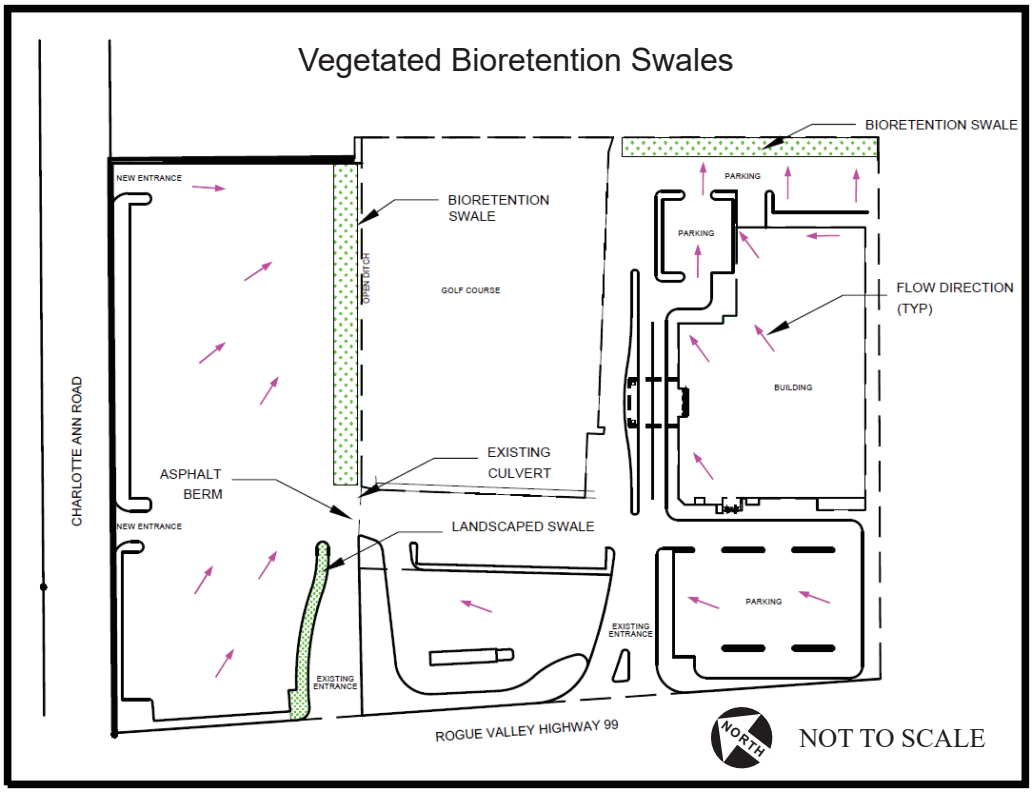
TABLE 2-4
ALTERNATIVE A – WASTEWATER GENERATION SUMMARY

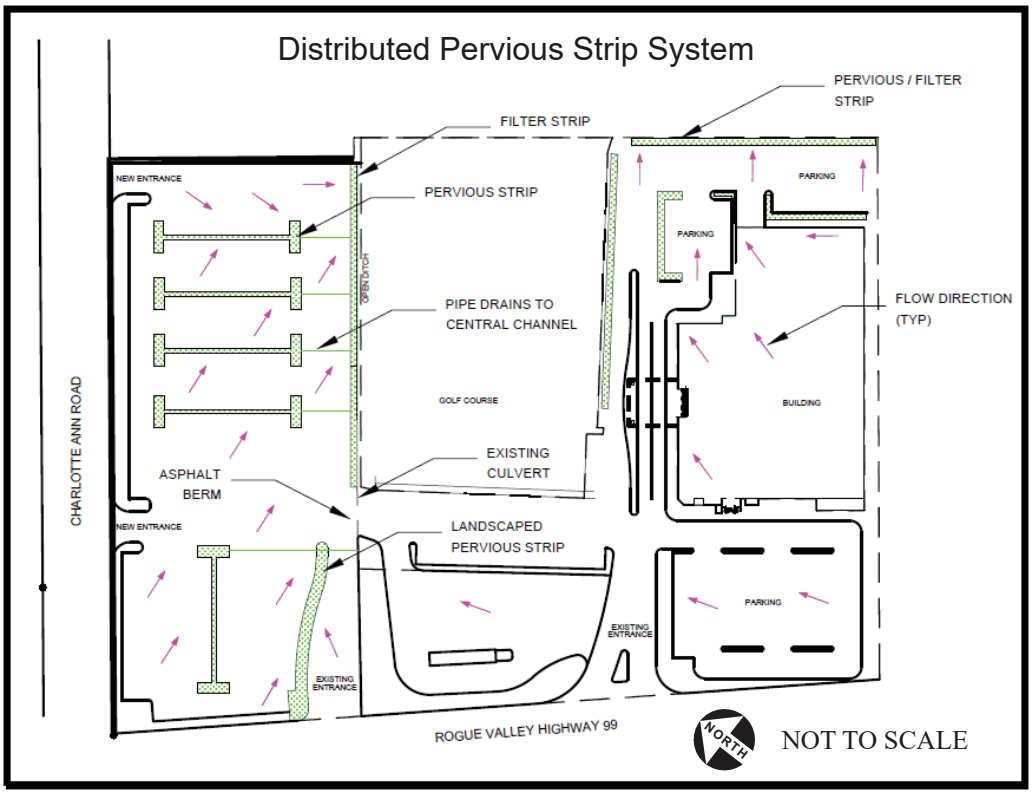
Area	Units	Unit Quantity	Unit Wastewater Generation Rate (GPD/sf)	Average Daily Flow (GPD)
Gaming Area	square feet	16,700	0.43	7,181
Bar/Deli and Kitchen	square feet	7,585	1.40	10,619
Total Average Daily Flow (GPD)				**17,800**
Peaking Factor				**2.0**
Peak Day Flow (GPD)				**35,600**

Notes: GPD – gallons per day; GPD/sf – gallons per day per square foot
Source: Kennedy and Jenks, 2016; **Appendix D**

Grading and Drainage

The site is currently developed and all surface drainage flows as sheet flow across the site to the east into a natural drainage swale that flows east towards Bear Creek, which flows in a general north to south direction and runs parallel to I-5. There would be no substantial grading associated with Alternative A as the majority of the site is already paved. Stormwater detention, and drainage facilities for the majority of the Medford Site under Alternative A would be developed in accordance with the Rogue Valley Stormwater Quality Design Manual adopted by the City of Medford. As detailed within the Drainage and Stormwater Treatment Analysis (Kennedy and Jenks, 2016; **Appendix D**, Section 7), adequate stormwater conveyance, detention, and treatment would be provided through Low Impact Development (LID) practices, including the installation of either vegetated bioretention swales or a distributed pervious strip system throughout the site. These LID measures are consistent with stormwater management approaches recommended by the U.S. EPA to address non-point pollution in urban areas (USEPA, 2005). Preliminary design schematics of these two LID options are shown on **Figure 2-8** and a brief description of each option is provided below.





SOURCE: Kennedy/Jenks, 2015

Figure 2-8
Medford Stormwater Drainage Plan

Vegetated Bioretention Swales

Vegetated bioretention swales (swales) combine features of a vegetated swale and an infiltration trench to retain, treat, and infiltrate runoff. Swales would be planted with native plants and shade trees that are tolerant of inundation and drought. Under this option, an approximate 16.25-foot wide by 200-foot-long swale would be installed along the existing central drainage channel to reduce the peak flow from the northern portions of the site during the 10-year, 24-hour storm event to pre-development levels. The swale would discharge to the channel at the northeast end. A second approximate 15-foot-wide by 220-foot-long swale would be required in the southeastern portion of the site. This swale would be located in the existing impervious strip on the eastern boundary of the subbasin and would discharge onto the adjacent golf course before flowing to the Bear Creek.

Distributed Pervious Strip System

A system of pervious, vegetated strips distributed throughout the redeveloped and existing parking areas would reduce the total impervious surface in the parking area and provide treatment and infiltration of runoff. Under this option, approximately 4,300 square feet of the parking area in the central portion of the site would be converted to vegetated pervious strips to reduce the peak runoff from the Medford Site to pre-development levels for the 10-year, 24-hour storm event. For the southern portion of the site, approximately 1,600 square feet of parking lot would be converted to vegetated pervious strips. Similar to the swales, the pervious strips would be planted with drought-tolerant, native plants and shade trees. In addition to the pervious strips within the parking lot, an approximate 5-foot-wide, 200-foot-long grassy filter strip would be installed along the northern edge of the existing central drainage channel and along the eastern edge of the southern portion of the site.

Law Enforcement and Fire Protection

Under Alternative A, the City of Medford would continue to provide law enforcement and fire protection services to the Medford Site. Although no agreement has been made at this time, the Tribe intends to work with the City of Medford to enter into an agreement for the provision of these services and appropriate compensation.

Best Management Practices

Best Management Practices have been incorporated into the design of Alternative A. Where applicable, these measures will be incorporated into any design or construction contracts to eliminate or substantially reduce environmental consequences from Alternative A. These measures are discussed below in **Table 2-5**.

TABLE 2-5
ALTERNATIVE A BEST MANAGEMENT PRACTICES

Resource Area	Best Management Practices
Water Resources	▪ Hazardous Material BMPs shall be followed for filling and servicing construction equipment and vehicles. ▪ Fertilizer use shall be limited to the minimum amount necessary and shall be adjusted for the nutrient levels in the water used for irrigation. Fertilizer shall not be applied immediately prior to any anticipated rain events. ▪ The runoff from trash collection areas shall be directed to the sanitary sewer system for treatment at a wastewater treatment plant (WWTP) prior to discharge. ▪ Landscape irrigation shall be adjusted based on weather conditions and shall be reduced or eliminated during the wet portion of the year in order to prevent excessive runoff. ▪ Water conservation measures shall be implemented, including low flow fixtures and electronic dispensing devices in faucets.
Air Quality (Construction)	▪ The following dust suppression BMPs shall be implemented by the Tribe to control the production of fugitive dust (PM_{10} and $PM_{2.5}$) and prevent wind erosion of bare and stockpiled soils. o Spray exposed soil with water or other suppressant two times per day. o Restrict traffic speeds on site to 15 miles per hour to reduce soil disturbance. o Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, and/or covering loads. o Promptly clean up spills of transported material on public roads. o Restrict traffic on site to reduce soil disturbance and the transport of material onto roadways. o Locate construction equipment and truck staging areas away from sensitive receptors as practical and in consideration of potential effects on other resources. o Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris. ▪ The following BMPs shall be implemented by the Tribe to reduce emissions of criteria pollutants, greenhouse gases (GHGs) and diesel particulate matter (DPM) from construction. o It is recommended that the Tribe control criteria pollutants and GHG emissions whenever reasonable and practicable by requiring all diesel-powered equipment be properly maintained and minimize idling time to 5 minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. Since these emissions would be generated primarily by construction equipment, machinery engines shall be kept in good mechanical condition to minimize exhaust emissions. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation. o Require at least 85% of construction equipment with a horsepower rating of greater than 50 be equipped with diesel particulate filters, which would reduce approximately 85% of DPM.
Air Quality (Operation)	▪ The Tribe shall reduce emissions of criteria air pollutants and GHGs during operation through the following actions, as applicable. o The Tribe shall use clean fuel vehicles in the vehicle fleet where practicable. o The Tribe shall provide preferential parking for vanpools and carpools, which would reduce criteria pollutants and GHGs. o The Tribe shall use low-flow appliances where feasible and utilize both potable and non-potable water to the extent practicable. The project proponent shall use drought resistant landscaping where practicable and provide "Save Water" signs near water faucets throughout the development. o It is recommended that the Tribe control criteria pollutants, GHG, and DPM emissions during operation whenever reasonable and practicable by requiring all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use; unless per engine manufacturer's specifications or for safety reasons more time is required. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation.

Resource Area	Best Management Practices
	○ The Tribe shall use energy efficient lighting (e.g., light emitting diodes [LEDs]), which would reduce indirect criteria pollutants and GHG emissions. Using energy efficient lighting would reduce energy usage, thus, reducing indirect GHG emissions from the project. ○ The Tribe shall use energy-efficient appliances. ○ The Tribe shall install recycling bins throughout the casino for glass, cans, and paper products. Decorative trash and recycling receptacles shall be placed strategically outside to encourage people to recycle and not to litter. Security guards shall be trained to discourage littering on site.
Socioeconomic Conditions	▪ The Tribe shall prominently display (including on any automatic teller machines [ATMs] located on-site) materials describing the risk and signs of problem and pathological gambling behaviors. Materials shall also be prominently displayed (including on any ATMs located on-site) that provide available programs for those seeking treatment for problem and pathological gambling disorders, including but not limited to a toll-free hotline telephone number. ▪ The Tribe shall conduct annual customer surveys in an attempt to determine the number of problem and pathological gamblers and make this information available to state or federal gaming regulators upon request. ▪ The Tribe shall undertake responsible gaming practices that at a minimum require that employees be educated to recognize signs of problem gamblers, that employees be trained to provide information to those seeking help, and that a system for voluntary exclusion be made available. ▪ Procedures shall be implemented to allow for voluntary self-exclusion, enabling gamblers to ban themselves from the gaming establishment for a specified period of time. ▪ Responsible gaming policies currently in place at the Mill Casino shall be instituted by the Coquille Indian Gaming Commission at the proposed gaming facility, including monitoring customers for signs of problem gaming, providing information about problem gaming to customers suspected of having an unhealthy gaming habit, and maintaining and enforcing policies to monitor and respond to problem gaming, including the most stringent possible self-ban rule (a lifetime ban from the facility grounds).
Land Use	▪ Light fixtures would not extend above 30 feet in height, and the lighting would be designed to confine direct rays to the premises. ▪ Signage would be architecturally compatible with the buildings and would be of appropriate size and content.
Solid Waste	▪ Construction waste shall be recycled to the fullest extent practicable by diverting green waste and recyclable building materials (including, but not limited to, metals, steel, wood, etc.) away from the solid waste stream. ▪ Environmentally preferable materials, including recycled materials, shall be used to the extent readily available and economically practicable for construction of facilities. ▪ During construction, the site shall be cleaned daily of trash and debris to the maximum extent practicable.
Law Enforcement	▪ Parking areas shall be well lit and monitored by parking staff and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other similar criminal activity. ▪ Areas surrounding the gaming facilities shall have “No Loitering” signs in place, be well lit, and be patrolled regularly by roving security guards. ▪ The Tribe shall conduct background checks for all gaming employees and ensure that all employees meet licensure requirements established by IGRA and the Tribe’s Gaming Ordinance. ▪ The Tribe shall adopt a Responsible Alcoholic Beverage Policy that shall include, but not be limited to, checking identification of patrons and refusing service to intoxicated individuals. ▪ The Tribe shall provide an adequate level of on-site security at the site during all hours of operation. ▪ The Tribe shall use best efforts to assist the City of Medford and/or Jackson County in law enforcement matters and to detain individuals when requested by either municipality, to the extent allowable under applicable law. As is current practice at the Mill Casino, the Tribe shall not tolerate any criminal act or attempted criminal act on the facility’s premises, and any such act shall be investigated, and when practical, charges shall be brought against suspects to the fullest extent of the law; in cases of suspected criminal activity calls will be made to local dispatch for law enforcement assistance. ▪ Employees shall be trained in the proper involvement of law enforcement officials in disturbances on-site.

Resource Area	Best Management Practices
Fire Protection and Emergency Medical	▪ During construction, any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. ▪ The Tribe will provide medical and fire training to staff (i.e., cardiopulmonary resuscitation and fire extinguisher training).
Electricity and Natural Gas	▪ The selected heating, ventilation, and air conditioning (HVAC) system shall minimize the use of energy by means of using high efficiency variable speed chillers, high efficiency low emission steam and/or hot water boilers, variable speed hot water and chilled water pumps, variable air volume air handling units, and air-to-air heat recovery where appropriate. ▪ Energy-efficient lighting (e.g., LEDs) shall be installed throughout the facilities. Dual-level light switching shall be installed in support areas to allow users of the buildings to reduce lighting energy usage when the task being performed does not require all lighting to be on. Day lighting controls shall be installed near windows to reduce the artificial lighting level when natural lighting is available. Controls shall be installed for exterior lighting, so it is turned off during the day.
Hazardous Materials	▪ Personnel shall follow BMPs for filling and servicing construction equipment and vehicles. The BMPs, that are designed to reduce the potential for incidents involving the hazardous materials, shall include the following: o To reduce the potential for accidental release, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment and shall not be stored on site. o Catch pans shall be placed under equipment to catch potential spills during servicing. o Refueling shall be conducted only with approved pumps, hoses, and nozzles. o All disconnected hoses shall be placed in containers to collect residual fuel from the hose. o Vehicle engines shall be shut down during refueling. o No smoking, open flames, or welding shall be allowed in refueling or service areas. o Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill. o Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents. o Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations. o All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance, refueling, and storage areas shall be inspected monthly. o Results of inspections shall be recorded in a logbook that shall be maintained on site. ▪ Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols. ▪ Potentially hazardous materials, including fuels, shall be stored away from storm drainage systems, and secondary containment shall be provided for all hazardous materials stored during construction and operation. ▪ In the event that contaminated soil is encountered during construction related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, representatives of the Tribe shall consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Any and all contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations. ▪ The Tribe shall ensure, through the enforcement of contractual obligations, that all contractors prepare hazardous materials business plans and that they transport, store, and handle construction and remediation-related hazardous materials in a manner consistent with applicable regulations and guidelines. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials in accordance with the applicable federal, state, and/or local regulatory agency protocols.

Resource Area	Best Management Practices
Aesthetics	▪ Placement of lights on buildings shall be designed so as not to cast light or glare offsite. ▪ Shielding, such as with a horizontal shroud, shall be used for all outdoor lighting so as to ensure it is downcast. ▪ Timers shall be utilized so as to limit lighting to necessary times. ▪ All exterior glass shall be non-reflective low-glare glass.

2.3.4 CONSTRUCTION

Alternative A would be developed in one phase with construction activities occurring over a period of approximately 12 months. Construction activities will consist of renovations to the interior portion of the Roxy Ann Lanes facility, an expansion to that facility, grading and paving the northern portion of the vacant lot in the central portion of the site (southeast of Charlotte Ann Road), removing pavement in some areas to create stormwater infiltration and treatment facilities, and landscaping with native plants. Additionally, some minor trenching and excavation activities could be required associated with the establishment of vegetated bioretention swales, pervious strips in parking areas, culverts, and connections to water supply and sewer mains. Any utility modifications would take place within designated utility easements and would be coordinated with utility providers. The estimated maximum depth of excavation associated with project construction activities would be four feet. Within this EIS, all project components were assumed to be constructed and operational by 2022; although it is now expected that the facility may not be operational until a later date, this is not expected to measurably affect the analysis and conclusions.

2.4 ALTERNATIVE B – PHOENIX SITE

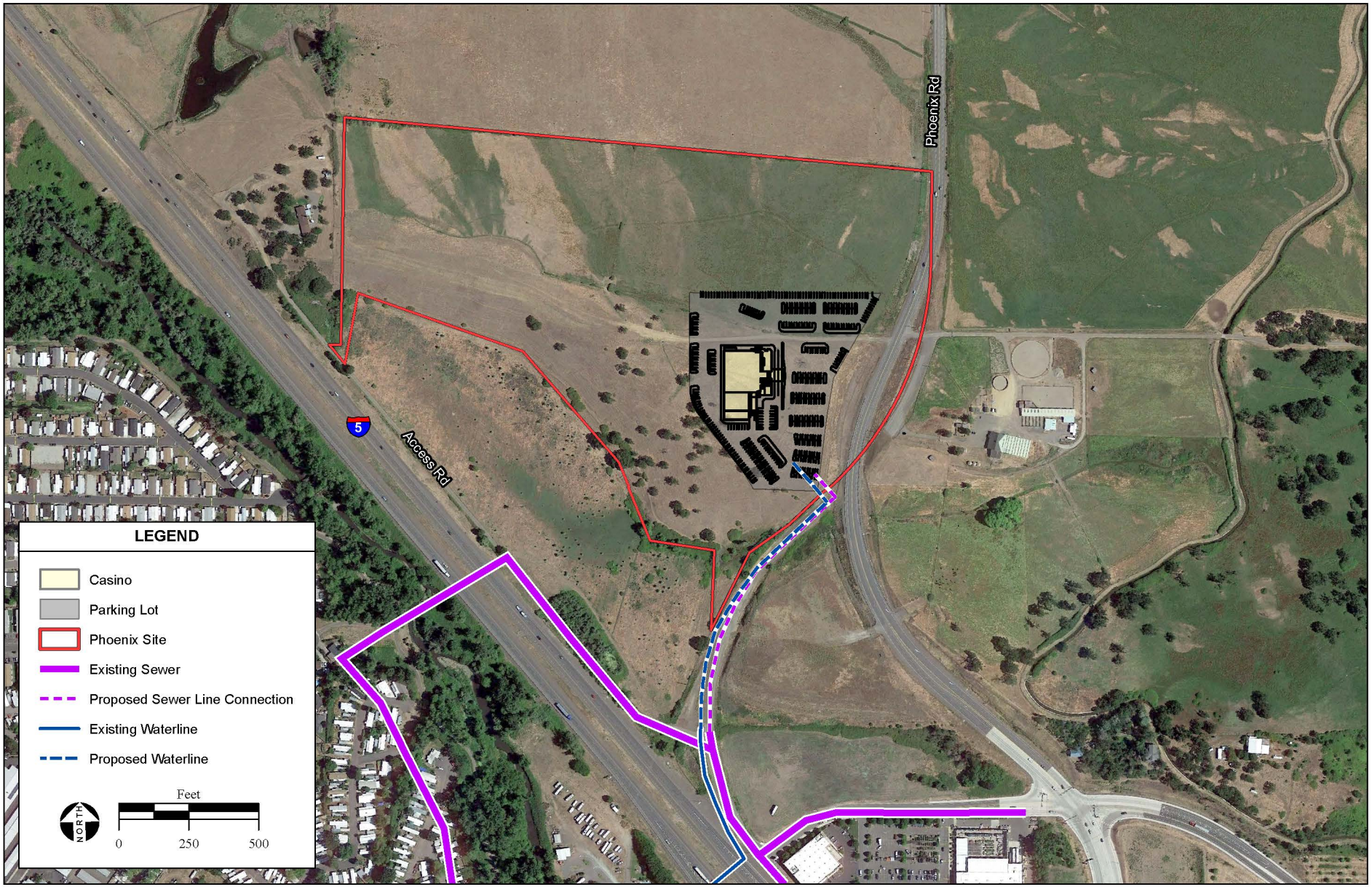
Alternative B consists of the following components: (1) the transfer of approximately 49.34 acres (Tax Lots 38-1W-09A-100 and 38-1W-04-500) from fee to trust status as part of the restoration of lands for the Tribe by the Secretary; and (2) the construction of a 30,300-square-foot gaming facility and associated parking facilities on the Phoenix Site. Components of Alternative B are described below.

2.4.1 LAND TRUST ACTION AND REGULATION

Under Alternative B, the Tribe would submit a fee-to-trust application to the BIA for the 49.34-acre Phoenix Site described in **Section 2.2.2**. The proposed trust parcel boundaries are shown in **Figure 2-9.** All other components of the land trust action and regulation would be similar to Alternative A. Refer to **Section 2.3** for further discussion.

2.4.2 ALTERNATIVE B PROJECT COMPONENTS

Under Alternative B, the gaming facility, ancillary components related to parking – signage, lighting, and landscaping and BMPs are similar to those described under Alternative A (**Section 2.3** and **Table 2-2**). However, under Alternative B, the gaming facility would be constructed as a new facility within an approximately 7.8-acre area within the 49.34-acre Phoenix Site. The 30,300-square foot gaming facility structure would be developed consistent with applicable seismic codes and IBC standards. A site plan for Alternative B is presented as **Figure 2-9**.



SOURCE: Oregon Department of Transportation, 2014; Jackson County GIS 2012; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 2-9

Alternative B – Phoenix Site Plan

Site Access

Access to the Phoenix Site would be provided via an existing driveway located along N. Phoenix Road. North Phoenix Road has been recently realigned as part of improvements to the Fern Valley I-5 Interchange. As part of the realignment for N. Phoenix Road, the existing driveway into the Phoenix Site was paved.

Water Supply and Storage

Under Alternative B, potable water would be provided by the City of Phoenix. As shown in **Table 2-6**, the estimated average daily water consumption for Alternative B would be approximately 26,578 GPD. As with Alternative A, 1,250 GPM of fire flow would be required. In order to extend service for Alternative B, the UGB of the City of Phoenix would need to be amended to encompass the Phoenix Site. Extension of the City of Phoenix facilities would consist of extending an existing 12-inch diameter water line located in N. Phoenix Road north of the Fern Valley I-5 Interchange to the Phoenix Site (**Figure 2-9**). Additionally, the extension of the water main may require construction of a new booster pump station sufficiently sized to convey the full fire suppression flow to the Phoenix Site, which is approximately 80 vertical feet in elevation above the connection point. A 2-inch diameter meter and service connection and a separate standby fire protection service connection would be extended from the 12-inch pipeline to the Phoenix Site. If chosen as the preferred alternative, the Tribe would enter into an agreement to compensate the City of Phoenix for providing water service, including system upgrades to connect the Phoenix Site to existing infrastructure.

TABLE 2-6
ALTERNATIVE B – WATER DEMAND SUMMARY

Area	Units	Unit Quantity	Unit Water Consumption Rate (GPD/sf)	Average Daily Demand (GPD)
Gaming Area	square feet	16,700	0.48	7,979
Bar/Deli and Kitchen	square feet	7,585	1.56	17,799
Irrigation	--	--	--	6,800
Total Average Daily Demand (GPD)				**26,578**
Peak Day Demand[1] (GPD)				**56,556**

Notes: GPD – gallons per day; GPD/sf – gallons per day per square foot; [1] A peaking factor of 2.0 was used for potable water demand, and conservative evapotranspiration rates were used for peak irrigation demand.
Source: Kennedy/Jenks, 2016; **Appendix D**

As with Alternative A, Alternative B has a requirement of 150,000 gallons of fire suppression storage capacity, which would be accommodated by the MWC Barneburg Storage Reservoir.

Wastewater Treatment

Under Alternative B, wastewater conveyance would be provided by RVSS and treatment would be provided at the Medford RWRF. As shown in **Table 2-6**, the estimated average daily wastewater flow for Alternative B would be approximately 17,800 GPD. Serving the Phoenix Site would require an extension of a 12-inch sewer main north of the Fern Valley I-5 interchange, along N. Phoenix Road (**Figure 2-9**). If

chosen as the preferred alternative, the Tribe intends to work with the RVSS to enter into an agreement to provide compensation for providing wastewater service.

Grading and Drainage

Grading under Alternative B would consist primarily of constructing building pads and level areas for the proposed building and parking lot. Alternative B would result in balanced on-site cut and fill. The proposed development would create a total of 7.8 acres of new impervious surface that would include the gaming facility building and surrounding parking. Stormwater detention as well as drainage facilities for Alternative B would be developed in accordance with the adopted Rogue Valley Stormwater Quality Design Manual. As shown on **Figure 2-10** and detailed within the Water and Wastewater Feasibility Study (Kennedy and Jenks, 2016; **Appendix D**), adequate stormwater conveyance, detention, and treatment would be provided through the installation of vegetated bioretention swales, which would be planted with native plants that are tolerant of inundation and drought. Runoff within 150 feet of the parking lot edges would sheet flow to curb cuts where pretreatment would be provided in shallow rock settling basins prior to discharging to the swales along the perimeter of the parking lot. Runoff from the interior of the site would drain to catch basins with sumps to provide pretreatment through settling, and down-turned elbows on the outlet pipes to capture floatables such as oil and trash. The building roof drains and the catch basins would be piped to discharge points in the swales.

Two small detention ponds with a bottom area of approximately 1,000 square feet each would be installed outside the proposed parking area within the parcel boundary to provide flow control to reduce the post-development peak flow release to pre-development levels. Discharge from the ponds to offsite drainage systems would occur through a weir designed to bypass high flows.

Law Enforcement and Fire Protection

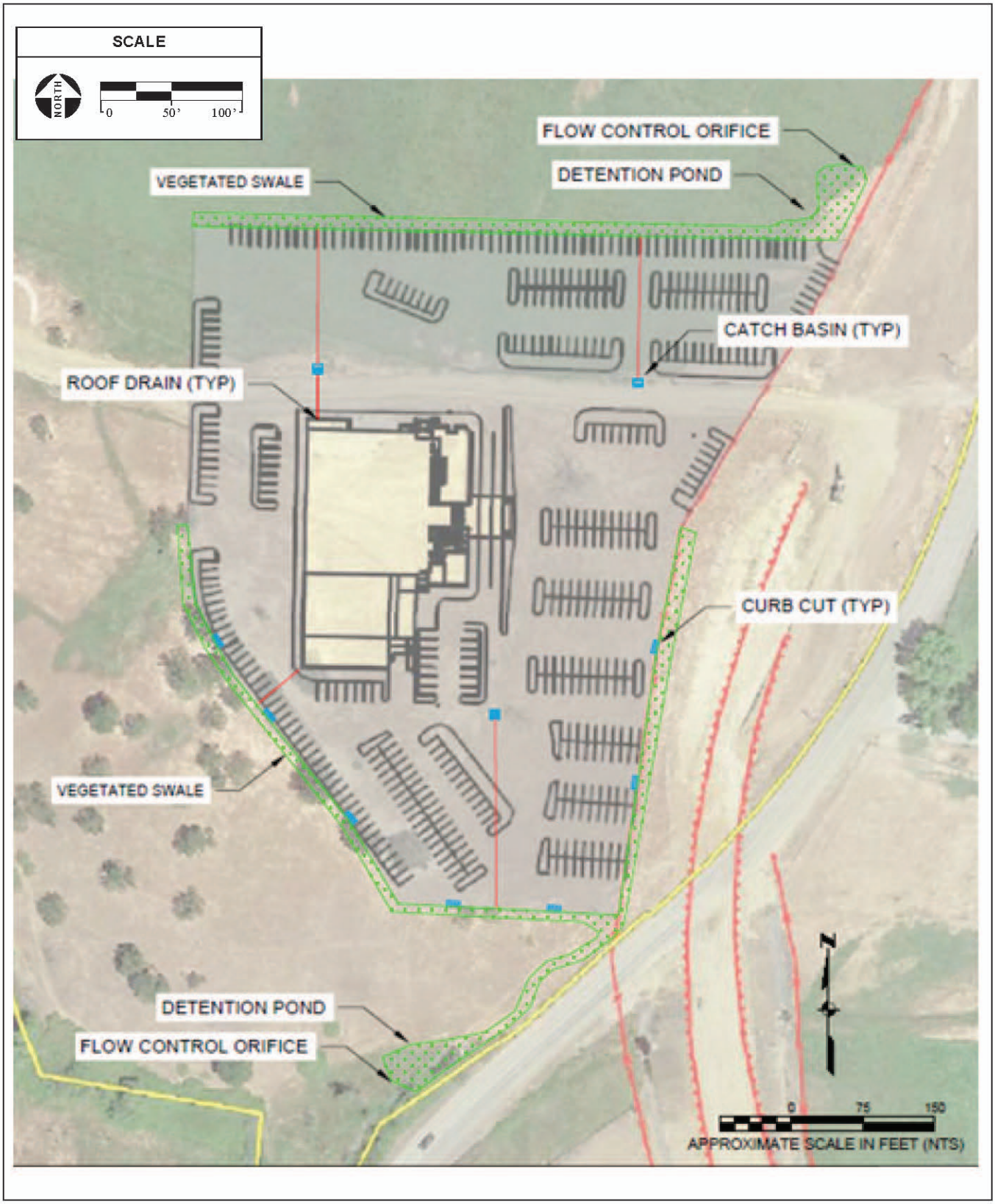
Under Alternative B, the City of Phoenix would provide law enforcement and fire protection services to the Phoenix Site. If Alternative B is chosen, the Tribe intends to work with the City of Phoenix on an agreement to provide these services.

Best Management Practices

As with Alternative A, construction and operation of Alternative B would incorporate a variety of industry standard BMPs. **Section 2.3.3** presents select BMPs that have been specifically incorporated to avoid or minimize adverse effects resulting from the development of Alternative B.

2.4.3 CONSTRUCTION

Alternative B would be developed in one phase with construction activities occurring over a period of approximately 12 months. Within this Draft EIS, all project components are assumed to be constructed and operational by 2022. Construction activities would be similar to Alternative A but would include substantial additional earthwork and grading activities.



SOURCE: Kennedy/Jenks, 2015; AES, 5/7/2019

Figure 2-10
Phoenix Stormwater Drainage Plan

2.5 ALTERNATIVE C – EXPANSION OF THE MILL CASINO

Alternative C consists of a 5,000-square-foot expansion of the existing 30,000-square-foot Mill Casino owned by the Tribe, located on the 10.95-acre Mill Casino Site. A fee-to-trust acquisition would not be necessary for Alternative C because the Mill Casino Site is on land that is already in federal trust for the Tribe and is authorized for gaming under the IGRA as restored lands. Operation of the casino facility would be similar to current operations. Components of Alternative C are described below.

2.5.1 ALTERNATIVE C PROJECT COMPONENTS

Casino Expansion

At build-out, the expanded gaming component of the facility would consist of 650 additional gaming machines within a 5,000-square-foot gaming floor area to be located on the north end of the existing building currently developed as a parking lot. New construction associated with the expansion of the gaming facility would be developed consistent with applicable seismic codes and IBC standards. A site plan for Alternative C is presented as **Figure 2-11**.

Ancillary Components

Under Alternative C, no changes to the site access, signage, lighting, and landscaping of the current Mill Casino would occur (refer to **Section 3.0** for a description of existing conditions).

Water Supply

Under Alternative C, Coos Bay-North Bend Water Board (CBNBWB) would continue to provide water service to the Mill Casino Site. As shown in **Table 2-7**, the estimated increase in average daily water consumption generated by Alternative C would be approximately 2,400 GPD.

TABLE 2-7
ALTERNATIVE C –WATER DEMAND SUMMARY

Area	Units	Unit Quantity	Unit Water Consumption Rate (GPD/sf[1])	Average Daily Demand (GPD)
Gaming Area	square feet	5,000	0.48	2,400
Total Average Daily Demand (GPD)				**2,400**
Peaking Factor				**2.0**
Peak Day Demand (GPD)				**4,800**

Notes: GPD – gallons per day; GPD/sf – gallons per day per square foot; [1] - Assumes 10% loss between potable and wastewater systems
Source: Kennedy and Jenks, 2016; **Appendix D**.

SOURCE: Jackson County GIS 2012; DigitalGlobe aerial photograph, 5/2015; AES, 5/7/2019

Figure 2-11

Alternative C – Mill Casino Site Plan

Wastewater Treatment and Disposal

The City of North Bend would continue to provide sewer service for Alternative C as it currently does for The Mill Casino. Pursuant to Section 5a of the agreement between the City of North Bend, Tribe, and Coquille Economic Development Corporation (CEDCO), payment for sewer service is made on the same basis and at the same rates as all other commercial users of the sewer system. As shown in **Table 2-8**, the estimated increase in the average wastewater generation as a result of Alternative C would be approximately 2,150 GPD.

TABLE 2-8
ALTERNATIVE C – WASTEWATER GENERATION SUMMARY

Area	Units	Unit Quantity	Unit Wastewater Generation Rate (GPD/sf [2])	Average Daily Flow (GPD)
Gaming Area	square feet	5,000	0.43	2,150
Total Average Daily Flow (GPD)				**2,150**
Peaking Factor				**2.0**
Peak Day Flow (GPD)				**4,300**

Notes: GPD – gallons per day; GPD/sf – gallons per day per square foot; [1] Assumes 100% area utilization rate.
Source: Kennedy and Jenks, 2016; **Appendix D**.

Grading and Drainage

The expansion to the existing Mill Casino would be located on the north side where the land is already developed and paved. Currently, all surface water at the Mill Casino runs off as sheet flow towards the east and into the Coos Bay. The northern parking lot, however, flows inland to retention basins located in the center of the parking lot that release stormwater slowly into the ground. Alternative C would include some pavement removal and foundation construction, but no significant grading would be performed.

Law Enforcement and Fire Protection

The City of North Bend would continue to provide law enforcement and fire protection and emergency services for Alternative C as it currently does for The Mill Casino. Pursuant to Section 5.c. of the Consent Decree between the City of North Bend, the Tribe, and CEDCO, payment for municipal services, including law enforcement and fire protection, are made in quarterly installments based on an agreed upon fee for service that increases annually by 5.25% per year.

Best Management Practices

As with Alternatives A and B, construction and operation of Alternative C would incorporate a variety of industry standard BMPs. In some cases, such as a SWPPP prepared for NPDES permits, certain BMPs are requisite conditions of permit approval. **Section 2.3.3** presents select BMPs that have been specifically incorporated into the project design to avoid or minimize potential adverse effects resulting from the development of Alternative C.

2.5.2 CONSTRUCTION

Alternative C would be developed in one phase with construction activities occurring over a period of approximately 12 months. Within this EIS, all project components are assumed to be constructed and operational by 2022; however, this timeframe is approximate. Improvements will likely include replacement of wood with sheet pile in the bulkhead separating the earth beneath the existing structure and Coos Bay.

2.6 ALTERNATIVE D – NO ACTION/NO DEVELOPMENT

Under the No Action/No Development Alternative, none of the three development alternatives (Alternatives A, B, and C) considered within this EIS would be implemented. The No Action/No Development Alternative assumes that no parcels within the Medford Site or Phoenix Site would be taken into trust and the Tribe would continue to operate the existing Roxy Ann Lanes bowling alley and on-site Oregon VLTs as it does presently. Under this alternative, the BIA would take no action.

2.7 ALTERNATIVES ELIMINATED FROM CONSIDERATION

The intent of the analysis of alternatives in the EIS is to present a reasonable range of alternatives that are both feasible and sufficiently different from each other in critical aspects to decision makers and the public. Section 1502.14(a) of the Regulations for implementing NEPA, issued by the CEQ, requires a discussion of alternatives that were eliminated from further study, and the reasons for their having been eliminated.

On-site and off-site alternatives, other than the No Action/No Development Alternative, were screened based on four criteria: 1) extent to which they meet the purpose and need for the Proposed Action, 2) feasibility, 3) ability to reduce environmental impacts, and 4) ability to contribute to a reasonable range of alternatives. The intent of the analysis of alternatives in the EIS is to present to decision makers and the public a reasonable number of alternatives that are both feasible and sufficiently different from each other in critical aspects.

As part of this effort, the BIA and Tribe considered alternative uses on the existing Medford Site and undertook an extensive search for off-site alternatives. A total of 26 alternatives were initially screened using the following criteria.

- Location within Tribe's five-county area described in the Coquille Restoration Act of 1989
- Proximity to population centers
- Proximity to competing gaming facilities
- Accessibility
- Proximity to the freeway or other major roadway
- Availability of public services
- Environmental constraints
- Underlying zoning designation
- Availability for purchase

A comparison of all on-site and off-site alternatives considered is presented in the Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project Alternatives Evaluation (AES, 2015). Several alternatives discussed in this previous evaluation were considered and rejected for full EIS analysis because these alternatives were determined to be infeasible or would not fulfill the stated purpose and need of the Proposed Action. These rejected alternatives are summarized below.

2.7.1 ALTERNATIVES ON THE MEDFORD SITE

Reduced Intensity

The Reduced Intensity Alternative would involve a smaller footprint than the Proposed Project at the Medford Site. No expansion of the existing structure would occur; construction would include interior renovations to transform the bowling alley into a gaming facility, offering a smaller range of amenities, thus likely attracting fewer customers. Because the Proposed Project is already relatively small and of low intensity, this alternative does not contribute to a reasonable range of alternatives and thus was eliminated from detailed consideration.

On-Site Wastewater Facility

This alternative would be similar to the Proposed Project, but it would include the construction of an on-site wastewater treatment facility and disposal of treated wastewater on-site via leach fields of through a direct discharge to area surface waters. Because it is feasible for the project to connect to the RVSS sewer lines and existing off-site wastewater system, it is not necessary to build an on-site wastewater facility; further this alternative could result in additional environmental impacts associated with increased construction activities, and a greater potential for effects to water quality from disposal of treated wastewater. Therefore, this alternative was eliminated from further consideration.

Pre-Construction Demolition

This alternative would involve demolishing the existing bowling alley on the Medford Site and constructing a new gaming facility within the site boundaries. This alternative would result in greater environmental impacts due to the increase in construction activities and demolition waste. Therefore, this alternative was eliminated from further consideration.

Retail Development

This alternative would consist of commercial development on the Medford Site. A significant number of parcels zoned commercial and light industrial which neighbor the Medford Site are vacant or available for lease, potentially indicating a high rate of market saturation (LoopNet, 2019; City of Medford, 2019). Due to the prevalence of existing retail establishments in the area and potential future competition, it is uncertain that commercial development on the site would be financially viable and able to meet the purpose and need of the Proposed Action. Therefore, this alternative was eliminated from further consideration.

Hotel Resort

This alternative would locate a hotel and supporting facilities on the Medford Site. There are 11 hotels within a 1-mile radius of the Medford Site, indicating a very competitive business environment, and the

small size of the site would limit parking for a larger hotel/resort. Additionally, the Tribe is currently constructing a hotel to serve the existing local market on the adjacent property to the south of the Medford Site; construction of the hotel was approved by the City of Medford under a local permitting process (the hotel project is discussed further in Section 4.15). Although the proposed class II gaming facility would not be marketable as a destination facility given its small scale and location, the adjacent hotel would be available to serve patrons of the proposed class II gaming facility if Alternative A is approved. Further, this alternative would not likely avoid or reduce any of the potentially significant environmental impacts of the Proposed Project. Therefore, this alternative was eliminated from detailed consideration.

Tribal Offices

This alternative would involve remodeling the existing bowling alley into Tribal offices. The environmental effects of construction would be similar to the Proposed Project, and operational effects are expected to be reduced due to reduced traffic generation and demand for public services. However, this alternative would not generate additional revenue for the Tribe, and the costs of implementation would exacerbate the Tribe's projected financial shortfall. Therefore, this alternative was eliminated from detailed consideration as it would not meet the purpose and need for the Proposed Action.

2.7.2 OFF-SITE ALTERNATIVES

Other Tribal Trust Land

Before embarking on the current Proposed Project, the Tribe evaluated the feasibility of economic development on existing tribal trust land. The Tribe currently has in trust seven parcels comprising 80 acres of waterfront land in North Bend, Oregon, where the Tribal Administrative Offices, Tribal Court, and Tribal Council Chambers are located. The U.S. federal government also holds the 954-acre Kilkich Reservation, located near the old town of Empire (outside present-day Coos Bay), in trust for the Tribe. The Tribal Housing Development, the Housing Authority, the Tribal Health Center, the Tribal Community Center, Tribal Police Department, the Tribal Education and Library Center, and the Community Park and Plankhouse are all located on the Kilkich Reservation. The Tribe's other trust land ("The Coquille Forest") consists of 14 distinct parcels of timberland formerly owned by the BLM, totaling over 5,400 acres, located in the watershed of the Middle Fork of the Coquille River, a rugged and remote area of southern Coos County. The Coquille Forest has minimal points of access and is bisected by the Coos Bay-Roseburg Highway (Highway 42), which connects I-5 and Highway 101. Most access comes from Highway 101 and the only other viable access is from Highway 42. All of these access points require a party to transverse several bridges that may fail in the event of a tsunami and/or earthquake (Oregon Military Department, 2012). Refer to **Section 1.3** regarding the likelihood a tsunami in Oregon.

Trust lands owned by the Tribe in Coos County (including the seven parcels in North Bend and the Kilkich Reservation) are not suitable for development of a new gaming facility due to proximity to the existing Mill Casino. Additionally, the Coos County trust land shares the same market for casino patrons as The Mill Casino; any patronage to a new facility would likely be taken from the existing casino, which would not result in a net increase in revenue for the Tribe. Any marginal increase in revenue would likely be offset by the increased cost of operating two casinos. Development on other tribal trust land would be infeasible and would not meet the purpose and need of the Proposed Action.

The Coquille Restoration Act requires the Coquille Forest to be managed according to the Northwest Forest Plan (NWFP), as it is the applicable federal forest plan for lands around the Coquille Forest. Under the NWFP, development in the Coquille Forest would be prohibited. Therefore, building on Coquille Forest land is not feasible, as it would require a congressional amendment to the Coquille Restoration Act. The Coquille Forest trust land is also unsuitable for the proposed development as it is located far from population centers that could provide a customer base, and a gaming facility would be a highly incompatible land use for the area due to lack of infrastructure (including roadways and public services). Additionally, development in the Coquille Forest has the potential to lead to increased environmental impacts to biological resources, including habitats and wildlife species.

For the reasons stated above, the development of a second casino on existing tribal trust lands was not an alternative selected for a full EIS analysis.

Other Sites

A variety of other site were considered for the proposed project in within the congressionally approved five-county service area and nearby vicinity. These sites were eliminated from detailed consideration for one or more of the following reasons: 1) would not meet the purpose and need for the Proposed Action, 2) were infeasible, 3) would not reduce environmental impacts, and/or 4) would not contribute to a reasonable range of alternatives. A full discussion of these alternatives is included in the Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project Alternatives Evaluation (AES, 2015).

2.8 COMPARISON OF ALTERNATIVES

Section 1502.14 of the Regulations for Implementing NEPA states that an EIS should present environmental impacts of proposed alternatives in a comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. Alternatives considered must include those that offer substantial environmental advantages over Alternative A and which may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors. A summary comparison of each of the proposed alternatives, including the No Action/No Development Alternative, is provided below.

2.8.1 SUMMARY OF ALTERNATIVES

Alternatives A and B are expected to best secure long-term economic opportunities for development and self-sufficiency for the Tribe and its members. Alternative C would be less effective than Alternative A in meeting the purpose and need.

Alternative A has the following components: (1) taking a 2.4-acre parcel (Tax Lot 37-1W-32C-4701) within the Medford Site into trust; (2) the subsequent retrofit and remodel of the existing bowling alley within the proposed trust parcel boundaries into a 30,300-square-foot gaming facility with 650 Class II gaming machines; and (3) utilization of adjacent fee land within the Medford Site as parking for the gaming facility.

Alternative B is located on the Phoenix Site and would involve the development of a 30,300-square foot gaming facility. As the site is not currently developed, construction would be much more intensive than

under Alternative A, resulting in a greater potential for environmental effects. The cost of this construction would result in a much higher upfront cost and thus a longer time until the purpose and need of the Proposed Action would be met.

Alternative C would involve a 5,000-square foot expansion of the existing Mill Casino located in North Bend. No additional land would be taken into trust under this alternative. A market assessment determined that expansion of the Mill Casino would result in substantially reduced revenue compared to Alternative A and Alternative B. Additionally, despite Alternative C including a much smaller change in facilities than Alternative A and Alternative B, construction costs are comparable. Accordingly, Alternative C would not be the most economically feasible alternative and would not be the most efficient alternative at meeting the purpose and need for the Proposed Action.

Alternative D is the No Action/No Development Alternative and would require no federal discretionary approvals. Under Alternative D, no land would be taken into trust, and no development would take place on any of the alternative sites in the near term.

2.8.2 COMPARISON OF ENVIRONMENTAL AND ECONOMIC CONSEQUENCES

In accordance with CEQ regulations, the alternatives considered in this document include those which could accomplish most of the basic objectives of the project, and that could avoid or substantially lessen one or more of the significant effects of the project. A detailed description of each of the proposed alternatives, including the No Action/No Development Alternative, is provided above. A summary comparison of environmental impacts is provided below.

- As discussed in more detail in **Section 4.0** of this EIS, Alternative A would result in an increase in employment, economic growth, and demand for goods and services that would generate a significant increase in traffic and associated air emissions and noise effects, during both construction and operation. Because the Medford Site is currently paved, developed with a bowling alley that currently generates a certain amount of traffic, and served by public utilities and infrastructure, environmental impacts would be less than Alternative B. Implementation of mitigation identified in **Section 5.0** would reduce the potential adverse effects of Alternative A to less than significant levels. Of the alternatives evaluated within this EIS, Alternative A would best meet the purpose and need of the Proposed Action to promote the long-term economic vitality and self-governance of the Tribe as the gaming facility described under Alternative A would provide the Tribe with the best opportunity for securing a viable means of attracting and maintaining a long-term, sustainable revenue stream.
- Alternative B would also result in an increase in employment, economic growth, and demand for goods and services that would generate an increase in traffic, air emissions and noise similar to Alternative A. However, potential environmental consequences under Alternative B would be greater than Alternative A because the Phoenix site is currently undeveloped and designated for agricultural uses. Alternative B has the highest potential for adverse biological effects and would require the most significant grading and drainage changes of any alternative. Further, the site is not currently served by public utilities. Implementation of mitigation identified in **Section 5.0** would reduce these potential adverse effects. Alternative B would also provide economic development opportunities for the Tribe; however, the economic returns would be smaller than

under Alternative A due to the higher upfront cost of purchasing the land (the Tribe does not currently hold an interest in the site) and constructing a new facility versus the reduced cost of remodeling and expanding the existing Roxy Ann Lanes (**Appendix E**).

- The environmental impacts of Alternative C that would result from increased employment and economic growth would be less than those under Alternatives A and B due to the saturated market conditions of the Coos Bay region. The required infrastructure is already in place for Alternative C, and the site is mostly developed. However, the construction activities associated with reinforcement of the bulkhead in Coos Bay may degrade water quality due to turbidity and nutrient overloading. Coos Bay is designated critical habitat for several federally listed fish species. Implementation of mitigation identified in **Section 5.0** would reduce these potential adverse effects. Although Alternative C would significantly reduce substitution effects at local gaming facilities operated by other tribal governments, Alternative C would result in potentially detrimental fiscal effects to the Tribe by investing in facilities that do not generate additional revenue for the tribal governments and incur more debt. Additionally, the Mill Casino Site is located in a tsunami inundation zone and thus Alternative C would result in exposure of the tribe to greater risk from damage from a tsunami and/or earthquake event.
- Alternative D, the No Action/No Development Alternative, would avoid all environmental effects associated with the development of Alternatives A, B, and C, and thus would have significantly lessened environmental effects. However, this alternative would not meet the purpose and need for the Proposed Action.

For a detailed, quantitative discussion of potential environmental consequences associated with each of the alternatives, refer to **Section 4.0**. Measures to avoid, minimize, or mitigate adverse effects are provided in **Section 5.0**.

SECTION 3.0
AFFECTED ENVIRONMENT

3.1 INTRODUCTION

As required by the CEQ regulation, 40 CFR § 1502.15, this section describes the existing environment of the area affected by the project Alternatives.

3.2 GEOLOGY AND SOILS

This section describes the existing environmental conditions related to geology and soils for the three alternative sites described in **Section 2.2**. The general and site-specific description of geology and soils contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.2.1 MEDFORD SITE

The geology of the Medford Site is described in **Appendix B**.

Topography

The Medford Site is approximately 9.5 miles south of and 200 feet higher in elevation than the Rogue River, which flows to the Pacific Ocean. The Medford Site is within a basin bordered on all sides by high mountains, with the Cascades located to the north and east and the Klamaths located to the west. Glacial effects and continental compression formed Oregon and the area in which Medford is located (Sowards, 2007). The Medford Site exhibits relatively flat topography with the highest elevation being 1,422 feet above mean sea level (amsl) and the lowest being 1,414 feet amsl. Slopes are shallow and range from 0%-5%. A topographic map of the Medford Site is provided as **Figure 3.2-1**.

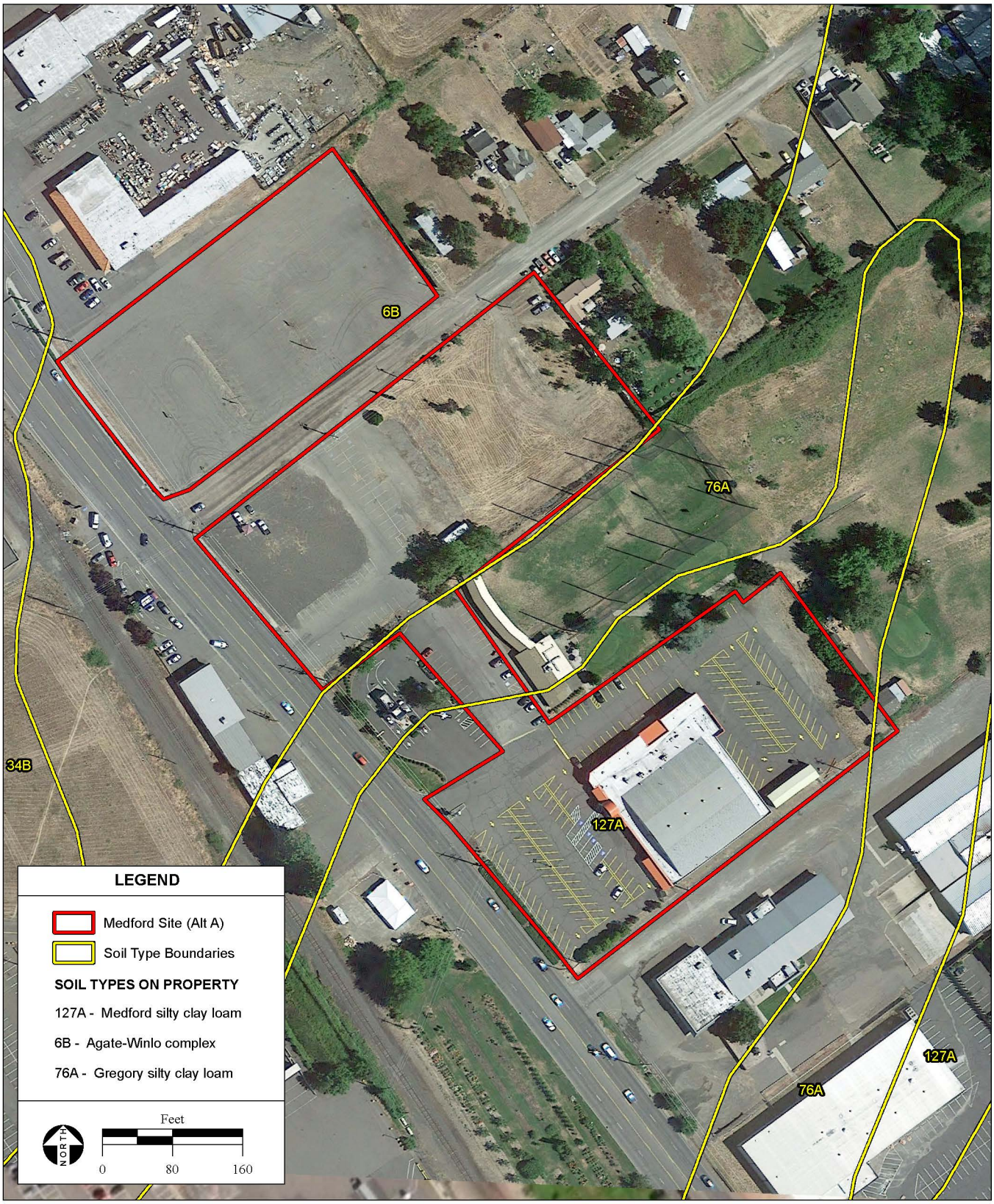
Soils

With the exception of the northwestern parcels and a small area just north of the existing bowling alley, the Medford Site is completely paved. The US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil map of the Medford Site is shown in **Figure 3.2-2**. Soils on the Medford Site consist of Agate-Winlo complex (approximately 28%), Gregory silty clay loam (approximately 18%), and Medford silty clay loam (approximately 54%). **Table 3.2-1** shows soil characteristics for the Medford Site which pertain to the creation of runoff and the potential for erosion, both of which are pertinent to development land uses where ground-disturbing activities will occur. The Agate-Winlo complex is made up of two distinct soils that have their own distinct characteristics as detailed in **Table 3.2-1**. Agate-Winlo soils have a low risk for corrosion of steel and concrete. Gregory soils have a high risk for corrosion of steel and a moderate risk for corrosion of concrete. Medford silty clay loams have a high risk for corrosion of steel and a low risk for corrosion of concrete.

A description of hydrologic soils groups is included in **Appendix B**. The soils on the Medford Site have a very slow to slow infiltration rate, indicating that the soils in their natural state may have a moderate to high runoff potential when saturated. A description of saturated hydraulic connectivity is included in **Appendix B**. As shown in **Table 3.2-1**, the soils on the Medford Site are classified as "slight" and not "severe." Soils with "slight" erosion susceptibility are unlikely to erode under normal conditions. A description of soil capability classes is included in **Appendix B**. Soil capability classes for the Medford

SOURCE: Jackson County GIS 2010; USDA NAIP
Aerial Photograph, 2014; AES, 5/9/2019

Figure 3.2-1
Medford Site Topography



SOURCE: Jackson County GIS 2010; USDA Soil Survey for Jackson County, updated 7/22/2014 by Jackson County; USDA NAIP Aerial Photograph, 2014; AES, 3/16/2016

Figure 3.2-2
Medford Site Soil Types

Site ranged from 1 to 6, as shown in **Table 3.2-1**. Medford soils, which make up the majority of the site, are in the Capability 1 Class when irrigated, indicating few limitations that restrict their use. However, the Medford Site is already developed, is located in an urban area, and does not contain any farming operations or infrastructure that would support land cultivation.

TABLE 3.2-1
MEDFORD SITE SOIL PROPERTIES

Symbol	Soil		Hydrologic Soil Group	Saturated Hydraulic Conductivity	Drainage Class	Erosion Hazard	Farmland Classification	Capability Class
6B	Agate-Winlo complex, 0%-5% slopes	Agate	C: slow infiltration rate	7.0 micrometers per second	Well drained	Slight	Farmland of statewide importance	4s
		Winlo	D: very slow infiltration rate		Somewhat poorly drained			6s
76A	Gregory silty clay loam, 0%-3% slopes		C/D: slow to very slow infiltration rate	1.5 micrometers per second	Poorly drained	Slight	Prime farmland if drained	2w (irrigated)-4w (non-irrigated)
127A	Medford silty clay loam, 0%-3% slopes		C: slow infiltration rate	3.0 micrometers per second	Moderately well drained-	Slight	All areas are prime farmland	1 (irrigated)-4c (non-irrigated)

Source: NRCS, 2019a.

Seismicity

Faulting, folding, and volcanic activities have shaped the topography of southwestern Oregon. Many parts of Oregon still experience seismic activity, liquefaction, and lateral spreading during seismic events. Measurements of seismic magnitude and intensity, liquefaction, lateral spreading, and seismic hazards are described in **Appendix B**. In addition to the eastward subsiding motion of the Juan de Fuca plate at greater than 5 millimeters per year, the northward-moving Pacific plate is pushing the Juan de Fuca plate north, causing complex seismic strain to accumulate and abruptly release in the form of earthquakes. However, few if any historical earthquakes have been located on the convergent boundary itself (PNSN, 2015).

There have been minimal seismic occurrences with a magnitude greater than 5.0 in the region since 1960, but the entire region is considered seismically active due to the occurrence of small, more frequent earthquakes (USGS, 2015). There have been 10 large earthquakes (over a magnitude of 5.0) within 150 miles of the Medford Site since 1960 (USGS, 2015). The closest active fault to the Medford Site is located over 30 miles to the east and is from the Mid to Late Quaternary Era (younger than 750,000 years old). Jackson County is located within seismic zone 3 in the Uniform Building Code (UBC, now the International Building Code [IBC]). The IBC provides standards for buildings to minimize damage to structures and loss of life due to insufficient structural strength or flexibility. Seismic zone 4 is used in areas with high earthquake hazard potential, such as San Francisco, and seismic zone 1 is assigned to areas with low hazard such as western Colorado.

The Oregon Department of Geology and Mineral Resources has prepared a series of maps (Oregon HazVu) to illustrate the degrees and risks of earthquake hazards, volcanic hazards, landslides, and liquefaction potentials. Based on the Oregon HazVu maps, the Medford Site is located within a moderate

liquefaction hazard rating (Oregon HazVu, 2015). This is primarily based on the shallow depth to groundwater and areas of sandy-type soils that are susceptible to lateral spreading.

Lateral spreading is a type of ground failure that typically occurs when subsurface sandy soil layers liquefy during a seismic event. Ground failure can take the form of horizontal ground displacement that resembles a flowing liquid and is typical where the slopes are shallow and soils are deep and soft. As the majority of the soils on the Medford Site are silty clay-type, the susceptibility to liquefaction is moderate.

Volcanic Hazard

A discussion of regional volcanic hazards is included in **Appendix B**. Due to the proximity to two major volcanic hazards (within 100 miles) and the fact that the Medford Site is located in one of the most volcanically active areas in Oregon (within the Cascade Range), there is the possibility for volcanic hazards on the site.

Mineral Resources

Oregon is rich in mineral resources and geothermal resources. Throughout the history of Oregon, a wide variety of minerals have been produced along with energy from geothermal-rich areas. Mining companies are still active throughout most of Oregon because of its mineral endowment and varied geology.

Mineral resources consisting of aggregate sand and gravel have been identified near the Medford Site. No mining has been reported on the site itself and no identified mineral resources or notable geothermal resource areas have been identified within the Medford Site boundaries. There are four active mines within 10 miles of the Medford Site (National Minerals Information Center, 2016). The closest is owned by Rogue Aggregates, Inc. and is approximately 4 miles from Medford, Oregon.

3.2.2 PHOENIX SITE

The geology of the Phoenix Site is included in **Appendix B**.

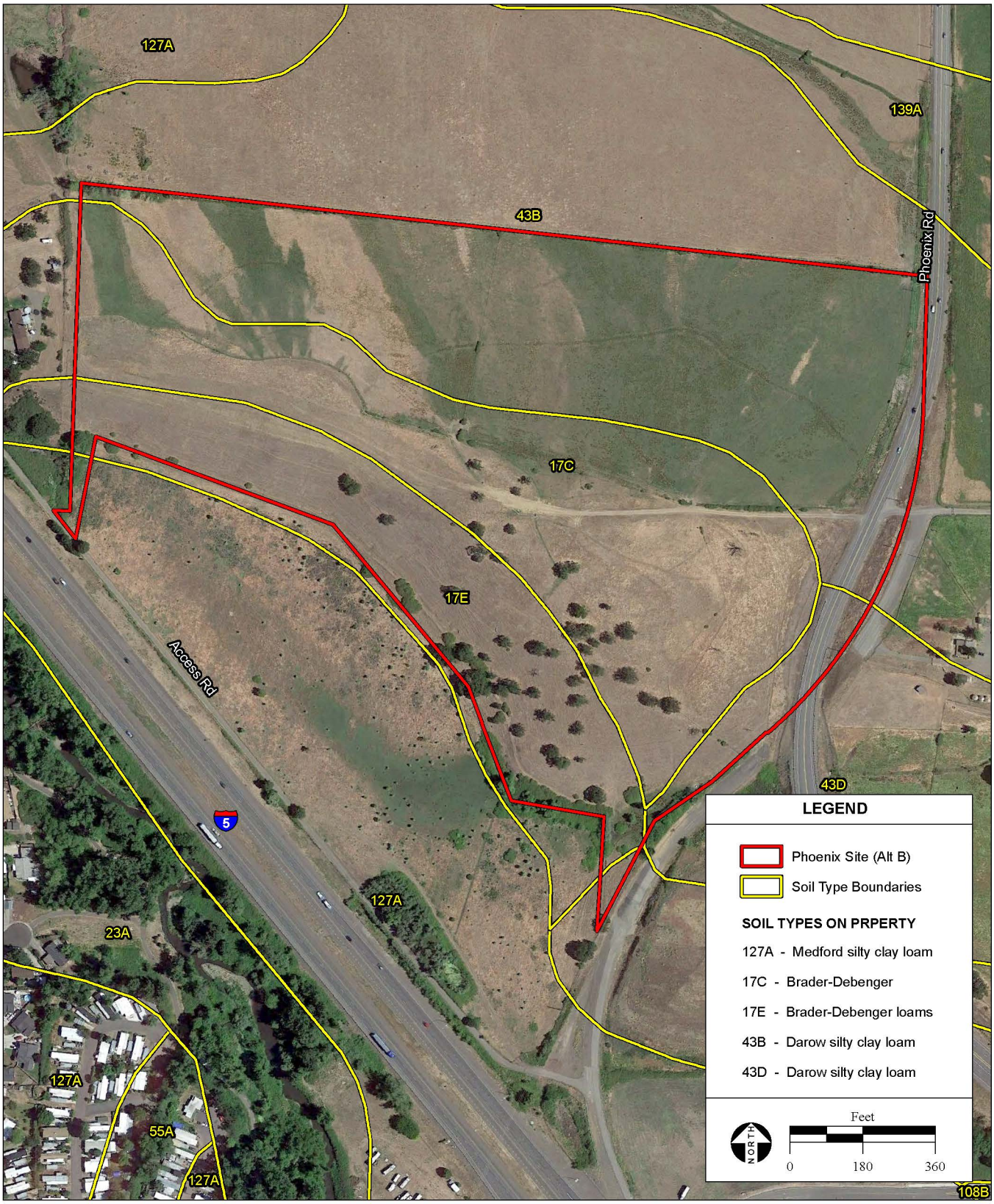
Topography

Topography on the Phoenix Site is similar to that of the Medford Site. Gentle slopes range from 1%-8% and elevation ranges from approximately 1,430 feet amsl to 1,560 feet amsl, sloping south toward North Phoenix Road. The Phoenix Site is situated in the same basin as the Medford Site and is bordered on all sides by high mountains.

Soils

Soils on the Phoenix Site consist of Brader-Debenger loams, 1%-15% slopes (approximately 37%); Brader-Debenger loams, 15%-40% slopes (approximately 19%); Darow silty clay loam, 1%-5% slopes (approximately 40%); Darow silty clay loam, 5%-20% slopes (approximately 3%); and Medford silty clay loam, 0%-3% slopes (less than 1%) (NRCS, 2019b). The USDA NRCS has surveyed and mapped the Phoenix Site soils (**Figure 3.2-3**). In general, soils on the Pheonix Site were formed from colluvium.

Table 3.2-2 shows soil characteristics for the Phoenix Site which pertain to the creation of runoff and the potential for erosion, both of which are pertinent to development. The Brader-Debenger loam is made up of two distinct soils that have their own distinct characteristics as detailed in **Table 3.2-2**. The Brader-Debenger loam has a soil capability class of 6e (Brader), where the soils have severe limitations that make them generally unsuitable for cultivation, and 4e (Debenger), where the soils have a severe limitation that reduces the choice of plants or needs very careful management. Darow soils have a soil capability class of



SOURCE: Jackson County GIS 2010; USDA Soil Survey for Jackson County, updated 7/22/2014 by Jackson County; DigitalGlobe aerial photograph, 6/2018; AES, 7/3/2019

Figure 3.2-3
Phoenix Site Soil Types

3s, where soils have severe limitations that reduce the choice of plants or that require special conservation practices. Medford soils are in the Capability 1 Class when irrigated, indicating that they have few limitations that restrict use. The Brader-Debinger loams have a low risk for corrosion of steel and concrete. The Darow soils have a high risk for corrosion of steel and concrete.

TABLE 3.2-2
PHOENIX SITE SOIL PROPERTIES

Symbol	Soil	Hydrologic Soil Group	Saturated Hydraulic Conductivity	Drainage Class	Erosion Hazard	Capability Class
17C	Brader-Debenger loams 1%-15% slopes	D (Brader): very slow infiltration rate C (Debenger): slow infiltration rate	9.0 micrometers per second	Well drained	Moderate	6e: Brader 4e: Debenger
17E	Brader-Debenger loams 15%-40% slopes	D (Brader): very slow infiltration rate C (Debenger): slow infiltration rate	9.0 micrometers per second	Well drained	Severe	6e: Brader (non-irrigated) 4e: Debenger (non-irrigated)
43B	Darow silty clay loam 1%-5% slopes	D: very slow infiltration rate	3.0 micrometers per second	Moderately well drained	Moderate	3s (irrigated) 4e (non-irrigated)
43D	Darow silty clay loam 5%-20% slopes	D: very slow infiltration rate	3.0 micrometers per second	Moderately well drained	Severe	4e
127A	Medford silty clay loam, 0%-3% slopes	C: slow infiltration rate	3.0 micrometers per second	Moderately well drained	Slight	1 (irrigated) 4c (non-irrigated)

Source: NRCS, 2019b.

Seismicity

The seismic setting for the Phoenix Site is the same as was described for the Medford Site in **Section 3.2.1**. The Phoenix Site is located a similar distance from the nearest active fault as the Medford Site and is within the same seismic zone as the Medford Site described above. Maximum ground acceleration and MMI scale intensity potential are the same as at the Medford Site. While the Phoenix Site has the potential to experience seismic shaking, it has a low potential for liquefaction due to the soils located on the site and the distance from the groundwater to the water table, which ranges from 99 feet to greater than 200 feet.

Volcanic Hazard

Due to the proximity to two major volcanic hazards and the location of the Phoenix Site being in one of the most volcanically active areas in Oregon (within the Cascade Range) there is the possibility of volcanic hazard impacts to the site as described above in the Medford Site description (**Section 3.2.1**).

Mineral Resources

No mining has been reported on the Phoenix Site. No identified mineral resources or notable geothermal resource areas have been identified within the Phoenix Site boundaries.

3.2.3 MILL CASINO SITE

The geology of the Mill Casino Site is included in **Appendix B**.

Topography

Topography in North Bend is gently sloped. The land is flat and only a few feet above mean sea level (amsl) near the coastline. To the south, North Bend melds with Coos Bay where small hills and elevations increase up to 500 feet in elevation. However, the majority of Coos Bay and North Bend are between 0-100 feet amsl and highly susceptible to flooding. Across the bay to the east, topography changes to low hillsides with dense coniferous forests where lower elevations primarily occur near the Coos River and other drainages into the north Pacific Ocean.

Soils

The Mill Casino Site consists exclusively of level Udorthents. The NRCS Soil Report classifies the small areas along the boundary of the site as "water," due to the Mill Casino Site being partially located on a pier that extends over Ferndale Lower Range, a channelized portion of Coos Bay. Udorthents soils are nearly level and gently sloping where the original soils have been cut away or covered with a loamy fill material. Slopes are usually 0-25%. Udorthents are found on flood plains, marshes, and tidal flats and are formed from alluvium, dredging spoil, dune sand, and wood chips. These soils are poorly drained and liquefaction is a possibility due to the high water table and the sandy complex of the soil. There is a very low water capacity in most areas of the soil. These soils differ greatly from place to place; consequently, on-site investigation is needed to assess the suitability of the soils for specific land uses and these soils have not been assigned a capability subclass. Additionally, Udorthents have not been assigned to a hydrologic soil group or been rated for Ksat, erosion susceptibility, or risk of corrosion. Further sampling and testing should be done to identify these values for the site (NRCS, 2019c).

Seismicity

Site Seismicity

The nearest active fault is located less than 3 miles southeast of the Mill Casino Site and is classified as a late quaternary fault (less than 130,000 years old). Coos County is located within seismic zone 3 in the IBC. The IBC provides standards for buildings to minimize damage to structures and loss of life due to insufficient structural strength or flexibility. Seismic zone 4 is used in areas with high earthquake hazard potential, such as San Francisco, and seismic zone 1 is assigned to areas with low hazard such as western Colorado. Maximum peak ground acceleration at the Mill Casino Site is predicted to be approximately 5.88 to 7.84 meters per second per second (approximately 60%-80% of the acceleration of gravity), and thus is expected to cause MMI scale intensity level X effects. Due to its location on the coast near active faults, ground shaking effects of this intensity could include destruction of some well-built wooden structures, and destruction in most masonry and frame structures with foundations.

Liquefaction

The Mill Casino Site is likely to have a high liquefaction potential due to the sandy soils onsite, shallow groundwater table, ocean infiltration, and seismic activity in the region.

Tsunami

Tsunamis occur from seismic activity deep in the ocean floor, resulting in massive waves that penetrate deep onto shores. The Mill Casino Site is located adjacent to Ferndale Lower Range, a channelized portion of Coos Bay, along the coast of the Pacific Northwest. According to the USGS Tsunami Hazard

Map of the North Bend Quadrangle, the Mill Casino Site is located within the tsunami inundation boundary for a tsunami caused by a magnitude 8.8 undersea earthquake (USGS, 1995). The Oregon Department of Geology and Mineral Industries maps tsunami evacuation areas. The entire Mill Casino Site is located within the evacuation area for a local tsunami from an earthquake on the Oregon coast, while the eastern boundary of the Mill Casino Site is located in the evacuation zone for a distant tsunami from an earthquake far away from the Oregon coast (DOGAMI, 2012).

Volcanic Hazard

Although the Coastal Range is near areas with the potential for seismic activity, volcanoes are only found along the interior Cascade Range. Volcanically active regions in Oregon include the 19 major volcanoes scattered in the Cascade Range area as described under the Medford Site description within **Section 3.2.1**. The Mill Casino Site is over 150 miles from the nearest volcanoes, Crater Lake and Cinnamon Butte. Due to the distance to the nearest volcano, the Mill Casino Site is not located within an area susceptible to volcanic hazard impacts.

Mineral Resources

Mineral resources in North Bend are limited to mostly aggregate sand and gravel surface mining. There are currently no mined resources located on or in the immediate vicinity of the Mill Casino Site and historically there have been no open mines on the Mill Casino Site (Mine Safety and Health Administration, 2019).

3.3 WATER RESOURCES

This section describes the existing environmental conditions related to water resources for the three alternative sites described in **Section 2.2**. Water resources designated as Waters of the U.S. (WOTUS) are discussed in **Section 3.5**, Biological Resources. **Section 3.10**, Public Services, describes existing water supply facilities and regulatory requirements for wastewater treatment and disposal. The general and site-specific description of water resources contained herein provide the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.3.1 REGULATORY SETTING

The regulatory setting associated with water resources is summarized in **Table 3.3-1**, and an expanded discussion is provided in **Appendix B**.

3.3.2 EXISTING SETTING – MEDFORD SITE

The City of Medford receives water from the Medford Water Commission (MWC), which supplies drinking water to around 136,000 Medford customers, as well as several nearby municipalities and water districts. The MWC utilizes water from two main sources: Big Butte Springs (groundwater) and the Rogue River (surface water). During the winter months, all water is supplied by Big Butte Springs, which is located about 30 miles northeast of Medford near Butte Falls.

When water demand in the summer months exceeds the capacity of Big Butte Springs, surface water from the Rogue River is used as a supplemental supply. Water from the Rogue River is pumped to the Robert A. Duff water treatment plant, located on Table Rock Road near TouVelle Park. The City of Phoenix and the neighboring cities of Talent and Jacksonville have a combined 10,000 acre-feet allocation of water in Lost Creek Reservoir that is available for purchase and is then released down the Rogue River to offset the MWC supply that is used.

TABLE 3.3-1
SUMMARY OF KEY REGULATIONS REGARDING WATER RESOURCES

Regulation	Description
Executive Order (EO) 11988	▪ Requires that federal agencies evaluate the potential effects of any actions they may take in a floodplain. ▪ Requires federal agencies proposing that an action be allowed in a floodplain to consider alternatives to avoid adverse effects. ▪ If the only practicable alternative action requires siting in a floodplain, requires the federal agency to minimize potential harm to or within the floodplain.
Clean Water Act (CWA)	Establishes national water quality goals. Sections 303 and 304 require impaired water bodies be identified and ranked based on severity. States then develop water quality control plans that include Total Maximum Daily Loads (TMDL), which is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, as well as an allocation for each of the pollutant's sources. Section 402 requires an NPDES permit be obtained to discharge pollutants into Waters of the U.S.
Safe Drinking Water Act	▪ The USEPA sets Maximum Contaminant Levels for drinking water contaminants of concern to the domestic water supply.

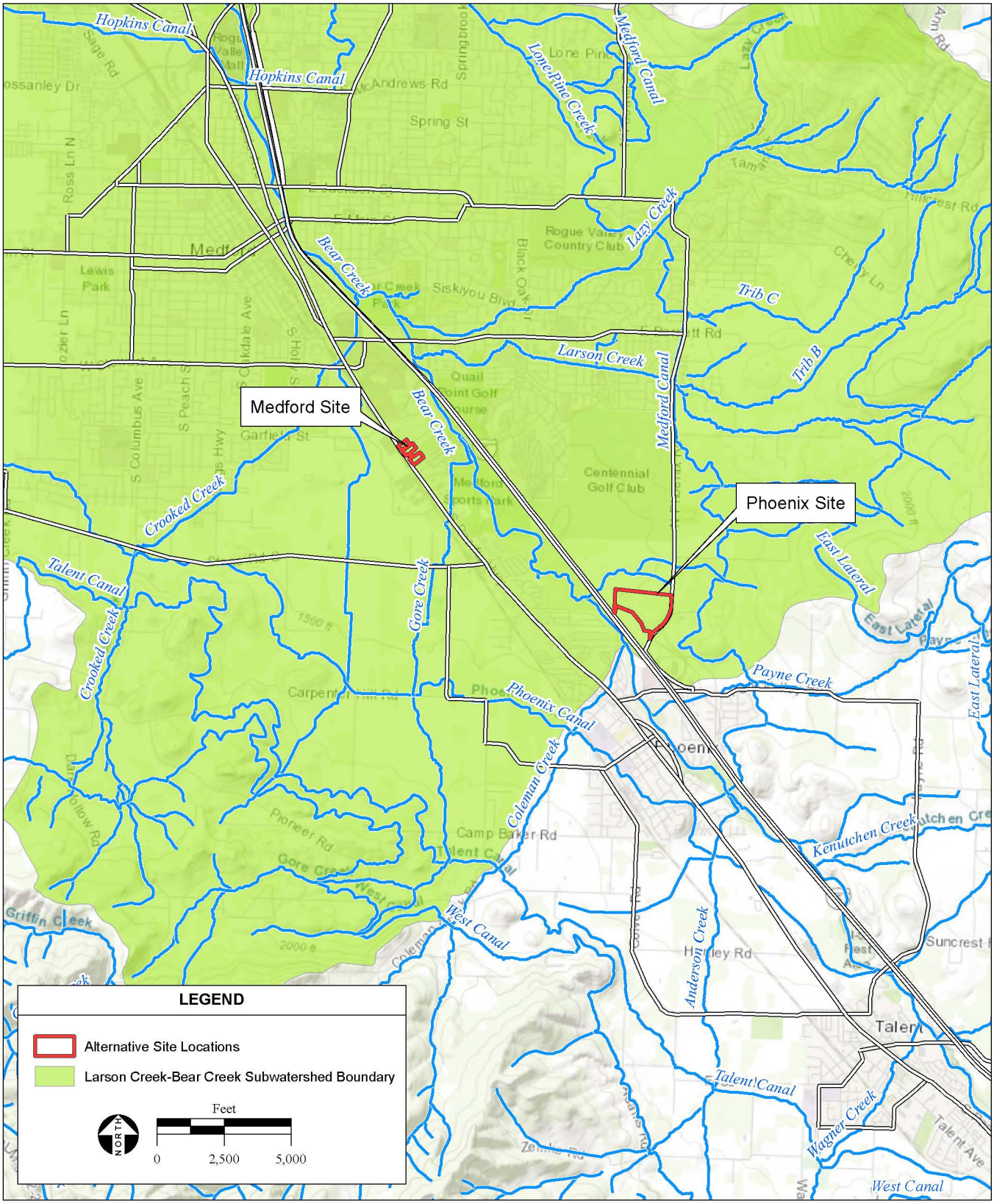
Surface Water

Watershed

The major surface water body in the area of the Medford Site is the Rogue River, which runs through the Rogue River Valley near the City of Medford. The Rogue River is a large, cold-water river that flows generally westward for about 215 miles from the Cascade Range to the Pacific Ocean (ODFW, 2016). The Medford Site lies within the Bear Creek watershed, which is located within the larger Middle Rogue subbasin. The Bear Creek watershed covers an approximately 231,249-acre area. The Bear Creek watershed is further divided into subwatersheds and the Medford Site is located within the Larson Creek-Bear Creek subwatershed. The Larson Creek- Bear Creek subwatershed is approximately 33,600 acres (USEPA, 2015a); a map is provided as **Figure 3.3-1**.

Site Drainage

The Medford Site is located within Jackson County, which lies in the southwestern part of Oregon along the California border in what is described as "Climate Division 3" (Southwestern Interior) by the National Climatic Data Center (NCDC; NCDC, 2015). Jackson County is indented with river valleys that separate eastern and western mountains and ridges, with most of the rivers flowing westward to the Pacific Ocean. Moist cool air from the Pacific Ocean reaches most of Jackson County, which keeps temperatures in the summer lower than eastern Oregon. Most precipitation in western Oregon falls between November and March according to the National Oceanic and Atmospheric Association (NOAA). Average annual precipitation in Medford is approximately 21.1 inches (US Climate Data, 2019). The driest areas in Division 3, stretching between Central Point and Ashland and running through Medford, all receive less than 20 inches per year of precipitation on average.



SOURCE: USGS National Watershed Boundary Dataset (WBD), 9/24/2014; ESRI Data, 2016; AES, 5/9/2019

Figure 3.3-1
Medford and Phoenix Site Watershed

The majority of the soil on the Medford Site is classified as hydrologic soil groups C, slow infiltration rate, with a small portion classified as D, very slow infiltration rate (refer to **Section 3.2** for more information). As described in detail in **Appendix D** and shown on **Figure 3.3-2**, the majority of drainage from the project site flows to three main areas. The northern and western portions of the site sheet flows toward a drainage channel that runs northeast from Oregon State Highway 99 (OR 99, also South Pacific Highway and South Riverside Avenue) through the site. The drainage channel crosses the central paved strip on the Medford Site via a culvert and travels northeast for approximately 0.30 mile where it discharges into Bear Creek. The eastern portion of the Medford Site drains towards the existing golf course where runoff infiltrates into the ground.

Floodplain

FEMA is responsible for distributing FIRMs that identify the locations of special flood hazard areas, including 100-year floodplains. A 100-year flood event is defined as a flood event which has a 1% chance of occurring in any given year. As shown on **Figure 3.3-3**, the Medford Site is located in Flood Zone X. Zone X is designated by FEMA as "an area that is determined to be outside the 1% and 0.2% annual chance flood plains" (FEMA, 2015a). The 100-year and 500-year floodplains correspond to a 1% and 0.2% annual chance of a flood, respectively.

Surface Water Quality

Surface water quality standards for the state of Oregon include both narrative and numerical water quality objectives. The water quality objectives for surface waters in Oregon are to protect the use designations, including aquatic life spawning and rearing habitat, primary contact recreational use, and a variety of water supply and miscellaneous uses (Oregon Department of Environmental Quality (ODEQ), 2019). The primary surface water bodies within the immediate vicinity of the Medford Site include Bear Creek (approximately 0.30 mile to the east of the Medford Site) and the central drainage channel that runs northeast through the Medford Site to Bear Creek. Bear Creek is a tributary to the Rogue River that is located approximately 10 miles north of the Medford Site.

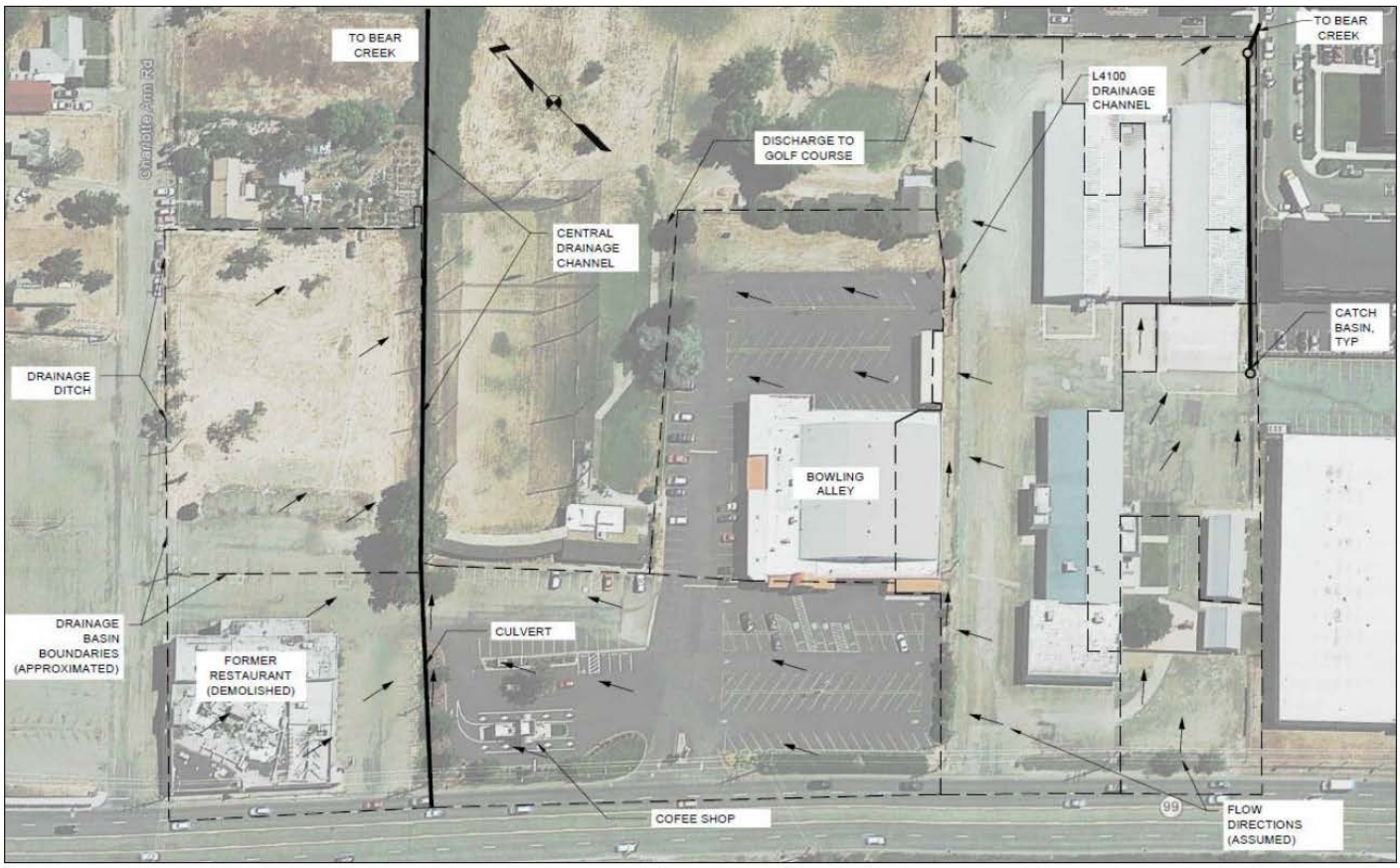
Within the Middle Rogue subbasin, Bear Creek is listed on the Oregon State 303(d) list for impairment of water quality from aquatic weeds or algae, arsenic, DO, E. coli, flow modification, habitat modification, pH, phosphorous, and temperature. Bear Creek is listed as Category 5 and therefore needs development of a TMDL for arsenic and DO. All other impairments are listed as Category 4 and either have an approved TMDL or are not classified as a pollutant and do not require a TMDL. Within the Middle Rogue subbasin, the Rogue River is listed as Category 4 for fecal coliform and temperature, and Category 5 for DO and mercury (ODEQ, 2012).

Groundwater

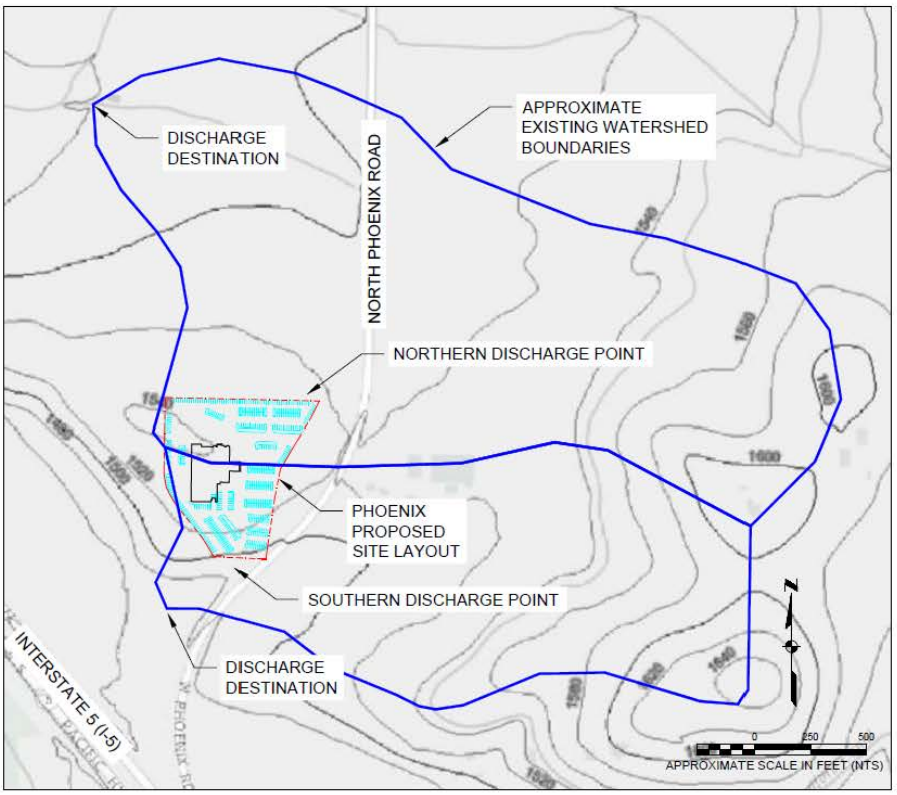
Jackson County is situated above three alluvial aquifers and several metamorphic rock formations which produce water through fractures (**Appendix D**). The geology of the Medford Site is further discussed in **Section 3.2**.

Groundwater Supply

The Medford Site is located in Rogue Groundwater Basin. Although groundwater water rights are still being granted in the Rogue Basin, groundwater quantity in the basin is a growing concern as regions in the basin have been experiencing a dropping water table, a trend that is expected to continue. Under Oregon law, all water is publicly owned. With some exceptions, cities, farmers, factory owners, and other users must obtain a permit or water right from the Water Resources Department (WRD) to use water from any source—whether it is underground or from lakes or streams. Landowners with water flowing past,



Medford Site Existing Stormwater Drainage

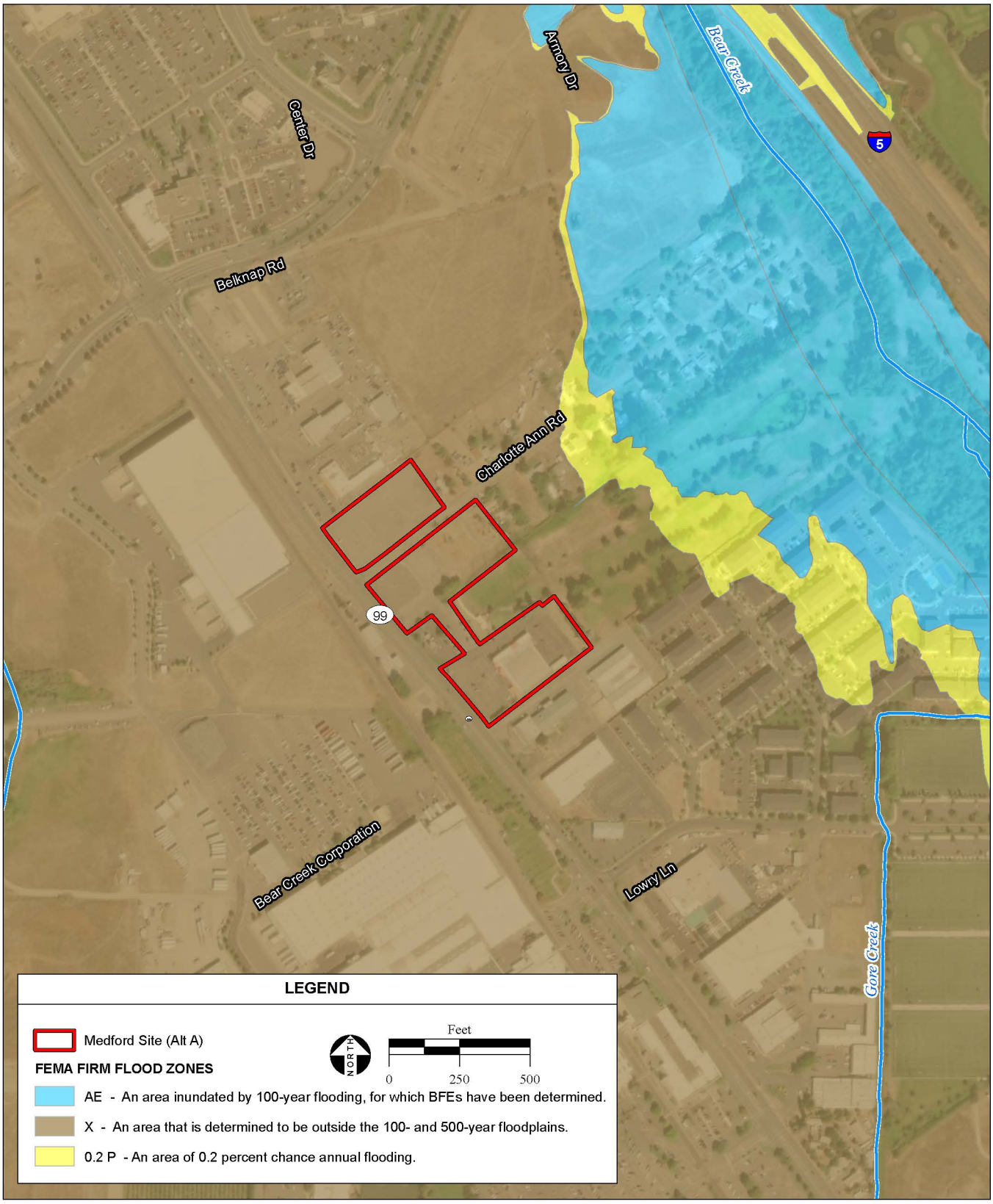


Phoenix Site Layout and Existing Stormwater Drainage

SOURCE: Kennedy/Jenks, 2016; AES, 5/7/2019

Figure 3.3-2

Existing Stormwater Drainage – Medford Site and Phoenix Site



SOURCE: FEMA FIRM effective, 5/2011/2013; Jackson County GIS 2010; USDA NAIP Aerial Photograph, 2014; AES, 5/9/2019

Figure 3.3-3
Medford Site Flood Zone

through, or under their property do not automatically have the right to use that water without a permit from the WRD.

The majority of water in the vicinity of the Medford Site is supplied through numerous wells within the City of Medford's Urban Growth Boundary (UGB). Eight domestic wells within 5,000 feet of the Medford Site were reviewed along with the accompanying construction logs. As discussed above, the City of Medford receives water from the MWC, which utilizes two different watersheds: Big Butte Springs (groundwater) and the Rogue River (surface water). During the winter months, all water is supplied by Big Butte Springs, which is located about 30 miles northeast of Medford near Butte Falls. Big Butte Springs has been the primary source of drinking water for the MWC since 1927. Big Butte Springs provides 26.4 million gallons of water per day (MGD) (MWC, 2015).

Groundwater Quality

Groundwater is the primary source for public drinking water for the City of Medford. The Medford Site is located within the MWC service area. Any development within the MWC service area is required to submit construction plans depicting connections to MWC facilities for review and approval. The developer must also attend a pre-construction conference with MWC prior to construction. This is further discussed in **Section 4.3**.

The primary groundwater source for the MWC is Big Butte Springs, located approximately 30 miles northeast of Medford. The springs produce high quality groundwater requiring only disinfection to meet drinking water quality standards. Big Butte Springs has consistently met water quality standards with respect to inorganic, biological, and radiological contaminants (Kennedy and Jenks, 2016). A summary of the 2011 ODEQ Rogue Basin Groundwater Investigation is included in **Appendix B.**

The Water and Wastewater Feasibility Study prepared for the project alternatives (**Appendix D**) reviewed the 2011 ODEQ investigation to determine likely contaminants in the groundwater supply in the vicinity of the Medford Site. Arsenic, fluoride, and nitrate were detected at multiple sampling locations near the Medford Site; however, most results indicated concentrations well below the MCLs for potable drinking water. Total coliform and fecal coliform testing at several nearby sampling locations also did not indicate an impaired quality with respect to bacteria (**Appendix D**).

3.3.3 EXISTING SETTING – PHOENIX SITE

The City of Phoenix purchases its water from the MWC. See **Section 3.3.2** for a more detailed description of MWC water supply.

Surface Water

Watershed

The Phoenix Site is located within the Larson Creek-Bear Creek subwatershed, within the Bear Creek watershed; therefore, the watershed setting is the same as described in **Section 3.3.2**.

Site Drainage

Similar to the Medford Site, the Phoenix Site is located within Jackson County. See **Section 3.3.2** for a description of typical climatic conditions in the region.

The majority of the soil on the Phoenix Site is classified as the hydrologic soil group D, very slow infiltration rate, with a small portion classified as C, slow infiltration rate (**Section 3.2.2**). The Phoenix

Site is currently undeveloped and used for agricultural grazing and open space. The Phoenix Site has an elevated area of land along the center of the site from east to west. As shown on **Figure 3.3-2**, because topography on the Phoenix Site slopes from the ridge to the north and south, all surface waters drain to the northwest (on the northern half) and to the southwest (on the southern half). Water draining to the north flows northwest in a natural drainage and unnamed creek to a pond, which appears to discharge through a culvert under I-5 to Bear Creek. Water draining to the south flows southwest to a drainage ditch and unnamed creek, into a field, and then enters a culvert under I-5. However, it is likely that water that drains to the south fully infiltrates or evaporates before crossing the field (**Appendix D**).

Floodplain

Most of the Phoenix Site is located in Flood Zone X, while a small area at the southwestern tip of the site is designated Zone 0.2 P (**Figure 3.3-4**). Zone X is an area that is determined to be outside the 1% and 0.2% annual chance floodplains, while Zone 0.2 P is an area of 0.2% chance of annual flooding (FEMA, 2015b). The 100-year and 500-year floodplains correspond to a 1% and 0.2% annual chance of a flood, respectively.

Surface Water Quality

The primary surface water bodies within the immediate vicinity of the Phoenix Site include a pond located approximately 350 feet north-northwest of the site and Bear Creek, which is located approximately 360 feet from the Phoenix Site on the west side of I-5. Bear Creek is a tributary to the Rogue River. See **Section 3.3.2** for a detailed description of water quality in Bear Creek and the Rogue River.

Groundwater

Groundwater Supply

As with the City of Medford, the City of Phoenix is located in the Rogue Groundwater Basin and receives its water from the MWC. See **Section 3.3.2** for a description of groundwater supply in the vicinity of the Phoenix Site.

Groundwater Quality

Due to their close proximity, the groundwater quality in the vicinity of the Phoenix Site is similar to that of the Medford Site. See **Section 3.3.2** for a detailed description of groundwater quality in the region.

3.3.4 EXISTING SETTING – MILL CASINO SITE

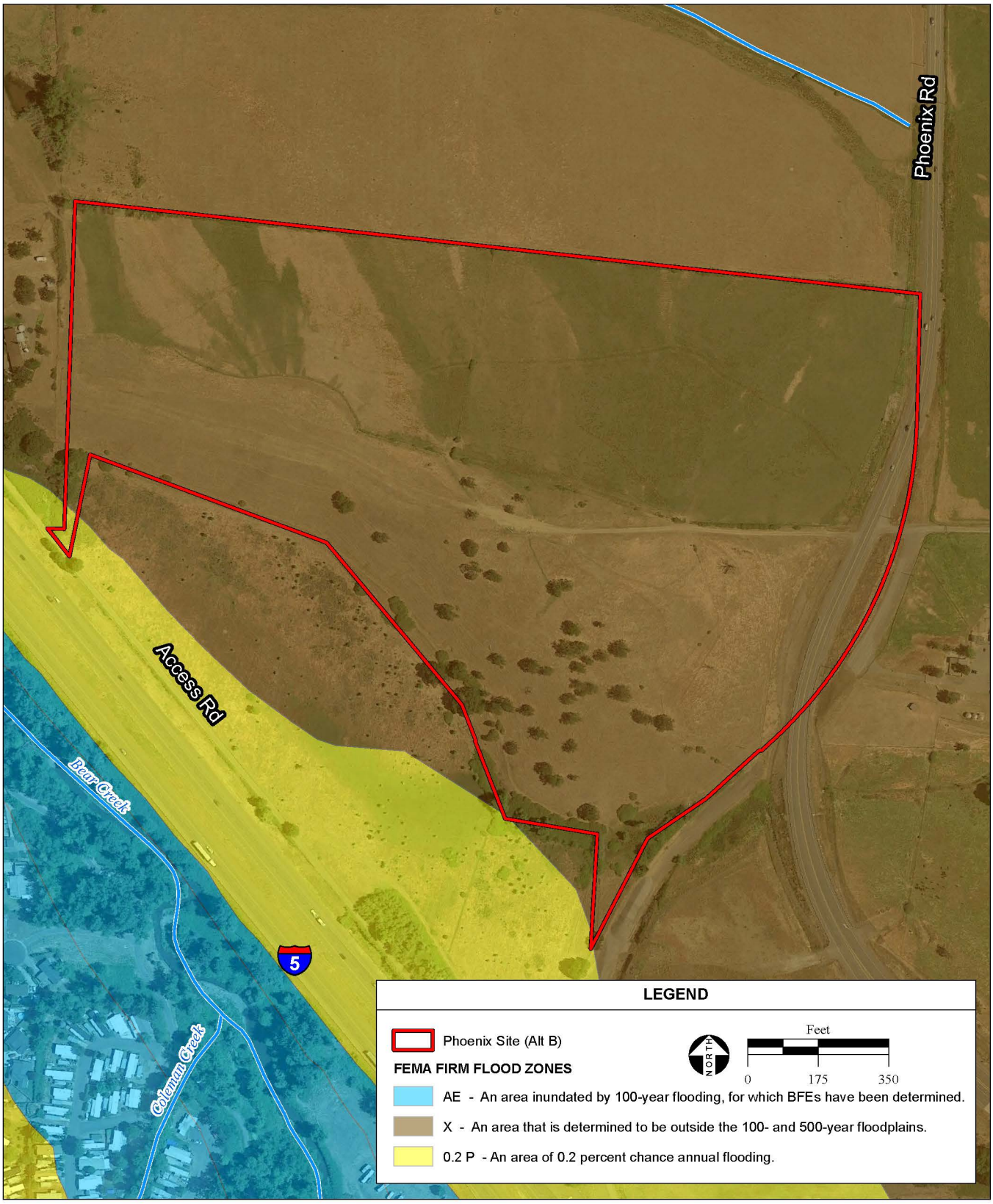
Surface Water

Watershed

The major surface water body in the vicinity of the Mill Casino Site is Ferndale Lower Range, a channelized portion of Coos Bay, which lies immediately east of the site. The Mill Casino Site lies within the Coos Bay-Frontal Pacific Ocean watershed, an approximately 151,621-acre area. The Coos Bay-Frontal Pacific Ocean watershed is divided into subwatersheds and the Mill Casino Site is located within the Coos Bay subwatershed, an area of approximately 38,822 acres (USEPA, 2015).

Site Drainage

The Mill Casino Site is located within Coos County, which lies along the southwestern coast of Oregon in what is described as "Climate Division 1" (Oregon Coast) by the NCDC (NCDC, 2015). Coos County



SOURCE: FEMA FIRM effective, 5/2011/2013; Jackson County GIS 2010; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 3.3-4
Phoenix Site Flood Zone

includes coastal plains, coastal valleys, and the Coast Range. The coastal zone is characterized by wet winters, relatively dry summers, and mild temperatures throughout the year. Moist air moves off the Pacific Ocean onto land and causes heavy precipitation along the coast, especially during the winter months. On the immediate coast, normal annual precipitation is 65-90 inches (Taylor, 2016).

Because the Mill Casino Site is located on a manmade structure, soils on the site are considered fill soils and are not classified into hydrologic groups by the NRCS (refer to **Section 3.2** for more information). Currently, all surface water at the Mill Casino runs off as sheet flow towards the east and into the Ferndale Lower Range, a channelized portion of Coos Bay. The northern parking lot, however, flows inland to retention basins located in the center of the parking lot that release stormwater slowly into the ground.

Floodplain

As shown on **Figure 3.3-5**, most of the Mill Casino Site is located in Flood Zone X, while a small area along the southern boundary of the Mill Casino Site is located in a Special Flood Hazard Area (SFHA). Zone X includes areas that are outside of the 100- and 500-year floodplains (FEMA, 2015c). SFHAs are designated by FEMA as areas that are subject to inundation by the 1% annual chance flood (100-year flood).

Tsunami

Tsunamis are sea waves caused by an earthquake, submarine landslide, or other catastrophic occurrences. Most tsunamis occur within the Pacific Ocean and land that borders the Pacific Ocean. Due to its location on the Oregon coast, the Mill Casino Site is at risk for tsunamis. Tsunami risk at the Mill Casino Site is discussed in more detail in **Section 3.2.3**.

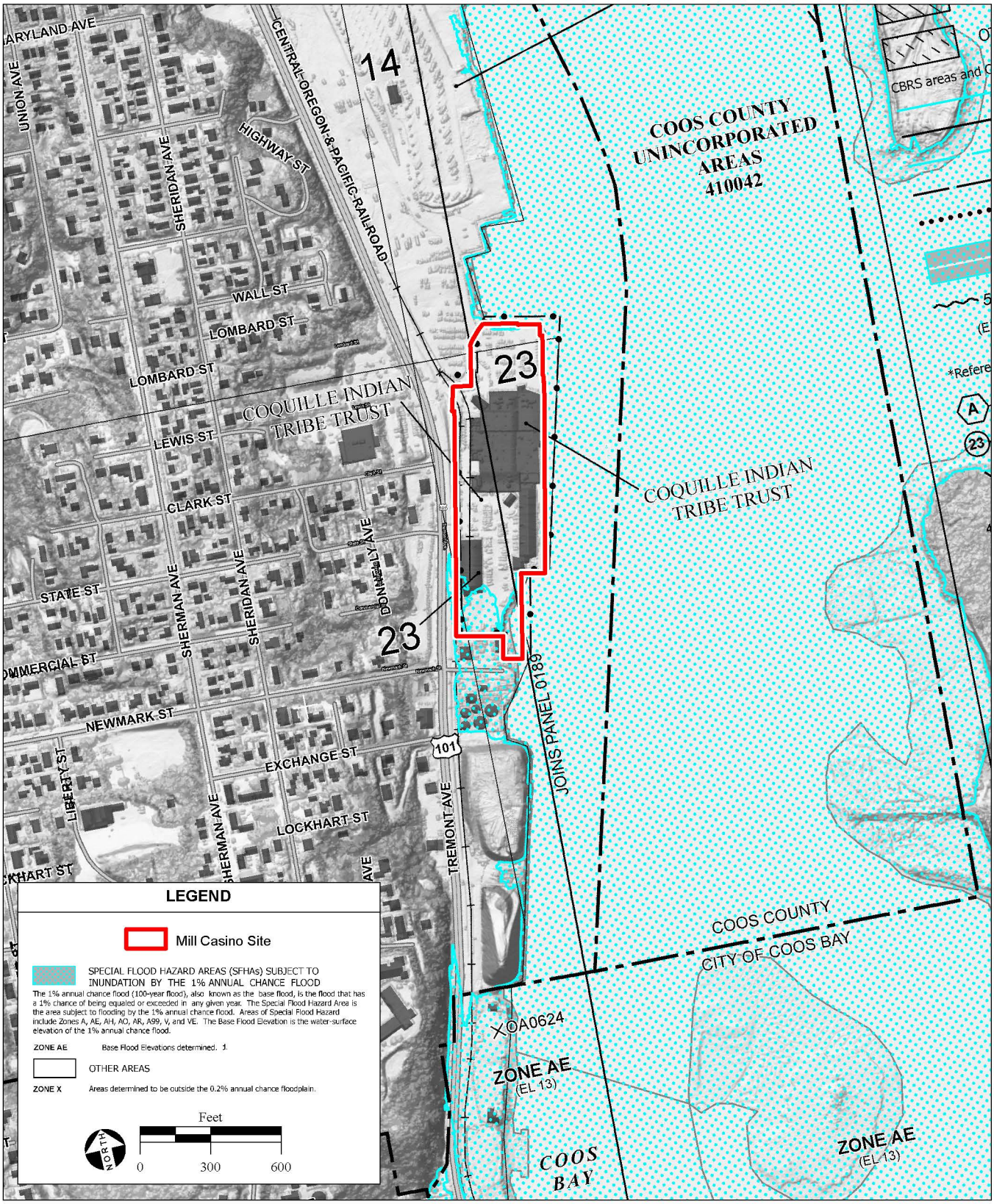
Surface Water Quality

Primary surface water bodies in the vicinity of the Mill Casino Site include Ferndale Lower Range, a channelized portion of Coos Bay, located immediately to the east, and Pony Creek located approximately 0.6 mile to the west. Coos Bay was first listed as a Category 5 impaired waterbody in 2004 for fecal coliform caused by pathogens and currently requires a TMDL to be developed (ODEQ, 2012). Pony Creek is listed as a Category 5 impaired waterbody for E. coli, fecal coliform, and temperature and currently requires TMDLs to be developed for these impairments.

Surface water is currently the source of public drinking water for North Bend. The Coos Bend-North Bend Water Board (CBNBWB) is a non-profit municipal water provider that provides water to the cities of Coos Bay and North Bend. There are two surface water reservoirs upstream of the Pony Creek Water Treatment Plant utilized by the CBNBWB. Upper Pony Creek Reservoir and Merritt Reservoir hold approximately 2 billion gallons and 125 million gallons respectively (CBNBWB, 2018). A third surface water storage area that is only used in emergencies is the Ney Slough which can store up to 90 million gallons of water. Water can be transferred from Ney Slough to the Upper Pony Creek Reservoir through a series of pipes. The Coos Bay-North Bend water system met all water quality standards for 2018 (CBNBWB, 2018).

Groundwater

As discussed above, the water supply in Coos Bay and North Bend comes primarily from surface water sources. However, the CBNBWB also utilizes groundwater resources in the Dunes National Recreation Area, which includes 19 groundwater wells that can produce untreated water for industrial needs or up to



SOURCE: FEMA FIRM effective, 3/2014; USDA NAIP Aerial Photograph, 2014; AES, 5/7/2019

Figure 3.3-5
Mill Casino Site Flood Zone

1.0 MGD of treated water for municipal use (CBNBWB, 2018). According to the CBNBWB, the entire Coos Bay-North Bend water system met all water quality standards for 2018 (CBNBWB, 2018).

3.4 AIR QUALITY

This section describes the existing environmental conditions related to air quality for the three alternative sites described in **Section 2.2**. The general and site-specific description of air quality conditions contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.4.1 REGULATORY CONTEXT

The regulatory setting associated with air quality is summarized in **Table 3.4-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.4-1
SUMMARY OF KEY REGULATIONS REGARDING AIR QUALITY

Regulation	Description
Clean Air Act (CAA)	▪ The CAA created the National Ambient Air Quality Standards (NAAQS) for six CAPs: ozone, carbon monoxide, particulate matter, nitrogen dioxide, sulfur dioxide (SO2), and lead. ▪ States are required to have State Implementation Plans (SIP) for areas that are not achieving the NAAQS (nonattainment areas). ▪ General Conformity Rule requires demonstration that a proposed federal action will conform to the applicable SIP. ▪ Includes provisions for the promulgation of National Emissions Standards for Hazardous Air Pollutants (NESHAP), or maximum achievable control technology (MACT) standards, which are additional federal emission limitations established for highly dangerous or toxic air pollutants that are not covered by the NAAQS. ▪ Prevention of Significant Deterioration (PSD) program protects Class I areas. ▪ Tribal minor NSR permits are required if emissions would exceed certain standards.
Executive Order 13990	▪ The CEQ rescinded it 2019 draft guidance and is reviewing, for revision and update, the 2016 GHG Guidance, In the interim, CEQ advised that agencies should consider all available tools and resources in assessing GHG emissions and climate change effects of their proposed actions, including the 2016 GHG Guidance.
Secretarial Order 3399	▪ Prioritizes actions on climate change throughout the Department of the Interior and restores transparency and integrity in the Department's decision-making processes. ▪ Specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives.
Oregon State House Bill 3543 (Climate Change Integration Act)	▪ Sets specific GHG emissions reduction goals for Oregon. ▪ Created the Global Warming Commission, which is responsible for recommendations to meet the GHG reduction targets.

3.4.2 MEDFORD SITE AND PHOENIX SITE ENVIRONMENTAL SETTING

Regional Air Quality

A summary of the regional meteorological setting is included in **Appendix B**.

Sources of Emissions

Criteria emissions sources within the Medford-Ashland region are dominated by fires, biogenic sources, and mobile sources. These emissions are primarily CO, NO_2, and O_3. Mobile sources include motor vehicle trips originating outside of the Medford-Ashland region. Major sources of carbon monoxide include fires, mobile sources, and fuel combustion (USEPA, 2016b). Major sources of particulate matter include fugitive dust, fires, and fuel combustion (USEPA, 2016c).

NAAQS Designations

As shown in **Table 3.4-2**, the Ashland-Medford area is designated attainment or is unclassified for all CAPs under the NAAQS with the exception of CO and PM_{10}, which were redesignated from non-attainment to maintenance in 2002 and 2006, respectively. **Figure 3.4-1** in shows designated maintenance areas within the Ashland-Medford area. As shown in the figure, the Medford Site is located within the Medford UGB CO maintenance area and the Medford Site and Phoenix Site are both located within the Medford-Ashland AQMA for PM_{10}.

TABLE 3.4-2
MEDFORD-ASHLAND ATTAINMENT STATUS

Pollutant	NAAQS
Ozone	Attainment
PM_{10}	Maintenance
$PM_{2.5}$	Attainment
CO	Maintenance (Medford UGB)
NO_2	Attainment
SO_2	Attainment
Pb	Attainment
Source: USEPA, 2019b	

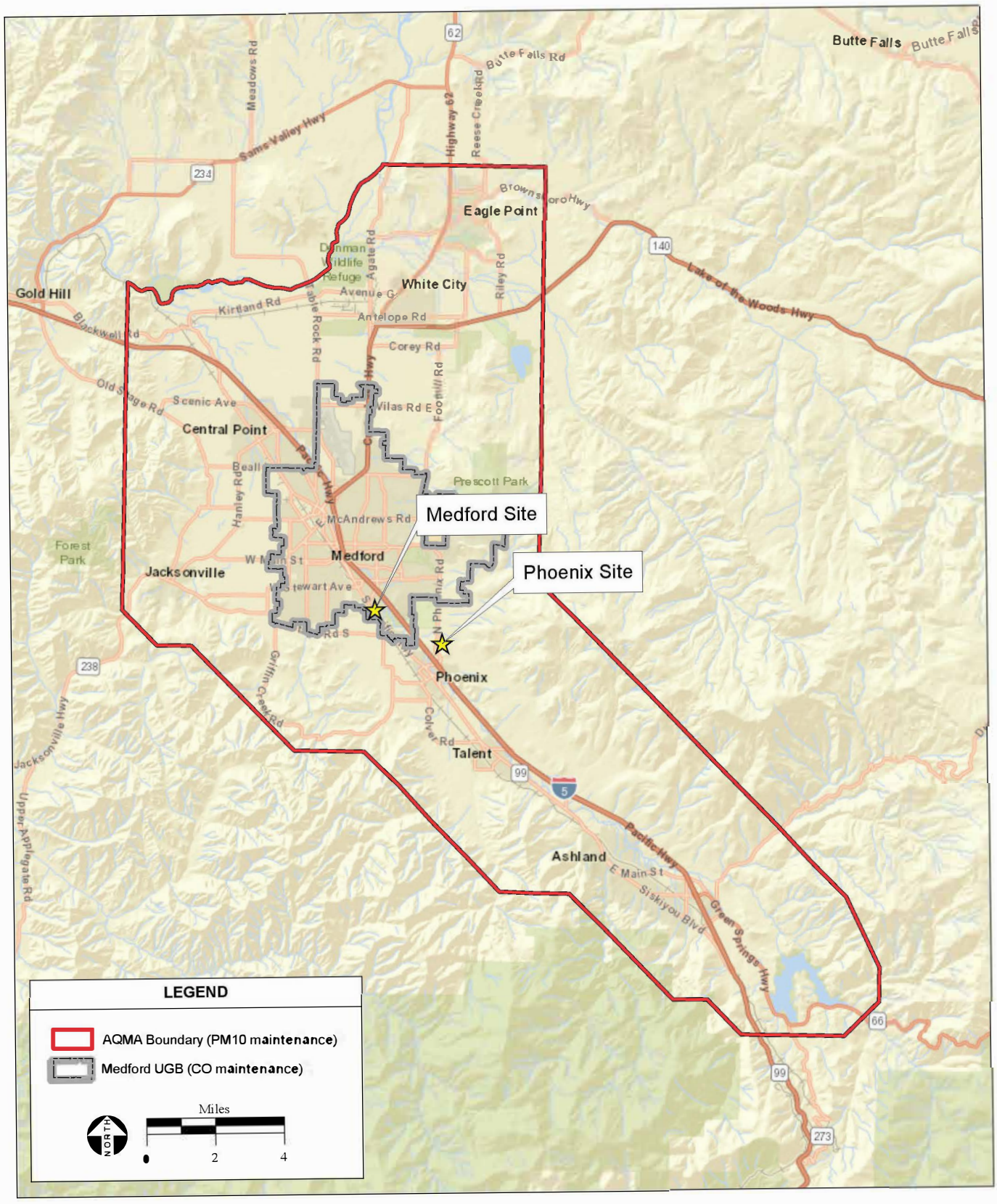
Hazardous Air Pollutants

In the vicinity of the Medford Site and Phoenix Site, HAPS are primarily emitted by mobile sources, such as diesel trucks. Other sources of HAP emissions in the region include bulk gasoline distributers, dry cleaners, and paint stripping, wood mills, and miscellaneous surface coating operations.

The CAA requires that ODEQ use the Title V operating permit system to administer the HAP program. Although the majority of Title V operating permits do not contain enforceable limits on specific HAPs, most HAPs are regulated as particulate or volatile organic compounds (VOCs). USEPA has set standards requiring emitters of HAPs to sharply reduce "routine" emissions. The USEPA accomplishes the reductions through performance standards based on the best demonstrated controls and practices for each regulated industry, termed MACT.

Carbon Monoxide

CO does not readily disperse throughout the atmosphere; therefore, it is considered a localized air quality issue, close to the emission source. “Hot spots,” or concentrated areas of CO emissions, such as major



SOURCE: SOURCE: Jackson County GIS 2012; ESRI Data, 2013; AES, 5/7/2019

Figure 3.4-1
Medford-Ashland Air Quality Maintenance Area

signalized intersections, can cause acute (short-term) health threats. The Medford UGB is classified by the USEPA as being in maintenance for CO according to the NAAQS and therefore, CO is a pollutant of concern at major signalized intersections (greater than 100,000 vehicles per day) that exhibit prolonged vehicle idling times, generally intersections with level of service E or F (UC Davis, 1997).

Climate Change

Climate change would not only have global impacts, such as more erratic weather patterns, more frequent droughts, and rising sea level, but climate change would cause regional and local impacts as well. Climate change has the potential to result in winters becoming milder, summers hotter and cause snow packs to shrink and unseasonably warm temperatures which lead to rapid spring melts, depleting Oregon's supply of summer water for agriculture and stream flows for wildlife. Storms and forest fires may become more severe while the risk of coastal flooding may increase.

Primary sources of GHG emissions in the Medford area include vehicles, trucks, natural gas dispensing stations, wildfires, and wood mills; however, there are many other sources of GHG emissions in the Medford area.

Sensitive Receptors

Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.

The nearest residential sensitive receptor to the Medford Site construction is a large apartment complex located on Lowry Lane approximately 160 feet northeast of the site. The next closest residential sensitive receptor is located along Charlotte Ann Road Avenue approximately 350 feet northwest of the site adjacent to the northeast corner of the Medford Site (adjacent to tax lot 31-1W-32C-1100 and -4200). The nearest residential sensitive receptor to the Medford Site parking lot construction is approximately 25 feet to the north of tax lot 31-1W-32C-1100 and -4200. The nearest schools to the Medford Site are the Jefferson Elementary School and Saint Mary's of Medford Inc. located approximately 0.95 miles northwest on 333 Holmes Ave and northeast on 816 Black Oak Drive from the site, respectively. The nearest medical center is the Surgery Center of Southern Oregon LLC located approximately 1.25 miles northeast of the site on 2798 East Barnett Road.

The nearest residential sensitive receptor to the Phoenix Site is a neighborhood located off Fern Valley Road approximately 1,000 feet southwest of the site. The next closest residential sensitive receptor is located on Country Hill Drive approximately 0.38 miles southeast of the site. The nearest schools to the Phoenix Site are Phoenix High School located approximately 0.59 miles southwest of the site on 745 North Rose Street and Phoenix Elementary School located approximately 0.72 miles southwest of the site on 215 North Rose Street. The nearest medical center is the Medford Women's Clinic located approximately 0.40 miles southwest of the site on 725 North Main Street.

3.4.3 MILL CASINO SITE ENVIRONMENTAL SETTING

Regional Air Quality

A summary of the regional meteorological setting is included in **Appendix B**.

Sources of Emissions

Criteria emissions sources within the Coos Bay region are dominated by fires, biogenic sources, and mobile sources. These emissions are primarily CO, NO_2, and O_3.

Air Pollutant Ambient Concentrations

Air pollutant emissions contribute (directly or indirectly) to the concentrations of air pollutants that are experienced and measured. ODEQ does not operate monitoring stations measuring air pollutant ambient concentrations in the region immediately surrounding the Mill Casino Site.

NAAQS Designations

As shown in **Table 3.4-3**, the Coos Bay region is designated attainment for all CAPs under the NAAQS.

TABLE 3.4-3
COOS COUNTY ATTAINMENT STATUS

Pollutant	NAAQS
Ozone	Attainment
PM_{10}	Attainment
$PM_{2.5}$	Attainment
CO	Attainment
NO_2	Attainment
SO_2	Attainment
Pb	Attainment
Source: USEPA, 2019b	

Hazardous Air Pollutants

In the vicinity of the site, HAPS are primarily emitted by mobile sources, such as diesel trucks. Other sources of HAP emissions in the region include bulk gasoline distributers, dry cleaners, and paint stripping, wood mills, and miscellaneous surface coating operations.

Carbon Monoxide

CO does not readily disperse throughout the atmosphere; therefore, it is considered a localized air quality issue, close to the emission source. CO emissions generally cause acute (short-term) health threat. The Coos Bay Region is classified by the USEPA as attainment for CO according to the NAAQS. However, because CO does not readily disperse it is a pollutant of concern at major signalized intersections (greater than 100,000 vehicles per day) that exhibit prolonged vehicle idling times, generally intersections with level of service E or F (UC Davis, 1997).

Climate Change

Primary sources of GHG emissions in the Coos Bay region include vehicles, trucks, and wildfires; however, there are many other sources of GHG emissions in the Coos Bay region.

Sensitive Receptors

The nearest residential sensitive receptor to the Mill Casino Site is located on Clark Street approximately 300 feet west of the site. The next closest residential sensitive receptor is also located on Clark Street approximately 350 feet west of the site. The nearest schools to the site are the Cartwheels A Christian

Preschool located approximately 0.30 miles northwest from the site at 2741 Sherman Avenue and the Gold Coast SDA Christian School located approximately 0.59 miles west from the site at 1251 Clark Street. The nearest hospital is the Bay Area Hospital located approximately 0.93 miles southwest of the site at 1775 Thompson Road.

3.5 BIOLOGICAL RESOURCES

This section describes the existing environmental conditions related to biological resources for the three alternative sites described in **Section 2.2**. The general and site-specific profiles of biological resources contained herein provide the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.5.1 REGULATORY SETTING

The regulatory setting associated with biological resources is summarized in **Table 3.5-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.5-1
SUMMARY OF KEY REGULATIONS REGARDING BIOLOGICAL RESOURCES

Regulation	Description
Wetlands and Waters of the U.S.	▪ Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" subject to jurisdiction of the U.S. Army Corps of Engineers.
Federal Endangered Species Act	▪ Provisions protect federally listed wildlife and their habitat from take. ▪ Requires consultation under Section 7 for federal agencies if take of a listed species is necessary to complete an otherwise lawful activity. ▪ Considers habitat loss an impact to the species. ▪ Defines critical habitat as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species.
Magnuson-Stevens Fishery Conservation and Management Act	▪ Mandates the conservation and management of fishery resources. ▪ Mandates the identification and protection of essential fish habitat (EFH) for managed species during the review of projects conducted under federal permits that have the potential to affect such habitat. ▪ Requires federal agencies to consult with National Marine Fisheries service (NMFS) on all actions and proposed actions that are authorized, funded, or undertaken by the agency, which may adversely affect EFH.
Migratory Bird Treaty Act	▪ Protects migratory birds from take.
Bald and Golden Eagle Protection Act	▪ Protects bald and golden eagles from take.
Oregon Endangered Species Act	▪ Intended to prevent the serious depletion of indigenous species (Oregon Revised Statutes 496.012). ▪ Species can be classified as "threatened" or "endangered." ▪ The Oregon Department of Fish and Wildlife (ODFW) maintains a list of threatened and endangered species. For threatened species, state agencies are required to comply with survival guidelines adopted by the ODFW Commission.

3.5.2 MEDFORD SITE ENVIRONMENTAL SETTING

The Medford Site is entirely developed with on-site facilities consisting of a bowling alley and two parking lots. Surrounding areas include residential and commercial development, as well as the Bear Creek Golf Course that is currently leased by the Tribe.

Methodology

Preliminary Research and Data Gathering

Background information was obtained from the following sources.

- USFWS Information for Planning and Conservation (IPaC) Trust Resource list, dated August 8, 2019, of federally listed species with the potential to occur on or be affected by the project on the Medford Site (**Appendix F**)
- USFWS National Wetlands Inventory (NWI) map of any wetland features in the vicinity of the Medford Site (**Appendix F**)
- USFWS critical habitat mapper (**Appendix F**)
- Color aerial photography in the vicinity of the Medford Site

Biological Surveys

Biological surveys were conducted within the Medford Site on November 23 and 24, 2015. Biological surveys consisted of walking transects in north to south directions to document biological communities and evaluate whether potential habitat for special status species has the potential to occur. Plant and wildlife species observed within the site are described below.

Habitat Types

Habitat types on the Medford Site are limited to ruderal/developed areas. These areas include the bowling alley and associated surface parking lot, the vacant lot in the eastern-central portion of the property, and the surface parking lot in the northern portion of the property. Ornamental grasses, shrubs, and junipers (*Juniperus* spp.) border portions of the Medford Site along the sidewalk nearest OR 99 to the west as well as Bear Creek Golf Course to the east. Quaking aspen (*Populus tremuloides*) and non-native grasses occur in the vacant lot in the northeastern portion of the Site whileoaks (*Quercus* spp.) and sycamore (*Platanus* spp.) occur along the drainage ditch running through the central portion of the Site. A potential anadromous bearing stream, Bear Creek, occurs downstream of this drainage ditch and may contain habitat for federally listed fish species, Chinook salmon, coho salmon, and green sturgeon. Of the approximate 7.35 acres of land, 7.25 acres are considered ruderal/developed land and 0.10 acres is comprised of vegetated ditches. A habitat map of the Medford Site is included as **Figure 3.5-1**.

Potential Waters of the U.S.

A desktop assessment was conducted on the Medford Site on August 8, 2019 using the NWI Mapper (**Appendix F**) and recent aerial photography, to evaluate potential on-site wetlands and waterways. The results were consistent with a field survey that was conducted on November 23 and 24, 2015. There is one potential 'Water of the U.S.' that runs northeast from OR 99 across the Medford Site. This channelized drainage ditch enters the site through one 24-inch and one 12-inch culvert, crosses a paved strip of land within the site via a 36-inch culvert and exits the site where it continues northeast through the Bear Creek Golf Course eventually discharging into Bear Creek approximately 1,500 feet away. Each section of the ditch within the Medford Site is approximately 5 feet in width and consists of cobble substrate ranging from 1 to 6 inches in diameter. Vegetation within the ditch consists of non-native annuals, cattail (*Typha*

SOURCE: DigitalGlobe aerial photograph, 2016; AES, 5/9/2019

Figure 3.5-1
Medford Site Habitat Types

spp.) and dock (*Rumex* spp.). There were no potential wetland features on site. The nearest NWI wetland feature is a freshwater pond located in the middle of the Bear Creek Golf Course approximately 900 feet away. Classified as PABFx, this wetland feature is an excavated, semi-permanently flooded palustrine wetland with an aquatic bed.

Wildlife

Wildlife observed within the Medford Site include song sparrow (*Melospiza melodia*) and European starling (*Sturnus vulgaris*).

Federally Listed Species

Special status species include the federally listed endangered, threatened, candidate species, and species of concern documented on the USFWS 2019 list. A table summarizing regionally occurring special status species is provided in **Appendix F**. Habitat requirements for each special status species were assessed and

compared to the type and quality of habitats observed during the biological surveys of the Medford Site. The table provides a rationale as to whether the special status species have the potential to occur within the Medford Site. Based on this analysis, no regionally occurring special-status species have the potential to occur within the Medford Site due to lack of suitable habitat, elevation range, lack of suitable substrate/soils, and/or geographic distribution.

The Medford Site is fully developed and situated in an urban environment, lacks wetland habitat, and has little vegetative cover. As such, no federally-listed species have the potential to occur within the Medford Site.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey have the potential to nest within the shrubbery and trees located around the perimeter of the site. Birds were observed foraging within the Medford Site during the November 23 and 24, 2015 biological surveys. No nesting behavior was observed; however, the surveys were conducted outside of the nesting season which ranges from February 15 to September 15. Buildings and surrounding foliage may provide nesting habitat for migratory birds.

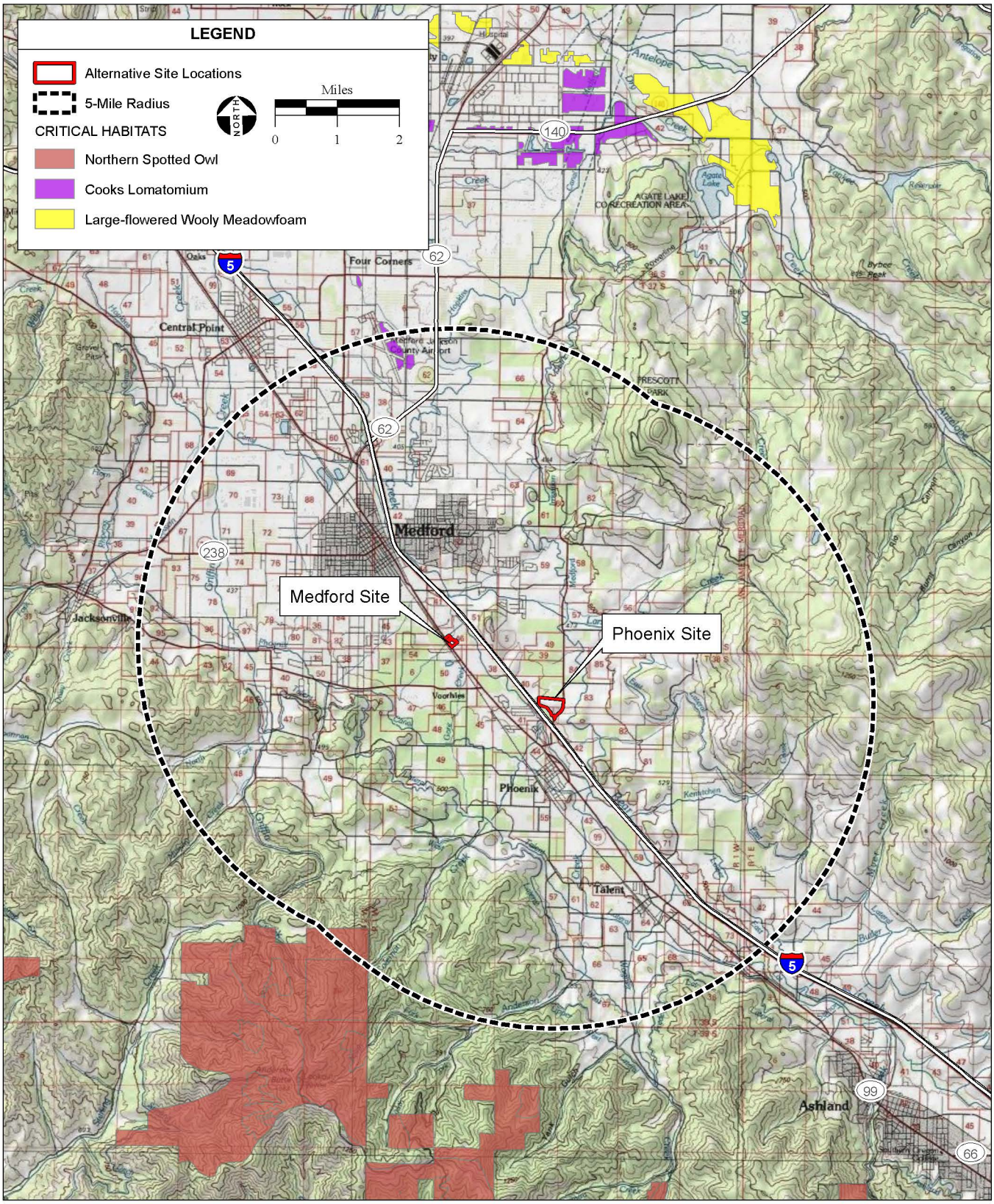
USFWS Critical Habitat

No USFWS critical habitat is located on the Medford Site (**Appendix F**). The nearest critical habitat designated by the USFWS is for Cook's lomatium (*Lomatium cookii*), a federally listed plant species, approximately 4.5 miles north of the site (**Figure 3.5-2**). State-Listed Species

Special status species that are formally listed by the state and/or recognized by state agencies or other local jurisdictions because of their rarity or vulnerability to habitat loss or population decline receive no specific protection on lands taken into trust by the federal government. A list of state-listed animals and an evaluation as to whether these species have the potential to occur within the Medford Site is provided within **Appendix F**. Of the listed species with the potential to occur within Jackson County, only the Wayside aster (*Eucephalus vialis*) has the potential to occur within the Medford Site.

3.5.3 PHOENIX SITE ENVIRONMENTAL SETTING

- The Phoenix Site is bordered by North Phoenix Road to the east, I-5 to the west, and agricultural land to the north. The site consists entirely of undeveloped pasture land with scattered trees.



SOURCE: USFWS Critical Habitats for Jackson County; 2005,2010,2011,2013; "Medford, OR"
USGS 100k Topographic Quadrangle, Williamette Baseline and Meridian; AES, 5/9/2019

Figure 3.5-2
Medford Site and Phoenix Site Critical Habitat

Methodology

Preliminary Research and Data Gathering

Background information was obtained from the following sources.

- USFWS IPaC Trust Resource list, dated August 8, 2019, of federally listed species with the potential to occur on or be affected by projects on the project on the Phoenix Site (**Appendix F**)
- USFWS NWI map of wetland features in the vicinity of the Phoenix Site (**Appendix F**)
- USFWS critical habitat mapper (**Appendix F**)
- Color aerial photography in the vicinity of the Phoenix Site

Biological Surveys

Surveys of the Phoenix Site were conducted on November 23 and 24, 2015 by walking the periphery of the eastern edge of the Phoenix Site. Aerial photos of the site were also reviewed by Analytical Environmental Services (AES) biologists. Access restrictions prevented AES biologists from actually entering the site. Terrestrial and aquatic habitat types were classified using the U.S. National Vegetation Classification (USNVC, 2019) and the *Classification of Wetlands and Deepwater Habitats of the United States*, 2nd Edition (FGDC, 2013) and were modified based on existing habitat conditions within the Phoenix Site insofar as they could be observed from aerial photographs and from the property edge.

Habitat Types

Habitat types in the Phoenix Site include: 36.61 acres of non-native grassland/pasture land, 7.62 acres of ruderal/developed areas, 4.95 acres of mixed oak savanna, and 0.17 acres of wetlands. A habitat map of the Phoenix Site is depicted on **Figure 3.5-3.**

Potential Waters of the U.S.

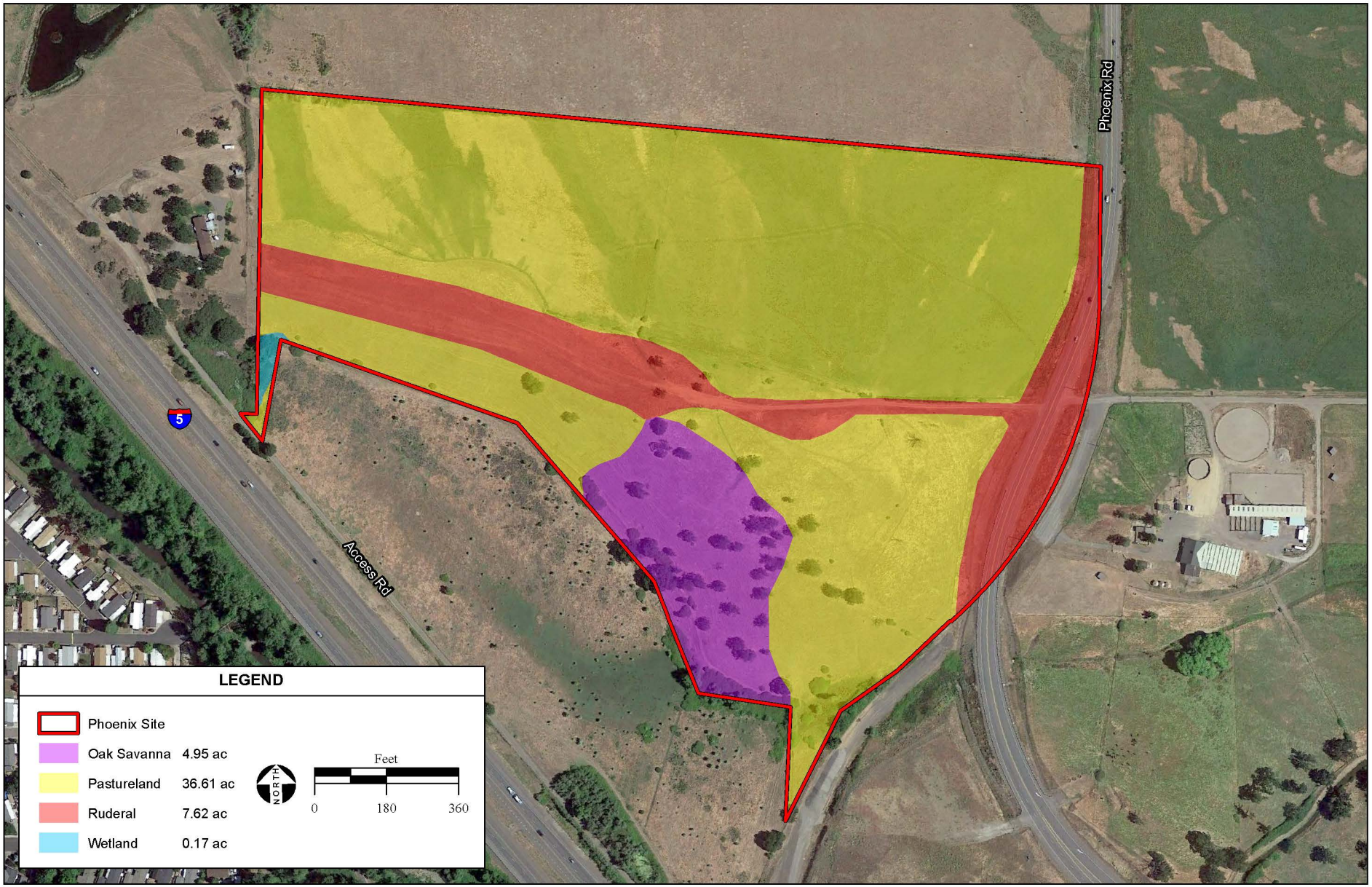
The Phoenix Site was informally assessed for wetlands and other WOTUS regulated under the CWA through review of aerial photography, a perimeter survey of the site conducted on November 23 and 24, 2015, and review of the NWI. One wetland appears to occur in the southwestern corner of the Phoenix Site. No other wetlands or WOTUS appear to occur on the site. The nearest known WOTUS are Bear Creek and the Medford Canal. Bear Creek runs north to south along the west side of I-5 approximately 800 feet west of the Phoenix Site. The Medford Canal, an irrigation feature used to supply local farmland with water, is approximately 1,000 feet east of the Phoenix Site. Aquatic habitats are illustrated in **Figure 3.5-3**. The wetland feature is potentially subject to USACE jurisdiction under Section 404 of the CWA.

Wildlife

Wildlife observed within the Phoenix Site included red-tailed hawk (*Buteo jamaicensis*) and song sparrow (*M. melodia)*.

Federally Listed Species

Federally listed species include those plant and animal species that are listed as endangered or threatened under the ESA, or formally proposed for listing. A table summarizing regionally occurring federal special status species is provided in **Appendix F**. Habitat requirements for each special status species were assessed and compared to the type and quality of habitats observed within the Phoenix Site. Gentner's fritillary (*Fritillaria gentneri*) is the only federally listed plant species that occurs in the vicinity. Northern spotted owl (*Strix occidentalis caurina*), gray wolf (*Canis lupus*), and fisher (*Pekania pennanti*) are the



SOURCE: Oregon Department of Transportation, 2014; Jackson County GIS 2012; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 3.5-3
Phoenix Site Habitat Types

only federally listed vertebrate species that occur in the area. Although the Phoenix Site contains wetland habitat, the site is not within the elevation range of Gentner's fritillary. Furthermore, the site is located immediately adjacent to I-5, is currently used as pasture land, and is thus heavily disturbed. Additionally, this site contains very little woody vegetative cover. Consequently, the Phoenix Site does not provide a combination of habitat for any of the above mentioned federally listed vertebrate species. No regionally occurring special status species have the potential to occur within the Phoenix Site due to lack of suitable habitat, elevation range, lack of suitable substrate/soils, and/or geographic distribution.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey have the potential to nest within the isolated trees located within the oak savanna habitat on the Phoenix Site. Birds were observed foraging on the Phoenix Site during the

November 2015 site visit. Migratory birds and other birds of prey have the potential to nest within the isolated trees scattered throughout the Phoenix Site. The nesting season ranges from February 15 to September 15.

USFWS Critical Habitat

No USFWS critical habitat is located on the Phoenix Site (**Appendix F**). The nearest critical habitat designated by the USFWS is for the northern spotted owl (*S. occidentalis caurina)* approximately 4 miles southwest of the site (**Figure 3.5-2**).

State-Listed Species

Special status species that are formally listed by the state and/or recognized by state agencies or other local jurisdictions because of their rarity or vulnerability to habitat loss or population decline, receive no specific protection on lands taken into trust by the federal government. A list of state-listed animals and an evaluation as to whether these species have the potential to occur within the Phoenix Site is provided within **Appendix F**. Of the listed species with the potential to occur within Jackson County, only the Wayside aster (*E. vialis*) has the potential to occur within the Phoenix Site.

3.5.4 MILL CASINO SITE ENVIRONMENTAL SETTING

The 10.95-acre Mill Casino Site is completely developed with a casino facility and associated paved surface parking. U.S. Highway 101 lies immediately adjacent to the western boundary of the Mill Casino Site and the Ferndale Lower Range, a channelized portion of Coos Bay, borders the site to the east. An RV park and oil facility border the northern and southern boundaries, respectively.

Methodology

Prior to conducting the desktop biological evaluation, the following biological information was obtained and reviewed.

- USFWS IPaC Trust Resource list, dated August 8, 2019, of federally listed species with the potential to occur on or be affected by projects on the Mill Casino Site (**Appendix F**)
- USFWS NWI map of wetland features in the vicinity of the Mill Casino Site (**Appendix F**)
- USFWS critical habitat mapper (**Appendix F**)
- Color aerial photography in the vicinity of the Mill Casino Site

A desktop evaluation was conducted on the fully developed 10.95-acre Mill Casino Site on August 8, 2019. The evaluation consisted of examining habitat for special status species with the potential to occur on the site.

Habitat Types

The Mill Casino Site consists entirely of ruderal/developed habitat and includes graded and paved roads, a parking lot, and the Mill Casino. No aquatic habitat types are located within the Mill Casino Site, although the Ferndale Lower Range, a channelized portion of Coos Bay, is classified as estuarine and marine deepwater (**Appendix F**), exists immediately east of the site. A habitat map of the Mill Casino Site is included as **Figure 3.5-4**.

Potential Waters of the U.S.

The nearest navigable WOTUS to the Mill Casino Site is the Ferndale Lower Range, a channelized portion of Coos Bay, immediately adjacent to the Mill Casino Site on the eastern boundary. This estuarine and deepwater feature is classified on the NWI as a subtidal estuarine channel with an unconsolidated bottom (E1UBL).

Federally Listed Species

Federally listed species include those plant and animal species that are listed as endangered or threatened under the ESA, as well as those species formally proposed for listing. A table summarizing regionally occurring special status species is provided in **Appendix F**. Habitat requirements for each special status species were assessed and compared to the type and quality of habitats within the Mill Casino Site. The table provides a rationale as to whether the special status species have the potential to occur within the Mill Casino Site. Western lily (*Lilium occidentale*) is the only federally listed plant species that occurs in the vicinity. Marbled murrelet (*Brachyramphus marmoratus*), northern spotted owl (*S. occidentalis caurina*), western snowy plover (*Charadrius alexandrines nivosus*), and fisher (*P. pennanti*) are the only federally listed terrestrial vertebrate species that occur in the area. The Oregon Coast coho salmon (*Oncorhynchus kisutch*) Evolutionary Significant Unit (ESU), green sturgeon (*Acipenser medirostris*) southern distinct population segment (DPS), and the Pacific eulachon (*Thaleichthys pacificus*) southern DPS are the only fish species that occur in the vicinity. The Mill Casino Site consists entirely of ruderal/developed habitat, is located immediately adjacent to U.S. Highway 101, and is thus heavily disturbed. Consequently, the Mill Casino Site does not provide adequate habitat for any of these federally listed species, although the Ferndale Lower Range, a channelized portion of Coos Bay, immediately east and adjacent to the Mill Casino provides habitat for the Oregon Coast coho salmon, green sturgeon, and Pacific eulochon; a description of each species is included on of the special status species list included in **Appendix F** and discussed in in **Appendix B**. Critical habitat in the vicinity of the Medford Site is shown on **Figure 3.5-5**

Migratory Birds and Birds of Prey

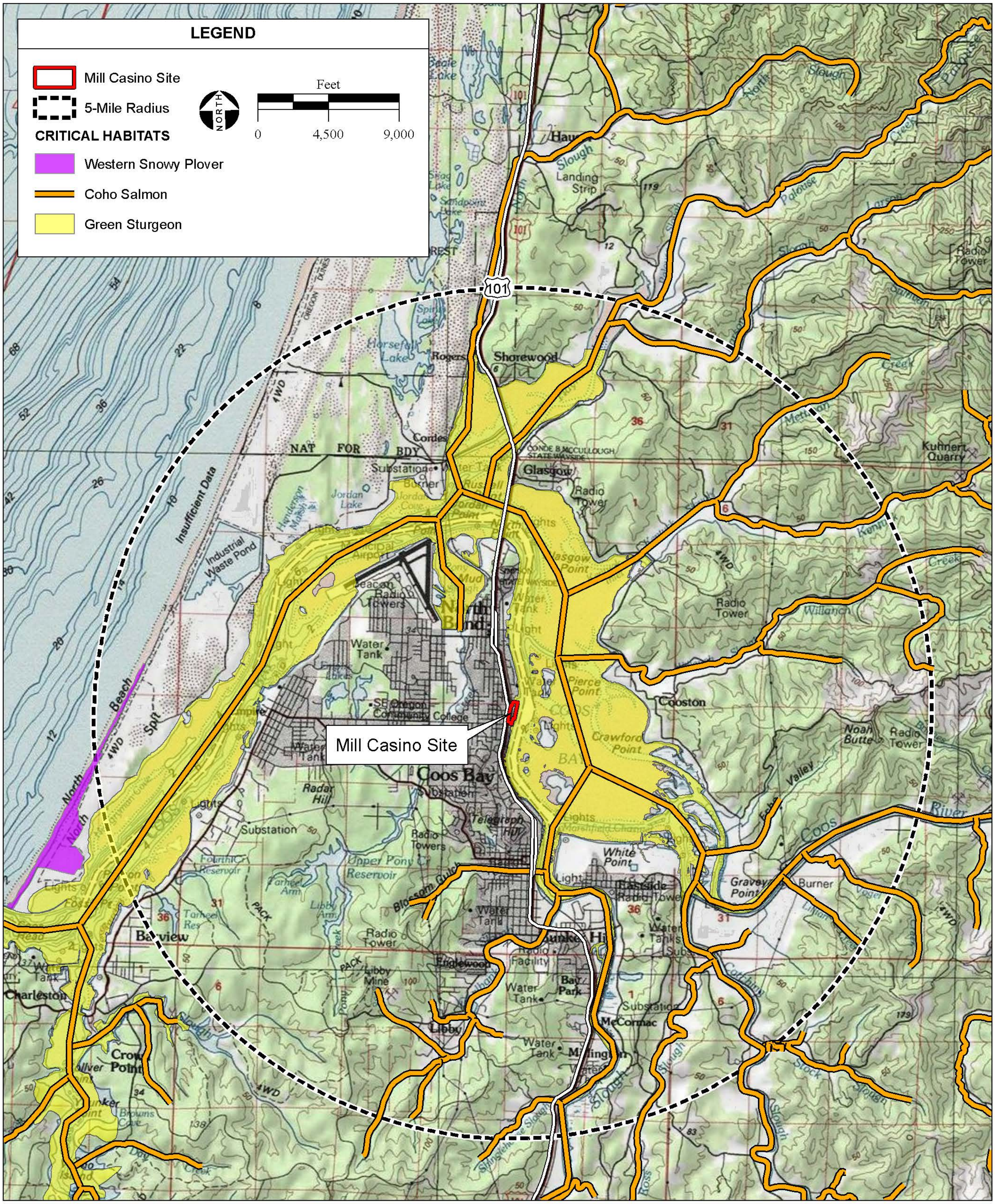
Migratory birds and other birds of prey have the potential to nest within the isolated trees located along the roadside within the Mill Casino Site. The nesting season ranges from February 15 to September 15.

USFWS/NMFS Critical Habitat

No USFWS or NMFS critical habitat is located on the Mill Casino Site (**Appendix F**). The nearest critical habitat is for the Oregon Coast coho salmon ESU and green sturgeon located in the Ferndale Lower Range immediately east of the Mill Casino Site. The NMFS designated critical habitat for the Oregon Coast coho salmon ESU on May 12, 2008 (73 FR 7816), and the green sturgeon on October 9,

SOURCE: Jackson County GIS 2012; DigitalGlobe aerial photograph, 5/2015; AES, 5/7/2019

Figure 3.5-4
Mill Casino Site Habitat Types



SOURCE: USFWS Critical Habitats for Jackson County; 2005,2010,2011,2013; "Coos Bay, OR"
USGS 100k Topographic Quadrangle, Williamette Baseline and Meridian; AES, 5/7/2019

Figure 3.5-5
Mill Casino Site Critical Habitats

2009 (74 FR 195). The Indian lands specifically excluded from this critical habitat are those defined in the Order, including: lands held in Trust by the U.S. for the benefit of any Indian Tribe; fee lands, either within or outside the reservation boundaries, owned by the tribal government; and fee lands within the reservation boundaries owned by individual Indians. Therefore, this critical habitat designation is not applicable to the Mill Casino Site because it is held in Trust by the U.S. for the benefit of the Coquille Tribe (70 FR 52536). The nearest critical habitat for the Pacific eulachon is the Umpqua River, located approximately 15 miles north of the Mill Casino Site.

State-Listed Species

Special status species that are formally listed by the state and/or recognized by state agencies or other local jurisdictions because of their rarity or vulnerability to habitat loss or population decline receive no specific protection on lands taken into trust by the federal government. A list of state-listed animals and an evaluation as to whether these species have the potential to occur within the Mill Casino Site is provided within **Appendix F**. Of the state-listed species in the area, only the California Brown Pelican has the potential to occur within the Mill Casino Site.

3.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the existing environmental conditions related to cultural and paleontological resources for the three alternative sites described in **Section 2.2**. The general and site-specific description of cultural resources contained herein provides the environmental baseline by which the direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

An online records search was conducted utilizing the Oregon State Historic Preservation Office Historic Sites Database and records of sites and surveys linked through the Archaeoview database for all three alternative sites; no known National Register of Historic Places (NRHP)-eligible cultural resources (**Appendix G**) were identified. An archaeological survey of the Medford Site was conducted on November 23 and 24, 2015. The purpose of these surveys was to identify and evaluate potential historic and prehistoric resources within the alternative sites. All cultural resources work was performed in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended through 2000), and its implementing regulations found at 36 CFR Part 800.

3.6.1 REGULATORY SETTING

The regulatory setting associated with cultural and paleontological is summarized in **Table 3.6-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.6-1
SUMMARY OF KEY REGULATIONS REGARDING CULTURAL AND PALEONTOLOGICAL RESOURCES

Regulation	Description
Section 106 of the National Register of Historic Places	▪ Federal agencies must identify cultural resources that may be affected by actions involving federal lands, funds, or permitting actions. ▪ Significance of the resources must be evaluated for National Register of Historic Places (NRHP) eligibility per criteria defined in 36 CFR § 60.4. ▪ If a NRHP-eligible resource will be adversely affected, measures to avoid or reduce adverse effects must be taken.

Regulation	Description
	▪ Native American tribes may assume the functions of the State Historic Preservation Officer for undertakings on tribal lands.
Archaeological Resources Protection Act of 1979	▪ Provides for the protection of archaeological resources and sites on public and Indian lands.
Antiquities Act of 1906	▪ Provides for the protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on lands owned or controlled by the United States government.
Native American Graves Protection and Repatriation Act	▪ Includes provisions governing the intentional and inadvertent discovery of Native American burials and cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.
Paleontological Resources Preservation Act	▪ Paleontological resources on federal lands are protected resources.

3.6.2 CULTURAL SETTING – MEDFORD SITE AND PHOENIX SITE

A summary of the prehistoric, ethnographic, and historic setting is included in **Appendix B**.

Records and Literature Search

Prior to the field effort, background research was conducted via the Oregon State Historic Preservation Office Archaeoview website in June 2015, and historical maps were examined. The 1855 General Land Office (GLO) Plat map for the Medford Site failed to show any development; however, an examination of Land Patent records on the Bureau of Land Management (BLM) website indicates that the Oregon and California Railroad held patents to the rail corridor by 1866. For the Phoenix Site, the 1855 GLO Plat Map included one structure; BLM Land Patent records indicate a number of homesteads allotted in the 1860s to the Arendell, Bish, Colver, Gore, and Bishop families as well as to the Oregon and California Railroad.

No previously identified archaeological sites or previously conducted surveys have been recorded within either the Medford Site or Phoenix Site, however two lithic scatters and a stone-lined well have been noted within 0.5 miles of the Medford Site and two irrigation-related resources have been recorded within 0.5 miles of the Phoenix Site. Six surveys have been conducted within 0.5 miles of the Medford Site.

Field Survey

On November 23 and 24, 2015, AES archaeologist Charlane Gross, MA, RPA conducted a pedestrian survey of the Medford Site, but only visually examined the Phoenix Site from the roadside as access to the site had not been granted. No artifacts, features, or historic properties were identified within either site (**Appendix G**).

The Medford Site is approximately 7.24 acres and consists of nine tax lots currently owned by the Coquille Indian Tribe and a portion of another tax lot (Tax Lot 37-1W-32C-4700) that is currently leased by the Coquille Indian Tribe. Current land uses within the Medford Site include the Roxy Ann Lanes bowling alley, a parking area for the Bear Creek Golf Course in the central portion of the site, a vacant lot formerly developed with a restaurant and homes in the northern portion of the site, and a vacant parking lot located on the north side of Charlotte Ann Road. The vacant lot south of Charlotte Ann Road presented the only area of unpaved ground that was accessible for archaeological survey. Roxy Ann Lanes is a bowling alley that originally opened in 1959. Named for Roxy Ann Bowen, an early settler, the

bowling alley was owned by Herschel and Virgie Dixon until they sold to Lela and John Larkin in 2004 (Larkin, 2015a). The bowling alley is centered on a large Quonset hut with added exterior walls and entry-ways. The bowling alley underwent extensive internal and external renovations, and the bowling-pin shaped sign at the edge of the road was also replaced (Larkin, 2015b). The bowling alley does not have connections to persons or events significant in history (NRHP Criteria A and B), the 2004 remodel eliminated or altered aspects that might have reflected important architectural design or style features (NRHP Criterion C), and a further remodel to accommodate gambling machines is unlikely to uncover information significant in history or prehistory (NRHP Criterion D).

The Phoenix Site consists of a 49.34-acre property located northeast of the City of Phoenix in Jackson County, Oregon. The site is not actively farmed, but has been used for cattle grazing. The site could be viewed from the roadside, but dense grasses and the lack of access prevented any archaeological survey. No evidence of structures or landscape modifications were observed from the road.

3.6.3 CULTURAL SETTING - MILL CASINO SITE

A summary of the prehistoric, ethnographic and historic setting is included in **Appendix B**.

Records and Literature Search

Prior to the field effort, background research was conducted via the Oregon State Historic Preservation Office Archaeoview website in June 2015, and historical maps were examined. The 1862 GLO Plat map for the Mill Casino Site failed to show any development, and an examination of Land Patent records on the BLM website likewise failed to indicate any individual ownership of the Mill Casino Site.

No previously identified archaeological sites or previously conducted surveys have been recorded within the Mill Casino Site; however, prehistoric fish weirs were identified on intertidal mudflats across Coos Bay from the casino, and a brief letter report documenting a lack of findings at the U.S. Government Moorings in Coos Bay, adjacent to the Mill Casino Site documented a small survey with no cultural resource findings.

3.6.4 NATIVE AMERICAN CONSULTATION

The BIA has consulted extensively with the Coquille Indian Tribe, the Applicant, and the Cow Creek Band of Umpqua Tribe of Indians. In accordance with Section 106 of the NHPA, consultation letters were sent by the BIA to the Cow Creek Band and the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians to request information on known cultural resources in the vicinity of the alternative sites. To date, no response has been received by the BIA.

3.6.5 PALEONTOLOGICAL RESOURCES

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints, or endocasts, and reside in sedimentary rock layers. Paleontological resources are considered important for their scientific and educational value. Fossil remains of vertebrates are considered significant. Invertebrate fossils are considered significant if they function as index fossils. Index fossils are those that appear in the fossil record for a relatively short and known period of time, allowing geologists to interpret the age range of the geological formations in which they are found. This section presents documentation on reported paleontological deposits on the Medford and Phoenix Sites and surrounding region. No paleontological resources have the potential to occur on the Mill Casino Site as it is located entirely on a man-made structure and engineered fill.

Site and Regional Geology

The geological characteristics of the Medford and Phoenix Sites are detailed in **Section 3.2**, Geology and Soils. The sites lie within the Bear Creek Basin that is situated within the larger Rogue River Basin. The channel of Bear Creek has meandered over time, moving progressively eastward. Regional soils are comprised of alluvial deposits placed during Bear Creek or Rogue River flood episodes. Older Pleistocene alluvial deposits left behind by flooding of Bear Creek or the Rogue River could preserve paleontological resources.

Database Search

An online records search of the University of California Museum of Paleontology (UCMP) revealed that Late Cretaceous marine invertebrates, Oligocene terrestrial plants, and Pleistocene mammal specimens have been found in Jackson County, including near Ashland and Applegate Creek. No additional information regarding the location was available.

Conclusions

The online records search revealed five paleontological resources within Jackson County; however, no evidence of paleontological resources were observed during the cultural resources field survey of the Medford Site and perimeter survey of the Phoenix Site. However, there is some potential for alluvial deposits at the Medford and Phoenix Sites to contain paleontological resources.

3.7 SOCIOECONOMIC CONDITIONS

This section describes the existing environmental conditions related to socioeconomic conditions for the three alternative sites described in **Section 2.2**. The general and site-specific description of socioeconomic conditions contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.7.1 REGULATORY SETTING

The regulatory setting associated with socioeconomics is summarized in **Table 3.7-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.7-1
SUMMARY OF KEY REGULATIONS REGARDING SOCIOECONOMICS

Regulation	Description
Executive Order (EO) 12898	▪ Disproportionately high impacts to minority or low-income populations should be considered. ▪ A minority population is defined as a census tract containing greater than 50% minorities, or a census tract with a meaningfully greater percentage of minorities than surrounding tracts. Minority races include American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), and Hispanic. ▪ A low-income population is defined as a census tract with a median household income lower than the poverty threshold.

3.7.2 SOCIOECONOMIC CHARACTERISTICS OF THE COQUILLE INDIAN TRIBE

The Coquille Indian Tribe has a total enrollment of 1,100 members. Approximately 477 members of the Tribe are under the age of 24; approximately 500 members are between the ages of 25 and 64; and approximately 77 members are age 65 or older (Coquille Tribe, 2019).

As described in **Section 1.3**, the unemployment rate for tribal members was estimated to be 16.1% in 2011, which is higher than the Oregon statewide average of 9.0% for the same year. Additionally, 42.5% of tribal households in 2011 had incomes of less than $34,000, which is greater than the estimated 35.3% of households statewide with incomes of less than $34,999 (Coquille Tribe, 2013a). The educational and economic development needs of the Coquille Indian Tribe are expected to grow as their population increases.

3.7.3 SOCIOECONOMIC CHARACTERISTICS OF JACKSON AND COOS COUNTIES

Population

Regional

In 2019, the population of Jackson County was 218,644 and the population of Coos County was 63,942. Jackson County's estimated adult (over 21) population was 165,640 in 2019, which represents approximately 76% of the entire population in that year. The estimated adult population in Coos County was 50,397 in 2019, which represents approximately 79% of the entire population in that year (GMA, 2019; **Appendix E**).

Population Trends

The population of Jackson County is expected to steadily increase over the next four years with annual increases estimated at 0.97 percent, resulting in a 2023 population of 228,364 (**Appendix E**, page 4). The population of Coos County is expected to steadily increase over the next four years with an annual growth rate of 0.46 percent, resulting in a 2019 population of 65,281 (**Appendix E**, page 4).

Housing

In 2000, total housing units in Jackson County numbered 75,797 while Coos County had substantially fewer total housing units, with only 29,247 (**Appendix E**, page 6). The number of housing units in Jackson County increased by approximately 24% (to approximately 93,704 total units) from 2000 to 2017, reflecting a substantial increase when compared to Coos County and Oregon in general. However, in September 2020 the Almeda Fire destroyed more than 2,600 homes in Jackson County between the cities of Ashlan, Talent, Phoenix, and Medford (JPR, 2021). The number of units in Coos County has remained relatively constant, increasing by 5.5% over the same time period to approximately 30,870 total units. Jackson County vacancy rates increased slightly from 2000 to 2010 and have consistently been lower than vacancy rates in both Coos County and Oregon as a whole. Coos County vacancy rates held steady from 2000 to 2010, and then increased significantly to 14.2% in 2014. Vacancy rates in Coos County have consistently been higher than vacancy rates in both Jackson County and the State of Oregon as a whole.

Housing Values

Appendix E describes median housing values for the State of Oregon, Jackson County, and Coos County from 2012 through June of 2019. Median housing values in both counties and the State of Oregon reached their lowest levels between 2011 and 2012. While housing values for Jackson County and the State of

Oregon have followed a similar trend, housing values in Coos County have achieved a noticeably slower recovery during this period.

The median housing value for Coos County was estimated at $193,081 in 2018, representing an increase of 8.0% from the previous year's median housing value. Additionally, housing values have rebounded by 44.9% from 2012, when housing values reached their lowest level. In comparison to Jackson County and the State of Oregon as a whole, the housing values in Coos County are considerably lower and have recovered at a much slower pace since the recession.

The median housing value for Jackson County was estimated at $294,670 in 2018, representing an increase of 5.9% from the previous year. Since then, housing value recovery in Jackson County has also outperformed both Coos County and the State of Oregon as a whole. A combination of strong growth in both housing values and housing units, coupled with relatively low vacancy rates, indicate that Jackson County has a healthy housing market overall.

Employment

In 2018, unemployment in the civilian labor force was 4.8% in Jackson County, 5.4% in Coos County, and 4.2% in the State of Oregon (**Appendix E**, page 8). Unemployment rates have declined substantially since the economic downturn. For example, 2010 unemployment rates in Jackson County, Coos County, and the State of Oregon were 12.5%, 12.7%, and 10.6% respectively.

Appendix E includes lists of the top employers for Coos County and Jackson County. Both workforces are employed in a similar composition of industries, with government, healthcare, and education-related fields combining for over 40% of the workforce in each county. Other significant industry sectors in both counties include hospitality/leisure, transportation, manufacturing, and retail.

Income

Appendix E summarizes the estimated and projected average annual household income (AAHI) for Jackson County, Coos County, and the State of Oregon in 2019 and 2023. Coos County AAHI is currently estimated at $57,209, and it is expected to grow somewhat significantly over the next four years at a projected growth rate of approximately 2%.

Jackson County AAHI is currently estimated at $66,461. Jackson County AAHI is expected to undergo significant growth over the next four years at a projected growth rate of approximately 2%.

Table 3.7-2 shows the property tax data for parcels proposed for trust acquisition on the Medford Site and the Phoenix Site. As shown therein, the assessed values of each site, and therefore the property tax due, diverge substantially due to the Medford Site's location within City of Medford limits as opposed to the Phoenix Site's location on unincorporated Jackson County land, as well as the tax break on land zoned for agriculture. Because the Mill Casino Site is currently tribal land, the land is not subject to property tax payments.

TABLE 3.7-2
MEDFORD AND PHOENIX SITE PROPERTY TAX INFORMATION[1]

Assessor's Parcel Number (APN)	Zoning	Acreage	Assessed Value	Property Taxes
Medford Site				
37-1W-32C-4701	C-R – Regional Commercial	2.42	$1,722,530	$25,189
		Total	**$1,** 722,530	**$25,189**
Phoenix Site				
38-1W-04-500	EFU – Exclusive Farm Use	42.90	$10,152[2]	$121
38-1W-09A-100	EFU – Exclusive Farm Use	3.07	$1,557[2]	$19
		Total	**$11,709**	**$140**

Notes: 1 - Values as of Assessment Year 2021. Values subject to change, per tax assessor records. 2 - Reflects Exclusive Farm Use special farm assessment tax break.
Source: Jackson County GIS, 2022.

Schools

The Medford area is served by Medford School District 549C, which encompasses 361 square miles and consists of 14 elementary schools, two middle schools, three high schools, and four charter schools (Medford School District, 2019). The closest schools to the Medford Site are Jefferson Elementary School 1.0 mile to the northwest, and Orchard Hill Elementary School 1.2 miles to the east.

The Phoenix-Talent School District consists of three elementary schools, one middle school, one high school, and one charter school (Phoenix-Talent Schools, 2019). The closest school to the Phoenix Site is Phoenix High School, located 0.9 miles to the southwest.

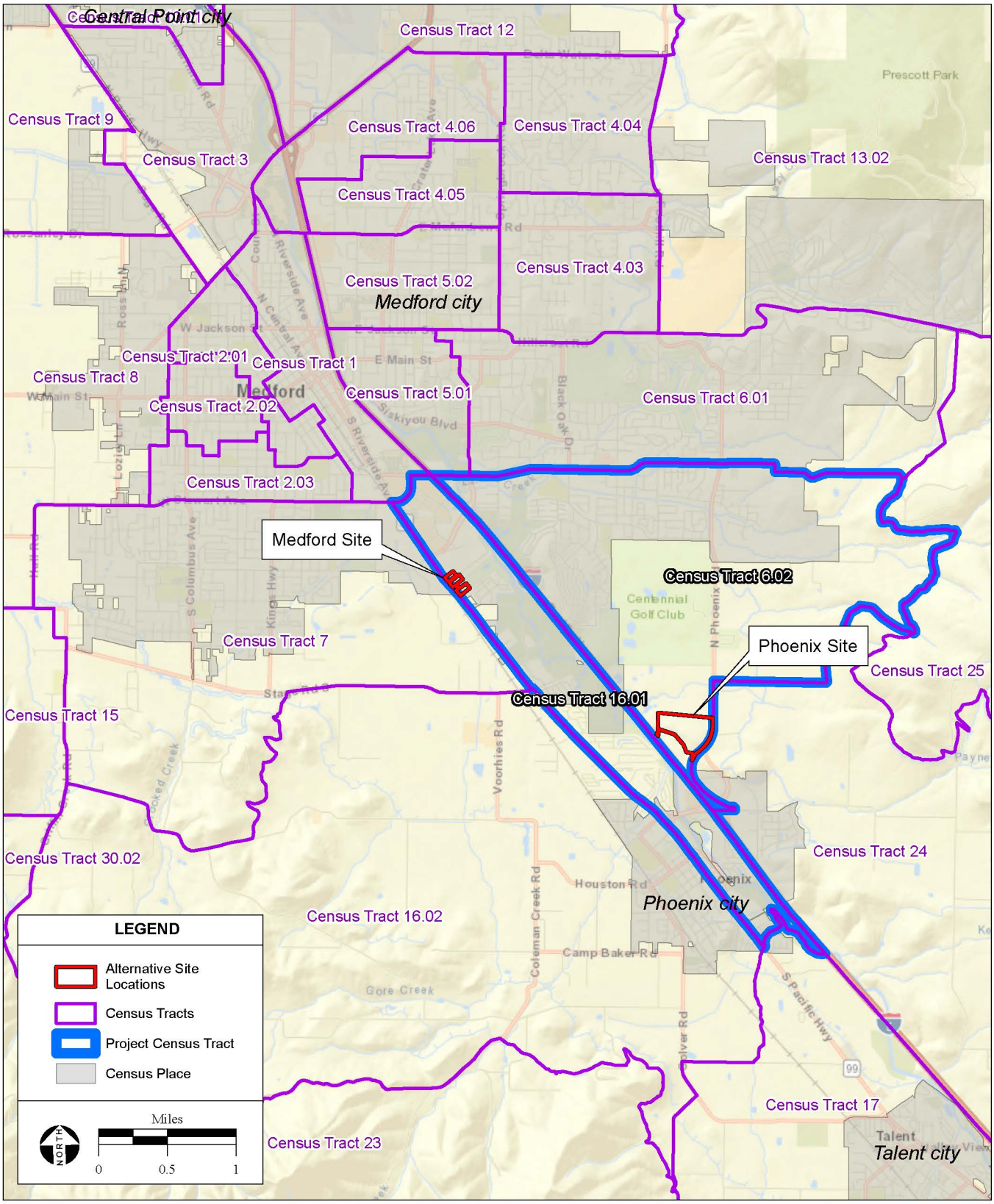
North Bend School District 13 consists of two elementary schools, one middle school, one high school, and one K–12 charter school (North Bend School District 13, n.d.). The closest public school to the Mill Casino is the Coos School, approximately 0.7 miles southwest. Cartwheels, a preschool, is located 0.3 miles northwest.

3.7.4 ENVIRONMENTAL JUSTICE

Affected Environment

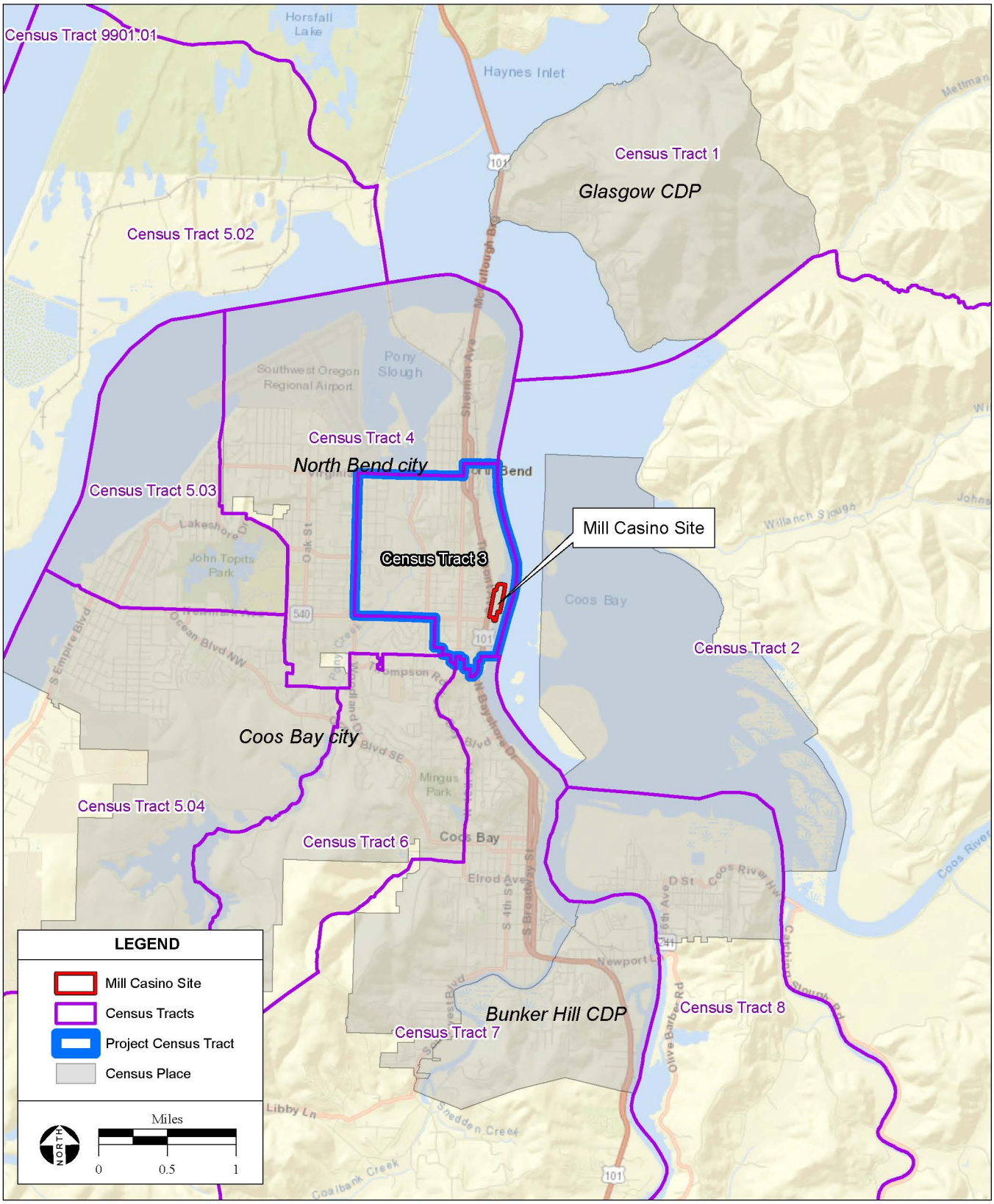
To determine whether a Proposed Action is likely to have disproportionately high and adverse effects on a population, agencies must identify a geographic scale for which they will obtain demographic information. Census tracts are a small, relatively permanent statistical subdivision of a county delineated by a local committee of census data users for the purpose of presenting data. Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Therefore, statistics of census tracts provide a more accurate representation of a community's racial and economic composition.

Census tracts that were analyzed include the Jackson County census tract 16.01 that contains the Medford Site, Jackson County census tract 6.02 that contains the Phoenix Site, and Coos County census tract 3 that contains the Mill Casino Site, as well as adjacent tracts (**Figure 3.7-1** and **Figure 3.7-2**).



SOURCE: US Census, 2010; AES, 7/3/2019

Figure 3.7-1
Census Tract Map - Phoenix and Medford Sites



SOURCE: US Census, 2010; AES, 5/7/2019

Figure 3.7-2
Census Tract Map - Mill Casino Site

Race

According to guidance from the CEQ (1997a) and USEPA (1998), the following races are considered minorities under EO 12898.

- American Indian or Alaskan Native
- Asian or Pacific Islander
- Black, not of Hispanic origin
- Hispanic
- Populations of two or more races and populations classified as "Other" were also considered to be minority races for the purpose of the environmental justice analysis.

The U.S. Census Bureau's American Community Survey five-year estimate data for 2010 through 2014 represents the most current racial data available by census tract. Since the data was reported, the racial composition of the census tracts is not believed to have changed substantially. **Table 3.7-3** displays the population of each minority race by Census tract in the vicinity of the sites.

As shown in **Table 3.7-3**, each of the Census tracts in the vicinity of the Medford, Phoenix, and Mill Casino Sites are characterized by a minority population below 40% of the overall population. The minority population in the project area is below the 50% threshold; as such, no minority communities have been identified in the vicinity of any of the alternative sites. However, the project itself would directly impact members of the Coquille Indian Tribe; therefore, though analysis of Census tract demographics as a whole does not reflect existence of a minority community, to ensure a conservative analysis, the Coquille Indian Tribe is considered to be a minority community that would be impacted by the Proposed Action. Additionally, as discussed in **Section 4.7**, there are three tribal gaming facilities that would have a substitution effect of over 10%; therefore, Cow Creek Band of Umpqua Indians; Karuk Tribe; and the Klamath, Modoc and Yahooskin Tribes are also considered to be a minority community that could be impacted by the Proposed Action.

Income

The U.S. Census Bureau's American Community Survey five-year estimate data for 2009 through 2013 represents the most current household income data available by census tract. The use of older income data is expected to result in a conservative estimate of income, given that income levels tend to rise over the years due to inflation. **Table 3.7-4** displays the median household income and poverty income limit for each identified census tract. A low-income community is defined as a census tract where the median household income falls below the poverty limit.

As shown in **Table 3.7-4**, the median household income of each census tract surveyed in the vicinity of the alternative sites was greater than the poverty threshold, except for Jackson 1. The poverty threshold for each census tract was determined from the average household size of the census tract (U.S. Census Bureau, 2009). The poverty threshold assumes average household size is conservatively rounded up to the nearest person. Jackson 1 has a median household income less than the determined poverty threshold and is therefore identified as a low-income community in the vicinity of the Medford and Phoenix Sites.

3.8 TRANSPORTATION AND CIRCULATION

This section describes the existing regulatory and environmental conditions related to transportation and circulation for the three alternative sites described in **Section 2.2**. The general and site-specific description of transportation and circulation contained herein provides the environmental baseline by which the direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

TABLE 3.7-3
MINORITY POPULATION – ALTERNATIVE SITES AND NEARBY CENSUS TRACTS

Area (State, County, Census Tract)	Total Population	White (alone)	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino (of any race)	Total Minority Population	Percent Minority
Oregon	3,900,343	3,027,597	67,305	37,669	149,886	13,942	6,134	124,051	473,729	872,716	22.4%
Jackson County	206,583	171,054	1,291	1,200	2,011	611	143	6,667	23,606	35,529	17.2%
Coos County	62,678	54,022	315	1,774	744	82	170	1,985	3,586	8,656	13.8%
City of Medford	76,648	61,175	665	358	1,000	444	96	2,668	10,242	15,473	20.2%
City of Phoenix	4,465	3,610	19	28	13	17	0	345	433	855	19.2%
City of North Bend	9,591	8,033	28	219	113	9	114	456	619	1,558	16.2%
Medford Site[1] – Nearby Census Tracts											
Jackson 1	2,148	1,309	55	34	15	0	0	29	706	839	39.1%
Jackson 5.01	2,840	2,392	0	27	0	0	0	42	379	448	15.8%
Jackson 6.02	5,469	4,977	0	0	154	0	0	69	269	492	9.0%
Jackson 7	9,266	7,146	101	60	107	0	12	589	1,251	2,120	22.9%
Jackson 16.01	3,750	2,837	11	30	0	0	0	58	814	913	24.4%
Jackson 16.02	6,955	4,973	23	0	4	17	0	344	1,594	1,982	28.5%
Jackson 17	7,341	6,197	1	117	64	0	0	257	705	1,144	15.6%
Jackson 24	2,029	1,643	0	12	17	0	0	121	236	386	19.0%
Phoenix Site[1]– Nearby Census Tracts											
Jackson 1	2,148	1,309	55	34	15	0	0	29	706	839	39.1%
Jackson 5.01	2,840	2,392	0	27	0	0	0	42	379	448	15.8%
Jackson 6.01	6,789	6,202	0	60	42	0	0	184	301	587	8.7%
Jackson 6.02	5,469	4,977	0	0	154	0	0	69	269	492	9.0%
Jackson 16.01	3,750	2,837	11	30	0	0	0	58	814	913	24.4%
Jackson 24	7,341	6,197	1	117	64	0	0	257	705	1,144	15.6%
Jackson 25	2,628	2,379	16	59	45	38	0	48	43	249	9.5%
Mill Casino Site – Nearby Census Tracts											
Coos 2	2,788	2,495	10	101	0	0	0	131	51	293	10.5%

Area (State, County, Census Tract)	Total Population	White (alone)	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Other Race	Two or More Races	Hispanic or Latino (of any race)	Total Minority Population	Percent Minority
Coos 3	3,125	2,553	9	14	49	9	114	118	259	572	18.3%
Coos 4	6,558	5,560	19	205	76	0	0	338	360	998	15.2%
Coos 6	2,669	2,294	72	53	28	0	0	115	107	375	14.1%
Coos 7	6,234	5,241	0	125	162	0	0	240	466	993	15.9%

Notes:
1 - Due to the proximity of the Medford and Phoenix Sites, some census tracts are listed twice.
Source: U.S. Census Bureau, 2013.

TABLE 3.7-4
HOUSEHOLD INCOME – ALTERNATIVE SITES AND NEARBY CENSUS TRACTS

Geographic Area	Median Household Income	Average Household Size	Poverty Threshold[1]
Oregon	$50,229	2.49	$19,530
Jackson County	$44,055	2.42	$19,530
Coos County	$37,940	2.36	$19,530
City of Medford	$41,513	2.47	$19,530
City of Phoenix	$37,558	2.10	$19,530
City of North Bend	$42,379	2.50	$19,530
Medford Site[2] – Nearby Census Tracts			
Jackson 1	$17,201	2.27	$19,530
Jackson 5.01	$34,951	2.16	$19,530
Jackson 6.02	$40,751	1.96	$15,510
Jackson 7	$53,895	2.73	$19,530
Jackson 16.01	$27,175	2.12	$19,530
Jackson 16.02	$43,566	2.42	$19,530
Jackson 17	$32,937	2.16	$19,530
Jackson 24	$54,077	2.32	$19,530
Phoenix Site[2] – Nearby Census Tracts			
Jackson 1	$17,201	2.27	$19,530
Jackson 5.01	$34,951	2.16	$19,530
Jackson 6.01	$68,537	2.46	$19,530
Jackson 6.02	$40,751	1.96	$15,510
Jackson 16.01	$27,175	2.12	$19,530
Jackson 24	$54,077	2.32	$19,530
Jackson 25	$61,354	2.45	$19,530
Mill Casino Site – Nearby Census Tracts			
Coos 2	$44,063	2.47	$19,530
Coos 3	$41,776	2.43	$19,530
Coos 4	$43,374	2.53	$19,530
Coos 6	$49,286	2.34	$19,530
Coos 7	$36,159	2.27	$19,530

Notes: [1]Calculated by AES, using Average Household Size figures listed in table, and U.S. Department of Health and Human Services (HHS) poverty threshold figures. [2]Due to the proximity of the Medford and Phoenix Sites, some census tracts are listed twice.
Source: U.S. Census Bureau, 2013; HHS, 2013.

3.8.1 REGULATORY SETTING

Intersection Performance Standards

Traffic congestion is generally measured in terms of level of service (LOS) or volume-to-capacity ratios (v/c). The LOS at intersections is measured in terms of average delay per vehicle per hour in seconds. These delays translate directly into LOS categories which range from A through F, with LOS A being free

flow (most desirable) and LOS F being forced flow or over-capacity conditions (least desirable). Table 6 in **Appendix H**, lists LOS criteria, as defined by the Transportation Research Board's Highway Capacity Manual (HCM), for both signalized and unsignalized intersections. V/C is the ratio describing the capability of an intersection to meet traffic demand based upon the maximum number of vehicles capable of being served in an hour; the higher the v/c, the more congested the facility.

The study intersections for the Medford Site and Phoenix Site are within the jurisdiction of ODOT, the City of Medford, and/or Jackson County. Performance standards, also known as Mobility Targets, for these agencies vary depending on roadway classification (highway, arterial, etc.) and control type (signals or stop signs). For simplicity, all study intersections for the Medford Site and Phoenix Site and their relevant LOS and/or v/c standards are listed in Table 7 of **Appendix H**. Intersections of State highways and local streets have separate standards, which may be divided according to the approach and movement of vehicles through unsignalized intersections. Any intersections exceeding the LOS or v/c ratio standard would require mitigation.

ODOT Division 51

Oregon Administrative Rule 734-051, commonly known as Division 51, "…establishes procedures, standards, and approval criteria used by the department [of transportation] to govern approach permitting and access management consistent with Oregon Revised Statutes (ORS), statewide planning goals, acknowledged comprehensive plans, and the Oregon Highway Plan (OHP)."

Where a redevelopment project increases the peak hour trip generation by 50 trips or more from the properties prior use and the increase represents a 20% or greater increase in the number of peak hour trips of the prior use, then a new application is required for each access permit. When existing driveways do not meet the spacing or other access criteria, and a new permit is required and it is not feasible to meet the criteria, then ODOT and the applicant, through a collaborative process, determine if the application "moves in the direction" of conforming. In determining whether an application for a private approach to a state highway moves in the direction of conformity with the spacing, channelization, and sight distance standards of Division 51, ODOT should consider all connections on the subject site.

Medford Site

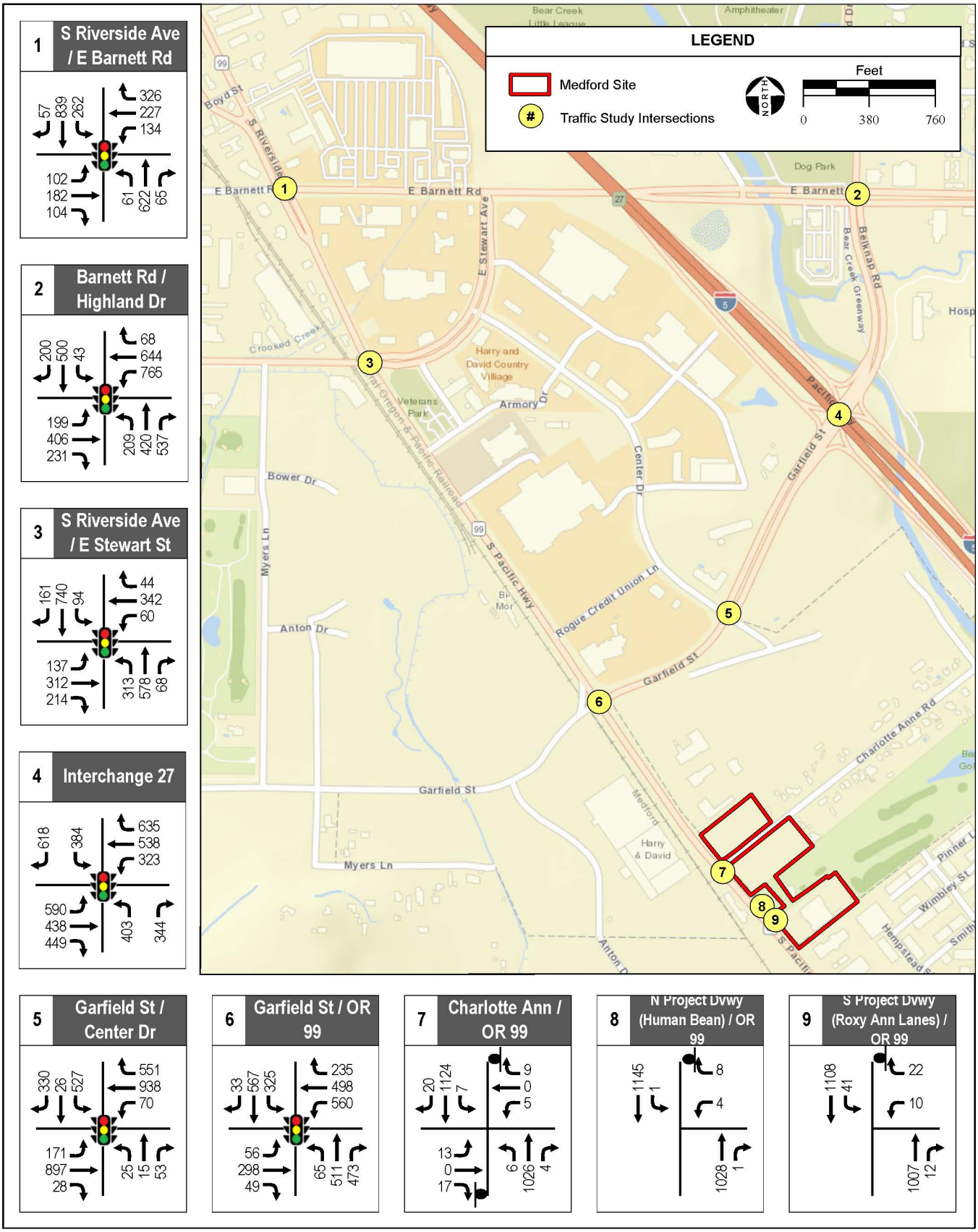
The two project driveways directly connecting to Oregon State Highway 99 (OR 99, also South Pacific Highway and South Riverside Avenue) must meet the standards set in Division 51. OR 99 adjacent to the Medford has a "District" highway designation in an urban area, which set the speed limit at 45 miles per hour (mph). According to the 1999 OHP, the minimum spacing requirement between driveways is 400 feet, and the minimum distance between a driveway and a public road is 475 feet. The two existing site driveways providing access to OR 99 do not meet these standards.

Phoenix Site

The Phoenix Site is not on a State Highway and therefore is not required to meet ODOT access spacing requirements.

3.8.2 EXISTING CIRCULATION NETWORK - MEDFORD SITE

The Medford Site is located within the City of Medford in Jackson County, Oregon. The Medford Site is bordered by OR 99 to the west and Charlotte Ann Road to the north. The geometry and control of study intersections located in the vicinity of the Medford Site are shown on **Figure 3.8-1**. The major roadways located in the vicinity of the Medford Site are described in **Appendix B**.



SOURCE: ESRI/Delorme Street Maps, 2016; AES, 9/10/2019

Figure 3.8-1

Transportation Network and Study Intersections - Medford Site

Study Intersections

In order to guide the scope of traffic analyses within their respective jurisdictions, ODOT and the City of Medford have established trip thresholds to identify what intersections should be included in a traffic analysis for a proposed project. If the number of trips added to an intersection as a result of a project exceeds the threshold, then the level of impact to that intersection must be studied further. The threshold set by ODOT for analyzing an intersection is an increase in peak-hour trips of at least 50 for State intersections, while the City of Medford's threshold is an increase in peak-hour trips of at least 25 for City of Medford intersections.

The Traffic Impact Analysis (TIA) prepared by David Evans and Associates, Inc. (**Appendix H**) used these thresholds to identify the following nine study intersections for the Medford Site.

1. Riverside Avenue (OR 99) at Barnett Road
2. Highland Drive at Barnett Road
3. Riverside Avenue (OR 99) at Stewart Avenue
4. I-5 Exit 27 Interchange
5. Center Drive at Garfield Street
6. S. Pacific Highway (OR 99) at Garfield Street
7. S. Pacific Highway (OR 99) at Charlotte Ann Road
8. S. Pacific Highway (OR 99) at Human Bean (North Site Driveway)
9. S. Pacific Highway (OR 99) at Roxy Ann Lanes (South Site Driveway)

Traffic Volumes

A TIA was conducted to assess traffic counts, existing roadway geometry, and existing development conditions in the vicinity of the Medford Site. The results serve as a baseline from which the 2019-, 2022-, and 2042-year traffic volume projections are derived (**Section 4.8**). Traffic counts were collected in July 2019. Additionally, a seasonal adjustment (of 1.02) was calculated and applied to traffic volumes on OR 99 and I-5 Ramp Terminals. Figure 2 in the TIA shows traffic volumes at existing intersections for the Medford Site (**Appendix H**). Existing PM peak-hour LOS and v/c ratios for the Medford Site study intersections are listed in Table 8 and Table 9 of **Appendix H**.

Transit Services

Bus transit is provided to the Medford Site by the Rogue Valley Transportation District (RVTD) via Route 10. This route begins at the RVTD Front Street Station and ends at the Bi-Mart Station in the City of Ashland before returning to the City of Medford. This route makes stops at Charlotte Ann Road five days a week. Buses run Route 10 twice each hour. During a weekday, Route 10 is run 42 times. In 2008, Route 10 had an average weekday ridership of 1,760, or an average of 41.9 riders per bus trip (RVTD, 2008). In 2007, the RVTD fleet consisted mainly of 35-foot buses which have a capacity of approximately 32 seated and 33 standing riders, for a total capacity of 65 riders (RVTD, 2007; New Flyer, 2015).

Bike and Pedestrian Facilities

Bike and pedestrian facilities are limited immediately adjacent to the Medford Site with sidewalks along portions of OR 99 in the vicinity of the Medford Site and no sidewalks or bicycle paths along Charlotte Ann Road. Bicycle lanes are provided on OR 99 north of Charlotte Ann Road and along Garfield Street.

3.8.3 EXISTING CIRCULATION NETWORK - PHOENIX SITE

The Phoenix Site is located within Jackson County, Oregon immediately adjacent to the City of Phoenix. The Phoenix Site is bordered by I-5 to the southwest and North Phoenix Road to the east. The geometry and control of study intersections located in the vicinity of the Phoenix Site are shown in **Figure 3.8-2**. The major roadways located in the vicinity of the Phoenix Site are described in **Appendix B**.

Study Intersections

The TIA (**Appendix H**) used ODOT thresholds to identify the following six study intersections were identified for the Phoenix Site. N Phoenix Road at Cherry Lane

1. N Phoenix Road at E. Barnett Road
2. N Phoenix Road at Juanipero Way
3. N Phoenix Road at Site Driveway
4. Fern Valley Road at I-5 Ramp Northbound
5. Fern Valley Road at I-5 Ramp Southbound

Traffic Volumes

A TIA was conducted by David Evans and Associates, Inc. (**Appendix H**) to assess traffic counts, existing roadway geometry, and existing development conditions in the vicinity of the Phoenix Site. The results serve as a baseline from which the 2019-, 2022-, and 2042-year traffic volume projections are derived (**Section 4.8**).

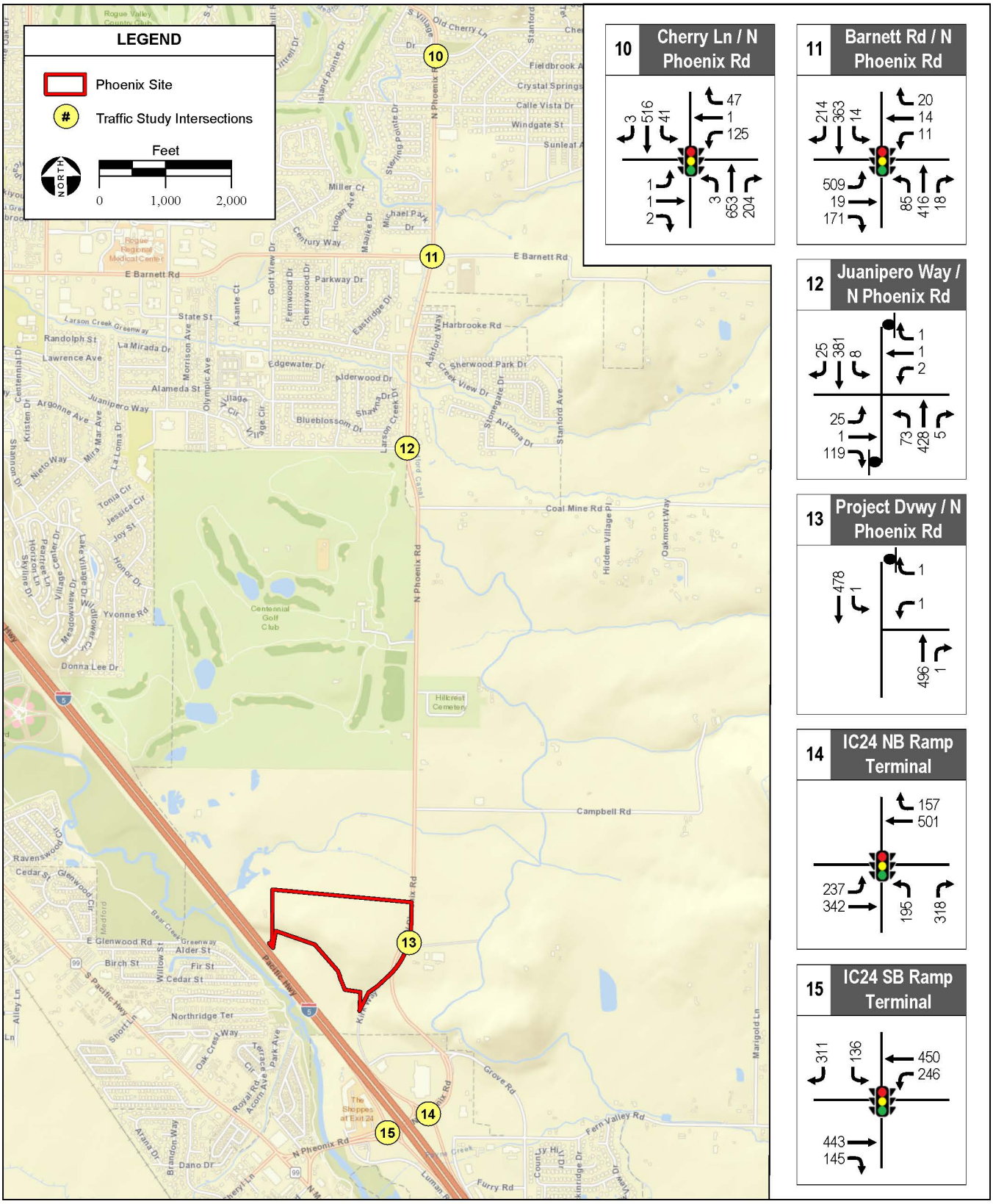
Traffic counts were collected in July 2019. Figure 3 in the TIA shows the existing traffic volumes (**Appendix H**). The Phoenix Site is currently used for cattle grazing, therefore, there are virtually no background trips from the site (**Appendix H**). Existing PM peak-hour LOS and v/c ratios for the Phoenix Site study intersections are shown in Table 13 and Table 14 of **Appendix H**.

Transit Services

Bus transit is provided nearest to the Phoenix Site by the RVTD via Route 10 with stops along OR 99 (approximately 0.5 miles from the Phoenix Site). This route begins at the RVTD Front Street Station and ends at the Bi-Mart in the City of Ashland before returning to the City of Medford. This route makes stops at OR 99 and Rose Street at the Umpqua Bank in the vicinity of the Phoenix Site Monday through Friday. Buses pass by each stop every 30 minutes from 5 a.m. to 9 p.m. In total, Route 10 is run 42 times during the weekday. In 2008, Route 10 had an average weekday ridership of 1,760, or an average of 41.9 riders per bus (RVTD, 2008). In 2007, the RVTD fleet consisted mainly of 35-foot buses which have a capacity of approximately 32 seated and 33 standing riders, for a total capacity of 65 riders (RVTD, 2007; New Flyer, 2015).

Bike and Pedestrian Facilities

Bike and pedestrian facilities are limited immediately adjacent to the Phoenix Site with no sidewalks or paved trails along I-5 or North Phoenix Road. Sidewalks exist along Grove Road southeast of the Phoenix Site, and bicycles are accommodated along North Phoenix Road via a paved shoulder.



SOURCE: ESRI/Delorme Street Maps, 2016; AES, 9/10/2019

Figure 3.8-2

Transportation Network and Study Intersections - Phoenix Site

3.8.4 EXISTING CIRCULATION NETWORK - MILL CASINO SITE

The Mill Casino Site is located within the City of North Bend in Coos County, Oregon. The Mill Casino Site is bordered by U.S. Route 101 (US-101) to the west. As described above, the additional 28 peak-hour trips from operation of Alternative C would not exceed the threshold of 50 peak-hour trips at any intersection; therefore, no study intersections were identified for the Mill Casino Site.

Transit Services

Bus transit is provided to the Mill Casino Site by the Coos County Area Transit (C-CAT) via the Bay Area East Loop Service. Currently, C-CAT operates the only bus line to and from the Mill Casino Site. The East Loop route begins at the intersection of 9th Street and Anderson Avenue in the City of Coos Bay and continues through to the City of North Bend before returning to Coos Bay. This route makes stops at the Mill Casino five days per week. Buses run every hour, with eight runs per day between 8:30 a.m. and 6 p.m. As of June 2011, the East and West Loops share an average weekday ridership of 115 riders, or an average of 14.4 riders per bus (C-CAT, 2011). The C-CAT fleet consists of 25- to 35-foot-long buses (cutaway vans) that have a capacity of approximately 22 to 30 seated riders (FTA, 2015).

Bike and Pedestrian Facilities

Pedestrian facilities are available immediately adjacent to the Mill Casino Site with sidewalks along the western portion of US-101. Bicycles are accommodated intermittently along US-101 via a paved shoulder, with full bike lanes planned for development according to the North Bend Transportation System Plan (DKS Associates, 2004).

3.9 LAND USE

This section describes the existing environmental conditions related to land use for the three alternative sites described in **Section 2.2**. The general and site-specific descriptions of land uses contained herein provide the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.9.1 REGULATORY SETTING

Once the federal government acquires the land in trust for the Tribe, the property would not be subject to state or local land use regulations. Only Tribal land use regulations are applicable on trust lands. However, the Tribal Government desires to work cooperatively with local and state authorities on matters related to land use. The regulatory setting associated with land use is summarized in **Table 3.9-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.9-1
SUMMARY OF KEY REGULATIONS REGARDING LAND USE

Regulation	Description
Coastal Zone Management Act	▪ Provides for the management of resources along the U.S. coast. ▪ Requires federal activities, including development projects directly affecting the coastal zone of states with approved management programs, be fully consistent with such programs unless compliance is prohibited due to the requirements of existing law applicable to the fundamental operations of an agency.

Regulation	Description
Farmland Protection Policy Act	▪ Requires impacts that federal programs have on the conversion of farmland be minimized. ▪ The NRCS identifies significant farmland for preservation.
Oregon Statewide Planning Goals and Guidelines	▪ Provides basic planning direction and establish the framework for planning programs of all governmental agencies and bodies in the state
City of Medford Comprehensive Plan	▪ Sets forth the goals and policies to establish a framework upon which to base decisions and actions related to the use of land. ▪ Includes maps that graphically represents the present and future land use patterns within the City of Medford, and the future patterns within the Urban Growth Boundary, which consists of land within the city as well as selected land surrounding the city that is committed to and/or planned for future city growth that is likely to require the extension of urban services.
Official City of Medford Land Development Code	▪ Regulates the use of land, buildings, or other structures for residences, commerce, industry, and other uses required by the community. ▪ Regulates the location, height, and size of buildings, structures, yards, courts, and open spaces as well as the amount of building coverage permitted and population density in each zone.
Jackson County Comprehensive Plan	▪ Sets forth general land use planning policies and allocates land uses into resource, residential, commercial, and industrial categories. ▪ Addresses each of the 14 applicable Statewide Planning Goals, as well as local goals, and contains policies and implementation strategies aimed at compliance with these goals.
Greater Bear Creek Valley Regional Problem Solving (RPS) Plan	▪ Establishes urban reserve areas for the cities of Central Point, Eagle Point, Medford, Phoenix, and Talent to accommodate planned residential, commercial, and industrial growth.

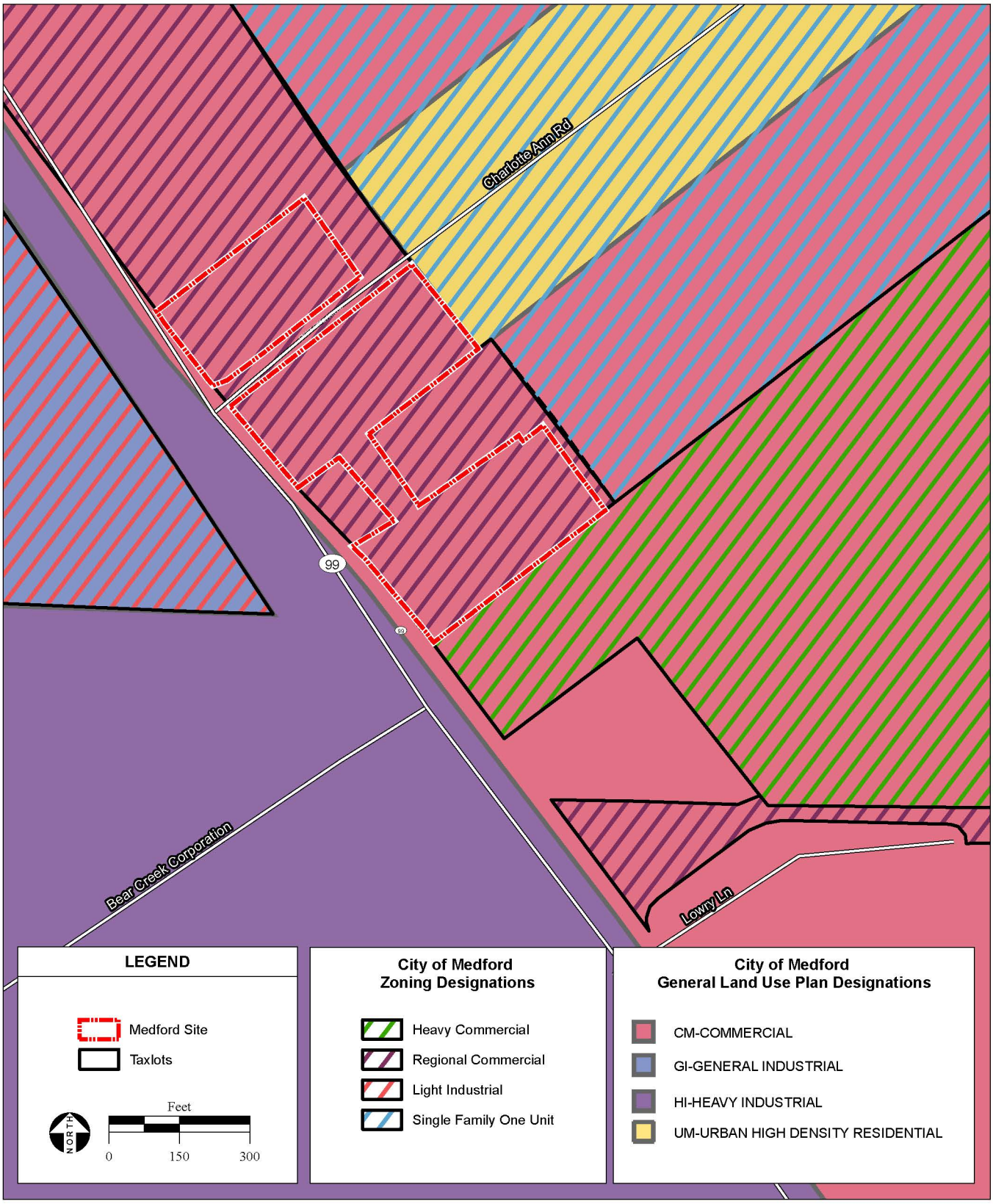
3.9.2 MEDFORD SITE ENVIRONMENTAL SETTING

Regional and Local Land Use Setting

The Medford Site is located on incorporated land within the City of Medford that is owned in fee by the Tribe. The site incorporates nine tax lots currently owned by the Tribe and a portion of another tax lot that is currently leased by the Tribe to the north and south of Charlotte Ann Road, near the intersection of Charlotte Ann Road and OR 99 (**Figure 2-3**).

The City is located adjacent to three major transportation corridors: I-5, OR 99, and the Oregon and California Railroad. OR 99 borders the Medford Site to the southwest, and the Oregon and California Railroad runs parallel to the southern edge of OR 99. I-5 is located approximately 0.4 miles northeast of the Medford Site and borders the adjacent Bear Creek Golf Course.

Current land uses within the Medford Site include a bowling alley, a parking area for the Bear Creek Golf Course in the central portion of the site, a vacant lot formerly developed with a restaurant and homes on the south side of Charlotte Ann Road, and an existing parking lot on the north side of Charlotte Ann Road. The majority of land uses to the north, west, and south of the Medford Site consist of commercial, residential, recreational, and industrial uses. The adjacent parcels to the northwest, northeast, southeast and east consist of commercial and residential uses (**Figure 3.9-1**), including the recently approved Compass Hotel (also known as the Hotel and the Cedars) that is expected to be completed in spring 2022. Just southeast of this commercial area is a large recreation area that includes a golf course, a nature



SOURCE: City of Medford, Development Services, 2016; Jackson County GIS 2012; AES, 7/3/2019

Figure 3.9-1
Land Use and Zoning - Medford Site

center, a greenway, nature trail, and a sports park. A single-family residential subdivision is located to the north while the Bear Creek Golf Course is located immediately adjacent to the northeastern boundary of the Medford Site. The land uses to the west, southwest, and south of the Medford Site located on the opposite side of OR 99 and the Oregon and California Railroad are designated as general and heavy industrial uses and contain the retail space and offices of an international fruit distribution company. The Rogue Valley International-Medford Airport (RVIMA) is located approximately 4 miles to the north.

Agriculture

The USDA performs a state-by-state census of agriculture every five years. The National Agriculture Statistical Service (NASS) collects census data from a list of all known potential agriculture operators. The census reports on various statistics relating to crop yields, farm acreage, and farm economics. In 2017, 170,298 acres (or about 12%) of the approximately 1,793,000 total acres in Jackson County were used for farming purposes on 2,136 farms, and the market value of crop and livestock sales in Jackson County was $71,048,000 (USDA, 2017).

As discussed in **Section 3.2**, the Medford Site contains prime farmland. However, the Medford Site is already developed, is located in an urban area, and does not contain any farming operations or infrastructure that would support land cultivation.

3.9.3 PHOENIX SITE ENVIRONMENTAL SETTING

Regional and Local Land Use Setting

The Phoenix Site is located off North Phoenix Road and within view of the I-5 corridor. Although the Phoenix Site is currently zoned exclusively for farm use (**Figure 3.9-2**), it is located within the PH-5 URA that is proposed for residential and employment development in the Greater Bear Creek Valley RPS Plan.

The City of Phoenix is located less than 5 miles southeast of Medford on I-5 in south-central Jackson County, within a quarter mile of urban development. Like Medford, Phoenix is adjacent to I-5, OR 99, and the Oregon and California Railroad. I-5 runs adjacent to the Phoenix Site on the southwestern corner. The site is currently undeveloped.

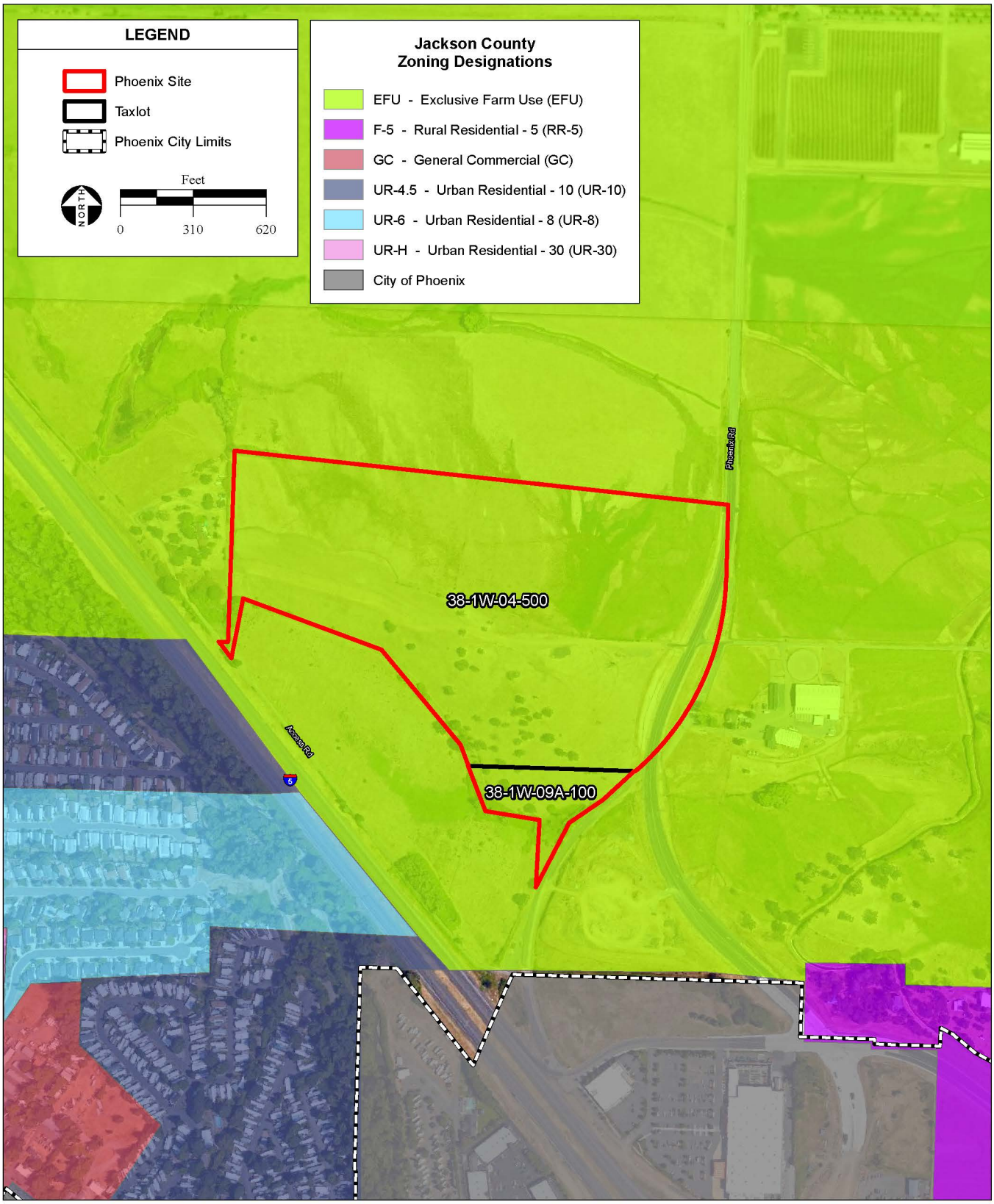
Agriculture

There are no farming operations on the site or infrastructure that would support land cultivation. As described in **Section 3.5**, habitat types in the Phoenix Site consist of pasture land, wetlands, mixed oak savanna, and ruderal/developed areas. A habitat map of the Phoenix Site is depicted on **Figure 3.5-3**. As shown in **Figure 3.9-3**, 1.6 acres of the Phoenix Site near North Phoenix Road qualify as farmland of statewide importance, 20.0 acres are located primarily in the northern portion of the site and qualify as prime farmland, and the remainder of the site (24.7 acres in the southeastern half of the site) is not prime farmland (NRCS, 2019b). The Phoenix Site has an FCIR site assessment score of 49 (out of 260 possible points) (**Appendix I**).

3.9.4 MILL CASINO SITE ENVIRONMENTAL SETTING

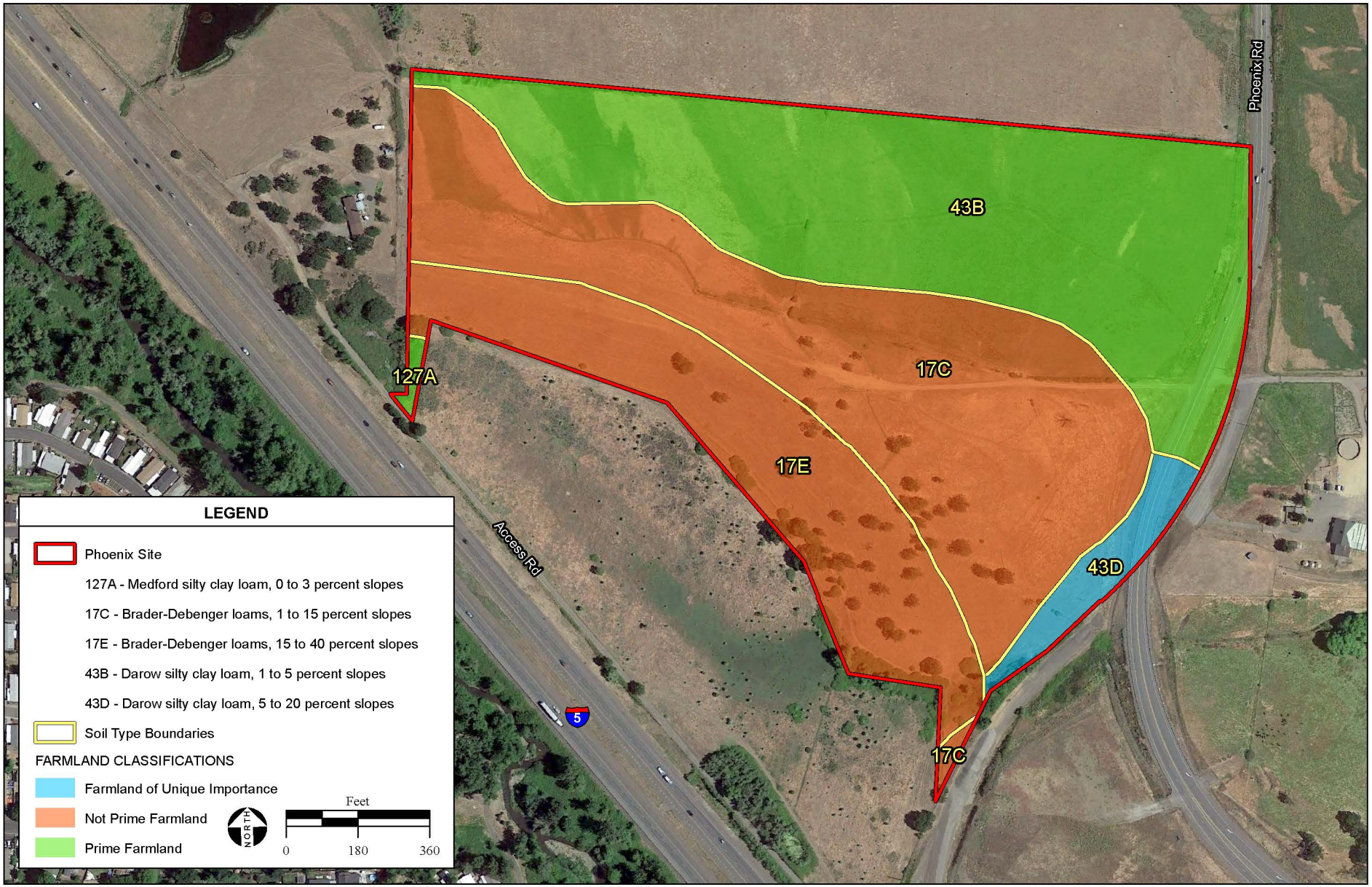
Regional and Local Land Use Setting

The Mill Casino Site consists of a 10.95-acre parcel of land (Tax Lot 25S13W15) currently held in federal trust for the Tribe at 3201 Tremont Street (**Figure 3.9-4**). The majority of land uses on the east side of Tremont Avenue are industrial while the west side of Tremont Street has a mix of land uses, including



SOURCE: Jackson County Zoning, 2010; Jackson County GIS, 2014;
DigitalGlobe aerial photograph, 2016; AES, 5/7/2019

Figure 3.9-2
Phoenix Site Zoning



SOURCE: USDA Web Soil Survey of Jackson County, Oregon, 2014; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 3.9-3
Phoenix Site Farmland Classifications

SOURCE: Coos County GIS 5/2015;Microsoft aerial photograph, 6/28/2010; AES, 8/8/2019

Figure 3.9-4
Zoning - Mill Casino Site

commercial and residential. The Southwest Oregon Regional Airport (SORA) is located approximately 2 miles northwest of the Mill Casino.

Figure 3.9-4 shows the City of North Bend zoning designations for the area that includes the Mill Casino. As shown in **Figure 3.9-4**, the City of North Bend classifies the site, within an urban renewal district, as industrial. This area is also part of a shoreline overlay in the Coos Bay Estuary Management Plan, and the southern part of the Mill Casino parcel is in a special flood hazard area.

Agriculture

There are no farming operations on the Mill Casino Site nor infrastructure that would support land cultivation.

3.10 PUBLIC SERVICES

This section describes the existing environmental conditions relating to public services for the three alternative sites described in **Section 2.2**. The general and site-specific descriptions of public services contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.10.1 WATER SUPPLY

Medford Site

The Medford Site is currently served by the MWC. A description of the MWC is provided within the Water and Wastewater Feasibility Study (Kennedy and Jenks, 2016), which is included as **Appendix D** and summarized below.

The MWC provides both groundwater and surface water to supply the City of Medford, as well as several nearby municipalities and water districts. The primary groundwater source for MWC is Big Butte Springs, which is located 30 miles northeast of Medford. The springs produce high quality groundwater requiring only disinfection to meet drinking water quality standards. Currently, Big Butte Springs is capable of supplying the average daily water demand for the entire MWC customer base through the months of November through April with a year-round capacity of 26.4 MGD (**Appendix D**). During the drier summer months of May through October and when irrigation needs and water demand are greatest, the average daily demand is met with supplemental surface water taken from the Rogue River by the Duff Water Treatment Plant (WTP), which is located 3 miles north of the city limit and has a capacity of 45 MGD. Both Big Butte Springs and the Duff WTP have consistently met water quality standards with respect to inorganic, biological, and radiological contaminants as well as disinfection byproducts and lead and copper within the distribution system and customer taps.

The current and projected potable water demand of the MWC as presented in the 2007 MWC Water Distribution Facility Plan (2007 MWC Facility Plan) are summarized below in Table 5-2 of **Appendix D**. The 2007 MWC Facility Plan provides a 20-year capital improvement plan for the MWC to address current and future needs as well as projections to the year 2056. The 2007 MWC Facility Plan relies on growth projections from local planning agencies. Given that the maximum month and maximum day demands will both exceed capacity at some point prior to 2026, additional capacity will need to be constructed at the Duff WTP as water rights and transmission limitations at Big Butte Springs will prevent future expansion for additional capacity. The Duff WTP is currently undergoing a multiphase expansion that will result in a treatment capacity of 65 MGD (**Appendix D**).

The Medford Site is currently served by a 2-inch diameter service connection and meter tapped to a 16-inch water main located along OR 99. This connection is capable of continuously supplying 80 gallons per minute (GPM), or approximately 115,000 gallons per day (GPD). The current average daily potable water demand for the Roxy Ann Lanes bowling alley is estimated to be 1,500 GPD, and the current irrigation water demand at the Roxy Ann Lanes bowling alley is estimated at 300 GPD (**Appendix D**).

Phoenix Site

The City of Phoenix purchases water from the MWC for distribution to properties within the urban growth boundary (UGB) of Phoenix. Information regarding the MWC water supply and capacity is provided above. It should be noted that the Board of Water Commissioners of the City of Medford passed a resolution prohibiting the extension of facilities owned by municipalities and water districts supplied by the MWC into areas outside the UGB. Therefore, the projected demands included within Table 5-2 of **Appendix D** do not include demands outside the UGB, including the Phoenix Site. A copy of Resolution 1058 is included in Appendix C of the Water and Wastewater Feasibility Study (**Appendix D**).

Currently there are no public water supply infrastructure connections to the Phoenix Site. However, the City of Phoenix installed a 12-inch water main underneath I-5 just north of the Fern Valley Interchange to serve several residential areas and highway commercial developments on the east side of I-5. **Figure 2-9** shows the location of the 12-inch water main in relation to the Phoenix Site. The 12-inch water main was sized to serve future residential and industrial development in areas north of the Phoenix UGB (**Appendix D**).

Mill Casino Site

The CBNBWB provides water service to the Mill Casino Site. The CBNBWB is a non-profit water provider run by an appointed four-member board of directors, two from Coos Bay and two from North Bend (CBNBWB, 2014a). There are two WTPs within the CBNBWB: the Pony Creek WTP that is approximately 1.5 miles from the Mill Casino Site and has a capacity of 12 MGD, and the North Spit WTP that is approximately 3.7 miles from the Mill Casino Site and has a capacity of 1 MGD. The North Spit WTP is used for emergencies when the Pony Creek WTP cannot meet the demands of CBNBWB customers alone (CBNBWB, 2014b). The average daily production at Pony Creek WTP is 3.66 MGD (Hoffine, 2016). The CBNBWB produces between 4- 5 MGD per day with a maximum peak demand of 6.5 MGD (Thomas, 2016). The CBNBWB had approximately 12,900 customers in 2016 (Hoffine, 2016). The CBNBWB utilizes the Upper Pony Creek Reservoir, which has a capacity of 2 billion gallons and is approximately 2.6 miles from the Mill Casino Site, and the Merritt Reservoir that has a capacity of 125 million gallons and is approximately 1.5 miles from the Mill Casino Site (CBNBWB, 2018).

The Mill Casino and Hotel currently uses approximately 1,928,700 cubic feet of water per year (CEDCO, 2016).

3.10.2 WASTEWATER COLLECTION AND TREATMENT

Medford Site

The Medford Site is currently served by the Rogue Valley Sewer Services (RVSS). The current average daily wastewater flow for Roxy Ann Lanes bowling alley is estimated to be 1,350 GPD (**Appendix D**). A description of the RVSS is provided within the Water and Wastewater Feasibility Study included as **Appendix D** and summarized below.

The collection system serving the Medford Site is owned and operated by RVSS. The site is currently served by a wastewater connection to a 12-inch sewer main located along OR 99. The collection system conveys wastewater flows from the Medford Site to the Medford Regional Water Reclamation Facility (RWRF), a regional treatment facility located on Kirtland Road in White City, Oregon. The Medford RWRF provides wastewater treatment services to the cities of Medford, Central Point, Jacksonville, Talent, Phoenix, Eagle Point, as well as unincorporated areas in Jackson County. The RWRF, originally constructed in 1970 and having undergone several major improvement phases since 1980, provides secondary treatment and discharges disinfected effluent to the Rogue River. It is designed to treat an average dry weather flow (ADWF) of approximately 20 MGD (Baker, 2016). The 2012 City of Medford RWRF Facilities Plan includes funding mechanisms and timelines for expansion to meet future capacity needs. Scheduling of RWRF expansions and improvements is based on regulatory drivers, maintenance requirements, and the need for additional capacity. Table 6-2 of **Appendix D** shows the current and projected flow loads of the Medford RWRF.

The collection system flow path between the Medford Site and the Medford RWRF is comprised entirely of gravity alignments. Pipelines along the flow path range from 12 inches to 66 inches in diameter and are in good repair, with no recent or imminent rehabilitation projects completed or planned (**Appendix D**). RVSS performs regular collection system maintenance including routine inspection and flushing of all segments every three years.

Phoenix Site

The Phoenix Site location is within the RVSS service area; however, there is currently no connection to the property. Information regarding the RVSS water supply and capacity is provided above. RVSS installed a 12-inch sewer main underneath I-5 just north of the Fern Valley Interchange to serve several residential and highway commercial developments on the east side of I-5, less than 0.2 miles from the Phoenix Site. **Figure 2-9** shows the location of the 12-inch sewer main in relation to the Phoenix Site.

Mill Casino Site

The City of North Bend, the Tribe, and the Coquille Economic Development Corporation (CEDCO) signed a consent decree (referred to as the North Bend Municipal Services Agreement [MSA]) regarding the provision of municipal services, including wastewater treatment, to the Tribe's Mill Casino in February 2010. The North Bend MSA states that the City of North Bend will provide municipal services to the Mill Casino "at the same level and quality as that provided to all other residents and businesses within the City… [and] the appropriate mode for payment for the provisions of [these services] by the City to [the Mill Casino] would be on a fee-for-service basis" (North Bend MSA, 2010; **Appendix J**).

The City of North Bend's Wastewater Treatment Plant (WWTP) is located on city-owned property approximately 2.0 miles from the Mill Casino Site. It is designed to treat 2 MGD of dry weather flows and discharges into Coos Bay. The North Bend WWTP can handle up to 10 MGD during wet weather. The North Bend WWTP has a capacity of 1.8 MGD of ADWF and 7.8 MGD of average peak daily flow (Dillard, 2016). There are 50 miles of sewer lines and nine pumping stations that carry the wastewater to the North Bend WWTP. The infrastructure sewer mains, pumping stations, and the North Bend WWTP are maintained by the Wastewater Division of the City of North Bend.

3.10.3 SOLID WASTE SERVICE

Medford Site

The Medford Site is currently served by Rogue Disposal & Recycling (RDR). This company employs approximately 150 workers who collect solid waste and recycling for residential, commercial, and

industrial customers as well as medical waste collection, and perform on-site confidential document destruction (RDR, 2019). It also coordinates a one-day hazardous material drop-off event when approximately 52,000 pounds of hazardous waste are collected and disposed of. RDR collects a total of approximately 98,000 tons of waste annually (Penning, 2019).

Solid waste generated at the Medford Site would be taken to the Rogue Transfer & Recycling (RTR) transfer station. The RTR accepts a variety of trash along with certain recyclables and yard debris (RDR, 2019). The RTR transfer station processes approximately 110,000 tons of waste annually for transfer to Dry Creek Landfill (Penning, 2019).

Dry Creek Landfill is a regional facility that currently accepts waste from Humboldt, Del Norte, Siskiyou, Curry, Coos, Josephine, Klamath, and Jackson counties. Dry Creek Landfill accepts approximately 580,000 tons of waste annually (Penning, 2019). After being expanded to a regional facility in 1999 the projected operational life of Dry Creek Landfill is over 100 years (RDR, 2019). The landfill has an active methane gas collection and control system currently operating landfill-gas-to-energy facility. The facility produces electricity that powers approximately 3,000 Rogue Valley homes per day (RDR, 2019). Rogue Compost operates at the Dry Creek Landfill and produces a variety of compost available for public purchase (Rogue Compost, 2019).

Phoenix Site

Solid waste disposal information for the Phoenix Site is the same as described for the Medford Site.

Mill Casino Site

Les' Sanitary Service provides solid waste collection, transfer, and recycling services in Coos County (Les' Sanitary, 2019). Additionally, the Coos County Beaver Hill Transfer Station is a solid waste disposal and recycling drop-off facility for Coos County, located on Highway 101 approximately 5.3 miles south of the Mill Casino Site. The transfer station accepts most recyclables, including aluminum, plastic, paper, cardboard, glass, oil, and batteries (Coos County, 2017), and charges for garbage disposal based on size and weight (Coos County, 2019). Solid waste is transported to the Dry Creek Landfill, described above.

3.10.4 LAW ENFORCEMENT

Medford Site

The Medford Police Department provides law enforcement services within the city limits. The Medford Police Station is located at 411 West 8th Street in Medford, approximately 2.0 miles northwest of the Medford Site. The Medford Police Department is comprised of 104 sworn police officers, 38 non-sworn civilian employees, 18 part-time employees, and 35 volunteers. In 2017, the department handled 90,038 calls for service while investigating 29,308 cases (see **Table 3.10-1**); the top five reported offenses were theft, drug related, traffic incidents, vandalism, and assault. Calls for service and cases increased by 1.1% and 3.8%, respectively, from 2013 levels (Medford Police Department, 2017).

The Oregon State Police (OSP) Patrol Division responds to emergency calls for service and provides law enforcement on state and interstate highways, including OR 99, throughout Oregon. The OSP Patrol Division encompasses 13 different programs, including DUII (driving under the influence of intoxicants), crash reconstruction, and commercial motor vehicle enforcement, and was comprised of approximately 450 sworn officers from 2017 to 2019. The Patrol Division received approximately 141,000 calls for service and performed approximately 237,000 traffic enforcement/routine stops in 2018 (OSP, 2019).

TABLE 3.10-1
MEDFORD POLICE DEPARTMENT 2017 AND 2018 REPORTED CASES

Crimes	2017	2018	Change
Assault	1,216	1,121	-7.8%
Drug Offenses	1,690	1,422	-15.9%
DUII	250	247	-1.2%
Fraud	830	788	-5.1%
Homicide	5	3	-40%
Rape	36	24	-33.3%
Robbery	113	96	-15.0%
Sex Crimes	104	120	15.4%
Vandalism	1,799	1,489	-17.2%
Weapon Law Violations	262	261	-0.4%
Other[1]	14,859	12,190	-18.0%
Total	21,164	17,761	

Notes: [1]Includes all other crimes not specifically listed.
Source: Medford Police Department, 2018.

Phoenix Site

The Phoenix Police Department (PXPD) provides law enforcement services to the vicinity of the Phoenix Site and is responsible for 24-hour emergency and public services to a population of approximately 4,800 citizens (U.S. Census Bureau, 2019) within the approximately 1.25 square miles encompassed by the city limits of the City of Phoenix. The PXPD is located at 114 W. 2nd Street in Phoenix, approximately 1.0 mile south of the Phoenix Site. PXPD is staffed by approximately 10 personnel, which includes six officers, one lieutenant, and one police chief (PXPD, n.d.). In 2017, there were 412 reported crimes, with the top offenses being property crime (195 reported cases), larceny theft (157 reported cases), and vehicle theft (22 reported cases) (FBI, 2017).

Mill Casino Site

The North Bend Police Department currently provides law enforcement, patrol, investigation, and prosecution assistance services to the Mill Casino Site pursuant to the North Bend MSA (**Appendix J**). Approximately 16 sworn officers, six telecommunicators, two civilian support staff, and a large contingency of professional reserve officers and volunteers comprise the North Bend Police Department (City of North Bend, n.d. (a)). Police service is available 24 hours a day, 7 days a week. The North Bend Police Department is located less than 1.0 mile northwest of the Mill Casino Site at 835 California Avenue. In 2017, there were 1,026 reported crimes that included the following top offenses: property crime (503 reported cases), larceny theft (385 reported cases), burglary (60 reported cases), and vehicle theft (58 reported cases) (FBI, 2017).

3.10.5 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Medford Site

Medford Fire-Rescue serves the 90,000 citizens who live within the City of Medford and Medford Rural Fire Protection District 2, a combined area encompassing 56 square miles. Medford Fire-Rescue consists of five fire stations and a total of 86 personnel including firefighters, paramedics, emergency medical technicians (EMT), inspectors, administrative staff, and support staff. Medford Fire-Rescue provides

firefighting, emergency medical response, hazardous materials response, heavy rescue, and life safety services. In addition, specialists and resources provide services to neighboring communities through mutual aid agreements. The closest fire station to the Medford Site is Station #3, located 1.1 miles to the north at the corner of Siskiyou Boulevard and Highland Drive. Medford Fire-Rescue has 19 apparatuses, which includes 10 engines/pumpers, one aerial ladder truck, two brush rigs, one water tender, two battalion chief rigs, two hazardous materials trucks, and 1 utility terrain vehicle. In 2018, there were 11,693 total incident responses (Medford Fire-Rescue, 2018). The nearest emergency room to the Medford Site is the Asante Rogue Regional Medical Center, located approximately 1.4 miles to the northeast at 2825 East Barnett Road.

Phoenix Site

The Phoenix Site is served by Jackson County Fire District 5, which responds from three stations with approximately 24 paid EMT/firefighters and 24 volunteer/student firefighters and four administrative personnel, including the fire chief, deputy chief, business manager, and administrative assistant. The district is responsible for approximately 110 square miles of southern Oregon, which includes the communities of Talent, Phoenix, and the unincorporated City of Ashland. The Jackson County Fire District 5 has five pumper/engines, two water tenders, two ambulances/rescue vehicles, three grass and brush suppression vehicles, four support/staff vehicles, and one vintage engine. During 2018, the district responded to 2,908 emergency calls (Jackson County Fire District 5, n.d.). The closest fire station is Station #3, located approximately 0.8 miles south of the Phoenix Site at 116 West Second Street in downtown Phoenix. The nearest emergency room to the Phoenix Site is the Asante Rogue Regional Medical Center, located approximately 2.3 miles north at 2825 East Barnett Road.

Mill Casino Site

The North Bend Fire Department (NBFD) provides fire protection and emergency services to the Mill Casino Site pursuant to the North Bend MSA (**Appendix J**). NBFD is staffed by nine full-time firefighters along with staff/volunteer firefighters, including the chief and assistant chief, lieutenants, engineers, and volunteer/student firefighters. The NBFD manages approximately 2,100 calls for service a year, including calls for fire suppression, emergency medical services, wildland fires, water rescue, marine firefighting, and airport rescue firefighting (City of North Bend, n.d. (b)). The NBFD has the following equipment: three fire engines, a brush truck, a water rescue boat, a fire boat, a technical rescue trailer, among other equipment (Meaker, 2016). Fire Station 1 is located approximately 1.0 miles north of the Mill Casino Site at 1880 McPherson Avenue, and Fire Station 2 is located approximately 1.2 miles west of the Mill Casino Site at 2222 Newmark Street. The nearest emergency room to the Mill Casino Site is at the Bay Area Hospital, located approximately 1.0 mile to the southwest at 1775 Thompson Road in Coos Bay.

3.10.6 ELECTRICITY AND NATURAL GAS

Medford Site

Pacific Power is part of the energy services company PacifiCorp that provides electrical service to the Medford Site. Pacific Power provides electrical services to over 764,000 customers in 243 communities that span across Oregon, Washington, and California. The electricity provided to customers is produced from a variety of sources, including coal, hydroelectric, wind, solar, and geothermal (Pacific Power, 2019) with a current generation capacity of approximately 11,000 megawatts (PacifiCorp, 2019).

Avista Utilities (Avista) is an investor-owned utility that provides electrical and natural gas to approximately 640,000 customers across Oregon, Idaho, and Washington, and the Medford Site is within the Avista Utility's service territory for natural gas. Avista serves approximately 300,000 natural gas

customers across a service area of approximately 30,000 square miles with approximately 7,800 miles of distribution mains (Avista, 2019). Avista currently serves the Medford Site with lines extending from the OR 99 to Roxy Ann Lanes bowling alley (McFadden, 2016).

Phoenix Site

The Phoenix Site is not currently served by electricity or natural gas lines. However, the electrical provider in the vicinity of the site, including within the City of Phoenix, is the same as described above for the Medford Site. The vicinity of the Phoenix Site is not currently served by natural gas lines.

The nearest electrical substation to the Phoenix Site is Campbell 5R227, located approximately 0.5 miles to the northwest. This substation currently has approximately 2 mega-volt amperes (MVA) of capacity, which is sufficient to serve future development in the vicinity of the substation (CEDCO, 2016).

Mill Casino Site

Similar to the Medford Site, the Mill Casino Site is within the service area boundary of Pacific Power.

There is no natural gas service to the Mill Casino Site, but the Mill Casino is served by Suburban Propane. Suburban Propane is an energy company that specializes in propane, heating, and refined fuel. The company employs approximately 3,200 full-time employees and provides service to approximately 1.1 million residential, commercial, industrial, and agriculture customers across 41 states. The nearest Suburban Propane distribution facility is located in Eugene, Oregon, approximately 70 miles northeast of the Mill Casino Site (Suburban Propane, 2016).

3.11 NOISE

This section describes the existing environmental conditions related to noise for the three alternative sites described in **Section 2.2**. The general and site-specific descriptions of noise conditions contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.11.1 REGULATORY SETTING

The regulatory setting associated with noise is summarized in **Table 3.11-1**, and an expanded discussion is provided in **Appendix B**. Additionally, the acoustical terminology used in this EIS is provided in **Appendix B**.

TABLE 3.11-1
SUMMARY OF KEY REGULATIONS REGARDING NOISE

Regulation	Description
Federal Noise Abatement Criteria	▪ FHWA noise level thresholds at sensitive locations: (Daytime – 7a.m. to 6 p.m.) 85 Lmax. ▪ FHWA NAC threshold for residential uses is 67 dBA Leq.
Federal Vibration Standards	▪ Establishes that buildings extremely susceptible to vibration damage could be damaged if vibration levels exceed 90 VdB.
Oregon Department of Environmental Quality (ODEQ) adopted noise standards	▪ Sets forth that traffic noise impacts would occur if predicted peak-hour traffic noise levels “approach” 2 dBA of the NAC or “substantially exceed” existing levels by greater than 10 dBA.

Regulation	Description
City of Medford Noise Standards and Regulations for Commercial and Industrial Sources	▪ Provides an exemption from local noise standards for sounds that originate on construction sites. Construction must be limited to the hours of 7:00 a.m. to 6:00 p.m. to be in compliance unless exempted by the City Manager from this restriction
City of North Bend Municipal Code	▪ Limits "the erection, including excavation, demolition, alteration or repair of any building, other than between the hours of 7:00 a.m. and 6:00 p.m., except upon special permit granted by the city council".

3.11.2 ENVIRONMENTAL SETTING- MEDFORD SITE

Existing noise levels were measured at locations adjacent to sensitive noise receptors and where project-related noise has the potential to raise the ambient noise level (**Figure 3.11-1**). Measurement equipment consisted of Quest Sound Pro® SE/DL sound level meters. An acoustical calibrator was used to calibrate the sound level meter before and after use. All instrumentation satisfies the Type II (precision) requirements. As shown in **Table 3.11-2**, measurements at Sites 1 and 2 were conducted over a 24-hour period and show the ambient noise levels in the vicinity of the site and measurements at Site 3 show the traffic noise levels along OR 99. Noise measurement output files are provided as **Appendix K**.

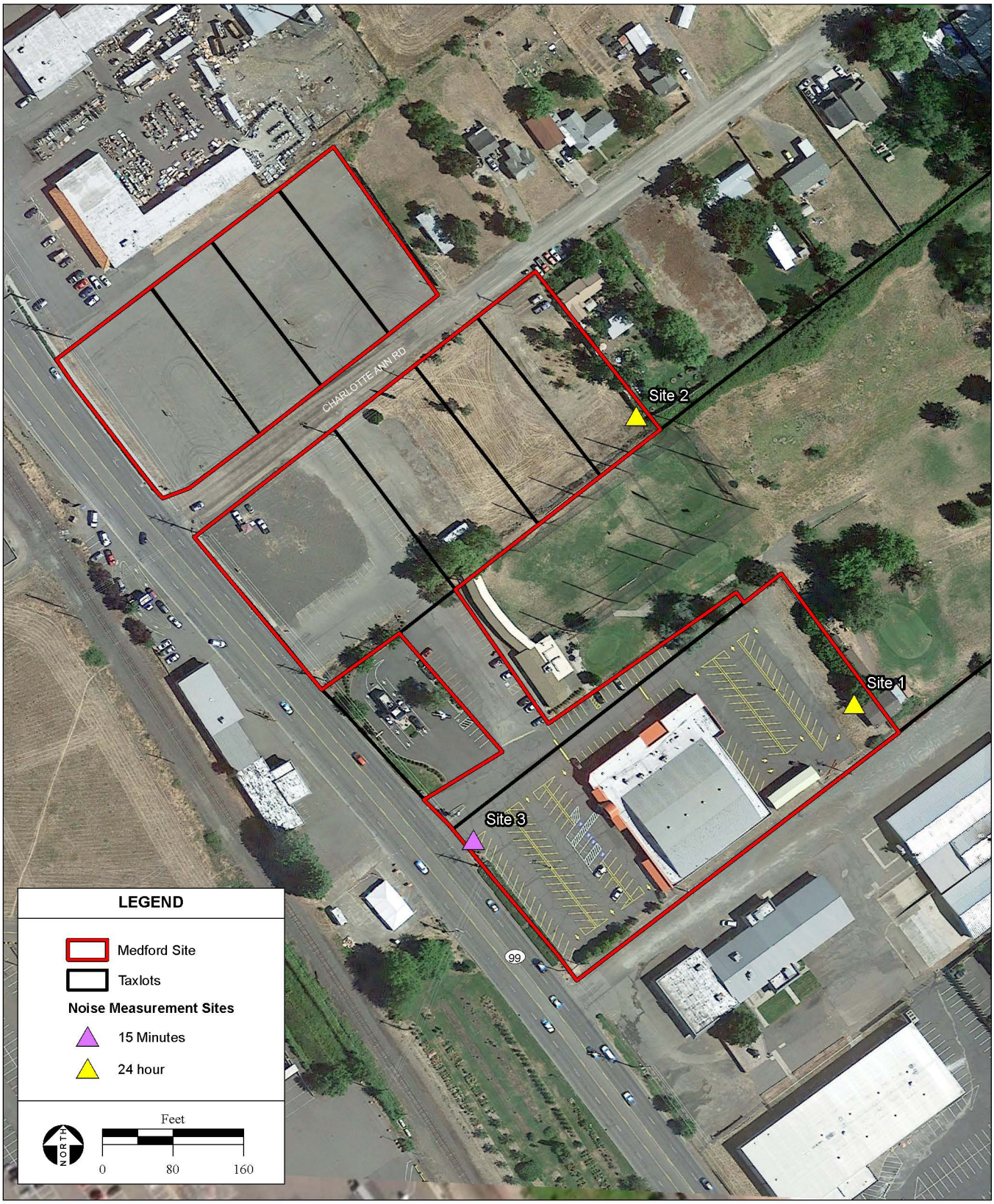
Noise Sensitive Receptors

Noise sensitive land uses are generally defined as land uses with the potential to be adversely affected by the presence of noise. Examples of noise sensitive land uses include residential housing, schools, and health care facilities. Existing noise sensitive receptors in the vicinity of the Medford Site include residential housing.

TABLE 3.11-2
SUMMARY OF 24-HOUR AND 15-MINUTE NOISE LEVEL MEASUREMENTS – MEDFORD SITE

Site	Date	Start Time	End Time	Noise Source	Receptor	Measure Noise Level (dBA Leq)
1	11/23/2015 – 11/24/2015	14:14:56	13:47:11	OR 99 Traffic, Roxy Ann Lanes, Journey Church	Charles Point Apartments	66.6
2	11/23/2015 – 11/24/2015	12:34:22	12:05:28	Traffic on OR 99 and Charlotte Ann Road	Private Residences on Charlotte Ann Road	60.7
3	11/24/2015	13:52:40	14:09:35	OR 99 Traffic, Human Bean Coffee, Roxy Ann Lanes	Residences	83.7
Source: **Appendix K**, Noise Output Files.						

The nearest residential sensitive receptor to the Medford Site is a large apartment complex located on Lowry Lane approximately 160 feet northeast of the site. The next closest residential sensitive receptor is located along Charlotte Ann Road Avenue approximately 350 feet northwest of the site adjacent to the northeast corner of the Medford Site (adjacent to tax lot 31-1W-32C-1100 and -4200). The nearest schools to the Medford Site are the Jefferson Elementary School and Saint Mary's of Medford Inc. located approximately 0.95 miles northwest on 333 Holmes Avenue and northeast on 816 Black Oak Drive from the site, respectively. The nearest medical center is the Surgery Center of Southern Oregon LLC located approximately 1.25 miles northeast of the site on 2798 E. Barnett Road.



SOURCE: Jackson County GIS 2012; DigitalGlobe aerial photograph, 6/29/2019; AES, 5/9/2019

Figure 3.11-1
Noise Measurement Sites - Medford Site

Vibration Noise Level

Central Oregon & Pacific Railroad operates a railroad with track approximately 350 feet to the west of the Medford Site, across OR 99, which may be a source of ground-borne vibration. This railroad track is primarily used for lumber transport through Oregon and California.

3.11.3 ENVIRONMENTAL SETTING - PHOENIX SITE

Existing noise levels were measured at locations adjacent to sensitive noise receptors and where project-related noise has the potential to raise the ambient noise level (**Figure 3.11-2**). Measurement equipment consisted of Quest Sound Pro® SE/DL sound level meters. An acoustical calibrator was used to calibrate the sound level meter before and after use. All instrumentation satisfies the Type II (precision) requirements. As shown in **Table 3.11-3**, measurements at Sites A and B show the peak-hour traffic noise levels along North Phoenix Road and I-5. Noise measurement output files are provided as **Appendix K**.

Noise Sensitive Receptors

The nearest residential sensitive receptor to the Phoenix Site is Arrowhead Ranch, located approximately 300 feet east of the Phoenix Site across N. Phoenix Road. The next nearest residential sensitive receptor to the Phoenix Site is a neighborhood located off Fern Valley Road approximately 1000 feet across I-5 and southwest of the site. The nearest schools to the Phoenix Site are Phoenix High School located approximately 1.25 miles southwest of the site on 745 N. Rose Street and Phoenix Elementary School located approximately 1.5 miles southwest of the site on 215 N. Rose Street. The nearest medical center is the Medford Women's Clinic located approximately 0.50 miles southwest of the site on 725 North Main Street.

TABLE 3.11-3
SUMMARY OF 15-MINUTE NOISE LEVEL MEASUREMENTS – PHOENIX SITE

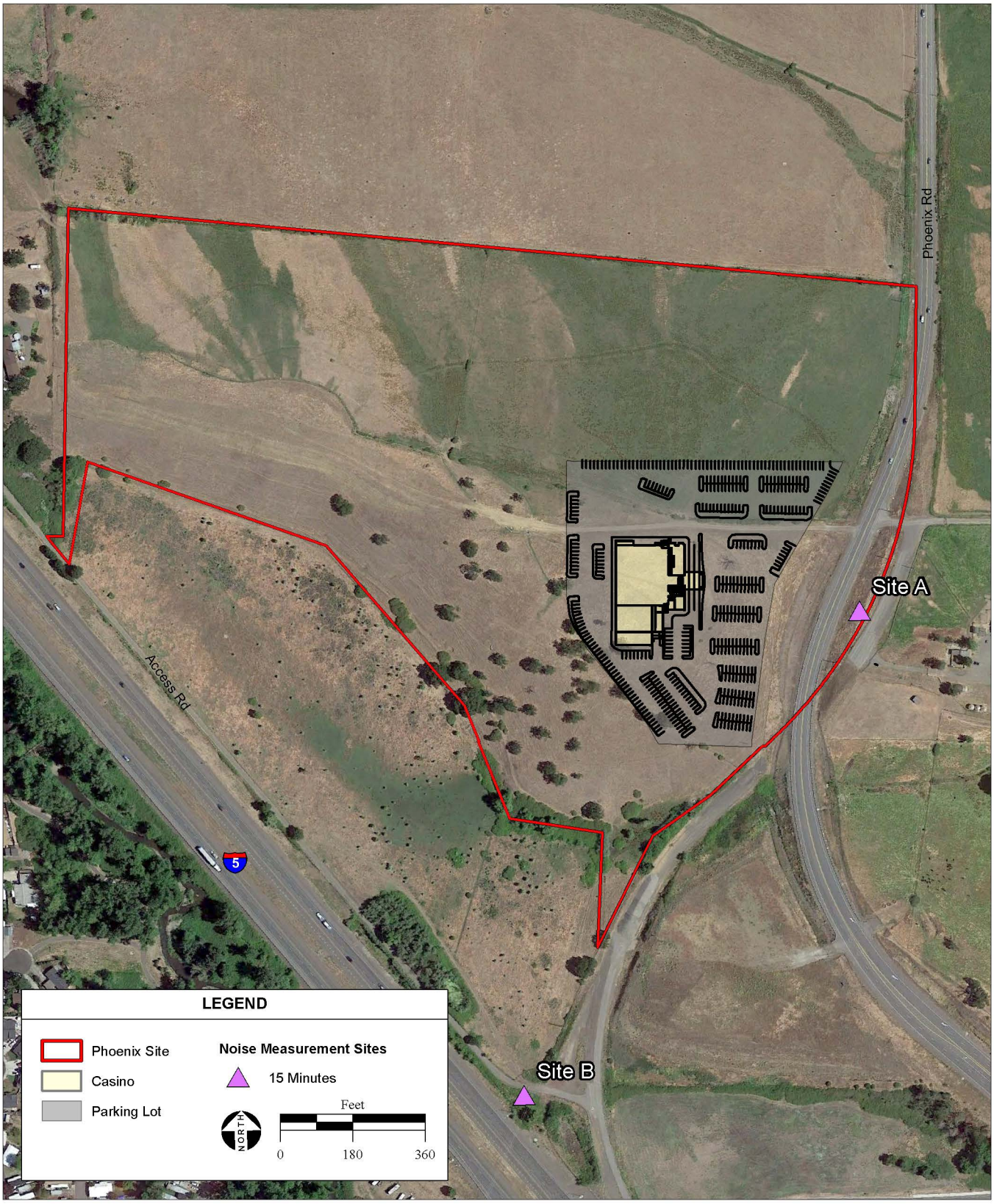
Site	Date	Start Time	End Time	Noise Source	Receptor	Measure Noise Level (dBA Leq)
A	11/24/2015	14:20:21	14:35:29	Traffic on N Phoenix Road	Arrowhead Ranch	80.5
B	11/24/2015	14:39:02	14:54:44	Traffic on I-5, N Phoenix Road, and Access Road	RV Park and Private Residences	86.0
Source: **Appendix K**, Noise Output Files.						

Vibration Noise Level

The Central Oregon & Pacific Railroad operates a railroad track approximately 0.75 miles west of the Phoenix Site, across I-5 and OR 99, which may be a source of ground-borne vibration. This railroad track is primarily used for lumber transport through Oregon and California.

3.11.4 ENVIRONMENTAL SETTING - MILL CASINO SITE

The Mill Casino is directly adjacent to US-101, east of US-101 are commercial and residential land uses. There are approximately 14,000 average annual daily trips on US-101 near the Mill Casino location (ODOT, 2018). Given the type of land use in the area near the Mill Casino (commercial and residential) and the volume of traffic on the roadway, it is estimated that the ambient noise during traffic peak hours would be greater than 65 dBA.



SOURCE: Oregon Department of Transportation, 2014; Jackson County GIS 2012; DigitalGlobe aerial photograph, 6/2018;; AES, 5/7/2019

Figure 3.11-2
Noise Measurement Sites – Phoenix Site

Noise Sensitive Receptors

The nearest residential sensitive receptor to the Mill Casino Site is located on Clark Street approximately 300 feet west of the site. The next closest residential sensitive receptor is also located at Clark Street approximately 350 feet west of the site. The nearest schools to the site are Cartwheels, a preschool, located 0.30 miles northeast from the site on 2741 Sherman Avenue, and Gold Coast SDA Christian School located 0.59 miles west from the site at 1251 Clark Street. The nearest hospital is the Bay Area Hospital located 0.93 miles southwest of the site at 1775 Thompson Road.

Vibration Noise Level

The Coos Bay Rail Link operates a railroad track adjacent to the west side of the Mill Casino Site that may be a source of ground-borne vibration. This railroad track is primarily used for freight shipment.

3.12 HAZARDOUS MATERIALS

This section describes the existing environmental conditions related to hazardous materials for the three alternative sites described in **Section 2.2**. The general and site-specific descriptions of hazardous materials contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.12.1 REGULATORY SETTING

Hazardous materials are those materials that may pose a material risk to human health or the environment. These materials are subject to numerous laws and regulations at several levels of government. At the federal level, human exposure to chemical agents, and in some cases environmental and wildlife exposure to such agents, is regulated primarily by four agencies: the USEPA, the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Consumer Product Safety Commission (CPSC). The USEPA administers several Congressional statutes pertaining to human health and the environment, including the CAA that regulates hazardous air pollutants and the Resource Conservation and Recovery Act (RCRA) that regulates land disposal of hazardous materials. The FDA plays a limited role in regulating hazardous substances, primarily regulating food additives and contaminants, human drugs, medical devices, and cosmetics. OSHA helps ensure employee safety by regulating the handling and use of chemicals in the workplace. The CPSC also plays a limited role in regulating hazardous substances, with a primary responsibility of labeling consumer products. In addition to these agencies, the U.S. Department of Transportation (DOT) regulates the interstate transport of hazardous materials. The regulatory setting associated with hazardous materials is summarized in **Table 3.12-1**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.12-1
SUMMARY OF KEY REGULATIONS REGARDING HAZARDOUS MATERIALS

Regulation	Description
Resource Conservation and Recovery Act (RCRA)	▪ Primary legislation enacted to control the disposal of hazardous materials, defined as materials that display one or more of the following characteristics: corrosivity, flammability, reactivity, or toxicity
Residential Lead-Based Paint Hazard Reduction Act	▪ Regulates building renovation activities that could create lead-based paint hazards. ▪ Establishes standards for lead-based paint hazards and lead dust cleanup levels
National Emission Standards for Asbestos (CAA)	▪ Sets threshold limits for asbestos.

3.12.2 EXISTING SETTING – MEDFORD SITE

The Medford Site is relatively flat and is developed with a bowling alley (Roxy Ann Lanes), paved parking lots, and unpaved vacant spaces. A site visit of the Medford Site was conducted on November 23 and 24, 2015; no visible signs of gross contamination were observed.

Current Hazardous Materials Involvement

Current hazardous materials involvement on the Medford Site include small quantities of chemicals typically used for maintenance in commercial businesses, such as motor oil, hydraulic fluid, solvents, cleaners, lubricants, paints, and paint thinner. The amount and types of hazardous materials that are currently generated are common to commercial sites and do not pose unusual storage, handling, or disposal issues.

The western portion of the Medford Site was previously developed with a restaurant and homes, but these facilities were demolished by the Tribe in 2015 due to safety and vandalism concerns. Demolition activities were authorized by permit from the City of Medford.

The age of the structures on the Medford Site indicates that asbestos containing materials (ACM) and lead-based paints could be present in those structures.

Previous Investigations

Phase I Environmental Site Assessments

A Phase I ESA dated May 24, 2012 was prepared by Geotechnical Resources, Inc. (GRI) for the parcel on the Medford Site specified as Tax Lot 37-1W-32C-4701 (see **Figure 2-3**). A walking reconnaissance for hazardous materials on this parcel was conducted by GRI staff on April 3, 2012, and a follow-up survey was conducted on May 17, 2012. According to the 2012 Phase I ESA, there was no evidence of recognized environmental conditions associated with this parcel on the Medford Site (**Appendix L**).

A second Phase I ESA was prepared for Tax Lot 37-1W-32C-4701 in November 2015 by Steven W. Carothers and Associates Environmental Consultants (SWCA). This ESA recommended additional soil analysis be performed due to historical use of the Medford Site as an orchard (SWCA, 2015).

Supplemental Due Diligence Investigation

A Supplemental Due Diligence Investigation (Supplemental Investigation) was conducted in December 2015 by Alpine Environmental Consultants (AEC) specifically to examine the possibility of soil contamination on Tax Lot 37-1W-32C-4701 from pesticides as a result of the historical use of the Medford Site as an orchard. The issue of pesticide residuals accumulating in shallow soil can sometimes be a concern when properties are redeveloped for commercial or industrial use, especially when there is a complete pathway between the residual pesticide contamination and potential receptors. AEC excavated two test pits in the northern, unpaved area of Tax Lot 37-1W-32C-4701 in order to obtain soil samples of the underlying soil. AEC found that there is approximately 1.2 feet of non-native fill overlying the native soil on this parcel that acts as a barrier to the underlying soil. This indicates that contact with contaminated soil is unlikely except during activities that would disturb soils below the fill layer (**Appendix L**).

AEC collected two soil samples at each test pit: one representing the uppermost 1 foot of native soil (shallow sample) and one representing the underlying 1-3 feet of native soil (deep sample). Shallow soil samples were analyzed for total metals, organochlorine pesticides, chlorinated herbicides, and

organophosphorus pesticides. The total arsenic results for the shallow samples exceeded the generic risk-based concentrations (RBC) for occupational and construction workers under the soil ingestion, dermal contact, and inhalation pathway. Total lead results for the shallow samples exceeded the RBCs for occupational workers under the leaching to groundwater pathway. Concentrations of other contaminants analyzed in the shallow samples were below the RBCs for occupational, construction, and excavation workers under all pathways. Therefore, due to expected contaminant attenuation, the deep soil samples were only analyzed for total arsenic and total lead. Soil testing results for the deep samples indicated that concentrations of total arsenic and total lead exceeded the RBCs for occupational workers but not the RBCs for construction workers or excavation workers under the ingestion, dermal contact, and inhalation pathway. Concentrations of other contaminants analyzed in the deep samples were below the RBCs for occupational, construction, and excavation workers under all pathways (**Appendix L**).

The Supplemental Investigation noted that the total arsenic background concentration in soils for the Klamath Region is approximately six times higher than the RBC for occupational workers under the soil ingestion, dermal contact, and inhalation pathways. Additionally, the total lead background concentration in soils for the Klamath Region is over two times higher than the RBC for occupational workers under the leaching to groundwater pathway. The total arsenic and total lead concentrations in the shallow samples exceed the regional background concentration, suggesting that pesticides containing arsenic and lead were applied during historical orchard operations. However, the total arsenic and total lead concentration for the deep samples were below the regional background concentration, indicating that total arsenic and total lead concentrations attenuated significantly with depth, and soils at depths greater than 1 foot below the fill contact have not been impacted by total arsenic or total lead associated with historical orchard operations. Additionally, it should be noted that exposure to soil contaminants is very limited on the Medford Site, as most of the site is currently covered by pavement that fully encapsulates the underlying native soil (**Appendix L**).

Database Report

A record search was conducted by Environmental Data Resources, Inc. (EDR) in March 2016, and an updated radius report was generated by NETROnline in March 2022, to identify locations of past and current hazardous materials involvement on and in the vicinity of the Medford Site (**Appendix M**). Numerous regulatory agency databases were searched for records of known storage tank sites, known sites of hazardous materials generation, storage, or contamination, or violations pertaining to storage and use of hazardous materials. Databases were searched for sites and listings up to 1.0 mile from the perimeter of the Medford Site. EDR uses a geographical information system to plot locations of past and/or current hazardous materials involvement. Just southeast of the Medford Site boundary (immediately adjacent to and east of Tax Lot 37-1W-32CD-4200) is a property listed on the RCRA Non-Generator/No Longer Regulated (NonGen/NLR), Facility Index System (FINDS), and Enforcement and Compliance History Information (ECHO) databases as Davis Finish Products, Inc. This parcel is also listed on the Oregon leaking underground storage tank (LUST) and underground storage tank (UST) databases as Smith Lumber Co. Potentially hazardous waste effects on the Medford Site, as indicated in **Table 3.12-2**, are discussed further in **Appendix B**.

TABLE 3.12-2
RESULTS OF HAZARDOUS MATERIALS DATABASE SEARCHES FOR THE MEDFORD SITE

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Davis Finish Products, Inc – 2399 S. Pacific Highway	<0.1 mile	Not applicable	Not applicable	RCRA NonGen/NLR, FINDS, ECHO
Smith Lumber Co. – 2399 S. Pacific Highway	<0.1 mile	Completed (as of 09/05/1991)	Not reported	LUST, UST
Naumes Equipment & Fuel – 2233 S. Pacific Highway	<0.25 mile	No further action required (as of 05/01/2013)	Total petroleum hydrocarbons, VOCs, polycyclic aromatic hydrocarbons, and metals	UST, ECSI, VCP
Bear Creek Orchard/Harry & David – 2518 S. Pacific Highway	<0.25 mile	Completed (as of 08/28/1993)	Not reported	LUST, UST
Grange Co-op Supply Association – 2531 S. Pacific Highway	<0.25 mile	Completed (as of 09/16/1999)	Diesel fuel, gasoline	AST, SPILLS, OR HAZMAT, HSIS, LUST, UST
Grange Co-Op II - 2531 S. Pacific Highway	<.25 mile	Active, decommissioning	Diesel fuel, gasoline	LUST, UST
KOGAP Veneer/Plywood Plant (former)/KOGAP Enterprises – 2080 S. Pacific Highway	<0.25 mile	No further remedial action planned under federal program	Petroleum hydrocarbons	ECSI, VSP, RCRA NonGen/NLR, UST
Rogue Credit Support Services Center – 2125 S Pacific Highway	<0.5 mile	Active, decommissioning	Diesel fuel, gasoline	LUST, UST
Nash Holdings, LLC – 1401 Center Drive	<1 mile	Completed (as of 06/29/2020)	Diesel fuel, gasoline	LUST, UST
NW Printed Circuits (former) – 2655 S. Pacific Highway	<1 mile	State Expanded Preliminary Assessment recommended (as of 12/17/2002)	Chromium (inorganic and total); metals	ECSI, SEMS-ARCHIVE, RCRA NonGen/NLR, FTTS, HIST FTTS, FINDS, ECHO
Hays Oil – Bulk Plant – 1890 S. Pacific Highway	<1 mile	Site screening recommended (as of 07/21/1997)	Gasoline, diesel	ECSI, AST, HSIS
Grange Coop Tank Plant – 11 W. Stewart Avenue	<1 mile	Site screening recommended (as of 01/07/2011)	Diesel	ECSI
Richfield Bulk Petroleum Facility – Medford – 15 W. Stewart Avenue	<1 mile	State Preliminary Assessment recommended (01/07/2011)	Petroleum	ECSI, FINDS, ECHO
Northwest Chemical Inc. – Medford – 18 W. Stewart Avenue	<1 mile	Closeout activities completed (as of 12/17/2002)	Petroleum hydrocarbons, organochlorine pesticides, metals	ECSI, VCP, FTTS, HIST FTTS
Rogue Valley Manor (former KOGAP Landfill site) – 1200 Mira Avenue	<1 mile	No further action (as of 09/06/2002)	Landfill waste	ECSI, SWF/LF, LUST, UST, SPILLS, OR HAZMAT, HSIS
Kentucky Fried Chicken – 308 E. Barnett Road	<1 mile	No further action (as of 04/17/2015)	Gasoline	ECSI, FINDS, ECHO

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Royal-Goldencrest-Silvercrest Orchards – 3100 S. Pacific Highway	<1 mile	Site screening recommended (as of 06/04/2014)	Pesticides	ECSI
Si, Casa Flores Restaurant – 235 E. Barnett Road	<1 mile	No further action (as of 11/29/2012)	Chromium	ECSI, VCP
South Gateway Center – unmapped	<1 mile	Remedial action recommended (as of 10/22/2003)	Petroleum, VOCs	ECSI, VCP, Brownfields

Notes: Abbreviations are as follows and used in **Appendix M**.
AST – aboveground storage tank; BROWNFIELDS – Brownfields projects; CRL – confirmed release list; ECSI – Environmental Cleanup Site Information System; ENG CONTROLS – engineering controls sites; ERNS – Emergency Response Notification System; FINDS – Facility Index System/Facility Registry System; FTTS – Federal Insecticide, Fungicide, and Rodenticide Act/Toxic Substances Control Act; HIST AUTO – Historic Auto Stations; HIST FTTS – Historic FTTS; HSIS – Hazardous Substance Information Survey; ICIS – Integrated Compliance Information System; INST CONTROLS – sites with institutional controls; LUST – leaking underground storage tank; MANIFEST – hazardous waste manifest information; MGP – manufactured gas plant; NonGen/NLR – Non-Generator/No Longer Regulated; OR HAZMAT – Oregon Hazmat/Incidents; RGA HWS – Recovered Government Archive State Hazardous Waste Facilities List; SQG – Small Quantity Generator; SPILLS – spill data; US MINES – Mines Master Index File; UST – underground storage tank; VCP – Voluntary Cleanup Program
Source: **Appendix M**.

3.12.3 EXISTING SETTING – PHOENIX SITE

A desktop survey of the Phoenix Site was performed and the site was surveyed from the property borders on November 23 and 24, 2015. The Phoenix Site is currently undeveloped with rugged topography; a central ridge bisects the site from east to west. There are scattered trees located throughout the southern portion of the Phoenix Site. No visible signs of gross contamination were observed on the Phoenix Site. As it is currently undeveloped, no hazardous materials involvement occurs on the Phoenix Site.

Previous Investigations

No previous hazardous materials investigations have been conducted on the Phoenix Site.

Database Report

A record search was conducted by EDR in June 2015 to identify locations of past and current hazardous materials involvement on the Phoenix Site (**Appendix M**). See **Section 3.12.2** for a discussion on the EDR report search parameters. The Phoenix Site is not listed on any regulatory agency database as having current or previous hazardous materials involvement. Potentially hazardous waste effects on the Phoenix Site, as indicated in **Table 3.12-3**, are discussed further in **Appendix B**.

3.12.4 EXISTING SETTING – MILL CASINO SITE

The Mill Casino Site is developed with a casino and parking lot areas. The entirety of the site is paved, and the eastern portion of the Mill Casino Site is located on a man-made structure over Coos Bay.

The Mill Casino Site has been operated for industrial use since the 1940s and was owned and/or operated by Weyerhaeuser before Sun Plywood, the last owner before the land was taken into trust. The site was previously used as a sawmill that ceased operation in 1990 (ODEQ, 2019b).

Current Hazardous Materials Involvement

The Mill Casino Site is currently developed with the Tribe's existing Mill Casino. Current hazardous materials involvement on the Medford Site include small quantities of chemicals typically used for

maintenance in commercial businesses, such as motor oil, hydraulic fluid, solvents, cleaners, lubricants, paints, and paint thinner. The amount and types of hazardous materials that are currently generated are common to commercial sites and do not pose unusual storage, handling, or disposal issues.

TABLE 3.12-3
RESULTS OF HAZARDOUS MATERIALS DATABASE SEARCHES FOR THE PHOENIX SITE

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Arrowhead Comice Org. – 2984 N. Phoenix Road	<0.5 mile	Completed (as of 01/25/1999)	Not reported	LUST, UST
Home Depot – 3345 N Phoenix Road	<0.5 mile	Not applicable	Not applicable	FINDS, MANIFEST, RCRA NonGen/NLR, RCRA-SQG
Medford Shopping Center #24 – 3730 Fern Valley Road	<0.5 mile	Completed (as of 08/18/2003)	Antifreeze, oil, brake fluid, diesel, raw sewage	LUST, UST, SPILLS
Vacant – 3875 Fern Valley Road	<0.5 mile	Completed (as of 07/15/1991)	Not reported	LUST, UST
Oregon Roof Savers – 3629 S. Pacific Highway	<0.5 mile	Completed (as of 03/30/1992)	Not reported	LUST, UST
Glenwood Business Park MGP (Former) – 117 W. Glenwood Road	<1 mile	No further state action required (as of 12/29/2006)	Benzene, naphthalene, other polynuclear aromatic hydrocarbons (PAHs), MGP waste	EDR MGP, VCP, ECSI
Royal-Goldencrest-Silvercrest Orchards – 3100 S. Pacific Highway	<1 mile	Site screening recommended (as of 06/04/2014)	Pesticides	ECSI
Heating Oil Tank – 215 N. Rose Street - unmapped	<1 mile	Started (as of 05/13/1995)	Not reported	LUST

Notes: See **Table 3.12-2** for a list of database acronyms.
Source: **Appendix M**.

Previous Investigations

A Level I Assessment was completed by Environmental Management Consultants (EMC) for Sun Plywood in January 1993, which found that the three USTs removed in 1969 indicate possible contamination of soils and groundwater and stated that further investigation may be warranted (Environmental Management Consultants (EMC), 1993).

A Level II Sampling and Analysis was performed by EMC for Sun Plywood-Old Joe Ney in February 1994. The 1994 Level II report came to the conclusion "that there are no serious environmental liability risks or issues at [the] site" and stated that:

> "…all issues [from the 1992 Level I assessment] have been resolved. All tanks, pits, and residues have been removed and/or emptied from the premises... Lab analyses of residues showed no

hazardous wastes. All hazardous materials were transferred to the Sun Studs operation in Roseburg, Oregon. No oils were PCB [polychlorinated biphenyls] laced… and formaldehyde levels were found to be considerably below acceptable levels. The 8,000-gallon underground storage tank has been assessed and successfully decommissioned in-place according to federal and state law… and the analyses performed on the samples from the DEQ-approved sampling plan showed no contaminants to be present" (EMC, 1994).

Database Report

A record search was conducted by EDR in June 2015 to identify locations of past and current hazardous materials involvement on the Mill Casino Site (**Appendix M**). See **Section 3.12.2** for a discussion on the EDR report search parameters. The Mill Casino Site is listed as the location of the former Sun Plywood Mill. Potentially hazardous waste effects on the Mill Casino Site, as indicated in **Table 3.12-4**, are discussed further in **Appendix B**.

TABLE 3.12-4
RESULTS OF HAZARDOUS MATERIALS DATABASE SEARCHES FOR THE MILL CASINO SITE

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Sun Plywood Mill (Former) – 3201 Tremont Street	On-site	State Expanded Preliminary Assessment recommended (as of 01/18/1995)	Unknown sheen from an unknown source, PCB, diesel fuel, sulfuric acid, petroleum mid-distillates, petroleum products (including hydraulic fluid, lubricating oil), methylene chloride)	RGA HWS, UST, FINDS, ERNS, ICIS, FTTS, HIST FTTS, OR HAZMAT, AST, SPILLS, HSIS, ECSI
Unocal SS 3663 – 3140 Tremont Street	<0.5 mile	Completed (as of 01/10/2001); No Further Action (Conditional) (as of 07/14/2009)	p entachlorophenol (semi-volatile); NP-1 containing active didecyl dimethyl ammonium chloride; NP-1 containing active didecyl dimethyl ammonium chloride; ethanol (anti-sapstain); petroleum, PCBs, ammonium chloride	LUST, UST, RCRA NonGen/NLR, FINDS
Weyerhaeuser Company - 3050 Tremont Street	<0.5 mile	Complete (as of 09/16/2003)	Not reported	LUST, UST, MANIFEST, INST CONTROL, VCP, ECSI, CRL
Marshfield Manufactured Gas Plant (Former) – 3040 Tremont Street	<0.5 mile	No Further Action (Conditional) (as of 05/17/2013)	Tar-like substance; Waste materials associated with MGPs include tars, lamp black (i.e., soot) and spent oxide wastes. contaminants of concern (COC) associated with these wastes include PAHs, benzene, metals, and cyanide)	ENG CONTROLS, INST CONTROL, VCP, ECSI, EDR MGP
Carson Oil Co Inc. – 280 Newmark Street	<0.5 mile	Not reported	Gasoline clear; Gasoline natural, low boiling naphtha	AST, HSIS
Tyree Oil – 341 Newmark Street	<0.5 mile	Remedial action (as of 03/01/2005); State Expanded Preliminary Assessment recommended (as of 12/21/2004)	Gasoline, diesel fuel; severely refined petroleum distillate; highly refined mineral oil (C15-C50); total petroleum hydrocarbons for diesel (TPHd), total petroleum hydrocarbons for gasoline (TPHg), PAH	AST, SPILLS, HSIS, ECSI

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Tosco Corp North Bend Terminal – Front of Newmark Street	<0.5 mile	Not reported	Ignitiable, corrosive, and reactive waste	RCRA NonGen/NLR
Truax Corporation – 3522 Tremont Street	<0.5 mile	Not reported	Not reported	UST
Bedrock Cat and Core – 410 Newmark Street	<0.5 mile	Not reported	Not reported	RCRA NonGen/NLR
Ron's Oil Exxon #2 - 3550 (S) Tremont Street	<0.5 mile	Not reported	Not reported	EDR Hist Auto Stat, LUST, UST
Oregon Chip Terminal Inc – 3701 Tremont Street	<0.5 mile	Not reported	Diesel fuel	AST, HSIS
Laskey-Clifton Corporation – no address available	<0.5 mile	Assessment closed and site proposed (as of 08/22/2012)	Not reported	US MINES
Heating Oil Tank – 681 Exchange Street	<0.5 mile	Complete (as of 03/11/2014)	Not reported	LUST
Crawford, Judith – 2759 Sheridan Avenue	<0.5 mile	Complete (as of 05/09/2002)	Not reported	FINDS, LUST
Heating Oil Tank – 3125 Sherman Avenue	<0.5 mile	Complete (as of 07/29/2003)	Not reported	LUST
North Bend Robo Car Wash – 3080 Sherman Avenue	<0.5 mile	Not reported	Not reported	LUST
Heating Oil Tank – 3959 Sheridan Avenue	<0.5 mile	Complete (as of 01/07/2003)	Not reported	LUST
Heating Oil Tank – 2741 Sherman Avenue	<0.5 mile	Complete (as of 11/05/2008)	Not reported	LUST
Unocal Marketing Terminal/Bulk Plant – 2395 Bayshore Drive	<0.5 mile	No Further Action (Conditional) (as of 10/22/2010)	Bunker – fuel oil; petroleum hydrocarbons	VCP, ECSI, CRL, LUST
Chevron Bulk Plant – 2640 Bayshore Drive	<0.5 mile	Started (as of 04/24/1995); Remedial Action (as of 02/16/2005)	Gasoline; petroleum, diesel, gasoline, TPH, BTEX, PAHs	CRL, ECSI
Heating Oil Tank – 3838 Sherman Avenue	<0.5 mile	Completed (as of 12/05/2006)	Not reported	LUST
Heating Oil Tank – 2273 Bayshore Drive	<0.5 mile	Completed (as of 12/15/2009)	Not reported	LUST
K-Kwel Wharf Development – 2375 Tremont Street	<0.5 mile	Completed (as of 09/06/2007); No further state action required (as of 05/15/2007)	Polycyclic aromatic hydrocarbons, trace metals, and other diesel and heavy-oil range petroleum hydrocarbons.; petroleum hydrocarbons in the gasoline, diesel, and lube oil range, semi-volatiles, and volatiles	LUST, VCP, ECSI
North Bend Pipeline – Washington and Harbor	<1 mile	Site screening recommended (as of 04/05/2005)	Bunker C Oil	ECSI

Property	Proximity to Site	Cleanup Status	Potential Contaminants of Concern	Database
Chambers Fuel Oil Inc. – 400 California Street	<1 mile	No further state action required (as of 3/24/1999)	TOTAL HYDROCARBONS (AS DIESEL)	FINDS, BROWNFIELDS, ECSI
Pelican Auto Service – 1900 Sherman Avenue	<1 mile	Complete (as of 11/28/2012)	Oil – Waste; trichloroethane, 1, 1, 1-; tetrachloroethylene; chlorinated solvents	LUST, UST, INST CONTROL, ECSI
BLM Parking Lot Coos Bay – 1460 N. Bayshore Drive	<1 mile	No further state action required (as of 01/09/1998)	Diesel fuel	SPILLS, ECSI

Notes: See **Table 3.12-2** for a list of database acronyms.
Source: **Appendix M**.

3.13 AESTHETICS

This section describes the existing environmental conditions related to aesthetics for the three alternative sites described in **Section 2.2**. The general and site-specific descriptions of aesthetics contained herein provides the environmental baseline by which direct, indirect, and cumulative environmental effects of the proposed alternatives are identified and measured in **Section 4.0**.

3.13.1 AESTHETICS TERMINOLOGY

Light and Glare

Table 3.13-1 contains definitions of terminology used in this section.

TABLE 3.13-1
AESTHETICS TERMINOLOGY

Terms	Definitions
Candlepower	The amount of light that will illuminate a surface 1 foot distant from a light source to an intensity of 1 footcandle. Maximum (peak) candlepower is the largest amount of candlepower emitted by any lamp, light source, or luminaire.
Footcandle	A unit of illumination produced on a surface, all points of which are 1 foot from a uniform point source of one candle.
Glare	The brightness of a light source which causes eye discomfort.
Maximum Permitted Illumination	The maximum illumination measured in footcandles at the interior buffer-yard line at ground level.

Source: City of Medford Municipal Code 10.764.

Viewshed Characteristics

A viewshed is comprised of one or more viewing corridors from a specific location or viewpoint. Each of these viewpoints provides a line of sight that can be characterized uniquely from among other viewpoints within the viewshed. The visual experience within each viewpoint is comprised of the constituent elements described further in **Appendix B**. Viewsheds and viewpoints are described by expressing the strength of the viewing experience, framed within the analytical criteria listed above. While the viewing experience is personal and subjective in nature, the application of the above criteria allows for an objective, baseline assessment of the visual environment and subsequent visual impacts.

Scenic Resources

There is no comprehensive list of specific features that automatically qualify as scenic resources; however, certain characteristics can be identified that contribute to the determination of a scenic resource, for example aa landmark tree or historic building. A partial list of visual qualities and conditions that, if present, may indicate the presence of a scenic resource is provided in **Appendix B**.

3.13.2 REGULATORY SETTING

Once the federal government acquires land in trust for the Tribe, that land would not be subject to state or local land use regulations. Only Tribal land use regulations are applicable on trust lands. The local regulatory setting associated with aesthetics is summarized in **Table 3.13-2**, and an expanded discussion is provided in **Appendix B**.

TABLE 3.13-2
SUMMARY OF KEY REGULATIONS REGARDING AESTHETICS

Regulation	Description
National Scenic Byway Program	▪ Recognizes roads based on one or more archaeological, cultural, historic, natural, recreational, or scenic quality.
Federal Highway Administration	▪ Provides mitigation and BMPs for aesthetic design features on new structures along highways.
City of Medford Municipal Code	▪ Limits building height in C-R zoning districts to 85 feet and 35 feet in C-H zoning districts. ▪ Requires that any operation or activity producing glare should be conducted so that direct or indirect light from the source should not have a maximum permitted illumination in excess of 0.5 footcandles on any property in a residential district other than the lot on which the glare is generated. ▪ Prohibits the use of flickering or flashing lights and the locating of light sources within buffered areas, except on pedestrian walkways ▪ Allows the following signs within C-R and C-H zoning districts, subject to certain limitations: ground signs, wall signs, projecting signs, and awning/canopy/marquee signs.
Jackson County Comprehensive Plan	▪ Sets forth a policy to “maintain or enhance the aesthetic qualities and values of the significant natural scenic landscape resources of the County” through appropriate zoning of natural resource lands and use of a scenic resource overlay to designate areas of special protection

3.13.3 EXISTING SETTING – MEDFORD SITE

Regional Context

The Medford Site is located on incorporated land within the City of Medford. The site is adjacent to the northeastern boundary of OR 99, bordering Charlotte Ann Road to the north and south (**Figure 2-3**).

Views and Viewsheds

Current land uses within the Medford Site include a bowling alley, a parking area for the Bear Creek Golf Course in the central portion of the site, and two vacant lots in the northern portion of the site. On-site vegetation includes shrubs, grasses, and a few sporadic trees. The site is relatively flat with an elevation of approximately 1,423 feet amsl.

As described in **Section 3.9**, the adjacent properties consist of commercial and residential uses and includes an apartment/townhome complex to the southeast, a golf course to the east, single-family residences to the northeast, and commercial buildings to the north. The land uses to the west, southwest, and south of the Medford Site across OR 99 and the Oregon and California Railroad are designated as general and heavy industrial uses and contain the retail space and offices of an international fruit distribution company, Harry & David. Four viewing corridors have been selected from the viewsheds surrounding the site (**Figure 3.13-1**). These individual viewpoints were selected based on adjacent sensitive receptors.

Viewpoint A is the view from OR 99 at the southwestern corner of the Medford Site boundary. **Viewpoint B** is the view from north of the Human Bean Coffee Drive-Through. **Viewpoint C** is the view from residences to the immediate north of the site. **Viewpoint D** is the view from OR 99 at the western boundary of the site. Photographs from each viewpoint are included within **Figure 3.13-2**.

Description of Viewsheds

Viewpoint A represents a viewshed from the southeast of the site as experienced by commuters traveling north on OR 99. **Figure 3.13-2** shows the existing view towards the site from OR 99, adjacent to a

commercial area. Views of the site are dominated by commercial development and associated vegetation and trees.

Viewpoint B represents a viewshed from the northwest of the site as experienced by commuters traveling to the Human Bean Coffee Drive-Through or south on OR 99. **Figure 3.13-2** shows the existing view towards the site from the north. Views of the site are dominated by telephone lines and commercial development and associated vegetation and trees.

Viewpoint C represents a viewshed experienced by rural residential housing to the immediate north of the site. This viewpoint is located along Charlotte Ann Road. **Figure 3.13-2** shows the existing view towards the site from these residences. Views of the site are currently partially obstructed by vegetation and trees and the Bear Creek Golf Course.

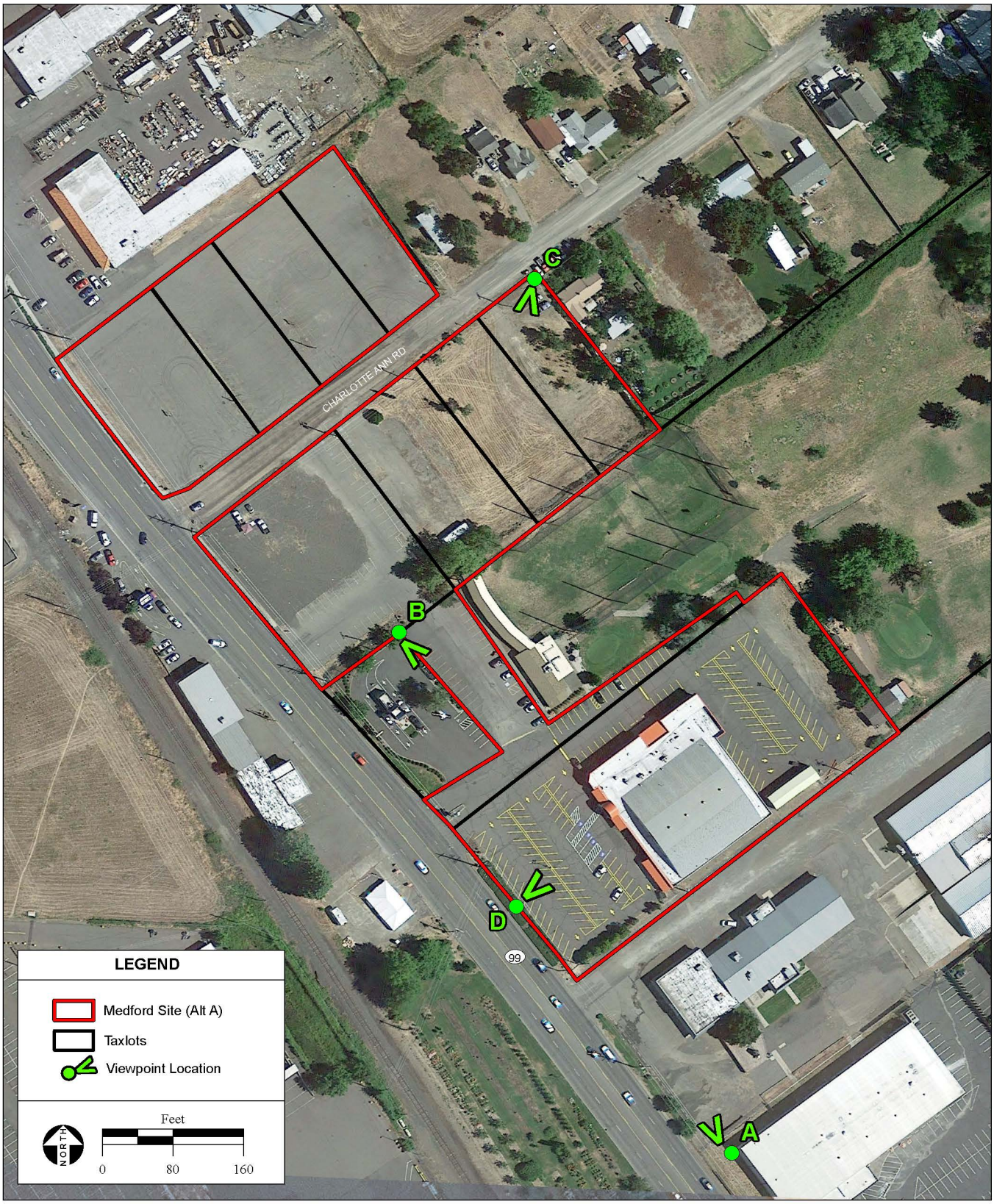
Viewpoint D represents a viewshed directly across from Roxy Ann Lanes, the existing bowling alley, experienced briefly by commuters traveling on OR 99. **Figure 3.13-2** shows the existing façade of the building from across the parking lot just west of the building. Views of the building are relatively unobstructed at such close range.

Shadow, Light, and Glare

No significant shadow is currently cast from the Medford Site. Lighting on the Medford Site currently consists of lighting from the parking lot, commercial buildings, and church. Other major sources of light within the vicinity of the Medford Site include OR 99, nearby shopping centers, streets lights located in the adjacent residential subdivisions and commercial zones, the adjacent Bear Creek Golf Course, and the US Cellular Community Park, located approximately 0.25 miles to the southeast along Lowry Lane.

Scenic Resources

There are no features on the site that include the characteristics of a scenic resource as described in **Section 3.13.1**.



SOURCE: Jackson County GIS 2012; 2015; DigitalGlobe aerial photograph, 6/29/2018; AES, 5/9/2019

Figure 3.13-1
Medford Site Viewpoint Locations

Viewpoint A

Viewpoint B

Viewpoint C

Viewpoint D

SOURCE: AES, 5/7/2019

Figure 3.13-2
Medford Site Viewpoints

3.13.4 EXISTING SETTING – PHOENIX SITE

Regional Context

The Phoenix Site is located within Jackson County, immediately northeast of the City of Phoenix. North Phoenix Road borders the site to the east. Interstate 5 is located to the southeast. The nearest urban populations are the City of Phoenix, located directly west of the site, and the City of Medford, located approximately 0.5 miles northwest along I-5.

Views and Viewsheds

The site is currently undeveloped but has been previously used for grazing activities. On-site vegetation includes shrubs, grasses, and trees found sporadically. The topography of the site is mostly even, with gentle slopes range from 1%-8% and elevation ranges from approximately 1,430-1,560 amsl, sloping south toward North Phoenix Road.

The immediate vicinity surrounding the site is dominated by agricultural land to the north and east, residential development to the southwest, and commercial development to the southeast. Jackson County zoning designations surrounding the Phoenix Site are exclusive farm use and urban residential. Although the Phoenix Site is currently zoned exclusively for farm use (**Figure 3.9-2**), it is located within the PH-5 URA that is proposed for residential and employment development in Greater Bear Creek Valley RPS Plan (Jackson County, 2011). Two viewing corridors have been selected from the viewsheds surrounding the site (**Figure 3.13-3**). These individual viewpoints were selected based on adjacent sensitive receptors.

Viewpoint A is the view from North Phoenix Road at the southeastern boundary of the site. **Viewpoint B** is the view from North Phoenix Road at the northeastern boundary of the site. Photographs from each viewpoint are included within **Figure 3.13-4**. Description of Viewsheds

Viewpoint A represents a viewshed experienced by commuters traveling north on North Phoenix Road within Jackson County. **Figure 3.13-4** shows the existing northwest view towards the site from North Phoenix Road. Views of the site are dominated by open land with scattered trees.

Viewpoint B represents a viewshed experienced by commuters traveling south on North Phoenix Road within Jackson County. **Figure 3.13-4** shows the existing southwest view towards the site from North Phoenix Road. Views of the site are dominated by open land with scattered trees with mountains in the background.

Shadow, Light, and Glare

No significant lighting, shadow, or glare is currently emitted from the site. Major sources of light within the vicinity of the site include I-5, shopping centers located in commercial zones both on Jackson County land in the vicinity of the site and within the City of Phoenix, and streetlights located in both Jackson County and City of Phoenix residential subdivisions in the vicinity of the site.

Scenic Resources

There are no features on the site that include the characteristics of a scenic resource.

SOURCE: Jackson County GIS 2012; DigitalGlobe aerial photograph, 6/2018; AES, 5/7/2019

Figure 3.13-3
Phoenix Site Viewshed Locations

Viewpoint A

Viewpoint B

SOURCE: AES, 5/7/2019

Figure 3.13-4
Phoenix Site Viewsheds

3.13.5 EXISTING SETTING – MILL CASINO SITE

Regional Context and Viewshed

Current land uses within the Mill Casino Site include the Coquille tribal offices as well as the existing Mill Casino Hotel and associated structures and parking. On-site vegetation includes shrubs, grasses, and trees currently on the site. The site is relatively flat with an elevation of approximately 16 feet amsl.

The vicinity of the Mill Casino Site consists urban development within the City of North Bend, and the site is bordered by US-101 on the west and Coos Bay on the east. The immediate vicinity of the Mill Casino Site is dominated by urban development, consisting of residential and commercial developments to the west, an RV park to the north, and industrial developments to the south. Views of the portion of the Mill Casino Site proposed for expansion are afforded to travelers on US-101, visitors to the RV park, and watercraft on Coos Bay.

Shadow, Light, and Glare

The existing Mill Casino on the site currently emits shadow, light, and glare. Major sources of light within the vicinity of the site include US-101, streetlights located in the adjacent residential subdivisions, and boat and ship traffic in the adjacent Coos Bay.

Scenic Resources

There are no features on the site that include the characteristics of a scenic resource. However, the Federal Highway Administration-designated Pacific Coast Scenic Byway, a 363-mile segment of US-101 running from Astoria in Clatsop County to Brookings in Curry County, borders the site to the west.

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This section describes the environmental consequences that would result from the development of the alternatives. The analysis presented in this section has been prepared in accordance with NEPA Regulations Section 1502.16. The direct environmental effects of each alternative are provided under the resource headings described in **Section 3.0** and listed below. This section also provides analysis of growth-inducing and indirect effects in **Section 4.14**, as well as cumulative effects in **Section 4.15**.

Effects are measured against the environmental baseline presented in **Section 3.0**. Indirect and cumulative effects are identified in **Section 4.14** and **Section 4.15**, respectively. Measures to mitigate for significant adverse effects identified in this section are presented in **Section 5.0,** and BMPs are presented in **Section 2.3.3**.

4.2 GEOLOGY AND SOILS

Assessment Criteria

Each alternative is analyzed to determine if construction or operation would result in direct significant impacts to the proposed site topography, soils, or mineral resources; or if geological hazards associated with the existing setting would pose limitations to the development of each alternative.

4.2.1 Alternative A – Proposed Project

Topography

Under Alternative A, the Tribe would renovate the existing bowling alley on the site and convert it into a gaming facility. Adjacent fee land would be used as parking. There would be no substantial grading associated with Alternative A as the site is currently developed and the existing facilities would be used for the project. All existing slopes would be preserved. Therefore, effects associated with topography resulting from Alternative A would be less than significant.

Soils/Geology

Alternative A could temporarily impact soils due to erosion during construction, operation, and maintenance activities. As discussed in **Section 3.2.1** and **Table 3.2-1**, the soils located on the Medford Site have a slight erosion potential based on soil type and slope gradients. There would be no substantial grading associated with Alternative A as the majority of the site is already paved. Alternative A would involve paving the currently unpaved portions of the Medford Site, in addition to the development of stormwater detention and drainage facilities. These facilities would include either vegetated bioretention swales or a distributed pervious strip system, which are described in more detail in **Section 2.3**. While there would be no substantial grading activities on the Medford Site, effects associated with erosion from construction activities are considered potentially significant.

Sediment discharge into navigable (surface) Waters of the U.S. (WOTUS) is prohibited by the federal CWA (1972, with modifications in 1977, 1981, and 1987), which establishes water quality goals for

sediment control and erosion prevention. One of the mechanisms for achieving the goals of the CWA is the NPDES permitting program, administered by the USEPA. As part of the NPDES General Construction Permit, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared and implemented. The SWPPP must make provisions for (1) erosion prevention and sediment control, and (2) control of other potential pollutants. As construction of Alternative A would disturb more than 1 acre of land, the Tribe is required by the CWA to obtain coverage under and comply with the terms of the NPDES General Construction Permit. Soils as described would be suitable for the infrastructure development included in Alternative A assuming standard engineering practices and adherence to the IBC. Mitigation measures are presented in **Section 5.0** to reduce any potential impacts to less than significant. With regulatory requirements and best management practices (BMP) described therein, effects from implementation of Alternative A on soils and geology would be minimal and, therefore, less than significant.

Seismicity

The Medford Site is located in an area that may experience strong seismic shaking. An earthquake of moderate to high magnitude could cause considerable ground shaking at the Medford Site. Without appropriate building design, strong seismic shaking at the Medford Site could result in structural damage. However, as described in **Section 2.3**, all structures would be built to applicable seismic codes and IBC standards. Since no known fault traces are mapped as crossing the Medford Site, the potential for surface rupturing at the site is low and would not be a constraint for Alternative A. With development of all structures in accordance with applicable seismic codes, potential impacts from seismicity under Alternative A are less than significant.

Mineral Resources

Alternative A would not adversely affect known or recorded mineral resources. Alteration in the land use would not result in a loss of economically viable aggregate rock or diminish the extraction of important ores or minerals. There are no known mineral resources within the Medford Site, therefore development and use of the land would not affect such resources. There are no abandoned mines, shafts, or tailings that would affect development. Impacts to mineral resources under Alternative A would be less than significant.

4.2.2 Alternative B – Phoenix Site

Topography

Alternative B would involve grading as part of the construction of the project components; therefore, topographic features of the site would be altered by earthwork. Grading will consist primarily of constructing building pads and level areas for the proposed building and parking lot. The remainder of the property will be left in its current condition.

While some cut-and-fill slopes would be noticeable where development is proposed, the major topographic features (e.g., hills and slopes) would be preserved since development would be confined to an approximately 7.8-acre area of the 49.34-acre Phoenix Site. Development of Alternative B would result in a less than significant effect on topography.

Soils/Geology

Alternative B could temporarily impact soils due to erosion during construction, operation, and maintenance activities. Such activities include clearing, grading, trenching, and backfilling. Soils on the Phoenix Site range from slight to severe potential for erosion. However, the majority of the soils at the

Phoenix Site have a moderate erosion potential, particularly in the area proposed for development. Effects associated with erosion from construction activities are considered potentially significant. As with Alternative A, Alternative B would also require an NPDES permit and a SWPPP. Similar to Alternative A, standard engineering practices, adherence to the IBC, mitigation measures (presented in **Section 5.0**), incorporation of regulatory requirements and BMPs would result in less than significant impacts on soils and geology under Alternative B.

Seismicity

Seismicity of the Phoenix Site is very similar to Alternative A. Consequently, with development of all structures in accordance with applicable seismic codes, potential impacts from seismicity under Alternative B are less than significant.

Mineral Resources

Similar to the Medford Site, there are no known or mapped mineral resources within the Phoenix Site. Project-related impacts to mineral resources under Alternative B would be less than significant.

4.2.3 Alternative C – Expansion of The Mill Casino

Topography

Alternative C would include some pavement removal and foundation construction, but no significant grading activities. Expansion of the existing Mill Casino would occur at the north end of the existing Mill Casino. The topographic features on the Mill Casino Site would be preserved. Development of Alternative C would not result in a significant effect on topography.

Soils/Geology

Alternative C would not require significant grading. Improvements to the existing pier structure would likely be required and could include replacement of wood with sheet pile in the bulkhead separating the earth beneath the existing structure and Ferndale Lower Range, a channelized portion of Coos Bay. These improvements could disturb the bay floor, which is discussed in more detail in **Section 4.3.3**. However, as construction would occur on a currently paved area and significant grading would not be required, effects from implementation of Alternative C on soils and geology would be minimal and, therefore, less than significant.

Seismicity

Seismicity of the Mill Casino Site is very similar to Alternative A. Consequently, with development of all structures in accordance with applicable seismic codes, potential impacts from seismicity under Alternative Care less than significant.

Tsunami

The Mill Casino Site is located in a tsunami evacuation zone and located within the tsunami inundation boundary for tsunamis caused by a magnitude 8.8 undersea earthquake. Expansion of Mill Casino under Alternative C would increase the number of persons that may be exposed to safety risks from tsunami inundation and would increase the potential for impacts to the Tribe from loss of property as a result of tsunami inundation. Effects associated with tsunami risk would be significant.

Mineral Resources

Similar to the Medford Site, there are no known or mapped mineral resources within the Mill Casino Site. Project-related impacts to mineral resources under Alternative C are less than significant.

4.2.4 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, the alternative sites would remain in their current state and no significant adverse effects to geology and soils would occur.

4.3 WATER RESOURCES

Assessment Criteria

For surface water resources, each proposed alternative is analyzed to determine if either construction or operation would result in significant impacts to drainage patterns, floodplain management, and/or water quality. For groundwater resources, each proposed alternative is analyzed to determine if either construction or operation would result in significant impacts to groundwater levels and/or groundwater quality.

4.3.1 Alternative A – Proposed Project

Surface Water

Under Alternative A, water supply would be provided through connections to the MWC infrastructure, as discussed in **Section 4.10**, Public Services.

Flooding

The Medford Site is located outside the 100-year and 500-year floodplains. Therefore, Alternative A would not impede or redirect flood flows, alter floodplain elevations, or affect floodplain management. No impacts from flooding would occur as a result of Alternative A.

Construction Impacts

Construction activities under Alternative A would include minor ground-disturbing activities, which could lead to erosion. Erosion can increase sediment discharge to surface waters during storm events thereby degrading downstream water quality. Construction of Alternative A also has the potential to discharge other construction-related materials (e.g., concrete washings, oil, and grease) onto the ground and then into nearby surface waters during storm events. Construction would also involve the use of diesel-powered equipment and would likely involve the temporary storage of fuel and oil at the site. Discharges of pollutants, including grease, oil, fuel, and sediments to surface waters from construction activities are a potentially significant impact. Implementation of mitigation measures presented in **Section 5.0** would reduce the potential for adverse impacts to water quality from construction activities under Alternative A to a less-than-significant level.

Stormwater Runoff

Stormwater discharges from residential, commercial, and industrial areas have the potential to impact surface water quality. Pollutants that accumulate in dry periods such as oil and grease, asbestos, pesticides, and herbicides, may create water quality problems due to their presence in high concentrations during the first major storm event of the season The majority of the Medford Site is currently paved, and there are no stormwater basins to catch and filter stormwater from the site under existing conditions. Development of Alternative A would increase impervious surfaces on the Medford Site and thereby

generate increased stormwater runoff during rain events. Water quality could be adversely affected if runoff from project facilities flushes trash, debris, oil, sediments, and grease into area surface waters. Effects associated with water quality degradation from on-site stormwater are potentially significant.

A drainage and stormwater treatment analysis for the project alternatives has been completed and is included in **Appendix D**. As described in **Appendix D** and **Section 2.3**, stormwater runoff the majority of the Medford Site under Alternative A would be directed into either vegetated bioretention swales or a distributed pervious strip system, both of which would be sized to accommodate excess water draining from impervious surfaces. Stormwater detention and drainage facilities and associated stormwater improvements for Alternative A would be developed consistent with USEPA recommended Low Impact Development (LID) practices to address non-point pollution in urban areas (USEPA, 2005), and in accordance with the adopted Rogue Valley Stormwater Quality Design Manual (Rogue Valley Sewer Services, 2018). The current Rogue Valley Stormwater Quality Design Manual requires that post-development peak flow be equal to or less than pre-development peak flow. Additionally, the manual provides water quality treatment (pollution reduction) requirements for stormwater treatment at a development site. Preliminary design schematics of the two LID options for stormwater detention and treatment are shown on **Figure 2-8**.

Conceptual hydrologic and hydraulic modeling was prepared for Alternative A (**Appendix D**). As shown in **Appendix D**, adequate stormwater conveyance, detention, and treatment can be provided by either vegetated bioretention swales or a distributed pervious strip system. With development of stormwater facilities consistent with the Rogue Valley Stormwater Quality Design Manual, no significant effects would occur to surface water from stormwater generated by Alternative A. A less than significant impact to stormwater quantity and quality would occur. Implementation of BMPs presented in **Sections 2.3.3**, respectively, including the use of source control and treatment BMPs to prevent the contamination of surface water and groundwater by polluted stormwater, would further reduce impacts from operation of Alternative A.

Groundwater

Groundwater Supply

Development of Alternative A would not require the use of on-site groundwater supplies as water would be provided through the MWC as discussed in **Section 4.10**. The capacity of the MWC water supply system is also discussed in **Section 4.10**. Under Alternative A, no significant impacts to on-site groundwater supplies or surrounding wells would occur.

Although development of Alternative A would introduce new areas of impermeable surfaces which could reduce groundwater re-charge, the development of either vegetated bioretention swales or a distributed pervious strip system for stormwater collection and treatment would allow some collected stormwater to percolate into the groundwater table. Further, as most of the Medford Site is already paved, the increase in impermeable surface is minimal. Therefore, the introduction of impermeable surfaces would have a less-than-significant impact on the groundwater levels.

Groundwater Quality

If not treated properly prior to discharge, surface water runoff has the potential to negatively affect groundwater quality. However, the on-site stormwater facilities would be designed to remove oil and other contaminants, and filter stormwater through either vegetated bioretention swales or a distributed pervious strip system. Along with the treatment facilities, the soil would act as a filter for percolating stormwater. The depth to groundwater at wells in the vicinity of the Medford Site is generally between

60-190 feet and the process of soil absorption and infiltration would adequately filter groundwater by the time it reaches the groundwater table (**Appendix D**). Soil absorption involves contaminants adhering to the surface of soil particles as the water passes through. Infiltration involves contaminants becoming entrained in the tiny spaces created by the shapes of soil components. Therefore, by the time stormwater reaches the groundwater table, it will be of similar quality to pre-existing conditions. Stormwater generated by Alternative A would have a less-than-significant effect on groundwater quality.

4.3.2 Alternative B – Phoenix Site

Surface Water

Under Alternative B, water would be provided pursuant to a services agreement with the City of Phoenix, as discussed in **Section 4.10**.

Flooding

Most of the Phoenix Site is located outside the 100-year and 500-year floodplains, while a small area in the southwestern tip is located within the 500-year floodplain. However, development of Alternative B would not involve any construction within the vicinity of the area designated as a 500-year floodplain. Therefore, Alternative B would not impede or redirect flood flows, alter floodplain elevations, or affect floodplain management. No impacts to or from flooding are expected to occur as a result of Alternative B.

Construction Impacts

The potential for impacts to surface water a result of construction of Alternative B would be similar to Alternative A. Implementation of mitigation measures presented in **Section 5.0** would reduce the potential for adverse impacts to water quality from construction activities under Alternative B to a less-than-significant level.

Stormwater Runoff

The potential for impacts to surface water from stormwater runoff under Alternative B would be similar to Alternative A. Development of Alternative B would create a total of 7.8 acres of new impervious surfaces on the Phoenix Site, thereby generating increased stormwater runoff during rain events. As described in **Appendix D** and **Section 2.4**, stormwater conveyance, detention, and treatment would be provided through the installation of vegetated bioretention swales that would be planted with native plants that are tolerant of inundation and drought, and detention ponds. Small detention ponds would be required to provide flow control to reduce the post development peak flow to pre-development levels. Both of the proposed ponds would be located outside the parking area within the parcel boundary. The southern pond would be located at the bottom of the slope where water naturally drains. Channel protection or drop structures are likely to be required upstream of the pond. Stormwater detention and drainage facilities for Alternative B would be developed in accordance with the adopted Rogue Valley Stormwater Quality Design Manual. **Figure 2-10**, provides a preliminary stormwater drainage plan for Alternative B. As with Alternative A, a less-than-significant impact to stormwater quantity and quality would occur under Alternative B. Implementation of BMPs presented in **Sections 2.3.3**, respectively, would further reduce impacts from operation of Alternative B.

Groundwater

Groundwater Supply

Development of Alternative B would not require the use of on-site groundwater supplies as water would be provided by MWC pursuant to a services agreement with the City of Phoenix discussed in **Section**

4.10. Although the development of Alternative B would introduce large areas of impermeable surfaces, the use of detention ponds for storing stormwater would allow collected stormwater to percolate into the groundwater table. No accumulated stormwater would be discharged offsite. Therefore, the introduction of impermeable surfaces on the Phoenix Site would have a less-than-significant impact on groundwater levels.

Groundwater Quality

The potential for impacts to groundwater quality as result of stormwater infiltration would be similar to Alternative A. Consequently, stormwater generated by Alternative B would have a less-than-significant effect on groundwater quality.

4.3.3 Alternative C – Expansion of the Mill Casino

Surface Water

Flooding

Most of the Mill Casino Site is located outside the 100-year and 500-year floodplains, while a small area in the southern portion of the site is designated as an area subject to inundation by a 100-year flood. However, no development is proposed for the portion of the Mill Casino Site located within the 100-year floodplain. Therefore, Alternative C would not impede or redirect flood flows, alter floodplain elevations, or affect floodplain management. No impacts from flooding are expected to occur as a result of Alternative C.

Construction Impacts

Construction of Alternative C would include some pavement removal and foundation construction, but no significant grading would be performed. Therefore, significant erosion is not anticipated and effects to surface water as a result of ground-disturbing activities are less than significant.

Site improvements under Alternative C could include replacement of wood with sheet pile in the bulkhead separating the earth beneath the existing structure and Ferndale Lower Range, a channelized portion of Coos Bay. These improvements could disturb the bay floor and water quality may be degraded due to turbidity and nutrient overloading. In-water construction would require consultation with USACE and the NMFS. Construction of Alternative C also has the potential to discharge other construction-related materials (e.g., concrete washings, oil, and grease) onto the ground and then into nearby surface waters during storm events. Construction would also involve the use of diesel-powered equipment and would likely involve the temporary storage of fuel and oil at the site. The potential for bay floor disturbance from bulkhead installation and discharges of pollutants to surface waters from construction activities and accidents are a potentially significant impact.

Mitigation measures are presented in **Section 5.0**, which require consultation with USACE and the NMFS regarding installation of BMPs to prevent water quality degradation during construction. Additionally, BMPs presented in **Section 2.3** would ensure that hazardous material BMPs are implemented during construction to prevent water quality degradation. With implementation of mitigation measures and BMPs, effects to water quality during construction would be less than significant.

Stormwater Runoff

Stormwater runoff on the Mill Casino Site would not increase under Alternative C. Thus, there would be no significant effects from stormwater runoff associated with development of Alternative C.

Groundwater

Under Alternative C, the CBNBWB would continue to provide water service to the Mill Casino Site. The primary sources of water for the CBNBWB are surface waters, though the CBNBWB does utilize groundwater sources in the Dunes National Recreation Area. Water supply capacity is discussed in **Section 4.10**.

Alternative C would not increase the amount of impermeable surfaces on the Mill Casino Site. Therefore, there would be no impact to groundwater recharge or groundwater quality on the Mill Casino Site.

4.3.4 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, the alternative sites would remain in their current state and no significant adverse effects to water resources would occur.

4.4 AIR QUALITY

Assessment Criteria

Adverse effects to ambient air quality could result if either construction or operation would result in violations of the federal CAA provisions, or if emissions would impede a state's ability to meet National Ambient Air Quality Standards (NAAQS).

4.4.1 Methodology

Construction Analysis

Construction would entail minor excavation activities for utility connections and to remove pavement for stormwater infiltration facilities, grading and paving of the proposed parking area southeast of Charlotte Ann Road, and building construction. A mixture of trucks, scrapers, excavators, and graders would be used to complete construction. Effects on air quality during construction were evaluated by estimating the amount of pollutants that would be emitted over the duration of the construction period. Particulate matter is the primary pollutant of concern resulting from earth-moving activities and soil hauling.

VOCs, nitrogen oxides (NO_x), SO_2, and CO emissions from the construction of Alternatives A, B, and C would primarily be produced by diesel-fueled equipment use. The majority of these emissions would be from on- and off-road truck use at the alternative sites. Emissions from diesel-fueled trucks and construction equipment were calculated using USEPA-approved emission factors from the 2014 Emissions Factor model (USEPA, 2014a). A detailed list of the proposed equipment and emissions resulting from the equipment is located in **Appendix N**.

The majority of the respirable particulate matter 10 microns in size (PM_{10}) emissions would result from the fugitive dust generated during the minor earth-moving excavation activities. Emission factors from the Western Regional Air Partnership's Fugitive Dust Handbook are used to estimate fugitive dust emissions due to construction activities. Actual particulate matter emissions from dust generation can vary day to day, depending on level of activity, specific operations, mitigation measures, and weather conditions. Emissions were estimated assuming that construction would begin in 2021 and continue at an average rate of 22 days per month for all alternatives. Emissions results are summarized below and included in **Appendix N**.

Operational Analysis

Emission factors in grams per vehicle miles traveled (g/vmt) and grams per vehicle start (g/start) were estimated for patron vehicles using USEPA's model MOVES2014a (USEPA, 2014a). MOVES2014a calculates emission factors for gasoline-fueled and diesel-fueled light-duty vehicles, trucks, heavy-duty vehicles, and motorcycles. The model accounts for progressively more stringent tailpipe emission standards over the vehicle model years evaluated. Emissions of PM_{10}, NO_x, SO_2, CO, VOC, and CO_2 from vehicles traveling to, from, and within the alternative sites were calculated for each alternative. Trip distribution was estimated based on the traffic study for the proposed alternatives (DEA, 2019). Model input data from MOVES2014a is site specific; output data is provided in **Appendix N**.

For each of the project alternatives, natural gas would be used as fuel for hot water boilers, space heating, domestic water heaters, steam boilers for food service, cooking equipment, laundry equipment, and swimming pool heaters. Based on casino/hotel and recreational facilities of similar or greater size, annual gas usage for Alternative A is estimated to be 30 million standard cubic feet (MMscf). Alternative B is similar in size to Alternative A, however, there would be no existing structure; therefore, natural gas use is estimated at 40 MMscf. Alternative C is an expansion of the exiting Mill Casino and it is estimated that an additional 30 MMscf per year of natural gas would be combusted. Emissions from natural gas combustion are calculated using emission factors from AP-42 (USEPA, 1995).

Federal General Conformity

Conformity regulations apply to federal actions that would cause emissions of criteria air pollutants above certain levels to occur in locations designated as non-attainment or maintenance areas for the emitted pollutants. As discussed in **Section 3.4** the Medford Site is located in an area that is classified as maintenance for PM_{10} and CO, and the Phoenix Site is located in an area that is classified as maintenance for PM_{10}. Therefore, a federal general conformity determination analysis may potentially be required for Alternatives A and B.

Hot Spot Analyses

Implementation of the project alternatives would result in emissions of CO. Because CO disperses rapidly with increased distance from the source, emissions of CO are considered localized pollutants of concern rather than regional pollutants and can be evaluated by Hot Spot Analysis. In accordance with the *Transportation Project-Level Carbon Monoxide Protocol*, Hot Spot Analysis is conducted on intersections that, after mitigation, would have a level of LOS of E or F (UC Davis, 1997). After the implementation of recommended mitigation for the project alternatives, no intersection would have an LOS or an increase in delay that would warrant a Hot Spot Analysis. No further analysis is needed.

Climate Change

Given the global nature of climate change impacts, individual project impacts are most appropriately addressed in terms of the incremental contribution to a global cumulative impact (provided in Section 4.15). This approach is consistent with the view articulated by the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (IPCC, 2021). Therefore, refer to Section 4.15 for a discussion and analysis of cumulative impacts related to climate change.

4.4.2 Alternative A – Proposed Project

Construction Emissions

Construction of Alternative A would emit PM_{10}, NO_x, SO_2, CO, VOC, GHGs, and HAPs primarily in the form of DPM from the use of construction equipment and minor grading activities. Emissions from

construction equipment have the potential to increase the concentration of DPM in the close vicinity (within approximately 500 feet) of the construction site if control measures are not implemented. Construction was assumed to begin in 2021 and last approximately 12 months (while construction is now likely to occur during a later year, the assumption of an earlier year would yield higher emission estimates and therefore is a conservative approach). Construction is assumed to occur 8 hours per day, 5 days per week. The construction emission totals for Alternative A are shown in **Table 4.4-1**.

TABLE 4.4-1
UNMITIGATED CONSTRUCTION EMISSIONS – ALTERNATIVE A

Construction	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Total Emissions	1.30	7.88	8.14	0.01	2.33	1.31
Conformity *de minimis* Levels	N/A	N/A	100	N/A	100	N/A
Exceedance of Levels	N/A	N/A	No	N/A	No	N/A
Notes: [1] In tons per year Source: USEPA, 2014a; **Appendix N**						

The Medford Site is in a region of attainment for all criteria pollutants except CO and PM_{10}, which are designated as maintenance by the USEPA. As shown in **Table 4.4-1** estimated CO and PM_{10} emissions are below *de minimis* levels; therefore, in accordance with 40 Part CFR 93, construction of Alternative A would not cause an exceedance of NAAQS. BMPs provided in **Section 2.3.3** would minimize construction related emissions of criteria pollutants, including CO and PM_{10}. BMPs provided in **Section 2.3.3** would also reduce DPM emissions from construction equipment by approximately 85%, avoiding potentially adverse effects to nearby sensitive receptors. Construction of Alternative A would not result in significant adverse effects associated with the regional air quality environment.

Operational Vehicle and Area Emissions

Buildout of Alternative A would result in the generation of mobile emissions from patron, employee, and delivery vehicles, as well as stationary emissions from combustion of natural gas in boilers, stoves, heating units, and other equipment on the Medford Site. Estimated mobile and stationary emissions from operation of Alternative A are provided in **Table 4.4-2**. Detailed calculations of vehicle and area emissions are included as **Appendix N**.

TABLE 4.4-2
OPERATION EMISSIONS - ALTERNATIVE A

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary	0.08	0.01	0.17	0.01	0.09	0.03
Mobile	0.6	5.5	18.0	0.0	0.5	0.2
Total Emissions	0.68	5.51	18.17	0.01	0.59	0.23
Conformity *de minimis* Levels	N/A	N/A	100	N/A	100	N/A
Exceedance of Levels	N/A	N/A	No	N/A	No	N/A
Notes: [1] In tons per year Source: USEPA ,2014a; **Appendix N**						

The Medford Site is in a region of attainment for all criteria pollutants except CO and PM_{10}. In accordance 40 CFR Part 93, if a region is in nonattainment or maintenance for criteria pollutants, then the region does not meet the NAAQS and there are *de minimis* levels for project emissions. As shown in

Table 4.4-2, project emissions do not exceed *de minimis* levels. Implementation of Alternative A would not result in significant adverse effects associated with the regional air quality environment. BMPs provided in **Section 2.3.3** would further minimize less than significant operation related emissions of criteria pollutants, including CO and PM_{10}.

General Conformity Determination

As discussed in **Section 3.4**, the Medford Site is located in an area that is in maintenance for CO and PM_{10}; however, as shown in **Tables 4.4-1** and **4.4-2**, project-related emissions do not exceed *de minimis* levels. Therefore, Alternative A is not subject to a conformity determination.

4.4.3 Alternative B – Phoenix Site

Construction Emissions

Construction of Alternative B would be similar to construction of Alternative A; refer to **Section 4.4.2**. Construction emission totals for Alternative B are shown in **Table 4.4-3**.

TABLE 4.4-3
UNMITIGATED CONSTRUCTION EMISSIONS – ALTERNATIVE B

Construction	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Total Emissions (2021-2022)	1.48	9.49	10.66	0.02	3.16	1.77
Conformity *de minimis* Levels	N/A	N/A	N/A	N/A	100	N/A
Exceedance of Levels	N/A	N/A	N/A	N/A	No	N/A

Notes: [1] In tons per year
Source: USEPA, 2014a; **Appendix N**

The Phoenix Site is in a region of attainment for all criteria pollutants except PM_{10}. As shown in **Table 4.4-3** estimated PM_{10} emissions are below *de minimis* levels; therefore, in accordance with 40 CFR 93, construction of Alternative B would not cause an exceedance of NAAQS. BMPs provided in **Section 2.3.3** would minimize construction related emissions of criteria pollutants, including PM_{10}. BMPs provided in **Section 2.3.3** would also reduce DPM emissions from construction equipment by approximately 85%, avoiding potentially adverse effects to nearby sensitive receptors. Construction of Alternative B would not result in significant adverse effects associated with the regional air quality environment.

Operational Vehicle and Area Emissions

Estimated mobile and stationary emissions from operation of Alternative B are provided in **Table 4.4-4** and are included in **Appendix N**. As shown in **Table 4.4-4** project emissions do not exceed *de minimis* levels. Implementation of Alternative B would not result in significant adverse effects associated with the regional air quality environment. BMPs provided in **Section 2.3.3** would further minimize less than significant operation-related emissions of criteria pollutants, including PM_{10}.

General Conformity Determination

As discussed in **Section 3.4**, the Phoenix Site is located in an area that is in maintenance for PM_{10}; however, as shown in **Tables 4.4-3** and **4.4-4** project emissions do not exceed *de minimis* levels. Therefore, Alternative B is not subject to a conformity determination.

TABLE 4.4-4
OPERATION EMISSIONS - ALTERNATIVE B

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary	0.1	0.0	0.2	0.0	0.1	0.0
Mobile	0.7	7.0	23.1	0.1	0.7	0.2
Total Emissions	0.8	7.1	23.3	0.1	0.8	0.2
Conformity *de minimis* Levels	N/A	N/A	N/A	N/A	100	N/A
Exceedance of Levels	N/A	N/A	N/A	N/A	No	N/A

Notes: [1] In tons per year
Source: USEPA, 2014a; **Appendix N**

4.4.4 Alternative C – Expansion of the Mill Casino

Construction Emissions

Construction of Alternative C would be similar to construction of Alternative A. Refer to **Section 4.4.2**. Construction emission totals for Alternative C are shown in **Table 4.4-5**.

TABLE 4.4-5
UNMITIGATED CONSTRUCTION EMISSIONS – ALTERNATIVE C

Construction	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Total Emissions (2021-2022)	0.88	3.26	5.31	0.01	0.29	0.21
Conformity *de minimis* Levels	N/A	N/A	N/A	N/A	N/A	N/A
Exceedance of Levels	N/A	N/A	N/A	N/A	N/A	N/A

Notes: [1] In tons per year
Source: USEPA 2014a; **Appendix N**

The Mill Casino Site is in a region of attainment for all criteria pollutants; therefore, construction of Alternative C would not cause an exceedance of the NAAQS and a conformity determination is not required to be performed. BMPs, provided in **Section 2.3.3** would further reduce project-related criteria pollutants. BMPs provided in **Section 2.3.3** would also reduce approximately 85% of DPM emissions from construction equipment. Therefore, construction of Alternative C would not result in significant adverse effects associated with the regional air quality environment.

Operational Vehicle and Area Emissions

Estimated mobile and stationary emissions from operation of Alternative C are provided in **Table 4.4-6** and in **Appendix N**. The Mill Casino Site is in a region of attainment for all criteria pollutants. Under 40 CFR Part 93, if a region is in attainment for all criteria pollutants, then the region meets the NAAQS and there are no *de minimis levels* for project emissions to be compared to. BMPs provided in **Section 2.3.3** would minimize criteria air pollutant emissions from operation of Alternative C. Alternative C would not result in significant adverse effects associated with the regional air quality environment. BMPs provided in **Section 2.3.3** would further minimize less than significant operation related emissions of criteria pollutants.

TABLE 4.4-6
OPERATION EMISSIONS - ALTERNATIVE C

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NOx	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SOx	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary	0.06	0.01	0.11	0.01	0.06	0.02
Mobile	0.01	0.12	0.40	0.00	0.01	0.00
Total Emissions	0.07	0.13	0.51	0.01	0.07	0.02
Conformity *de minimis* Levels	N/A	N/A	N/A	N/A	N/A	N/A
Exceedance of Levels	N/A	N/A	N/A	N/A	N/A	N/A

Notes: [1] In tons per year; N/A = Not Applicable; *De minimis* levels are not applicable due to attainment status (Refer to **Section 3.4**).
Source: USEPA, 2014a; **Appendix N**

General Conformity Determination

As discussed in **Section 3.4** the Mill Casino Site is located in an area that is in attainment for all NAAQS; therefore, Alternative C is not subject to a conformity determination.

4.4.5 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, no development would occur on any alternative site. No construction or operational mobile or stationary criteria pollutants or DPM emissions would be generated under this Alternative.

4.5 BIOLOGICAL RESOURCES

Assessment Criteria

This section evaluates the following potential effects to biological resources and considers that a project alternative would have a significant impact on biological resources if it:

- has a substantial adverse effect on habitat necessary for the future survival of such species, including areas designated as critical habitat by the USFWS and/or the NMFS and areas designated as EFH by the NMFS;
- has a substantial adverse effect on special status species pursuant to the federal ESA;
- results in take of migratory bird species as defined by the MBTA (16 USC §703-712); or
- has a substantial adverse direct or indirect effect on federally protected wetlands as defined by Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means.

4.5.1 Alternative A – Proposed Project

Habitats

Alternative A would result in the retrofit and remodel of a bowling alley into a gaming facility and the utilization of adjacent land within the Medford Site as parking for Alternative A. Alternative A would only alter previously disturbed ruderal/developed habitat within the Medford Site. No USFWS-designated critical habitat occurs within the Medford Site or in the immediate vicinity. The nearest USFWS-designated critical habitat is for Cook's lomatium (*Lomatium cookii*), located approximately 4.5

miles west of the Medford Site. As such, no USFWS critical habitat is located on the Medford Site and no adverse effect to critical habitats would occur under Alternative A.

Federally Listed Species

As discussed in **Section 3.5.2**, the Medford Site is completely developed and paved; no federally listed wildlife species have the potential to occur on the site. There is a hydrological connection between the Medford Site and Bear Creek, an anadromous-bearing stream containing two listed species, Chinook salmon (*Oncorhynchus tshawytscha*) and coho salmon (*O. kisutch*). If not properly controlled, sediment and stormwater runoff from Alternative A could impact water quality within the ditch leading to Bear Creek, located approximately 1,500 feet east of the Medford Site, which provides habitat for listed fish species. Adherence to the requirements of the CWA through implementation of a SWPPP, as identified in **Section 5.0**, as well as the implementation of the proposed LID features under Alternative A, including either vegetated bioretention swales or a distributed pervious strip system, would adequately treat and control flow of stormwater prior to discharge off the Medford Site. These measures would protect downstream waterways from increased flow rates, control erosion, minimize sediment load, and prohibit refueling near waterways, and thus would ensure that construction and operation activities associated with the development of Alternative A would not indirectly affect Bear Creek. After the implementation of project LIDs and mitigation, effects to federally listed species as result of Alternative A would be less than significant.

Migratory Birds

Construction Activities

Migratory birds and their nests are protected from "take" by the federal MBTA of 1918 (16 USC 703-712), which makes it unlawful to "pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess... or any part, nest, or egg of any such bird." Alternative A could adversely affect active migratory bird nests if vegetation removal or loud noise producing activities associated with construction of Alternative A were to occur during the nesting season. There are potential nesting sites along the vegetated ditch that runs northeast from OR 99 across the Medford Site, west of the proposed fee-to-trust parcel boundaries, and within landscaped areas adjacent to OR 99. This is a potentially significant impact. Potential significant adverse effects to migratory birds and other special status bird species would be avoided or minimized by implementation of the mitigation measures identified in **Section 5.0**.

Lighting

The Medford Site is located in an urban area and currently emits a certain level of nighttime lighting associated with the bowling alley and parking areas. Alternative A would increase the level of lighting on the site; therefore, an increase in collisions of birds with structures and a disorientation effect on avian species could occur. However, incorporation of BMPs identified in **Section 2.3.3** would reduce any potentially significant nighttime lighting impacts on migrating bird populations. Alternative A would not result in significant adverse effects to nesting migratory birds.

Waters of the U.S.

There is one potential Water of the U.S. consisting of a channelized ditch that runs northeast from OR 99 across the Medford Site. Alternative A would not directly alter or impact this drainage facility. However, if not properly controlled, erosion as well as sediment and stormwater runoff from Alternative A could impact water quality within the ditch, which discharges to Bear Creek approximately 1,500 feet east of the Medford Site. This is a potentially significant adverse effect. Implementation of mitigation measures identified in **Sections 5.0**, including the protection of downstream waterways from increased flow rates,

the control of erosion, minimization of sediment load, and refueling away from waterways, would ensure that construction and operation activities associated with the development of Alternative A would not indirectly affect Bear Creek. After mitigation, Alternative A would not result in significant adverse effects to WOTUS.

4.5.2 Alternative B – Phoenix Site

Habitats

The construction of a casino and associated parking lot result in direct impacts to 0.77 acres of ruderal areas, 6.97 acres of pastureland habitats, and 0.06 acres of oak Savanna habitats. No USFWS critical habitat is located on the Phoenix Site and no adverse effect to these habitats would occur under Alternative B. The nearest USFWS-designated critical habitat is for the northern spotted owl (*Strix occidentalis caurina*), approximately 4 miles southwest of the Phoenix Site. As such, critical habitat will not be affected by Alternative B.

Federally Listed Species

As discussed in **Section 3.5.4**, no federally listed species have the potential to occur on the site; thus, Alternative B would not result in potential take of any federally listed species.

Migratory Birds

Construction Activities

Alternative B could adversely affect active migratory bird nests if vegetation removal activities or loud noise associated with project construction were to occur during the nesting season. There are trees with the potential to host nesting birds in the central portion of the site adjacent to the proposed development as well as the extreme southwestern corner of the Phoenix Site. This is a potentially significant impact. Potential adverse direct effects to migratory birds and other special status bird species would be avoided or minimized by implementation of the mitigation measures identified in **Section 5.0**.

Lighting

Effects from lighting would be very similar to those under Alternative A. Incorporation of BMPs identified in **Section 2.3.3** would reduce any potentially significant nighttime lighting impacts on migrating bird populations to less than significant.

Waters of the U.S.

Based on research, a review of aerial photographs, and observations made from the perimeter of the Phoenix Site, there are no known WOTUS within the development footprint of Alternative B; however, a delineation of WOTUS could not be conducted as access to the site was restricted. Potential effects to WOTUS from construction of Alternative B are considered potentially significant. Mitigation measures to ensure no adverse effects to the wetland features and potential WOTUS are included in **Section 5.0**. After mitigation, Alternative B would not result in significant adverse effects to WOTUS.

4.5.3 Alternative C – Expansion of the Mill Casino

Habitats

The construction of an approximately 5,000-square foot addition to the existing Mill Casino would impact 0.115 acres of paved and disturbed area within the Mill Casino Site. No USFWS-identified critical habitat is located within the Mill Casino Site. As discussed in **Section 3.5.4**, NMFS critical habitat for coho

salmon (*O. kisutch*) and green sturgeon (*Acipenser medirostris*) is located adjacent to the project in the Ferndale Lower Range, a channelized portion of Coos Bay. Additionally, Coos Bay adjacent to the Mill Casino Site provides habitat for the Pacific eulachon (*Thaleichthys pacificus*).

If not properly minimized and contained, sediment discharge and stormwater runoff from Alternative C could impact water quality in Coos Bay just east of the site. This is considered a potentially significant impact. Stormwater run-off associated with Alternative C would be managed consistent with existing practices for the current Mill Casino which are designed to maintain high water quality standards that will eliminate indirect adverse effects to Coos Bay by ensuring sediment and other water pollutants are minimized and property controlled. Implementation of the mitigation measures identified in **Section 5.0** would ensure that construction and operation activities associated with the development of Alternative C would not indirectly affect water quality in Coos Bay. After mitigation, Alternative C would not result in significant adverse effects to habitats.

Federally Listed Species

As discussed in **Section 3.5.4**, the Mill Casino Site is entirely developed and does not provide habitat for any special status species, although the Ferndale Lower Range, a channelized portion of Coos Bay**,** immediately east and adjacent to the Mill Casino provides habitat for the coho salmon, green sturgeon, and Pacific eulachon. Construction activities associated with reinforcement of the bulkhead within Coos Bay and stormwater run-off from Alternative C could impact water quality and result in indirect effects to these federally listed fish species. This is a significant adverse effect. Mitigation measures are recommended within **Section 5.0** that would minimize potential impacts to these species, and stormwater mitigation measures are identified in **Section 5.0**. After mitigation, effects to special status species as a result of Alternative C would be less than significant.

Migratory Birds

Construction Activities

Alternative C would not require any vegetation-clearing activities and there is no potential nesting habitat within 100 feet of the potential construction activities. Thus, no impact to migratory birds would occur.

Lighting

Effects from lighting would be very similar to those under Alternative A. Thus, with incorporation of BMPs identified in **Section 2.3.3**, Alternative C would not result in significant adverse effects to nesting migratory birds.

Waters of the U.S.

WOTUS do not exist on the site. However, erosion, sediment, and stormwater runoff from Alternative C as a result of bulkhead reinforcement could impact water quality in the Ferndale Lower Range, a navigable WOTUS immediately east of the Mill Casino Site. This is a potentially significant impact. Implementation of the mitigation measures identified in **Section 5.0** would ensure that construction and operation activities associated with the development of Alternative C would not indirectly affect WOTUS After mitigation, Alternative C would not result in significant adverse effects to WOTUS.

4.5.4 Alternative D – No Action/No Development

Existing biological resources would remain as-is in the near-term and habitats would not be disturbed under the No Action/No Development alternative. The No Action/No Development Alternative would have no impact to biological resources.

4.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

Assessment Criteria

In accordance with Section 106 of the NHPA, a significant adverse impact would result if implementation of one of the alternatives resulted in one of the following effects to existing cultural resources.

- Physical destruction of or damage to all or part of the resource; alteration of a resource
- Removal of the resource from its historic location; change of the character of the resource's use or of physical features within the resource's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the resource's significant historic features
- Neglect of a resource that causes its deterioration

4.6.1 Alternative A – Proposed Project

Cultural Resources

A 2015 archaeological investigation and 2022 supplemental archaeological research report prepared for the Medford Site (**Appendix G**) revealed no cultural or archaeological resources. Roxy Ann Lanes was constructed in 1959 but underwent significant interior and exterior remodeling in 2004. Additionally, the bowling alley has no connections to persons or events significant in history and proposed renovations to convert the structure into a gaming facility will not uncover information important in history or prehistory. Therefore, Roxy Ann Lanes does not meet the criteria for listing on the NRHP.

In accordance with Section 106 of the NHPA, in 2020, the BIA submitted the results of the 2015 cultural resources survey to the Oregon State Historic Preservation Office (SHPO), requesting concurrence with their determination that the proposed undertaking would have 'No Potential to Effect" historic properties. In a response letter dated February 21, 2020, SHPO concurred that "the project will likely have no effect on any significant archaeological objects or sites" but recommended that additional research related to the potential for buried unknown resources be conducted or that an archaeologist be on site for all ground disturbances during construction. A supplemental archaeological research report was prepared in 2022 to address the recommendations from SHPO. Similar to the 2015 report, the supplemental study concluded that although the potential for discovery of unknown buried resources is low given the disturbed nature of the site, there is a slight possibility that previously unknown cultural resources will be encountered during ground-disturbing activities. As described in **Section 5.0**, monitoring will occur during ground disturbing activities deeper than 2 feet and treatment and avoidance measures will be implemented in the event of unanticipated archaeological discoveries. Therefore, with the measures in **Section 5.0**, Alternative A will not result in significant adverse effects to unknown archaeological resources.

Paleontological Resources

No paleontological resources have been reported or observed on or in the vicinity of the Medford Site. Therefore, Alternative A would not result in significant adverse effects to known paleontological resources.

There is a possibility that previously unknown paleontological resources would be discovered during earthmoving activities. This would be a potentially significant impact. Mitigation measures are presented in **Section 5.0** for the treatment of unanticipated paleontological discoveries. Therefore, with mitigation, Alternative A would not result in significant adverse effects to previously unknown paleontological resources.

4.6.2 Alternative B – Phoenix Site

Cultural Resources

There are no previously identified cultural resources on the Phoenix Site, but no archaeological survey was conducted as there was no access to the property (**Appendix G**). The topography and distance to natural resources indicate the potential for archaeological sites to be present within the footprint of Alternative B. Therefore, Alternative B would result in potentially significant adverse effects to cultural resources. Mitigation measures that would require a comprehensive survey for cultural resources, the evaluation of any identified resources for NRHP eligibility, and treatment of any discovered cultural resources in accordance with Section 106 of the NHPA are presented in **Section 5.0**. With the implementation of these mitigations measures, Alternative B would not result in significant adverse effects to archaeological resources.

Paleontological Resources

As with Alternative A, no paleontological resources have been reported or observed on or in the vicinity of the Phoenix Site. There is also a potential for unrecorded, subsurface paleontological resources to be discovered during heavy ground-disturbing activity. This would be a potentially significant impact. Mitigation measures are presented in **Section 5.0** for the treatment of unanticipated paleontological discoveries. Therefore, with mitigation, Alternative B would not result in significant adverse effects to either known or previously unrecorded paleontological resources.

4.6.3 Alternative C – Expansion of the Mill Casino

Cultural Resources

The cultural resources investigation of the Mill Casino Site consisted of a background record search performed via the Oregon State Historic Preservation Office Archaeoview Website; no known NRHP-eligible cultural resources were identified. Expansion of the existing Mill Casino under Alternative C would require excavating part of an existing parking lot for the proposed building and filling where cut slopes necessitate additional leveling. The parking lot is located on engineered fill, and therefore construction activities would not disturb native soils that have the potential to contain buried cultural resources. There is a remote possibility that previously unknown archaeological resources will be encountered during construction activities within the engineered fill; however, the disturbed nature of engineered fill would result in a lack of depositional integrity that would render any such finds less than significant. Further, construction would not affect any structures greater than 50 years old. Therefore, Alternative C would result in No Historic Properties Affected and would not result in significant adverse effects to archaeological resources.

Paleontological Resources

No paleontological resources have been reported or observed on or in the vicinity of the Mill Casino Site, and construction will only affect engineered fill. Therefore, Alternative C would not result in significant adverse effects to paleontological resources.

4.6.4 Alternative D – No Action/No Development

The No Action/No Development Alternative and will not result in significant adverse effects to cultural or paleontological resources.

4.7 SOCIOECONOMIC CONDITIONS

Assessment Criteria

Socioeconomic Impacts

To determine the potential effects of the alternatives associated with socioeconomic conditions, the economic effects of temporary construction and ongoing operational activities of each alternative were measured. Because socioeconomic effects would be most pronounced in the vicinity of the alternative sites, the scope of analysis focuses on impacts to the site and surrounding geographic boundaries of Jackson County and its incorporated communities, including the Cities of Medford and Phoenix (Alternatives A and B) and the geographic boundaries of Coos County and its incorporated communities, including the City of North Bend (Alternative C). Impacts from construction would be a one-time occurrence, while those from operation would be generated continuously after opening. An adverse economic, fiscal, or social impact would occur if the effect of the project were to negatively alter the ability of governments to perform at existing levels1 or alter the ability of people to obtain public health and safety services. Much of the analysis presented herein relies on data presented in the Impact Study for the Coquille Development Project, included as **Appendix E**. Economic effects in this analysis are quantified for Jackson and Coos County using the Impact Analysis for Planning (IMPLAN) model.

Environmental Justice Impacts

To determine the impacts of the alternatives on environmental justice, the location and status of minority and low-income communities of concern, as identified in **Section 3.7**, are compared to the effect and nature of the impacts of an alternative. An adverse environmental justice impact would result if any impact within the scope of this document disproportionately affected an identified minority or low-income community or Native American tribe. *Final Guidance for Incorporating Environmental Justice Concerns in United States Environmental Protection Agency's National Environmental Policy Act Compliance Analyses* provides the direction on how to analyze the impacts of actions on low-income and minority populations. Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population (USEPA, 1998).

4.7.1 Alternative A – Proposed Project

Economic Effects

Expenditures on goods and services for construction and operational activities would generate substantial direct economic output, as well as indirect and induced economic output. Output is defined as the total value of all goods and services produced at the establishment or construction site. Direct output would result from money spent on activities for construction and operational activities of the project. Indirect output would result from expenditures on goods and services by businesses that receive funds directly from the construction and operation of Alternative A. Induced output would result from expenditures on goods and services by employees directly generated from construction and operation of Alternative A.

Construction

Expenditures on goods and services from the construction of Alternative A were calculated from estimated costs for construction, investment in furniture, fixture and equipment, various business and consulting fees, and pre-opening expenses. Alternative A would be developed in one phase with

construction activities occurring over a period of approximately 12 months. Under Alternative A, construction activities are estimated to cost approximately $31.9 million (including estimated water/wastewater infrastructure costs of approximately $210,000; Kennedy and Jenks, 2016), which is expected to generate a one-time total output[1] of approximately $22.4 million within the County (**Table 4.7-1**). Direct output is estimated to total approximately $13.9 million, of which approximately $12.2 million is attributed to the construction industry. Indirect and induced outputs were estimated to total $3.5 million and $5.0 million, respectively. Indirect and induced output would be dispersed and distributed among a variety of different industries and businesses throughout Jackson County. Construction of Alternative A would generate substantial output to a variety of businesses in Jackson County. Output received by Jackson County businesses would in turn increase their spending, and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

TABLE 4.7-1
ONE-TIME CONSTRUCTION ECONOMIC IMPACT (MILLIONS)

	Alternative A	Alternative B	Alternative C
Development Budget (2021 dollars)	$31.9[1]	$32.6	$28.5
Direct Output (Selected Industries)			
Construction	$12.2	$13.4	$10.7
Accommodation/food services	$0.8	$1.0	$0.6
Direct Total	$13.9	$15.5	$11.9
Other Output			
Indirect	$3.5	$3.9	$1.4
Induced	$5.0	$5.6	$2.7
Total Output	**$22.4**	**$25.0**	**$16.0**

Notes: [1]Includes water/wastewater infrastructure costs. Under Alternative A, this cost would be approximately $210,000 (Kennedy and Jenks, 2018). Though numbers appear to be estimated to the nearest dollar, accuracy is not indicated to that level due to rounding. Due to rounding, numbers may not add up to equal the number given in the Total Output row.
Source: GMA, 2019; **Appendix E**.

Impacts to the City of Medford

Table 4.7-2 shows the construction impacts to the City of Medford under Alternative A, which is expected to produce $11.4 million in economic output within the City of Medford. As shown in **Table 4.7-2**, construction of Alternative A would employ 78 workers within the City of Medford and generate $3.6 million in one-time wages.

TABLE 4.7-2
ONE-TIME CONSTRUCTION IMPACTS TO THE CITY OF MEDFORD UNDER ALTERNATIVE A (MILLIONS)

Alternative A	Direct	Indirect	Induced	Total
Output	$7.1	$1.8	$2.6	$11.4
Labor Income	$2.4	$0.5	$0.7	$3.6
Employment	51	10	17	78

Notes: All numbers are rounded to the nearest hundred thousand dollars. Though numbers appear to be estimated to the nearest dollar, accuracy is not indicated to that level due to rounding. Due to rounding, numbers may not add up to equal the number given in the Total column.

[1] Total output measures the value of goods and services that go into construction of the gaming facility, together with the induced and indirect impacts in the regional economy.

Source: GMA, 2019; **Appendix E**.

Operation

Expenditures on goods and services from the operation of Alternative A were calculated from revenue projections for the first stabilized year of operation, assumed to be 2023, with an opening year of 2022. The projected revenue for Alternative A is estimated to be approximately $48.7 million annually and the total estimated annual number of patrons is approximately 660,000 (**Appendix E**). New spending from Alternative A is expected to generate a net annual total output of approximately $35.0 million within Jackson County (**Table 4.7-3**). Direct output is estimated to total approximately $18.6 million, of which approximately $15.0 million would be attributed to the entertainment and recreation industry. Indirect and induced outputs were estimated to total $7.7 million and $8.6 million, respectively.

Similar to the construction of Alternative A, operation of Alternative A would generate increased revenues for a variety of businesses in Jackson County as a result of increased economic activities. Output received by Jackson County businesses would in turn increase their spending, and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact. No mitigation is required.

TABLE 4.7-3
ANNUAL OPERATIONAL ECONOMIC IMPACT (MILLIONS)

Operation	Alternative A	Alternative B	Alternative C
Direct Output (Industry)			
Entertainment & Recreation	$15.0	$14.7	$4.1
Accommodation/Food Services	$3.4	$3.3	$1.3
Retail Trade	$0.3	$0.3	$0.8
Direct Total	$18.6	$18.2	$5.5
Other Output			
Indirect	$7.7	$7.6	$1.4
Induced	$8.6	$8.4	$1.3
Total Output	**$35.0**	**$34.3**	**$8.2**

Notes: Though numbers appear to be estimated to the nearest dollar, accuracy is not indicated to that level due to rounding. Due to rounding, numbers may not add up to equal the number given in the Total column.
Source: GMA, 2019; **Appendix E**.

Impacts to the City of Medford

Table 4.7-4 shows the annual operational impacts to the City of Medford under Alternative A, which is expected to produce $17.9 million annually within the City of Medford. As shown in **Table 4.7-4**, operation of Alternative A would employ 153 workers within the City of Medford and generate $6.1 annually in wages.

TABLE 4.7-4
ANNUAL OPERATIONAL IMPACTS TO THE CITY OF MEDFORD UNDER ALTERNATIVE A

Alternative A	Direct	Indirect	Induced	Total
Output	$9.5	$4.0	$4.4	$17.9
Labor Income	$3.9	$1.0	$1.3	$6.1
Employment	98	27	29	153

Notes: All numbers are rounded to the nearest hundred thousand dollars.
Source: GMA, 2019; **Appendix E**.

Substitution Effects

Potential substitution effects (the loss of customers at existing commercial businesses to the new business) of Tribal gaming facility on existing gaming, restaurant, recreation, and retail establishments are considered when attempting to determine the true magnitude of the casino's impact on the economy. The magnitude of the substitution effect can generally be expected to vary greatly by specific location and according to a number of variables. That is, how much of the gaming facility revenue comes at the expense of other business establishments in the area depends on how many and what type of other establishments are within the same market area as the casino, disposable income levels of local residents and their spending habits, as well as other economic and psychological factors affecting the consumption decisions of local residents.

Existing Tribal Casino Gaming Market Substitution Effects

An analysis of the potential substitution effects of Alternative A on other local gaming facilities based on the gaming market and the distance, size, and quality of nearby facilities was conducted and included in **Appendix E**. The analysis included collecting background information and developing a gaming market gravity model. The gravity model is based on an assessment of overall gaming revenues supported by population, incomes, typical win per visit and casino gaming participation both nationally and in the Pacific Northwest.

Whenever a new casino opens in a new market area, a certain amount of market substitution is to be expected. The composition of gaming revenues for Alternative A in the first full year of operation is summarized below in **Table 4.7-5**.

TABLE 4.7-5
PROJECTED SUBSTITUTION EFFECTS SUMMARY, 2023 – GAMING (MILLIONS)

Scenario	Projected Local Revenue	Substitution Effect	New Market Growth
Alternative A	$44.2	($36.0)	$8.2
Alternative B	$43.1	($35.1)	$8.0
Alternative C	$4.3	($4.3)	$0.0

Notes: All numbers are rounded to the nearest hundred thousand dollars.
Source: GMA, 2019; **Appendix E**.

Alternative A is projected to cause an estimated year 1 (2023) decline in revenue of competing facilities, as shown below in **Table 4.7-6** (**Appendix E**). Four existing gaming facilities are expected to experience a substitution effect that could be equal to or greater than 5% of their projected gaming revenue in 2023. These facilities are operated by the Cow Creek Band; Karuk Tribe; Klamath, Modoc & Yahooskin Tribes; and the Yurok Tribe. A typical properly managed facility should have the ability to streamline operations to absorb the magnitude of impacts described in **Table 4.7-6** and remain operational (**Appendix E**).

Estimated substitution effects are anticipated to diminish after the first year of the project operations because local residents will have experienced the casino and will gradually return to more typical and more diverse spending patterns. Substitution effects also tend to diminish after the first full year of operations because, over time, growth in the total population and economic growth tend to increase the dollar value of demand for particular goods and services. It is estimated that revenues would rebound to projected 2023 levels within 16.1 years at the Cow Creek Band's gaming facility, within 28.1 years at the Karuk Tribe's gaming facility, and within 12.3 years at the Kla-Mo-Ya facility.

Although the substitution effects resulting from Alternative A to competing gaming facility revenues may impact the operations of these casinos, they are not anticipated to cause their closure. Therefore, it is anticipated that under Alternative A, the above-listed facilities would continue to operate and generate a certain level of profit that would be utilized by the tribal governments that own them to provide services to their respective memberships. No physical environmental effects would occur. As upheld by the United States District Court for the Eastern District of California, "competition…is not sufficient, in and of itself, to conclude [there would be] a detrimental impact on" a tribe (Citizens for a Better Way, et al. v. United States Department of the Interior, E.D. Cal., 2015).

TABLE 4.7-6
ESTIMATED SUBSTITUTION EFFECTS[1], 2023

	Revenue Source	Alternative A	Alternative B	Alternative C
Confederate Tribes of Grand Ronde	Spirit Mountain Casino	-2.3%	-2.3%	-0.5%
Confederate Tribes of Siletz Indians	Chinook Winds Casino Resort	-2.2%	-2.2%	-0.5%
Coos, Lower Umpqua & Siuslaw Indians	Three Rivers Coos Bay, Three Rivers Casino Resort	-3.7%	-3.7%	-4.0%
Coquille Indian Tribe	The Mill Casino	-4.7%	-4.6%	10.8%[1]
Cow Creek Tribe	Seven Feathers Casino Resort	-25.0%	-23.9%	-1.7%
Elk Valley Rancheria	Elk Valley Casino	-4.2%	-4.1%	-0.6%
Karuk Tribe	Rain Rock Casino	-27.2%	-27.4%	-0.6%
Klamath, Modoc & Yahooskin Tribes	Kla-Mo-Ya Casino	-16.1%	-16.4%	-0.3%
Redding Rancheria	Win-River Resort and Casino	-2.4%	-2.4%	-0.1%
Tolowa Dee-ni' Nation	Lucky 7 Casino	-2.7%	-2.6%	-1.0%
The Yurok Tribe	Redwood Hotel Casino	-5.6%	-5.5%	-0.5%

Notes: [1] Incremental to existing facility projected revenue totals.
Source: GMA, 2019; **Appendix E**.

Existing State Video Lottery Terminal Competition

Along with the casino-based gaming facilities mentioned in this section, the State of Oregon supported 11,742 video lottery terminal machines (VLT) in 2018. They are operated by the State and located in bar and retail establishments. In 2017 and 2018, VLTs generated revenues of approximately $914.1 million and $934.0 million, respectively. From 2015-2017, over $34.7 million in Oregon Lottery funds helped support projects and programs in Jackson County, distributed through such agencies as the Oregon Business Development Department, the Oregon Department of Education/State School Fund, ODOT, Oregon University Systems, Oregon Watershed Enhancement Board, Oregon Parks Department, and Video Lottery/Local Economic Development (Oregon Lottery, 2017). Local VLTs in the Medford gaming market, as defined in **Appendix E**, are expected to experience an approximate 7.7% revenue reduction. The Medford market region has a population of 248,678 people over the age of 21 (and thus eligible to use VLTs). This represents approximately 8% of the State of Oregon's population of people 21 or older (US Census Bureau, 2019b). Therefore, the VLT market in the State of Oregon would experience less than a 1% decrease as a result of Alternative A. Given a lottery revenue growth rate averaging 0.7% per year from 2007 to 2018, this potential loss is likely to be at least partially if not fully mitigated by normal growth in lottery revenues within a one-year time period (**Appendix E**). Additionally, it is possible the Oregon VLT market will experience a growth rate even higher than 0.7%; from July 2015 to December 2015, Oregon gaming revenues increased by more than 9.0% (Oregon Office of Economic

Analysis, 2016), and sales of all lottery products increased by 6.1% from fiscal year 2014 to fiscal year 2015 (Oregon State Lottery, 2015). Alternative A would not have a significant adverse impact on the State's ability to fund lottery-funded programs. Additionally, as analyzed in **Appendix E**, there would be no impact from the Proposed Project to Oregon Lottery sales or overall lottery financial performance. In fact, in the majority of comparable state lottery systems evaluated, when additional gaming machines were introduced into their respective gaming markets, lottery sales increased in the immediate subsequent year. All comparable jurisdictions maintained a positive overall annual average growth rate during the period examined.

Non-Gaming Substitution Effects

Numerous studies have been conducted to estimate the substitution effects of gaming venues on existing retail business in the surrounding communities. The results of these studies are inconclusive, but collectively imply that newly introduced gaming venues do not typically have negative or adverse substitution effects on surrounding retail establishments. These studies include one published in 2008 by Barrow and Hirschy, which discussed the trends in Atlantic City (Barrow and Hirschy, 2008), and a 2008 study conducted by the Center for Policy Analysis of the University of Massachusetts Dartmouth (Center for Policy Analysis, 2013). These studies suggest that any substitution effect is counteracted by increased activity at local retail businesses that are attributable to casino patrons other than local residents. This conclusion is substantiated by the dominance of the gaming component of Alternative A. The retail element of Alternative A exists only to complement the gaming component. The overwhelming majority of patrons who visit the site would be drawn there because of the gaming element, and therefore these persons would not otherwise patronize Medford retail establishments. Consequently, non-gaming substitution effects would be less than significant.

Fiscal Effects

Alternative A would result in a variety of fiscal impacts. The Tribe would not pay corporate income taxes on revenue or property taxes on tribal land. Alternative A would increase demand for public services, resulting in increased costs for local governments to provide these services. Tax revenues would be generated for federal, state, and local governments from activities including secondary economic activity generated by tribal gaming (i.e., the indirect and induced effects of the economic impact analysis). The taxes on secondary economic activity include: corporate profits tax, income tax, sales tax, excise tax, property tax, and personal non-taxes, such as motor vehicle licensing fees, fishing/hunting license fees, other fees, and fines.

As described in **Section 2.0**, Alternative A would include the transfer of one parcel (Tax Lot 37-1W-32C-4701) from fee status into federal trust for the benefit of the Tribe, resulting in the loss of local property taxes. As shown in **Table 3.7-1**, during the 2021 tax year, the parcel that would go into trust generated $25,189 of property tax income for the state, county, and local governments. Because property in trust is not subject to property taxes, these property taxes would be lost to state and local governments. Additionally, operation of Roxy Ann Lanes bowling alley on the proposed trust parcel currently generates a certain amount of federal, State, and local business taxes. Lost property and business taxes would be more than offset by tax revenues generated for State and local governments from economic activity associated with the construction and operation of Alternative A. These estimated tax revenues are show in **Table 4.7-7**. Construction of Alternative A would generate one-time $1.8 million in federal tax revenues, and $1.0 million in state/county/local tax revenues. Operation of Alternative A would generate annually $2.9 million in federal tax revenues, and $1.4 million in state/county/local tax revenues from indirect and induced taxes.

Construction and operation of Alternative A would generate substantial economic output for a variety of businesses in Jackson County. Additionally, Alternative A would generate substantial tax revenues for State and local governments as well as Jackson County. Potential effects due to the loss of state and federal tax revenues resulting from the operation as a sovereign nation on trust land would be offset by increased local, state, and federal tax revenues resulting from construction and operation of Alternative A. Overall, Alternative A would result in a beneficial impact to the local economy in Jackson County.

TABLE 4.7-7
TAX REVENUES (MILLIONS)

Jurisdiction	Alternative A	Alternative B	Alternative C
Construction (One-Time)			
Federal	$1.8	$2.0	$1.3
State/County/Local	$1.0	$1.1	$0.6
Operation (Annually)			
Federal	$2.9	$3.2	$0.7
State/County/Local	$1.4	$1.3	$0.2

Notes: Though numbers appear to be estimated to the nearest hundred thousand dollars, accuracy is not indicated to that level due to rounding.
Source: GMA, 2019; **Appendix E**.

Property Values

The construction of a gaming facility may result in changes to local property values, which could impact local tax assessor rolls and in turn, local property tax revenues. Changes in appreciation rates of adjacent properties could also impact future property tax revenues. Changes in property value can be affected by a number of factors, including the proximity of the casino to other properties in the vicinity, the mix of properties surrounding the casino, whether the casino stimulates additional development and whether or not the casino is located in an urban area. Impacts to surrounding commercial and industrial uses would probably be neutral to positive because a casino development would bring increased economic activity and because such a project may stimulate additional commercial development in the vicinity of the site. Given the location of the Medford Site in a commercially zoned area, any effect of Alternative A on housing values will be less than significant.

Employment

Investment in construction and operational activities would generate substantial direct employment opportunities and wages, as well as indirect and induced employment opportunities and wages. The source of direct, indirect, and induced employment opportunities and wages would be similar to those industries for economic output, as discussed above in **Tables 4.7-1** and **4.7-3**. The IMPLAN model was used to estimate employment opportunities generated by Alternative A, as described in **Appendix E**.

Construction

Under Alternative A, investment in construction activities would generate a one-time total of approximately 183 employment positions within the County (**Table 4.7-8**). The number of employment positions is equivalent to the number of person-years available from wages. A person-year is defined as the amount of labor one full-time employee can complete in a calendar year. For example, two half-time employees working for a year would constitute one person-year. Employment opportunities generated from construction and operation of Alternative A would result in wage generation. Wage totals include hourly and salary payments as well as benefits including health and life insurance and retirement payments. Under Alternative A, investment in construction activities would generate one-time total wages

of approximately $8.4 million within Jackson County (**Table 4.7-8**). Direct wages were estimated to total approximately $5.6 million, of which approximately $5.0 million would be attributed to the construction industry. The generation of employment and wages during the construction phase is considered a beneficial effect of Alternative A.

TABLE 4.7-8
ONE-TIME CONSTRUCTION EMPLOYMENT AND WAGE IMPACTS

	Alternative A	Alternative B	**Alternative C**
Employment (Person-Years)			
Direct (Selected Industries)			
Construction	97	106	82
Accommodation/Food Services	17	21	13
Direct Total	120	135	99
Other			
Indirect	23	26	10
Induced	40	45	22
Total Jobs	**183**	**206**	**131**
Labor Income (Millions)			
Direct (Selected Industries)			
Construction	$5.0	$5.5	$4.5
Accommodation/Food Services	$0.4	$0.5	$0.3
Direct Total	$5.6	$6.2	$4.9
Other			
Indirect	$1.1	$1.2	$0.5
Induced	$1.7	$1.9	$0.9
Total Wages	**$8.4**	**$9.3**	**$6.3**

Notes: Numbers are rounded to the nearest hundred thousand dollars.
Source: GMA, 2019; **Appendix E**.

Operation

Employment opportunities generated from the operation of Alternative A would include entry-level, mid-level, and management positions. Average salaries offered are expected to be consistent with those of other tribal gaming facilities and competitive in the local labor market. As calculated through IMPLAN, operation activities associated with Alternative A would generate an annual total of approximately 360 employment opportunities to be captured within Jackson County (**Table 4.7-9**). Direct employment impacts were estimated to total approximately 229 job opportunities (**Appendix E**). Indirect and induced employment opportunities were estimated to total 63 and 68, respectively, and would be dispersed and distributed among a variety of different industries and businesses throughout Jackson County.

Operation activities associated with Alternative A would generate annual total wages of approximately $14.4 million within Jackson County (**Table 4.7-9**). Direct wages were estimated to total approximately $9.1 million, of which approximately $6.5 million would be attributed to the entertainment and recreation industry. Indirect and induced wages were estimated to total $2.4 and $2.9 million, respectively, and would be dispersed and distributed among a variety of different industries and businesses throughout

Jackson County, as shown in **Table 4.7-10**. The generation of employment and wages during the operation phase is considered a beneficial effect of Alternative A.

TABLE 4.7-9
ANNUAL OPERATIONAL EMPLOYMENT AND WAGE IMPACTS

	Alternative A	Alternative B	Alternative C
Employment (Person-Years)			
Direct (Industry)			
Entertainment and Recreation	160	157	36
Accommodation/Food Services	65	64	26
Retail Trade	4	4	1
Direct Total	229	225	63
Other			
Indirect	63	62	11
Induced	68	66	10
Total Jobs	**360**	**353**	**84**
Labor Income (Millions)			
Direct (Industry)			
Entertainment and Recreation	$6.5	$14.7	$4.1
Accommodation/Food Services	$2.5	$3.3	$1.3
Retail Trade	$0.1	$0.3	$0.8
Direct Total	$9.1	$18.2	$5.5
Other			
Indirect	$2.4	$7.6	$1.4
Induced	$2.9	$8.4	$1.3
Total Wages	**$14.4**	**$34.3**	**$8.2**

Notes: Though numbers appear to be estimated to the nearest dollar and/or whole number, accuracy is not indicated to that level due to rounding. Due to rounding, numbers may not sum to equal the number given in the Total.
Source: GMA, 2019; **Appendix E**.

TABLE 4.7-10
TYPICAL TRIBAL CASINO EMPLOYMENT OPPORTUNITIES

Casino slot operations	Food and beverage operations	Financial services
Casino credit	Restaurant services	Support services
Casino administration	Culinary services	Security services
Casino services	Human resources	Surveillance

Considering the projected population growth of Jackson County (refer to **Appendix E**), there are anticipated to be more than enough people available to fill the estimated 360 employment positions generated by the operation of Alternative A. It should be noted that the number of employment positions is a gross effect of Alternative A that does not net out existing employment positions at the current bowling alley facility.

Summary of Employment Effects

Construction and operation of Alternative A would generate substantial temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in Jackson County. Specifically, Alternative A is projected to create a total of 183 one-time construction related jobs and 360 permanent operations jobs. Given trends in the unemployment rate, and the dynamics of the local labor market (refer to **Section 3.7.2**), Jackson County is anticipated to be able to accommodate the increased demand for labor during the construction and operation of Alternative A. This would result in employment and wages for persons previously unemployed and would contribute to the alleviation of poverty among lower income households. This is considered a beneficial effect.

Housing

Based on the information presented in **Section 3.7.2**, the 2017 Jackson County housing market was comprised of approximately 93,704 total units, of which approximately 8.0% (7,496 units) were vacant (**Appendix E**). Assuming a similar vacancy rate in 2023, available housing in Jackson County would be more than sufficient to accommodate any employees that might relocate to the area to accept a position at the gaming facility. Also, new housing stock, such as the developments described in **Section 4.15**, will continue to come on line prior to the first full year of operations of Alternative A. As noted in the **Employment** section above, there are anticipated to be more than enough residents of Jackson County available for work to accommodate all 360 employment opportunities created by Alternative A. Therefore, it is not anticipated that many employees of the project would require relocation in order to accept a position. However, if employees were to relocate to the area to accept a position, the number of projected vacant housing units would be more than enough to accommodate all employees. Therefore, Alternative A would not significantly stimulate regional housing development, or cause a significant adverse impact to the housing market. Potential indirect effects resulting from growth inducement are discussed further in **Section 4.14**.

Social Effects

Problem and Pathological Gambling

The American Psychiatric Association (APA) describes pathological gambling as an impulse control disorder with 10 diagnostic criteria including preoccupation, tolerance, withdrawal, escape, chasing, lying, loss of control, illegal acts, risk of significant relationship, and financial bailout. At-risk gaming behaviors typically meet one or two of these criteria; problem gamblers typically meet three to four of these criteria; and pathological gamblers typically meet at least five of these criteria (**Appendix E**).

Pathological gambling often occurs in conjunction with other behavioral problems, including substance abuse, mood disorders, and personality disorders. Even if it were possible to isolate the effects of problem gambling on people who suffer from co-morbidity, it is difficult to then isolate the effects of casino gambling from other forms of gambling. As discussed, casino gambling is only one form of gaming. In fact, the most prevalent forms of gambling are those found in most neighborhoods: scratch lottery cards, lotto, and VLTs. Thus, problem gamblers are likely to already exist in most communities (**Appendix E**).

Social costs from problem gambling may include suicide, divorce, and bankruptcy. The report in **Appendix E** reviewed numerous relevant studies on the subject of problem gambling. These reports estimate that the proportion of problem gamblers in the U.S. comprises approximately 1.2%-1.6% of the adult population. In addition to those described in **Appendix E**, numerous other studies have estimated the prevalence of problem gamblers in specific states and in the U.S. as a whole. For example, *Gambling and Problem Gambling in Massachusetts* estimates that problem gamblers comprise approximately 2.0% of the adult population of Massachusetts (University of Massachusetts, 2017). Collectively, these studies

indicate that there can be substantial social and economic costs associated with problem gambling, including health problems, suicide, divorce, and crime. However, these studies also indicate that it is difficult to uncouple to what extent these issues arise from problem or pathological gambling, versus other issues associated with these individuals. Consequently, it is difficult to establish the extent of the costs associated with problem gamblers are due to a causal relationship versus a correlation that is not causal.

Notwithstanding the difficulty in estimating the social and other costs associated with problem gambling, there would be no anticipated significant increase to problem gambling rates in the local area because of the relatively large number of existing casinos in the greater Pacific Northwest area, as well as the presence of VLTs in the area **(Appendix E**). Consequently, potential impacts associated with an increase in problem gambling as a result of Alternative A would be less than significant. BMPs, including implementing problem gambling policies consistent with those already in place at the Mill Casino, are presented in **Section 2.3.3** to further reduce less than significant impacts. These policies include monitoring customers for signs of problem gaming, providing information about problem gaming to customers suspected of having an unhealthy gaming habit, and maintaining and enforcing policies to monitor and respond to problem gaming, including the most stringent possible self-ban rule (a lifetime ban from the facility grounds).

Crime

There is a commonly held belief that the introduction of legalized gambling in a community will increase crime within that community because of the belief that gambling may attract unsavory businesses and because problem or pathological gamblers may commit crime in order to fund their habit. Another commonly held belief is that legalized gaming reduces crime because it eliminates incentives for illegal gambling and because it improves the local economy. Both these beliefs are based more on anecdotal rather than empirical evidence. Gaming facilities can increase the volume of people entering a given area. Whenever large volumes of people are introduced into an area, the volume of crime would also be expected to increase. This is true of any large-scale development. However, the studies on the subject summarized in **Appendix E** suggest that the introduction of casinos typically does not cause an increase in the crime rate, and in some cases may lead to a decline in the crime rate.

Alternative A would introduce patrons and employees into the community on a daily basis. As a result, under Alternative A, criminal incidents could increase the vicinity of the Medford Site, as would be expected with a large development of any type. Potential impacts to law enforcement services are addressed in **Section 4.10**. This is considered a potentially significant effect. Mitigation recommended in **Section 5.0** require payments to the Medford Police Department for direct and indirect costs incurred in conjunction with providing law enforcement services to serve Alternative A. After mitigation, social effects associated with crime would be less than significant.

Community Impacts

Schools

Employees that relocate to the project area to accept a position at the Medford Site may increase the number of kindergarten through 12th grade students enrolled in Medford School District 549C. However, due to the limited number of employees that are expected to relocate to the project area as a result of Alternative A, as noted in the **Housing** section above, it is expected that these effects would be negligible. Additionally, given that any anticipated new students would be distributed across all grade levels between kindergarten through high school, any new students that may enroll in Medford School District 549C as a result of the project would be considered a less than significant impact on the district. Further, if Alternative A were to result in the relocation of any families to the area, Medford School District 549C

would likely collect additional tax revenue from the families of new students and would use these taxes to hire additional teachers to meet additional demand, if necessary. Therefore, any potential increased enrollment would have a less than significant effect on the ability of Medford School District 549C to provide education services at existing levels. Alternative A would not result in adverse impacts to schools. No mitigation is required.

Libraries and Parks

Effects to area libraries and parks could occur if the employees or patrons of Alternative A significantly increase the demand on these resources. Due to the limited number of employees that are expected to relocate to the project area, as noted in the **Housing** section above, it is expected that these effects would be negligible. Additionally, due to the gaming character of Alternative A, it is not anticipated that patrons would frequent local libraries or parks. Therefore, there would be a less than significant effect to libraries and parks. No mitigation is required.

Effects to the Coquille Indian Tribe

Alternative A would benefit the Tribe in at least two ways. First, it would generate new income to fund the operation of the Tribal Government. This income is anticipated to have a beneficial effect on Tribal quality of life and culture by funding Tribal programs that serve Tribal members, including education, health care, housing, social services, and Tribe-sponsored cultural events, and by supporting Tribal self-sufficiency and self-determination. As indicated by the Tribe, essential governmental, social, and other tribal member services that would be funded by the revenue generated under Alternative A include: health care, educational resources, housing, social services, employment resources, public safety, utilities, cultural preservation, and environmental and natural resource management (Coquille Tribe, Unmet Needs Report, 2013a). Second, Tribal members would have access to new jobs created on the Medford Site. Employment generated by this Alternative would not only allow Tribal members to enjoy a better standard of living, but would also provide an opportunity for Tribal members to reduce their dependence on government funding. According to the Tribe, tribal unemployment is 16.1%, nearly double the statewide average of 9.0%. Therefore, the creation of employment opportunities is expected to benefit both Tribal members as well as non-Tribal residents of Jackson County. Therefore, Alternative A would result in beneficial effects to the Tribe.

Effects to the Cow Creek Band, Karuk Tribe, and Klamath, Modoc, and Yahooskin Tribes

As shown in **Table 4.7-6**, with the operation of Alternative A in 2023, three existing tribal gaming facilities (Seven Feathers Casino Resort, Rain Rock Casino, and Kla-Mo-Ya Casino) are expected to experience a substitution effect that could be greater than 10% of their projected gaming revenue in 2023. These facilities are operated by the Cow Creek Band of Umpqua Indians; Karuk Tribe; and the Klamath, Modoc, and Yahooskin Tribes, respectively. According to the revenue recovery analysis included in **Appendix E**, the number of years that it would take for each of these casinos to attain base no-project 2023 expected gaming revenue levels under Alternative A are: 16.1 years for the Seven Feathers Casino Resort, 28.1 years for the Rain Rock Casino, and 12.3 years for the Kla-Mo-Ya Casino. With appropriate management practices, the Tribe should have the ability to streamline operations at its facility to absorb this level of impact and remain operational (**Appendix E**).

Environmental Justice: Minority and Low-Income Communities

Section 3.7.3 describes local populations near the Medford Site that could be affected by development of Alternative A to determine if any minority or low-income populations exist. No minority communities were identified in the vicinity of the Medford Site, and the Jackson 1 census tract was identified as a low-

income community, which is approximately 0.7 miles from the site. Effects to the Tribe, a minority community, are discussed above. Effects to tribal governments that operate gaming facilities that may be impacted by operation of Alternative A are discussed above under *Substitution Effects*. Increased economic development and opportunities for employment would positively affect low-income communities in the vicinity of the Medford Site. For example, as discussed above, Alternative A is expected to result in 360 employment positions for the operations of the gaming facility. Most of these positions will be filled by Jackson County residents, some of whom are either unemployed or underemployed. Further, Alternative A does not include industrial, waste-disposal or other uses that would disproportionally expose environmental justice communities to harmful air pollution or other high health and environmental risks. Alternative A would not result in significant adverse effects to minority or low-income communities.

4.7.2 Alternative B – Phoenix Site

Economic Effects

As described in **Section 2.3** and **Section 2.5**, Alternative B is physically and operationally similar to Alternative A. However, there are some construction and operational differences, due to the fact that Alternative B would require new construction and estimated infrastructure costs of approximately $430,000 (Kennedy and Jenks, 2018), rather than renovation of an existing building. While the construction costs are not equal, the operation of the facilities would be similar, and consequently the operational socioeconomic impacts discussed below for Alternative B are similar, but not exactly equal, to the impacts under Alternative A. Further, because the Phoenix Site has a much lower assessed value and there are no existing businesses located on the site, impacts to existing property, business, and sales taxes under this alternative would be much lower.

Construction

As shown in **Table 4.7-1**, the construction output under Alternative B is greater than that under Alternative A, because the Alternative B development budget is more than that of Alternative A. Refer to **Section 4.7.1**. Construction of Alternative B would generate substantial output to a variety of businesses in Jackson County. Output received by Jackson County businesses would in turn increase their spending, and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

Impacts to the City of Phoenix

Table 4.7-11 shows the construction impacts to the City of Phoenix under Alternative B, which is expected to produce $0.7 million in total economic output within the City of Phoenix.

TABLE 4.7-11
ONE-TIME CONSTRUCTION IMPACTS TO THE CITY OF PHOENIX UNDER ALTERNATIVE B

Alternative B	Direct	Indirect	Induced	Total
Output	$0.4	$0.1	$0.2	$0.7
Labor Income	$0.2	$0.0	$0.0	$0.2
Employment	3	1	1	5

Notes: All numbers are rounded to the nearest hundred thousand dollars.
Source: GMA, 2019; **Appendix E**.

Operation

As shown in **Table 4.7-3**, the operational output under Alternative B is similar to that under Alternative A. Output received by Jackson County businesses would in turn increase their spending and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

Impacts to the City of Phoenix

Table 4.7-12 shows the annual operational impacts to the City of Phoenix under Alternative B, which is expected to produce $0.9 million annually in the City of Phoenix.

TABLE 4.7-12
ANNUAL OPERATIONAL IMPACTS TO THE CITY OF PHOENIX UNDER ALTERNATIVE B

Alternative B	Direct	Indirect	Induced	Total
Output	$0.5	$0.2	$0.2	$0.9
Labor Income	$0.2	$0.1	$0.1	$0.4
Employment	6	2	2	9

Notes: All numbers are rounded to the nearest hundred thousand dollars.
Source: GMA, 2019; **Appendix E**.

Substitution Effects

Existing Tribal Casino Gaming Market Substitution Effects

As shown in **Tables 4.7-5** and **4.7-6**, substitution effects of Alternative B are similar to those of Alternative A. Refer to **Section 4.7.1**. Therefore, it is anticipated that under Alternative B, the above-listed facilities would continue to operate and generate a certain level of profit that would be utilized by the tribal governments that own them to provide services to their respective memberships. No physical environmental effects would occur.

Existing Video Lottery Terminal Competition

Effects would be similar to, but slightly less than those for Alternative A. This is because such impacts are in proportion to the amount of gaming revenue, and such revenue under Alternative B is slightly less than under Alternative A. See Alternative A analysis is **Section 4.7.1**. Effects would be less than significant.

Non-Gaming Substitution Effects

Effects would be similar to those for Alternative A. As such, effects would be less than significant.

Fiscal Effects

As shown in **Table 4.7-7**, the one-time construction fiscal effects of Alternative B would be more positive than those of Alternative A, as the construction costs are higher under Alternative B.

Under Alternative B, there are no businesses currently operating within the proposed trust parcel; thus, there would be no loss in business or sales taxes under this alternative. Additionally, current property taxes on the Phoenix Site are significantly less than the Medford Site, in part because of the tax break due to the Phoenix Site's zoning designation of Exclusive Farm Use (EFU) (see **Table 3.7-1**). While the Medford Site had an assessed value of approximately $1.5 million and resulted in property taxes of $25,189 in 2021, the Phoenix Site had an assessed value of $11,709 and resulted in property taxes of only

$140 (**Table 3.7-1**). Therefore, the impact to property taxes as a result of Alternative B would be approximately 99% less than that of Alternative A.

Annual operational tax revenue under Alternative A is predicted to be very similar to, but slightly higher than, those of Alternative A. See **Table 4.7-7** for a summary of these effects. Overall, Alternative B would result in a beneficial impact to the local economy in Jackson County.

Employment

Investment in construction and operational activities would generate substantial direct employment opportunities and wages, as well as indirect and induced employment opportunities and wages. The IMPLAN model was used to estimate employment opportunities generated by Alternative B.

Construction

As shown in **Table 4.7-8**, employment effects from the construction of Alternative B are similar to, but higher than, those of Alternative A; refer to **Section 4.7.1**. The generation of employment and wages during the construction phase is considered a beneficial effect of Alternative B.

Operation

As shown in **Table 4.7-9**, the employment effects of the operation of Alternative B would be more positive than those of Alternative A; refer to **Section 4.7.1**. The generation of employment and wages during the operation phase is considered a beneficial effect of Alternative B.

Summary of Employment Effects

Construction and operation of Alternative B would generate substantial temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in Jackson County. Specifically, Alternative B is projected to create a total of 206 one-time construction-related jobs, which is higher than the Alternative A estimate. The estimated 353 jobs from operations would be very similar to Alternative A. This is considered a beneficial effect.

Housing

Due to the proximity of the Phoenix Site to the Medford Site and the similar number of employment positions generated under Alternative A and Alternative B, the effect of Alternative B on the regional housing market is similar to that of Alternative A; refer to **Section 4.7.1**. Alternative B would not cause a significant adverse impact to the housing market. Potential indirect effects resulting from growth inducement are discussed further in **Section 4.14**.

Social Effects

Social impacts, including problem gambling, of Alternative B would be comparable to those of Alternative A. Thus, Alternative B would not result in significant adverse effects associated with crime with incorporation of mitigation in **Section 5.0**. Potential impacts to law enforcement services are addressed in **Section 4.10**.

Community Impacts

Effects to schools, libraries and parks would be similar to those described under Alternative A. These impacts would be considered a less than significant impact. No mitigation is required.

Effects to the Coquille Indian Tribe

Effects on the Tribe would be similar to those described under Alternative A and would provide substantial benefits to the Tribe. This is considered a beneficial impact of Alternative B.

Effects to the Cow Creek Band, Karuk Tribe, and Klamath, Modoc, and Yahooskin Tribes

Similar to Alternative A and as shown in **Table 4.7-6**, with the operation of Alternative B in 2023, the Seven Feathers Casino Resort, Rain Rock Casino, and Kla-Mo-Ya Casino are expected to experience a substitution effect that could be greater than 10% of their projected gaming revenue in 2023. A typical properly managed facility should have the ability to streamline operations to absorb the magnitude of impacts described in **Table 4.7-6** and remain operational (**Appendix E**).

Environmental Justice: Minority and Low-Income Communities

Section 3.7.3 describes local populations near the Phoenix Site that could be affected by development of Alternative B to determine if any minority or low-income populations exist. No minority communities were identified in the vicinity of the Phoenix Site, and the Jackson 1 census tract was identified as a low-income community. Effects to the Tribe, a minority community, are discussed above. Effects to tribal governments that operating gaming facilities that may be impacted by operation of Alternative B are discussed above under **Competitive Effects**. Further, Alternative B does not include industrial, waste-disposal or other uses that would disproportionally expose environmental justice communities to harmful air pollution or other high health and environmental risks. Alternative B would not result in significant adverse effects to minority or low-income communities.

4.7.3 Alternative C – Expansion of the Mill Casino

Economic Effects

Construction

Under Alternative C, construction activities are estimated to cost approximately $28.5 million, which is expected to generate a one-time total output of approximately $16.0 million within Coos County (**Table 4.7-1**).

Construction of Alternative C would generate substantial output to a variety of businesses in Coos County in the industries discussed above. Output received by Coos County businesses would in turn increase their spending, and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

Operation

See **Table 4.7-3** for a summary of economic output from the operation of Alternative C. Similar to construction, operation of Alternative C would generate substantial output to a variety of businesses in Coos County. Output received by Coos County businesses would in turn increase their spending, and labor demand, thereby further stimulating the local economy. This would be considered a beneficial impact.

Substitution Effects

Existing Tribal Casino Gaming Market Substitution Effects

Alternative C is anticipated to cause a decline in gaming revenue to competing facilities (**Appendix E**); refer to **Table 4.7-5**. However, no existing tribal gaming facility would experience a substitution effect of equal to or greater than 5.0%, and this loss of total revenue at competing tribal casinos is not anticipated to significantly impact these casinos, to cause their closure, or to impact the ability of these tribal governments to provide essential services and facilities to their memberships.

Existing Video Lottery Terminal Competition

Substitution effects to VLTs under Alternative A are analyzed above. Because the incremental revenue of Alternative C is a fraction of that of Alternative A, the substitution effects under Alternative C are very small and less than significant.

Non-Gaming Substitution Effects

Alternative C consists of the expansion of the existing Mill Casino and does not involve a retail component, other than food and beverage which will be patronized mostly by casino customers. Therefore, no non-gaming substitution effects would occur.

Fiscal Effects

Alternative C would result in a variety of fiscal impacts. Similar to Alternative A, under Alternative C the Tribe would not pay corporate income taxes on revenue or property taxes on tribal land. In addition, Alternative C would increase demand for public services, resulting in increased costs for local governments to provide these services. Tax revenues would be generated for local, state, and federal governments from the same indirect and induced activities discussed in Alternative A. Alternative C would be constructed on land that is already held in trust by the federal government for the Tribe. Therefore, no property tax revenue would be lost.

For Alternative C, construction activities would generate one-time tax revenues, while operational activities would generate annual revenues to the local, Coos County, state, and federal governments. Construction would result in an estimated $1.3 million in federal tax revenues, and $0.6 million in local, county, and state government tax revenues. Operation of Alternative C would result in an estimated $0.7 million in federal tax revenues, and $0.2 million in local, county, and state government tax revenues (**Table 4.7-7**) from indirect and induced taxes.

Construction and operation of the Alternative C would generate positive economic output to a variety of businesses in Coos County. Additionally, Alternative C would generate tax revenues for local, Coos County, and state governments; however, revenue sharing benefits would not occur. Overall, Alternative C would result in a beneficial impact to the Coos County economy, though total beneficial fiscal impacts would be significantly less than those under Alternative A or Alternative B.

Property Values

The operation of Alternative C will stimulate a relatively mild increase in patronage to the facility and will not result in a change in land use. Consequently, Alternative C is not anticipated to have a significant effect on local property values.

Employment

Investment in construction and operational activities would generate direct employment opportunities and wages, as well as indirect and induced employment opportunities and wages. The IMPLAN model was used to estimate employment opportunities generated by Alternative C.

Construction

Under Alternative C, investment in construction activities would generate a one-time total of approximately 131 employment opportunities within Coos County during the construction phase (**Table 4.7-8**). Under Alternative C, investment in construction activities would generate one-time total wages of approximately $6.3 million within Coos County (**Table 4.7-8**). The generation of employment and wages during the construction phase is considered a beneficial effect of Alternative C.

Operation

As calculated through IMPLAN, operation activities associated with Alternative C would generate an annual total of approximately 84 employment opportunities captured within Coos County (**Table 4.6-9**).

Under Alternative C, investment in operational activities would generate annual total wages of approximately $8.2 million within Coos County. See **Table 4.6-9** for more detailed information. The generation of employment and wages during the operation phase is considered a beneficial effect of Alternative C.

Summary of Employment Effects

Construction and operation of Alternative C would generate temporary and ongoing employment opportunities and wages that would be primarily filled by the available labor force in Coos County. This is considered a beneficial effect.

Housing

Based on the information presented in **Section 3.7.2**, the 2017 Coos County housing market was comprised of approximately 30,870 total units, of which approximately 14.2% (4,384 units) were vacant (**Appendix E)**. When considered with the trend of increasing vacancy rates in Coos County, there would likely be more than enough vacant units to accommodate any employees who might relocate to the area to accept a position at the gaming facility. As noted in the **Employment** discussion above, there are anticipated to be more than enough residents of Coos County available for work to accommodate all 84 permanent employment opportunities created by Alternative C; therefore, it is not anticipated that any employees of the project would require relocation in order to accept a position. If employees were to relocate to the area to accept a position, the number of vacant housing units would be more than enough to accommodate all employees.

Based on regional housing stock projections and current trends in area housing market data, there are anticipated to be more than enough vacant homes to support potential impacts to the regional labor market under Alternative C. Therefore, Alternative C would not significantly stimulate regional housing development. Alternative C would not cause a significant adverse impact to the housing market. Potential indirect effects resulting from growth inducement are discussed further in **Section 4.14**.

Social Effects

Social impacts, including problem gambling and crime, of Alternative C would be a fraction of the effects of Alternative A, due to the significantly reduced scope of Alternative C in comparison with Alternative

A. Alternative C would introduce new patrons and employees into the vicinity of the Mill Casino Site on a daily basis. As a result, under Alternative C, criminal incidents may increase in the vicinity of the Mill Casino Site. Under the terms of the North Bend MSA (**Appendix J**), the North Bend Police Department provides law enforcement services to the Mill Casino Site in exchange for a service fee. Alternative C would not result in significant adverse effects associated with crime. Potential impacts to law enforcement services are addressed in **Section 4.10**.

Community Impacts

Schools

Effects to schools would be similar to, but less than those described under Alternative A because Alternative C would result in fewer people moving into the school district area (see the **Housing** subsection above) even though the local school district is smaller and less geographically concentrated in comparison to the Medford School District. This would be considered a less than significant impact. No mitigation is required.

Libraries and Parks

Effects to parks and libraries would be similar to those described under Alternative A and, therefore, less than significant. No mitigation is required.

Effects to the Coquille Indian Tribe

A market assessment was conducted to determine the feasibility of expanding the Mill Casino and the potential fiscal benefits to the Tribe. This study is included in **Appendix E**. The study concluded that although the expanded facility contemplated under Alternative C is expected to increase gaming revenue by $6.0 million in the first full year of operation (2023), the incremental gaming revenue is only expected to translate to nearly $1.0 million in earnings before interest, taxes, depreciation, and amortization (EBITDA); it would take approximately 16.2 years for the facility to realize a return on the additional investment in gaming devices associated with the expansion, and much longer to cover the cost of construction. Accordingly, Alternative C would not produce additional revenue to fund essential governmental, social, and other services indicated by the Tribe, and would further exacerbate the Tribe's financial position by incurring debt. Alternative C would result in significant adverse fiscal effects to the Coquille Indian Tribe.

Effects to the Cow Creek Band, Karuk Tribe, and Klamath, Modoc, and Yahooskin Tribes

As described in shown in **Table 4.7-6**, with the operation of Alternative C in 2023, the Seven Feathers Casino Resort, Rain Rock Casino, and Kla-Mo-Ya Casino are expected to experience a substitution effect of less than 2%. These facilities are operated by the Cow Creek Band of Umpqua Indians; Karuk Tribe; and the Klamath, Modoc, and Yahooskin Tribes, respectively. According to the revenue recovery analysis included in **Appendix E**, the number of years that it would take for each of these casinos to attain base no-project 2023 expected gaming revenue levels under Alternative C are: 0.9 years for the Seven Feathers Casino Resort, 0.5 years for the Rain Rock Casino, and 0.2 years for the Kla-Mo-Ya Casino. With appropriate management practices, the Tribe should have the ability to streamline operations at its facility to absorb this level of impact and remain operational (**Appendix E**).

Environmental Justice: Minority and Low-Income Communities

Effects to the Tribe are addressed above. No additional minority or low-income communities were identified in the vicinity of the Mill Casino Site. Alternative C would not result in additional significant adverse effects to other minority or low-income communities.

4.7.4 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, none of the three development alternatives (Alternatives A, B, and C) considered within the EIS would be implemented. The No Action/No Development Alternative assumes that existing uses on the alternative sites would not change in the near term. Under this alternative, the BIA would not take any action. None of the beneficial and adverse effects identified for Alternatives A through C are anticipated to occur.

4.8 TRANSPORTATION AND CIRCULATION

Assessment Criteria

The potential for adverse effects as a result of project-related traffic was determined based on acceptable LOS or v/c standards determined by the appropriate jurisdictional agency. All study intersections for the Medford Site and Phoenix Site and their relevant LOS and/or v/c standards are listed in Table 7 of **Appendix H**. All intersections that do not meet the performance standard must be mitigated to no worse than the "no project" level.

4.8.1 Analysis Methodology

The project would result in the addition of vehicle traffic to local intersections. A TIA was prepared by David Evans and Associates, Inc. and is provided in **Appendix H**. This section incorporates the results of the TIA and describes the number of trips that would be generated by each alternative and any potential adverse effects that would occur to study intersections identified in **Section 3.8**. Traffic effects resulting from the alternatives were analyzed using trip generation rates determined in cooperation with ODOT, as described further below.

Study Area

Detailed descriptions of study intersections for the project alternatives are included in **Section 3.8** and **Appendix H**. As described therein, nine study intersections were identified for evaluation for the Medford Site and six study intersections were identified for the Phoenix Site. No study intersections were identified for the Mill Casino Site because the increase in traffic that would result from Alternative C is below the threshold that would trigger the analysis.

Trip Generation Rates

The AM and PM peak hour trip generation was calculated for each of the project alternatives. Trip generation rates were determined in cooperation with ODOT based on information published in previous TIAs for tribal gaming facilities with similar characteristics to the project alternatives. Trip generation rates for the proposed alternatives include trips from ancillary components integral to its use. These include, among others, restrooms, snack bars, delis, kitchens, security, and administrative offices.

Trip Distribution

The trip distribution assumed for Alternatives A and B was calculated using the Rogue Valley Metropolitan Planning Organization (RVMPO) travel demand model. The model divides the Rogue

Valley into Transportation Analysis Zones (TAZ) and divides the collector and arterial road system into a series of links. The model input includes projected employment and households by type for each TAZ. The model input for each link includes the roadway characteristics, such as functional classification, number of lanes, speeds, access control, and capacity. Based on an extensive travel survey of Oregon transportation characteristics, the model assigns traffic onto the roadway links based on the relative attractions between TAZs and the ability of the roadway system to handle it. Traffic to and from the Medford Site and Phoenix Site is expected to be distributed as shown in Figure 8 and Figure 9, respectively, of the TIA (**Appendix H**).

Peak Hour

At the direction of ODOT, traffic conditions were assessed for the PM peak hour, which was identified as the worst-case condition both in terms of existing traffic volumes on the network and the highest trip generation from the proposed alternatives. Additionally, the RVMPO transportation model does not have the ability to analyze the AM peak hour. Based on existing traffic volume data, the PM peak hour is defined as 4:45 p.m. to 5:45 p.m. for the Medford Site (Alternative A) and 4:30 to 5:30 p.m. for the Phoenix Site (Alternative B). Traffic count data sheets are provided as Appendix C of the TIA (**Appendix H**).

Future Baseline Conditions

To assess project-related impacts, baseline traffic conditions was estimated for the year 2022, which corresponds to the timing of buildout of the project alternatives. Baseline traffic conditions were estimated by using the RVMPO traffic model forecasts (see Appendix D of the TIA [**Appendix H**]). A detailed discussion of pipeline projects and traffic growth assumptions for future baseline conditions is provided in **Section 4.15.2**. These pipeline projects are combined with regional planning level traffic growth assumptions to provide estimated non-project related traffic levels during the future baseline year.

Medford Site

Table 4.8-1 summarizes baseline traffic conditions for the Medford Site during the PM peak hour at each of the study intersections without the addition of project-related traffic. As shown in **Table 4.8-1**, all intersections operate within accepted mobility targets for Alternative A under the year 2022 (opening year) No Build condition.

Phoenix Site

Table 4.8-2 summarizes 2022 baseline traffic conditions for the Phoenix Site during PM peak hour at each of the study intersections. As shown in **Table 4.8-2**, the intersections of N. Phoenix Road at E. Barnett Road and N. Phoenix Road at Juanipero Way are expected to exceed applicable mobility targets under the year 2022 (opening year) No Build condition. Without improvements to the current system, the forecasted growth and planned pipeline trips result in the intersection of N. Phoenix Road at E. Barnett Road operating at an LOS F. The 2018-2038 Medford TSP identifies projects to address congestion here as part of the N. Phoenix/S. Stage Road/Foothills Corridor. N. Phoenix Road at Juanipero Way is expected to exceed the City of Medford standard of LOS D for their streets. The 2018-2038 Medford TSP identifies a Tier 1 funded project to signalize this intersection when warrants are met.

TABLE 4.8-1
2022 BASELINE CONDITIONS – MEDFORD SITE

Intersection	Mobility Target	Movement	2022 No Build		Meeting Standard?
			v/c	LOS	
1. Riverside Avenue (OR 99) at Barnett Road	LOS D	Overall	0.80	D	Yes
2. Highland Drive at Barnett Road	LOS E	Overall	1.01	E	Yes
3. Riverside Avenue (OR 99) at Stewart Avenue	LOS E	Overall	0.90	E	Yes
4. I-5 Exit 27 Interchange	v/c 0.85	Overall	0.81	C	Yes
5. Center Drive at Garfield Street	v/c 0.95	Overall	0.92	D	Yes
6. S. Pacific Highway (OR 99) at Garfield Street	v/c 0.95	Overall	0.82	D	Yes
7. S. Pacific Highway (OR 99) at Charlotte Ann Road	v/c 0.95	EB L/T/R	0.39	F	Yes
	v/c 0.95	WB L/T/R	0.24	F	Yes
	v/c 0.95	NBL	0.01	B	Yes
	v/c 0.95	SBL	0.01	B	Yes
8. S. Pacific Highway (OR 99) at Human Bean (North Driveway)	v/c 1.0	WB L/R	0.04	C	Yes
	v/c 0.95	SB L	0.01	B	Yes
9. S. Pacific Highway (OR 99) at Roxy Ann Lanes (South Driveway)	v/c 1.0	WB L	0.12	C	Yes
	v/c 0.95	SB L	0.07	B	Yes

Source: DEA, 2019 (**Appendix H**).

TABLE 4.8-2
2022 BASELINE CONDITIONS – PHOENIX SITE

Intersection	Mobility Target	Movement	2022 No Build		Meeting Standard?
			v/c	LOS	
1. N. Phoenix Road at Cherry Lane	LOS D	Overall	0.76	C	Yes
2. N. Phoenix Road at E. Barnett Road	LOS D	Overall	1.52	**F**	No
3. N. Phoenix Road at Juanipero Way	LOS D	EB L	0.73	**F**	No
		EB T/R	0.54	D	Yes
		WB L/T/R	0.89	**F**	No
		NB L/T	0.11	A	Yes
		SBL	0.09	A	Yes
4. N. Phoenix Road at Site Driveway	v/c 0.95	WB L/R	0.02	C	Yes
		SB L/T	0.01	A	Yes
5. Fern Valley Interchange NB Ramp	v/c 0.85	Overall	0.48	N/A	Yes
6. Fern Valley Interchange SB Ramp	v/c 0.85	Overall	0.49	N/A	Yes

Notes: Bolded values exceed mobility target.
Source: DEA, 2019 (**Appendix H**).

Crash Analysis

Crash data was obtained from the ODOT Crash Data System for the years 2013 through 2017. *Analysis Procedures Manual* (APM) crash methodology was followed to calculate the intersection crash rates. Crash rates are a measure of the number of crashes in relation to amount of traffic volume served. These intersection crash rates are then compared to the appropriate threshold to determine whether further safety analysis is required. The thresholds for further safety analysis would be met if the measured crash rate

exceeds the critical crash rate and/or the ODOT 90th percentile crash rate. The Highway Safety Manual (HSM) Part B describes the critical crash rate method as a means of identifying locations that warrant further investigation. The critical crash rate is specific to the combined study areas (Alternative A and Alternative B) and considers average crash rates at comparable sites, traffic volume, and a confidence interval. The statewide 90th percentile crash rate represents similar intersections across Oregon. See **Appendix H** for more details on crash data analysis.

In addition to the critical rate analysis, ODOT utilizes the Safety Priority Index System (SPIS) to identify potential safety problems on highways in Oregon. SPIS complies with the Federal Highway Safety Improvement Program (HSIP) and has been accepted by the Federal Highway Administration (FHWA) as fulfilling the requirements of the HSIP. The SPIS was reviewed to determine if there were any study area intersections or roadways warranting additional study. Each year these segments are ranked by assigning a SPIS score based on the frequency and severity of crashes observed, while considering traffic volume. When a segment is ranked in the top 10% of the index, a crash analysis is typically warranted and corrective actions are considered. There are no top 10% SPIS sites in the vicinity of the project area for either Alternative A or Alternative B.

Medford Site

Table 4.8-3 summarizes the intersection crash rates, critical crash rates, and ODOT 90th percentile crash rates at each of the Medford Site study intersections. As shown therein, the intersections of Highland Drive at Barnett Road and the I-5 Exit 27 Interchange would exceed the critical crash rate. Additionally, the Riverside Avenue (OR 99) at Barnett Road intersection would exceed the critical crash rate and the ODOT 90th percentile crash rate. Additional analysis was conducted at these three sites to understand potential impacts of the proposed project.

Phoenix Site

Table 4.8-4 summarizes the intersection crash rates, critical crash rates, and ODOT 90th percentile crash rates at each of the Phoenix Site study intersections. As shown therein, all of the studied intersections for the Phoenix Site have intersection crash rates below the critical rate and the state 90th percentile rate; therefore, no further safety analysis is warranted pursuant to the APM.

TABLE 4.8-3
CRITICAL CRASH RATES FOR MEDFORD SITE STUDY INTERSECTIONS

Intersection	Intersection Crash Rate	Critical Crash Rate	State 90th Percentile Crash Rate
1. Riverside Avenue (OR 99) at Barnett Road	**0.90**	0.83	0.86
2. Highland Drive at Barnett Road	**0.82**	0.80	0.86
3. Riverside Avenue (OR 99) at Stewart Ave	0.68	0.83	0.86
4. I-5 Exit 27 Interchange	**0.83**	0.80	0.86
5. Center Drive at Garfield Street	0.55	0.81	0.86
6. S. Pacific Highway (OR 99) at Garfield Street	0.56	0.81	0.86
7. S. Pacific Highway (OR 99) at Charlotte Ann Road	0.13	0.19	0.29
8. S. Pacific Highway (OR 99) at Human Bean	0.02	0.19	0.29
Source: DEA, 2019 (**Appendix H**).			

TABLE 4.8-4
CRITICAL CRASH RATES FOR PHOENIX SITE STUDY INTERSECTIONS

Intersection	Intersection Crash Rate	Critical Crash Rate	State 90th Percentile Crash Rate
10. N. Phoenix Road at Cherry Lane	0.24	0.91	0.86
11. N. Phoenix Road at E. Barnett Road	0.13	0.89	0.86
12. N. Phoenix Road at Juanipero Way	0.23	0.26	0.41
13. N. Phoenix Road at Site Driveway	0.00	0.27	0.00
14. Fern Valley Road at I-5 Ramp Northbound	0.14	0.24	0.51
15. Fern Valley Road at I-5 Ramp Southbound	0.09	0.27	0.51
Source: DEA, 2019 (**Appendix H**).			

4.8.2 Alternative A – Proposed Project

Construction Traffic

Construction of Alternative A would require truck trips for delivery of equipment and material, including any necessary fill and export of existing soil, and daily trips by construction workers. Traffic impacts resulting from Alternative A construction activities would be temporary and intermittent in nature and would generally occur during off-peak traffic hours (5 a.m. to 6 a.m. and 10 a.m. to 4 p.m.). Construction traffic impacts would be concentrated on OR 99 in the immediate vicinity of the Medford Site and would include temporary traffic delays due to slower moving construction trucks and the increase in worker vehicles on area roadways. Traffic due to construction would be temporary, intermittent, and would generally occur outside of peak hours. Because construction traffic would be temporary, significantly less than operational traffic, and would occur outside of the peak hour, significant adverse effects would not occur.

Project Traffic Trip Generation

As described above, trip generation rates were determined based on information published in previous TIAs for tribal gaming facilities with similar characteristics to Alternative A. To avoid double counting, the existing trips from the bowling alley were subtracted from Alternative A. The existing trips from the bowling alley were determined from a site-specific traffic count. The estimated number of new vehicle trips generated as a result of Alternative A is shown in **Table 4.8-5**.

TABLE 4.8-5
ALTERNATIVE A PEAK HOUR TRIP GENERATION

Land Use	Variable	PM Peak Hour					
		Peak Hour		Inbound		Outbound	
		Rate	*Trips*	*Split*	*Trips*	*Split*	*Trips*
	KSF[1]						
Gaming Facility	30.284	5.5	167	67%	112	33%	55
	Lanes						
Bowling Alley[2]	24	1.3	-31	65%	-20	35%	-11
Net Trips			136		92		44
Notes: 1 KSF = thousand square feet; 2 ITE LUC 437, Trip Generation Manual, 10th Edition. Source: DEA, 2019 (**Appendix H).**							

Site Access

As described in **Section 2.3**, access to the site will be provided by two existing driveways along OR 99, and potentially two new access points to two existing parking lots along Charlotte Ann Road (**Figure 2-6**). Since Alternative A results in an increase of over 50 trips from the existing bowling alley use, a new application is required for the two accesses along OR 99 pursuant to OAR 734-051 (Division 51). As described in **Section 3.8.1**, the two accesses along OR 99 must strive to meet the following standards: a minimum spacing between driveways of 400 feet and a minimum distance between driveway and public road of 475 feet. However, along the OR 99 frontage of the Medford Site there is no location for accesses that is both 400 feet from the nearest driveway on an adjacent property and 475 feet from the nearest intersection, so meeting the spacing standard is not feasible and is a potentially significant adverse effect. Therefore, pursuant to Division 51, the Tribe and ODOT must enter a collaborative process to determine if the application "moves in the direction" of conforming to OHP standards. Improvements to these access intersections to meet the "moving in the direction" criteria have been recommended as a result of the TIA (**Appendix H**) and are included as mitigation in **Section 5.0**. These mitigation measures include the installation of a narrow median island on OR 99 to limit the access to the northern driveway (OR 99/Human Bean Driveway) to right-in, right-out movements, and restriping the southern driveway (OR 99/Project Driveway) with one entry lane and separated right turn and left turn exit lanes. Upon implementation of recommended mitigation, Alternative A would have a less-than-significant effect associated with site accesses.

Indirect effects as a result of the reconfigured access driveway mitigation are discussed in **Section 4.14**.

Traffic Conditions

To assess the impacts of the project on transportation facilities in the study area, the projected number of new trips generated by Alternative A was added to baseline with pipeline project traffic volumes (refer to **Section 4.8.1**).

Table 4.8-6 shows the PM peak hour LOS and/or v/c ratio at each of the study intersections under baseline with Alternative A traffic conditions. PM peak hour turning volumes at each of the study intersections under baseline plus Alternative A traffic conditions are provided within the TIA (**Appendix H**).

In opening year (2022), the increase in traffic generated by Alternative A would not contribute to unacceptable traffic operations at the any of the study area intersections. This is a less-than-significant impact. No mitigation is necessary.

Crash Analysis

As described in **Section 4.8.1**, three intersections for Alternative A would exceed their respective critical crash rate threshold for further safety analysis (DEA, 2019). Additional analysis for these intersections is included in the TIA (**Appendix H**). ODOT requires any intersection exceeding the 90th percentile crash rate to be further analyzed using HSM Predictive methods to calculate predicted and expected crashes. Excess expected crashes were calculated for the intersection of Riverside Avenue (OR 99) at Barnett Road under 2019 existing conditions, 2022 baseline conditions (without project), and 2022 with project conditions. The results showed no increase in excess crashes between 2022 base conditions and 2022 project conditions. Therefore, Alternative A would not have a significant adverse effect on crash rates and no mitigation is warranted.

TABLE 4.8-6
BASELINE PLUS ALTERNATIVE A INTERSECTION LOS AND V/C RATIO

Intersection	Mobility Target	Movement	2022 Build		Meeting Standard?
			v/c	LOS	
1. Riverside Avenue (OR 99) at Barnett Road	LOS D	Overall	0.81	D	Yes
2. Highland Drive at Barnett Road	LOS E	Overall	1.01	E	Yes
3. Riverside Avenue (OR 99) at Stewart Avenue	LOS E	Overall	0.91	E	Yes
4. I-5 Exit 27 Interchange	v/c 0.85	Overall	0.82	C	Yes
5. Center Drive at Garfield Street	v/c 0.95	Overall	0.92	D	Yes
6. S. Pacific Highway (OR 99) at Garfield Street	v/c 0.95	Overall	0.83	D	Yes
7. S Pacific Highway (OR 99) at Charlotte Ann Road	v/c 0.95	EB L/T/R	0.46	F	Yes
	v/c 0.95	WB L/T/R	0.48	F	Yes
	v/c 0.95	NBL	0.01	B	Yes
	v/c 0.95	SBL	0.02	B	Yes
8. S. Pacific Highway (OR 99) at Human Bean (North Driveway)	v/c 1.0	WB L/R	0.01	A	Yes
	v/c 0.95	SB L	0.01	A	Yes
9. S. Pacific Highway (OR 99) at Roxy Ann Lanes (South Driveway)	v/c 1.0	WB L	0.33	D	Yes
	v/c 0.95	SB L	0.21	B	Yes

Source: DEA, 2019 (**Appendix H**).

Transit, Bicycle, and Pedestrian Facilities

Bicycle and pedestrian facilities in the vicinity of the Medford Site are limited to portions of OR 99. Because sufficient parking is available onsite and sidewalk and bicycle facilities do not provide direct access to the Medford Site, no significant adverse effects would occur to bicycle or pedestrian facilities as a result of Alternative A.

Currently, the RVTD operates the only bus line to and from the Medford Site (Route 10). Route 10 has an average weekday ridership of 1,760 riders (RVTD, 2008). During the weekday, Route 10 is run 29 times, with an average of 60.7 riders per bus. In 2007, the RVTD fleet consisted mainly of 35-foot buses (majority 2004 New Flyer® models) which have a capacity of approximately 32 seated and 33 standing riders, for a total capacity of 65 riders (RVTD, 2007; New Flyer, 2015). There would be 103 additional peak-hour trips from Alternative A, and assuming that 2% of the estimated additional patrons for Alternative A use the bus system, approximately 2.1 riders would be added to the peak-hour Route 10 buses. This addition of project-related riders to existing ridership on Route 10 buses would result in an average of 62.8 riders per bus, assuming that 2.1 new riders would utilize the bus system per hour. This would not exceed the bus capacity of 65; therefore, a less-than-significant effect to public transit facilities would occur.

4.8.3 Alternative B – Phoenix Site

Construction Traffic

Construction of Alternative B would require truck trips for delivery of equipment and material, and daily construction workers trips. Traffic impacts resulting from the construction of Alternative B construction activities would be temporary and intermittent in nature and would generally occur during off-peak traffic hours (5 a.m. to 6 a.m. and 10 a.m. to 4 p.m.). Construction activity impacts would be concentrated on N. Phoenix Road in the immediate vicinity of the Phoenix Site and would include temporary traffic delays

due to slower moving construction trucks and the increase in worker vehicles on area roadways. Because construction traffic would be temporary, significantly less than operational traffic, and would occur outside of the peak hour, significant adverse effects would not occur.

Project Traffic Trip Generation

The estimated number of new vehicle trips generated as a result of Alternative B is shown in **Table 4.8-7**. It is currently assumed that there are no trips to and from the Phoenix Site as the land is used for cattle grazing.

TABLE 4.8-7
ALTERNATIVE B PEAK HOUR TRIP GENERATION

Land Use	Variable (KSF[1])	PM Peak Hour					
		Peak Hour		Inbound		Outbound	
		Rate	*Trips*	*Split*	*Trips*	*Split*	*Trips*
Gaming Facility	30.284	5.5	167	67%	112	33%	55
Net Trips			167		112		55

Notes:[1] KSF = thousand square feet
Source: DEA, 2019; (**Appendix H**).

Site Access

Access to the Phoenix Site under Alternative B would be provided via the existing driveway along N. Phoenix Road. The Phoenix Site is not on a state highway and therefore is not required to meet ODOT access spacing requirements. No adverse effects related to the site access for Alternative B would occur.

Traffic Conditions

To assess the impacts of the project on transportation facilities in the study area, the projected number of new trips generated by Alternative B was added to baseline with pipeline project traffic volumes (refer to **Section 4.8.1**). **Table 4.8-8** shows the PM peak hour LOS and/or v/c ratio at each of the study intersections under baseline plus Alternative B traffic conditions. PM peak hour volumes at each of the study intersections under baseline plus Alternative B traffic conditions are provided within the TIA (**Appendix H**).

The increase in traffic generated by Alternative B would contribute to unacceptable traffic operations at the intersections of N. Phoenix Road/Juanipero Way and N. Phoenix Road/E. Barnett Road. This is a significant adverse traffic effect. Upon implementation of the mitigation included within **Section 5.0**, Alternative B would have a less-than-significant effect associated with traffic conditions.

Crash Analysis

As described in **Section 4.8.1**, none of the Phoenix Site study intersections evaluated in the crash analysis exceeded the critical crash rate or the ODOT 90th percentile crash rate; therefore, further safety analysis is not required. Alternative B would not have a significant adverse effect on crash rates and no mitigation is warranted.

Transit, Bicycle, and Pedestrian Facilities

Impacts to the RVTD transit system, bicycle facilities, and pedestrian facilities under Alternative B would be less than those analyzed under Alternative A (refer to **Section 4.8.2**). The Route 10 stop nearest the

Phoenix Site is approximately 0.5 miles away, whereas in Alternative A, the stop is across the street. The difference in convenience would result in fewer additional riders to Route 10. As discussed under Alternative A, the increase in ridership is not expected to exceed capacity of RVTD public transportation facilities; therefore, significant adverse effects to public transportation facilities would not occur.

TABLE 4.8-8
BASELINE PLUS ALTERNATIVE B INTERSECTION LOS AND V/C RATIO

Intersection	Mobility Target	Movement	2022 Build		Meeting Standard?
			v/c	LOS	
10. N. Phoenix Road at Cherry Lane	LOS D	Overall	0.76	C	Yes
11. N. Phoenix Road at E. Barnett Road	LOS D	Overall	1.53	**F**	No
12. N. Phoenix Road at Juanipero Way	LOS D	EB L	0.81	**F**	No
		EB T/R	0.59	D	Yes
		WB L/T/R	1.06	**F**	No
		NB L/T	0.12	A	Yes
		SBL	0.09	A	Yes
13. N. Phoenix Road at Site Driveway	v/c 0.95	EB L	0.21	E	Yes
		EB R	0.07	B	Yes
		WB L/T/R	0.03	C	Yes
		NB L/T/R	0.07	A	Yes
		SB L/T/R	0.01	A	Yes
14. Fern Valley Interchange NB Ramp	v/c 0.85	Overall	0.51	N/A	Yes
15. Fern Valley Interchange SB Ramp	v/c 0.85	Overall	0.50	N/A	Yes

Notes: Bolded values exceed mobility target.
Source: DEA, 2019 (**Appendix H**).

4.8.4 Alternative C – Expansion of the Mill Casino

Construction Traffic

Construction traffic impacts would be similar to those under Alternatives A and B. Because construction traffic would be temporary, significantly less than operational traffic, and would occur outside of the peak hours, significant adverse effects would not occur.

Project Traffic Trip Generation

The projected vehicle trip generation resulting from Alternative C is shown in **Table 4.8-9**.

TABLE 4.8-9
ALTERNATIVE C PEAK HOUR TRIP GENERATION

Land Use Type	Variable (KSF)	PM Peak Hour					
		Peak Hour		Inbound		Outbound	
		Rate	Trips	Split	Trips	Split	Trips
Gaming Facility	5	5.5	28	67%	18	33%	9
Net Trips			**28**		**18**		**9**

Source: **Appendix H**.

Site Access

Access to the Mill Casino Site under Alternative C would be unchanged from its current use. No adverse effects related to the site access for Alternative C would occur.

Traffic Conditions

The Mill Casino Site is located in the City of North Bend and would only affect State intersections. As described above, Alternative C would result in an increase of 28 peak-hour trips. The additional 28 peak-hour trips from operation of Alternative C would not exceed the ODOT threshold 50 peak-hour trips at any intersection; therefore, further analysis of potential impacts to traffic conditions was not warranted. The increase in traffic from operation of Alternative C would result in a less-than-significant effect to traffic conditions.

Transit, Bicycle, and Pedestrian Facilities

Bicycle facilities in the vicinity of the Mill Casino Site are limited, and pedestrian facilities are available along the western side US-101. Because sufficient parking is available onsite and sidewalk and bicycle facilities do not provide direct access to the Mill Casino Site, no significant adverse effects would occur to pedestrian facilities as a result of Alternative C.

Currently, C-CAT operates the only bus line to and from the Mill Casino Site (Bay Area East Loop). In 2011, the East Loop had an average weekday ridership of 115 riders (C-CAT, 2011). During the weekday, the East Loop is run four times, for an average of 14.4 riders per bus. The C-CAT fleet consists of 25-to35-foot long buses (cutaway vans) and have a capacity of approximately 22 to 30 seated riders (FTA, 2015). There would be 28 additional peak-hour trips from Alternative C, and assuming that 1% of the estimated additional patrons for Alternative C use the bus system, approximately 0.28 riders would be added to the peak-hour East Loop buses. This addition of project-related riders to existing ridership on East Loop buses would result in an average of 14.7 riders per bus, assuming that 0.28 new riders would utilize the bus system per hour. This would not exceed the smallest bus capacity of 22; therefore, a less-than-significant effect to public transit facilities would occur.

4.8.5 Alternative D – No Action/No Development

The traffic conditions under the No Action/No Development Alternative would continue as described in **Section 4.8.1** for the baseline without project conditions. No project-related traffic would be added to the local intersections; therefore, no effects would occur under this alternative.

4.9 LAND USE

Assessment Criteria

Adverse effects would occur if development would be incompatible with adjacent designated land uses, thereby impeding effective local and regional planning efforts.

4.9.1 Alternative A – Proposed Project

Land Use Plans

NEPA requires an assessment of the potential effects of a proposed federal action on adopted land use plans, as well as plans that have been formally proposed and are being actively pursued by officials of the jurisdiction. Accordingly, the consistency of the Proposed Action with adopted and proposed land use regulations is assessed below.

Alternative A would result in approximately 2.4 acres of land within the 7.24-acre Medford Site being removed from City of Medford land use jurisdiction and placed into federal trust for the Tribe. Once the property is taken into trust, the only applicable land use regulations would be federal or Tribal. However, the Tribal Government desires to work cooperatively with local and state authorities on land use matters.

Planning documents currently in effect for the Medford Site include the City of Medford Comprehensive Plan and City of Medford Land Development Code. The Medford Site is zoned for regional and heavy commercial development. These designations allow for commercial uses which serve shoppers from the surrounding region as well as from the local community, and heavier commercial uses that typically produce a greater degree of noise, vibration, air pollution, and glare than residential or other commercial zones. The gaming facility under Alternative A would be considered a commercial use and would not conflict with these zoning designations. Alternative A would not substantially conflict with City of Medford standards, including permitted uses, parking standards, utilities and lighting requirements, sign standards, and architectural/building standards. Light fixtures would not extend above 30 feet in height, and the lighting would be designed to confine direct rays to the premises. Signage would be architecturally compatible with the buildings and would be of appropriate size and content. As shown in the architectural rendering (**Figure 2-7**), it is anticipated that the design materials and colors would be visually appealing, of a neutral tone, and blend with the surrounding environment. Development of Alternative A would be generally consistent with local land use plans.

Land Use Compatibility

The Medford Site is currently developed with a bowling alley and two parking lots. Nearby development is mainly commercial with the exception of single-family homes located to the north of the site. Alternative A would be complementary to existing commercial uses in the area and would not generate conflicts with nearby residential land uses significantly beyond those that occur under existing conditions with operation of the bowling alley. Development of Alternative A has the potential to result in land use compatibility impacts with nearby sensitive receptors as discussed in detail in the other topical sections of this EIS. Impacts may include air quality and noise effects from construction and operational activities (**Sections 4.4** and **4.11** respectively); traffic congestion (**Section 4.8**); and alteration of the visual resources and aesthetics of the surrounding neighborhood (**Section 4.13**). Implementation of mitigation measures identified in **Sections 5.8** and **5.11** and BMPs identified in **Section 2.3.3** would reduce impacts to less than significant levels. Alternative A would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, effects associated with land use compatibility would be less than significant.

Agriculture

The Medford Site is located in an urban area and does not contain any farming operations or infrastructure that would support land cultivation. Therefore, no farmland would be converted and no effect to agricultural resources would occur under Alternative A.

4.9.2 Alternative B – Phoenix Site

Land Use Plans

Under Alternative B, 49.34 acres of land near the City of Phoenix in Jackson County would be placed into federal trust, where the only applicable land use regulations would be Tribal or federal. However, as stated above, the Tribe wishes to work cooperatively with local jurisdictions.

Alternative B would involve development of a gaming facility similar to that described under Alternative A except it is located on the Phoenix Site instead of the Medford Site. The Phoenix Site is zoned for

Exclusive Farm Use (EFU) under the Jackson County Comprehensive Plan. While the proposed uses on the Phoenix Site are not consistent with allowable uses under existing zoning, they are compatible with surrounding land uses along the I-5 corridor (see **Land Use Compatibility** section below). Further, the Phoenix Site is within the PH-5 URA of the Greater Bear Creek Valley RPS Plan. The Resource Lands Review Committee, a group of resource lands experts involved in the RPS planning process, recommended that PH-5 not be recognized as part of the commercial agricultural land base of the County as it has the least capable agricultural soils when compared to other surrounding agricultural lands. The proposed lands uses for PH-5 in the RPS are 22% residential, 12% open space/parks, and 66% employment land (City of Phoenix, 2015). Additionally, the PH-5 URA, including the Phoenix Site, was identified in the RPS as a preferred area for future expansion of the UGB of the City of Phoenix.

Therefore, because the area surrounding the Phoenix Site is expected to accommodate future residential and employment growth, and the Phoenix Site is in a preferred location for future UGB expansion as identified in the RPS, the inconsistency with existing land use designations in Jackson County would not result in significant adverse land use effects.

Land Use Compatibility

The Phoenix Site is currently undeveloped, and nearby land uses are also agricultural/open space. Alternative B would result in the development of a gaming facility on the site, which is currently zoned for agriculture. This would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses, and once the land is taken into trust, local and regional land use plans would no longer apply.

Development of Alternative B has the potential to result in land use compatibility impacts with nearby sensitive receptors as discussed in detail in the other topical sections of this EIS. Impacts may include air quality and noise effects from construction and operational activities (**Sections 4.4** and **4.11** respectively); traffic congestion (**Section 4.8**); and alteration of the visual resources and aesthetics of the surrounding neighborhood (**Section 4.13**). Implementation of mitigation measures identified in **Sections 5.8** and **5.11** and BMPs identified in **Section 2.3.3** would reduce impacts to less than significant levels.

Agricultural operations surrounding the Phoenix Site could result in land use compatibility impacts with Alternative B associated with dust and noise from operation of farm equipment. However, the casino would be located over 1,000 feet from ongoing agricultural operations. Periodic dust and noise represent only a potentially minor annoyance for on-site customers; therefore, this is considered a less-than-significant impact.

Agriculture

As shown on **Figure 3.9-3**, the Phoenix Site contains approximately 22.3 acres of prime farmland and farmland of statewide importance. As indicated on the Farmland Conversion Impact Rating (FCIR) Form (Form AD-1006), included as **Appendix I**, the Phoenix Site has a land evaluation score of 49. This makes it impossible for it to reach the 160-point threshold for protection under the FPPA. As discussed in the criteria developed pursuant to FPPA, "sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated" (7 CFR §658.4). Thus, Alternative B is compliant with the FPPA. While the Phoenix Site does contain prime agricultural soils, there are no farming operations on the site or infrastructure that would support land cultivation. Alternative B would not result in significant adverse effects to agricultural resources.

4.9.3 Alternative C – Expansion of the Mill Casino

Land Use Plans

The Mill Casino Site is located on existing tribal trust land and is therefore not subject to City of North Bend or Coos County land use jurisdictions. The Tribal Council of the Coquille Indian Tribe has jurisdictional authority over land use matters on the site. Therefore, effects associated with consistency with local land use plans would be less than significant.

Land Use Compatibility

The Mill Casino Site is located on trust property already developed with a gaming facility and hotel. The proposed expansion would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, effects associated with land use compatibility would be less than significant.

Agriculture

Alternative C is located on a site that is developed and located in an urban area with no current farming operations. Therefore, no effect to agricultural resources would occur under Alternative C.

4.9.4 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, current land uses within the alternative sites would not change. No effects associated with land use would occur.

4.10 PUBLIC SERVICES

This section identifies the direct effects to cultural resources that would result from the development of each alternative described in **Section 2.0**. Effects are measured against the environmental baseline presented in **Section 3.10**. Indirect and cumulative effects are identified in **Section 4.14** and **Section 4.15**, respectively. Mitigation measures and BMPs to reduce significant adverse effects identified in this section are presented in **Sections 5.0** and **2.3.3**, respectively.

Assessment Criteria

To determine the impact on public services the water supply, wastewater, solid waste, law enforcement, fire protection and emergency medical services, and electricity and natural gas service demand for each alternative is considered. A significant impact would occur if project-related demands on public services would cause an exceedance of system capacities that result in effects to the physical environment.

4.10.1 Alternative A – Proposed Project

Water Supply

Under Alternative A, connections to the MWC would provide potable water to the Medford Site. The average daily water demand including irrigation under Alternative A would be approximately 21,778 GPD, and the peak day flow would be approximately 44,556 GPD (see **Table 2-3**). As shown in **Table 4.10-1**, the average demand of Alternative A is less than 1% of the current available capacity of the MWC. The available capacity in the table reflects summer month capacity, when demand is highest due to irrigation needs, and Duff WTP is in use as described in **Section 3.10**.

TABLE 4.10-1
ALTERNATIVE A POTABLE WATER DEMAND ON AVAILABLE CAPACITY (MGD)[1]

Demand/Capacity[2]	Average Daily Demand	Maximum Daily Demand
MWC Total Capacity[2]	48.9	71.4
MWC Total Demand	29	60
MWC Available Capacity[3]	19.9	11.4
Alternative A Demand of MWC Total Available Capacity[4]	0.02	0.04
Percent of Available Capacity Used by Alternative A	0.1%	0.4%

Notes:

Notes: [1] MGD = million gallons per day. [2] Current MWC demands and capacities from 2007 MWC Water Distribution Facilities Plan; refer to **Section 3.10**. [3] Obtained by subtracting demand from capacity. [4] Alternative A demand includes daily potable water requirements and irrigation requirements.
Source: Kennedy and Jenks, 2016 (**Appendix D**).

As described in **Section 3.10.1**, the existing 2-inch service connection can supply approximately 115,000 GPD, which is sufficient capacity to serve the potable water demands of Alternative A. In addition to the potable water demand, Alternative A will require fire suppression flows to supply the automatic sprinkler system within the building. As described in **Section 2.3**, the gaming facility would require 1,250 GPM of fire flow. While the existing service connection is capable of meeting potable water demands, the fire suppression flow requirements of 1,250 GPM for two hours exceed the capacity of the existing service connection. Based on a review of available fire flow within the general area, the Water and Wastewater Feasibility Study determined that there is sufficient fire flow for Alternative A. To meet fire flow delivery requirements, Alternative A would construct a separate standby fire protection service connection from the 16-inch water line along OR 99 to the building to supply the automatic sprinkler system (**Appendix D**). The required storage volume for fire suppression for Alternative A is 150,000 gallons and would be provided by the Barneburg storage reservoir, which has a capacity of 500,000 gallons (**Appendix D**). This would be sufficient to provide the required 150,000 gallons of fire storage.

Connections are required to meet MWC standards for service connections and standby fire protection service connections, and connections involving construction within City of Medford or ODOT right-of-ways also require utility permits from the City of Medford and ODOT. The MWC Engineering Division reviews and comments on plans for new connections. Once MWC comments have been incorporated into the plans, MWC will issue a fee letter with estimates of charges for plan reviews and work to be performed by MWC, such as flushing and testing of newly installed lines. Prior to MWC approval, plans must also be approved and signed by the City of Medford Public Works Department and the City Engineer. Upon approval, the developer must attend a preconstruction conference with MWC and sign both an easement granting MWC access to the installed facilities and a development agreement describing responsibilities associated with the facilities.

As described above, with the construction of the standby fire protection service connection, existing MWC treatment, conveyance, and distribution systems are capable of conveying both potable water demand and fire suppression flow requirements to Alternative A. With the continued payment of monthly service fees by the Tribe, the impact on water supply infrastructure and service from the operation of Alternative A is less than significant.

Wastewater Service

Connection to the existing RVSS wastewater system would occur under Alternative A. Treatment of Alternative A wastewater would occur at the existing Medford RWRF. As shown in **Table 2-4**, the projected average daily wastewater flow for Alternative A would be approximately 17,800 GPD with peak flows estimated at 35,600 GPD. The peak day design flow assumes that the facilities are operating at maximum capacity.

The Water and Wastewater Feasibility Study analyzed the impacts on municipal wastewater collection systems (**Appendix D**). As shown in **Table 4.10-2**, average and peak wastewater flows for Alternative A would be 1.0% and 0.4% of the Medford RWRF capacity, respectively. Therefore, the available capacity at the Medford RWRF facility would be more than enough to accommodate the additional demands of Alternative A.

As described above, the existing wastewater conveyance and treatment systems are sufficient to accommodate the additional wastewater generated by Alternative A. With the continued payment of monthly service fees by the Tribe, the impact on wastewater treatment infrastructure and service from the operation of Alternative A would be less than significant.

TABLE 4.10-2
ALTERNATIVE A WASTEWATER TREATMENT FLOWS (MGD)[1]

Demand/Capacity	ADWF[3]	Peak Day Flow (PDF)[4]
Current Medford RWRF Flow[2]	17	50
Medford RWRF Capacity	19	60
Available Capacity[5]	2	10
Alternative A Wastewater Flows	0.02	0.04
Percent of Available Capacity Used by Alternative A	1%	0.4%

Notes: [1] MGD = million gallons per day. [2] Current flows taken from 2012 Medford RWRF Facilities Plan. [3] ADWF capacity limited with respect to air supply limitations. [4] PDF capacity limited with respect to surface overflow rate of primary sedimentation tanks. [5] Obtained by subtracting demand from capacity.
Source: Kennedy and Jenks, 2016 (**Appendix D**).

Solid Waste Service

Construction

Construction of Alternative A would result in a temporary increase in waste generation. Potential solid waste streams from construction are expected to include paper, wood, glass, aluminum, and plastics from packing materials; waste lumber; insulation; empty non-hazardous chemical containers; concrete; metal, including steel from welding/cutting operations; and electrical wiring. Waste that cannot be recycled would be disposed of at the Dry Creek Landfill, which accepts construction/demolition materials. As discussed in **Section 3.10.3**, the landfill receives 900 tons of solid waste per day and has a projected operational life of over 100 years. Therefore, construction of Alternative A would result in a less-than-significant effect on solid waste services. BMPs are presented in **Section 2.3.3** to further reduce the amount of construction and demolition materials disposed of at the landfill and ensure impacts remain less than significant.

Operation

As described in **Section 3.10.3**, the Medford Site is located within the service area of RDR. It is anticipated that the Tribe will contract with RDR for solid waste collection service. Waste generated under Alternative A would be handled appropriately through disposal at the facilities described in **Section 3.10.3**.

As shown in **Table 4.10-3**, based on the generation rates of similar facilities, it is estimated that Alternative A would generate approximately 0.37 tons per day of trash. Landscaping and maintenance staff would pick up any trash that is left on the property. Decorative receptacles for trash and recycling would be placed strategically throughout the casino, and associated facilities to discourage littering. The solid waste generated by Alternative A would be equal to approximately 0.04% of the current daily acceptance rate for the landfill. Therefore, operation of Alternative A would not result in a significant increase in the amount of solid waste being transported to Dry Creek Landfill and a less-than-significant effect on solid waste services would occur. BMPs included in **Section 2.3.3** would further reduce the amount of solid waste disposed of at the landfill and ensure impacts remain less than significant.

TABLE 4.10-3
ESTIMATED SOLID WASTE GENERATION – ALTERNATIVES A AND B

Waste Generation Source	Waste Generation Rate	Units	Value	Waste (lb/day)
Casino (other services)	3.12	lb/100 sf/day	226.99[1]	708.21
Food and Drink (restaurant)	0.005	lb/sf/day	7,585	37.93
Total lb/day				746.13
Total ton/day				0.37

Notes:[1] total development square footage less food and drink and kitchen square footages
Source: CalRecycle, 2019

Law Enforcement

An analysis of the impact of casino gambling on local crime rates is included in **Section 4.7**.

Law Enforcement Services

As discussed in **Section 3.10.4**, law enforcement services under Alternative A would be provided by the Medford Police Department, which currently serves the Medford Site. Security cameras and security personnel would provide surveillance of the gaming facility, parking areas, and surrounding grounds. Security guards would patrol the facilities to reduce and prevent criminal and civil incidents, carry two-way radios to request and respond to back-up or emergency calls, and work cooperatively with law enforcement agencies. The need for assistance from the Medford Police Department would likely be required in situations where a serious threat to life or property is present, or if arrests are necessary. Since the Medford Police Department currently provides service to the existing bowling alley facility and there would be on-site security personnel, it is unlikely that the Medford Police Department would require additional personnel, facilities, or equipment. However, Alternative A could result in increased calls for service that could result in increased costs for the Medford Police Department. Consequently, the effect on public law enforcement services would be considered significant. Additionally, an increase in service demands to the OSP may result from development of the project. These effects may be significant. With implementation of the on-site security measures, good management practices, and the mitigation and BMPs included in **Sections 5.10.3** and **2.3.3** respectively, Alternative A would result in a less-than-significant effect on public law enforcement services.

Criminal Jurisdiction

In 1963, the State of Oregon assumed partial jurisdiction over certain offenses occurring in Indian country pursuant to Public Law 83-280 (PL 280). As a consequence, the trust acquisition would not result in changes in state or local criminal jurisdiction on the Medford Site. The State of Oregon would continue to exercise criminal jurisdiction over crimes committed on the Medford State regardless of the Native American status of any victim or suspect. Accordingly, changes in criminal jurisdiction would not be significant.

Fire Protection and Emergency Medical Services

Construction may introduce potential sources of fire to the Medford Site. During construction, equipment and vehicles may accidentally spark and ignite vegetation or debris. However, incorporation of BMPs identified in **Section 2.3.3** would reduce any potentially significant fire risk impacts. Construction of Alternative A would not result in a significant adverse effect to fire and emergency services.

As discussed in **Section 3.10.5**, fire protection and emergency medical services would be provided by Medford Fire-Rescue. Because Medford Fire-Rescue already provides service to the Medford Site and the existing bowling alley, it is unlikely that Medford Fire-Rescue would require additional personnel, facilities, or equipment to provide service to Alternative A. As described in **Section 2.0**, the gaming facility would be constructed to meet IBC design requirements, and the facilities would be constructed to meet adequate fire flow requirements as discussed in the water supply section above. However, Alternative A could result in increased service calls that could result in increased costs for the provision of fire protection and emergency medical services. This effect may be significant. With incorporation of the mitigation measures and BMPs included in **Sections 5.0** and **2.3.3** respectively, development of Alternative A would not result in significant effects on fire protection and emergency services.

Electricity and Natural Gas

Electricity would be obtained from Pacific Power, which currently provides electricity to the Medford Site. The electrical demand of Alternative A would not be significantly greater than the current electrical demand of the existing bowling alley. Therefore, Alternative A would not result in significant effects on energy services.

Natural gas service would be provided by Avista Utilities, the current provider of natural gas service to the Medford Site. The natural gas demand of Alternative A would not be significantly greater than the current natural gas demand of the existing bowling alley. Further, Avista has confirmed that it has sufficient capacity to assure continued natural gas service to the site, and that the natural gas line is appropriately sized to provide more than enough capacity (McFadden, 2016). Therefore, Alternative A would not result in significant effects on natural gas services.

Implementation of Alternative A would result in a less-than-significant impact to electricity and natural gas services and demand. Nonetheless, BMPs described in **Section 2.3.3** would further reduce the energy demand of Alternative A and ensure adequate services.

4.10.2 Alternative B – Phoenix Site

Water Supply

The estimated average daily water demand, including irrigation, for Alternative B is approximately 26,578 GPD, and the maximum daily demand including irrigation is approximately 56,556 GPD (**Table 2-7**). Potable water for Alternative B would be treated and supplied by Big Butte Springs and the Duff

WTP as described under Alternative A. Based on the capacities provided in **Table 4.10-1**, the average water demand of Alternative B is less than 1% of the current available capacity of the MWC.

Serving the Phoenix Site would require an extension of the City of Phoenix facilities north of the Fern Valley I-5 interchange, along N. Phoenix Road. The Phoenix Site and the closest connection point to the potable water distribution system are shown on **Figure 2-10**. The existing 12-inch water main on N. Phoenix Road, described in **Section 3.10.2**, is anticipated to be capable of meeting Alternative B potable water demands and fire suppression flow requirements, which are the same as Alternative A (**Appendix D**). However, field testing is being recommended as mitigation in **Section 5.0** to verify the available fire flow. A 2-inch meter and service connection from the water main would be required to convey potable water to the Phoenix Site, as well as a booster pump, as described in **Section 2.5**. Indirect effects of constructing the off-site components of the required infrastructure improvements are discussed in **Section 4.14**. Alternative B would also construct, in addition to the service connection, a separate standby fire protection service to supply the automatic sprinkler system. As under Alternative A, the Barneburg storage reservoir would provide sufficient fire flow storage for Alternative B. The MWC process described in **Section 4.10.1** would also apply to Alternative B.

Extension of water service to the Phoenix Site, as described in **Section 2.5**, would not be consistent with MWC Resolution 1058, described in **Section 3.9.2**. This resolution prohibits the extension of water service from municipalities supplied by the MWC into areas outside of UGBs. However, once the land is in trust, local land use plans would not apply to the Phoenix Site. Further, the Phoenix Site and surrounding area has been identified in local planning documents, specifically the Greater Bear Creek Valley RPS Plan, as a preferred location for future expansion of the UGB for the City of Phoenix. Although there is sufficient capacity in the MWC system to provide service to Alternative B, the increase in demand for services is a potentially significant impact. Mitigation measures are provided in **Section 5.0** to ensure that an agreement with the City of Phoenix or MWC for the provision of services to Alternative B is in place prior to operation. With mitigation measures, the impact to water supply services from Alternative B would be less than significant.

Wastewater Service

Wastewater flows from Alternative B would be the same as those under Alternative A (**Table 2-3**). The Phoenix Site is located within the RVSS service area; however, there are no facilities directly serving the property. Serving the Phoenix Site would require an extension of RVSS facilities north of the Fern Valley I-5 interchange, along N. Phoenix Road. The Phoenix Site and the closest connection point to the wastewater collection system are depicted on **Figure 2-10**. Indirect effects of the extension of the sewer system are discussed in **Section 4.14**.

As with the Medford Site, the collection system would convey wastewater flows to the Medford RWRF. As stated in **Section 4.10.1**, existing wastewater conveyance and treatment systems are sufficient to accommodate the additional wastewater generated by Alternative A. Although there is sufficient capacity in the RVSS system to provide service to Alternative B, the increase in demand for services is a potentially significant impact. Mitigation measures are provided in **Section 5.0** to ensure that an agreement with the RVSS for the provision of services to Alternative B is in place prior to operation. With mitigation measures, the impact to water supply services from Alternative B would be less than significant.

Solid Waste Service

Construction and operation of Alternative B would result in waste generation similar to that described under Alternative A (**Table 4.10-3**). BMPs included in **Section 2.3.3** would further reduce the amount of solid waste disposed of at the landfill and ensure impacts remain less than significant.

Law Enforcement

An analysis of the impact of casino gambling on local crime rates is included in **Section 4.7**.

As discussed in **Section 3.10.4**, the Phoenix Site is within the service area of the Jackson County Sheriff's Office. On-site security measures and BMPs would be consistent with those described above for Alternative A. The need for assistance from the Jackson County Sheriff's Office would likely be required in situations where a serious threat to life or property is present, or if arrests are necessary. The Jackson County Sheriff's Office may require additional personnel or equipment to meet the increased need for services under Alternative B. Consequently, the effect on public law enforcement services would be considered significant. Additionally, an increase in service demands to the OSP may result from development of the project. With implementation of the on-site security measures and the mitigation and BMPs discussed in **Sections 5.10.3** and **2.3.3** respectively, Alternative B would result in a less-than-significant effect on public law enforcement services.

Fire Protection and Emergency Medical Services

As discussed in **Section 3.10.5**, the Phoenix Site is within the service area of Jackson County Fire District 5. Design elements and BMPs would be implemented in a manner consistent with Alternative A. Jackson County Fire District 5 also provides first responder emergency medical service through paramedic staffing on ambulances and engines. Due to the potential for an increase in calls for fire protection and emergency medical services during operation of Alternative B, a potentially significant impact to Jackson County Fire District 5 would occur. With the implementation of mitigation and BMPs in **Sections 5.10.4** and **2.3.3** respectively, impacts would be addressed, and Alternative B would result in a less-than-significant effect on public fire protection and emergency medical services.

Electricity and Natural Gas

The Tribe would contract with Pacific Power for electrical service under Alternative B. To provide electricity from the Campbell 5R227 substation to the Phoenix Site, an electrical utility service line would be extended to the Phoenix Site along existing utility easements at the sole cost and expense of the Tribe. As described in **Section 3.10**, sufficient capacity at the Pacific Power substation is available; therefore, with implementation of mitigation measures in **Section 5.0**, no significant impact to electrical service providers would occur. Indirect effects of the extension of service to the Phoenix Site are described in **Section 4.14**. BMPs are included in **Section 2.3.2** to further lessen impacts by reducing the energy demand of Alternative B.

Propane gas would be used for heating/cooking purposes under Alternative B; therefore, no impacts to natural gas services would occur.

4.10.3 Alternative C – Expansion of the Mill Casino

Water Supply

The estimated average daily water demand for Alternative C is approximately 2,400 GPD, and the maximum daily demand including irrigation is approximately 4,800 GPD (**Table 2-6**). Existing average

water demand from The Mill Casino and Hotel is approximately 40,000 GPD (**Section 3.10.2**). Alternative C, therefore, represented a 6% increase in water demand. The CBNBWB will continue to provide water service to the Mill Casino Site. As described in **Section 3.10.1**, the CBNBWB has a total capacity for treatment of 13 MGD and a maximum peak demand of 6.5 MGD; therefore, there is a total available capacity of 6.5 MGD. The average demand of Alternative C is less than 1% of the current available capacity of the CWNBWB. Therefore, no significant impact to the public water supply would result from Alternative C.

Wastewater Service

The estimated wastewater generation for Alternative C would be approximately 4,300 GPD, and the estimated peak day flow is 4,300 GPD (**Table 2-7**). According to the terms of the MSA (**Appendix J**), the City will provide municipal services to the Mill Casino "at the same level and quality as that provided to all other residents and businesses within the City… [and] the appropriate mode for payment for the provisions of [these services] by the City to [the Mill Casino] would be on a fee-for-service basis" (North Bend MSA, 2010). The City of North Bend would continue to provide wastewater treatment services to the Mill Casino Site as stated in the MSA (**Appendix J**). Further, Section 6 of the North Bend MSA includes a provision for reopening negotiations in the event of adverse events. Therefore, should the City of North Bend require additional resources to handle increased wastewater from Alternative C, the service fee could be renegotiated. Therefore, no significant effect to public wastewater service would result from Alternative C.

Solid Waste Service

Construction

Construction of Alternative C would result in waste generation similar to that described under Alternative A, but on a lesser scale. Therefore, construction of Alternative C would result in a less-than-significant effect on solid waste services. BMPs are presented in **Section 2.3.3** to further reduce the amount of construction and demolition materials disposed of at the landfill and ensure impacts remain less than significant.

Operation

As described in **Section 3.10.3**, the Mill Casino is located within the service area of Les' Sanitary Service, which transports waste to the Beaver Hill Transfer Station until it continues on to the Dry Creek Landfill. Waste generated under Alternative C would be handled appropriately through disposal at the facilities described in **Section 3.10.3**.

As shown in **Table 4.10-4**, based on the generation rates of similar facilities, it is estimated that Alternative C would generate approximately 0.08 additional tons per day of trash.

TABLE 4.10-4

ESTIMATED SOLID WASTE GENERATION – ALTERNATIVE C

Waste Generation Source	Waste Generation Rate	Units	Value	Total Waste (lb/day)
Casino (other services)	3.12	lb/100 sf/day	50	156
Total lb/day				156
Total ton/day				0.08
Source: CalRecycle, 2019.				

Landscaping and maintenance staff would pick up any trash that is left on the property. Decorative receptacles for trash and recycling would be placed strategically throughout the casino, hotel, and associated facilities to discourage littering. The solid waste generated by Alternative C would be less than 0.009% of the current daily acceptance rate for the Dry Creek Landfill Therefore, operation of Alternative C would not result in a significant increase in the amount of solid waste being transported to Dry Creek Landfill and a less-than-significant effect on solid waste services would occur.

Law Enforcement

As discussed in **Section 3.10.4**, the North Bend Police Department will continue to provide law enforcement, patrol, investigation, and prosecution assistance services to the Mill Casino Site in exchange for a service fee as described in the MSA (**Appendix J**). Since the North Bend Police Department currently provides service and Alternative C would not result in a significant increase in the number of calls for service, no additional facilities or equipment would be needed to provide service to Alternative C. Further, Section 6 of the North Bend MSA includes a provision for reopening negotiations in the event of adverse events. Therefore, should the North Bend Police Department require additional resources, the service fee could be renegotiated. Alternative C would result in a less-than-significant effect on public law enforcement services.

Fire Protection and Emergency Medical Services

As described in **Section 4.10**, the NBFD will continue to provide fire protection and emergency services to the Mill Casino Site, as described in the MSA (**Appendix J**). Because NBFD already provides service to the Mill Casino Site and Alternative C is not anticipated to result in a significant increase in calls for service, the NBFD would not need any additional personnel, facilities, or equipment to provide service to Alternative C. Further, Section 6 of the North Bend MSA includes a provision for reopening negotiations in the event of adverse events. Therefore, should the NBFD require additional resources, the service fee could be renegotiated. Development of Alternative C would result in a less-than-significant effect on fire protection and emergency medical services.

Electricity and Natural Gas

Pacific Power and Suburban Propane would continue to provide service to the Mill Casino Site. The electrical demand of Alternative C would not be a significant increase from the current electrical demand of the existing casino. Therefore, Alternative C would not result in significant effects on energy services.

4.10.4 Alternative D – No Action/No Development

Existing uses on the alternative sites would continue under the No Action/No Development Alternative. No additional public services would be necessary and, therefore, no impacts to public service providers would occur.

4.11 NOISE

Assessment Criteria

The assessment of project effects is based on federal NAC standards used by the FHWA (described in **Tables 3.11-3** and **3.11-4**). Adverse noise-related effects would occur during construction if it would result in an increase in the ambient noise environment of greater than 85 decibels, maximum noise level (dBA, Lmax). FHWA considers a traffic noise impact to occur if predicted peak-hour traffic noise levels "approach or exceed" the NAC or "substantially exceed" existing levels. ODOT considers traffic noise impacts to occur if predicted peak-hour traffic noise levels "approach" two A-weighted dBA of the NAC

or "substantially exceed" existing levels by greater than 10 dBA (ODOT, 2011). Therefore, adverse noise-related effects would occur during operation if project implementation would cause ambient noise levels to exceed 65 dBA Leq at sensitive receptors, would result in an audible increase in ambient noise at sensitive receptor locations where noise levels already exceed the NAC, or would exceed existing levels by greater than 10 dBA. See **Section 3.11** for a definition of sensitive receptors. The assessment of noise due to vibration is based on the FTA construction vibration criteria for damage to structures and annoyance of sensitive receptors. Vibrational noise is considered to have a significant adverse effect if it exceeds the FTA vibration criteria of 90 VdB (vibration decibels with a reference velocity of one micro-inch per second) for damage to structures and 75 VdB for annoyance of people.

4.11.1 Alternative A – Proposed Project

Construction Noise

Construction Traffic

During construction of Alternative A, trucks and other large vehicles would utilize OR 99 to access the Medford Site. Because OR 99 is a common route for trucks and large vehicles, the necessary construction trips along this route would have a less-than-significant impact associated with noise. Construction trips would not double the existing traffic volume and would result in less than a 3 dBA Leq increase in the existing ambient noise level (ODOT, 2011). Therefore, noise resulting from increased construction traffic would be barely perceivable and would not result in a significant adverse effect to the ambient noise level.

Construction Equipment

Construction associated with Alternative A would be intermittent and temporary in nature and would consist of ground clearing, retrofitting, and remodeling the existing Roxy Ann Lanes; paving of parking areas; and finishing work. Construction noise levels at and near the Medford building and paving sites would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. **Table 4.11-1** shows typical stationary point source noise levels at 50 feet during different construction stages. The majority of construction would be associated with retrofitting and remodeling of the existing Roxy Ann Lanes which is located approximately 160 feet from the nearest sensitive receptor. However, paving would occur for the proposed parking lots in the north of the site, adjacent to residences along Charlotte Ann Road. Therefore, the nearest sensitive receptors are assumed to be located approximately 25 feet from where paving activities would occur. Paving in this location is assumed to last for less than two weeks as there is little site preparation work required because the ground is bare and flat and is currently used for parking.

TABLE 4.11-1
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Equipment	Noise Level at 50 feet (dBA)
Air Compressor	80
Backhoe	80
Dozer	85
Scraper	85
Loader	80
Paver	85
Pneumatic Tool	85
Truck	84
Source FTA, 2018.	

Sound levels decrease as the distance from the sound source increases and vice versa (levels increase as the distance from the sound source decreases). The reduction rate varies with the type of source. Theoretically, a point source has a rate described as a 6.0-dBA reduction per doubling of distance. A line source has a 3.0-dBA reduction per doubling of distance. The reduction rate for highway noise is 3.0 dBA per doubling of distance. Noise levels can also be reduced by acoustic barriers such as topography, vegetation, buildings, or walls (ODOT, 2011).

A factor of 6.0 dBA per doubling of distance is appropriate for this analysis given the flat topography and lack of ground cover on and in the vicinity of the Medford Site. As shown on **Table 4.11-1**, the maximum construction noise at the Medford Site would be 85 dBA at 50 feet. Given the distance of 25 feet to the nearest sensitive receptor adjacent to the Medford Site, noise levels would be approximately 6.0 dBA higher than they would be at 50 feet (85 dBA); therefore, the ambient noise level at the nearest sensitive noise receptor to paving activities would be approximately 91 dBA for a duration of approximately two weeks. The noise level at the nearest sensitive noise receptor would be greater than the FHWA standard of 85 dBA (see **Table 3.11-3**) for a short time during the paving phase of construction. Therefore, there would be a potential short-term significant effect due to stationary construction noise. Implementation of the mitigation measures provided in **Section 5.0**, which are consistent with **Section 5.0**, Unnecessary Noise, of the City of Medford Municipal Code, would limit construction activities to between 7:00 a.m. and 6:00 p.m. and reduce impacts to sensitive noise receptors due to stationary construction noise. After implementation of these mitigation measures, Alternative A construction noise would exceed the FHWA standard of 85 dBA at the nearest sensitive receptor for a short time; therefore, this is considered a short-term significant impact.

Construction Vibration

Construction activities for Alternative A would consist of using earthmoving equipment shown in **Table 4.11-2**. This could potentially produce detectable or damaging levels of vibration at nearby sensitive land uses, but it depends on the distance between the source and the nearby sensitive land use. As described above regarding construction noise, the majority of construction would be associated with retrofitting and remodeling of the existing Roxy Ann Lanes that is located approximately 300 feet from the nearest sensitive receptor. However, paving would occur for the proposed parking lots in the north section of the site, adjacent to residences along Charlotte Ann Road. Therefore, the nearest sensitive receptors are assumed to be located approximately 25 feet from where paving would occur for approximately two weeks.

Generally, physical damage is only an issue when construction requires the use of equipment with high vibration levels (i.e., compactors, large dozers, etc.) and occurs within 25 feet of an existing structure. **Table 4.11-2** provides estimated vibration levels at 25 feet from construction activities. The approximate VdB at 25 feet is below the FTA vibration criteria of 90 VdB for potentially damaging susceptible structures but above the threshold of 75 VdB for annoyance of people. Implementation of the mitigation measures provided in **Section 5.0**, which are consistent with Section 5.225, Unnecessary Noise, of the City of Medford Municipal Code, would limit construction activities to between 7:00 a.m. and 6:00 p.m. thereby limiting the number of residents exposed to the increased vibration. However, after implementation of these mitigation measures, Alternative A construction vibration due to short-term paving activities would exceed the FTA vibration criteria for annoyance of people; therefore, this is considered a short-term significant impact.

TABLE 4.11-2
VIBRATIONAL NOISE FROM CONSTRUCTION OF ALTERNATIVE A

Equipment	Approximate L_v at 25 feet (VdB)
Large bulldozer	87
Small bulldozer	58
Jackhammer	79
Loaded trucks	86
Source: FTA, 2018.	

Operation Noise

The following identifies potential impacts from project-related noise sources, such as traffic; heating, ventilation, and air conditioning (HVAC) systems; parking lots; and deliveries.

Traffic

The level of traffic noise depends on: l) the volume of the traffic, 2) the speed of the traffic, and 3) the number of trucks in the flow of the traffic (FHWA, 2010). It is not anticipated that speed in the vicinity of the Medford Site or the mix of trucks in the traffic would change during the operational phase; however, with the implementation of Alternative A, traffic volumes would increase.

The primary source of noise near the Medford Site is generated by traffic on OR 99 approximately 400 feet from nearby sensitive noise receptors. As shown in the Traffic Impact Analysis (**Appendix H**), there are approximately currently 2,294 vehicle trips per PM peak hour adjacent to the Medford Site. Alternative A would add an estimated 136 vehicle trips per PM peak hour (**Appendix H**). The existing ambient noise level adjacent to OR 99 was measured at 83.7 dBA Leq (refer to **Table 3.11-7**, Site 3). Since the existing ambient noise level in the vicinity of OR 99 is greater than 65 dBA Leq, significance for Alternative A will be evaluated based on if the project audibly increases the ambient noise level at sensitive receptor locations or if it would exceed existing levels by greater than 10 dBA. As discussed in **Section 3.11,** a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would be considered significant. Traffic at buildout of Alternative A would increase the number of trips during the peak hour by approximately 5.9%, which is less than double the existing volume of traffic, resulting in an increase of the ambient noise level of approximately 0.23 dBA Leq; therefore, Alternative A would not result in significant adverse effects associated with traffic noise levels for sensitive receptors.

Other Noise Sources

Commercial uses would bring the possibility of noise due to operations of roof-mounted air handling units associated with building HVAC equipment and noise from loading docks and the parking lot. The noise levels produced by HVAC systems vary with the capacities of the units as well as with individual unit design. In this case, HVAC systems for Alternative A would be located at higher elevations than some of the residences. The roof-mounted HVAC equipment has the potential to be heard at nearby sensitive noise receptors. However, given that the existing bowling alley has a roof-mounted HVAC system that is accounted for in the current ambient noise, HVAC noise from Alternative A would not audibly increase the ambient noise level at sensitive receptor locations. Furthermore, mitigation included in **Section 5.0** would further ensure that impacts are less than significant from the HVAC noise.

Idling trucks at Alternative A loading docks have the potential to emit noise of 85 dBA at 50 feet from the source (ODOT, 2011). The proposed loading docks will be located approximately 280 feet from the nearest residences located west and northwest of the property boundaries. Using the attenuation value of 6.0 dBA Leq (refer to construction analysis above), the ambient noise level at the nearest sensitive noise receptor would be approximately 71 dBA, Leq, which is greater than the significance threshold of 65 dBA, Leq. However, the loading dock will be shielded by 6-foot walls as shown on **Figure 2-6**, which is estimated to attenuate noise levels by 6.0 dBA; therefore, noise levels would be reduced below the 65 dBA standard. Loading dock noise resulting from Alternative A would not result in significant adverse effects associated with the ambient noise environment.

Parking lot noise would be mainly due to slow moving and idling vehicles, opening and closing doors, and conversation. The noise level in parking lots is dominated by slow moving vehicles; therefore, the ambient noise level in a parking lot is approximately 60 dBA, which is less than the significance threshold of 65 dBA. Further, the parking lots closest to sensitive receptors would continue to be held in fee and would be required to comply with the City of Medford Noise Standards. Alternative A noise from parking lots would not result in a significant adverse effect associated with the ambient noise environment.

Operation Vibration

Commercial uses do not include sources of perceptible vibration. Therefore, operation of Alternative A would not result in significant adverse effects associated with vibration.

4.11.2 Alternative B – Phoenix Site

Construction Noise

Construction Traffic

During construction of Alternative B, trucks and other large vehicles would utilize N. Phoenix Road and I-5 to access the Phoenix Site. Because N. Phoenix Road is a common route for agricultural vehicles, the necessary construction trips along this route would have a less-than-significant impact. Construction trips would not double the existing traffic volume and would result in less than 3.0 dBA Leq increase in the existing ambient noise level (ODOT, 2011). Therefore, noise resulting from increased construction traffic would be barely perceivable and would not result in a significant adverse effect to the ambient noise level during construction.

Construction Equipment

Noise resulting from construction activities within the Phoenix Site from Alternative B would be similar to Alternative A (see **Table 4.11-1**).

As shown on **Table 4.11-1**, the maximum construction noise at the Phoenix Site would be 85 dBA at 50 feet. Using an attenuation factor of 6.0 dBA per doubling of distance, the Lmax at the nearest sensitive noise receptor would be 70 dBA. The Lmax at the nearest sensitive noise receptor would be less than the FHWA standard of 85 dBA Lmax (see **Table 3.11-3**). Therefore, there would be a less-than-significant effect due to stationary construction noise. Implementation of the mitigation measures provided in **Section 5.0** would further ensure that impacts are less than significant.

Construction Vibration

Construction of Alternative B would result in fewer vibration effects than Alternative A as the nearest sensitive receptor is approximately 300 feet from Alternative B. Refer to **Section 4.11.2** and **Table 4.11-3**.

TABLE 4.11-3
VIBRATIONAL NOISE FROM CONSTRUCTION OF ALTERNATIVE B

Equipment	Approximate L_v at 25 feet (VdB)	Calculated L_v at 300 feet (VdB)[1]
Large bulldozer	87	54.6
Small bulldozer	58	25.6
Jackhammer	79	46.6
Loaded trucks	86	53.6
Notes: 1 To calculate Lv at 300 feet, the following equation was used: Lv [300] = Lv [25] - 30 * log (300/25) Source: FTA, 2006; Harris Miller, 2009.		

Because all equipment would result in vibrational noise less than the FTA vibration criteria of 90 VdB for potentially damaging susceptible structures and 75 VdB for annoyance to people, Alternative B construction vibration would not result in significant adverse effects associated with the ambient noise environment, and no mitigation is required.

Operation Noise

The following identifies potential impacts from project-related noise sources, such as traffic, HVAC systems, parking lots, and deliveries.

Traffic

The primary source of noise near the Phoenix Site is generated by traffic on N. Phoenix Road. As shown in the TIA (**Appendix H**), there are approximately currently 1,066 vehicle trips per PM peak hour adjacent to the Phoenix Site. Alternative B would add an estimated 167 vehicle trips per PM peak hour (**Appendix H**). The existing ambient noise level adjacent to N. Phoenix Road was measured at 80.5 dBA Leq (refer to **Table 3.11-7**, Site A). Since the existing ambient noise level in the vicinity of N. Phoenix Road is greater than 65 dBA Leq, significance for Alternative B will be evaluated based on if the project audibly increases the ambient noise level. As discussed in **Section 3.11**, a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would be considered significant. Alternative B traffic at buildout would increase the number of trips during the peak hour by approximately 16%, which is less than double the existing volume of traffic resulting in an increase of the ambient noise level of approximately 0.77 dBA Leq; therefore, Alternative B would not result in significant adverse effects associated with traffic noise levels for sensitive receptors.

Other Noise Sources

Noise due to operations would be similar to Alternative A; however, the potential impacts would be less because the nearest receptor is further away. Therefore, noise from these sources as a result of Alternative B would not result in significant adverse effects associated with the ambient noise environment. Mitigation is included in **Section 5.0** to further ensure that impacts from the operation of HVAC equipment are less than significant.

Operation Vibration

Commercial uses do not include sources of perceptible vibration. Therefore, operation of Alternative B would not result in significant adverse effects associated with vibration.

4.11.3 Alternative C – Expansion of the Mill Casino

Construction Noise

Construction Traffic

During construction of Alternative C, trucks and other large vehicles would utilize US-101 to access the Mill Casino Site. Because US-101 is a common route for trucks and large vehicles, the necessary construction trips along this route would have a less-than-significant impact. Construction trips would not double the existing traffic volume and would result in less than 3.0 dBA Leq increase in the existing ambient noise level (ODOT, 2011). Therefore, noise resulting from increased construction traffic would be barely perceivable. Therefore, no significant adverse effects to the ambient noise level during construction would result.

Construction Equipment

Noise resulting from construction activities within the Mill Casino Site from Alternative C would be similar to Alternative A (see **Table 4.11-1**). The Lmax at the nearest sensitive noise receptor would be less than the FHWA standard of 85 dBA Lmax (see **Table 3.11-3**), and implementation of the mitigation measures provided in **Section 5.0** would further ensure that impacts are less than significant Therefore, there would be a less-than-significant effect due to stationary construction noise.

Construction Vibration

Construction of Alternative C would result in similar vibration effects as Alternative A. Refer to **Section 4.11.2** and **Table 4.11-3**, as the nearest receptor to the Mill Casino Site is also at a distance of 300 feet. Consequently, Alternative C construction vibration would not result in significant adverse effects associated with the ambient noise environment, and no mitigation is required.

Operation Noise

The following identifies potential impacts from project-related noise sources, such as traffic, HVAC systems, parking lots, and deliveries.

Traffic

The primary source of noise near the Mill Casino Site is generated by traffic on US-101. As described in **Section 3.11.5**, there are approximately 14,000 average annual daily trips or approximately 1,400 peak hour trips adjacent the Mill Casino Site. Alternative C would add an estimated 28 vehicle trips per PM peak hour. The existing ambient noise level adjacent to US-101 was estimated to be approximately 65 dBA Leq. Since the existing ambient noise level in the vicinity of US-101 is equal to the ODOT significance threshold of 65 dBA Leq, significance for Alternative C will be evaluated based on if the project audibly increases the ambient noise level. As discussed in **Section 3.11**, a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would not be considered significant. Assuming that 2% of the peak hour trips adjacent to the Mill Casino Site would occur during the peak hour, resulting in an increase of the ambient noise level of approximately 0.097 dBA Leq. Therefore, Alternative C would not result in significant adverse effects associated with traffic noise levels for sensitive receptors.

Other Noise Sources

Alternative C would not result in substantial changes to the use of HVAC systems and parking lots or the frequency of deliveries to the existing Mill Casino. Therefore, noise from these sources as a result of Alternative C would not result in significant adverse effects associated with the ambient noise environment.

Operation Vibration

Commercial uses do not include sources of perceptible vibration. Therefore, operation of Alternative C would not result in significant adverse effects associated with vibration.

4.11.4 Alternative D – No Action/No Development

Under the No Action/No Development Alternative, a change in the current land use of the alternative sites is not reasonably foreseeable. None of the potential effects identified for Alternative A, B, or C are anticipated to occur.

4.12 HAZARDOUS MATERIALS

Assessment Criteria

Impacts associated with hazardous materials include impacts resulting from a release of hazardous materials and impacts from improper hazardous materials management. A project would be considered to have significant hazardous materials impacts if existing hazardous materials on-site require remediation prior to development of a proposed project. Additionally, if a project would result in the use, handling, or generation of a regulated hazardous material, of which the regulated amounts would increase the potential risk of exposure resulting in reduction of quality of life or loss of life, then the project would have a significant impact.

4.12.1 Alternative A – Proposed Project

Construction

There are no reported hazardous materials violations within the Medford Site. A Supplemental Investigation was conducted in December 2015 by Alpine Environmental Consultants to examine the possibility of soil contamination from pesticides as a result of the historical use of the Medford Site as an orchard. As described in detail in **Section 3.12.2**, the Supplemental Investigation found that arsenic is present in native soils below the fill layer on the Medford Site in amounts exceeding the RBC for construction workers in the uppermost foot of native soil, just below the fill layer (**Appendix M**). It should be noted that the background naturally occurring concentration of arsenic in soils for the Klamath Region is elevated, though below the RBC for construction workers. Additionally, the deep soils that were tested (1-3 feet below the fill layer) had concentrations below the RBC for construction workers (**Appendix M**). Effects to construction workers as a result of arsenic levels in Medford Site soils are potentially significant.

Based on the minimal ground-disturbing activities that would occur under Alternative A and the presence of compacted non-native fill as the first 1.2 feet below ground surface, that the potential for exposure of construction workers to soils at the site with elevated arsenic levels will be minimal. Further, the risk to construction workers can be reduced by requiring workers to wear appropriate personal protective equipment (PPE) and follow proper decontamination procedures after working with on-site native soils below the layer of non-native fill. These measures, which would minimize or eliminate adverse effects,

are included in **Section 5.0**. Therefore, effects to construction workers as a result of elevated arsenic levels in the Medford Site soils are less than significant with mitigation.

The possibility also exists that additional undiscovered contaminated soil is present on the site due to hazardous materials usage on adjacent sites that could affect surface and/or subsurface conditions on the Medford Site. Although not anticipated, construction personnel could encounter contamination during construction-related earth-moving activities. This could pose a risk to human health and/or the environment. The unanticipated discovery of contaminated soil is a potentially significant effect.

BMPs included in **Section 2.3.3** provide requirements to follow in the event that contaminated soil is encountered during construction related earth-moving activities. Implementation of the BMPs would ensure that effects to workers associated with the unanticipated discovery of contaminated soil are less than significant.

Construction of Alternative A entails the refurbishing of the existing bowling alley at the Medford Site, which could potentially include the demolition of walls or other materials containing asbestos. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not used when the material is disturbed. As noted in **Section 3.4**, demolition activities associated with Alternative A would be subject to National Emissions Standard for Hazardous Air Pollutants (NESHAP). Strict compliance with NESHAP and the Occupational Safety and Health Administration (OSHA) procedures would result in less-than-significant levels of construction-related asbestos emissions and a less-than-significant risk to human health.

Hazardous materials used during construction may include substances such as gasoline, diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paints, and paint thinner. These materials would be used for the operation and maintenance of equipment, and directly in the construction of the facilities. Regular fueling and oiling of construction equipment would be performed daily. The most likely possible incidents would involve the dripping of fuel, oil, and grease from construction equipment; the small quantities that could drip would have low relative toxicity and concentrations. However, without implementation of control measures, this is a potentially significant effect.

Typical BMPs for construction limit and often eliminate the effect of such accidental releases. Specific BMPs presented in **Section 2.3.3** would minimize the risk of inadvertent release and, in the event of a contingency, minimize adverse effects. With these BMPs, Alternative A would not result in significant adverse effects associated with inadvertent hazardous materials releases during construction.

Operation

As described in detail in **Section 3.12.2**, the Supplemental Investigation found that total arsenic and total lead found in shallow soil samples exceed generic RBCs for occupational workers (**Appendix M**). The potential health risks for total arsenic at the Medford Site are associated with the "soil ingestion, dermal contact, and inhalation pathway;" in other words, occupational workers at the site would have to be directly exposed to the soils for there to be a risk. As the site will be entirely paved over, occupational workers at the Medford Site would not be directly exposed to shallow soil in a manner that would exceed unacceptable risks (**Appendix M**); therefore, this is a less-than-significant effect. The potential health risks for total lead at the Medford Site are associated with "leaching to groundwater pathway;" in other words, occupational workers at the site would have to be exposed to lead in drinking water for there to be a risk. As the Alternative A would obtain water service from MWC and there are no water supply wells

on the Medford Site or nearby properties, occupational workers at the Medford Site would not be exposed to lead in drinking water (**Appendix M**); therefore, this is a less-than-significant effect.

As discussed in **Section 3.12.1**, OSHA regulations include provisions that require facilities to document the potential risk associated with the storage, use, and handling of toxic and flammable substances. OSHA regulations are codified in 29 CFR Part 1910.

During operation of the facilities under Alternative A, the majority of waste produced would be nonhazardous and similar to waste produced currently from operation of the bowling alley. The small quantities of hazardous materials that would be utilized include motor oil, hydraulic fluid, solvents, cleaners, lubricants, paints, and paint thinner. These materials would be utilized for the operation and maintenance of the gaming facility. The amount and types of hazardous materials that would be generated are common to commercial sites and do not pose unusual storage, handling, or disposal issues. Materials would be stored, handled, and disposed of according to state, federal, and manufacturer's guidelines. Therefore, operation of Alternative A would not result in significant adverse effects associated with hazardous materials.

4.12.2 Alternative B – Phoenix Site

Construction

Alternative B would consist of the development of a gaming facility on the Phoenix Site. There are no reported hazardous materials spills, violations, or instances of recorded contamination within the proposed development areas on the Phoenix Site. However, as discussed under Alternative A, the possibility exists that undiscovered contaminated soil exists on the Phoenix Site. Although not anticipated, construction personnel could encounter contamination during construction-related earth moving activities. The unanticipated discovery of contaminated soil during construction is a potentially significant effect. BMPs presented in **Section 2.3.3** would minimize or eliminate effects associated with unanticipated discovery of contaminated soil during construction of Alternative B.

As with Alternative A, hazardous materials would likely be used during construction of Alternative B. With specific BMPs presented in **Section 2.3.3**, Alternative B would result in less-than-significant effects associated with hazardous materials during construction.

Operation

The type and amounts of hazardous materials that would be used, generated, and stored during the operation of Alternative B would be similar to those of Alternative A (refer to **Section 4.12.1**). Alternative B would result in less than significant effects associated with hazardous materials during operation.

4.12.3 Alternative C – Expansion of the Mill Casino

Construction

Alternative C would consist of an expansion at the existing Mill Casino. Risks to construction personnel are very similar to those under Alternative A and are potentially significant. The BMPs presented in **Section 2.3.3** would minimize or eliminate effects associated with unanticipated discovery of contaminated soil during construction of Alternative C.

As with Alternative A, hazardous materials would likely be used during construction of Alternative C. As discussed in **Section 4.12.1**, BMPs provided in **Section 2.3.3** would result in less-than-significant effects associated with hazardous materials during construction of Alternative C.

Operation

The type and amounts of hazardous materials that would be used, generated, and stored during the operation of Alternative C would not differ significantly from current levels. With proper handling and implementation of BMPs according to state, federal, and manufacturer's guidelines, Alternative C would result in less-than-significant effects associated with hazardous materials during operation.

4.12.4 Alternative D – No Action /No Development

Existing uses on the alternative sites would continue under the No Action/No Development Alternative. No effects from the use, storage, or handling of hazardous materials would result from the No Action/No Development Alternative.

4.13 AESTHETICS

Assessment Criteria

Assessing the impacts of a project on visual resources is in large part subjective by nature. The impact to the viewshed will be defined by the magnitude of the visual impact in terms of distance, viewer position, and the frequency of views. A proposed project would have significant adverse effects if the development would degrade or diminish the aesthetics of visual resources such as scenic vistas, introduce lighting that would substantially increase nighttime lighting in the area of existing conditions, and/or cast a shadow on private residences or public areas for substantial portions of the day.

4.13.1 Alternative A – Proposed Project

Development of Alternative A would encompass the majority of the Medford Site. The Medford Site would consist of the retrofit and remodel of the existing bowling alley into a gaming facility and development of surface parking areas. The height of the gaming facility would be similar to the currently existing structure. Project design would incorporate appropriately scaled landscaping, using plant material native to the region, to enhance the design of the buildings. An architectural rendering of the development proposed by Alternative A is presented as **Figure 2-7**.

No designated scenic resources are present in the vicinity of the Medford Site. Development of Alternative A on the Medford Site would be visually compatible with land uses currently existing on the site and in the immediate vicinity as commercial and industrial development already dominates the area. Therefore, Alternative A would have a less-than-significant effect to aesthetic resources. Specific effects to viewsheds in the vicinity of the Medford Site as well as possible effects associated with shadow, light, and glare are discussed below.

Effects on Viewsheds Surrounding the Project

Section 3.13 describes the viewsheds surrounding the Medford Site, which are analyzed below.

Viewpoint A represents a viewshed to the southeast of the site, experienced by commuters traveling north on OR 99. The view from Viewpoint A would remain one of commercial development and would not represent a major alteration. Therefore, a significant adverse visual effect would not occur from this viewpoint.

Viewpoint B represents a viewshed to the northwest of the site, experienced by commuters traveling to the Human Bean Coffee Drive-Through or south on OR 99. The view from Viewpoint B would remain one of commercial development and would not represent a major alteration. Therefore, a significant adverse visual effect would not occur from this viewpoint.

Viewpoint C is located north of the Medford Site and is experienced by rural residential housing along Charlotte Ann Road. These residences would experience slightly altered views of the Medford Site under Alternative A due to paving of the parking lot in the northern portion of the site. The landscaping of the residences includes large trees and bushes, which would serve as partial screening of Alternative A. However, the proposed development would be visible through the trees. The view from Viewpoint C would remain one of commercial development and would not represent a major alteration. Therefore, a significant adverse visual effect would not occur from this viewpoint.

Viewpoint D is located across from the existing Roxy Ann Lanes bowling alley, experienced briefly by commuters traveling on OR 99. The view from Viewpoint D would remain one of commercial development and not represent a major alteration, though the building façade would be different (refer to the architectural rendition provided as **Figure 2-7**). Therefore, a significant adverse visual effect would not occur from this viewpoint.

Shadow, Light, and Glare

As described in **Section 3.13**, no significant shadow is currently cast from the Medford Site. As the height of the gaming facility would be similar to the currently existing structure, no changes to shadows on neighboring properties would occur. Also, the existing commercial/industrial development on and adjacent to the site is a substantial source of light and glare in the project area. Therefore, new lighting proposed under Alternative A would not result in significant adverse effects on light and glare. Project design and BMPs presented in **Section 2.3.3** would further minimize identified effects.

4.13.2 Alternative B – Phoenix Site

Under Alternative B, the design of the project is similar to Alternative A. Proposed buildings would have similar height and general appearance. A site plan for Alternative B appears as **Figure 2-10**. No designated resources are present in the vicinity of the Phoenix Site. Development of Alternative B on the Phoenix Site would be visually incompatible with the agricultural land uses currently existing on the site and in the immediate vicinity. However, while Alternative B would result in an increase in the level of human-made elements on the existing landscape of the Phoenix Site, it would be consistent with the other regional commercial development to the south of the Phoenix Site. Further, the Phoenix Site is within the PH-5 URA of the Greater Bear Creek Valley RPS Plan. The Resource Lands Review Committee, a group of resource lands experts involved in the RPS planning process, recommended that PH-5 not be recognized as part of the commercial agricultural land base of Jackson County because it has the least capable agricultural soils when compared to other surrounding agricultural lands. The proposed lands uses for PH-5 in the RPS are 22% residential, 12% open space/parks, and 66% employment land (City of Phoenix, 2015). Additionally, the PH-5 URA, including the Phoenix Site, was identified in the RPS as a preferred area for future expansion of the UGB of the City of Phoenix. Therefore, while the site-specific visual effects would be considered significant, the context of the project development in relation to the larger landscape would be less than significant (additional development within an area intended for development). Specific effects to viewsheds in the vicinity of the Phoenix Site as well as possible effects associated with shadow, light, and glare are discussed below.

Effects on Viewsheds Surrounding the Project

Section 3.13 describes the viewsheds surrounding the Phoenix Site, which are analyzed below.

Viewpoint A represents a viewshed experienced by commuters traveling north on N. Phoenix Road within Jackson County. The view from this location would change from one of open rural spaces to one of commercial development. Therefore, a significant adverse visual effect would occur from this viewpoint.

Viewpoint B represents a viewshed experienced by commuters traveling south on N. Phoenix Road within Jackson County. The view from this location would change from one of open rural spaces to one of commercial development. Therefore, a significant adverse visual effect would occur from this viewpoint.

Shadow, Light, and Glare

The nearest off-site buildings are residences to the west and commercial development to the southwest as described above. The direction of the sunrise will vary from east to southeast throughout the year; the direction of the morning shadow from the gaming facility will vary from west to northwest, accordingly. However, the gaming facility is located sufficiently far from residences and is of sufficiently low height as to not result in shadows cast on nearby residences. Therefore, no changes to shadows on neighboring properties would occur.

Alternative B would introduce new sources of light into the existing setting. Light spillover into surrounding areas and increases in regional ambient illumination could result in potentially significant adverse effects if it were to result in traffic safety issues or create a nuisance to sensitive receptors. Project design and BMPs presented in **Section 2.3.3** would minimize identified adverse effects.

The use of glass windows could increase glare to travelers on N. Phoenix Road. However, BMPs are provided in **Section 2.3.3** to reduce visual effects of exterior glass. Use of glass windows will not result in a significant adverse effect.

4.13.3 Alternative C – Expansion of the Mill Casino

Alternative C would consist of the construction of an expansion to the existing Mill Casino on the approximately 10.95-acre parcel of land currently held in trust in the City of North Bend. The height of the expansion would be similar to the existing structure.

Effects on Viewsheds Surrounding the Project

Development of Alternative C on the Mill Casino Site would be visually compatible with land uses currently existing on the site and in the immediate vicinity. The views of the Mill Casino from travelers on US-101, visitors to the RV park, and watercraft on Coos Bay would remain one of commercial development and would not represent a major alteration. Therefore, a significant adverse visual effect would not occur.

Shadow, Light, and Glare

As the height of the gaming facility would be similar to the currently existing structure, no changes to shadows on neighboring properties would occur. Also, the existing commercial development on and adjacent to the site is a substantial source of light and glare in the project area. Therefore, new lighting

proposed under Alternative C would not result in significant adverse effects on light and glare. Project design and BMPs presented in **Section 2.3.3** would further minimize identified adverse effects.

4.13.4 Alternative D – No Action/No Development

No impacts would occur to visual resources under the No Action/No Development Alternative. Existing tribal commercial uses would continue to occur on the Medford Site. The visual environment on the Medford Site would remain the same.

4.14 INDIRECT AND GROWTH-INDUCING EFFECTS

CEQ Regulations for Implementing NEPA requires that an EIS analyze those effects from the proposed action or alternatives that are later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR § 1508.8).

Direct impacts, caused by the action and occurring at the same time and place as the action, have been discussed in **Sections 4.2** to **4.13** and cumulative impacts measured in conjunction with other reasonably foreseeable projects, whether past, present, or future, are addressed in **Section 4.15**. The potential indirect effects of off-site traffic mitigation and utility improvements integral to the development of Alternatives A, B, and C are discussed independently in **Section 4.14.1** as they are distinctively separated in time and/or space from the proposed alternatives. Growth inducing effects are also discussed independently in **Section 4.14.2** since they are a distinct subset of indirect effects. Potential indirect effects associated with proposed alternatives would be minimized to a less than significant level through project design and mitigation measures presented in **Section 5.0**. In addition, off-site improvements may require obtaining approvals and permits from jurisdictional agencies. Implementation of permitting and DEQ requirements would further reduce the potential for significant impacts from off-site construction projects.

4.14.1 Indirect Effects

Alternative A – Proposed Project

The only off-site improvements associated with Alternative A would be from the implementation of traffic mitigation measures described in **Section 5.0**. As described therein, traffic improvements for Alternative A would require restriping and minor traffic signal adjustments, including replacing the protected signal phase with a protected-permissive phase at the intersection of OR 99 and Garfield Street. This would require replacing the left-turn signal head, minor signal controller adjustments, and the installation of appropriate signage. These improvements do not require construction which would generate indirect impacts and are therefore not discussed below. Additionally, Alternative A may require restricting access to and from the Human Bean Driveway (just north of the Medford Site access driveway on OR 99) in to right-in, right-out movements only. Traffic diversion would be accomplished by the addition of a narrow median island on OR 99. Construction of this improvement could generate indirect impacts, which are discussed below under each issue area.

Geology and Soils

The construction of a narrow median would take place on currently paved roads and would not change topography or increase impervious surfaces. With standard construction practices and specifications required by ODOT and the General Construction NPDES permit program, there would be no adverse effects to geology and soils as a result of off-site traffic mitigation under Alternative A.

Water Resources

The development of roadway improvements could adversely affect surface water quality due to soil disturbance and potential sedimentation from construction activities. ODEQ is required by state and federal regulations to have a stormwater permit in areas covered by Phase I and Phase II of the municipal stormwater permit program. ODEQ has agreed to a statewide permit to avoid having a piecemeal stormwater program and to promote better management of stormwater runoff from all State highways. The permit covers stormwater runoff from State highways, rest areas, weigh stations, scenic viewpoints, park-and-ride lots, ferry terminals, and maintenance facilities (ODEQ, 2019b). With standard construction practices and specifications required by ODEQ, there would be no adverse effects to water resources as a result of off-site mitigation under Alternative A.

Air Quality

With the improved circulation resulting from traffic mitigation, the LOS is improved, thereby reducing idling time and associated emissions. Construction generated dust and emissions would be controlled by standard BMPs. Construction emissions would be minimal given the limited and temporary nature of construction activities. Corresponding air effects would not be significant.

Biological Resources

All intersection improvements would take place within previously disturbed areas; therefore, sensitive biological communities, habitat for special status species, and wetlands would not be impacted. There would be no indirect effects to biological resources as a result of off-site traffic mitigation under Alternative A.

Cultural Resources

No prehistoric or historic period cultural resources are known to occur within or adjacent to the Medford Site. The locations of proposed intersection improvements are currently developed environments and, therefore, are unlikely to contain unknown cultural resources. No significant impacts to cultural resources would result from off-site traffic improvements under Alternative A.

Socioeconomic Conditions

Off-site traffic improvements would result in short-term disturbances to traffic flows. Surrounding businesses and residences would remain accessible throughout construction. The area of roadway impacts would be of a limited size and would not create socioeconomic effects. The fair share costs of these roadway improvements would be borne by the Tribe. Therefore, there would be no indirect effects to socioeconomic conditions as a result of off-site traffic mitigation under Alternative A.

Transportation/Circulation

Off-site traffic mitigation would result in beneficial effects to traffic circulation. Off-site traffic improvements would be limited in scale and duration, resulting in only short-term disturbances to traffic flows. If construction activities require temporary lane closures to accommodate construction equipment, a traffic management plan would be prepared in accordance with the jurisdictional agency requirements, thus avoiding potentially adverse temporary effects.

Land Use

Construction of off-site traffic mitigation would not result in adverse land use effects. The intersection improvements would be in accordance with the City of Medford Comprehensive Plan's Transportation System Plan Element roadway network designations. The final median design near the Human Bean

driveway would be determined by local jurisdictions in accordance with their respective comprehensive plans (ODOT, 2017). Therefore, there would be no indirect effects to land use as a result of off-site traffic mitigation under Alternative A.

Public Services

Traffic improvements would not likely require relocation of utilities, such as overhead electricity and telecommunication lines, near existing roadways. No effects to police, fire, or emergency medical services are expected as access to businesses would be maintained during the construction period. Therefore, there would be no indirect effects to public services as a result of off-site traffic mitigation under Alternatives A.

Noise

Construction of improvements would result in minimal temporary noise impacts. Any impacts that may occur would be reduced through the local jurisdictional agencies including the imposition of construction hours and the use of standard noise abatement equipment. Therefore, no significant indirect noise impacts are expected to occur as a result of off-site traffic mitigation under Alternative A.

Hazardous Materials

Construction of the off-site roadway improvements could potentially result in negative hazardous materials effects. The accidental release of hazardous materials used during construction activities could pose a hazard to construction employees, surrounding residents, and the environment. However, these hazards, which are common to construction activities, would be minimized with adherence to relevant statutes and standard operating procedures and BMPs, such as refueling in designated areas, storing hazardous materials in approved containers, clearing of dried vegetation, and proper initiation of response and clean-up measures. Potential indirect hazardous materials impacts from the construction of off-site roadway improvements are therefore considered to be less than significant under Alternative A.

Aesthetics

The construction of a median on an existing paved road would be in areas that are already developed with roadway networks. Improvements would not result in significant removal or alteration of vegetation, topographic features, or key visual characteristics. Additionally, traffic improvements would not change surrounding land uses and would occur in areas with existing roadway networks. Therefore, no significant indirect effects to aesthetics or community character are expected to occur as a result of off-site traffic mitigation under Alternative A.

Alternative B – Phoenix Site

The only off-site impacts from Alternative B would result from utility improvements. Extending utility services to the Phoenix Site would require the extension of a power line from the nearest Pacific Power and Light (PPL) substation (refer to **Section 4.10**), and an extension of water and sewer lines north of the Fern Valley I-5 interchange (see **Figure 2-10**). The electricity lines would be installed overhead, which may require replacement of some existing poles and/or installation of new poles. The following section describes potential effects associated with the construction of the utility improvements required to serve Alternative B.

Geology and Soils

The construction of utility improvements would require grading, excavation, trenching, laying of pipe, and the introduction of backfill material. Potential impacts include increased potential for soil erosion due

to the earthwork needed to construct the improvements. Construction of utility improvements over 1 acre would be required to comply with the NPDES General Construction Permit Program. All linear improvements will take place within existing utility easements or right-of-way and would not change topography or increase impervious surfaces.

With standard construction practices and specifications required by the local jurisdictional agencies and NPDES permit program, there would be no indirect effects to geology and soils as a result of off-site utility improvements under Alternative B.

Water Resources

The development of utility improvements could affect water resources due to grading and construction activities. Potential effects include increased erosion that could adversely affect surface water quality due to increases in sediment and roadway pollutants such as grease and oil.

Construction of utility improvements that exceed 1 acre of ground disturbance would be required to comply with the NPDES General Construction Permit Program. To comply with the program, a SWPPP would be developed that would include soil erosion and sediment control practices to reduce the amount of exposed soil, prevent runoff from flowing across disturbed areas, slow runoff from the construction areas, and remove sediment from the runoff.

With compliance with the soil erosion and sediment control practices identified in the SWPPP, effects to water resources would be less than significant.

Air Quality

Construction of utility improvements would be of a limited duration and would not constitute a magnitude of earthwork that would create significant air quality effects. Construction generated dust and emissions would be controlled by standard BMPs. Construction emissions would be negligible given the small area of disturbance and temporary nature of construction activities.

Biological Resources

No sensitive biological communities or habitat for special status species were identified within the proposed improvement areas. Further, improvements would take place within previously disturbed areas; sensitive biological communities, habitat for special status species, and wetlands would not be impacted. Therefore, there would be no indirect effects to biological resources as a result of utility improvements under Alternative B.

Cultural Resources

No prehistoric or historic period cultural resources are known to occur within the vicinity of the utility improvements based upon a record search (refer to **Section 3.6**). Therefore, no significant impacts to cultural resources would result from off-site utility improvements under Alternative B.

Socioeconomic Conditions

Utility improvements would be at the expense of the Tribe. Therefore, there would be no indirect effects to socioeconomic conditions as a result of utility improvements under Alternative B.

Transportation/Circulation

Utility improvements within road right-of-ways would be limited in scale and duration, resulting only in short-term disturbances to traffic flows. Therefore, there would be no indirect effects to the transportation and circulation network as a result of utility improvements under Alternative B.

Land Use

Construction of utility improvements would not result in adverse land use effects as connections would be located within existing utility easement right-of-ways and all surfaces would be restored to existing conditions after construction is completed. There would be no indirect effects to land use as a result of off-site utility improvements under Alternative B.

Public Services

Construction of utility improvements would avoid existing utilities. No effects to police, fire, or emergency medical services are expected as access to homes and businesses would be maintained during the construction period. Therefore, there would be no indirect effects to public services as a result of utility improvements under Alternative B.

Noise

Noise impacts would be very similar to those under Alternative A. Therefore, no significant indirect noise impacts are expected to occur as a result of off-site utility improvements under Alternative B.

Hazardous Materials

Construction of the proposed utility improvements could potentially result in hazardous materials effects. The risks of accidental release of hazardous materials are consistent with Alternative A. Adherence to relevant statutes, standard operating procedures, and BMPs would minimize exposure risks. Thus, potential indirect hazardous materials impacts from the construction of utility improvements are therefore less than significant under Alternative B.

Aesthetics

As the proposed pipelines and electrical lines would be installed underground and restored to existing conditions, impacts to aesthetics and community character would be insignificant. Therefore, no significant indirect effects to aesthetics would occur as a result of Alternative B.

Alternative C – Expansion of the Mill Casino

No off-site impacts would occur as a result of Alternative C on the Mill Casino Site.

4.14.2 Growth-Inducing Effects

A growth-inducing effect is defined as one that fosters economic or population growth, or the construction of additional housing. Growth inducement could result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it would remove obstacles to population growth (e.g., expansion of a WWTP that could allow more construction in the service area). Direct growth inducement is possible if a project contains a component that by definition would lead to "growth," such as the construction of new housing. None of the project alternatives includes direct growth inducement. This section assesses the potential for indirect growth inducement for each development alternative.

Alternative A

Development of Alternative A would result in one-time employment opportunities from construction as well as permanent employment opportunities from operation. These opportunities would result from direct as well as indirect and induced effects. Construction opportunities would be temporary in nature and would not result in the permanent relocation of employees to the City of Medford.

Section 4.7.1 determined that the operational impact of Alternative A would result in an annual total of approximately 360 employment opportunities, including direct, indirect, and induced opportunities. Other alternatives would have a roughly equal or smaller effect on employment. Of these, the majority of positions are anticipated to be filled with people already residing within the region and would, therefore, not require new housing. As discussed in **Section 4.7.1**, there were approximately 7,496 vacant housing units in Jackson County in 2017. Therefore, assuming a similar vacancy rate in 2023, there are anticipated to be more than enough vacant homes to support potential impacts to the regional labor market under Alternative A. As such, Alternative A is not expected to stimulate regional housing development.

The potential for commercial growth resulting from the development of Alternative A would result from fiscal output generated throughout Jackson County. Under Alternative A, this output would be generated from direct, indirect, and induced economic activity. Construction and operation activities would result in direct output to the industries discussed in **Section 4.7.1**. Businesses in these sectors would generate growth in the form of indirect output resulting from expenditures on goods and services at other area businesses. In addition, employees from Alternative A would generate growth from induced output resulting from expenditures on goods and services at other area businesses. Indirect and induced output could stimulate further commercial growth; however, such demand would be diffused and distributed among a variety of different sectors and businesses in Jackson County. As such, significant regional commercial growth would not be anticipated to occur under Alternative A.

Development in the City of Medford or other cities within Jackson County would be subject to the constraints of their general plans, local ordinances, and other planning policies and documents. New projects resulting from any induced economic effects would be subject to appropriate project-level environmental analysis. As discussed above, the minimal amount of commercial growth that may be induced by Alternative A would not result in significant adverse environmental effects.

Alternative B – Phoenix Site

Development of Alternative B would generate new employment opportunities that could result in additional housing and commercial demand. **Section 4.7.2** determined that the operational impact of Alternative B would result in an annual total of approximately 353 employment opportunities, including direct, indirect, and induced opportunities. Thus, the effect of housing and potential commercial growth would be comparable but to a lesser extent than Alternative A. Similar to Alternative A, based on regional housing stock projections, and current trends in Jackson County housing market data, there are anticipated to be more than enough vacant homes to support potential impacts to the regional labor market under Alternative B. As such, Alternative B is not expected to stimulate regional housing.

As discussed in **Section 4.9.2**, the Phoenix Site is not located within the UGB of the City of Phoenix. Given the Phoenix Site's location relative to Phoenix city limits/UGB (approximately 365 feet away) and utilities, an extension of facilities beyond the current city limits and UGB would be required to serve the Phoenix Site (**Section 4.9**, **Section 4.10**). Amending the Phoenix UGB and extending infrastructure into a new area would remove obstacles to development and has the potential to induce growth. Such growth could result in conversion of open space and agricultural land, traffic, etc. This is a significant adverse

effect. As no mitigation is available to address this impact, the growth-inducing impact of Alternative B is considered significant and unavoidable.

Alternative C – Expansion of the Mill Casino

Development of Alternative C would generate new employment opportunities that could result in additional housing and commercial demand. **Section 4.7.3** determined that the operational impact of Alternative C would result in an annual total of approximately 84 employment opportunities, including direct, indirect, and induced opportunities. Thus, the effect of housing and potential commercial growth would occur to a lesser extent than Alternative A because Alternative C would employ fewer employees and generate lesser economic effects. Similar to Alternative A, based on regional housing stock projections, and current trends in Coos County housing market data, there are anticipated to be more than enough vacant homes to support potential impacts to the regional labor market under Alternative C. As such, Alternative C is not expected to stimulate regional housing development and a significant adverse impact to the housing market would not occur.

Development in North Bend or other cities within Coos County would be subject to the constraints of their general plans, local ordinances, and other planning policies and documents. New projects resulting from any induced effect would be subject to appropriate project-level environmental analysis. As discussed above, the minimal impact to Coos County as a result of potential growth inducement would be less than significant.

Alternative D – No Action/No Development

Under the No Action/No Development Alternative, a change in the current land use of the alternative site locations is not reasonably foreseeable. None of the adverse or beneficial effects identified for project alternatives would be anticipated to occur.

4.15 CUMULATIVE EFFECTS

4.15.1 Introduction

Cumulative effects have been defined as effects to the environment resulting from the incremental effect of the Proposed Action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR § 1508.7). Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

The geographic boundaries of the cumulative effects zone have been determined based on the nature of the resources affected and the distance that such effects may travel. As an example, increased sedimentation of waterways that result from a project is limited to the watershed in which they occur. As a result, it is only necessary to examine effects within that watershed. Air quality emissions from a project travel over far greater distances and, therefore, necessitate analysis on a county, air basin, or regional level. Cumulative effects analysis is based on the assumed enforcement of federal, state, and local regulations, including the implementation of the policies outlined in relevant planning documents. Cumulative impacts for each environmental issue area are discussed below for Alternatives A through C.

4.15.2 Cumulative Setting

The cumulative setting includes past, present and reasonably foreseeable future actions not part of any development alternative, but related to cumulative effects. This includes projected growth and zoning as detailed in the City of Medford Comprehensive Plan (City of Medford, 2016), and more generally in the

Jackson County Comprehensive Plan (Jackson County, 2004). Revisions and updates to these documents occur on a section-by-section basis and are available on the City of Medford and Jackson County websites.

The cumulative year analyzed throughout this EIS is 2042, which corresponds to the end of the Rogue Valley Metropolitan Planning Organization (RVMPO) planning horizon. Further discussion on the cumulative models developed from the RVMPO is included in the Traffic Impact Analysis (**Appendix H**).

Medford and Phoenix Sites

Major development projects proposed and/or currently being constructed in the vicinity of the Medford and Phoenix Sites are listed below and are assumed under cumulative conditions. These projects were determined based on consultation with local government agencies and publicly available information.

- Located along Coal Mine Road, three parcels totaling 42.76 acres and owned by Suncrest Homes were approved for a zone change from SFR-00/SE (Single Family Residential, one unit per lot) to SFR-4/SE (Single Family Residential, four units per acre) (City of Medford, 2016).
- Crystal Ridge along Hillcrest Road was approved for a zone change from RR-5 (Rural Residential, one lot per five acres) to SFR-2 (Single Family Residential, two units per acre) and SFR-4 (Single Family Residential, four units per acre) in September 2000.
- There are several zone changes proposed to allow Mahar Homes, a general contractor based in Medford, to develop residential subdivisions with custom homes. These include the Summerfield development and parcels located north of Barnett Road, south of Cherry Lane, and east of N. Phoenix Road with acreages of 19.13, 23.92, 25.72, 37.91, and 48.84. There are a variety of phases and subdivisions in different stages of the planning process (City of Medford, 2016).
- Stonegate Estates is a 94-lot residential subdivision of approximately 31.73 acres, within the Stonegate Estates Planned Unit Development (PUD), generally located on the north side of Coal Mine Road and east of N. Phoenix Road, within the SFR-4/SE/PD (Single Family Residential – four units per acre/Southeast Overlay/Planned Development) zoning district. The approval of a final plat for Phase 2 of the project occurred on February 27, 2014 (City of Medford, 2014b).
- A request for a preliminary PUD plan approval, including a tentative plat for an 18-lot subdivision and associated zone change on 28.05 acres for Stewart Meadows Village was made March 5, 2009. This project is a mixed-use commercial and residential PUD with approximately 481,570 square feet of retail and office space, 190 apartment and townhouse dwelling units, and a 13,513 square foot community center located on a 77.39-acre site, generally bordered by Garfield Avenue on the south, Myers Lane on the west, Stewart Avenue on the north, and Pacific Highway on the east (City of Medford, 2009). This development is in the planning phase; site layouts are being finalized and revisions to the preliminary approvals may be submitted.
- The Breeze Barnett Zone Change changed the zoning district of 10.25 acres in south Medford near N. Phoenix Road from EFU to MFR-15/SE (Multi-Family Residential, 15 units per acre) MFR-20/SE (Multi Family Residential, 20 units per acre) in preparation for future development. The planning commission approved this zone change on May 24, 2001; however, no development has taken place yet, nor have any plans been submitted (City of Medford, 2016).

The cumulative impact analysis within this EIS and associated technical studies (including the traffic impact study provided as **Appendix H**) considered the construction of the projects listed above and growth in accordance with the County and City Comprehensive Plans. Additionally, the following proposed project was approved by the City following the preparation of the TIS and is currently under construction:

- Compass Hotel (also known as Hotel at the Cedars), a proposed five story, 65,353 square foot, hotel (111 keys) is currently under construction on a 3.6-acre parcel owned by the Tribe located at 2399 South Pacific Highway within the C-H (Heavy Commercial) zoning district (371W32CD Tax Lot 4100). The hotel would be located directly south of the proposed trust property on the Medford Site. Construction of the hotel began in 2021 and is expected to be completed in spring 2022. Access to the hotel will be provided via improvements to an existing driveway from OR 99 located approximately 230 feet south of the existing driveway that serves Roxy Ann Lanes, as well as through a driveway extending from Lowry Lane. The hotel was approved by the City and is being constructed on fee land owned by the Tribe in accordance with local permitting requirements.

A supplemental memorandum addressing the addition of traffic from the adjacent hotel project is provided at the end of **Appendix H**. As noted therein, traffic from the future hotel adjacent to the Medford Site would have generally been accounted for within the background trips of the regional RVMPO model.

Mill Casino Site

Cumulative growth and development in the region of the Mill Casino Site is guided by the City of North Bend Comprehensive Plan (North Bend, 2019).

4.15.3 Alternative A – Proposed Project

The effects of Alternative A in conjunction with the cumulative setting discussed in **Section 4.15.2** are presented below. Effects are described for each of the environmental issue areas described in **Sections 4.2** through **4.13** of this EIS.

Geology and Soils

Cumulative effects associated with geology and soil resources are not expected to occur as a result of future developments in combination with Alternative A. Topographic changes may be cumulatively significant if the topography contributes significantly to environmental quality with respect to drainage, habitat, or other values; however, no significant topographic changes would occur as a result of Alternative A. Soil loss could be cumulatively considerable if the project and all other developments may result in significant depletion of available soils. Local permitting requirements for construction would address regional geotechnical and topographic conflicts, seismic hazards, and resource extraction availability. Approved developments, including those discussed in **Section 4.15.2**, would be required to follow applicable local permitting procedures. In addition, Alternative A and all other developments that disturb one acre or more must comply with the requirements of the NPDES Construction General Permit, which requires that BMPs be implemented to address water quality degradation by preventing erosion, as outlined in **Section 5.0**. Therefore, implementation of Alternative A would not result in significant cumulative effects to geology or soils.

Water Resources

Surface Water

Cumulative effects to water resources may occur as the result of buildout of Jackson County and City of Medford Comprehensive Plans, including the future developments discussed in **Section 4.15.2**, in combination with Alternative A. Alternative A would involve a minimal increase in the amount of impermeable surfaces on the site, which may increase sedimentation, potential pollution, and stormwater flows. Stormwater discharges from residential and commercial areas are of concern in managing surface water quality. Pollutants that accumulate in the dry summer months, such as oil and grease, pesticides, and herbicides, may create temporary short-term water quality problems due to their presence in high concentrations during the first major storm event.

The runoff characteristics of a watershed are altered when impervious surfaces replace natural vegetation. Changes in runoff characteristics may increase stream volumes, increase stream velocities, increase peak discharges, shorten the time to peak flows, and lessen groundwater contributions to stream base-flows during non-precipitation periods. Urban areas, such as the City of Medford, also have sources of non-point source pollution that can affect regional water quality. Construction and implementation of the proposed development projects listed in **Section 4.15.2** may likewise affect water quality by increasing sedimentation and pollution and increasing stormwater flows. It should be noted that, like Alternative A, the adjacent hotel project would be constructed on a site that is predominantly paved under current conditions; therefore, the hotel project would not contribute to a cumulative increase in stormwater runoff rates. Additionally, proposed cumulative projects would include erosion control measures in compliance with the NPDES permit program and ODEQ regulations. As described in **Section 4.3** and detailed in **Appendix D**, stormwater runoff under Alternative A would be directed into either vegetated bioretention swales or a distributed pervious strip system, both of which would be sized to accommodate excess water draining from impervious surfaces. The proposed stormwater systems would adequately treat and control flow of stormwater prior to discharge off the Medford Site. Other cumulative projects, including the adjacent hotel project, would have similar precautionary features incorporated in their design. Therefore, implementation of Alternative A would not result in significant cumulative effects to surface water.

Groundwater

Groundwater Supply

Construction and implementation of the proposed development projects listed in **Section 4.15.2** may introduce new areas of impermeable surfaces which could reduce groundwater re-charge in the region. It should be noted that, like Alternative A, the adjacent hotel project would be constructed on a site that is predominantly paved under current conditions; therefore, the hotel project would not reduce groundwater recharge rates. Additionally, proposed cumulative projects would include BMPs per the NPDES permit program and ODEQ regulations that would allow the percolation of water into the groundwater table, reducing cumulative effects to groundwater re-charge. Therefore, implementation of Alternative A would not result in significant cumulative effects on groundwater re-charge.

Groundwater Quality

Alternative A would comply with the NPDES permit program and implement BMPs to reduce impacts to groundwater quality. Wastewater generated by Alternative A and buildout of the City of Medford Comprehensive Plan, including the future developments discussed in **Section 4.15.2**, would be treated by the Medford RWRF, which treats wastewater to the appropriate quality as required by State and federal guidelines. Other proposed developments would include appropriate erosion control measures in compliance with the NPDES permit program and ODEQ regulations to protect groundwater quality.

Therefore, Alternative A would not contribute to a significant cumulative effect associated with re-charge of the groundwater basin.

Air Quality

Operational Vehicle and Area Emissions

Operation of Alternative A would result in the generation of mobile emissions from patron, employee, and delivery vehicles, as well as stationary source emissions from combustion of natural gas in boilers and other equipment. Emission estimates for the cumulative year 2042 are provided in **Table 4.15-1**. Detailed calculations of mobile and stationary source emissions are included in **Appendix N**. The MOVES2014 air quality model was used to estimate emissions in the year 2042. Increased gas mileage from trucks and vehicles in the future is accounted for in the MOVES2014 air quality model. The increase in future gas mileage is attributed to improved fuel efficiency technology and stricter federal and state regulations.

TABLE 4.15-1
2042 OPERATION EMISSIONS - ALTERNATIVE A

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NO_X	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SO_X	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary Source	0.08	0.01	0.17	0.01	0.09	0.03
Mobile Source	0.13	1.30	6.11	0.01	0.33	0.04
Total Emissions	**0.21**	**1.31**	**6.28**	**0.02**	**0.42**	**0.07**
Conformity *de minimis* Levels	N/A	N/A	100	N/A	100	N/A
Exceedance of *de minimis* Levels	N/A	N/A	No	N/A	No	N/A

Notes:[1] In tons per year.
Source: USEPA, 2014; AP-42, 1995; **Appendix N**.

Past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. If the individual emissions of a project contribute toward exceedance of the NAAQS, then the cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the USEPA considers the regions past, present, and future emission levels. As stated in **Section 3.4**, the project site and vicinity is in attainment for all criteria pollutants except CO, and PM_{10}. As shown in **Table 4.15-1**, cumulative emissions in the year 2042 would not result in an exceedance of the *de minimis* levels for any criteria air pollutant. Additionally, mitigation measures provided in **Section 5.0** would minimize criteria air pollutant emissions from operation of Alternative A. Therefore, air quality in the region is not cumulatively impacted. Alternative A would not contribute to a significant cumulative effect to air quality in the year 2042.

Carbon Monoxide Hot Spot Analysis

Hot Spot Analysis is conducted on intersections that after mitigation would have an LOS of E or F (U.C. Davis, 1996). After the implementation of recommended mitigation for the project alternatives, no intersection would have an LOS or an increase in delay in the cumulative year 2042 that would warrant a Hot Spot Analysis. No significant cumulative impacts would occur and no further analysis is needed.

Climate Change

Climate Change Methodology

Development of Alternative A would result in an increase in GHG emissions related to mobile sources (trips generated), area sources (components of Alternative A that directly emit GHG), and indirect sources related to electrical power generation. On February 19, 2021, pursuant to federal Executive Order (EO) 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, CEQ rescinded its 2019 Draft NEPA Guidance on Consideration of Greenhouse Gas Emissions and is reviewing, for revision and update, the 2016 Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. While CEQ works on updated guidance, it has instructed agencies to consider all available tools and resources in assessing GHG emissions and climate change effects of their proposed actions, including the 2016 GHG Guidance.

To assess impacts, the 2016 GHG Guidance states that federal agencies should quantify direct and indirect emissions of the project alternatives with the level of effort being proportionate to the scale of the emissions relevant to the NEPA review. The CEQ guidance advises federal lead agencies to consider the following: 1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions, and 2) The effects of climate change on a proposed action and its environmental impacts.

This guidance does not propose a specific, quantitative threshold of significance; however, it states that agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. Examples of mitigation provided for in the guidance include, but are not limited to, enhanced energy efficiency design, lower GHG-emitting technology, carbon capture, carbon sequestration (e.g., restoration of forest, agricultural soils, and coastal habitat), and compensation.

Additionally, on February 19, 2021, Secretary of the Interior Deb Haaland issued Secretarial Order (SO) 3399 to prioritize action on climate change throughout the Department and to restore transparency and integrity in the Department's decision-making processes. SO 3399 specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives. And when quantifying GHS emissions is not possible, bureaus are to provide a qualitative analysis and rationale for determining that a quantitative analysis is not warranted. SO 3399 acknowledges that identifying the interactions between climate change and the environmental impacts of a proposed action in NEPA documents can help decision makers identify opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to protecting communities from the climate crisis. Accordingly, this analysis includes a quantification of GHG emissions resulting from the project alternatives and a discussion of how applicable measures can reduce GHG emissions and similarly reduce climate impact on disadvantaged communities.

The USEPA-approved MOVES emissions modeling software, USEPA AP 42, and California Emissions Estimator Model, 2014 electricity, solid waste, water/wastewater emission factors were used to estimate project-related GHG emissions resulting from the proposed alternatives.

Carbon dioxide equivalent (CO_2e) is a method by which GHGs other than CO_2 are converted to a CO_2-like emission value based on a heat-capturing ratio. As shown in **Table 4.15-2**, CO_2 is used as the base and is given a value of one. Emissions are multiplied by the CO_2e value to achieve one GHG emission value. By providing and common measurement, CO_2e provides a means for presenting the relative overall effectiveness of emission reduction measures for various GHGs in reducing project contributions to global climate change.

Alternative A Climate Change Effects

Table 4.15-3 shows Alternative A direct construction and area GHG emissions and annual indirect operation GHG emissions in MT of CO_2e.

TABLE 4.15-2
GREENHOUSE GAS CO_2 EQUIVALENT

Gas	CO_2e Value
CO_2	1
CH_4	21
N_2O	310
HFCs/PFCs[1]	6,500
SF_6[1]	23,900
Note: [1] High-global warming potential pollutants; CH_4 = methane; CO2e = carbon dioxide equivalent; HFCs/PFCs = hydrofluorocarbons/perfluorocarbons; N_2O = nitrous oxide; SF6 = sulfur hexafluoride Source: IPCC, 2015.	

TABLE 4.15-3
ALTERNATIVE A CONSTRUCTION AND OPERATIONAL MITIGATED GHG EMISSIONS

Direct	**GHG Emissions (MT of CO_2e/year)**
Construction	2,826
Area	1,620
Indirect	**GHG Emissions (MT of CO_2e)**
Energy	50
Mobile	2,468
Solid Waste	9
Water/Wastewater	3
Annual Construction GHG Emissions	**2,826**
Annual Operation GHG Emissions	**4,150**
Notes: CO_2e = carbon dioxide equivalent MT = metric tons Source: USEPA, 2014; USEPA AP 42, 2015; CalEEMod emission factors; **Appendix N**.	

GHG emissions resulting from Alternatives A are primarily indirect (indirect mobile emissions from delivery, patron, and employee vehicles). The federal government has enacted measures that would reduce GHG emissions from mobile sources, some of which have been accounted for in the air quality model used to estimate mobile emissions. Consistent with the 2016 GHG Guidance and SO 3399, BMPs have been provided in **Section 2.0** to reduce project-related GHG emissions, such as reducing the idling of heavy equipment and thus CO_2 emissions. Operational BMPs would reduce indirect GHG emissions from electricity use, water and wastewater transport, and waste transport through the installation of energy efficient lighting, heating, and cooling systems, low-flow appliances, drought resistant landscaping, and recycling receptacles. Operational BMPs would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips.

Direct and indirect GHG emissions are not substantial; however, project-related GHG emissions have been quantified (**Table 4.15-3**) and furthermore, project-related emissions will be reduced with the implementation of BMPs provided in **Section 2**. This approach is consistent with the 2016 CEQ Guidance, which directs agencies to quantify direct and indirect emissions of project alternatives and to

consider GHG reduction measures that are reasonable and consistent with achieving the purpose and need for the proposed action. Additionally, the implementation of project BMPs, such as using clean fuel vehicles, installing energy efficient appliances, and promoting waste reduction, is consistent with the intent of SO 3399 to reduce GHG emissions and contribute to the global effort to reduce climate change impacts on disadvantaged communities.

Impacts from climate change such as severe drought, sea level rise, and shifting weather patterns would not significantly impact Alternative A. While the Medford area in general is in a wildfire hazard area as mapped by the Oregon Department of Forestry, the urban area of the Medford Site is identified as "nonburnable/very low hazard to structures" (Oregon Department of Forestry, 2020). Therefore, impacts as a result of severe drought and shifting weather patterns are not considered to be significant for Alternative A. Additionally, with elevations ranging from 1,422 to 1,417 feet amsl, sea level rise does not pose an apparent threat to the project. Accordingly, impacts from climate change would not significantly impact Alternative A.

The effects of climate change are most effectively addressed on a global or regional level. Oregon's global warming legislation (most notably House Bill 2186 and Senate Bill 1059) are intended to be regional approaches, implemented by the State of Oregon to ensure that statewide emissions are reduced substantially in the future (to levels much lower than existing levels). House Bill 2186 and Senate Bill 1059 identified strategies and measures that may be utilized by the state to meet its emissions reduction targets of House Bill 3543 in 2020 and 2050. Most of these measures focus on statewide action meant to curb emissions by changes in statewide planning or policies rather than changes to individual development projects. However, some of the measures may be directly applicable to specific industries or individual commercial developments. Should a development alternative comply with all directly applicable measures, the alternative would support the State's efforts to significantly reduce its cumulative contribution to global climate change and the associated impacts.

The Proposed Project complies with the strategies currently identified by Oregon to comply with House Bill 2186 and Senate Bill 1059, although these strategies are not applicable on federal trust land. Relevant strategies include regulating vehicle emissions, reducing waste, and reducing energy and water consumption. The BMPs provided in **Section 2** are consistent with these strategies and would include measures such as: using clean fuel vehicles, implementing low-flow appliances and water reuse, installing energy efficient lighting and appliances, and promoting waste reduction and diversion. Therefore, implementation of the Proposed Project would have a less than significant cumulative adverse effects associated with climate change.

Biological Resources

Cumulative effects to biological resources would occur if Alternative A, in conjunction with buildout of the projects listed within **Section 4.15.2**, would result in an significant effect to federally listed species, contribute to a reduction in the number of a listed species that would affect the species long term sustainability, cause development that permanently disturbs a wildlife corridor, results in an effect to sensitive habitat that is of regional significance, or results in a conflict with regional conservation goals.

Wildlife and Habitats

As identified in **Section 4.5**, the impacts from Alternative A would occur entirely in ruderal/developed areas. Additionally, the adjacent hotel project would also occur on previously paved and developed land. These habitats provide limited resources for wildlife, are primarily inhabited by animal species accustomed to human disturbances and are not considered sensitive habitats. As disruption of low-quality

habitat would not result in a significant effect to biological resources, Alternative A would not contribute to significant cumulative effects to biological resources.

Federally Listed Species

As discussed in **Section 4.5**, no federally listed species occur on the Medford Site, nor do they occur in the adjacent developed areas surrounding the Medford site, including the adjacent hotel property to the south. There is a hydrological connection between the Medford Site and Bear Creek, an anadromous-bearing stream containing two listed species, Chinook salmon (*Oncorhynchus tshawytscha*) and coho salmon (*O. kisutch*). Runoff from the adjacent hotel property may also contribute flows to Bear Creek. Adherence to the requirements of the CWA through implementation of a SWPPP, as well as ODEQ stormwater regulations, and the use of LID practices to protect downstream waterways from increased flow rates, erosion, and sediment load, would ensure that construction and operation activities associated with the development of Alternative A would not indirectly affect Bear Creek. After the implementation of project LIDs and mitigation, Alternative A would not contribute to cumulative effects to federally listed species.

Migratory Birds

Alternative A would likely not result in significant cumulative effects to nesting migratory birds. Given the minimal number of trees present within the Medford Site that have the potential to provide nest sites, and the preconstruction surveys that would protect nesting birds from nest abandonment would minimize significant effects to migratory birds, Alternative A would not result in significant cumulative effects to nesting migratory birds.

Wetlands and/or Waters of the U.S.

Cumulative developments projects would be required to comply with the requirements of Section 404 of the CWA and ODEQ regulations as they relate to protection of wetlands and WOTUS. Indirect effects to wetlands and waterways within the Medford Site would be avoided by the implementation of project features designed to avoid potential WOTUS, control stormwater and wastewater discharges, and protect the quality of runoff water through conditions of the NPDES General Construction permit. Therefore, Alternative A would not contribute to cumulative effects to wetlands.

Cultural Resources

As discussed in **Section 4.6**, the Medford Site has been previously disturbed and there are no known cultural resources. The potential for effects to unknown cultural resources under Alternative A would be minimal given the disturbed nature of the site and limited excavation activities. These potential effects would be reduced further with the implementation of mitigation measures specified in **Section 5.0** related to inadvertent discovery of cultural resources, including implementation of a monitoring plan for excavation activities. Approved projects would be required to follow federal, state, and local regulations regarding cultural resources and inadvertent discoveries of cultural resources. All other cumulative projects would be required to avoid or mitigate for impacts to cultural resources in compliance with local, State, and federal law. Therefore, with the implementation of the mitigation measures outlined in **Section 5.0**, Alternative A would not contribute to adverse cumulative effects to cultural resources.

Socioeconomic Conditions

Cumulative socioeconomic effects could occur in the project area as the result of developments that affect the lifestyle and economic well-being of residents. Alternative A would introduce new economic activity in the City of Medford, which is a beneficial effect to the region. When considered with the buildout of

the Jackson County and City of Medford Comprehensive Plans, including the projects listed within **Section 4.15.2**, Alternative A may contribute towards cumulative socioeconomic effects including impacts to the local labor market, housing availability, increased costs due to problem gambling, and impacts to local government. These effects would occur as the region's economic and demographic characteristics change, as the population grows, and specific industries expand or contract. Planning documents for Jackson County and the City of Medford will continue to designate land uses for businesses, industry, and housing, as well as plan public services for anticipated growth in the region. Further, potential socioeconomic effects of Alternative A would be lessened through implementation of the BMPs described in **Section 2.3.3**. Therefore, Alternative A would not contribute to significant cumulative socioeconomic effects.

Transportation

In the year 2042 the project would result in the addition of vehicle traffic to local intersections. A TIA prepared for Alternative A is provided in **Appendix H**. This section incorporates the results of this study and describes the number of trips that would be generated by each alternative in the year 2042 and any potential adverse effects that would occur to intersections within the study area for each alternative. Traffic effects resulting from Alternative A were analyzed using trip generation rates determined in cooperation with ODOT based on information published in previous analyses for tribal gaming facilities with similar characteristics to the project alternatives (refer to **Section 4.8.1**).

2042 Cumulative Background Traffic Conditions

To assess project related impacts, baseline traffic conditions were estimated for the year 2042 by using the RVMPO traffic model forecasts (see Appendix D of the TIA [**Appendix H**]). A detailed discussion of pipeline projects and traffic growth assumptions for future baseline conditions is provided in **Section 4.15.2.** These pipeline projects are combined with regional planning level traffic growth assumptions to provide estimated non-project related traffic levels during the future baseline year. Additionally, a supplemental memorandum addressing the addition of traffic from the adjacent hotel project is provided at the end of **Appendix H**. As noted therein, traffic from the future hotel adjacent to the Medford Site would have generally been accounted for within the background trips of the regional RVMPO model. **Table 4.15-4** summarizes the predicted cumulative traffic conditions during the PM peak hour at the Medford Site study intersections in the year 2042 without the addition of project related traffic.

As shown in **Table 4.15-4**, the following intersections would operate below the applicable jurisdiction's performance standards under future baseline conditions without the addition of project traffic.

- Riverside Avenue (OR 99) at Barnett Road
- Highland Drive at Barnett Road
- Riverside Avenue (OR 99) at Stewart Avenue
- I-5 Exit 27 Interchange
- Center Drive at Garfield Street
- S. Pacific Highway (OR 99) at Garfield Street
- S. Pacific Highway (OR 99) at Charlotte Ann Road

The remaining study intersections would operate acceptably under 2042 without project conditions.

2042 Cumulative Traffic Conditions Plus Alternative A

To assess the impacts of the project on transportation facilities in the study area, the projected number of trips generated by Alternative A was added to 2042 background plus pipeline projects traffic volumes.

TABLE 4.15-4
2042 CUMULATIVE CONDITIONS WITHOUT ALTERNATIVE A

Intersection	Mobility Target	Movement	2042 No Build v/c	2042 No Build LOS	Meeting Standard?
1. Riverside Avenue (OR 99) at Barnett Road	LOS D	Overall	1.01	**E**	No
2. Highland Drive at Barnett Road	LOS E	Overall	1.11	**F**	No
3. Riverside Avenue (OR 99) at Stewart Ave	LOS E	Overall	1.17	**F**	No
4. I-5 Exit 27 Interchange	v/c 0.85	Overall	**0.87**	C	No
5. Center Drive at Garfield Street	v/c 0.95	Overall	**1.15**	F	No
6. S. Pacific Highway (OR 99) at Garfield Street	v/c 0.95	Overall	**1.14**	F	No
7. S. Pacific Highway (OR 99) at Charlotte Ann Road	v/c 0.95	EB L/T/R	**1.60**	F	No
	v/c 0.95	WB L/T/R	**3.24**	F	No
	v/c 0.95	NBL	0.02	C	Yes
	v/c 0.95	SBL	0.05	C	Yes
8. S. Pacific Highway (OR 99) at Human Bean	v/c 1.0	WB L/R	0.08	D	Yes
	v/c 0.95	SB L	0.01	B	Yes
9. S. Pacific Highway (OR 99) at Roxy Ann Lanes (South Site Driveway)	v/c 1.0	WB L	0.21	D	Yes
	v/c 0.95	SB L	0.12	C	Yes

Notes: Bolded values exceed mobility target.
Source: DEA, 2019 (**Appendix H**).

2042 Cumulative Background Plus Alternative A Intersection Operations

Table 4.15-5 shows the PM peak hour LOS and/or v/c ratio at each of the study intersections under 2042 background plus Alternative A traffic conditions.

As shown in **Table 4.15-5**, signalized intersections #1-5 are expected to exceed the adopted mobility targets under the 2042 Build condition. However, these intersections are expected to be no worse than the No Build conditions (as shown in **Table 4.15-5**). Therefore, Alternative A would have a less-than-significant impact at these intersections.

The increase in traffic generated by Alternative A in the cumulative year 2042 would contribute to unacceptable traffic operations at the intersections of Garfield Street at S. Pacific Highway and Charlotte Ann Road at S. Pacific Highway. Without mitigation, the project would contribute to unacceptable traffic operations at these intersections in the cumulative year 2042; however, implementation of Mitigation Measures provided in **Section 5.0** would restore the intersections to acceptable or pre-development conditions. Therefore, with mitigation, development of Alternative A would not contribute towards significant cumulative effects on traffic and circulation.

2042 Cumulative Background Plus Alternative A Queuing Analysis

To assess the potential for Alternative A to result in vehicle queuing impacts at on- and off-ramps, a SimTraffic analysis was conducted for the following intersections.

- I-5 Exit 27 Interchange
- Center Drive at Garfield Street

- S. Pacific Highway (OR 99) at Garfield Street

The analysis determined that the queuing along Garfield Street in the westbound direction is expected to impact the I-5 interchange by the end of the planning horizon (2042). This is a potentially significant adverse effect. Implementation of Mitigation Measures provided in **Section 5.0** would provide an overall reduction of queues as measured against 2042 baseline conditions. Therefore, after mitigation, Alternative A would have a less-than-significant effect on queuing on on-ramps and off-ramps from the I-5 interchange.

TABLE 4.15-5
2042 CUMULATIVE CONDITIONS WITH ALTERNATIVE A

Intersection	Mobility Target	Movement	2042 Build v/c	2042 Build LOS	Meeting Standard?
1. Riverside Avenue (OR 99) at Barnett Road	LOS D	Overall	1.02	**E**	No
2. Highland Drive at Barnett Road	LOS E	Overall	1.12	**F**	No
3. Riverside Avenue (OR 99) at Stewart Avenue	LOS E	Overall	1.18	**F**	No
4. I-5 Exit 27 Interchange	v/c 0.85	Overall	**0.87**	C	No
5. Center Drive at Garfield Street	v/c 0.95	Overall	**1.15**	F	No
6. S. Pacific Highway (OR 99) at Garfield Street	v/c 0.95	Overall	***1.15***	F	No
7. S. Pacific Highway (OR 99) at Charlotte Ann Road	v/c 0.95	EB L/T/R	***1.99***	F	No
	v/c 0.95	WB L/T/R	***4.54***	F	No
	v/c 0.95	NBL	0.02	C	Yes
	v/c 0.95	SBL	0.05	C	Yes
8. S. Pacific Highway (OR 99) at Human Bean	v/c 1.0	WB L/R	0.02	D	Yes
	v/c 0.95	SB L	0.01	C	Yes
9. S. Pacific Highway (OR 99) at Roxy Ann Lanes (South Site Driveway)	v/c 1.0	WB L	0.64	F	Yes
	v/c 0.95	SB L	0.34	C	Yes

Notes: Bolded values exceed mobility target. Italic values exceed the No Build and mobility target.
Source: DEA, 2019 (**Appendix H**).

Transit, Bicycle, and Pedestrian Facilities

As discussed in **Section 4.8**, because sufficient parking is available onsite and sidewalk and bicycle facilities do not provide direct access to the Medford Site, no significant effects would occur to pedestrian facilities as a result of Alternative A.

Project related ridership in the cumulative year 2042 would be the same as that discussed in **Section 4.8**. However, in the cumulative year, buildout of the City and County Transportation Plans including the pipeline projects listed in **Section 4.15.2** would increase ridership on Route 10 buses. An increase in ridership would result in an increase in transit fare, including from passengers traveling to and from the Medford Site, which would be used to provide additional routes and buses, if necessary. Therefore, cumulative effects to transit would not be significant.

Land Use

Development in the City of Medford is guided by the *City of Medford Comprehensive Plan* (City of Medford, 2016) and the City's Land Development Code. Development within the City of Medford will be consistent with applicable planning documents and policies, which prevent disorderly growth and incompatible land uses. While Alternative A would not be subject to local land use policies, as discussed in **Section 4.9**, with the mitigation listed in **Section 5.0**, Alternative A would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Alternative A would not contribute to significant cumulative land use effects.

Agriculture

No agriculture currently takes place on the urban Medford Site. Because Alternative A would not convert designated agricultural land to urban uses, it would not contribute to significant cumulative effects to agricultural lands.

Public Services

Water Supply

As stated in **Section 3.10**, the Duff WTP is currently undergoing a multiphase expansion that will result in a treatment capacity of 65 MGD and Big Butte Springs has a year-round capacity of 26.4 MGD; therefore, the future capacity available to supply MWC customers as supplied by both Big Butte Springs and the Duff WTP is 91.4 MGD. The projected MWC potable water demands as presented in the 2007 MWC Facility Plan are summarized in Table 5-2 of **Appendix D**. As shown therein, the 2026 average daily demand is estimated to be 45 MGD and the maximum daily demand is estimated to be 97 MGD. While the planned improvements at Duff WTP would allow MWC to expand its capacity to serve the future average daily demand, additional improvements may be necessary to serve the future maximum daily demand. Improvements made to the water system, and the construction of facilities added to the system are financed through water rates charged to customers, and contributions paid by developers. With the implementation of mitigation measures outlined in **Section 5.0**, the additional 0.04 MGD maximum daily demand from Alternative A would not result in significant cumulative effects to water supply systems.

Wastewater Services

Table 6-2 of **Appendix D** summarizes the current and projected flows at the Medford RWRF. As shown therein, the 2030 ADWF is projected to be 25 MGD, which is greater that the Medford RWRF's current capacity of 19 MGD. The 2012 City of Medford RWRF Facilities Plan includes funding mechanisms and timelines for expansion to meet future capacity needs. Scheduling of RWRF expansions and improvements is based on regulatory drivers, maintenance requirements, and the need for additional capacity. Potential future upgrades to and expansion of infrastructure, when warranted, would be funded through rates charged to customers, and contributions paid by developers. With implementation of mitigation included in **Section 5.0**, the additional wastewater generated by Alternative A would not result in significant cumulative effects to wastewater collection and treatment systems.

Solid Waste

As stated in **Section 3.10**, RDR serves the Medford Site and waste is hauled to Dry Creek Landfill, which accepts 900 tons of solid waste per day and has a 100-year projected operational life. Growth resulting from buildout of the projects listed in **Section 4.15.2**, would increase disposal of solid waste to the Dry Creek Landfill. Projected solid waste generation for Alternative A is a small contribution to the waste

stream and would not significantly decrease the life expectancy of the landfill. Therefore, Alternative A would not result in significant cumulative effects to solid waste services.

Law Enforcement

New development, including projects listed within **Section 4.15.2**, would fund City of Medford services including law enforcement through development fees and property tax. As discussed in **Section 4.10**, under Alternative A, law enforcement services would be provided by the Medford Police Department. A Tribal security force would provide security patrol and monitoring needs of the casino as needed. Due to existing staffing levels, the Medford Police Department may need additional facilities and equipment to meet the increased need for services due to cumulative growth in the region, including Alternative A. Additionally, an increase in service demands to the OSP may result from development of the project.

With implementation of the on-site security measures and the conditions of a service agreement between the Tribe and the City, as discussed in **Section 5.0**, payments by the Tribe would compensate the City for costs of impacts associated with increased law enforcement services at the Medford Site. It is anticipated that future developments would also be required to off-set costs for services through development impact fees and other funding mechanisms imposed by the City as conditions of project approvals. Therefore, with mitigation, Alternative A would result in a less–than-significant cumulative effect on public law enforcement services.

Fire Protection and Emergency Medical Services

New development, including projects listed within **Section 4.15.2**, would be required to fund City of Medford services including fire protection and emergency medical response through development fees and property tax. Emergency medical costs are paid primarily by the individual requiring service. With implementation of a service agreement between the Tribe and Medford Fire-Rescue, as discussed in **Section 5.0**, payments by the Tribe would compensate Medford Fire-Rescue for costs of impacts associated with increased fire protection services at the Medford Site. It is anticipated that future developments would also be required to off-set costs for services through development impact fees and other funding mechanisms imposed by the City as conditions of project approvals. Therefore, with implementation of mitigation, Alternative A would result in a less-than-significant cumulative impact on public fire protection services.

Electricity and Natural Gas

Individual projects, including all of the projects listed within **Section 4.15.2**, would be responsible for paying development or user fees to receive electrical or natural gas services. Since potential future cumulative developments would require consultation with these service providers and occur according to planned land uses, capacity would be made available for the projects. While these providers may have the capacity to provide service there may be new infrastructure needed in undeveloped areas. Individual projects would be responsible for paying development or user fees to receive electrical, natural gas, cable, and telephone services. Thus, the cumulative effects would be less than significant.

Noise

The following identifies possible impacts from project related noise sources in the cumulative year 2042 for Alternative A, such as traffic; HVAC systems; parking lots; and deliveries.

Traffic Noise

The primary source of noise in the area is generated by traffic in the cumulative year 2042. The level of traffic noise depends on: l) the volume of the traffic, 2) the speed of the traffic, and 3) the number of trucks in the flow of the traffic (FHWA, 2010). It is not anticipated that speed in the vicinity of the Medford Site or the mix of trucks in the traffic would change during the operational phase; however, in the cumulative year 2042 traffic volumes would increase.

As described in **Section 3.11**, the existing ambient noise level adjacent to OR 99 at the Medford Site without increased cumulative traffic was measured at 83.7 dBA, average Leq. This noise level would increase as traffic increases along OR 99. Since the ambient noise level in the vicinity of OR 99 is greater than 65 dBA Leq, significance for Alternative A will be evaluated based on if the project audibly increases the ambient noise level at sensitive receptor locations or if it would exceed existing levels by greater than 10 dBA. As discussed in **Section 3.11,** a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would be considered significant. In cumulative year 2042, there would be approximately 3,307 vehicle trips per PM peak hour adjacent to the Medford Site. Alternative A's traffic at buildout would increase the number of trips during the peak hour by approximately 4.1%, which is less than double the existing volume of traffic, resulting in an increase of the ambient noise level of approximately 0.17 dBA Leq. Because the cumulative increase in traffic noise levels would result in an ambient increase less than 3.0 dBA, Alternative A would not contribute to significant effects to sensitive receptors located in the vicinity of the Medford Site.

Vibration and Other Noise Sources

Future cumulative projects would be required to comply with City of Medford noise provisions. These provisions include mitigation requirements when noise levels exceed compatible use standards. The potential for cumulative impacts associated with vibration and other noise sources from Alternative A would be the same as the direct effects of the project described in **Section 4.11**. Construction of the adjacent hotel project is expected to be complete prior to the initiation of any construction activities associated with Alternative A, thus there would be no anticipated cumulative effects from construction noise. However, operation of HVAC and other on-site equipment at the hotel in combination with the Alternative A would contribute to a cumulative increase in ambient noise levels at adjacent sensitive receptors. With the implementation of BMPs outlined in **Section 2.0** and the mitigation measures listed in **Section 5.0**, Alternative A would not result in adverse cumulative effects to the ambient noise environment.

Hazardous Materials

As discussed in **Section 4.12**, with the incorporation of BMPs outlined in **Section 2.3.3**, implementation of Alternative A would not result in direct effects associated with hazardous materials management. Approved projects, including those listed within **Section 4.15.2**, would be required to follow applicable federal and state regulations concerning hazardous materials management, including the implementation of construction BMPs dealing with hazardous materials management through the NPDES permitting process. With the implementation of BMPs outlined in **Section 2.3.3**, Alternative A would not result in significant cumulative effects associated with hazardous materials.

Aesthetics

Cumulative growth, including the projects listed in **Section 4.15.2**, would result in effects to visual resources. Cumulative effects would include a shift from open, undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City of Medford. Development in the City is required to be consistent with applicable regulations and policies. As discussed in **Section 4.13**,

development of Alternative A on the Medford Site would be visually compatible with land uses currently existing onsite and in the immediate vicinity as commercial and industrial development already dominates the area. Therefore, potential cumulative effects to visual resources would be less than significant.

4.15.4 Alternative B – Phoenix Site

Geology and Soils, Water Resources, Biological Resources, Cultural Resources, Socioeconomic Conditions, and Hazardous Materials

Cumulative effects associated with geology and soil, water resources, biological resources, cultural resources, socioeconomic conditions, and hazardous materials are similar to those that would occur under Alternative A (refer to **Section 4.15.3** above). Therefore, implementation of Alternative B would not result in significant cumulative effects to these resource areas.

Air Quality

Operational Vehicle and Area Emissions

Operation of Alternative B would result in similar emissions as Alternative A (refer to **Section 4.15.3**). Emission estimates for the cumulative year 2042 are provided in **Table 4.15-6** and detailed calculations are included in **Appendix N**. As stated in **Section 3.4**, the project site and vicinity is in attainment for all criteria pollutants except for CO, and PM_{10}. As shown in **Table 4.15-6**, cumulative emissions in the year 2042 would not result in an exceedance of the *de minimis* levels for any criteria air pollutant. Additionally, BMPs are provided in **Section 2** would minimize criteria air pollutant emissions from operation of Alternative B. Therefore, air quality in the region is not cumulatively impacted. Alternative B would not contribute to a significant cumulative effect to air quality in the cumulative year.

Carbon Monoxide Hot Spot Analysis

Consistent with Alternative A, a Hot Spot Analysis is not warranted for Alternative B. No significant cumulative impacts would occur.

TABLE 4.15-6
2042 OPERATION EMISSIONS - ALTERNATIVE B

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NO_X	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SO_X	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary Source	0.11	0.01	0.22	0.01	0.11	0.04
Mobile Source	0.17	1.67	7.83	0.01	0.42	0.05
Total Emissions	**0.28**	**1.68**	**8.05**	**0.02**	**0.53**	**0.09**
Conformity *de minimis* Levels	N/A	N/A	100	N/A	100	N/A
Exceedance of *de minimis* Levels	N/A	N/A	No	N/A	No	N/A

Notes:[1] In tons per year.
Source: USEPA, 2014; USEPA AP-42, 1995; **Appendix N**,

Climate Change

Table 4.15-7 shows Alternative B direct construction and area source GHG emissions and indirect operation GHG emissions in MT of CO_2e.BMPs have been provided in **Section 2.0** to reduce project-related GHG emissions. Operational BMPs would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips.

Direct and indirect GHG emissions are not substantial. However, project-related GHG emissions have been quantified (**Table 4.15-7**) and furthermore, project-related emissions will be reduced with the implementation of BMPs provided in **Section 2**. Similar to Alternative A, Alternative B would be consistent with the state's strategies to reduce global climate change. Therefore, implementation of Alternative B would have a less than significant cumulative adverse effects associated with climate change. Unlike the Medford Site, the Phoenix Site is located in an area vulnerable to wildfire, so climate change could adversely affect the proposed Alternative B development (Oregon Department of Forestry, 2020).

TABLE 4.15-7
ALTERNATIVE B CONSTRUCTION AND OPERATIONAL MITIGATED GHG EMISSIONS

Direct	**GHG Emissions (MT of CO_2e/year)**
Grading, Building, etc.	3,861
Area	2,160
Indirect	**GHG Emissions (MT of CO_2e)**
Energy	50
Mobile	3,163
Solid Waste	9
Water/Wastewater	3
Annual Construction GHG Emissions	**3,861**
Annual Operation GHG Emissions	**5,385**

Notes: CO_2e = carbon dioxide equivalent; MT = metric tons
Source: USEPA, 2014; USEPA AP 42, 2015; CalEEMod emission factors; **Appendix N**.

Transportation

To assess the impacts of the project on transportation facilities in the study area, the projected number of trips generated by Alternative B was added to 2042 cumulative background plus pipeline project traffic volumes.

2042 Cumulative Background Traffic Conditions

As shown in **Table 4.15-8**, the intersections of N. Phoenix Road and Juanipero Way and N. Phoenix Road and E. Barnett Road would operate below the applicable jurisdiction's performance standards under future baseline conditions without the addition of project traffic. The rest of the study intersections would operate acceptably under 2042 without project conditions.

2042 Cumulative Traffic Conditions Plus Alternative B

To assess the impacts of the project on transportation facilities in the study area, the projected number of trips generated by Alternative B was added to 2042 background plus pipeline projects traffic volumes. **Table 4.15-9** shows the PM peak hour LOS and/or v/c ratio at each of the study intersections under 2042 background plus Alternative B traffic conditions. As shown in **Table 4.15-9**, the intersections of N. Phoenix Road and Juanipero Way and N. Phoenix Road and E. Barnett Road are expected to exceed the adopted mobility targets under the 2042 Build condition. Without mitigation, these intersections would operate unacceptably in the cumulative year 2042. However, implementation of Mitigation Measures provided in **Section 5.0** would restore the intersections to acceptable operating conditions or pre-project levels. Therefore, development of Alternative B would not result in significant cumulative effects on traffic and circulation.

TABLE 4.15-8
2042 CUMULATIVE CONDITIONS WITHOUT ALTERNATIVE B

Intersection	Mobility Target	Movement	2042 No Build	2042 No Build	Meeting Standard?
			v/c	LOS	
1. N. Phoenix Road at Cherry Lane	LOS D	Overall	0.98	D	Yes
2. N. Phoenix Road at E. Barnett Road	LOS D	Overall	1.75	**F**	No
3. N. Phoenix Road at Juanipero Way	LOS D	EB L	18.7	**F**	No
		EB T/R	2.63	**F**	No
		WB L/T/R	--	**F**	No
		NB L/T	0.28	B	Yes
		SBL	0.12	B	Yes
4. N. Phoenix Road at Site Driveway	v/c 0.95	WB L/R	0.22	E	Yes
		SB L/T	0.08	B	Yes
5. Fern Valley Interchange NB Ramp	v/c 0.85	Overall	0.77	N/A	Yes
6. Fern Valley Interchange SB Ramp	v/c 0.85	Overall	0.69	N/A	Yes

Notes: Bolded values exceed mobility target.
Source: DEA, 2019 (**Appendix H**).

TABLE 4.15-9
2042 CUMULATIVE CONDITIONS WITH ALTERNATIVE B

Intersection	Mobility Target	Movement	2042 Build		Meeting Standard?
			v/c	LOS	
1. N. Phoenix Road at Cherry Lane	LOS D	Overall	0.98	D	Yes
2. N. Phoenix Road at E. Barnett Road	LOS D	Overall	1.72	**F**	No
3. N. Phoenix Road at Juanipero Way	LOS D	EB L	--	**F**	No
		EB T/R	2.99	**F**	No
		WB L/T/R	--	**F**	No
		NB L/T	0.28	B	Yes
		SBL	0.12	B	Yes
4. N. Phoenix Road at Site Driveway	v/c 0.95	WB L/R	0.93	F	Yes
		SB L/T	0.10	C	Yes
5. Fern Valley Interchange NB Ramp	v/c 0.85	Overall	0.79	N/A	Yes
6. Fern Valley Interchange SB Ramp	v/c 0.85	Overall	0.71	N/A	Yes

Notes: Bolded values exceed mobility target. Italic values exceed No Build and mobility target.
Source: DEA, 2019 (**Appendix H**).

Transit, Bicycle, and Pedestrian Facilities

Because sufficient parking would be available onsite and sidewalk and bicycle facilities do not provide direct access to the Phoenix Site, no significant effects would occur to pedestrian facilities as a result of Alternative B. See **Section 4.15.3** (Alternative A) for a discussion of project related ridership in the cumulative year 2042.

Land Use

Development in Jackson County is guided by the Jackson County Comprehensive Plan and the Greater Bear Creek Valley RPS Plan. Planned development projects within Jackson County are consistent with these documents and policies, which prevent disorderly growth or incompatible land uses. Although Alternative B is not consistent with allowable uses under existing zoning, it is compatible with surrounding land uses along the I-5 corridor and would not be subject to local land use policies, as discussed in **Section 4.9**. Alternative B would not disrupt neighboring land uses, prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, Alternative B would not result in adverse cumulative effects to land use planning.

Agriculture

Under Alternative B, the Phoenix Site, currently zoned for agriculture would be developed; however, this would not preclude the use of surrounding lands for agricultural purposes. Adjacent lands are subject to local land use plans and thus would be developed in the future with uses compatible with the Phoenix Site. Therefore, implementation of Alternative B would not contribute to significant cumulative adverse effects to agricultural lands.

Public Services

Water Supply

As the MWC also serves the Phoenix Site and the water demand of Alternative B is similar in scale to that of Alternative A, the cumulative impacts to public water supply under Alternative B would be similar those under Alternative A. With the implementation of mitigation measures outlined in **Section 5.0**, Alternative B would not result in significant cumulative effects to water supply systems.

Wastewater Service

As shown in **Table 2-3**, wastewater flows from Alternative B would be the same as those under Alternative A. Additionally, the 12-inch diameter sewer line underneath I-5 north of the Fern Valley Interchange was sized to serve future residential and industrial development in areas north of the City of Phoenix UGB. As the available capacity at the Medford RWRF would accommodate the wastewater demands of Alternative B and projects approved for connection to the sewer collection system would have to contribute to the extension of the sewer system to their respective sites (**Section 4.15.3**), with implementation of mitigation included in **Section 5.0**, cumulative effects to the wastewater system as a result of Alternative B would be reduced to a minimal level.

Solid Waste Service

Solid waste generated under Alternative B would be of similar type and amount as that produced under Alternative A. Therefore, Alternative B would not result in significant cumulative effects to solid waste services.

Law Enforcement

As discussed in **Section 4.10**, under Alternative B, law enforcement services would be provided by the Jackson County Sheriff's Department, and a Tribal security force would provide security patrol and monitoring needs of the casino as needed. New development, including projects listed within **Section 4.15.2**, would fund the public services, including law enforcement through development fees and property tax. Due to existing staffing levels, the Jackson County Sheriff's Department may need additional facilities and equipment to meet the increased need for services due to cumulative growth in

the region, including Alternative B. Additionally, an increase in service demands to the OSP may result from development of the project.

With implementation of the on-site security measures and the conditions of a service agreement between the Tribe and the Jackson County Sheriff's Department, as discussed in **Section 5.0**, payments by the Tribe would compensate the Sheriff's Department for costs of impacts associated with increased law enforcement services at the Phoenix Site. It is anticipated that future developments would also be required to off-set costs for services through development impact fees and other funding mechanisms imposed by the County as conditions of project approvals. Therefore, with mitigation, Alternative B would result in a less-than-significant cumulative effect on public law enforcement services.

Fire Protection and Emergency Medical Services

New development, including projects listed within **Section 4.15.2**, would be required to fund public services including fire protection and emergency medical response through development fees and property tax. Emergency medical costs are paid primarily by the individual requiring service. With implementation of a service agreement between the Tribe and Jackson County Fire District 5, as discussed in **Section 5.0**, payments by the Tribe would compensate Jackson County Fire District 5 for costs of impacts associated with increased fire protection services at the Phoenix Site. Therefore, with implementation of mitigation, Alternative B would result in a less-than-significant cumulative impact on public fire protection services.

Electricity and Natural Gas

Cumulative impacts would be very similar to Alternative A (refer to **Section 4.15.3**). Thus, Alternative B cumulative effects would be less than significant.

Noise

Traffic Noise

The primary source of noise in the area is generated by traffic on N. Phoenix Road. Cumulative traffic conditions were calculated by including pipeline trips in addition to Alternative B traffic projections for 2042. The 2019 baseline traffic conditions are presented in **Section 4.8**, and account for all pipeline projects listed on page 14 of **Appendix H** and **Section 4.15.2**.

As described in **Section 3.11**, the existing ambient noise level adjacent to N. Phoenix Road was measured at 80.5 dBA Leq (refer to **Table 3.11-7**, Site A). This noise level would increase as traffic increases along OR 99. Since the ambient noise level in the vicinity of N. Phoenix Road is greater than 65 dBA Leq, significance for Alternative B will be evaluated based on if the project audibly increases the ambient noise level. As discussed in **Section 3.11** a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would be considered significant. In cumulative year 2042, there would be approximately 1,725 vehicle trips per PM peak hour adjacent to the Phoenix Site. Alternative B traffic at buildout would increase the number of trips during the peak hour by approximately 9.6%, which is less than double the existing volume of traffic resulting in an increase of the ambient noise level of approximately 0.51 dBA Leq. Therefore, Alternative B would not cause significant adverse effects due to cumulative traffic noise.

Vibration and Other Noise Source

Consistent with Alternative A, future cumulative projects, would be required to comply with local noise provisions. Refer to **Section 4.15.3**. Thus, with the implementation of the BMPs outlined in **Section 2** and

the mitigation measures in **Section 5.0**, Alternative B would not result in adverse cumulative effects to the ambient noise environment.

Aesthetics

Cumulative growth would lead to effects including a shift from open, undeveloped lots to views of developed areas. Development in the County and City of Phoenix is required to be consistent with applicable regulations and policies. As described in **Section 4.11**, the Phoenix Site is within the PH-5 URA of the Greater Bear Creek Valley RPS Plan. The proposed land uses for PH-5 in the RPS are 22% residential, 12% open space/parks, and 66% employment land (City of Phoenix, 2015). Additionally, the PH-5 URA area, including the Phoenix Site, was identified in the RPS as a preferred area for future expansion of the UGB of the City of Phoenix. Therefore, while the site-specific visual effects would be considered significant, the context of the project development in relation to the larger landscape would be less than cumulatively significant.

4.15.5 Alternative C – Expansion of the Mill Casino

Geology and Soils

Cumulative effects associated with geology and soil resources are not expected to occur as a result of Alternative C because of the minimal extent of grading activities associated with Alternative C. Refer to **Section 4.2.3** for additional information.

Water Resources

Surface Water

Cumulative effects to water resources may occur as the result of buildout of the County and City Comprehensive Plans, including the future developments discussed in **Section 4.15.2**, in combination with Alternative C. Alternative C would not result in an increase in the amount of impermeable surfaces on the Mill Casino Site and therefore would not result in any change to the way that stormwater is treated on the Mill Casino Site.

Alternative C would likely include improvements to the bulkhead beneath the existing pier structure, which could disturb the bay floor and result in water quality degradation of Coos Bay. Mitigation measures are included in **Section 5.0** that would require consultation with applicable agencies and installation of BMPs to prevent water quality degradation during construction. With mitigation, Alternative C would not result in significant direct effects to water quality in Coos Bay as a result of improvements to the pier structure. Thus, implementation of Alternative C would not result in significant cumulative effects to surface waters.

Groundwater

The existing Mill Casino and surrounding areas are supplied primarily by surface water resources. Alternative C does not include the development of an on-site well and would not significantly affect groundwater recharge on the Mill Casino Site as the amount of impermeable surfaces on the site would not be increased. Stormwater under Alternative C would continue to be handled as it is currently. Therefore, Alternative C would not result in significant cumulative effects on groundwater resources.

Air Quality

Operational Vehicle and Area Emissions

Operation of Alternative C would result in similar types of emissions as Alternative A, but in lower quantities. Refer to **Section 4.15.3**. Emission estimates for the cumulative year 2042 are provided in **Table 4.15-10** and detailed calculations are included in **Appendix N**. As stated in **Section 3.4**, the project site and vicinity is in attainment for all criteria pollutants; therefore, no conformity determination is required. BMPs are provided in **Section 2** would minimize criteria air pollutant emissions from operation of Alternative C. Therefore, air quality in the region is not cumulatively impacted. Alternative C would not contribute to a significant cumulative effect to air quality in the cumulative year.

Carbon Monoxide Hot Spot Analysis

Consistent with Alternative A, a Hot Spot Analysis is not warranted for Alternative C. No significant cumulative impacts would occur.

TABLE 4.15-10
2042 OPERATION EMISSIONS - ALTERNATIVE C

Sources	Criteria Pollutant[1]: VOC	Criteria Pollutant[1]: NO_x	Criteria Pollutant[1]: CO	Criteria Pollutant[1]: SO_X	Criteria Pollutant[1]: PM_{10}	Criteria Pollutant[1]: $PM_{2.5}$
Stationary Source	0.06	0.01	0.11	0.01	0.06	0.02
Mobile Source	0.01	0.03	0.14	0.00	0.01	0.00
Total Emissions	**0.07**	**0.04**	**0.25**	**0.01**	**0.07**	**0.02**
Conformity *de minimis* Levels	N/A	N/A	N/A	N/A	N/A	N/A
Exceedance of *de minimis* Levels	N/A	N/A	N/A	N/A	N/A	N/A

Notes:[1] In tons per year.
Source: USEPA, 2014; USEPA AP-42, 1995; **Appendix N**.

Climate Change

Table 4.15-11 shows Alternative C direct construction and area source GHG emissions and indirect operation GHG emissions in MT of CO_2e.

TABLE 4.15-11
ALTERNATIVE C CONSTRUCTION AND OPERATIONAL MITIGATED GHG EMISSIONS

Direct	**GHG Emissions (MT of CO_2e/year)**
Grading, Building, etc.	1,306
Area	1,080
Indirect	**GHG Emissions (MT of CO_2e)**
Energy	17
Mobile	49
Solid Waste	1
Water/Wastewater	1
Annual Construction GHG Emissions	**1,306**
Annual Operation GHG Emissions	**1,148**

Notes: CO_2e = carbon dioxide equivalent; MT = metric tons
Source: USEPA, 2014; USEPA AP 42, 2015; CalEEMod emission factors; **Appendix N**.

BMPs have been provided in **Section 2.0** to reduce project-related GHG emissions. Operational BMPs would also reduce indirect mobile GHG emissions by requiring adequate ingress and egress to minimize vehicle idling and preferential parking for vanpools and carpools to reduce project-related trips. Direct and indirect GHG emissions are not substantial. However, project-related GHG emissions have been quantified (**Table 4.15-11**) and furthermore, project-related emissions will be reduced with the implementation of BMPs provided in **Section 2**. Therefore, implementation of Alternative C would have a less than significant cumulative adverse effects associated with climate change.

Biological Resources

Wildlife and Habitats

Cumulative effects associated with wildlife and habitats resulting from Alternative C would be similar to Alternative A (refer to **Section 4.15.3**). As disruption of low-quality habitat would not result in a significant effect to biological resources, no significant cumulative effects would occur from Alternative C.

Federally Listed Species

Alternative C has the potential to contribute to cumulative effects of several listed species. Coho salmon (*Oncorhynchus kisutch*), green sturgeon (*Acipenser medirostris*) southern DPS, and Pacific eulachon (*Thaleichthys pacificus*) southern DPS utilize habitat in Ferndale lower range adjacent to the Mill Casino Site. With the implementation of the mitigation measures outlined in **Section 5.0**, Alternative C would have no effect on federal listed fish species. Therefore, Alternative C would not contribute to cumulative effects to federally listed species.

Migratory Birds

Cumulative effects associated with migratory birds resulting from Alternative C would be similar to Alternative A (refer to **Section 4.15.3**). With the mitigation measures outlined in **Section 5.0**, Alternative C would not result in significant cumulative effects to nesting migratory birds.

Wetlands and/or Waters of the U.S.

Cumulative developments projects would be required to comply with the requirements of Section 404 of the CWA and ODEQ regulations as they relate to protection of wetlands and WOTUS. Indirect effects to the Ferndale Lower Range, a WOTUS adjacent to the Mill Casino Site, would be avoided by implementation of the BMPs identified in **Sections 2.0** and **5.0**, including the protection of downstream waterways from increased flow rates, the control of erosion, minimization of sediment load, and refueling away from waterways. These measures would ensure that construction and operation activities associated with the development of Alternative C would not indirectly affect WOTUS. After mitigation, Alternative C would not contribute towards significant adverse cumulative effects to WOTUS.

Cultural Resources

There are no known cultural resources that would be impacted by Alternative C. If a resource is encountered during construction, implementation of the mitigation measures outlined in **Section 5.0**, would avoid impacts to cultural resources. Other approved projects in the City of North Bend would be required to follow federal, state, and local regulations regarding cultural resources and inadvertent discoveries of cultural resources and would be required to avoid or mitigate impacts cultural resources in compliance with local, state, and federal law. Alternative C would not result in significant cumulative effects to cultural resources.

Socioeconomic Conditions

Alternative C would introduce a relatively modest amount of new economic activity into Coos County (**Section 4.7**). Alternative C's specific potential cumulative effects would be similar in nature, though much lesser in scale, to those described under Alternative A. Refer to **Section 4.7** and **Section 4.15.3** for more information. Alternative C would not contribute to significant cumulative socioeconomic effects.

Transportation

Alternative C would create 28 total additional PM peak hour trips to the Mill Casino Site. Under cumulative conditions, this is considered to have a less than significant adverse effect.

Transit, Bicycle, and Pedestrian Facilities

Because sufficient parking is available onsite and sidewalk and bicycle facilities do not provide direct access to the Mill Casino Site, no significant effects would occur to pedestrian facilities as a result of Alternative C.

Project related C-CAT ridership in the cumulative year 2042 would be the same as that discussed in **Section 4.8**. However, in the cumulative year, buildout of the City of North Bend and Coos County Transportation Plans would increase ridership on East Loop buses. An increase in ridership would result in an increase in transit fare, including from passengers traveling to and from the Mill Casino Site, which would be used to provide additional routes and buses, if necessary.

Land Use

Planned development projects in the vicinity of the Mill Casino Site would be subject to the City of North Bend Comprehensive Plans and Zoning Ordinances, which prevent disorderly growth or incompatible land uses. As stated in **Section 4.9.4**, the Mill Casino Site is located on existing tribal trust land and is therefore not subject to the City of North Bend or Coos County land use jurisdiction. Additionally, the Mill Casino Site is already developed with a gaming facility, as well as a hotel and RV park. Alternative C would not disrupt neighboring land uses, nor prohibit access to neighboring parcels, or otherwise conflict with neighboring land uses. Therefore, Alternative C would have no cumulative effect to land use planning.

Agriculture

Cumulative effects associated with agricultural resources resulting from Alternative C would be similar to Alternative A (refer to **Section 4.15.3**). As with Alternative A, Alternative C would not convert designated agricultural land to urban uses and, therefore, it would not contribute to significant cumulative effects to agricultural lands.

Public Services

Water Supply

As stated in **Section 4.10.3**, Alternative C would represent a 6% increase in water demand over the existing facility's water demand. As stated in **Section 4.10.3**, the CBNBWB has an available capacity of 6.5 MGD, which is more than enough to accommodate the estimate 2,400 GPD of water demand associated with Alternative C. Additionally, projects approved in the service area of the CBNBWB would be responsible for extending water infrastructure to their respective sites and would need to be approved by local governments. Therefore, Alternative C would have a less than significant effect on municipal water supply systems.

Wastewater Service

Under the terms of the MSA, the City of North Bend would continue to provide wastewater treatment services to the Mill Casino Site. **Section 3.10.2** describes the City of North Bend's WWTP available capacity. As the North Bend WWTP can handle up to 2.0 MGD of dry weather flows and up to 20 MGD during wet weather, capacity is available to accommodate the estimated 4,300 GPD of wastewater generation associated with Alternative C. However, should adverse effects occur, the service fee could be renegotiated per Section 6 of the MSA, as described in **Section 4.10**. Projects approved for connection to the sewer collection system would have to contribute to the extension of the sewer system to their respective sites. Therefore, cumulative effects to the wastewater system would be reduced to a minimal level.

Solid Waste Service

The solid waste generated by Alternative C would be less than 0.009% of the landfill's current daily acceptance rate (**Table 4.10-4**). As described under Alternative A, cumulative growth would increase disposal of solid waste to the Dry Creek Landfill. However, projected solid waste generation from Alternative C would be a negligible contribution to the waste stream and would not significantly decrease the life expectancy of the landfill. Therefore, Alternative C would not result in significant cumulative effects to solid waste services.

Law Enforcement

As discussed in **Section 3.10.4**, under Alternative C, law enforcement services would continue to be provided by the North Bend Police Department as described in the MSA (**Appendix J**). Alternative C would not result in a significantly increased number of calls for service and no additional facilities or equipment would be needed to provide service to Alternative C. However, should adverse effects occur, the service fee could be renegotiated per Section 6 of the MSA, as described in **Section 4.10**. New development, including projects listed within **Section 4.15.2**, would fund the public services, including law enforcement through development fees and property tax. Therefore, Alternative C would have a less-than-significant cumulative effect on law enforcement services.

Fire Protection and Emergency Medical Services

New development, including projects listed within **Section 4.15.2**, would be required to fund City of North Bend services including fire protection and emergency medical response through development fees and property tax. Emergency medical costs are paid primarily by the individual requiring service. The NBFD will continue to provide fire protection and emergency services to the Mill Casino Site and Alternative C is not anticipated to result in a significant increase in calls for service. However, should adverse effects occur, the service fee could be renegotiated per Section 6 of the MSA, as described in **Section 4.10**. Therefore, Alternative C would result in a less than significant cumulative impact on public fire protection services.

Electricity and Natural Gas

Cumulative impacts would be of a similar type as Alternative A, but of a different degree because of the smaller scope of Alternative C and the less dense development in the vicinity of the Mill Casino Site. Refer to **Section 4.15.3**. Thus, the Alternative C cumulative effects would be less than significant.

Noise

Traffic Noise

As described in the TIA (**Appendix H**), predicted cumulative traffic volumes to and from the Mill Casino Site in the year 2042 would include 28 additional vehicle trips at the PM peak hour due to Alternative C. The existing ambient noise level adjacent to US-101 at the Mill Casino Site without increased cumulative traffic is 65 dBA, Leq. Since the existing ambient noise level in the vicinity of US-101 is equal to the ODOT significance threshold of 65 dBA Leq, significance for Alternative A will be evaluated based on if the project audibly increases the ambient noise level at sensitive receptor locations or if it would exceed existing levels by greater than 10 dBA. As discussed in **Section 3.11**, a 3.0 dBA increase in noise is barely perceivable; therefore, an increase in the ambient noise level of 3.0 dBA would be considered significant.

There are currently approximately 1,240 vehicle trips per PM peak hour adjacent to the Mill Casino Site (8.0% of the 15,500 average annual daily trips adjacent to the Mill Casino Site). This peak hour traffic level would likely increase due to buildout of additional projects in the cities of Coos Bay and North Bend. Given that the traffic generated by Alternative C would continue to be 28 trips, the increase in the ambient noise level would be less than the 0.097 dBA Leq estimated in **Section 4.11**. Therefore, the increase in traffic noise levels would result in an ambient increase less than 3.0 dBA, Alternative C would not contribute to significant effects to sensitive receptors located in the vicinity of the Mill Casino Site.

Vibration and Other Noise Sources

The potential for cumulative impacts associated with vibration and other noise sources would be the same as the direct effects of the project described in **Section 4.11**. Significant cumulative effects would not occur.

Hazardous Materials

Cumulative effects associated with hazardous materials resulting from Alternative C would be similar to Alternative A (refer to **Section 4.15.3**). With the implementation of BMPs outlined in **Section 2.3.3**, Alternative C would not result in significant cumulative impacts to hazardous materials management.

Aesthetics

Cumulative growth in the City of North Bend could result in effects to visual resources. Cumulative effects would include a shift from open, undeveloped lots to views of developed areas, as well as an increase in the density of urban uses within the City. Development in the City of North Bend is required to be consistent with applicable local designations and policies. Development of Alternative C would be consistent with currently existing Mill Casino and would be visually compatible with urban land uses in the vicinity. Potential cumulative effects to visual resources would be less than significant.

4.15.6 Alternative D – No Action/No Development

Under Alternative D, it is assumed that the alternative sites would not be developed and current land uses would continue. Therefore, Alternative D would not result in significant cumulative effects.

SECTION 5.0
MITIGATION MEASURES

5.1 INTRODUCTION

The CEQ NEPA regulations require that mitigation measures be developed for all of a proposed action's effects on the environment where it is feasible to do so (40 CFR § 1502.14(f) and 1502.16(h); CEQ 40 Most Asked Questions, 19a). The NEPA regulations define mitigation as:

> "…avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments" (40 CFR § 1508.20(a - e))."

These principles have been applied to guide design and siting criteria for the alternatives. Where potential effects on the environment were identified in early stages of project design and in EIS preparation, appropriate changes in the project description were made to minimize or eliminate them. Additionally, the following section provides measures to address specific effects identified in the preparation of the EIS or to further reduce the impacts to less than significant levels.

To ensure that the mitigation measures recommended to reduce significant impacts to a less-than-significant level are enforceable, mitigation measures are included as an integral part of the project description, required by and enforceable under federal law, enforceable by the Tribe through tribal environmental laws, and/or enforceable by the BIA.

TABLE 5-1
PROPOSED MITIGATION MEASURES (MM)

Mitigation Number and Resource Area	Proposed Mitigation
MM 5.2 Geology and Soils	The following mitigation measure shall be implemented in accordance with federal regulatory requirements for Alternatives A and B: A. The Tribe shall obtain coverage under the USEPA General Construction NPDES permit under the federal requirements of the CWA. As required by the NPDES General Construction Permit, a SWPPP shall be prepared that addresses potential water quality impacts associated with construction of the project alternatives. The SWPPP shall make provisions for erosion prevention and sediment control and control of other potential pollutants. The SWPPP shall describe construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and minimize sediment transport. BMPs shall be inspected, maintained, and repaired to assure continued performance of their intended function. Reports summarizing the scope of these inspections, the personnel conducting the inspection, the dates of the inspections, major observations relating to the implementation of the SWPPP, and actions taken as a result of these inspections shall be prepared and retained as part of the SWPPP To minimize the potential for erosion to occur on the site, the following items shall be addressed in the SWPPP and implemented pursuant to the NPDES General Construction Permit. 1. Stripped areas shall be stabilized through temporary seeding using dryland grasses. 2. Conveyance channels and severe erosion channels shall be mulched or matted to prevent excessive erosion. 3. Exposed stockpiled soils shall be covered with plastic covering to prevent wind and rain erosion. 4. The construction entrance shall be stabilized by the use of rip-rap, crushed gravel, or other such material to prevent the track-out of dirt and mud. 5. Construction roadways shall be stabilized through the use of frequent watering, stabilizing chemical application, or physical covering of gravel or rip-rap. 6. Filter fences shall be erected at all on-site stormwater exit points and along the edge of graded areas to stabilized non-graded areas and control siltation of onsite stormwater. 7. Dust suppression measures included in **Section 2.3.3** shall be implemented to control the production of fugitive dust and prevent wind erosion of bare and stockpiled soils. 8. Prior to land-disturbing activities, the clearing and grading limits shall be marked clearly, both in the field and on the plans. This can be done using construction fences or by creating buffer zones. 9. Construction traffic shall be limited in its access to the site to a single entrance if possible. Haul roads and staging areas shall be developed to control impacts to on-site soil. All access points, haul roads, and staging areas shall be stabilized with crushed rock. Any sediment shall be removed daily and the road structure maintained. 10. Downstream waterways and properties shall be protected during construction from increased flow rates due to the higher impervious nature of the site. During construction, detention ponds can be combined with sedimentation ponds as long as the detention volume is not impacted by a buildup of sediment. 11. Concentrated flows create high potential for erosion; therefore, any slopes shall be protected from concentration flow. This can be done by using gradient terraces, interceptor dikes, and swales, and by installing pipe slope drains or level spreaders. Inlets need to be protected to provide an initial filtering of stormwater runoff; however, any sediment buildup shall be removed so the inlet does not become blocked. 12. The SWPPP shall address maintenance and repair of heavy equipment on the site to remove the potential for pollution from oil, fuel, hydraulic fluid, or any other potential pollutant. 13. Staging areas and haul roads shall be constructed to minimize future over-excavation of deteriorated sub-grade soil. 14. If construction occurs during wet periods, sub-grade stabilization shall be required. Mulching or netting may be needed for wet-weather construction. 15. Temporary erosion control measures (such as silt fence, gravel filter berms, straw wattles, sediment/grease traps, mulching of disturbed soil, construction stormwater chemical treatment, and construction stormwater filtration) shall be employed for disturbed areas. 16. Exposed and unworked soils shall be stabilized by the application of effective BMPs. These include, but are not limited to, temporary or permanent seeding, mulching, nets and blankets, plastic

Mitigation Number and Resource Area	Proposed Mitigation
	covering, sodding, and gradient terraces. 17. The SWPPP shall address the maintenance of both temporary and permanent erosion and sediment control BMPs. The following measure shall be implemented for Alternative C: B. The Tribe shall adopt a tsunami evacuation plan consistent with the State of Oregon Tsunami Evacuation Map for the Coos Bay Peninsula.
MM 5.3 Water Resources	**Construction Impacts** The following mitigation measure shall be implemented in accordance with federal regulatory requirements for Alternatives A and B. A. As described under **MM 5.2 (A)**, prior to construction, an NPDES General Construction permit from the USEPA shall be complied with and a SWPPP shall be prepared. The SWPPP shall describe construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and minimize sediment transport as outlined above. B. In accordance the NPDES General Construction Permit, a sampling and monitoring program shall be developed and implemented to assess the quality of surface water entering and leaving the site. At a minimum, sampling sites shall include a location above all proposed development and a location downstream of all development. Analyses shall include total suspended solids (TSS), oils, and greases. The following mitigation measure shall be implemented in accordance with federal regulatory requirements for Alternative B. C. As described in detail under **MM 5.5 (G)**, a 404 permit shall be obtained from the USACE prior to any discharge of dredged or fill material into waters of the U.S, and a 401 Water Quality Certification shall be obtained from the USEPA.
MM 5.4 Air Quality Operation	The BMPs described in **Section 2.3.3** will minimize potential effects to air quality resulting from construction and operation of the project alternatives; therefore, no mitigation is required.
MM 5.5 Biological Resources	The following mitigation measures shall be implemented in accordance with federal regulatory requirements (MBTA and ESA) for Alternatives A and B. A. In accordance with the MBTA, a qualified biologist will conduct a preconstruction survey within 100 feet around the vicinity of the site for active nests should construction activities commence during the nesting season for birds of prey and migratory birds (between February 15 and September 15). Following a preconstruction nesting bird survey, if any active nests of migratory birds are located within 100 feet of the Action Area, a no-disturbance buffer zone shall be established around the nests to avoid disturbance or destruction of the nest. The distance around the no-disturbance buffer shall be determined by the biologist in coordination with the USFWS, if needed, and will depend on the level of noise or construction activity, the level of ambient noise in the vicinity of the nest, line-of-sight between the nest and disturbance, and the species at hand. The biologist shall delimit the buffer zone with construction tape or pin flags. The no-disturbance buffer will remain in place until after the nesting season (to be lifted in August or September) or until the biologist determines that the young birds have fledged. A report shall be prepared and submitted to the Tribe and the USFWS following the fledging of the nestlings to document the results. B. Trees anticipated for removal will be removed between September 15 and February 15, prior to the nesting season. If trees are anticipated to be removed during the nesting season, a preconstruction survey will be conducted by a qualified biologist. If the survey shows that there is no evidence of active nests, then the tree will be removed within 10 days following the survey. If active nests are located within trees identified for removal, a species-specific buffer will be installed around the tree and additional measures outlined in section A above shall be implemented. C. As described under **MM 5.2 (A),** prior to construction, the project shall obtain coverage under the NPDES General Construction permit from the USEPA and a SWPPP shall be prepared. The SWPPP shall describe construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and minimize sediment transport as outlined above. D. The site shall incorporate BMPs for stormwater runoff, including sedimentation basins, vegetated swales, and runoff infiltration devices if necessary, to ensure that the water quality of on-site or nearby waters does not degrade. Stormwater runoff from the site shall be monitored according to BMPs to assess the quality of water leaving the site.

Mitigation Number and Resource Area	Proposed Mitigation
	E. All equipment refueling and maintenance shall occur in an approved staging area and an agency-approved spill prevention plan will implemented by the contractor. The following mitigation measures shall be implemented in accordance with federal regulatory requirements for Alternative B. F. A delineation of wetlands and waters of the U.S. shall be conducted within the Phoenix Site in accordance with Section 404 of the CWA and submitted to the USACE for verification. If it is determined that wetlands and/or Waters of the U.S. occur within the development footprint of Alternative B, the requirements of Mitigation Measure G shall apply. The following mitigation measures shall be implemented in accordance with federal regulatory requirements for Alternatives B and C. G. A USACE 401 Water Quality Certification permit and a nationwide 404 permit shall be obtained from USACE prior to any discharge of dredged or fill material into Waters of the U.S. The Tribe shall comply with all the terms and conditions of the permit and compensatory mitigation shall be in place prior to any direct effects to Waters of the U.S. Minimal mitigation measures would require the creation of wetlands at a 1:1 ratio for any wetlands impacted. Full mitigation will be carried out in compliance with any permits. The following mitigation measures shall be implemented in accordance with federal regulatory requirements for Alternative C. H. Reinforcement of the bulkhead shall occur in a timeframe agreed to with the USACE to minimize impacts to Oregon coast coho salmon (*Oncorhynchus kisutch*) egg and fry life stages, and Pacific eulachon (*Thaleichthys pacificus*) juveniles within the associated bay and estuarine waters. I. Consultation on Standard Local Operating Procedures for Endangered Species (SLOPES) with NMFS and the USACE shall occur to determine the BMPs required to minimize disturbance and mobilization of sediment during the bulkhead reinforcement. BMPs and sediment stabilization measures shall be implemented immediately after reinforcement of the bulkhead and the surrounding area to prevent erosion and discharge of sediment into Coos Bay. These measures include, but are not limited to, installation of erosion blankets, moveable silt or sediment containment curtains, and coffer dams, as well as other measures as outlined in **MM 5.2 (A).**
MM 5.6 Cultural and Paleontological Resources	The following mitigation measures shall be implemented in accordance with federal regulatory requirements for Alternatives A and B. A. All earth disturbing activities involving excavation greater than 2 feet in depth shall be monitored by a qualified archaeologist. If intact archaeological deposits and/or cultural features including human remains are discovered during project construction and monitoring activities, the following measures will apply. B. In the event of any inadvertent discovery of prehistoric or historic archaeological resources during construction-related earth-moving activities, all such finds shall be subject to Section 106 of the NHPA as amended (36 CFR 800). Specifically, procedures for post-review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. All work within 50 feet of the find shall be halted until a professional archaeologist can assess the significance of the find. If any find is determined to be significant by the archaeologist, then representatives of the Tribe shall meet with the archaeologist to determine the appropriate course of action, including the development of a Treatment Plan, if necessary. All significant cultural materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards. C. If human remains are discovered during ground-disturbing activities on Tribal lands, the Tribal Official and BIA representative shall be contacted immediately. No further disturbance shall occur until the Tribal Official and BIA representative have made the necessary findings as to the origin and disposition. If the remains are determined to be of Native American origin, the BIA representative shall notify a Most Likely Descendant (MLD). The MLD is responsible for recommending the appropriate disposition of the remains and any grave goods. D. In the event of accidental discovery of paleontological materials during ground-disturbing activities, a qualified paleontologist shall be contacted to evaluate the significance of the find and collect the materials for curation as appropriate. The following mitigation measures shall be implemented in accordance with federal regulatory requirements for Alternative B. E. Prior to approval of Alternative B, a comprehensive cultural resources survey will be required, utilizing shovel tests or similar subsurface testing as surface soil visibility is very poor. If any cultural resources are detected during the shovel testing program, all such finds shall be subject to Section 106 of the NHPA as amended (36 CFR 800). Specifically, sufficient subsurface exploration, evaluation, and/or research in the

Mitigation Number and Resource Area	Proposed Mitigation
	case of historic-era finds shall be performed to allow an evaluation of the finds for NRHP eligibility. If sites are found and are eligible to the NRHP, a Treatment Plan will be prepared and implemented in order to mitigate project impacts. Appropriate treatment may include site sampling, testing, data recovery, documentation, or a combination of measures. Any recommended treatment shall be completed prior to project construction.
MM 5.7 Socioeconomic Conditions	The BMPs described in **Section 2.3.3** will minimize potential effects related to socioeconomic conditions resulting from construction and operation of the project alternatives; therefore, no mitigation is required.
MM 5.8 Transportation/ Circulation	**Opening Year 2022** To prevent violation of federal, state, and local policies related to traffic operations imposed for the protection of the environment (40 CFR § 1508.27(b)(10)), the following mitigation measures shall be implemented for Alternative A, with paragraph A below subject to specific negotiations between the Tribe and ODOT: A. In accordance with OAR 734 -051 (Division 51) the Tribe shall enter into discussions with ODOT regarding the two accesses along Hwy 99 and the applicability of the "moving in the direction" criteria. The collaboration may conclude with issuance of access permits. Improvements to the existing accesses as a result of this collaboration may include, but may not be limited to. 1. Install a narrow median island on Hwy 99 to limit the access to the northern driveway (South Pacific Highway/Human Bean Driveway) to right-in, right-out movements. 2. Restripe the southern driveway on Hwy 99 (South Pacific Highway / Roxy Ann Lanes) with one entry lane and separated right turn and left turn exit lanes. 3. Design truck access locations to accommodate vehicles with a wheel base of 67 feet (WB-67 vehicles). To prevent violation of federal, state, and local policies related to traffic operations imposed for the protection of the environment (40 CFR § 1508.27(b)(10)), the Tribe shall offer to pay a fair share contribution to the following mitigation measure for Alternative B. B. North Phoenix Road and Juanipero Road: Install traffic signal when signal warrants are met. Proportionate fair share of 2%. C. North Phoenix Road and E. Barnett Road: Contribute to planned intersection improvements identified in 2018-2038 Medford Transportation System Plan. Proportionate fair share of 3%. **Cumulative Year 2042** To prevent violation of federal, state, and local policies related to traffic operations imposed for the protection of the environment (40 CFR 1508.27[b][10]), the Tribe shall offer to implement and pay a fair share contribution to the following mitigation measure for Alternative A. D. South Pacific Highway and Garfield Street: Restripe the westbound right-turn lane to a shared through-right and making appropriate changes to the signal head, controller and signage. Proportionate fair share of 2%. E. South Pacific Highway and Charlotte Ann Road: Access management via turn movement restrictions. Right-out only of the private driveway and striping the westbound movements to be separate movements. Proportionate fair share of 3%.
MM 5.9 Land Use	**MM 5.8,** and **MM 5.11** and BMPs in **Section 2.3.3** will reduce incompatibilities with neighboring land uses due to air quality, traffic, noise, and aesthetic impacts.
MM 5.10 Public Services	**Off-Site Water and Wastewater Services** To prevent violation of federal, state, and local policies related to water and wastewater services imposed for the protection of the environment (40 CFR § 1508.27(b)(10)), the following mitigation measures shall be implemented for Alternative B. A. The Tribe shall offer to enter into service agreement(s) prior to project operation to reimburse the MWC, RVSS, and/or other applicable service providers, as appropriate, for necessary new, upgraded, and/or expanded water and/or wastewater collection, distribution, or treatment facilities. This service agreement(s) shall include, but is not limited to, fair share compensation for new, upgraded, and/or expanded water supply and wastewater conveyance facilities necessary to serve development of the selected site, including development of appropriately sized infrastructure to meet anticipated flows. Such improvements shall be sized to maintain existing public services at existing levels. The service agreement shall also include provisions for monthly services charges consistent with rates paid by other

Mitigation Number and Resource Area	Proposed Mitigation
	commercial users. B. Field testing would be performed to verify the availability of sufficient fire flow (estimated to be 4,000 GPM). If sufficient flow is not achievable, additional design components consistent with RVSS standards, including but not limited to a secondary water pipeline, would be submitted and approved by RVSS prior to construction. **Solid Waste** The BMPs described in **Section 2.3.3** will minimize potential effects related to solid waste resulting from construction of the project alternatives; therefore, no mitigation is required. **Law Enforcement** The following mitigation measure is recommended for Alternative A. C. Prior to operation, the Tribe shall offer to enter into agreements to reimburse the Medford Police Department for direct and indirect costs incurred in conjunction with providing law enforcement services. The agreement shall include a provision requiring the Tribe to meet with the City of Medford at least once a year, if requested, to discuss ways to improve police services and prosecution of crimes associated with the project. The following mitigation measure is recommended for Alternative B: D. Prior to operation, the Tribe shall offer to enter into agreements to reimburse the Jackson County Sheriff's Department for direct and indirect costs incurred in conjunction with providing law enforcement services. The agreement shall include a provision requiring the Tribe to meet with Jackson County at least once a year, if requested, to discuss ways to improve police services and prosecution of crimes associated with the project. **Fire Protection and Emergency Medical Services** Implementation of the mitigation measures below would minimize potential impacts related to fire protection and emergency services. The following measure is recommended for Alternative A. E. Prior to operation, the Tribe shall offer to enter into an agreement to reimburse the Medford Fire Department for additional demands caused by the operation of the facilities on trust property. The agreement shall address any required conditions and standards for emergency access and fire protection system. The following measure is recommended for Alternative B. F. Prior to operation, the Tribe shall offer to enter into an agreement to reimburse Jackson County Fire District 5 for additional demands caused by the operation of the facilities on trust property. The agreement shall address any required conditions and standards for emergency access and fire protection system. **Electricity and Natural Gas** The BMPs described in **Section 2.3.3** will minimize potential effects related to electricity and gas resulting from construction and operation of the project alternatives; therefore, no mitigation is required.
MM 5.11 Noise	The following mitigation measures shall be implemented during construction for Alternatives A, B, and C to prevent violation of federal noise abatement criteria standards. A. Construction shall not be conducted between the hours of 6:00 p.m. and 7:00 a.m. Additionally, the following measures shall be used to minimize impacts from noise during work hours (7:00 a.m. to 6:00 p.m.): 1. All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' specifications. 2. Haul trucks shall be operated in accordance with posted speed limits. 3. Loud stationary construction equipment shall be located as far away from residential receptor areas as feasible. To the extent feasible, existing barrier features (structures) shall be used to block sound transmission between noise sources and noise sensitive land uses. 4. Equipment shall not be left idling for more than 5 minutes. 5. All diesel engine generator sets shall be provided with enclosures. 6. The Tribe shall monitor construction noise and will designate a disturbance coordinator (such as an employee of the general contractor or the project manager for the Tribe), post the coordinator's

Mitigation Number and Resource Area	Proposed Mitigation
	contact telephone number conspicuously around the project site, and provide the number to nearby sensitive receptors. The disturbance coordinator shall receive all public complaints, be responsible for determining the cause of the complaints, and implement any feasible measures to alleviate the problem. The following mitigation measures shall be implemented during operation for Alternatives A and B to prevent violation of federal noise abatement criteria standards. B. HVAC systems for the gaming facility will be roof mounted and shielded to minimize noise.
MM 5.12 Hazardous Materials	The following mitigation measure is recommended during construction of Alternative A: A. The Tribe shall ensure, through the enforcement of contractual obligations, that all contractors require construction personnel to wear appropriate personal protective equipment (PPE) and follow proper decontamination procedures subsequent to working in areas where native soils have been disturbed.
MM 5.13 Aesthetics	The BMPs described in **Section 2.3.3** will minimize potential effects related to aesthetics resulting from operation of the project alternatives; therefore, no mitigation is required.

SECTION 6.0

CONSULTATION AND COORDINATION/ LIST OF PREPARERS

6.1 LEAD AGENCY

Bureau of Indian Affairs (BIA)
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Linda Mecum, Secretary/Treasurer

City of Medford
Gary H. Wheeler, Mayor

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Doug Breidenthal, former Chair, Board of Commissioners

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Jim Brown, Fire Chief

Coos Bay-North Bend Water Board (CBNBWB)
Ivan Thomas, General Manager
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Josh Ferris	BA; 21 years of experience	Graphics

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SECTION 7.0
ACRONYMS

A

AADT	Average Annual Daily Traffic
AAHI	Average annual household income
ACM	Asbestos-containing material
ADU	Accessory dwelling unit
ADWF	Average dry weather flow
AEC	Alpine Environmental Consultants
AES	Analytical Environmental Services
amsl	Above mean sea level
APA	American Psychiatric Association
APM	Analysis Procedures Manual
APN	Assessor's Parcel Number
AQMA	Air Quality Maintenance Area
ARPA	Archaeological Resources Protection Act
AST	Above-ground storage tank
ATM	Automatic Teller Machine

B

bgs	Below Ground Surface
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
BOD	Biochemical oxygen demand
BP	Before Present

C

CAA	Federal Clean Air Act
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAP	Criteria Air Pollutant
CARB	California Air Resources Board
CBNBWB	Coos Bay-North Bend Water Board
C-CAT	Coos County Area Transit
CEDCO	Coquille Economic Development Corporation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CMMP	Contaminated Media Management Plan
CO	Carbon Monoxide

CO_2e	Carbon Dioxide Equivalent
COPR	Central Oregon & Pacific Railroad
CPSC	Consumer Product Safety Commission
CUP	Conditional Use Permit
CWA	Federal Clean Water Act
CZMA	Coastal Zone Management Act

D

dB	Decibel
dBA	A-weighted decibel
DEQ	Department of Environmental Quality
DLCD	Department of Land Conservation and Development
DO	Dissolved oxygen
DOE	Department of Ecology
DOT	United States Department of Transportation
DPM	Diesel Particulate Matter
DPS	Distinct Population Aegment

E

EBITDA	Earnings before interest, taxes, depreciation, and amortization
ECHO	Enforcement and Compliance History Information
ECP	Erosion Control Plan
EDR	Environmental Data Resources, Inc.
EFH	Essential Fish Habitat
EFU	Exclusive Farm Use
EIS	Environmental Impact Statement
EMC	Environmental Management Consultants
EMT	Emergency Medical Technician
EO	Executive Order
ESA	Environmental Site Assessment
ESU	Evolutionary Significant Unit
ETS	Environmental Tobacco Smoke

F

FCIR	Farmland Conversion Impact Rating
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FINDS	Facility Index System
FIRM	Flood Insurance Rate Map
FMP	Fishery Management Plan
FPPA	Farmland Protection Policy Act
FTA	Federal Transportation Administration
FTT	Fee-to-Trust

FWPCA	Federal Water Pollution Control Act

G

GHG	Greenhouse gas
GLO	General Land Office
GLUP	General Land Use Plan
GPD	Gallons per day
GPM	Gallons per minute
GRI	Geotechnical Resources, Inc.
g/vmt	Grams per vehicle miles traveled

H

HAP	Hazardous Air Pollutants
HSIP	Federal Highway Safety Improvement Program
HSM	Highway Safety Manual
HVAC	Heating, Ventilation, and Air Conditioning

I

IBC	International Building Code
IGRA	Indian Gaming Regulatory Act
IMPLAN	Impact Analysis for Planning
IPaC	Information for Planning and Conservation
IPCC	Intergovernmental Panel on Climate Change

K

Ksat	Saturated hydraulic conductivity

L

Leq	Average Sound Level
LCDC	Land Conservation and Development Commission
Ldn	Day-Night Average Sound Level
Lmax	Maximum Sound Level
LOS	Level of Service
LUST	Leaking Underground Storage Tank

M

MACT	Maximum Achievable Control Technology
MBR	Membrane bioreactor
µm	Micrometers
MBTA	Migratory Bird Treaty Act
MFR	Multi-Family Residential
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
MGD	Million gallons per day
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal

MFR	Multi-Family Residential
MLD	Most Likely Descendent
MM	Mitigation Measure
MMI	Modified Mercalli Intensity
mph	Miles per hour
MPO	Metropolitan Planning Organization
MSA	Municipal Services Agreement
MSMA	Magnuson-Stevens Fishery Conservation and Management Act
MT	Metric Tons
MVA	Mega-Volt Amperes
MW	Megawatt
MWC	Medford Water Commission

N

NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAGPRA	Native American Graves Protection and Repatriation Act
NASS	National Agriculture Statistical Service
NBFD	North Bend Fire Department
NCDC	National Climatic Data Center
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NGISC	National Gambling Impact Study Commission
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIGC	National Indian Gaming Commission
NMFS	National Marine Fisheries Service
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO_x	Oxides of Nitrogen
NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NWFP	Northwest Forest Plan
NWI	National Wetlands Inventory

O

O_3	Ozone
OAR	Oregon Administrative Rule
OCR	Oregon and California Railroad
OCRM	Office of Ocean and Coastal Resource Management
ODEQ	Oregon Department of Environmental Quality

ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
ORS	Oregon Revised Statutes
OSHA	Occupational Safety and Health Administration
OSP	Oregon State Police
OWRD	Oregon Water Resources Department

P

Pb	Lead
PCB	polychlorinated biphenyls
PL	Public Law
PM	Particulate Matter
PM_{10}	Particulate matter less than 10 micrometers in diameter (inhalable particulate matter)
$PM_{2.5}$	Particulate matter less than 2.5 micrometers in diameter
ppb	Parts per billion
PPE	Personal Protective Equipment
ppm	Parts per million
PPV	Peak Particle Velocity
PSD	Prevention of Significant Deterioration
PUD	Planned Unit Development
PXPD	Phoenix Police Department

R

RBC	Risk-Based Concentrations
RCRA	Resource Conservation and Recovery Act
RDR	Rogue Disposal & Recycling
RPS	Regional Problem Solving
RPW	Relatively Permanent Waters
RTR	Rogue Transfer & Recycling
RVCOG	Rogue Valley Council of Governments
RVIMA	Rogue Valley International-Medford Airport
RVMPO	Rogue Valley Metropolitan Planning Organization
RVSS	Rogue Valley Sewer Services
RVTD	Rogue Valley Transportation District
RWRF	Regional Water Reclamation Facility

S

SDC	System Development Charges
SFHA	Special Flood Hazard Area
SFR	Single-Family Residential
SIP	State Implementation Plan
SLOPES	Standard Local Operating Procedures for Endangered Species
SO_x	Sulfur oxide gases
SO_2	Sulfur dioxide

SORA	Southwest Oregon Regional Airport
SPIS	Safety Priority Index System
SWANCC	Solid Waste Agency of Northern Cook County
SWCA	Steven W. Carothers and Associates Environmental Consultants
SWPPP	Stormwater Pollution Prevention Plan

T

TAZ	Transportation Analysis Zone
TIA	Traffic Impact Analysis
TMDL	Total Maximum Daily Loads
TNW	Traditional Navigable Waters
TPH	Total petroleum hydrocarbon
TPHg	Total petroleum hydrocarbon, gasoline range
TPHd	Total petroleum hydrocarbon, diesel range
TSCA	Toxic Substances Control Act
TSS	Total suspended solids

U

UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology
UGA	Urban Growth Area
UGB	Urban Growth Boundary
UIC	Underground Injection Control
URA	Urban Reserve Area
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank

V

v/c	Volume to capacity ratio
VdB	Vibration decibels
VLT	Video lottery terminal machines
VOC	Volatile Organic Compound

W

WOTUS	Waters of the U.S.
WRD	Water Resources Department
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

SECTION 8.0
REFERENCES

Aikens, Melvin C, Thomas J. Connolly, and Dennis L. Jenkins, 2011. *Oregon Archaeology*. Oregon State University Press.

Analytical Environmental Services (AES). 2015. *Alternatives Evaluation: Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project*. June 2015.

Avista. 2019. *Quick Facts*. Available online at: https://www.myavista.com/about-us/our-company/quick-facts. Accessed August 5, 2019.

Baker. 2016. Personal communication between AES (Katherine Green) and Dennis Baker, Water Reclamation Division Manager at the City of Medford. March 17, 2016.

Barrow, C.W. and Hirschy, M. 2008. The Persistence of Psuedo-Facts in the U.S. Casino Debate: The Case of Massachusetts. *Gaming Law Review and Economics*, Vol. 12, No. 4.

Berkman, Thomas A. 1990. *Surface- Subsurface Geology of the Middle to Upper Eocene Sedimentary and Volcanic Rock Units.* Western Columbia County, Northwest Oregon. An Abstract of the Thesis of Thomas Anthony Berkman for the degree of Master of Science in Geosciences.

Blake, M. C.; Engbretson, D. C.; Jayko, A. S.; Jones, D. L. 2008. *Tectonostratigraphic Terranes in Southwest Oregon*, CircumPacific.

Bolt. 1988. *The Severity of an Earthquake*, a U. S. Geological Survey General Interest Publication. U.S. Government Printing Office: 1989-288-913.

Braddock, Theda, and L. Reed Huppman. 1995. *Wetlands: An Introduction to Ecology, the Law, and Permitting*. Rockville, MD: Government Institutes, Inc.

Bureau of Land Management (BLM). 2002. Coos County Natural Gas Pipeline Final Environmental Impact Statement.

CalRecycle. 2019. *Waste Characterization – Service Sector: Estimated Solid Waste Generation and Disposal Rates*. Available online at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed August 5, 2015.

Center for Policy Analysis. 2013. New England Casino Gaming Update, 2013. Available online at: http://www.umassd.edu/media/umassdartmouth/seppce/centerforpolicyanalysis/negu_2013.pdf. Accessed March 2016.

City of Medford. 2016. *City of Medford Comprehensive Plan*. Available online at: http://www.ci.medford.or.us/Page.asp?NavID=1396. Accessed September 2019.

- *Revisions and updates to the City of Medford Comprehensive Plan occur on a section-by-section basis, and are available on the City of Medford website. The most recent section update occurred in 2018.*

City of Medford. 2016b. *Urban Growth Boundary Amendment*. Available online at: City of Medford. 2016. Proposed Urban Growth Boundary. Available online at: *http://www.ci.medford.or.us/SIB/files/ProposedUGBAmendment_Dsize_Unbuildable.pdf*. Accessed March 17, 2016. Accessed August 6, 2019.

City of Medford. 2018a. *City of Medford Comprehensive Plan: General Land Use Plan Element*. Available online at: http://www.ci.medford.or.us/SIB/files/updated%20GLUP%20Element%202018.pdf. Accessed August, 2019.

City of Medford. 2018b. *City of Medford Comprehensive Plan, Environmental Element*. Pg. 92. December 20, 2018. Available online at: http://www.ci.medford.or.us/SIB/files/3_Environmental%20Element_2019.pdf. Accessed on August 7, 2019.

City of Medford. 2019. *Official City of Medford Zoning Map*. City of Medford Planning Department. Available online at: http://www.ci.medford.or.us/SIB/files/ZONING_08_28_18_Production.pdf. Accessed July 2019.

City of Medford. 2019b. *Municipal Code*. Available online at: http://www.ci.medford.or.us/code.asp. Accessed July 15, 2019.

City of Medford and Jackson County. 2018. *Medford Urban Growth Boundary, Medford General Land Use Plan (GLUP) Map Designations and Comprehensive Plan Changes*. Pg. 2. February 16, 2018. Available online at: http://www.ci.medford.or.us/SIB/files/UGB%20Participant%20Notice_2018-02-16.pdf. Accessed August 6, 2019.

City of North Bend. 2011. *City Code*. Available online at: http://www.northbendcity.org/documents/NorthBendORfullcode-May2014.pdf. Accessed December 16, 2015.

City of North Bend. (n.d.)a. *Police Report Request*. Available online at: https://www.northbendoregon.us/police. Accessed July 30, 2019.

City of North Bend. (n.d.)b. *North Bend Fire & Rescue*. Available online at: https://www.northbendoregon.us/fire. Accessed July 30, 2019.

City of North Bend, 2019. *City of North Bend Comprehensive Plan*. Updated and Codifed January 2019. Available online at: https://www.northbendoregon.us/files/documents/comprehensive_plan_2019_final.pdf. Accessed February 11, 2022.

City of Phoenix. 2015. *Regional Problem Solving*. Available online at: https://www.phoenixoregon.gov/buildingplanning/page/regional-problem-solving. Accessed July 26, 2019.

Coos Bay-North Bend Water Board (CBNBWB). 2018. *2018 Consumer Confidence Report*. Available online at: http://cbnbh2o.com/assets/Reports/2019_CCR_COMPLETE.pdf. Accessed July 2019

CBNBWB. 2014a. *Welcome*. http://cbnbh2o.com/. Accessed July 26, 2014.

CBNBWB. 2014b. *Customer Services – Core Services: Water Treatment*. Available online at: http://www.cbnbh2o.com/about/services. Accessed July 26, 2019.

Coos County. 2017. *Recyclable Items Accepted at Beaver Hill Transfer Site– Highway 101*. Available online at: http://www.co.coos.or.us/Portals/0/Solid%20Waste/recycling%20at%20Beaver%20Hill%20Dec%202017.pdf?ver=2017-12-08-154017-420. Accessed July 29, 2019.

Coos County. 2019. *Coos County Solid Waste Department rate sheet.* Effective January 1, 2019.

Coos County Area Transit (C-CAT). 2011. *Annual Financial Report for the Fiscal Year ending in June 30, 2011*. Available online at: http://www.co.coos.or.us/Portals/0/Treasurer%20Department/Service%20Districts%20Annual%20Reports/CCAT%20Audit%20Report-2011.pdf. Accessed December 28, 2015.

Coquille Economic Development Corporation (CEDCO). 2016. Personal communication via telephone between AES (Bibiana Alvarez) and Loretta Kuehn, Project Administrator, Development for CEDCO, located at 3201 Tremont Avenue in North Bend, OR 97459. February 8, 2016.

Coquille Tribe. 2013a. *Coquille Indian Tribe Unmet Tribal Needs Report*. Dated March 22, 2013.

Coquille Tribe. 2013b. *Business Plan for Proposed Class II Gaming Facility in Medford, Oregon*. Dated April 2013.

Coquille Tribe. 2014. *Update: The Coquille Indian Tribe's Unmet Needs.* Dated June 3, 2014.

Coquille Tribe. 2016. *History*. Available at: http://www.coquilletribe.org/History.htm. Accessed on March 14, 2016.

Coquille Tribe. 2019. *Updated Demographic Table.* Dated July 31, 2019.

Council on Environmental Quality (CEQ). 1997. *Environmental Justice Guidance Under the National Environmental Policy Act*. December 10, 1997. Available online at:

https://www3.epa.gov/environmentaljustice/resources/policy/ej_guidance_nepa_ceq1297.pdf. Accessed March 2016.

David Evans and Associates, Inc. 2019. *Coquille Indian Tribe Fee-to-Trust and Gaming Facility Project Draft Transportation Impact Analysis*. Dated September 2019. Included as **Appendix H**.

Dillard. 2016. Personal communication between AES (Katherine Green) and Bob Dillard, Public Works Director at the City of North Bend. March 17, 2016.

DKS Associates. 2004. *North Bend Transportation System Plan*. Available online at: https://scholarsbank.uoregon.edu/xmlui/handle/1794/3651. Accessed December 24, 2015.

Environmental Management Consultants. 1993. *Level I Site Assessment for Sun Plywood*. Available online at: https://www.deq.state.or.us/Webdocs/Controls/Output/PdfHandler.ashx?p=faa1d00f-74ac-4c45-bf04-1f795fdf00c8.pdf&s=EMCSunPlywoodLevel1(1-1993).pdf.

Environmental Management Consultants. 1994. *Level II Sampling & Analysis: Sun Plywood-Old Joe NEY*. Available online at: https://www.deq.state.or.us/Webdocs/Controls/Output/PdfHandler.ashx?p=24455d6a-6870-4636-bd4d-e8d3ce6f37f5.pdf&s=EMCSunPlywoodLevel2(2-1994).pdf. Accessed July 10, 2019.

Federal Bureau of Investigation (FBI). 2017. *Table 8: Offenses Known to Law Enforcement – Oregon*. Available online at: https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-8/table-8-state-cuts/oregon.xls. Accessed July 30, 2019.

Federal Emergency Management Agency (FEMA). 2015a. Flood Insurance Rate Map (FIRM) number 41029C1986F.

FEMA. 2015b. FIRM number 41029C1987F.

FEMA. 2015c. FIRM number 41011C0188E.

Federal Geographic Data Committee (FGDC). 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. 2nd Edition. Available online at: http://www.fgdc.gov/standards/projects/FGDC-standards-projects/wetlands/nvcs-2013. Accessed January 2016.

Federal Highway Administration (FHWA). 2006. *Construction Noise Handbook*. Available online at: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/index.cfm. Accessed July 14, 2019.

FHWA. 2010. *Highway Traffic Noise: Analysis and Abatement Guidance*. Originally published June 2010. Revised December 2010 and December 2011. Available online at: http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf. Accessed December 16, 2015.

FHWA, 2015. Guidelines for the Visual Impact Assessment of Highway Projects. Available online at: https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx#chap11. Accessed February 17, 2022.

FHWA. 2016. *Measurement of Highway-Related Noise, Terminology*. Available online at: http://www.fhwa.dot.gov/environment/noise/measurement/mhrn02.cfm. Accessed July 12, 2019.

Federal Transportation Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual, September 2018*. Available online at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed July 12, 2019.

FTA. 2006. *Transit Noise and Vibration Impact Assessment.* Dated May 2006.

FTA. 2015. *Final Report*. Available online at: https://www.transit.dot.gov/documents/MI-26-7280.07.1_FINAL_REPORT.pdf. Accessed December 29, 2015.

Global Market Advisors (GMA). 2019. *Impact Study for the Coquille Development Project*. September 2019. Included as **Appendix E**.

Guzy, G.S. and R.M. Andersen. 2001. *Information: Supreme Court ruling concerning CWA Jurisdiction over Isolated Waters*. U.S. Department of Transportation. Washington, D.C. Available online at https://www.environment.fhwa.dot.gov/ecosystems/laws_swepacoe.asp. Accessed March 2016.

Harris Miller Miller & Hanson, Inc (Harris Miller). 2009. *Construction Vibration Analysis Special Report*. Available online at: http://www.dot.state.oh.us/projects/7071/publicmeetings/Documents/June%202010%20Noise%20Analysis/ConstructionVibrationReport.pdf. Accessed July 26, 2019.

Hoffine. 2016. Personal Communication between AES (Kassandra Dickerson) and Ron Hoffline regarding North Bend water resources. January 27, 2016.

International Panel on Climate Change. 2021. *Climate Chante 2021 Synthesis Report.*

Jackson County. 2004. *Jackson County Comprehensive Plan*.

http://jacksoncountyor.org/ds/Planning/Planning-Library/ArtMID/6652/ArticleID/242045/Current-Comprehensive-Plan-Comp-Plan. Accessed August 6, 2019.

- *Revisions and updates to the Jackson County Comprehensive Plan occur on a section-by-section basis, and are available on the Jackson County website. The most recent section update occurred in 2005.*

Jackson County. 2011. *Greater Bear Creek Valley Regional Problem Solving Plan*. Adopted November 2011. Available online at: https://jacksoncountyor.org/ds/Planning/Closed-

Projects/ArtMID/6626/ArticleID/241761/Greater-Bear-Creek-Valley-Regional-Problem-Solving-RPS-Plan. Accessed August 6, 2019.

Jackson County GIS. 2022. *Jackson County Property Data Online*. Available online at: https://web.jacksoncounty.org/pdo/. Accessed March 2022.

Jackson County Fire District 5. (n.d.). *JACKSON COUNTY FIRE DISTRICT NO. 5*. Available online at: http://www.jcfd5.com/home.html. Accessed July 30, 2019.

Jefferson Public Radio (JPR). 2021. *The Almeda Fire: One Year Later.* Published September 8, 2021. Available online at: https://www.ijpr.org/wildfire/2021-09-08/the-almeda-fire-one-year-later. Accessed February 17, 2022.

Kennedy andJenks Consultants. 2016. *Coquille Tribe Medford Casino Project Water and Wastewater Feasibility Study*. April 2016. K/J Project No. 1576010*00. Included as **Appendix D**.

Larkin, Lela. 2015a. *History of Roxy Ann Lanes*. Available at: http://roxyannlanes.com/aboutus/. Accessed December 4, 2015.

Larkin, Lela. 2015b. Personal communication with Charlane Gross, AES. November 23, 2015.

Les' Sanitary. 2019. *Welcome to Les' Sanitary*. Available online at: http://lessanitary.com/home. Accessed July 29, 2019.

LoopNet. 2019. *Medford, OR Commercial Real Estate for Sale and Lease.* Available online at: https://www.loopnet.com/for-lease/?sk=d9b6be7971c5cf63e69cb0557d95bd6f&bb=3hivnwz9wPxwx1ob/. Accessed July 2019.

McDaniel, S. 2009. *Archaeological Resources Technical Report I-5: Fern Valley Interchange*.

McFadden, David. 2016. Personal communication between the Coquille Indian Tribe (Judy Metcalf) and Avista (David McFadden).

Meaker. 2016. Personal communication between AES (Katherine Green) and Mark Meaker, North Bend Fire Chief. March 16 and 17, 2016.

Medford Fire-Rescue. 2018. *2018 Annual Report*. Avilable online at: http://www.ci.medford.or.us/Files/2018%20Annual%20Report%20Website.pdf. Accessed September 2019.

Medford Planning. 2019. *Land Development Code*. Available online from: https://www.ci.medford.or.us/Page.asp?NavID=447. Accessed on August 6, 2019.

Medford Police Department. 2017. *Medford Police Department 2017 Annual Report*. Available online at: http://www.ci.medford.or.us/Files/MPD%202017%20Annual%20Report.pdf. Accessed July 29, 2019.

Medford Police Department. 2018. *Medford Police Department December 2018 Consolidated Incident Report (includes all nature of call codes)*. Available online at: https://www.ci.medford.or.us/Files/December%202018%20-%20Consolidated%20Incident%20Report.pdf. Accessed July 29, 2019.

Medford School District. 2019. *About the Medford School District*. Available online at: https://www.medford.k12.or.us/domain/229. Accessed August 2019.

Medford Water Commission (MWC). 2015. *Water Quality of Jackson County*. Available online at http://www.medfordwater.org/SectionIndex.asp?SectionID=5. Accessed January 2016.

Mine Safety and Health Administration (MSHA). 2019. *Mine Data Retrieval System.* Available online at: https://www.msha.gov/mine-data-retrieval-system. Accessed July 2019.

National Climatic Data Center (NCDC). 2015. *Jackson County Climate Statistics*. Available online at: http://www.ocs.oregonstate.edu/county_climate/Jackson_files/Jackson.html. Accessed June 2015.

National Minerals Information Center. 2016. *Active Mines Near Medford, Oregon*. Available online at: http://activemines.findthedata.com/d/d/Oregon#main. Accessed March 2016.

NRCS. 2019a. *Custom Soil Resource Report for the Medford Site*. Available online at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed July 23, 2019.

NRCS. 2019b. *Custom Soil Resource Report for the Phoenix Site*. Available online at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed July 23, 2019.

NRCS. 2019c. *Custom Soil Resource Report for the Mill Casino Site.* Available online at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed July 23, 2019.

National Tsunami Hazard Mitigation Program. 2019. *NTHMP Tsunami Information Guide*. Available online at: https://nws.weather.gov/nthmp/guide/. Accessed March 3, 2022.

New Flyer. 2015. *Xcelsior Specifications*. Available online at: https://www.newflyer.com/index/xcelsior_specifications. Accessed December 29, 2015.

North Bend Municipal Services Agreement (MSA). 2010. *The City of North Bend, Coquille Indian Tribe, and Coquille Economic Development Corporation*. Signed February 2010. Included as **Appendix J**.

North Bend School District 13. (n.d.). *North Bend School District*. Available online at: http://www.nbend.k12.or.us/. Accessed August 8, 2019.

Oregon's Adventure Coast. 2016. *Coquille Tribe History*. Available at: https://oregonsadventurecoast.com/tribal-heritage-coquilles/. Accessed on March 14, 2016.

Oregon Department of Environmental Quality (ODEQ). 2012. *Water Quality Assessment Database*. Available online at: http://deq.state.or.us/wq/assessment/rpt2012/results.asp. Accessed March 2016.

ODEQ. 2013. *2011 Rogue Basin Groundwater Investigation*. Updated April 2013. Available online at: http://www.oregon.gov/deq/WQ/Documents/Groundwater/2013RogueGWReport.pdf. Accessed March 2016.

ODEQ. 2015. *Medford Carbon Monoxide Limited Maintenance Plan*. Available online at: http://www.deq.state.or.us/aq/planning/docs/medfordmp.pdf. Accessed March 4, 2016.

ODEQ. 2019. *Water Pollution, Division 41: Water Quality Standards: Beneficial Uses, Policies, and Criteria for Oregon*. Available online at: https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1458. Accessed July 2019.

ODEQ. 2019b. Environmental Cleanup Site Information (ECSI) Database. *Site Summary Reports – Details for Site ID 288, 1644, and 5901*. Available online at: https://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/ecsi.aspx. Accessed July 10, 2019.

Oregon Department of Fish and Wildlife (ODFW). 2016. *Rogue River*. Available online at: https://www.dfw.state.or.us/fish/local_fisheries/rogue_river/index.asp. Accessed July 2019.

Oregon Department of Geology and Mineral Industries (DOGAMI). 2012. *Tsunami Evacuation Map for Coos Bay Peninsula, Oregon*. Available online at: http://www.oregongeology.org/pubs/tsubrochures/CoosBayEvac.pdf. Accessed March 16, 2016.

Oregon Department of Transportation (ODOT). 2011. *Noise Manual*. Available online at: https://www.oregon.gov/ODOT/GeoEnvironmental/Docs_Environmental/Noise-Manual.pdf. Accessed July 15, 2019.

ODOT. 2018. *2017 Transportation Volume Tables*. Pg. 51. Available online at: https://www.oregon.gov/ODOT/Data/Documents/TVT_2017.pdf. Accessed July, 2019.

Oregon HazVu. 2015. *Oregon HazVu: Statewaide Geohazards Viewer, Oregon Department of Geology and Mineral Industries*. Available online at: http://www.oregongeology.org/hazvu/. Accessed June 18, 2015.

Oregon Lottery. 2017. Jackson County 2015-2017 Biennium Lottery Funding. Available online at: https://oregonlottery.org/docs/default-source/good-things-by-county/2015-2017/jackson. Accessed September 2019.

Oregon Military Department. 2012. State of Oregon Cascadia Subduction Zone Catastrophic Earthquake and Tsunami Operations Plan: Component One of the Oregon Cascadia Subduction Zone Earthquake and Tsunami Operations Plan. Office of Emergency Management. Dated September

2012. Available online at: https://www.oregon.gov/OMD/OEM/plans_train/docs/CSZ/1_csz_plan_final.pdf. Accessed June 2016.

Oregon Office of Economic Analysis. 2016. Gaming Update, 2015q4, posted by Josh Lehner. Available online at: https://oregoneconomicanalysis.com/2016/03/09/gambling-update/. Accessed July 2016.

Oregon Office of Emergency Management. 2022. Hazards and Preparedness – Tsunami. Available online at: https://www.oregon.gov/oem/hazardsprep/Pages/Tsunami.aspx#:~:text=Since%201854%2C%2021%20tsunamis%20have,people%20on%20the%20Oregon%20Coast. Accessed March 3, 2022.

Oregon State Lottery. 2015. Oregon State Lottery: An Enterprise Fund of the State of Oregon. Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2015. Available online at: http://oregonlottery.org/docs/default-source/financial-reports/2015cafr.pdf?sfvrsn=4. Accessed July 2016.

Oregon State Police (OSP). 2019. *Oregon State Police, Joint Ways & Means, Public Safety Sub-Committee*. Available online at: https://olis.leg.state.or.us/liz/2019R1/Downloads/CommitteeMeetingDocument/162731. Accessed on August 5, 2019.

Pacific Northwest Seismic Network (PNSN). 2015. *Cascadia Subduction Zone*. Available online at: http://pnsn.org/outreach/earthquakesources/csz. Accessed 6/18/2015.

Pacific Northwest Seismograph Network, U.S. Geological Survey, Awtater, B., & Clague, J. (n.d.). *Generalized Geologic Setting of the Pacific Northwest*. Retrieved July 23, 2019, from https://ceetep.oregonstate.edu/sites/ceetep.oregonstate.edu/files/resources/earthquakes-volcanoes-pacific-nw.pdf.

Pacific Power. 2019. *Just the Facts*. Available online at: https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/about/2019_Facts_PacificPower.pdf. Accessed on August 5, 2019.

PacifiCorp. 2019. *Powering a Better Energy Future*. Available online at: https://www.pacificorp.com/energy.html. Accessed on August 5, 2019.

Penning, Garry. 2019. *Personal correspondence with a representative at Rogue Disposal & Recycling*.

Pettigrew, Richard M. and Clayton G. Lebow, 1987. *Data Recovery at Site 35JA27, 35JA59, and 35JA100, Elk Creek Lake Project, Jackson County, Oregon*. Report on file at the U.S Army Corps of Engineers, Portland District.

PXPD. (n.d.). *Organization Chart*. Available online at: https://www.phoenixoregon.gov/police/page/organizational-chart. Accessed on July 30, 2019.

Phoenix-Talent Schools. 2019. *Policies and Regulations*. Available online at: https://www.phoenix.k12.or.us/domain/1081. Accessed August 2019.

Rogue Compost, 2019. https://roguecompost.com/. Accessed July 29, 2019.

Rogue Disposal & Recycling (RDR). 2019. Available online at: https://roguedisposal.com/. Accessed July 29, 2019.

Rogue Valley Sewer Services. 2018. *Rogue Valley Stormwater Quality Design Manual.* Available online at: https://www.rvss.us/content/files/Stormwater/DesignManual%20update%202018%20Jan.pdf. Accessed September 2019.

Rogue Valley Transportation District (RVTD). 2007. *Ten-Year Long Range Transportation Plan 2007-2017*. Available online at: http://www.rvtd.org/images/subpages/File/LRP_Full%20Text_Chapters%20I-XII.pdf. Accessed December 29, 2015.

RVTD. 2008. *Five Year Strategic Business and Operations Plan*. Available online at: http://www.rvtd.org/images/subpages/File/RVTD%205%20Year%20Strategic%20Plan.pdf. Accessed December 28, 2015.

Sherrod, David R., and Smith, James G. 1995. *Geologic Map of Upper Eocene to Holocene Volcanic and Related Rocks of the Cascade Range, Oregon*. Available online at: http://www.wou.edu/las/physci/taylor/g473/refs/sherrod_smith_2000_text.pdf. Accessed June 18, 2015.

Sowards, Adam M. 2007. *United States West Coast: An Environmental History, Santa Barbara, California: ABC-CLIO*.

Suburban Propane. 2016. *About Suburban Propane*. Available online at: https://suburbanpropane.com/about/about-suburban-propane.php. Accessed February 3, 2016.

SWCA Environmental Consultants (SWCA). 2015. Phase I Environmental Site Assessment for the Roxy Ann Lanes Property (Map Tax Lot 371W32C 4701) at 2375 South Pacific Highway in Medford, Jackson County, Oregon. Prepared by SWCA Environmental Consultants. Dated November 17, 2015.

Taylor, George. 2016. *Climate of Coos County*. Oregon State University. Available online at: http://www.ocs.oregonstate.edu/county_climate/Coos_files/Coos.html. Accessed March 20, 2016.

Thomas. 2016. Personal communication between AES (Katherine Green) and Ivan Thomas, General Manager of the Coos Bay-North Bend Water Board. March 18, 2016.

U.S. Army Corps of Engineers (USACE). 2007. *Jurisdictional determination form instructional guidebook*. Available online at:

http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/jd_guidebook_051207final.pdf/. Accessed March 2016.

U.S. Census Bureau. 2009-2013. *B01003: Total Population; B25002: Occupancy Status (Housing Units); S2301: Employment Status.* American Community Survey 5-Year Estimates (2005-2009 through 2009-2013). Available online at: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed June 2015.

U.S. Census Bureau. 2013. *DP05: ACS Demographic and Housing Estimates; B19013: Median Household Income in the Past 12Months (in 2013 Inflation-Adjusted Dollars); B25010: Average Household Size of Occupied Housing Units by Tenure*. 2009-2013 American Community Survey 5-Year Estimates. Available online at: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed June 2015.

U.S. Census Bureau. 2019. *Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018*. Available online at: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk. Accessed on July 30, 2019.

U.S. Census Bureau. 2019b. *2014 American Community Survey 1-Year Estimates.* ACS Demographic and Housing Estimates. Available online at: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed February 26, 2019.

U.S. Climate Data. (2019). Temperature - Precipitation - Sunshine - Snowfall. Retrieved July 22, 2019, from https://www.usclimatedata.com/climate/medford/oregon/united-states/usor0215.

U.S. Department of Transportation, 2022. America's Byways – Oregon. Available online at: https://www.fhwa.dot.gov/byways/states/OR/maps. Accessed February 17, 2022.

U.S. Department of Agriculture (USDA). 2017. *2017 Census of Agriculture*. National Agricultural Statistics Survey. Available online at: https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Oregon/cp41029.pdf. Accessed August 6, 2019.

U.S. Department of Health and Human Services (HHS). 2013. *2013 Poverty Guidelines for the 48 Contiguous States and the District of Columbia*. Office of the Assistant Secretary for Planning and Evaluation. Available online at: https://aspe.hhs.gov/2013-poverty-guidelines. Accessed May 2015.

U.S. Environmental Protection Agency (USEPA). 1995. AP-42, fifth edition, Volume 1, Chapter 3, Stationary Internal Combustion Sources. Available online at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors. Accessed February 2016.

USEPA. 1998. *Final Guidance for Incorporating Environmental Justice Concerns in USEPA's NEPA Compliance Analysis.* April 1998. Available online at:

http://www3.epa.gov/environmentaljustice/resources/policy/ej_guidance_nepa_epa0498.pdf. Accessed February 9, 2016.

USEPA, 2005. National Management Measures to Control Nonpoint Source Pollution from Urban Areas. United States Environmental Protection Agency Office of Water. Published November 2005. Accessed: https://www.epa.gov/sites/default/files/2015-09/documents/urban_guidance_0.pdf. Accessed February 15, 2022.

USEPA. 2014a. *Motor Vehicle Emission Simulator*, 2014. Available online at: https://www3.epa.gov/otaq/models/moves/index.htm.

USEPA. 2015. *USEPA My Waters Mapper online mapping tool*. Available online at https://watersgeo.epa.gov/mwm/. Accessed March 2016.

USEPA. 2018. *EPA's Environmental Justice and Community Revitalization Priorities*. Available online at https://www.eenews.net/assets/2018/02/27/document_gw_04.pdf. Accessed September 2019.

USEPA. 2019. Enforcement and Compliance History Online. Available online at: https://echo.epa.gov/detailed-facility-report?redirect=page&fid=110001657564#pane3110001657564. Accessed July 2019.

USEPA. 2019b. *Oregon Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants.* Available online at: https://www3.epa.gov/airquality/greenbook/anayo_or.html. Accessed July 2019.

USEPA. 2016b. *State and County Emission Summaries*. Available online at: http://www3.epa.gov/cgi-bin/broker?_service=data&_debug=0&_program=dataprog.state_1.sas&pol=CO&stfips=41. Accessed March 4, 2016.

USEPA. 2016c. *State and County Emission Summaries*. Available online at: http://www3.epa.gov/cgi-bin/broker?_service=data&_debug=0&_program=dataprog.state_1.sas&pol=PM10_PRI&stfips=41. Accessed March 4, 2016.

U.S. Fish and Wildlife Service (USFWS). 2009. *Oregon Islands, Three Arch Rocks, and Cape Meares National Wildlife Refuges- Comprehensive Conservation Plan and Wilderness Stewardship Plan for Clatsop, Tillamook, Lincoln, Lane, Coos, and Curry Counties, Oregon*. Available online at: https://ecos.fws.gov/ServCat/DownloadFile/1507?Reference=1531. Accessed July 2019.

U.S. Geological Survey (USGS). 1995. *Open File Report O-95-45 Tsunami Hazard Map of the North Bend Quadrangle, Coos County, Oregon*. Available online at: http://www.oregongeology.org/pubs/ofr/95-45-north_bend.PDF. Accessed March 16, 2016.

USGS. 2014. *Modified Mercalli Intensity Scale*. Available online at: http://earthquake.usgs.gov/learn/topics/mercalli.php. Accessed March 18, 2016.

USGS. 2015. *Historical Earthquakes Mapping Program*. Available online at: http://earthquake.usgs.gov/earthquakes/map/. Accessed June 18, 2015.

U.S. National Vegetation Classification (USNVC). 2019. *USNVC Hierarchy Explorer.* Available online at: http://usnvc.org/explore-classification/. Accessed September 2019.

University of California at Davis (UC Davis). 1997. *Transportation Project-Level Carbon Monoxide Protocol*. Institute of Transportation Studies. Davis, California. Available online at: http://pubs.its.ucdavis.edu/publication_detail.php?id=595. Accessed February 2016.

University of Massachusetts, 2017. *Gambling and Problem Gambling in Massachusetts: Results of a Baseline Population Survey.* University of Massachusetts School of Public Health and Health Sciences. Available online at: https://www.umass.edu/seigma/sites/default/files/Updated%20BGPS%20Report_Final.pdf. Accessed April 29, 2020.

Western Regional Climate Center. 2016. *Climate of Oregon*. Available online at: http://www.wrcc.dri.edu/narratives/oregon/. Accessed March 4, 2016.