

SECTION 5.0

MITIGATION AND IMPROVEMENT MEASURES

5.1 INTRODUCTION

The Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations require that mitigation measures be developed for all of a proposal's impacts on the environment where it is feasible to do so (CEQ 46 Fed. Reg. 18026, 19a; 40 CFR Sections 1502.14(f) and 1502.16(h)). The California Environmental Quality Act (CEQA) requires that a lead agency neither approve nor carry out a project as proposed unless the significant environmental effects have been mitigated to an acceptable level, or unless specific findings are made attesting to the infeasibility of altering the project to reduce or avoid environmental impacts (CEQA *Guidelines* Sections 15091 and 15092). The CEQA *Guidelines* (Sections 15370) 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 impacted environment, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and compensating for the impact by replacing or providing substitute resources or environments.”

These principles have been applied to guide design and siting criteria for the alternatives. Where potential impacts on the environment were identified in the early stages of project design and Environmental Impact Statement / Environmental Impact Report (EIS/EIR) preparation, appropriate changes in the project description were made to minimize or eliminate them. Other applications of mitigation have been incorporated into the design of the alternatives and have been mentioned throughout the EIS/EIR. In addition to the mitigation measures that have been incorporated into the design of the alternatives, the following section provides measures to mitigate specific impacts identified in the preparation of the EIS/EIR. Mitigation measures have been identified where feasible to address specific impacts regardless of whether they are considered “significant.” *Improvement measures* are recommended throughout this section as a means of further lessening environmental impacts in the absence of exceedances of explicit significance thresholds. Mitigation and improvement measures adopted by the City of Richmond as conditions of approval for the Proposed Project would be included in a Mitigation Monitoring Program (Program) to verify compliance. The Program would also identify the party responsible for implementing and monitoring each mitigation measure (State Public Resources Code Section 21081.6).

5.2 MITIGATION AND IMPROVEMENT MEASURES

5.2.1 GEOLOGY AND SOILS

The following mitigation measures are proposed for Alternatives A, B, C, D and E:

- 1-1** To eliminate potential impacts resulting from excessive erosion and loss of topsoil, the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (General Permit) would be complied with, including implementation of appropriate erosion control measures. Compliance with the General Permit requires developing a site specific Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall identify the location of temporary erosion control features necessary to direct and filter stormwater runoff during construction activities. Temporary erosion control features used during construction may include, but are not limited to, silt fences, fiber rolls, erosion control blankets, temporary sediment basins, and rock bag dams. The SWPPP shall also include Best Management Practices (BMPs) that would reduce the transportation of pollutants off-site. Compliance with the City's Grading Ordinance, or functional equivalent, would also require a SWPPP. In addition to a SWPPP, the Grading Ordinance requires a grading and drainage study to be developed for each alternative to which an Erosion Control Plan (ECP) would be incorporated. The ECP would have to be approved by the City for construction on fee lands. The ECP would identify permanent erosion control BMPs and permanent project features that would limit erosion and sediment-laden stormwater from leaving the site. The location of permanent erosion control features such as sediment/grease traps, vegetated drainage swales, and riprap shall be identified within the ECP. The ECP would also specify compliance standards, procedural requirements, regulatory compliance requirements, and implementation timeframe requirements. The ECP shall be implemented during the construction and operation of each alternative.
- 1-2** To prevent the loss of life or property as a result of development on unstable or expansive soils the following measures shall be implemented. Prior to construction of any new buildings or parking structures, a registered geologist shall prepare a final geotechnical report to ensure that on-site soils are suitable for the selected alternative. The geologist shall employ geotechnical/soils laboratory testing according to standard engineering practices and the California Building Code (CBC). If contaminated, expansive, and/or unsuitable materials are in building areas, such soils shall be properly disposed of and replaced with suitable materials.

1-3 For project components located on fee lands (residential component of Alternative B and all of Alternative D), all structures shall be designed in compliance with the 2007 CBC and 2008 City of Richmond (COR) Building Code (Article VI Chapter 6.04) such that risks to the health or safety of workers or members of the public are reduced. Specifically, Chapter 16 of the 2007 CBC and the American Society of Civil Engineers (ASCE) Standard 7-05 Minimum Design Loads for Buildings and Other Structures shall be adhered to. Chapter 16 of the 2007 CBC addresses structural design requirements for buildings and other structures (including hazardous materials storage facilities) that are consistent with rational analyses and well-established principles of mechanics. In this regard, the 2007 CBC design requirements shall apply to all new structures built on the project site. The Winehaven buildings and any other existing on-site buildings included under each alternative shall be retrofitted to appropriate building standards to reduce the risk of collapse during strong seismic events.

For trust lands, the Tribe shall adopt and implement a Building Code that is the functional equivalent of the most recent CBC (Chapter 16) as amended by the City of Richmond, COR Building Code (Article VI Chapter 6.04), and ASCE Standard 7-05. Appropriate building standards within the Federal Emergency Management Agency (FEMA) National Earthquake Hazards Reduction Program (NEHRP) shall be implemented for the rehabilitation and retrofitting of existing historic buildings.

5.2.2 HYDROLOGY AND WATER QUALITY

SURFACE WATER QUALITY

The following mitigation measures are proposed for Alternatives A, B, C, D and E:

- 2-1** In compliance with the Clean Water Act (CWA), a SWPPP shall be prepared that addresses water quality impacts associated with construction and operation of the project. Water quality control measures identified in the SWPPP shall include, but not be limited to, the following list:
- a. Existing vegetation shall be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.
 - b. Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary revegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas during the wet season.

- c. No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months.
- d. Construction area entrances and exits shall be stabilized with crushed aggregate.
- e. Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.
- f. A spill prevention and countermeasure plan shall be developed, which identifies proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site.
- g. Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the Clean Water Act (33 USC § 1251 to 1387).
- h. During the wet season, construction materials, including topsoil and chemicals shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater.
- i. Fuel and vehicle maintenance areas shall be established away from all drainage courses and designed to control runoff.
- j. Sanitary facilities shall be provided for construction workers.
- k. Disposal facilities shall be provided for soil wastes, including excess asphalt during construction and demolition.
- l. The Tribe shall require all workers be trained in the proper handling, use, cleanup, and disposal of all chemical materials used during construction activities and provide appropriate facilities to store and isolate contaminants.
- m. The Tribe shall require all contractors involved in the project be trained on the potential environmental damages resulting from soil erosion prior to development by conducting a pre-construction conference. Copies of the project's erosion control plan shall be distributed at this time. All construction bid packages, contracts, plans, and specifications shall contain language that requires adherence to the plan.
- n. Construction activities shall be scheduled to minimize land disturbance during peak runoff periods. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff.
- o. Creating construction zones and grading only one area or part of a construction zone at a time shall minimize exposed areas. If possible during the wet season, grading on a particular zone shall be delayed until protective cover is restored on the previously graded zone.

- p. Utility installations and decommissioning shall be coordinated to limit the number of excavations.
- q. Preserving as much natural cover, topography, and drainage as possible shall protect disturbed soils from rainfall during construction. Trees and shrubs shall not be removed unnecessarily.
- r. Disturbed areas shall be stabilized as promptly as possible, especially on long or steep slopes. Recommended plant materials and mulches shall be used to establish protective ground cover. Vegetation such as fast-growing annual and perennial grasses shall be used to shield and bind the soil. Mulches and artificial binders shall be used until vegetation is established. Where truck traffic is frequent, gravel approaches shall be used to reduce soil compaction and limit the tracking of sediment.
- s. Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, use of permeable paving surfaces or similar measures shall be used to reduce runoff velocity and erosion.
- t. Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out.
- u. Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.
- v. Encountered groundwater shall be disposed of at an appropriately permitted facility such as a WWTP in accordance with the requirements of the NPDES permit.

2-2 For project components located on fee lands (residential component of Alternative B and all of Alternative D), the Tribe shall apply for a grading permit from the City for construction activities in compliance with Chapter 12.44 Excavation, Grading and Earthwork Construction of the City of Richmond (City) Municipal Code. Furthermore, the Tribe shall have an Erosion and Sediment Control Plan prepared by a licensed civil engineer for lands that are to remain in fee status.

For trust lands, the Tribe would adopt and implement a Grading Ordinance equivalent to the requirements of the City's grading permit (Chapter 12.44 Excavation, Grading and Earthwork Construction).

- 2-3** The Tribe shall develop a design-grade Stormwater Control Plan in compliance with the City's Municipal Code 12.22.050, required during submission for the permit to construct for project components on fee lands. The Code requires the Stormwater Control Plan to include the provisions outlined within the most current version of Contra Costa County's Stormwater Quality C.3 Guidelines (C.3 Guidelines). The Stormwater Control Plan shall include final design specifications as required and therefore will be developed at the time the application for development is made. The Stormwater Control Plan shall include all the provisions of the most current C.3 Guidelines.

5.2.3 AIR QUALITY

CONSTRUCTION EMISSIONS

Mitigation Measures

The following mitigation measures are proposed to reduce criteria pollutants for Alternative A, B, C, and D:

- 3-1** Water all active construction areas at least three times daily during dry weather.
- 3-2** Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- 3-3** Pave or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- 3-4** Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- 3-5** Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- 3-6** Hydroseed or apply (non-toxic) soil stabilizes to inactive construction areas (previously graded areas inactive for ten days or more).
- 3-7** Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- 3-8** Limit traffic speeds on unpaved roads to 15 miles per hour.

- 3-9 Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- 3-10 Replant vegetation in disturbed areas as quickly as possible.
- 3-11 Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- 3-12 Install windbreaks, or plant trees/vegetative windbreaks at windward side(s) of construction areas.
- 3-13 Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 miles per hour.
- 3-14 Limit the area subject to excavation, grading and other construction activity at any one time.
- 3-15 Heavy, diesel-powered equipment idling shall be limited to two minutes.
- 3-16 The Tribe shall fully fund a program to encourage and facilitate the use of ‘carpools’ by construction workers.

OPERATIONAL EMISSIONS

Mitigation Measures

Implementation of the mitigation measures provided below would result in a *less-than-significant* impact due to the emission of criteria pollutants for Alternatives A through D.

- 3-17 Implementation of the following mitigation measures would further reduce criteria pollutants by 11 percent under the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, 1999 (**Appendix W**).
 - a. The Tribe shall coordinate with regional ridesharing organizations, provide employee and customer access to guaranteed ride home programs, and fully fund measures such as carpool/vanpool subsidies and preferential parking for carpools and vanpools. This BAAQMD mitigation measure would reduce criteria pollutants by two percent (BAAQMD, 1999).
 - b. The Tribe shall provide and fully fund the following on-site transit use incentives for employees: construct transit facilities such as bus turnouts, bus bulbs, benches, bus shelters, and landscaping at transit stops. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one percent (BAAQMD, 1999).

- c. The Tribe shall design and locate buildings for easy access to public transportation. This BAAQMD mitigation measure would reduce projects emissions by 0.5 percent (BAAQMD, 1999).
- d. The Tribe shall provide and fully fund shuttle service to transit stations/multimodal centers. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by two percent (BAAQMD, 1999).
- e. The Tribe shall provide and fully fund sidewalks and/or paths, connected to adjacent land uses, transit stops, and/or community-wide network. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one percent (BAAQMD, 1999).
- f. The Tribe shall provide and fully fund showers and lockers for employees bicycling or walking to work. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one and a half percent (BAAQMD, 1999).
- g. The Tribe shall provide and fully fund adequate and secure short-term bicycle parking for retail customers and other non-commute trips. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one percent (BAAQMD, 1999).
- h. The Tribe shall provide and fully fund safe, attractive pedestrian access from project to transit stops and adjacent developments. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one percent (BAAQMD, 1999).
- i. The Tribe will provide and fully fund secure, weather-protected bicycle parking for employees. This BAAQMD mitigation measure would reduce emissions of criteria pollutants by one percent (BAAQMD, 1999).

3-18 Implementation of the following mitigation measures would reduce criteria pollutants from Alternatives A and C by 17 percent and Alternatives B and D by 23 percent under the Sacramento Municipal Air Quality Management District's (SMAQMD) *Recommended Guidance for Land Use Emission Reductions*, 2007 (**Appendix W**). The SMAQMD provides reduction percentages for mitigation measures, which quantify reductions for criteria pollutants. These proposed mitigation measures are standard project mitigation measures that are applicable in most air districts.

- a. The Tribe shall plant trees near structures. Trees near structures act as insulators from weather thereby decreasing energy requirements. A one

percent reduction in criteria pollutant would occur with the implementation of this mitigation measure.

- b. Alternatives B and D provide residential clustering, which preserves forest/woodland resources, while preserving and restoring open space. A five percent reduction in criteria pollutant would occur with the implementation of this mitigation measure/design feature.
- c. The Tribe shall ensure the use of solar, low-emission, central, or tank less water heaters and install wall insulation and use energy efficient appliances in the residences, hotel, and casino that shall exceed Title 24 requirements. A one percent reduction in criteria pollutant would occur with the implementation of this mitigation measure.
- d. The Tribe shall implement Smart Land Use strategies including: mixed-use development, which would reduce vehicle trips and promote efficient delivery of services and goods, and would include travel demand management measures. A four percent reduction in criteria pollutants would occur with the implementation of this mitigation measure.
- e. The Tribe shall, in cooperation with the City of Richmond, coordinate traffic lights at controlled intersections so that traffic passes more efficiently through congested areas. A three percent reduction in criteria pollutants would occur with the implementation of this mitigation measure.
- f. The Tribe shall encourage the use of public transit systems by enhancing safety and cleanliness at transit stops. In cooperation with the City of Richmond, the Tribe shall provide new transit stops along Western Drive as needed. A one percent reduction in criteria pollutants would occur with the implementation of this mitigation measure.
- g. The Proposed Project would be located within one-half mile of an existing/planned Class I or Class II bike lane. A one percent reduction in criteria pollutants would occur with the implementation of this mitigation measure.
- h. The project design would contain (either on-site or off-site) three of the following within one-quarter mile: residential development (Alternatives B and D), retail development, park, open space, and office. A three percent reduction in criteria pollutants would occur with the implementation of this design feature.
- i. The Tribe shall provide a complimentary electric lawnmower to each residential buyer (Alternative B and D only). A one percent reduction in

criteria pollutants would occur with the implementation of this mitigation measure.

- j. Project design shall not incorporate fireplaces or wood burning stoves. A one percent reduction in criteria pollutants would occur with the implementation of this mitigation measure.
- k. The Tribe shall provide an on-site, renewable energy system by installing a solar array. A two percent reduction in criteria pollutants would occur with the implementation of this mitigation measure/design feature.

3-19 One or more of the following measures shall be implemented in an effort to reduce nitrogen oxides (NO_x), reactive organic gases (ROG), and particulate matter (PM₁₀) emissions to less than 15 tons per year (tpy).

- a. Pave or resurface unpaved or “poor” roadway(s) (as defined in the *Pavement Management Program Report*, City of Richmond, 2008), which have a minimum daily vehicle count of 100 vehicles.
- b. Purchase low emission buses to replace aging buses used in the City of Richmond, Contra Costa County, and/or regional school districts.
- c. Purchase new hybrid vehicles to replace the City of Richmond’s aging fleet.
- d. Purchase Emission Reduction Credits that are available from sources within the San Francisco Bay Area Air Basin (SFBAAB).
- e. Contribute a fair share percentage to the synchronization of traffic signals within the City of Richmond.
- f. Contribute to a program to retrofit residential fireplaces that do not meet USEPA certification standards within the San Francisco Bay Area Air Basin.

Table 5-1 presents criteria pollutant emissions from each alternative, as well as reductions in emissions from **Mitigation Measures 3-17** and **3-18**. The table also quantifies reductions required from **Mitigation Measure 3-19** to reduce emissions below BAAQMD CEQA thresholds, after **Mitigation Measures 3-17** and **3-18** are applied.

Implementation of the Mitigation Measures provided below would further reduce the emission of criteria pollutants for Alternatives A, B, C, and D.

TABLE 5-1
ESTIMATED EMISSIONS AND MITIGATION REDUCTIONS.

Alternative	Near Term			Cumulative		
	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀
	tons per year (tpy)			tons per year (tpy)		
A						
Unmitigated Emissions	39.73	72.19	94.54	20.47	29.95	94.21
<i>URBEMIS Mitigation</i>	2.52	3.14	2.44	2.86	4.23	2.42
Mitigated Emissions	38.74	70.26	92.24	19.89	28.91	91.93
11 % Reduction (MM.3-17)	4.26	7.73	10.15	2.19	3.18	10.11
17 % Reduction (MM 3-18)	6.59	11.94	15.68	3.38	4.91	15.63
Mitigated Emissions	27.89	50.59	66.41	14.32	20.82	66.19
Balance to be reduced by MM 3-19	12.89	35.59	51.41	0	5.82	51.19
B						
Unmitigated Emissions	45.93	75.48	98.11	25.89	33.01	100.84
<i>URBEMIS Mitigation</i>	2.84	3.94	3.04	2.88	5.10	3.05
Mitigated Emissions	44.64	72.93	95.14	25.15	31.60	100.68
11 % Reduction (MM 3-17)	4.86	6.84	10.45	2.77	3.48	11.07
23 % Reduction (MM 3-18)	10.27	16.77	21.88	5.78	7.27	23.16
Mitigated Emissions	29.51	49.32	62.81	16.60	20.85	66.45
Balance to be reduced by MM 3-19	14.51	34.32	47.81	1.60	5.85	51.45
C						
Unmitigated Emissions	23.02	46.65	56.01	11.88	19.71	56.92
<i>URBEMIS Mitigation</i>	2.48	2.95	2.43	2.83	3.76	2.41
Mitigated Emissions	22.46	45.59	54.65	11.55	19.17	55.55
11 % Reduction (MM 3-17)	2.47	5.01	6.01	1.27	2.11	6.11
17 % Reduction (MM 3-18)	3.82	7.75	9.29	1.96	3.26	9.44
Mitigated Emissions	16.17	32.82	39.35	8.32	13.80	40.00
Balance to be reduced by MM 3-19	1.17	17.82	24.35	0.00	0.00	25.00
D						
Unmitigated Emissions	27.55	33.04	39.51	19.47	14.90	39.35
<i>URBEMIS Mitigation</i>	0.88	3.11	1.07	0.77	5.65	1.09
Mitigated Emissions	27.31	32.18	39.08	19.32	14.21	38.92
11 % Reduction (MM 3-17)	3.00	3.54	4.30	2.13	1.56	4.28
23 % Reduction (MM 3-18)	4.64	5.47	6.64	3.28	2.42	6.62
Mitigated Emissions	19.66	23.17	28.14	13.91	10.23	28.02
Balance to be reduced by MM 3-19	4.66	8.17	13.14	0.00	0.00	13.02

Source: URBEMIS, 2007.

3-20 The Tribe shall fund and implement travel demand management (TDM) measures. Measures shall include, but may not be limited to, the following:

- a. Designation of an on-site TDM coordinator.
- b. The Tribe shall participate in the EPA's Best Workplaces for Commuters Program (<http://www.bestworkplaces.org/index.htm>).

- c. The Tribe shall provide transit passes (free or subsidized) and transit schedule information to employees.
- d. The Tribe shall provide a curbside covered and lighted passenger waiting area on-site.
- e. The Tribe shall provide ample covered bicycle parking at commercial areas and parks.
- f. Buses serving the project site shall be equipped with bicycle racks.
- g. The Tribe shall consider bicycle and pedestrian circulation in the design of intersections and turning movements, and adequate sidewalk facilities, striped crosswalks, and pedestrian countdown signals.
- h. The Tribe shall assist in funding the improvements necessary to connect the Bay Trail south of I-580 to the proposed segment north of the freeway.
- i. A free or reduced parking fee and preferentially located parking spaces shall be provided for carpools (three or more passengers) or vanpools at the project site to encourage ridesharing.
- j. The Tribe shall sponsor charter buses from various destinations around the Bay Area.
- k. The Tribe shall provide and fund a shuttle between the project site and one or more transit hubs in the local area.

3-21 Buses and other commercial diesel-fueled vehicles shall comply with the California Air Resource Board's (CARB) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485), which requires that the driver of any diesel bus shall not idle for more than five minutes at any location, except in the case of passenger boarding where a ten minute limit is imposed, or when passengers are onboard. Furthermore, the Tribe shall provide a "Drivers Lounge" for bus and truck drivers to discourage idling.

3-22 The Tribe shall work with AC Transit to expand its current service and contribute funds and supplement operating expenses to implement the following:

- Bus and/or shuttle schedules tied to the timing of employee shifts; and
- New routes to serve employee population centers around the project site.

3-23 In coordination with the regional transportation agencies, such as AC Transit, Golden Gate Transit, and Bay Area Rapid Transit (BART) rail, the Tribe shall provide funding for the

following to support regularly-scheduled community transit or shuttle service to and from the nearest mutually-acceptable major transit node:

- a. Transit shelter benches,
- b. Street lighting,
- c. Route signs and display, and
- d. Bus turnouts.

3-24 The Tribe shall maintain all company vehicles to manufacturer's specifications.

3-25 The Tribe shall implement and fund the following mitigation measures used in the URBEMIS air quality modeling program:

- The Tribe shall provide building energy savings 20 percent beyond Title 24 requirements.
- The Tribe shall use 20 percent electric landscape maintenance equipment.
- The Tribe shall use low VOC emitting architectural coatings on commercial and residential buildings.

CLIMATE CHANGE

Mitigation Measures

Table 5-2 demonstrates compliance with the State's reduction goals. Implementation of the mitigation measures below and outlined in **Table 5-2** would result in a *less-than-significant* cumulative impact due to GHG emissions for all alternatives.

3-26 Implementation of **Mitigation Measure 3-21** would reduce diesel idling.

3-27 A Solid Waste Management Plan (SWMP) shall be adopted by the Tribe that addresses recycling and solid waste reduction on-site. The plan shall have at least a 50 percent diversion goal, which includes reduction, recycling, and reuse measures.

3-28 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.

TABLE 5-2
COMPLIANCE WITH STATE EMISSIONS REDUCTION STRATEGIES

Exec Order S-3-05 / AB 32 Strategy	Project Design / Mitigation Measure Compliance
Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Project would be in compliance after implementation of Mitigation Measure 3-24 .
Achieve 50 percent statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	Project would be in compliance after implementation of Mitigation Measure 3-25 .
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions	Project would be in compliance after implementation of Mitigation Measure 3-26 .

Source: State of California, Environmental Protection Agency, and Climate Action Team, 2006

Improvement Measures

The following improvement measures, when implemented in combination with proactive components of the Proposed Project described in **Section 2.0**, would further reduce potential impacts related to emission of GHGs. These improvement measures also demonstrate consistency with the Attorney General's Proposed Global Warming Mitigation Measures (2007) (Office of the California Attorney General, 2007).

- 3-29** The Tribe shall plant trees and other carbon-sequestering vegetation on-site. The addition of photosynthesizing plants would reduce atmospheric carbon dioxide (CO₂) because plants use CO₂ for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the buildings, reducing heat absorption and the need for air conditioning.
- 3-30** The Tribe shall use environmentally preferable materials to the extent practical for construction of facilities.
- 3-31** The Tribe shall require the use of energy efficient lighting, which would reduce indirect GHG emissions. Using energy efficient lighting would reduce the project's energy usage, thus, reducing the projects indirect GHG emissions.
- 3-32** The Tribe shall install a living roof on the conference center. Living roofs reduce GHG emissions in two ways. First, a living roof would sequester carbon through the planting of

- vegetation. Second, a living roof reduces energy used for heating and cools the interior of a building.
- 3-33** The Tribe shall provide recycling bins in accessible areas on the project site. Recycling reduces GHG emissions from indirect energy use, landfills, and manufacturing of raw materials.
- 3-34** The Tribe shall institute and fund an on-site waste composting program. Waste composting reduces GHG emissions from landfills.
- 3-35** The Tribe shall make use of on-site renewable energy and co-generation. Generation of renewable energy and co-generation would reduce indirect GHG emissions.
- 3-36** The Tribe shall incorporate advanced lighting design, including daylighting, where feasible. Advanced lighting design and day lighting would reduce project related GHG emissions by reducing electrical energy usage.
- 3-37** The Tribe shall use an energy-efficient key card building system, which turns off lights as guests leave their hotel rooms. The use of an energy-efficient key card building system would reduce project related GHG emissions by reducing electrical energy usage.
- 3-38** The Tribe shall install photovoltaic panels on the parking garages, along portions of the project site roadways, along the pier, and on various buildings. Photovoltaic panels would reduce project related GHG emissions by reducing electrical energy usage.
- 3-39** The Tribe shall use solar hot water heaters where feasible. The use of solar hot water heaters would reduce project related GHG emissions by reducing electrical energy usage.
- 3-40** The Tribe shall install a gray water treatment system. The treated water from the plant would be used for landscape irrigation. There would be a minimum of 40 percent savings of water used in landscape irrigation, which would reduce water and energy usage.
- 3-41** The Tribe shall fund a program or contribute to an existing program that would assist in weatherizing area homes. Retrofitting area homes would reduce GHG emission by reducing energy usage.
- 3-42** The Tribe shall participate in the Pacific Gas and Electric (PG&E) company's ClimateSmart program. The ClimateSmart program allows the Tribe to contribute a set amount of money each month to PG&E's development of green energy. The program is based on energy usage and would reduce GHG emissions from indirect sources.

- 3-43 The Tribe shall consider purchasing carbon credits under a cap and trade program to reduce the project's carbon footprint.
- 3-44 The Tribe shall implement **Mitigation Measures 3-17, 3-18, 3-20, 3-21, and 3-24** to further reduce GHG emission from project related sources.

INDOOR AIR QUALITY

The following mitigation measures are recommended for Alternatives A, B, C, D, E, and F:

- 3-45 The Tribe shall ensure that ventilation of air is consistent with ASHRAE Standard 62-1999 under all operating conditions.
- 3-46 To limit public exposure to environmental tobacco smoke, the Tribe shall provide non-smoking areas, or "smoke-free zones" in the casino gaming area.
- 3-47 Signage shall be prominently displayed alerting patrons and employees of areas that permit smoking, noting that environmental tobacco smoke has been found to be deleterious to health, and noting the availability of a brochure(s) describing the health effects of exposure environmental tobacco smoke.
- 3-48 A brochure(s) describing the health effects of exposure to environmental tobacco smoke shall be made available to casino patrons in common areas that permit smoking.
- 3-49 Prospective employees shall be informed, prior to their hire that indoor smoking is permitted in portions of the buildings where they may be employed.
- 3-50 Prospective employees shall be given a brochure(s) describing the health effects of exposure to environmental tobacco smoke.
- 3-51 The Tribe shall ensure that significant expected sources of pollutant emissions are isolated from occupants using physical barriers, exhausts, and pressure controls. Non-smoking areas shall be located upwind (relative to the direction of building exhaust flow) from those areas that permit smoking.
- 3-52 The Tribe shall ensure that outdoor air entering the building is protected from contamination from local outdoor sources and from building exhausts and sanitation vents.
- 3-53 The Tribe shall ensure that provisions are made for easy access to HVAC equipment requiring periodic maintenance.

5.2.4 BIOLOGICAL RESOURCES

HABITATS

The following mitigation measures are recommended for Alternative A, B, C, D, and E.

- 4-1** Habitat mitigation shall be accomplished by a combined 2:1 replacement/restoration ratio, when appropriate. Replacement/restoration at this ratio is appropriate mitigation for annual grassland and coastal scrub habitats. For every acre of habitat impacted (e.g., coastal scrub), an acre of equivalent habitat type (e.g., coastal scrub) on-site shall be placed into an open space preserve that includes a permanent conservation easement protecting the total area of open space in perpetuity. Open space preserves shall be fenced with post and cable fencing to deter trespassing within the preserves. Boundary signs shall also be installed at appropriately spaced intervals along the perimeter of the preserves to delineate the boundaries of the preserves and discourage trespassing. The boundary signs shall read “Protected Habitat, No Trespassing.” In addition to open space preservation, not less than a 1:1 ratio shall be restored (i.e., converted) into the equivalent impacted habitat type. The non-native, on-site habitats (e.g., eucalyptus woodland, invasive scrub, and/or landscape plantings) on-site shall be the habitat areas used for restoration. Once the habitat restoration is achieved, post and cable fencing and boundary signs shall be installed (as mentioned above), along the perimeters of all the restoration areas to discourage trespassing. **Table 5-3** below summarizes the mitigation replacement/restoration ratios required for native habitat mitigation when appropriate.
- 4-2** The on-site, mixed riparian habitat shall be avoided to the maximum extent feasible. Each alternative shall be amended and reconfigured to the maximum extent feasible such that avoidance of the on-site, mixed riparian habitat is accomplished.
- 4-3** Setbacks of 50 feet shall be established (i.e., staked) around all areas of mixed riparian habitat. Prior to the onset of development activities, high visibility fencing shall be installed to delineate the riparian setbacks. A qualified biologist shall be present during development activities that ensue within the vicinity of the fenced riparian setbacks. The qualified biologist shall act as a construction monitor to ensure the fencing remains intact and that construction activities do not penetrate these avoidance buffers. Future development shall not occur within the riparian setbacks once established.

TABLE 5-3
HABITAT MITIGATION REQUIREMENTS

	Habitat Type	Acreages Impacted	Preservation Required	Restoration Required	Total Habitat Mitigation Required
Alternative A	Annual Grassland	0.56	0.56	0.56	1.12
	Coastal Scrub	2.61	2.61	2.61	5.22
Alternative B	Annual Grassland	6.74	6.74	6.74	13.48
	Coastal Scrub	0.59	0.59	0.59	1.18
Alternative C	Annual Grassland	0.84	0.84	0.84	1.68
	Coastal Scrub	1.30	1.30	1.30	2.60
Alternative D	Annual Grassland	7.54	7.54	7.54	15.08
	Coastal Scrub	13.27	13.27	13.27	26.54

Source: AES, 2008

- 4-4** If complete avoidance of mixed riparian habitat is not feasible and/or the project design cannot be reconfigured to avoid the mixed riparian habitat areas on-site, a Lake or Streambed Alteration Agreement (Fish & Game Code Section 1600 et seq.) shall be obtained from the California Department of Fish and Game (CDFG) and habitat replacement ratios defined within the permit conditions shall be implemented for development on fee lands. Typical section 1600-permit mitigation occurs at a 3:1 ratio (acres created versus impacted), though individual permit conditions may vary.
- 4-5** The beach strand habitat on-site shall be completely avoided to the maximum extent feasible. Replacement/restoration is not appropriate for this habitat type due to its inherent intrinsic value, role as habitat for plant and wildlife species (including special-status species), increasing threats by development, and its currently limited distribution within the region. Under the current project description, total avoidance of beach strand habitat is

accomplished. To assure avoidance and avoid impacts to the beach strand habitat on-site (and Bay Conservation and Development Commission [BCDC] jurisdictional areas), the existing roadways shall be used to the degree feasible. Improvement of the existing roadways may be implemented as necessary, but no new roadways shall be built in the vicinity of the beach strand habitat on-site.

- 4-6** Setbacks shall be established (i.e., staked) around all areas of beach strand habitat within the footprint and vicinity of project development. Prior to the onset of development activities, high visibility fencing shall be installed to delineate the beach strand setbacks. A qualified biologist shall be present during any and all development activities that ensue within the vicinity of the fenced beach strand setbacks. A qualified biologist shall act as a construction monitor to ensure the fencing remains intact and that construction activities do not penetrate these setback buffers. If complete avoidance is not feasible, consultation with BCDC would need to be initiated. Any impacts to beach strand habitat would require explicit approval by BCDC and conditions for such impacts would be specified within a permit, if applicable.
- 4-7** The tidal marsh habitat on-site shall be completely avoided. A setback of 50 feet shall be established around the tidal marsh habitat on-site as a means of preventing any impacts to it from development. The 50-foot setback buffer shall be approved by the BCDC through consultation. The exact width of the tidal marsh setback shall likely be a specified condition of the BCDC permit(s). The location of the Bay Trail in each of the alternatives should be amended and reconfigured, if necessary, such that the 50-foot tidal marsh setback is accommodated and maintained. Prior to the onset of development activities, high visibility fencing shall be installed to delineate the tidal marsh setback. A qualified biologist shall be present during any and all development activities that ensue within the vicinity of the fenced tidal marsh setback. The qualified biologist shall act as a construction monitor to ensure the fencing remains intact and that construction activities do not penetrate this setback buffer.
- 4-8** The eelgrass bed habitat on-site shall be completely avoided during construction and operation of the Proposed Project. Specifically, ferries servicing the retrofitted pier shall not come within 100 feet of the eel grass bed habitat. Based on the current project description, total avoidance of eelgrass bed habitat is accomplished because only the existing pier shall be utilized and the total surface area of the pier shall not be increased. Improvement of the existing pier may be implemented as necessary, but no new piers and/or structures shall be built in the vicinity of the eelgrass bed habitat on-site. All activities associated with the pier reuse shall be approved by the BCDC through

consultation, and specific parameters associated with the pier reuse will likely be specified conditions of the BCDC permit(s).

- 4-9** To assure that the suggested habitat mitigation is implemented and achieved, a comprehensive Vegetation Management Plan (VMP) for the site shall be prepared by a qualified and regionally affiliated vegetation ecologist/restoration specialist. The VMP shall be divided into five components: Open Space Habitat Preserves, Open Space Restoration Preserves, Invasive Plant Species Management, Parkland Management, and Wildfire Prevention. For each of the five components, the VMP shall outline the specific goals of mitigation, describe detailed logistics and instructions for implementation of the specified goals, determine appropriate monitoring regimes and reporting requirements, establish success criteria, and devise an adaptive management strategy to ensure the goals of mitigation are achieved in perpetuity.

WETLANDS AND OTHER WATERS OF THE U.S.

- 4-10** The proposed development shall avoid filling of wetlands and other waters of the U.S. to prevent impacts to these features entirely, if feasible. Each alternative shall be amended and reconfigured, if necessary, such that avoidance of wetlands and/or waters of the U.S. is accomplished to the maximum extent feasible. Setbacks of 50 feet shall be established around each of the wetland features within the vicinity of project development via high visibility fencing prior to the onset of development activities. A qualified biologist shall be present during any and all construction activities that ensue within the vicinity of the wetland/other waters avoidance buffer zones. The qualified biologist shall act as a construction monitor to make sure the fencing remains intact and that construction activities do not penetrate the wetland avoidance buffer areas.
- 4-11** If complete avoidance of wetlands and other waters of the U.S. is not possible and impacts to these features cannot be avoided, authorization from the U.S. Army Corps of Engineers (USACE) is required. A Section 404 CWA permit shall be obtained from the USACE and wetland/other waters replacement ratios defined within the permit conditions shall be implemented. Typical 404-permit mitigation occurs at a ratio of 1:1 acres created versus impacted and 2:1 acres restored versus impacted, though individual permit conditions may vary. A CWA Section 401 water quality certification permit from the U.S. Environmental Protection Agency (USEPA) is also required. In addition, a Lake or Streambed Alteration Agreement (1600-permit) from the CDFG is required for impacts to streams, lakes, and riparian habitats on fee lands. Typical 1600-permit mitigation occurs at a 3:1 ratio of acres created versus impacted, though individual permit conditions may vary.

4-12 Wetland mitigation shall be accomplished through the creation of seasonal wetlands within open space preserves, which shall be established on-site at agency-approved locations. Ephemeral drainage mitigation shall be accomplished through the restoration of existing on-site streams, which were previously channeled (i.e., piped) underground as part of prior site developments. A detailed mitigation and monitoring plan shall be designed that includes all the necessary details regarding the location and size of the proposed wetlands/ephemeral drainages and open space preserves, monitoring stipulations, reporting requirements, responsibilities, and performance success criteria. The mitigation and monitoring plan shall meet the stipulated requirements of and be written in accordance with the 401, 404, and 1600 permits, if applicable.

SPECIAL-STATUS PLANT SPECIES

4-13 Alternatives B and D shall avoid the on-site population of Suisun Marsh aster to prevent impacts to this special-status plant, if feasible. If feasible, these alternatives shall be amended and reconfigured such that avoidance of the Suisun Marsh aster population and its habitat on-site is accomplished. Setbacks of 50 feet shall be established around the total area where the population occurs via high visibility fencing prior to the onset of development activities. A qualified botanist shall be present during any and all construction activities that ensue within the vicinity of the Suisun Marsh aster setback. The qualified botanist shall act as a construction monitor to ensure the fencing remains intact and that construction activities do not penetrate this setback.

4-14 If complete avoidance of the Suisun Marsh aster population is not possible and impacts to this species are unavoidable, consultation shall be initiated with the CDFG (for Alternatives B and D). Upon CDFG approval, the impacted individual plants shall be transplanted out of their existing locations and into an equivalent and suitable wetland feature(s) that occurs within an established on-site open space preserve. A qualified botanist shall determine the exact transplanting locations and shall supervise all of the transplanting activities. Transplanting activities shall occur during the fall months, prior to the onset of heavy rains and inundation of seasonal wetland features to minimize transplant stress to the plants and assure transplant success. Transplanting activities shall not occur in the spring, summer, or winter months, unless prior approval from the CDFG is obtained.

SPECIAL-STATUS BIRD SPECIES

4-15 Special-status and/or migratory bird and raptor species have potential to nest within the project site. Generally, the nesting season extends from February through September with peak activity taking place from March through June. If any construction activities (e.g., tree and/or vegetation removal, grading) are scheduled to occur during the nesting season,

pre-construction bird surveys shall be conducted. Pre-construction surveys for any nesting bird species shall be conducted by a qualified wildlife biologist throughout all regions of the site and vicinity, which are within 500 feet of any proposed construction activity (including thorough coverage of the pier). The surveys shall occur no more than 14 days prior to the scheduled onset of construction activities. If construction is delayed or halted for more than 14 days, another pre-construction survey for nesting bird species shall be conducted. If no nesting birds are detected during the pre-construction surveys no additional surveys are required.

- 4-16** If special-status nesting bird species are observed within 500 feet of construction areas during the surveys, consultation shall be initiated with the CDFG and/or the USFWS. Through consultation, an appropriate course of action, acceptable setbacks, and a suitable monitoring plan shall be determined. If non-special-status nesting birds are observed during the surveys, an appropriate setback shall be determined based on the species, the location of the nest(s), and other pertinent biological attributes. Avoidance setbacks shall be established around all active nest locations via stakes and high visibility fencing. Typical setbacks are 250 feet for bird species and 500 feet for raptor species. The nesting bird setbacks shall be completely avoided during the duration of construction activities and the fencing must remain intact. The fencing may be removed when a qualified wildlife biologist confirms that the nest(s) is no longer occupied and all fledglings have left.
- 4-17** If impacts (i.e., take) to federal or state threatened or endangered bird species are unavoidable, an incidental take permit from the USFWS/CDFG would be required. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect any threatened or endangered bird species. Harm may also include significant habitat modification.
- 4-18** Outdoor lighting known to attract shorebirds and migratory birds (e.g., advertising lighting, lights on signs, spotlights, floodlights, etc.) shall not be used. All lighting fixtures associated with the development of the proposed project shall be designed to ensure maximum efficiency, eliminate direct upward light, reduce spill (i.e., light that spills beyond the intended areas to be lit, but that is not projected directly upward), be deliberately directed downward, be intentionally directed away from marshes and beaches, and optimize useful light. In addition, motion-sensitive lighting, lower intensity lights, and appropriately programmed timed lights shall be used to the maximum extent feasible. Nighttime lighting shall also be reduced to the maximum extent feasible including turning off lights from the hours of 11 pm to 7 am, unless they are essential for security purposes and are properly designed and installed to reduce light spillage. Lights that must be used

during these designated nighttime hours shall be dimmed in order to reduce the intensity of light projected by the project. The proposed project should adhere to the Bird-Friendly Development Guidelines sponsored by the Fatal Light Awareness Program (FLAP, 2008).

- 4-19** The facility shall implement practical measures to deter and/or minimize disturbance by common scavenging mammals (e.g., raccoons, opossums, and skunks) which could potentially agitate, disrupt, or otherwise frighten bird species that may be present within the project site. Such measures shall include but are not limited to daily collection and removal of trash generated by the facility, the use of sealed and secure trash dumpsters and bins throughout the facility, and fencing around trash collection areas.

SPECIAL-STATUS MAMMAL SPECIES

- 4-20** A qualified wildlife biologist shall conduct pre-construction surveys within all potentially suitable bat habitats (i.e., buildings which would be modified or demolished, the pier, and the eucalyptus woodland) that occur within the site and vicinity of any proposed construction activities. If no bats and/or evidence of bats (i.e., guano) are detected during the pre-construction surveys, no additional surveys are required.
- 4-21** If bats and/or evidence of bats are detected during the pre-construction surveys, a qualified bat biologist (i.e., specialist) shall facilitate bat evacuation and removal. This typically entails the installation of exclusionary (e.g., mist) nets around occupied habitats while the bats are away from their roosts. The netted habitats shall be monitored frequently at appropriate times and intervals to assure that all the bats have left the roosts and that no bats re-enter during the entire duration of all development activities. The qualified bat biologist shall determine the specific logistics and details regarding bat removal within the larger historic buildings on-site, after he or she has fully assessed the site. When construction activities are completed, the exclusionary nets shall be removed.

5.2.5 CULTURAL RESOURCES

The following mitigation measures are proposed to reduce or eliminate impacts to cultural resources.

- 5-1** For Alternatives A, B, C, and D, a Programmatic Agreement (PA) shall be developed that addresses impacts from construction of the project and that provides for long-term treatment and maintenance of historic properties/historical resources located within the project site.

The PA shall be developed cooperatively by the City of Richmond, State Historic Preservation Office (SHPO), Tribe, Bureau of Indian Affairs (for Alternatives A – C), and other invited signatories. The agreement shall specify the means by which the significant impacts resulting from the project would be eliminated or reduced. The agreement would apply to the known historic properties/resources within the project site, including the Winehaven Historic District (CA-CCO-422H), the historic archaeological site (CA-CCO-506H), and the off-site prehistoric archaeological site (CA-CCO-284). While site CA-CCO-283 does not qualify as a historic property/resource, it will be afforded consideration under the PA due to the presence of a limited amount of human bone within the deposit.

Provisions of the PA concerning the Winehaven National Register Historic District (CA-CCO-422H) shall address the following:

The Tribe shall develop comprehensive Design Guidelines to comply with the *Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties* that will govern the rehabilitation of all retained buildings within the Historic District as well as new construction near or within the historic core of the District. The Design Guidelines should incorporate the Preservation regulations of the City of Richmond. Prior to implementation, such guidelines shall be reviewed by the City of Richmond's Historic Preservation Advisory Committee (HPAC). Recommended provisions of the Design Guidelines include the following:

- a. The Winehaven Building (Building #1) carries distinctive decorative detailing that provides a unique texture and design for the building that depends partly upon its basic construction materials. Use of the appropriate materials and design detail in the rehabilitated Winehaven building, as well as all new construction in proximity to it, is critical to the retention of its character-defining image.
- b. Shoreline development in front of the main Winehaven Building could obscure the building, existing elements of the District, or detract from its character. This activity could occur just outside the District and still affect its setting. This potential impact should be avoided through sensitive placement and appropriate design of new construction.
- c. All retained contributing elements of the Historic District shall be rehabilitated in keeping with the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties and Design Guidelines for the Project that include preservation regulations of the City of Richmond. This will reduce negative impacts of alteration to less than significant.

- d. Prior to the demolition or alteration of any contributing buildings within the Historic District, the 1995 Historic American Building Survey (HABS) documentation shall be updated.
- e. Any new public entrances added to Building #1 shall be designed to be compatible with the character of the building.
- f. Any attachments to the existing historic buildings should be minimal and reversible. This includes additions, canopies, and exterior lighting.
- g. Existing windows within Buildings #1, 10, and 13 should be repaired and preserved to the maximum extent feasible. Any replacements must match the original windows. Installation of any new windows should be kept to a minimum and should be the same material, size and design character as existing windows.
- h. Metal sheet hood moldings over the paired windows on the west elevation and the three story portion of the Building #1 should be repaired and replaced. The original material should be retained wherever possible. Where it is missing, new hood moldings should be recreated to match the original.
- i. New construction south of Building #1 shall be cognizant of the existing scale, massing, and height of Building #1. The height of new construction shall be stepped-up gradually from the north side of new construction toward the south, with the lower side near Building #1.
- j. Damaged or deteriorated brickwork throughout Buildings #1, 10, and 13 should be repaired or replaced to match the existing brickwork.
- k. Any work involving the relocation of utilities, water, sewer or electrical facilities should avoid impacts to the visual character of the existing Historic District and its buildings. Installation of any utility features in visually prominent sites within the District or adjacent to its buildings shall be avoided.
- l. Building # 17 shall be relocated to an appropriate location within the Historic District.
- m. The two additions flanking the central (original) portion of the fire station (Building #63) shall be removed. These additions are not original and are not in keeping with the construction of the original building.
- n. Retain open space, or the impression of space, between Building #1 and any new construction south of Building #1. Allow the Powerhouse and hillside to be viewed through space.

- o. Reconfiguration of Western Drive should de-emphasize the physical division of the east and western portions of the district. Use landscaping to help minimize the visual division.
- p. Landscaping within the Historic District should remain compatible with the original image of the complex. Historic photographs can be used as a guide.
- q. Limit the height of any new amenities on the west side of Building #1. New elements shall be oriented away from this area to avoid obscuring the view of the building.
- r. Incorporate design elements into the new construction that serve the same purpose of architectural detail on the four Teutonic influenced buildings and carry-over existing themes in scale and texture.

The PA shall also provide for development of a Treatment Plan to address potential impacts to archaeological sites CA-CCO-283, CA-CCO-284, and CA-CCO-506H.

Recommended mitigation includes the following:

- a. All ground disturbance or project components to be constructed in proximity to CA-CCO-506H shall be sited in a manner consistent with the recommendations of Volume II of the cultural resources investigation (**Appendix Y**) so as to avoid any construction or operational impacts to the resource;
- b. The core area of site CA-CCO-283, as described in Volume II of the cultural resources investigation (**Appendix Y**), shall be avoided by all ground disturbing activity;
- c. Site CA-CCO-284 shall be avoided by ground disturbing activities. Avoidance will be achieved by adhering to recommendations provided in Volume II of the cultural resources investigation (**Appendix Y**).
- d. Construction monitoring by a qualified archaeologist during construction work involving ground disturbance in the vicinity of the sites;
- e. Long-term protection of the sites by capping, fencing, or other means to prevent unauthorized or inadvertent intrusion.

The PA shall provide for the development of a cultural interpretive center highlighting the long history of Point Molate and the surrounding community. The interpretive center shall be housed at one of the historic buildings within the Winehaven National Register District and shall include exhibits highlighting the history of native peoples, Winehaven, and the role of Point Molate and Richmond in World War II.

- 5-2** The following requirements shall be included in contract specifications for construction activities associated with the Proposed Project, regardless of the alternative selected:

In the event that any prehistoric, historic, or paleontological resources are discovered during construction-related earth-moving activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist or paleontologist, as appropriate, shall be consulted to assess the significance of the find. If any find is determined to be significant by the qualified professional, then appropriate agency and project representatives and the qualified archaeologist and/or paleontologist shall meet to determine the appropriate course of action. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist or paleontologist according to current professional standards.

If human bone or bone of unknown origin is found during construction, all work shall stop within 50 feet of the find and the Contra Costa County Coroner and the Tribe shall be contacted immediately. If the discovery of human remains is made on federal trust land, the BIA archaeologist shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC) who shall identify the most likely descendant. The most likely descendant shall work with the Tribe and/or BIA, as appropriate, to develop a plan for re-interment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified actions have been implemented.

- 5-3** The footprint of the northern residential component shall be modified to avoid demolition of Building #63 within the Winehaven Historic District (Alternative D only).

5.2.6 SOCIOECONOMIC CONDITIONS

The following mitigation measure is proposed for Alternatives A, B, C, and D:

- 6-1** The Tribe shall provide compensation to an organization that provides services for problem and pathological gamblers within ten miles of the project site for two new licensed counselors. The Tribe and County shall further engage in consultation every two years and assess the needs for counselors, based on the discussion of problem and pathological gambling treatment in **Section 4.7**.
- 6-2** The Tribe shall adopt a policy statement on problem gambling.

- 6-3** The Tribe shall respectfully and confidentially provide the customer with written information that includes a list of professional gambling treatment programs and self-help groups.
- 6-4** The Tribe will implement procedures to allow for voluntary self-exclusion, enabling gamblers to ban themselves from the gaming establishment for a specified period of time.

5.2.7 TRANSPORTATION/TRAFFIC

CONSTRUCTION

7-1 The Tribe shall provide the City of Richmond (City) and Contra Costa County with a Soil Disposal Plan one month prior the beginning of construction. The Soil Disposal Plan shall include, but not be limited to, the following:

- Soil haul truck routes
- Soil disposal sites
- Barge route
- Traffic safety mitigation
- Road deterioration restoration funding
- Limits on times haul trucks and barges can operate.

7-2 The Tribe shall coordinate all construction activities that would affect traffic flow on Western Drive with local emergency service providers at least one month in advance of construction. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times.

7-3 The Tribe shall develop and provide the City with a Construction Coordination Plan. Elements of the plan would include, but would not be limited to: routes, hours of operation, and sequencing.

BUILD-OUT YEAR

Completion of the following traffic mitigation measures would result in all study intersections operating at acceptable levels of service (LOS) for Alternatives A, B, C, and D. **Table 5-4** shows the resulting mitigated LOS and unmitigated LOS for intersections that are affected by implementation of all alternatives. **Table 5-5** shows the Tribe's fair share contribution for **Mitigation Measure 7-4** and **7-5** as calculated using Caltrans' fair share contribution methodology. However, as discussed below, the Tribe shall pay 100 percent of the costs associated with **Mitigation Measure 7-4** to ensure that it is in place prior to operation.

TABLE 5-4
MITIGATED (UNMITIGATED) LOS – WORST CASE SENERIO

No.	Intersection	Alt. A	Alt. B	Alt. C	Alt. D
24	Richmond Parkway and Blume Drive/WB I-80 On/Off Ramps	D (E)	D (E)	D (E)	D (E)
28	Sir Francis Drake Blvd. and Andersen Drive	B (F)	B (F)	B (F)	B (F)

Source: Transportation Impact Analysis, 2008; STIA, 2009 (**Appendix S**).

7-4 The Tribe shall make a fair share contribution, as specified in **Table 5-5**, to re-stripe the northbound approach of Richmond Parkway to provide a shared right through lane, where there is currently an exclusive right turn lane, would achieve a LOS D at the intersection of Richmond Parkway and Blume Drive/WB I-80 On/Off Ramps under all alternative conditions.

7-5 The Tribe shall make a fair share contribution, as specified in **Table 5-5**, to the widening and signalization improvements at the intersection of Sir Francis Drake Boulevard and Andersen Drive proposed in the City of San Rafael's General Plan 2020 Circulation Element, page 173, Exhibit 2, *Major Planned Circulation Improvements for the intersection at Sir Francis Drake Blvd and Andersen Drive*.

TABLE 5-5
TRIBE'S PERCENTAGE OF FAIR SHARE CONTRIBUTION (BUILDOUT YEAR)

Mitigation	Intersections	Period	Alt. A	Alt. B	Alt. C	Alt. D
7-4	(24) Richmond Parkway/Blume Drive/WB I-80 On/Off Ramp	Weekday PM Peak	27	29	19	18
7-5	(28) Sir Francis Drake Blvd. and Andersen Drive	Weekday AM and PM	15	17	10	9

Source: TIA, 2008; STIA, 2009 (**Appendix S**).

7-6 Implement **Mitigation Measures 3-16, 3-18, and 3-20**. Implementation of these mitigation measures would reduce trips generated by the Proposed Project.

7-7 The Tribe shall work with AC Transit to expand service, tie bus schedules to the timing of employee shifts, and provide new routes to serve employee population centers. The Tribe shall contribute the necessary funds to supplement AC Transit operating expenses to achieve the expanded services.

CUMULATIVE YEAR

Completion of the following traffic improvements would result in all study intersections operating at an acceptable LOS for Alternatives A, B, C, and D. **Table 5-6** shows the resulting mitigated LOS and unmitigated LOS for intersections that are affected by implementation of all alternatives. **Table 5-7** shows the Tribe's fair share contribution for **Mitigation Measures 7-8** through **7-17** as calculated using Caltrans' fair share contribution methodology. This would be the expected fair share contribution; however, the share could be adjusted in the future.

TABLE 5-6
MITIGATED (UNMITIGATED) LOS – WORST CASE SENERIO

No.	Intersections	Alt. A	Alt. B	Alt. C	Alt. D
1	Richmond Parkway/Redwood Way/WB I-580 On/Off Ramps	D (F)	D (F)	D (E)	D (E)
2	Marine Street and EB I-580 On/Off Ramps	C (F)	B (F)	B (F)	B (F)
21	Richmond Parkway/Gertrude Avenue ¹	D (F)	D (F)	D (F)	D (F)
22	Richmond Parkway and Parr Boulevard	D (F)	D (F)	D (F)	D (F)
24	Richmond Parkway/Blume Drive/WB I-80 On/Off Ramp	C (F)	C (F)	C (F)	C (F)
29	Richmond Parkway/ Pittsburg Avenue	D (F)	D (F)	D (F)	D (F)
30	Richmond Parkway/ Goodrick Avenue	D (F)	D (F)	D (F)	D (F)
-	I-580 at Marine Street Off-Ramp	D (F)	D (F)	D (F)	D (F)
-	Richmond – San Rafael Bridge Toll Plaza	N/A	N/A	N/A	N/A
-	Richmond – San Rafael Bridge	D (F)	D (F)	D (F)	D (F)

¹ Worst mitigated LOS.

N/A = not applicable, volume to capacity would be increased to acceptable levels (refer to **Appendix S, STIA**).

Source: TIA, 2008 (**Appendix S**).

TABLE 5-7
TRIBE'S PERCENTAGE OF FAIR SHARE CONTRIBUTION (CUMULATIVE YEAR 2025)

Mitigation	Intersections/Roadways	Period	Alt. A	Alt. B	Alt. C	Alt. D
7-8	(1) Richmond Parkway/Redwood Way/WB I-580 On/Off Ramps	Weekday PM Peak	20	23	14	15
7-9	(2) Marine Street and EB I-580 On/Off Ramps	Weekday PM Peak	15	17	10	11
7-10	(21) Richmond Parkway/Gertrude Avenue	Weekday AM Peak	8	10	5	9
		Weekday PM Peak	16	17	10	10
7-11	(22) Richmond Parkway/Parr Boulevard	Weekday AM Peak	9	11	6	11
		Weekday PM Peak	19	21	13	12
7-12	(24) Richmond Parkway/Blume Drive/WB I-80 On/Off Ramp	Weekday PM Peak	8	9	5	5
		Saturday PM Peak	18	20	12	11
7-13	I-580 at Marine Street Off-Ramp	Saturday PM Peak	6	7	4	5
7-14	Richmond – San Rafael Bridge Toll Plaza	AM and PM Peak	15	15	15	15
7-15	Richmond – San Rafael Bridge	PM Peak	9	9	9	9
7-16	(30) Richmond Parkway/ Goodrick Avenue	Weekday PM Peak	17	19	12	11
7-17	(29) Richmond Parkway/ Pittsburg Avenue	Weekday AM Peak	9	11	6	10
		Weekday PM Peak	16	18	11	11

Source: TIA, 2008; STIA, 2009 (**Appendix S**).

7-8 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to add an additional exclusive left turn lane at the southbound approach of Richmond Parkway (Castro Street) at the intersection of Redwood Way /WB I-580 On/Off Ramps, providing two left turn lanes to achieve LOS D operations during the PM peak hour operations under all alternatives in the cumulative project condition.

7-9 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to re-stripe the eastbound approach of the I-580 EB Off Ramp to provide a shared left through lane,

where there is currently an exclusive left turn lane, to achieve LOS B at the intersection of Marine Street and EB I-580 On/Off Ramps under all alternatives.

- 7-10** The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to add additional southbound and northbound through lanes on Richmond Parkway at the intersection of Gertrude Avenue to achieve LOS B operations during the weekday AM peak hour and LOS C during the PM peak hour for all alternatives.
- 7-11** The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to re-stripe the southbound approach of Richmond Parkway at the intersection of Parr Boulevard to provide a shared right through lane where there is currently an exclusive right turn lane, to achieve LOS B operations during the AM peak hour under all alternatives in the cumulative project conditions; and to re-stripe the northbound approach of Richmond Parkway at the intersection of Parr Boulevard to provide a shared right through lane where there is currently an exclusive right turn lane to achieve LOS B operations during the PM peak hour under cumulative project conditions.
- 7-12** The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to make the following reconfigurations and additions to mitigate operations of the Richmond Parkway and Blume Drive/WB I-80 On/Off ramps intersection to LOS D during the PM peak hour for all alternatives in the cumulative project condition:
- a. Construction of an I-80 westbound on-ramp on the south side of Richmond Parkway;
 - b. Re-striping of the existing northbound through lane to provide an additional exclusive right-turn lane, and the eastern-most existing right-turn lane becoming an on-ramp exclusive lane;
 - c. Re-striping of the existing eastbound left-turn lane as an exclusive through lane, and the through movement for the shared-through-right lane would become an on-ramp exclusive lane; and
 - d. Re-stripe the existing southbound approach to provide two right-turns, through, and left-turn lanes, using the existing width of the roadway.
- 7-13** The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to add approximately 1,600 feet of additional traffic lane on I-580 EB from the toll plaza to the Marine Street Off-Ramp. This would bring the total number of eastbound lanes to three and also add an additional Marine Street Off-Ramp lane, bringing the total number of off-ramp lanes to two. The roadway segment of I-580 at Marine Street Off-Ramp would achieve LOS D during the PM peak hour for all alternatives in the cumulative year.

- 7-14 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to convert two more of the existing manual/Fastrak lanes to exclusive Fastrak lanes at the Richmond-San Rafael Bridge toll plaza.
- 7-15 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to add one travel lane for a total of three lanes in each direction by remarking the existing deck of the Richmond-San Rafael Bridge.
- 7-16 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to construct an additional eastbound through lane to achieve LOS D during the PM peak hour at the intersection of Richmond Parkway at Goodrick Avenue.
- 7-17 The Tribe shall make a fair share contribution, as specified in **Table 5-7**, to convert the existing northbound right turn lane to a combined through-right lane to achieve LOS D at the intersection of Richmond Parkway at Pittsburg Avenue.

IMPROVEMENT MEASURES

The following improvement measures are recommended for specific alternatives noted below:

- 7-18 Housing on the project site (applicable only to Alternatives B and D) will be served with a free on-site shuttle system (fully funded by the Tribe) to BART, the Winehaven entertainment district, and the ferry pier.
- 7-19 The Tribe shall fund the City for signage directing patrons to the Proposed Project along the primary travel corridors. In addition, the Tribe shall provide funding to place street lights and underpass lighting along direct paths to the Proposed Projects from I-580 (applicable to Alternatives A, B, and C).

5.2.8 LAND USE AND PLANNING

The following improvement measures are recommended for Alternatives A, B, C, D, and E:

- 8-1 The Tribe shall place a community warning sirens at appropriate locations on the project site.

The following improvement measure is for Alternatives B and D only:

- 8-2 Approximately one-third of housing units will be set aside in a Tribe-subsidized affordable housing program for tribal members.

The following mitigation measure is proposed for Alternatives B and D:

- 8-3** For the proposed residential development, the Tribe shall coordinate with the City of Richmond Housing and Community Development Division to include an affordable housing component or pay an in-lieu fee to the City.

5.2.9 PUBLIC SERVICES AND UTILITIES

WATER SUPPLY

The following mitigation measures are proposed for Alternatives A, B, C, and D:

- 9-1** The Tribe shall incorporate the following water conservation measures into development and operation of the selected project alternative:
- a. The Tribe shall comply with the Model Water Efficient landscape Ordinance, AB 325 (or the functional equivalent for Tribal trust land), including the development of a landscape documentation package including all the required provisions:
 - i. Water Conservation Concept Statement
 - ii. Calculation of Maximum Applied Water Allowance
 - iii. Calculation of the Estimated Applied Water Use
 - iv. Calculation of the Estimated Total Water Use
 - v. Landscape Design Plan
 - vi. Irrigation Design Plan
 - vii. Irrigation Schedules
 - viii. Maintenance Schedule
 - ix. Landscape Irrigation Audit Schedule
 - x. Grading Design Plan
 - xi. Soil Analysis
 - xii. Certificate of Substantial Completion.
 - b. The landscape architecture plan shall include the use of native, drought tolerant plants to reduce irrigation demands.
 - c. The Tribe will comply with Section 31, Water Efficiency Requirements, of the Regulations Governing Water Service to Customers. The Water Efficiency Requirements that shall be implemented include:

- i. Inclusion of high efficiency toilets and low flow shower heads and faucets.
- ii. Landscaping plans shall be submitted to EBMUD.
- iii. No more than 20 percent of landscaping shall be non-native plants, these plants shall be grouped and irrigated separately and efficiently.
- iv. Irrigation systems shall avoid overspray and runoff and shall be operated at no more than 80 percent of the reference evapotranspiration.
- v. Irrigation controllers shall be automatic and self-adjusting to account for changes in the weather.
- vi. A dedicated irrigation meter shall be installed on the system.
- vii. Commercial refrigeration shall be air-cooled or closed looped if water cooled.
- viii. Ice-machines shall be air-cooled or use no more than 25 gallons of water per 100 pounds of ice and be equipped with a recirculating cooling unit.

9-2 The Tribe shall incorporate the provisions of the East Bay Municipal Utilities District's (EBMUD) application process for water service and pay its corresponding fair share contribution for required upgrades to the off-site EBMUD distribution system.

WASTEWATER SERVICE

The following mitigation measures are proposed for Alternatives A, B, C and D:

9-3 The Tribe shall apply to connect to the Richmond Municipal Sewer District (RMSD) for conveyance and treatment of wastewater generated at the project site. In accordance with the application procedure, the Tribe shall pay its fair share for improvements, if necessary, consistent with typical commercial requests for service, to fund upgrades to the conveyance system to reduce existing rates of infiltration and inflow to such an extent as to provide adequate conveyance and treatment capacity for the selected alternative's peak day wastewater generation rate.

CONSTRUCTION-RELATED SOLID WASTE

The following improvement measure is recommended for Alternatives A, B, C and D:

9-4 Construction waste shall be recycled to the fullest extent practicable by diverting green waste and recyclable building materials from the solid waste stream. To the extent practical, environmentally preferable materials shall be used in construction.

OPERATIONAL SOLID WASTE

The following improvement measures are recommended for Alternatives A, B, C and D:

- 9-5** The Tribe shall adopt a Solid Waste Management Plan (SWMP) that addresses recycling and solid waste reduction on the project site. The measures adopted under this plan shall be applied to the design of the hotel, casino and event center facilities, as well as the daily operations and waste disposal of the project. These measures shall include, but would not be limited to, the installation of a trash compactor for cardboard and paper products, recycling bins throughout the facilities, and an annual waste stream analysis. Regulations within the SWMP shall call for the diversion away from the waste stream of 50 percent of waste produced at the project.

- 9-6** Trash containers shall be emptied daily. Dumpsters shall be located in an enclosed area with concrete floors, which slope to drains that connect to the facility's sanitary sewer system. Dumpsters shall be equipped with roofs and metal doors and shall be emptied and trash shall be removed from the site daily. The enclosed dumpster area shall be hosed down daily and all excess refuse shall be removed from the area. Trash shall be picked up from parking lots, grassy swales, and park area daily.

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

The following mitigation measures are proposed for Alternatives A, B, C, and D:

Fire Protection

Operation

- 9-7** The Tribe shall use fire resistant construction materials for the larger buildings and equip all enclosed buildings with automatic sprinkler systems. The automatic sprinkler systems shall be designed to meet or exceed the National Fire Protection Association (NFPA) standards governing the different occupancies associated with the project structures.

- 9-8** Twenty-four hour surveillance shall be implemented to afford timely detection and early intervention of any fires.

- 9-9** Through the use of modern construction and fire engineering techniques, the Tribe shall include built-in automatic systems designed to contain any fire to the room of origin.

- 9-10** Through the use of modern fire engineering technology, the Tribe shall create and maintain a facility equipped with the latest early detection systems to insure an initial

response to any fire alarm (automatic, local, or report) within three minutes. This would rely on automatic sprinkler systems in the occupied areas and smoke detection devices in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.

The following mitigation measures are proposed for Alternatives A through C only:

- 9-11** Pursuant to Article 5 Section 5.1(b) of the MSA, the Tribe shall contract with the City at the City's actual cost, to provide services such as building, engineering and public works plan-checking and inspections with respect to all improvements on the Property (see page E-7 of **Appendix C**).
- 9-12** The Tribe shall adopt a Fire Ordinance that is the functional equivalent of the City's Municipal Code 8.16.40.

The following improvement measure is proposed for Alternatives A through C:

- 9-13** Pursuant to Article 2 Section 2.3(a) of the MSA, the Tribe has agreed to provide a fire station on-site. To meet this obligation, the Tribe shall provide the City of Richmond with a Combined Emergency Service Center to facilitate adequate Fire Department response times on-site. The Combined Emergency Service Center, which would be located on the ground floor of the primary parking garage and shared with the Richmond Police Department, shall be approximately 7,500 sq. ft. (including vehicle space) and would have the following amenities:
- Fire Department - 4 sleeping rooms, living room, showers, gym, restrooms, fueling station (diesel), double apparatus bay, and shall be first priority for back-up electrical generators.

LAW ENFORCEMENT

The following mitigation measures are proposed for Alternatives A, B, and C.

- 9-14** The Tribe shall provide on-site security for casino operations to reduce and prevent criminal and civil incidents.
- 9-15** The Tribe shall adopt a "Responsible Alcoholic Beverage Policy" that would include, but not be limited to, requesting identification of patrons and refusing service to those who have had enough to drink. This policy shall be discussed with the Richmond Police Department.

9-16 All security guards shall carry two-way radios to respond to emergency related calls and to provide backup. This would aid in the prevention of criminal activity within gaming facilities.

9-17 Areas surrounding the gaming facilities shall have “No Loitering” signs in place, be well lit, and be patrolled regularly to aid in the prevention of illegal loitering and loitering behavior that could potentially lead to other criminal acts.

The following mitigation measure is proposed for Alternatives A, B, C, and D.

9-18 All parking areas shall be well lit and monitored by parking staff and/or roving security guards at all times during operation to aid in the prevention of auto theft and other related criminal activity.

The following improvement measure is proposed for Alternatives A, B, and C.

9-19 Pursuant to Article 2 Section 2.1 of the MSA, the Tribe has agreed to provide office space to the Police Department on-site. To meet this obligation, the Tribe shall provide the City of Richmond with a Combined Emergency Service Center to facilitate adequate Police Department response times on-site. This improvement measure would also apply to Alternative D, which is not covered by the MSA. The Combined Emergency Service Center, which would be shared with the Richmond Fire Department, shall be approximately 7,500 sq. ft. (including vehicle space) and would have the following amenities:

- Police Department - interview room, reception area, office space (up to 3 offices), combined meeting/break room, storage space, and restrooms.

9-20 Pursuant to Schedule 2.2 of the MSA, the Tribe agrees to fund nine new Police Department staff positions and associated equipment in order to provide police services on-site under Alternatives A, B, and C. The Tribe shall fund an additional two new Uniformed Patrol Beat police officer positions (total of 11 new staff positions).

9-21 Pursuant to Article 12 Section 2.1 of the MSA, the Tribe and the City shall meet on a quarterly basis to consider issues related to implementation of, amendments to, or concerns with, the MSA. As part of this process, Tribe and City shall periodically review the adequacy of police staffing on-site. Evaluation of the adequacy of police staffing shall consider objective criteria, including the number of calls responded to by the Richmond

Police Department, response times, and the City's target officer-to-citizen ratio. The Tribe shall hire additional Tribal police or compensate the City to hire additional staff should the need arise.

The following improvement measures are proposed for Alternatives A, B, and C to further reduce potential impacts to public energy service providers:

- 9-22** The Tribe shall purchase and install onsite fuel cells, providing a source of clean alternative energy to the Proposed Project.

5.2.10 NOISE

CONSTRUCTION NOISE

The following improvement measures are proposed for Alternatives A, B, C, and D:

- 10-1** Engine-powered construction equipment shall be fitted with adequate mufflers and enclosures, as supplied by the manufacturer. Such construction equipment shall be maintained in good condition.
- 10-2** Any engine-powered construction equipment located adjacent to residential uses for more than 5 days shall be shielded from those uses by temporary barriers.

OPERATIONAL NOISE (TRANSPORTATION AND REFUSE NOISE)

The following mitigation measures are proposed for Alternatives A, B, C, and D:

- 10-3** The Tribe shall implement noise control measures, which may include, but not be limited to, construction of berms, setbacks of residences approximately 275 feet from the centerline of Western Drive, or include structural design features to reduce inside noise levels, where feasible. Noise control measures shall be incorporated into the project design, where feasible.
- 10-4** The project applicant shall incorporate site-specific features in the design of residential developments on the project site that reduces noise exposure at outdoor activity areas (e.g., private balconies and common outdoor activity areas), if feasible. For instance, outdoor activity areas that are part of a multifamily residential development could be located such that the building(s) serve as a sound barrier to the nearest predominant noise source. However, balconies should not be prohibited on the basis of noise exposure so long as applicable interior noise standards are achieved and so long as an outdoor activity area that satisfies the exterior noise standards is available to the residents.

- 10-5** Refuse dumpsters and commercial loading and unloading areas shall be located as far as reasonably possible from existing off-site sensitive receptors, as well as from common outdoor activity areas of proposed residential buildings. Refuse containers shall also be located such that buildings shield nearby residential land uses from noise generated by loading dock and garbage collection activities.

5.2.11 HAZARDS AND HAZARDOUS MATERIALS

The following mitigation measures are proposed for Alternatives A, B, C, and D:

- 11-1** To protect construction personnel from potential exposure to undiscovered hazardous materials, a site-specific hazardous materials inadvertent discovery plan (Plan) or an equivalent soil and groundwater management plan (SMP) that addresses inadvertent discovery of hazardous materials, shall be developed for the project prior to any grading or ground disturbing activities. The Plan shall define protocols to be implemented if suspected contamination is found during mass grading and excavation activities associated with site development. The Plan shall identify how soils and affected groundwater are to be managed require hourly field measurements within active excavation areas during hillside UST excavation. The Plan shall also include hourly field measurements within active soil stockpile areas and confined spaces. The Plan shall be implemented by a registered engineer and shall include hourly field measurements for undiscovered contaminants using a photo ionization detector (PID) for measuring volatile organic compounds (VOCs), and, if deemed necessary by the engineer, soil samples would be collected and analyzed for petroleum hydrocarbons in areas of suspected contamination. If suspected contamination is found during construction activities, all work shall stop in the immediate area and a safe zone for construction personnel shall be established. The extent of contamination shall be assessed to determine whether there is a significant health risk to construction personnel working on-site. The SMP would also include construction personnel safety protocols according to Occupational Safety and Health Administration (OSHA) guidelines to be implemented as part of the SMP. The Tribe shall ensure through contractual obligations that OSHA guidelines are followed during construction activity and any potential removal of affected soils.

Construction

The following mitigation measures should be included as part of a site specific Stormwater Pollution Prevention Plan (SWPPP) to reduce the potential for hazardous materials releases during construction of Alternatives A, B, C, and D:

- a. Any hazardous materials or fuels that would be stored temporarily for project construction shall be properly containerized to minimize the potential for release.
- b. 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-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.
- c. As discussed in **Section 4.3**, a SWPPP shall be prepared for the project that identifies BMPs to be implemented during construction, as required by the NPDES General Permit. All BMPs required by the General Permit shall be implemented during temporary construction to ensure that hazardous materials do not enter any nearby waterways. BMPs that eliminate the risk of a hazardous materials release to occur during temporary construction activities are outlined in **Mitigation Measure 2-1**.

Operation

The following mitigation measures would reduce the potential for hazardous materials releases during operation of Alternatives A, B, C, and D:

- a. Landscaping chemicals such as pesticides and fertilizers would consistently be kept at the lowest volumes needed and in the least toxic amounts.

11-2 A site specific emergency response plan (ERP) would be developed for the selected alternative. The Plan should identify measures to be employed for sheltering in-place and evacuation of the project site in the event of an ammonia or chemical release from the Chevron-Richmond Refinery. The ERP should identify protocols such as emergency evacuation routes in the case of an earthquake, wildfire, and chemical release. The ERP should include integration with the Contra Costa Health Service (CCHS) Community Warning System (CWS), and placement of warning sirens throughout the project site. The Plan should be developed in coordination with CCHS to ensure an adequate level of emergency preparedness for patrons visiting the project site.

- 11-3** The responsible party (Discharger) shall continue ongoing remedial and clean up actions at the previously identified installation restoration (IR) sites, underground storage tanks (USTs), and all additional areas on the project site that are identified in SFRWQCB Site Cleanup Orders. The ongoing cleanup will be completed under the regulatory oversight of SFRWQCB). Under each land use alternative, clean up levels for the site will be such that potential significant risks to human health and the environment are not present.
- 11-4** Clean-up Levels: The site specific Fuel Product Action Levels (FPALs) do not address cleanup levels at or below the groundwater table. The establishment and approval of the cleanup of residual contamination below the groundwater table for all land use scenarios that are protective of human health and the environment will be required through input from the SFRWQCB.
- 11-5** ***IR-01: Former Landfill Area:*** The responsible party shall continue groundwater, landfill, and oil/water separator (OWS) monitoring in accordance with the Post Closure Monitoring Plan (PCMC) (TTEMI, 2002b) and the Order. Ongoing groundwater monitoring and operation and maintenance (O&M) of the IR-01 groundwater containment extraction system would continue under the Final Post Closure Maintenance and Monitoring Plan (FPCMMP) and the Order. To limit potential health risk liability, access to IR-01 shall be restricted to groundskeepers and maintenance workers. Existing residential land use restrictions shall continue in order to prohibit disturbance of the soil cover. Monitoring of the functionality and effectiveness of the remedial system must be conducted every five years as documented in the Final Record of Decision (ROD) for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate (U.S. Navy, 2005). Any new information discovered during such reviews that could enhance the performance of groundwater containment extraction system shall be reviewed and approved through the SFRWQCB.

Mitigation Measures 11-5 through **11-9**, proposed for Alternatives A, B, C, and D, are based on recommendations provided in the Environmental Site Assessment conducted for the Proposed Project (**Appendix P**). While the measures outlined below define a set of strategies to remediate recognized environmental conditions within the project site, the final remediation procedures are subject to approval by the San Francisco Regional Water Quality Control Board (SFRWQCB).

- 11-6** Groundwater shall continue to be monitored to evaluate VOC concentrations. To reduce potential impacts to less-than-significant levels, impacted soils shall be remediated, if required by the SFRWQCB. Remediation is likely to include removal of soils to a depth of approximately 3 feet bgs in the areas adjacent to Building No. 87.

11-7 IR-03 (Former Treatment Ponds Area): Affected soils in the areas of the former treatment ponds shall be remediated to remove mobile petroleum fractions in soils as required by the SFRWQCB. The responsible party would complete excavation and disposal of impacted soils to a depth mandated by the SFRWQCB. Excavation of shallower soils (less than 10 feet bgs) with containment concentrations exceeding industrial/commercial action levels will be disposed of off-site at one or more approved landfills. Remediation of the deeper contaminated soils (below 10 feet bgs) will include excavation and off-site disposal of soils that contain more mobile fractions of TPH from various areas within IR-03. One alternative for remediation would include excavating a 10-foot-wide section of soils up gradient of the containment wall and replacing those soils with an adsorbent mix of silty sand and peat to capture any unexpected leachable petroleum that may have missed excavation. Upon removal of these affected soils and prior to site development, confirmation soil sampling in the area of use would be conducted.

The Site Cleanup Requirements Order will provide for early implementation of the selected remedial action, followed by long-term monitoring of groundwater wells at the site. Regulatory closure would occur when the SFRWQCB issues a No Further Action statement for specific areas, while the responsible party would continue operation and maintenance (O&M) of the groundwater containment extraction system until the system is no longer required at which time the system would be decommissioned and removed upon SFRWQCB concurrence.

Excavation of affected soils within the former treatment ponds area would be conducted according to a site specific SMP that would be approved by the SFRWQCB. Such a plan would define excavation protocols that would be implemented during removal of the affected soils. The SMP would provide guidance on the proper procedures for the handling and disposal of affected soils and safeguards to ensure human health risks remain less than significant according to approved OSHA guidelines. The Tribe shall ensure through contractual obligations that OSHA guidelines are followed during soil removal. SMP would also include field measurements for VOCs as stated in **Mitigation Measure 11-1** above. If a residual human health risk is suspected, all work shall stop in the immediate area and a safe zone for construction personnel shall be established according to OSHA regulations.

11-8 IR-04: Northern and Southern shoreline areas and Drum Lot 1: The responsible party shall continue ongoing groundwater monitoring under the base wide monitoring programs (BWMPs), as well as operation and maintenance (O & M) of the groundwater containment extraction system in the northern shoreline and Drum Lot 1 areas. Land use restrictions in

the northern shoreline areas would ensure no use occurs that would create a potential human health risk. For the southern shoreline area, the source of free product at MW-10-23 and, polycyclic aromatic hydrocarbons (PAH) impacts near former valve box VB-1, VB-2, and VB-3 shall be remediated to the extent required by the SFRWQCB Order. Soils in the area of the former valve boxes that contain PAHs shall be removed to ensure no significant human health risks would occur under the planned redevelopment. Regulatory closure allowing unrestricted use would occur when the SFRWQCB issues a No Further Action statement. Land use restrictions for the shoreline areas shall be maintained unless otherwise allowed by the SFRWQCB.

- 11-9 *IR-04: Drum Lot 2 and Building 87:*** The Site Cleanup Requirements Order will require removal of the source of TCE at Drum Lot 2. Soils that exceed target levels for dieldrin and bezo (a) pyrene adjacent to Building 87 would be excavated and removed from the project site as required by the SFRWQCB. A remedial alternative has not yet been selected; however, it is anticipated that source removal activities can be completed by excavation and temporary dewatering, followed by groundwater monitoring. Excavation is expected to eliminate significant exposure pathways that could lead to human health impacts. Existing land use restrictions shall remain in place until remediation has been accomplished to the satisfaction of the SFRWQCB. A site management plan would be developed and implemented in order to reduce future potential impacts to less-than-significant levels.
- 11-10 *Underground Storage Tanks 2 -6, 8, 12-15, 18 and 19:*** Until land use restrictions allowing for unrestricted use and regulatory closure of underground storage tanks (USTs) 2 through 6, 8, 12 through 15, 18, and 19 are granted, land use restrictions and BWMP would continue to be maintained in compliance with SFRWQCB directives.
- 11-11 *USTs 1 through 3, 5, 7, and 15:*** Prior to regulatory closure of the excavated hillside tanks, confirmation testing for lower molecular weight hydrocarbons should be completed to verify that there are no residual vapor intrusion issues. These areas are to be developed for the casino resort complex, northern residential component (Alternative D only), Tribal office, cultural dance house, ceremonial dance grounds, and resort hotel cabanas. If necessary, soil vapor extraction systems shall be installed to remove vapor phase constituents and ensure no human health impacts remain within the excavation areas.

The following mitigation measures are proposed for Alternatives E and F:

- 11-12** In the event that suspected hazardous materials are encountered during parkland maintenance activities and potential construction project improvements, all work shall be

halted until a professional hazardous materials specialist or an equivalent qualified individual can identify the material. If the material is determined to be hazardous, a representative from the County shall meet with SFRWQCB to determine the appropriate course of action, including the appropriate disposal of the material according to State and Federal regulations. The use of pesticides and toxic chemicals shall be minimized or less toxic alternatives shall be used to the greatest extent feasible in landscaping.

The following mitigation measures are proposed for Alternatives A through E:

Construction

- 11-13** 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.

- 11-14** During construction, staging areas and 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.

5.2.12 AESTHETICS

The following mitigation measures are proposed for Alternatives A, B, C, D, and E:

- 12-1**
 - a. The project site shall be landscaped to soften the view of the facilities from off-site locations.
 - b. Landscaping shall be designed to be compatible with existing vegetation on site and in surrounding areas.

- 12-2**
 - a. The new buildings shall be designed to be visually compatible with the existing buildings and in accordance with the Secretary of the Interior’s standards for infill development in historic districts.
 - b. Building materials and colors shall be chosen to enhance the aesthetics of the project site.

- 12-3**
 - a. Placement of floodlights on buildings and throughout the project site shall be designed so as not to cast light off-site. In order to minimize off-site impacts of light and glare, lighting shall adhere to the “full cutoff” standard developed by the Illuminating Engineering Society of North America (IESNA, 2001).
 - b. Shielding, such as with a horizontal shroud, shall be used for all outdoor lighting so as to ensure it is downcast.
 - c. Timers shall be utilized so as to limit lighting to when necessary.