

4.11 INDIRECT AND GROWTH INDUCING EFFECTS

The National Environmental Policy Act (NEPA) Council on Environmental Quality (CEQ) Regulations requires the analysis of indirect effects (40 C.F.R. § 1502.16). The CEQ Regulations define indirect effects as effects that “are caused by the action and are later in time or farther removed in distance, but still reasonably foreseeable” (40 C.F.R. §1508.8(b)). Growth inducing effects are a subset of indirect effects that are typically defined as effects that foster economic or population growth, or the construction of additional housing. **Section 4.11.1** assesses the potential for growth inducing effects caused by the alternatives. **Section 4.11.2** assesses indirect effects caused by the recommended off-site traffic mitigation. **Section 4.11.3** assesses indirect effects caused by the off-site construction of pipelines, proposed for Alternative A. Other indirect effects are analyzed in previous sections by issue area (air quality, noise, etc.). The indirect effects of off-site traffic mitigation and pipeline construction are discussed separately in this section because they are separate projects (indirectly resulting at least in part from a development alternative) that affect most issue areas. Therefore, in an attempt to improve clarity these effects have been analyzed below (including all affected issue areas) rather than throughout the EIS within each issue area.

4.11.1 GROWTH INDUCING EFFECTS

NEPA requires that an Environmental Impact Statement (EIS) analyze “growth inducing effects” (40 C.F.R. §1502.16 (b), 40 C.F.R. §1508.8 (b)). A growth inducing effect is defined as an effect 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 wastewater treatment plant (WWTP) that could allow more construction in the service area).

Note that 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 alternatives, except for the No Action Alternative (see planned residential and commercial growth discussed in **Section 2.8**), would result in direct growth inducement. Therefore, this section exclusively assesses the potential for indirect growth inducement for each development alternative.

During operation, the development alternatives would employ a minimum of 2,000 (Alternative E) and a maximum of 2,600 employees (Alternatives A, B, C, and F – high range), depending on

the alternative. This will potentially result in additional housing and commercial demand from new project employees.

During operation, the development alternatives would also result in additional jobs and revenues that are induced or indirectly a result of the implementation of the development alternative (indirect/induced economic impacts). Indirect employment and revenues would result from inter-industry trade which the casino/hotel or business park engages in with other businesses (e.g., janitorial supply services). Induced employment and revenues would result from economic activity spawned by the household trade that occurs when direct project employees act as consumers. During operation, the development alternatives would result in indirect and induced employment in Sonoma County ranging from 336 (Alternative E) to 3,402 (Alternatives A, B, C, and F – high range) (see **Table 4.7.4**). Indirect and induced economic impacts are analyzed in more detail below in **Section 4.7**.

Indirect and induced economic impacts may also create growth. However, any growth is expected to be diffused and distributed among many different businesses in many different sectors located throughout Sonoma County, the greater Bay Area, and beyond.

POTENTIAL HOUSING GROWTH

To determine potential reasonably foreseeable housing growth, the likely residence location of new project employees must first be determined. The 2000 Census provides Journey to Work data. This data was used to determine the residence of employees that currently work in the City of Rohnert Park. Since the Wilfred site and Stony Point site are located adjacent to the City of Rohnert Park, employee residence distribution is expected to mirror the employee residence distribution for employees that work in the City of Rohnert Park. According to the Census data, approximately 31-percent of all Rohnert Park employees live within Rohnert Park, and 26-percent of employees live within Santa Rosa, with the remainder living elsewhere in the Bay Area (see **Appendix N** for detailed worker distribution data). This implies that 31-percent of new casino employees will seek housing in Rohnert Park, and 26-percent of new employees will demand housing in Santa Rosa. The other communities near the Wilfred site and Stony Point site are Petaluma, Sebastopol, and Cotati. Rohnert Park worker distribution in Petaluma, Sebastopol, and Cotati is currently 5.0, 1.4, and 2.1 percent, respectively. Worker distribution in Marin County is expected to be approximately 1.6 percent. Thus, the residence location for employees from the Wilfred site and the Stony Point site alternatives would be relatively insignificant in these communities when compared to Santa Rosa and Rohnert Park (Bay Area Economics, 2008).

Before new residents move into the area, unemployed workers and some people who were previously in the labor force are expected to take the new jobs created by the alternatives. In 2003, Sonoma County had a 70-percent labor force participation (LFP) rate. That is, 70-percent

of the population who were over the age of 16 was either employed, or actively looking for work (unemployed). During the same time, Rohnert Park had an 80-percent LFP rate. Historical data shows that the maximum LFP rates for Sonoma County occurred in 2001 and 2002, with a 72-percent LFP rate. Rohnert Park's maximum LFP rate was 82 percent in 2002. Likewise, historical data shows the historic minimum unemployment rates for the areas occurring in 2000, with a 2.6-percent unemployment rate in Sonoma County, and a 2.6-percent unemployment rate in Rohnert Park. It is assumed that the current labor force can expand to the historic recent high labor force and to the historic recent low unemployment rates, given the introduction of new jobs. **Table 4.11-1** shows the worker absorption capacity per area in comparison to the jobs per area that would be created for each alternative. For each alternative the existing labor pool would be able to absorb the new jobs created by the alternative. Thus, the existing housing stock would continue to serve the existing labor pool, resulting in no housing growth caused by the alternatives.

TABLE 4.11-1
WORKER ABSORPTION CAPACITY BY AREA

	Sonoma County	Rohnert Park	Santa Rosa	Petaluma	Marin County	Novato
Total Population Over 16 ¹	366,732	32,288	120,536	43,724	205,988	38,047
Historic Peak Labor Force ²	264,764	26,364	81,241	31,743	143,574	28,650
Historic Low Unemployment Rate ³	2.6%	2.6%	2.6%	2.1%	1.6%	1.5%
Number of Potential Workers ⁴	257,880	25,678	79,129	31,077	141,276	28,220
Current Labor Force	257,544	25,791	73,671	29,934	129,749	25,836
Current Unemployment Rate	4.9%	5.5%	4.7%	4.0%	3.9%	3.5%
Current Number of Workers ⁵	244,924	24,372	70,208	28,737	124,689	24,932
Number of Jobs the Current Areas Can Absorb ⁶	12,956	1,306	8,921	2,340	16,588	3,288
Direct Jobs Created, Alternatives A, B, and C ⁷	2,256	814	615	120	38	16
Direct Jobs Created, Alternative D ⁷	1,974	712	538	105	33	14
Direct Jobs Created, Alternative E ⁷	1,880	678	512	100	32	13
Direct Jobs Created, Alternative F ⁷	529	106	73	182	1,131	718

NOTES: ¹ Assumes that the age distribution is not changing for the percent of the population over age 16.

² Assumes historic high labor force participation rate (see **Table 3.7-4** for year of historic high and percentage per area).

³ See **Table 3.7-4** for year of historic low per area.

⁴ Historic peak labor force minus historic low number of unemployed.

⁵ Current labor force minus current number of unemployed.

⁶ Number of potential workers minus current number of workers.

⁷ Assumes average number of employees (see **Table 4.7-2**). Jobs per area estimated using Journey to Work data (see **Appendix N** for more detail).

SOURCE: U.S. Bureau of Labor Statistics, 2004; U.S. Census Bureau, 1990, 2000; Bay Area Economics, 2008.

As noted above, it would be speculative to attempt to determine the place of residence for indirect and induced employees. These employees would not be working at the Wilfred site or Stony Point site, but would be working at different locations scattered throughout the vicinity, meeting

the additional demand for services and goods created by project employees and the Wilfred site or Stony Point site alternatives.

POTENTIAL COMMERCIAL GROWTH

Development under the alternatives would draw additional traffic through area roadways. Additional area traffic could create demand for growth of commercial facilities to serve the new traffic. In this case, demand for new restaurants or hotels to serve Wilfred or Stony Point site visitors is not expected for Alternatives A, B, C, D, or H due to the planned development of restaurants and a hotel on-site that would serve this additional demand. Alternative E would include space for commercial development. At least one restaurant would be expected to be located within the business park to serve employees at the business park. Demand for a hotel is not expected to increase under Alternative E, given that most visitors to the site would be local residents or employees. A gas station is not planned under any of the alternatives; however, gas stations are currently present at both main highway interchanges that would serve the Wilfred and Stony Point sites (Wilfred Avenue and Rohnert Park Expressway). Thus, gas station growth is not expected to occur.

Development would also create new jobs in the region, as discussed previously. These new jobs would lead to induced employment and revenues, as noted above. These induced economic effects could lead to demand for commercial growth. According to the California State Board of Equalization, Rohnert Park residents spent approximately \$11,000 per capita in taxable sales in 2002. However, if the labor force participation increases from its current level to its peak, and the unemployment rate decreases, certain residents may have additional disposable income. Then, the amount of taxable sales spent per capita should increase slightly for the area, making the local retail market stronger. It is expected that the increased local expenditures due to increased personal income would be absorbed by existing retail facilities, which would benefit from increased sales volume.

Indirect and induced economic impacts within the local economy (see **Section 4.11.2**) may also create demand for growth; however, such demand is expected to be diffuse and distributed among many different businesses in many different sectors located throughout Sonoma County and the greater Bay Area. Thus, it would be speculative to attempt to predict where and how these impacts would be felt and whether they would lead to physical growth or simply increased profits for existing businesses.

POTENTIAL GROWTH FROM INFRASTRUCTURE/UTILITIES IMPROVEMENTS

Improvements to area roadways and intersections would serve to mitigate the impacts of the project alternatives on area roadway networks, not to increase capacity of roadways to accommodate future unplanned growth. Note that the recommended funding of Wilfred Avenue

widening, would serve to extend a widening project already planned by the City of Rohnert Park to the City's sphere of influence. It would also not create any new access points along the roadway that might encourage growth. Nor would the widening affect the restrictive zoning (including the presence of a community separator) which would remain under the control of Sonoma County.

Should the Tribe construct on-site water/wastewater facilities, they would be sized solely to serve the project alternative and off-site connection would not be permitted. Should the Tribe decide to connect to local water and wastewater services, any water/wastewater pipeline extensions would be sized solely to serve the development proposed by the Tribe and no other connections would be permitted. Any other utilities improvements, such as improvements to electrical facilities, would be minor and tailored specifically for the project alternative. Thus, no growth would be induced by the extension of infrastructure or the expansion of utilities resulting from the project alternatives.

4.11.2 INDIRECT EFFECTS FROM OFF-SITE TRAFFIC MITIGATION

This section analyzes the effects resulting from the construction of traffic improvements, as described in **Section 5.2.7**. These improvements have been identified for effects discussed in **Sections 4.8** and **4.12**.

IMPROVEMENTS

Funding of roadway segment and intersection improvements recommended under each alternative are listed in **Table 5-7** and **Table 5-8** in **Section 5.2.7** of this EIS. Improvements for each roadway segment and intersection are identified in the first year of need. Contributions to various roadway segment and intersection improvements have also been identified in the Memorandum of Understanding (MOU) with the City of Rohnert Park (see **Section 2.2.10** and **Appendix E**).

The location of intersection mitigation measures for Alternatives A, B, C, D, E, and H are identified in **Table 5-9** and shown in **Figure 5.2.7-1**. A close-up view of these intersections is shown in **Figures 5.2.7-2** through **5.2.7-7**. The location of mitigation measures for Alternative F at each intersection identified in **Table 5-11** and shown in **Figure 5.2.7-8**. A close-up view of each intersection is shown in **Figures 5.2.7-9** and **5.2.7-11**.

As noted in **Section 5.2.7**, the mitigation recommended in this EIS is the full or partial funding of various roadway segment and intersection improvements, rather than the construction of the improvements, which cannot be controlled by the Tribe or the NIGC. Note also that most recommended improvements have either specifically been planned to accommodate for existing

development and development planned by local governments; or are anticipated to be required for planned development.

ENVIRONMENTAL CONSEQUENCES

The following section identifies the potential indirect environmental effects of construction of the intersection improvements. Because most of the identified improvements are common to all the alternatives and because the nature and scope of effects are expected to be similar, the following analysis is generally provided for all the alternatives, thereby avoiding redundant discussion under each alternative.

Land Resources

The construction of roadway improvements would require grading and the introduction of fill material to extend the existing shoulders and road bed. The increase of impervious surfaces and additional 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 slope instability, subsidence and erosion. In accordance with the federal Clean Water Act, construction of roadway improvements over one acre in area would be required to comply with National Pollution Discharge Elimination System (NPDES) General Construction Permit Program. To comply with the program, a Stormwater Pollution Prevention Plan (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 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 are expected to result in less-than-significant indirect effects to land resources. The roadway improvements would not significantly affect the ability to extract minerals.

Water Resources

The development of roadway improvements at the locations identified could affect water resources due to grading and construction activities 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 under Land Resources (above), a SWPPP would be developed to comply with the NPDES General Construction Permit Program, which includes soil erosion and sediment control practices. The effects to runoff volumes resulting from the increase in impervious roadways are expected to be minimal due to the limited extent of the improvements in comparison to the existing roadways. Some existing curb and gutters and stormwater drain inlets would be

demolished and relocated along portions of the roadways to provide space for improvements. Curb and gutters, inlets, and other drainage facilities would be reconstructed to provide adequate facilities to direct stormwater runoff. With incorporation of these drainage features and compliance with the soil erosion and sediment control practices identified in the SWPPP, effects to water resources would be less than significant.

Air Quality

Development of the roadway 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. Thus a less-than-significant indirect effect would result. In addition, mitigation measures are required by local jurisdictions to reduce construction emissions. These include watering the exposed soil to reduce dust, reducing speeds on all unpaved roads to 15 miles per hour, and maintaining equipment properly.

Long-term effects 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 construction of improvements would not result in adverse changes or redistribution in traffic volumes and vehicle trips. Conversely, it is expected that the improvements would reduce congestion and improve traffic flow. This would reduce emissions from idling vehicles at these intersections. Long-term adverse effects would therefore be less than significant.

Biological Resources

Introduction

Most of the habitat that exists in the area of roadway/intersection improvements is highly disturbed roadside. Due to the degraded condition of the roadside area, habitat quality is generally low and it is unlikely that expansion of the existing facilities would result in a significant effect to sensitive species.

Each near-term road improvement was analyzed in detail for its potential to result in impacts to waters of the U.S. or other sensitive biological resources. Some roadside ditches that could be impacted by road improvements may provide breeding habitat to the federally endangered California Tiger Salamander (CTS) during years experiencing above average precipitation. Whenever federal funding is involved or a U.S. Army Corps of Engineers (USACE) Department

of the Army or other federal agency permit is required for any road or pipeline construction project with a potential to affect federally-listed species, a separate Endangered Species Act (ESA) Section 7 consultation is required. Separate environmental documentation will be required for each road improvement project. Any road improvement project that would impact CTS breeding habitat, would also impact wetlands or other waters of the U.S.; therefore, separate Section 7 consultation will be required for any road improvement project impacting potential CTS breeding habitat. Specific mitigation measures covering CTS would be developed as part of the separate Section 7 consultation and would be consistent with the Santa Rosa Plain Conservation Strategy (USFWS, 2005).

The assessment of impacts to waters of the U.S. was conducted using four sources of information: National Wetlands Inventory (NWI) data, aerial photograph interpretation, previous delineations, and on-the-ground surveys. Previous delineations were available for the Wilfred, Stony Point, and Lakeville Sites, but not available for locations outside of these areas. New delineations were not performed for this assessment. Shapes, sizes, and jurisdictional status of waters of the U.S. are approximated. A U.S. Department of Army Corps of Engineers (USACE)-verified delineation would be required to determine precise shapes and sizes of waters of the U.S.

There are no precise plans in existence for these road improvements. Plans and construction would be completed by the appropriate City, State or County jurisdiction. The applicable lead agency is required to obtain a jurisdictional determination and permits at the time of decision for building each roadway improvement. Wetland mitigation will be in accordance with the USACE guidelines at a ratio of at least 1:1 replacement of impacted wetland acreage, and in the case of impacts to roadside ditches will usually be through construction of additional roadside ditches. Mitigation will be developed by the lead agencies for each individual road improvement project and submitted to the USACE for final approval and acceptance consistent with the guidelines.

Methods

In order to evaluate impacts to potential waters of the U.S. from proposed road improvements, locations of proposed road improvements through 2008 were identified and mapped. Potential waters of the U.S. were then mapped. Maps overlaying proposed road improvements onto potential waters of the U.S. were created (**Appendix HH**). All road improvements are presumed workable within an area 50 feet from edge of existing pavement. A 50-foot buffer from edge of pavement was drawn at each road improvement location to create an area of potential impact to waters of the U.S. from road improvements. All potential waters of the U.S. within the areas of potential impact were identified. Acreages of potentially affected waters of the U.S. were calculated for each intersection and each section of road. Given that roadway improvement recommendations for Alternatives A-E and H are similar and given that the specific design of

improvements has not been developed, potential impacts from these improvements have been grouped together.

Potential waters of the U.S. were identified using four sources of information: National Wetlands Inventory (NWI) data, aerial photograph interpretation, previous delineations, and on-the-ground surveys. The sources of information conducted their assessments within study areas of differing scales. NWI assessed broad regions. The previous delineations assessed the Wilfred, Stony Point, and Lakeville Sites. Aerial photograph interpretation and on-the-ground surveys assessed areas within approximately 50 feet of intersections and stretches of road that were proposed for improvement. Figures in **Appendix HH** display all data collected from each source of information. Accordingly, the figures display data from each source of information at the scale of its own respective study area.

Digital NWI data within the regions surrounding the Wilfred, Stony Point, and Lakeville Sites, and all associated proposed road improvements were downloaded from the NWI website (<http://www.fws.gov/nwi/>). All areas indicated as wetland, except for farmed wetland, were included in the maps in **Appendix HH**. Areas indicated as upland (U), farmed wetlands (Pf), or farmed wetlands/ upland (Pf/U) were not included. Digital data from previous USACE-verified delineations of the Wilfred, Stony Point, and Lakeville Sites were available, and was included in the maps in **Appendix HH**. Data from these two sources of information was collected prior to on-the-ground surveys.

On-the-ground surveys were performed at all intersections, sections of roadway, and freeway on-ramps and off-ramps proposed for improvements. Surveyors walked around each intersection, photographing each corner of the intersection. Surveyors drove each stretch of road to be improved. To identify wetlands, surveyors looked for hydrophytic vegetation and indicators of wetland hydrology, including surface ponding or saturation, dry cracked soil, and sediment deposits. To identify other waters of the U.S., surveyors looked for evidence of an ordinary high water mark. Following on-the-ground surveys, aerial photographs were analyzed to identify additional wetlands or other waters of the U.S. at all intersections, sections of roadway, and freeway on-ramps and off-ramps proposed for improvements. Wetlands and other waters of the U.S. identified during on-the-ground surveys and aerial photograph interpretation were drawn onto aerial photographs. The drawings were transferred onto digital copies of the aerials.

Results

Maps identifying potential jurisdictional features are presented as **Appendix HH**. Shapes, sizes, and jurisdictional status of waters identified using on-the-ground surveys are estimated. Features that were observed included emergent wetlands, roadside ditches, and drainages. Roadside ditches were man-made laterals adjacent to roadways, sometimes containing hydrophytic

vegetation and generally not exhibiting an ordinary high water mark. Drainages were features that showed evidence of flow and exhibited an ordinary high water mark.

Alternatives A-E and H Improvements

The on-the-ground survey for the Rohnert Park area improvements was performed on May 16, 2007 by AES Biologists Sean Marquis and Jeb Bjerke. No significant rain event had occurred within one month prior to the survey. Surface ponding in seasonal wetlands was not present. Approximately 3.87 acres of potential waters of the U.S. could be impacted by the intersection improvements for Alternatives A-E and H. Improvements with possible impacts are summarized in **Table 4.11-2**. The potentially impacted waters of the U.S. are categorized as emergent wetlands or roadside ditches. Representative photographs of potential waters of the U.S. can be seen in **Appendix HH**.

TABLE 4.11-2
AREA OF POTENTIAL IMPACT OF WETLANDS AND WATERS OF THE U.S. FROM
ALTERNATIVE A-E AND H IMPROVEMENTS

Location	Types of Potentially Impacted Features	Area of Potential Impact (Acres)	Photograph Number (Appendix HH)
<i>Numbered Intersections</i>			
1 Wilfred/Stony Point	Emergent wetland, roadside ditch	0.494	1, 2, 3, 4
2 Wilfred/Primrose	Emergent wetland, roadside ditch	0.48	5, 6, 7, 8
3 Wilfred/Whistler	Emergent wetland, roadside ditch	0.696	9, 10
4 Wilfred/Langer	Roadside ditch	0.185	11, 12, 51
5 Wilfred/Labath	Roadside ditch	0.194	13, 14
6,7 Wilfred/Dowdell Wilfred/Redwood	Roadside ditch	0.248	15, 16, 17, 18
8 Redwood/Commerce	None	0	19, 20
9,10,11,12, 15 Wilfred/ US -101 SB Golf Course/Commerce Golf Course/Roberts Lake Commerce/US-101 NB Business Park/State Farm Overcrossing	Emergent wetland, roadside ditch	0.508	21, 22, 23, 24, 25, 26,27,33
13 Driveway/Stony Point	Emergent wetland, roadside ditch	0.121	28, 29, 30, 31
14 Business Park/Labath	None	0.22	32
16 Stony Point/Rohnert Park	roadside ditch	0	34, 35, 36, 37
17 Labath/Rohnert Park	None	0	38
18 Rohnert Park/Redwood	None	0	39
19 Rohnert Park/US-100 SB	None	0	40, 41, 42, 43
20 US-101 NB/Rohnert Park	None	0	44
21 Rohnert Park/Commerce	None	0	45, 46
22 Stony Point/SR-116	None	0	47, 48, 49, 50
23 Rohnert Park/Redwood	None	0	
<i>Other Improvements</i>			
Wilfred, US-101 to Stony Point (not shown in listed intersections)	Emergent wetland, roadside ditch	0.616	11, 13, 18, 51
Rohnert Park Expressway near Rancho Verde Circle	Emergent wetland, roadside ditch	0.113	54, 55
Labath/Business Park	None	0	52
Rohnert Park/Rancho Verde	None	0	53
			TOTAL: 3.87 acres

SOURCE: AES, 2008.

Alternative F Improvements

The on-the-ground survey of the Alternative F improvements was performed on June 4, 2007 by AES Biologists Sean Marquis and Jeb Bjerke. No significant rain event had occurred within one month prior to the survey. Surface ponding in seasonal wetlands was not present.

Approximately 9.37 acres of potential waters of the U.S. could be impacted by the Alternative F improvements. Improvements with possible impacts are summarized in **Table 4.11-3**. The potentially impacted waters of the U.S. are categorized as emergent wetlands, ephemeral drainages, or roadside ditches. Representative photographs of potential waters of the U.S. can be seen in **Appendix HH**.

TABLE 4.11-3
AREA OF POTENTIAL IMPACT TO WETLANDS AND WATERS OF THE U.S. FROM
ALTERNATIVE F IMPROVEMENTS

Location	Types of Potentially Impacted Features	Area of Potential Impact (Acres)	Photograph Number (Appendix HH)
<i>Numbered Intersections</i>			
1 Lakeville/SR-37	Emergent wetland, drainage	4.34	57
2 SR-29/SR-37 EB off ramp	None	0	58, 59
3 SR-29/SR-37 WB off ramp	None	0	60
4 Walnut/SR-37 EB ramps	None	0	61
5 Wilson/SR-37 EB ramps	None	0	62
6 Wilson/SR-37 WB off ramp	None	0	63
7 Lakeville/SR-116	None	0	64, 65
8 SR-116/SR-121	None	0	66, 67
9 Lakeville/Project Access	Emergent wetland	0.04	68
<i>Other Improvements</i>			
Lakeville, SR-37 to SR-116	Emergent wetland, roadside ditch	1.13	65
SR-37, Atherton to Lakeville Hwy	None	3.05	57
SR-121, SR-37 to SR-116	Emergent wetland, roadside ditch	0.81	67, 68
			TOTAL: 9.37 acres

SOURCE: AES, 2007.

Cultural Resources

The construction of the roadway improvements has the potential to disturb or destroy historical features and archaeological resources. Grading roadsides to add traffic lanes may disturb previously unknown sites. Due to prior grading of the existing roadways and occasional traffic on roadsides, it is likely that resources remaining in these areas are highly disturbed and lack integrity, thus diminishing the significance of the remaining resources.

To address potential impacts to cultural resources, cultural resource surveys may be required to comply with the California Environmental Quality Act (CEQA). 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. Mitigation may include the avoidance of resources, the preservation of key historical features, or the removal, documentation, and curation of cultural resources. Therefore, a less-than-significant indirect effect to cultural resources would result.

Socioeconomic Conditions

Construction of roadway improvements would result in short-term inconveniences and minor delays due to constricted traffic movements and possible temporarily detouring of traffic. The intersection improvements are not expected to result in long-term disruption of access to surrounding land uses or to minority or low-income populations.

The realignment and expansion of roadways would result in impacts to surrounding properties. In order to implement some improvements, land acquisition may be required. In most cases, no additional property acquisition would be required (e.g. intersection signalization); however, should it be required it would be minimal. Should land acquisition be required, the owner of the property acquired is entitled to be compensated for the fair market value of the property, as required by the Fifth Amendment of the U.S. Constitution; article I, section 19 of the California Constitution; and Sections 1263.010 – 1263.330 of the California Code of Civil Procedure. According to mitigation described in **Section 5.2.7**, the Tribe would pay the fair-share cost of traffic mitigation, including the cost of any required land acquisition. Therefore, a less than significant indirect socioeconomic impact would occur.

Public Services

Construction of the roadway improvements may require the relocation of utilities located within and near the existing roadways. These utilities include overhead electricity and telecommunication lines and underground water, stormwater, wastewater and other utility lines. 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 would be less than significant. No effects to fire or emergency medical services are expected as access to adjacent homes and businesses would be maintained during construction of the improvements.

Other Values

Construction of the proposed improvements could potentially result in noise, hazardous materials, and visual effects. Construction activities 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.

The accidental release of hazardous materials used during grading and construction activities could pose a hazard to construction employees and the environment. Additionally, equipment used during grading and construction activities could ignite dry grasses and weeds in construction areas. However, these hazards, which are common to construction activities, 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. These potential hazards are therefore considered to be less than significant.

Visual effects would occur as the result of modification and expansion of existing roadways. However, because the intersections are expected to conform to modern design standards and are expected to be landscaped to suit the settings, a less-than-significant effect would occur.

4.11.3 INDIRECT EFFECTS FROM OFF-SITE PIPELINE CONSTRUCTION

This section analyzes the effects resulting from the construction of off-site water and wastewater pipelines, as described in **Section 2.0**, and summarized below.

IMPROVEMENTS

Under Alternatives A and H, water and wastewater pipelines may be constructed to connect the Wilfred site to local water/wastewater facilities under Alternatives A and H. As noted in **Section 2.0**, local water/wastewater hookup is one of the options for water/wastewater service. The pipeline options are described in **Section 2.2**.

ENVIRONMENTAL CONSEQUENCES

Land Resources

The construction of off-site pipelines would occur primarily along existing roadways and would require an encroachment permit prior to construction. Activities would include trenching, and backfilling and re-paving to install the pipelines within the roadway. Therefore, effects to land resources would be similar to those discussed under off-site roadway improvements, except the effects would be somewhat lessened because the roadways/intersections would not require extension. Instead, disturbances would occur largely within already disturbed roadways. A less-than-significant indirect effect to land resources would result.

Water Resources

Effects to water resources would be similar to those discussed under off-site roadway improvements, except the effects would be lessened because the roadways/intersections would

not be extended. Instead, disturbances would occur largely within currently disturbed roadways. New impervious surfaces and therefore additional pollutant runoff would not occur. Thus, a less-than-significant indirect effect to water resources would result.

Air Quality

Installation of water and wastewater pipelines 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 would be limited in scope and duration. Thus a less-than-significant indirect effect would result. In addition, mitigation measures are typically required by local jurisdictions to reduce construction emissions, often in conjunction with required CEQA review. These include watering the exposed soil to reduce dust, reducing speeds on unpaved roads to 15 miles per hour, and properly maintaining equipment.

Biological Resources

Pipeline construction would be conducted adjacent to a new pipeline constructed by the City of Rohnert Park. Impacts to biological resources from off-site pipeline construction would be similar to those described in the City of Rohnert Park's Mitigated Negative Declaration (MND; Winzler and Kelley, 2004) for the City's new pipeline. Pipeline construction could result in temporary impacts to wetlands, which could impact CTS breeding habitat if conducted during the wet season of an above-normal rainfall year.

Whenever Federal funding is involved or a USACE or other federal agency permit is required for any road or pipeline construction project with a potential to affect federally-listed species, a separate Section 7 consultation is required. Impacts to wetlands from pipeline construction would require a USACE permit. A separate Section 7 consultation will, therefore, be required for pipeline installation. Mitigation will be developed in coordination with USFWS during the Section 7 consultation for the pipeline construction project.

Cultural Resources

The pipeline construction has the potential to disturb or destroy historical features and archaeological resources. Previously unknown sites may be disturbed due to grading and trenching activities. It is unlikely that any remaining unknown resources of a high quality exist in the project area due to previous grading activities and the occasional roadside traffic in the region.

To address potential impacts to cultural resources, cultural resource surveys may be required to comply with CEQA. 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. Mitigation may include the avoidance of resources, the preservation of key historical features, or the removal, documentation, and curation of cultural resources. Therefore, a less than significant indirect effect to cultural resources would result.

Socioeconomic Conditions

Effects to socioeconomic conditions from construction of pipelines would be very similar to the effects noted above to construction of roadway improvements. These effects are primarily limited to temporary inconvenience due to construction and would not result in a significant indirect effect to socioeconomic conditions.

Land Use

Construction of the pipelines would require utility easements which would limit future construction. An easement is defined as a legal right, privilege or interest limited to a specific purpose which one party has in the land of another. Underground utility easements are typically laid out as corridors of sufficient width to give some latitude in locating the actual utility line, and to permit sufficient room for periodic inspection, repair and maintenance. Underground utility easements typically prohibit the construction of building improvements, but may permit the construction of non-structural improvements, such as paved surface parking or landscaping. The pipelines would be constructed to follow public roads and would not be in an area where a building would normally be built or where an agricultural field would be plowed. Therefore, less than significant indirect impacts to land uses would occur.

Agriculture

Agricultural fields usually include a buffer between the crops and public thoroughways. As previously discussed under Section 4.2 *Land Use*, the pipelines would be located underneath or within close proximity to public roads. The pipelines are not expected to extend past this buffer area, and would therefore not affect agricultural practices. Therefore, no significant indirect impact to agriculture would occur.

Public Services

As with traffic improvements, the extension of water and wastewater lines could result in a temporary break of public services 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. Therefore, no significant indirect impacts would occur to public services

Other Values

As with off-site traffic improvements, construction of the proposed pipelines could potentially result in noise and hazardous materials impacts. Construction activities would result in short-term increases to 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 would occur.

The accidental release of hazardous materials used during construction activities could pose a hazard to construction employees and the environment. Equipment used during construction activities could ignite dry grasses and weeds in construction areas. However, these hazards, which are common to construction activities, would be minimized with adherence to Best Management Practices (BMPs) that would be contained within a SWPPP that would be filed with the EPA or RWQCB. These BMPs include refueling in designated areas, storing hazardous materials in approved containers, and clearing dried vegetation. With adherence to the SWPPP, potential hazards are considered to be less than significant.

Because the proposed water and wastewater lines would be constructed below ground, visual indirect effects would be less than significant.