4.15 Indirect Effects

The Council on Environmental Quality Regulations for Implementing NEPA define indirect effects as effects "which are caused by the action and are later in time or farther removed in the distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.8(b)). **Section 4.15.1** assesses the potential for growth-inducing effects. **Section 4.15.2** assesses effects cause by utility and traffic improvements. Many indirect and off-site effects are also analyzed in **Sections 4.2** through **4.14**, such as indirect effects related to pollutant discharges and downstream resources, increases in human activity, and other effects that may occur later in time.

4.15.1 Growth-Inducing Effects

Growth-inducing effects are a subset of indirect effects. A growth-inducing effect is an effect which fosters (or removes a barrier to) economic or population growth either directly or indirectly. An example of direct growth inducement would be the construction of new housing. Examples of indirect growth inducement include establishing substantial new permanent employment opportunities and removing obstacles to population growth (e.g. the expansion or improvement of utilities which allows for more growth within the service area). Growth inducement itself is not an environmental effect, but it could lead to physical environmental effects such as increased demand on public services and infrastructure, increased traffic and noise, degradation of air or water quality, or degradation or loss of special-status species habitat over time.

Potential Residential Growth

Employment Growth

The direct employment associated with the project alternatives has been addressed within **Section 4.7**. In addition to the direct employment generated by the Proposed Action and alternatives, indirect and induced employment would also occur as a result of increased expenditures for goods and services. **Table 4.14-1** provides a summary of the net full-time equivalent employment impacts for each of the project alternatives. The data provided in **Table 4.14-1** takes into account the "substitution effect" which assumes that the net job and economic effects from the casino alternatives are expected to be reduced due to the substitution of patrons from other similar business located within Sonoma County, primarily the River Rock Casino and other entertainment venues and destinations. Thus, the economic impacts resulting from the alternatives would not all be "new" to the County but would represent a percentage of transfers of spending within the County. Please refer to **Section 4.7** (Socioeconomic Conditions) for a detailed discussion of the substitution effect for each project Alternative.

TABLE 4.15-1
ESTIMATED NET DIRECT, INDIRECT, AND INDUCED EMPLOYMENT

	Alternatives				
Classification	**A**	**B**	**C**	**D**	**E**
Direct Jobs within Sonoma County	2,675	2,105	1,890	1,240	1,235
Indirect and Induced Jobs within Sonoma County	1,430	1,124	1,029	567	742
Total Jobs	**4,105**	**3,229**	**2,919**	**1,807**	**1,977**

ESA, 2009

The extent to which direct, indirect, and induced employment growth is captured by the Sonoma County economy will depend on the County's ability to provide the necessary labor force. As discussed in **Section 3.7**, in 2008 Sonoma County's total labor force was estimated to be approximately 270,500 with a county-wide unemployment rate of 6.5 percent, a rate much higher than its historical average of 4.2 percent. This suggests that currently there are at least 6,220 Sonoma County currently unemployed residents (i.e. 2.3 percent of the total labor force) likely highly available for employment by the project. The current economy's weakness also suggests that future unemployment rates may increase thereby adding greater job demand amongst Sonoma County's residents. While it is not expected that the direct, indirect, and induced employment growth will be able to utilize the entirety of the existing unemployed labor pool for the new job growth, the data suggests that a sufficient labor force exists within the County to eliminate the need to substantially draw employees from other regions.

Sonoma County's population is projected to increase by 0.7 percent annually. This rate of growth may be expected to result in similar growth to the County labor force which would add over 1,890 new workers annually. By the time that the proposed project would begin to operate in 2011 (at the earliest), at least two years of labor force growth may be expected to have occurred which would add more than 3,780 new workers. Such annual labor force growth can be expected to further increase the potential employable labor force for the project.

Potential Housing Growth

As described in **Section 4.7**, Sonoma County had 197,907 housing units with a vacancy rate of 5.8 percent in 2008. This suggests that up to 11,480 housing units were unoccupied. While some of the unoccupied units may serve as secondary homes or are unavailable for occupancy, the existing housing supply conditions suggest that there is potential underused housing capacity within Sonoma County. Assuming a base vacancy rate of 2 percent (which corresponds to several of the cities in Sonoma's current housing conditions), there would be up to 7,520 housing units could be occupied. Of these approximately 6,625 homes (88 percent) are located in unincorporated areas of the County. In Santa Rosa, up to 450 homes could be occupied by new homeowners and in Cloverdale approximately 90 homes could be occupied.

Consequently, in the event that relocating workers or new County residents need additional housing, there is a strong potential for their housing needs to be absorbed by the existing housing supply.

As a result, the project's future direct, indirect, and induced employment needs could be adequately met through the existing housing supply and not require the construction of new housing to support population and employment growth.

Potential Commercial Growth

The increased demand for goods and services from the proposed alternatives would result in the need for increased commercial services from the surrounding cities and counties. Examples of goods and services include fresh produce, wholesale goods, marketing, and maintenance products and services. Commercial growth would also occur as the result of new employee wages, which would be used to provide the workers with housing, clothes, food, health care, and a range of other goods and services. Visitors who are attracted to the region as a result of the proposed alternatives can be expected to spend money on food, transportation, accommodation and entertainment elsewhere in the region. For example, casino patrons may also stop at a local shopping center or service station. As is the case with the indirect/induced employment, commercial growth is expected to occur over a wide geographical area, due to the diversity of the business affected and the dispersed location of the potential labor force. It is not anticipated that new commercial development will be required to support the proposed alternatives.

Potential Growth from Infrastructure or Utility Improvements

Proposed improvements which could be considered growth-inducing include increasing traffic capacity on roadways, increasing capacity of public services, and or extension of public services to areas which are not currently served. The improvements proposed by the Proposed Action and alternatives are designed to specifically mitigate impacts for the respective alternatives without creating unnecessary additional capacity. Mitigation proposed for roadways and intersections would serve to mitigate the impacts of project alternatives on area roadway networks only, not to increase capacity of roadways to accommodate future unplanned growth. In addition, utility upgrades and extensions may be needed if municipal water, municipal wastewater, and/or natural gas are used. The project would work with the provider to ensure adequate improvements in coordination with surrounding growth. For each of these utilities, feasible alternatives have been provided should the project decide not to utilize municipal water, municipal wastewater and/or natural gas. It is not anticipated that infrastructure and utility improvements would create or support unplanned growth in the area.

4.15.2 Other Indirect Effects

The project alternatives recommend off-site traffic mitigation and off-site utility improvements (optional improvements for connection to municipal water, municipal wastewater, and/or natural gas). Because most of the identified improvements are common to all the alternatives and because the nature and scope of the effects are similar, the following analysis is provided for all the alternatives. It should be noted that some of the mitigation may require more thorough environmental analysis through the California Environmental Quality Act, which would further analyze impacts and recommend appropriate mitigation.

Land Resources

The construction of roadway improvements would require grading and the introduction of fill material to extend the existing shoulders and roadbed. Earthwork could result in erosion of soils. Local jurisdictions would require the use of stable fill material, engineered embankments, and erosion control features to reduce the potential for the slope instability, subsidence and erosion. In accordance with the Clean Water Act, construction of roadway improvements over one acre in area would be required to comply with the National Pollutant Discharge Elimination System General Construction Permit Program (NPDES). To comply with the program, a Stormwater Pollution Prevention Plan 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 site, and remove sediment from the runoff. With standard construction practices and specifications required by the NPDES permit program, the roadway improvements identified under the project alternatives would result in less than significant indirect effects to land resources.

Water Resources

The development of roadway improvements could affect water resources due to grading and construction activities, relocation of drainage features, and an increase in impervious surfaces. Potential effects include an increase of surface runoff and increased erosion that could adversely affect surface water quality due to increases in sediment and roadway pollutants such as grease and oil. As discussed above, a SWPPP would be developed to comply with the NPDES General Construction Permit Program, which includes soil erosion and sediment control practices. Drainage features along the improved roadways would be sized to accommodate any increase in runoff. With the incorporation of best management practices (BMPs) identified in the SWPPP, for construction projects resulting in over one acre of disturbance, effects to water resources would be less than significant.

Air Quality

Development of the off-site improvements would result in short-term construction-related air pollution emissions. The construction phase would produce two types of air contaminants: exhaust emissions from construction equipment and fugitive dust generated as a result of demolition and soil movement. Exhaust emissions from construction activities include those associated with the transport of workers and machinery to the site, as well as those produced on site as the equipment is used. Construction of improvements would be limited in scope and duration and BMPs similar to those proposed as mitigation for the project alternatives would be utilized. Thus, a less than significant indirect effect would result.

Long-term effects from roadway improvements could result if the roadway improvements resulted in localized increases in carbon monoxide (CO) concentrations and/or if the improvements contributed to traffic congestion at large intersections. The proposed improvements would reduce congestion and improve traffic flow. This would reduce emissions from the idling vehicles at these intersections and roadway segments. Indirect effects would therefore be less than significant.

Biological Resources

Construction of the roadway and utility improvements can be expected to result in the loss of some existing vegetation and modification of drainage channels. Due to the degraded condition of the roadside areas, habitat quality is generally low and expansion of the existing facilities would not result in a significant effect to sensitive species. Off-site improvements would occur in uplands and areas outside of suitable habitat for federally listed anadromous salmonids. In order to minimize water quality effects to local waterways from construction related run-off, a number of BMPs and avoidance measures would be required and incorporated in the proposed construction, thereby reducing potential effects.

To address effects to sensitive habitat and species, biological surveys may be required to comply with the Federal Endangered Species Act and likely with CEQA before encroachment permits are issued. The lead agency under CEQA would be required to mitigate potential impacts to a less than significant level or to issue a finding of fact and statement of overriding considerations if significant impacts could not be mitigated. Due to the limited nature of proposed improvements, the degraded condition of existing habitat, and the requirements of other regulations (Endangered Species act and CEQA) to address impacts to biological resources, the effects of the off-site improvements would be less than significant.

Cultural Resources

The construction of the roadway improvements has the potential to disturb previously undiscovered cultural resources. Due to prior grading of existing roadways it is likely that resources remaining in these areas are highly disturbed and lack integrity, thus diminishing the significance of the remaining resources. Cultural surveys may be required to comply with CEQA before encroachment permits are issued. The lead agency under CEQA would be required to mitigate potential impacts to a less than significant level or to issue a finding of fact and statement of overriding considerations of significant impacts could not be mitigated. Mitigation may include the avoidance of resources, the preservation of a key historical feature, or the removal, documentation, and curation of cultural resources.

Socioeconomic Conditions

A potentially significant fiscal impact would result if local jurisdictions were required to pay the full cost of traffic improvements. As discussed in **Section 5.0** (Mitigation Measure), the Tribe would pay either a full share or fair share for recommended improvements. Therefore, a less than significant indirect socioeconomic effect would result.

Land Use

As noted, construction of roadway improvements with no or minimal additional property requirements is not expected to cause a long-term disruption of surrounding land uses. Improvements that require land acquisition, such as realignment and expansion of roadways, could convert land from its current use. However, the amount of land required would be a narrow strip on the end of the property and should not affect the land use for the remaining property. Therefore, a less than significant indirect effect would result.

Agriculture

Construction of roadway improvements that require additional property, such as realignment and expansion of roadways, are not proposed in areas that are currently used for agriculture. If agricultural land is needed for improvements the amount would be small in comparison to the available agricultural land in the region. Therefore, a less than significant indirect effect to agriculture would result.

Public Services

Traffic improvements may require relocation of utilities. On-site improvements would require the relocation of a water line for the South Cloverdale Water District. Relocation of these lines could result in a temporary break in service to some homes and businesses in the area. However, because these effects are common when upgrading and maintaining utility services, and because potential service breaks would be temporary, these effects are considered to be less than significant. No significant effects to police, fire, or emergency medical services are expected as access to homes and businesses would be maintained during the construction period.

Noise

Construction activities associated with roadway improvements would result in short-term increases in the local ambient noise environments. However, because construction activities would be temporary in nature and are expected to occur during normal daytime hours, a less than significant effect is expected.

Hazardous Materials

Hazards, which are common to construction activities, such as the transport of fuels, would be minimized with adherence to standard operating procedures, such as refueling in designated areas, storing hazardous materials in approved containers, and clearing dried vegetation. Such procedures are commonly required by local agencies as part of a permit review and/or CEQA review for roadway improvements. These potential hazards would therefore be less than significant.

Visual Resources

Visual effects would occur as the result of modification and expansion of existing roadways. The proposed road and utility improvements would be at or below grade and thus would not create significant impacts to viewers.

Environmental Justice

As discussed in **Section 3.14**, there are no minority or low-income communities of concern identified within the affected environment and thus environmental justice impacts would be less than significant.