APPENDIX C

REGULATORY SETTING

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APPENDIX C
REGULATORY SETTING

CHAPTER 8: AIR RESOURCES

At the federal level, air quality in the United States and California is governed by the Clean Air Act (CAA), which is administered by the U.S. Environmental Protection Agency (EPA). Air quality in the state of California is also governed by more stringent regulations in the California Clean Air Act (CCAA), administered by the California Air Resources Board (ARB) at the state level and the Sacramento Metropolitan Air Quality Management District (SMAQMD) at the local level. The EPA has established federal standards for which the ARB and SMAQMD have been delegated primary implementation responsibility. The ARB and SMAQMD are also responsible for ensuring that state standards are met.

FEDERAL LAWS AND REGULATIONS

The federal CAA, enacted in 1963 and amended several times thereafter (including the 1990 amendments), establishes the framework for modern air pollution control. The CAA directs the EPA to establish ambient air standards (NAAQS) for six pollutants: ozone (O_3), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), and sulfur dioxide (SO_2). The standards are divided into primary and secondary standards. Primary standards are designed to protect human health, including the health of "sensitive" populations such as asthmatics, children, and the elderly, within an adequate margin of safety. Secondary standards are designed to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Primary NAAQS are listed in Table AIR-1.

This table lists both the state and federal standards for air quality and helps to characterize existing air quality conditions within the region. If any of these standards are violated, the area will be considered in nonattainment for that pollutant. Areas with "better" air quality are listed as attainment areas, while areas with "poorer" air quality are listed as nonattainment.

Areas that do not meet the federal ambient air quality standards are called nonattainment areas. For these nonattainment areas, the CAA requires states to develop and adopt State Implementation Plans (SIPs), which are air quality plans showing how air quality standards will be attained and which are reviewed and approved by the EPA. Failing to submit a plan or secure approval could lead to denial of federal funding and permits for such improvements as highway construction and sewage treatment plants. In California, the EPA has delegated authority to prepare SIPs to the ARB, which, in turn, has delegated that authority to individual air districts. In cases where the SIP is submitted by the state but fails to demonstrate achievement of the standards, the EPA is directed to prepare a federal implementation plan.

Table AIR-1 Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards Concentration	Federal Primary Standards Concentration
Ozone (O_3)	8-hour	0.07 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3) [a]
	1-hour	0.09 ppm (180 µg/m^3)	--- [b]
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	150 µg/m^3
	Annual Arithmetic Mean	20 µg/m^3	---
Fine Particulate Matter ($PM_{2.5}$)	24-hour	---	35 µg/m^3
	Annual Average	12 µg/m^3	12 µg/m^3
Carbon Monoxide	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
Nitrogen Dioxide	Annual Average	0.03 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)
	1-hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)
Lead	30 day Average	1.5 µg/m^3	---
	Rolling 3-Month Average	---	0.15 µg/m^3
	Quarterly Average	---	1.5 µg/m^3
Sulfur Dioxide	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)
	3-hour	---	---
	1-hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)
Sulfates	24-hour	25 µg/m^3	No Federal Standard
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	No Federal Standard
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	No Federal Standard

Notes: ppm = parts per million; mg/m^3 = milligrams per cubic meter; µg/m ^{3}= micrograms per cubic meter

a On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

b 1-Hour ozone standard revoked effective June 15, 2005, although some areas have continuing obligations under that standard ("anti-backsliding").

Source: ARB 2016, EPA 2016.

CALIFORNIA LAWS AND REGULATIONS

In California, the ARB is responsible for meeting the state requirements of the federal CAA, administering the CCAA and establishing the California ambient air quality standards (CAAQS).

The CCAA requires all air districts in the state to endeavor to meet the CAAQS established by the ARB as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CAAQS and NAAQS are listed together in Table AIR-1.

The ARB regulates mobile air pollution sources, such as motor vehicles, and is responsible for setting emission standards for vehicles sold in California and other sources, such as consumer products and certain off-road equipment. The ARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county levels. The CCAA of 1988 substantially added to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning

agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures.

The CCAA emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures (TCMs).

REGIONAL LAWS AND REGULATIONS

Sacramento Area Council of Governments (SACOG)

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county greater Sacramento region, including El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties, as well as the region's incorporated cities. SACOG provides planning for transportation and other regional issues, including the distribution of affordable housing, bicycle networks, air quality issues, airport land uses, and public transit.

SACOG is responsible for regional transportation planning for the six-county area. To receive federal funding, transportation projects nominated by cities, counties and agencies must be consistent with the Metropolitan Transportation Plan (MTP) for 2035. A project is considered consistent if it is contained in the MTP and is included in the computer modeling of transportation and air quality impacts by SACOG. In addition, any regionally significant transportation project planned for a city or county must be included in the MTP because of its potential effect on travel demand and air pollution.

SACOG is also working closely with local governments in the region to plan development in accordance with the Blueprint Scenario project, which promotes smart growth principles for land development and transportation projects within the region.

Sacramento Metropolitan Air Quality Management District

The SMAQMD is responsible for local air quality regulation within the Plan area. The SMAQMD's primary responsibility is to regulate stationary sources and develop plans to achieve and maintain air quality standards (CAAQS and NAAQS). The SMAQMD is responsible for enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and recommending mitigation measures for new growth and development.

The SMAQMD must continuously monitor its progress for plan implementation and report regularly to ARB and the EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements. The SMAQMD tries to exercise a uniform emission control effort that will bring the entire region into compliance with State and federal standards as quickly as possible. The SMAQMD also works with the Sacramento Association of Governments (SACOG) to ensure a coordinated approach in the development and implementation of transportation plans throughout Sacramento County.

As a public agency, the SMAQMD takes an active part in the intergovernmental review process under CEQA. The SMAQMD may act as a lead agency, a responsible agency, or a commenting agency. The SMAQMD's *Guide to Air Quality Assessment in Sacramento County* establishes analysis

expectations and thresholds for the evaluation of air quality impacts. Table AIR-2 summarizes applicable thresholds of significance for criteria pollutants.

Table AIR-2 Adopted SMAQMD Thresholds of Significance

Pollutant	Construction Phase	Operational Phase
ROGs	NONE	65 pounds per day
NOx	85 pounds per day	65 pounds per day
PM_{10}	**Zero (0).** If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year	
$PM_{2.5}$	**Zero (0).** If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year	

Source: Sacramento Metropolitan Air Quality Management District 2017.

Air Quality Plans

State Planning

The CCAA also requires districts to adopt air quality attainment plans and to review and revise their plans to address deficiencies in interim measures of progress once every three years. The SMAQMD submitted the 1991 Air Quality Attainment Plan (AQAP) in compliance with the requirements set forth in the CCAA. The 1991 AQAP was designed to make expeditious progress toward attaining the state ozone standard and contained schedules for control programs on stationary sources, transportation and indirect sources, and a vehicle/fuels program. Every three years, the SMAQMD issues a report that assesses their progress toward attaining state air quality standards. The most recent update to this report is the 2015 Triennial Report and Progress Plan. California Health and Safety Code section 40924(a) requires districts to prepare an Annual Progress Report and submit the report to the California Air Resource Board summarizing its progress in meeting the schedules for developing, adopting, and implementing the air pollution control measures contained in the district's Triennial Reports by December 31 of each year. The most current update to this report (as of November 2017) is the 2016 Annual Progress Report Plan.

Federal Planning

The SMAQMD is in nonattainment for federal ozone and $PM_{2.5}$, as described above. The SMAQMD has therefore adopted attainment plans as part of their effort to achieve federal air quality standards.

To address the EPA's 8-hour ozone standard, counties within the Sacramento Area (Sacramento, Yolo, and portions of Placer, El Dorado, Solano, and Sutter) adopted the 2013 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan to address how the region would attain the 1997 8-hour standard. This plan was approved by U.S. EPA effective March 2, 2015. The region shows that it attained the 1997 8-hour NAAQS based on ambient data for the 2013–2015 monitoring period.

The Sacramento $PM_{2.5}$ planning region was classified as attainment for the 2012 annual average $PM_{2.5}$ NAAQS of 12 $\mu g/m^3$, and classified as nonattainment in 2009 for the 2006 24-hour $PM_{2.5}$ NAAQS of 35$\mu g/m^3$. The region prepared the $PM_{2.5}$ Maintenance Plan and Redesignation Request (2013) to address how the region attained and would continue to attain the 24-hour $PM_{2.5}$ standard. The region attained the standard based on 2009–2011 monitoring data, but

postponed the submittal of the plan because of high concentrations in 2012 that caused exceedances.

On May 10, 2017, EPA found that the area attained the 2006 24-hour $PM_{2.5}$ NAAQS by the attainment date of December 31, 2015. This finding was based on complete, quality-assured and certified $PM_{2.5}$monitoring data for 2013 – 2015. The $PM_{2.5}$ Maintenance Plan and Redesignation Request will be updated and submitted in the future based on the clean data finding made by the EPA. The particulate matter planning region includes all of Sacramento County, the eastern portion of Yolo County, the western portions of El Dorado and Placer counties and the northeast portion of Solano County

The Sacramento region was classified as attainment for the 1997 PM_{10} 24-hour NAAQS of 150 $\mu g/m^3$. In October 2010, the SMAQMD prepared the PM10 Implementation /Maintenance Plan and Redesignation Request for Sacramento County. EPA approved the PM_{10} Plan, which allowed EPA to proceed with the redesignation of Sacramento County as attainment for the PM_{10} NAAQS. The first Maintenance Plan showed maintenance from 2012 through 2022. A second plan must provide for maintenance of the NAAQS for 10 more years after expiration of the first 10-year maintenance period. The SMAQMD will prepare and submit a second maintenance plan in 2020 to demonstrate maintenance of the PM_{10} standard through 2032.

The air quality plans prepared by the SMAQMD include measures and programs reduce emissions. These include:

- Stationary Source Control Measures
- District Mobile Source Control Programs
- District Land Use and Transportation Programs
- Community Education Programs

Measures identified in the air quality plans to reduce emissions include the adoption of rules by the SMAQMD (such as the Check Before You Burn program for indoor wood burning appliances associated with Rule 421) to control stationary sources emissions, market-based incentive programs to promote the accelerated introduction of lower emission mobile source technologies into the Sacramento region, transportation control measures (TCMs) that reduce air pollutant emissions during construction and operational phases of land developments. The extension of Regional Transit light rail system Folsom in 2005 is an example of a TCM. In addition, the "Spare The Air" Program, a year-round public education program with an episodic ozone reduction element during the summer is an example of a community education program designed to raise awareness of increased pollution and encourage voluntary reductions in vehicle use during these days.

LOCAL LAWS AND REGULATIONS

Mixed-use zones (Folsom Municipal Code Chapter 17.23.030(D))

This section of the FMC allows the community development department (CDD) director to determine whether a proposed use that is not listed in the mixed-use zoning district use table should be conditionally allowed within the mixed-use zone. Uses that are generally considered incompatible with residential uses due to noise, odor, vibration, and glare are prohibited in any of the mixed-use zones.

A-1-1, Agricultural-Reserve District, Uses requiring use permits (Folsom Municipal Code Chapter 17.35.040)

The section states that applications for use permits will be reviewed for compatibility with the long-term uses designated for the area on the general plan, and that uses which have the potential to emit noise and/or odor beyond the property lines will not be approved.

Folsom Standard Construction Specifications

Requirements of the City's Standard Construction Specifications and Details, General Provisions related to air resources include:

- *6.07 Air Pollution Control* – requires that construction contractors comply with all air pollution control rules and regulations, including County of Sacramento and City of Folsom air pollution control rules.
- *Section 6: Sanitary Sewer System Construction, 6.6(2)(A)(6)* – requires the contractor to submit an odor mitigation plan for the removal and replacement of existing sewer main pipe.

CHAPTER 9: BIOLOGICAL RESOURCES

FEDERAL LAWS AND REGULATIONS

Federal Endangered Species Act

Species listed under the federal Endangered Species Act (ESA) could be present in or near the City of Folsom. USFWS has authority over projects that may result in the "take" of a species listed as threatened or endangered under the ESA. Section 9 of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Federal regulations define take further to include habitat modification or degradation that would be expected to result in death or injury to listed wildlife. If a project would result in the "take" of a federally listed species, then either an incidental take permit under ESA Section 10(a) or a federal interagency consultation under ESA Section 7 is required before the take may occur. Typically the project proponent must minimize and compensate for take as a condition of such a permit.

Clean Water Act Section 404

The federal Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water-quality control activities by EPA and the states. CWA Section 404 requires a project proponent to obtain a permit from USACE before engaging in any activity that involves discharging dredged or fill material into waters of the United States, including wetlands. The relevant terms are generally defined as follows:

- **Fill material**: Any material that replaces a portion of a water of the United States with dry land or changes the bottom elevation of a portion of a water of the United States
- **Waters of the United States**: Navigable waters of the United States; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; tributaries to any of these waters; and many wetlands

- **Wetlands**: Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions

Jurisdictional wetlands must meet three criteria: hydrophytic vegetation, hydric soil, and wetland hydrology. They must be adjacent to traditional navigable waters, must directly abut relatively permanent waters, or must have a significant nexus with a traditional navigable water.

Before USACE can issue a[n individual] permit under CWA Section 404, it must determine that the project complies with the CWA Section 404(b)(1) guidelines. The Section 404(b)(1) guidelines (Title 40, Section 230.10[a] of the Code of Federal Regulations [40 CFR 230.10(a)]) include the following specific requirement:

> [N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. …

To comply with this provision, the applicant must evaluate opportunities that would result in a less adverse impact on the aquatic ecosystem.

In 2008, USACE and EPA issued regulations governing compensatory mitigation for activities authorized by permits issued by USACE. These regulations establish a preference for using mitigation banks to reduce some of the risks and uncertainties associated with compensatory mitigation.

Clean Water Act Section 401

The Clean Water Act (CWA) requires every state to prepare and periodically update a basin plan that sets forth water quality standards for various sources of pollution all surface water and groundwater bodies in the basin, and contains actions to control nonpoint and point sources of pollution in order to achieve and maintain the basin plan standards.

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the water quality standards and criteria contained in the appropriate basin plan. In California, the State Water Resources Control Board (SWRCB) and the nine regional water quality control boards have authority to issue such certificates.

While Section 401 certificates are intended to protect water quality, they indirectly protect aquatic species that inhabit those habitats

Migratory Bird Treaty Act

The Migratory Bird Treaty Act, first enacted in 1918, implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international protection of migratory birds. The Migratory Bird Treaty Act authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act makes it unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part,

nest or egg of any such bird…" (U.S. Code Title 16, Section 703). This prohibition includes both direct and indirect acts, although harassment and habitat modification are not included unless they result in direct loss of birds, nests, or eggs. The current list of species protected by the Migratory Bird Treaty Act includes several hundred species and includes nearly all native birds.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald and golden eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

STATE LAWS AND REGULATIONS

California Endangered Species Act

The California Endangered Species Act (CESA) directs state agencies to decline approval of projects that would jeopardize the continued existence of an endangered or threatened species, or would result in the destruction or adverse modification of habitat essential to a species' continued existence. CESA defines "take" of a species as an activity that would directly or indirectly kill an individual of a species. Unlike the federal ESA's definition, the CESA's definition of take does not include "harm" or "harass." As a result, the threshold for take may be higher under the CESA than under the ESA because the CESA does not necessarily consider habitat modification to be take. CESA is administered by the California Department of Fish and Wildlife (CDFW), and the law states that CDFW, together with the project proponent and any state lead agency, must develop reasonable and prudent alternatives to a proposed project that would result in take of species protected under CESA. These reasonable and prudent alternatives must be consistent with conserving the species while maintaining the project purpose to the greatest extent possible.

CESA Sections 2081(b) and 2081(c) allow CDFW to issue an incidental take permit for a species listed as threatened or endangered under CESA, but only if certain criteria are met. Specifically, the take must be incidental to an otherwise lawful activity; the impacts of the authorized take must have been minimized and fully mitigated; and issuance of the permit must not jeopardize the continued existence of a state-listed species.

CDFW maintains a list of species considered threatened and endangered under the CESA. In addition, CDFW maintains lists of candidate species and species of special concern. Candidate species are those species under review for addition to the list of either threatened or endangered species. "Species of special concern" status applies to animals that are not listed under the federal

ESA or CESA, but that nonetheless are declining at a rate that could result in listing; it also applies to animals that have historically occurred in low numbers, for which known threats to their persistence currently exist. The designation is intended to result in special consideration for these animals during environmental review.

Native Plant Protection Act

The NPPA was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

California Fish and Game Code Section 1602

California Fish and Game Code Section 1602 authorizes CDFW to regulate diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake. As defined by CDFW, a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. CDFW may authorize such impacts on streams by issuing a lake or streambed alteration agreement, which typical will contain measures to protect the resources within and adjacent to the lake, river, or stream.

California Fish and Game Code Section 3503

Section 3503.5 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes [falcons] and Strigiformes [owls]), including their nests or eggs. Typical violations include destruction of active raptor nests as a result of tree removal and failure of nesting attempts, resulting in loss of eggs and/or young, because of disturbance of nesting pairs by nearby human activity.

Fully Protected Species

Prior to the passage of CESA, the State enacted protections for some animal species facing possible extinction. The California Department of Fish and Game (now CDFW) developed lists of fully protected fish, mammals, amphibians, reptiles, birds, and mammals. Sections 3511, 4700, 5050, and 5515 strictly prohibit the incidental or deliberate take of fully protected species. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock; therefore, avoidance measures may be required to avoid take of fully protected species.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans that sets forth water quality standards for all surface water and groundwater bodies in the basin, and which contain actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans protect wetlands through the establishment of water quality objectives that seek to reduce pollutants that flow into wetlands. The RWQCB's jurisdiction includes Waters of the U.S. as well as areas that meet the definition of "waters of the state", defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCBs have the discretion to take jurisdiction over waters not

protected under Section 401 of the Clean Water Act, provided they meet the definition of waters of the state. The RWQCBs typically require mitigation measures that lead to no net loss of wetland functions and values.

LOCAL ORDINANCES AND REGULATIONS

Tree Preservation (Folsom Municipal Code Chapter 12.16)

Folsom Municipal Code Chapter 12.16 protects native oak trees (i.e., *Quercus lobata, Q. douglasii, Q. wislizenii*, and hybrids thereof) including: individual trees with a DBH of 6 inches or greater for single trunk trees or an aggregate DBH of 20 inches or greater for multiple trunk trees; landmark trees, heritage trees, and street trees. Landmark trees are trees determined by the city council to be a significant community benefit. Heritage trees are native oak trees with a DBH of 19 inches or greater for single trunk trees or an aggregate DBH of 38 inches or greater for multiple trunk trees. Street tree means any tree growing within the City's tree maintenance strip and contained on the master tree list available from the planning director. Removal of protected trees or disturbances that could result in eventual death (such as trenching, grading, soil compaction, placement of fill, impervious surfaces, irrigation, and landscaping within the drip lines of protected trees) requires that a tree permit be obtained from the City Planning Director.

Folsom Standard Construction Specifications

Requirements of the City's Standard Construction Specifications and Details, General Provisions related to biological resources include:

- *Section 9.1.9: Grading/Clearing and Grubbing/Trees and Shrubbery* – For underground construction of all sewer and water facilities or channel drainage facilities in the vicinity of trees, shrubbery, and lawns, or roadway construction projects, the minimum damage to public and private property should occur. Trees to be removed shall be designated on the plans, and trees and shrubbery that are not to be removed shall be protected from injury or damage. Tree branches extending over the roadway shall be trimmed by a professional tree trimmer to provide a minimum clearance of 14'-6". If cuts are proposed to be 2" in diameter and greater, then a City issued tree permit shall be required.
- *Section 12.01. Protection of Existing Trees* – Requires the protection of existing trees not authorized for removal. The Contractor shall comply with the provisions of the City's Tree Preservation Ordinance. Every reasonable effort shall be made to avoid creating conditions adverse to the tree's health. The natural ground within the dripline of saved and protected trees shall remain as undisturbed as possible. Any tree, regardless of species, that, in the opinion of the City Arborist, is irreparably damaged by the Contractor to the point of affecting the tree's long term health and longevity shall be mitigated for in according to the standards set forth in Folsom Municipal Code Section 12.16.070

CHAPTER 10: CULTURAL RESOURCES

FEDERAL REGULATIONS

Section 106 for the National Historic Preservation Act of 1966 (NHPA)

Section 106 of the National Historic Preservation Act (NHPA) define an historic property as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP) (36 CFR 800.16).

Federal regulations for cultural resources are governed primarily by Section 106 of the NHPA of 1966. Section 106 of NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the Act (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal funding.

CALIFORNIA LAWS AND REGULATIONS

CEQA is the primary mandate governing projects under state jurisdiction that may affect cultural resources. However, there are a few other laws governing cultural resources that may also pertain. These include California Public Resources Code (PRC) 5097.9 et seq. (Native American Heritage) and Health and Human Safety Code 7050.5 et seq. (Human Remains).

Records about Native American graves, cemeteries, and sacred places, as well as information about the location of archaeological sites are exempt from being disclosed to the public under California's equivalent of the Freedom of Information Act (also known as "Sunshine Laws") (California Government Code 6254.10). Such information is considered sensitive and confidential and should not be contained in a public document.

California Environmental Quality Act

CEQA requires that public or private projects financed or approved by public agencies must assess the effects of the project on historical resources. Historical resources are defined as buildings, sites, structures, objects or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed. Therefore, prior to the assessment of effects or the development of mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows.

- Identify potential historical resources.
- Evaluate the eligibility of historical resources.
- Evaluate the effects of a project on all eligible historical resources.

CEQA Guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review.

- The resource is listed in or determined eligible for listing in the CRHR.
- The resource is included in a local register of historical resources, as defined in PRC 5020.1(k) or identified as significant in a historical resource survey that meets the requirements of PRC 5024.1(g), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (14 CCR 15064.5[a]).

A cultural resource may be eligible for inclusion in the CRHR if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history. (PRC 5020.1[k], 5024.1, 5024.1[g].)

In addition, properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR, and thus are significant historical resources for the purposes of CEQA (PRC 5024.1[d][1]).

According to CEQA, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant impact on the environment (14 CCR 15064.5[b]). CEQA further states a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter the physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC 5020.1(k) and 5024.1(g).

CEQA identifies two ways in which an archaeological resource can qualify as significant. First, the resource can meet the criteria for historical resource, as described above. Second, an archaeological resource may qualify as a *unique archaeological resource*. A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria.

- It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- It has a special and particular quality such as being the oldest of its type or the best available example of its type.
- It is directly associated with a scientifically recognized important prehistoric or historic event or person. (PRC 21083.2.)

Regulations Concerning Native American Heritage

California Public Resources Code 5097.9 states that no public agency or a private party on a public property shall "interfere with the free expression or exercise of Native American Religion." The code further states, "No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine...except on a clear and convincing showing that the public interest and necessity so require." County and city lands are exempt from this provision, expect for parklands larger than 100 acres.

Assembly Bill (AB) 52 was approved in September 2014, amending Section 5097.94 of the Public Resources Code, and adding to sections of the code relating to Native Americans. AB 52 requires lead agencies to consider the effects of projects on tribal cultural resources, and to conduct consultation with federally and non-federally recognized Native American Tribes early in the environmental planning process. AB 52 states that the lead agency must consult with California Native American Tribes who are traditionally and culturally affiliated with the geographic area of the proposed project, and who have requested such consultation in writing.

California Senate Bill 18

California Senate Bill 18 (SB 18, Government Code 65352.3) states that prior to the adoption or amendment of a city or county's general plan, the city or county shall conduct consultation with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC). The intent of SB 18 is to preserve or mitigate impacts to places, features, and objects—as defined in PRC 5097.9 and 5097.993—that are located within the city or county's jurisdiction. The bill also states that the city or county shall protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects identified by Native American consultation. SB 18 applies to all general and specific plans and amendments proposed after March 1, 2005.

Regulations Concerning Human Remains

Disturbance of human remains without the authority of law is a felony (California Health and Safety Code, Section 7052). If the remains are Native American in origin, they are within the jurisdiction of the NAHC (California Health and Safety Code, 7052.5c; PRC 5097.98).

According to state law (California Health and Safety Code, Section 7050.5, PRC 5097.98), if human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- the coroner of the county has been informed and has determined that no investigation of the cause of death is required; and

- if the remains are of Native American origin the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of with appropriate dignity the human remains and any associated grave goods as provided in PRC 5097.98; or
- the NAHC was unable to identify a descendent or the descendent failed to make a recommendation within the minimum 48-hour timeframe allotted to the descendant.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052). Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC.

California Historical Building Code

The CHBC is intended to save California's architectural heritage by recognizing the unique construction issues inherent in maintaining and adaptively reusing historic buildings. The CHBC provides alternative building regulations for permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a "qualified historical building or structure."

Section 18955 of the CHBC defines a "qualified historical building or structure" as "any structure or property, collection of structures, and their associated sites deemed of importance to the history, architecture, or culture of an area by an appropriate local or state governmental jurisdiction. This shall include structures on existing or future national, state or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites, places, historic districts, or landmarks. This shall also include places, locations, or sites identified on these historical registers or official inventories and deemed of importance to the history, architecture, or culture of an area by an appropriate local or state governmental jurisdiction."

The CHBC's standards and regulations are intended to facilitate the rehabilitation or change of occupancy so as to preserve their original or restored elements and features, to encourage energy conservation and a cost effective approach to preservation, and to provide for reasonable safety from fire, seismic forces or other hazards for occupants and users of such buildings, structures and properties and to provide reasonable availability and usability by the physically disabled.

LOCAL LAWS AND REGULATIONS

City of Folsom Cultural Resources Inventory

The City created and maintains a Cultural Resources Inventory through the City's Community Development Department and Historic District Commission. The Inventory is a guide to the City's significant archaeological and historical resources. The Cultural Resources Inventory Program encourages public recognition, nomination, and protection of resources of architectural, historical, archaeological and cultural significance; identifies historical resources for City planning purposes; and determines eligibility for preservation grant funding. The Inventory's criteria for listing in the

inventory parallel those of the NRHP and CRHR, but are concerned with a potentially significant resource's place in Folsom history. To be listed in the Inventory, a resource must:

- be associated with events contributing to the broad patterns of Folsom's history and culture;
- be associated with historically important people;
- embody distinctive characteristics of a type, period, region or construction method, or represent the work of a creative individual; or
- have the potential for yielding important information in Folsom's history or prehistory.

Folsom Standard Construction Specifications

Requirements of the City's Design and Procedures Manual and Improvement Standards related to Cultural Resources include:

- *Article 11. Cultural Resources* - Requires contractors to stop work upon the discovery of unknown cultural or historic resources. An archaeologist must then be retained to evaluate the significance of the resource to establish mitigation requirements.

CHAPTER 11: GEOLOGY, SOILS, AND MINERAL RESOURCES

FEDERAL REGULATIONS

Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program (NEHRP), which includes an earthquake prediction system and seismological resource studies. This program was substantially amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives.

Disaster Mitigation Act of 2000

The Sacramento County Multi-Hazard Mitigation Plan (MHMP) is designed to meet the requirements of the Disaster Mitigation Act of 2000, which allows for the eligibility for certain Hazard Mitigation programs for the Federal Emergency Management Agency (FEMA). Formulation of the MHMP was based on: hazard identification and risk assessment of potential natural hazards that could impact Sacramento County, including the City of Folsom, a review of the County's capability to reduce hazards impacts, and recommendations to further reduce vulnerability to potential disasters, including earthquakes.

CALIFORNIA LAWS AND REGULATIONS

Alquist-Priolo Earthquake Fault Zoning Act

The 1972 Alquist-Priolo Earthquake Fault Zoning Act, codified in the Public Resources Code as Division 2, Chapter 7.5, has been amended ten times. The purpose of this Act is to prohibit the location of most structures for human occupancy across the traces of active faults and to thereby

mitigate the hazard of fault rupture (Section 2621.5). Under the Act, the State Geologist (Chief of the CGS) is required to delineate "Earthquake Fault Zones" along known active faults in California. Cities and counties affected by the zones must regulate certain development "projects" within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. The State Mining and Geology Board provides additional regulations (Policies and Criteria) to guide cities and counties in their implementation of the law (California Code of Regulations, Title 14, Div. 2).

California Seismic Hazards Mapping Act of 1990

The Seismic Hazards Mapping Act of 1990 directs California Geological Survey to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the act is to reduce threats to public safety and to minimize loss of life and property by identifying and mitigating these seismic hazards. The Seismic Hazards Mapping Act was passed by the California Legislature after the 1989 Loma Prieta earthquake.

California Building Standards Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBC, California Code of Regulations [CCR] Title 24). California's building codes are published in their entirety every three (3) years. The CBC applies to all occupancies throughout the state unless local amendments have been adopted, and includes regulations for seismic safety, excavation of foundations and retaining walls, and grading activities (including drainage and erosion control and construction on unstable soils).

Surface Mining and Reclamation Act (SMARA)

The State-mandated SMARA requires the identification and classification of mineral resources in areas within the State subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. MRZs are classified by the State Geologist by analyzing associated geologic and economic factors without regard to current land use or ownership (DOC 2013). There are four general classifications (MRZ-1 through MRZ-4) based upon the State Geologist's determination of identified mineral resource significance and are defined below:

- MRZ-1 "Areas of No Mineral Resource Significance", wherein geologic information indicates no significant mineral deposits are present;
- MRZ-2 "Areas of Identified Mineral Resource Significance," are areas that contain Identified mineral resources;
- MRZ-3 "Areas of Undetermined Mineral Resource Significance," are areas of undetermined mineral resource significance; and
- MRZ-4 "Areas of Unknown Mineral Resource Significance", are areas of unknown mineral resource potential.

National Pollutant Discharge Elimination System (NPDES) General Permit for Construction

The NPDES permit program, created in 1972 by the Clean Water Act (CWA), helps address water pollution by regulating point sources that discharge pollutants to waters of the United States. The

SWRCB's statewide stormwater general permit for construction activity (Order 2009-0009-DWQ) applies to all land-disturbing construction activities that would disturb more than one acre, and discharges from smaller sites that are part of a larger common plan of development or sale. Construction activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The permit also requires dischargers to consider the use of post-construction permanent BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures.

Activities subject to the NPDES general permit for construction activity must develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and description of construction activities and identifies the BMPs that will be employed to prevent soil erosion and discharge of other construction related pollutants, such as petroleum products, solvents, paints, and cement, that could contaminate nearby water resources. A monitoring program is generally required to ensure that BMPs are implemented according to the SWPPP and are effective at controlling discharges of storm water related pollutants.

LOCAL LAWS AND REGULATIONS

Hillside Development Standards (Folsom Municipal Code Chapter 14.33)

Regulates urban development on hillsides and ridges to protect property against losses from erosion, ground movement and flooding; to protect significant natural features; and to provide for functional and visually pleasing development of the city's hillsides by establishing procedures and standards for the siting and design of physical improvements and site grading.

Grading Ordinance (Folsom Municipal Code Section 14.29)

Requires a grading permit prior to the initiation of any grading, excavation, fill or dredging; establishes standards, conditions, and requirements for grading, erosion control, stormwater drainage, and revegetation. Regulates grading citywide to require revegetation and to control erosion, stormwater drainage, and ground movement.

Folsom Standard Construction Specifications

Requirements of the City's Design and Procedures Manual and Improvement Standards related to soil erosion during grading include:

- *10.4 Erosion and Sedimentation Control* – Requires a site specific erosion and sedimentation control plan submitted concurrently with the grading plans for private developments.
- *20.3 Landscape, Erosion Control* – Requires cut slopes 2:1 and steeper to have special design provisions to control erosion and runoff.
- Requirements of the City's Standard Construction Specifications and Details, General Provisions related to soil erosion:
- *9.1 Clearing and Grubbing* - Requires implementation of a Stormwater Pollution Prevention Plan for qualifying construction activities.

CHAPTER 12: GLOBAL CLIMATE CHANGE

FEDERAL LAWS AND REGULATIONS

National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks

On August 28, 2014, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) finalized a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the U.S. (NHTSA 2012). EPA proposed the first-ever national GHG emissions standards under the federal Clean Air Act, and NHTSA proposed Corporate Average Fuel Economy standards under the Energy Policy and Conservation Act. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program will increase fuel economy to the equivalent of 54.5 miles per gallon for the fleet of cars and light-duty trucks by model year 2025, and, as of 2016, NHTSA and EPA are developing additional phases to address GHG emission standards for new medium- and heavy-duty trucks (NHTSA 2016).

California Laws and Regulations

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

On July 13, 2017, the California Supreme Court addressed the use of California's long-range GHG reductions goal included in EO S-3-05 as a threshold of significance in its decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056. The Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal." The Court emphasized the narrowness of its ruling in deciding on the sole question of use of the EO goal as a measure of significance for 2050 emissions. The Court also recognized the goal of a 40 percent reduction in 1990 GHG levels by 2030 is a "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050."

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that these reductions "…shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The

[California Air Resources Board] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020." [California Health and Safety Code, Division 25.5, Part 3, Section 38551]

Assembly Bill 32 Climate Change Scoping Plan and Updates

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of carbon dioxide-equivalent (CO_2e) emissions, or approximately 21.7 percent from the State's projected 2020 emission level of 545 MMT CO_2e under a business-as-usual scenario (this is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and subsequently adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014a:4 and 5). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014a: ES-2). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

On January 20, 2017, CARB released its proposed 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update), which lays out the framework for achieving the 2030 reductions as established in more recent legislation (discussed below). The proposed 2017 Scoping Plan Update identifies the GHG reductions needed by each emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels before 2030.

The proposed update also identifies how GHGs associated with local plan-level projects could be evaluated under CEQA. Specifically, CARB recommends that local-plan level projects results in no more than 6 metric tons (MT) CO_2e per capita by 2030 and no more than 2 $MTCO_2e$ per capita by 2050 would not result in substantial increase in GHGs or conflict with local or State plans adopted for the purpose of reducing GHG emissions.

Senate Bill 375

Senate Bill (SB) 375, signed by Governor Schwarzenegger in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocation in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Executive Order B-30-15

On April 20, 2015 Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius (°C), the

warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions than the Statewide fleet in 2016 (CARB [no date]).

Senate Bill X1-2, the California Renewable Energy Resources Act of 2011

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond. In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030.

California Building Efficiency Standards of 2016 (Title 24, Part 6)

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by California Energy Commission (CEC) regarding energy conservation standards and found in Title 24, Part 6 of the California Code of Regulations. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All

buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards (CEC 2015a). Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal. Per capita disposal rates for Los Angeles County are below the target disposal rates established by AB 939 (1989; California Department of Resources Recycling and Recovery [CalRecycle] 2017).

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a Statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939.

LOCAL LAWS AND REGULATIONS

No specific citywide local laws, local regulations, or standard conditions have been adopted related to reducing communitywide GHG emissions or adaptation to changes in climate.

CHAPTER 13: HAZARDS AND HAZARDOUS MATERIALS

FEDERAL REGULATIONS

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA, commonly referred to as Superfund, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified.

Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the

National Priorities List (NPL), a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA was enacted on October 17, 1986 to amend CERCLA. SARA made changes to CERCLA based on EPA's experience in administering the complex Superfund program. SARA stressed the importance of permanent remedies and innovative treatment technologies, required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased State involvement, increased the focus on human health problems, encouraged greater citizen participation, and increased the size of the Trust Fund to $8.5 billion. SARA also required EPA to revise the Hazard Ranking System to ensure that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled hazardous waste sites that may be placed on the NPL.

Federal Resource Conservation and Recovery Act of 1976 (RCRA)

RCRA is the nation's hazardous waste control law. It defines hazardous waste, provides for a cradle-to-grave tracking system, and imposes stringent requirements on treatment, storage and disposal facilities. RCRA requires environmentally sound closure of hazardous waste management units at treatment, storage, and disposal facilities. The EPA is the principal agency responsible for the administration of RCRA, SARA and CERCLA.

Occupational Safety and Health Act of 1970

Congress passed the Occupational Safety and Health Act to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions.

In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

Healthy Forest Restoration Act of 2003

The intent of the Healthy Forest Restoration Act is to reduce the risk of destructive wildfires, and can provide funds for fuel treatment in communities at risk adjacent to federal Forest Service and Bureau of Land Management lands. The Act provides communities at risk with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal and non federal lands.

National Fire Plan

The National Fire Plan was developed under Executive Order 11246 in August 2000, following a landmark wildland fire season. Its intent is to actively respond to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The Plan

addresses Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability.

Disaster Mitigation Act of 2000

The Sacramento County Multi-Hazard Mitigation Plan (MHMP) is designed to meet the requirements of the Disaster Mitigation Act of 2000, which allows for the eligibility for certain Hazard Mitigation programs for the Federal Emergency Management Agency (FEMA). Formulation of the MHMP was based on: hazard identification and risk assessment of potential natural hazards that could impact Sacramento County, including the City of Folsom, a review of the County's capability to reduce hazards impacts, and recommendations to further reduce vulnerability to potential disasters.

CALIFORNIA LAWS AND REGULATIONS

California Environmental Protection Agency (Cal/EPA)

The Cal/EPA was created in 1991 to coordinate State environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. Cal/EPA unifies the State's environmental authority under a single accountable, cabinet-level agency. The Secretary for Environmental Protection oversees the Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board, Department of Toxic Substances Control, and the Office of Environmental Health Hazard Assessment.

California Department of Toxic Substance Control (DTSC)

The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Department's Hazardous Waste Management Program (HWMP) implements the Federal RCRA program in California, and develops regulations, policies, guidance, and technical assistance/training to assure the safe storage, treatment, transportation, and disposal of hazardous wastes.

California State Water Resources Control Board (SWRCB)

Acting through the Regional Water Quality Control Board (RWQCB), the SWRCB regulates surface and groundwater quality pursuant to the Porter-Cologne Water Quality Act, the Federal Clean Water Act, and the Underground Tank Law. Under these laws, RWQCB is authorized to supervise the cleanup of hazardous waste sites referred to it by local agencies in those situations where water quality may be affected.

Depending on the nature of contamination, the lead agency responsible for the regulation of hazardous materials at the site can be the DTSC, RWQCB, or both. DTSC evaluates contaminated sites to ascertain risks to human health and the environment. Sites can be ranked by DTSC or referred for evaluation by the RWQCB. In general, contamination affecting soil and groundwater is handled by RWQCB and contamination of soils is handled by DTSC.

Hazardous Substance Account Act (HSAA), California Health and Safety Code Section 25300 ET SEQ

This act, known as the California Superfund, has three purposes: 1) to respond to releases of hazardous substances; 2) to compensate for damages caused by such releases; and 3) to pay the

state's 10 percent share in CERCLA cleanups. The HSAA authorizes the Department of Toxic Substance Control (DTSC) to order and/or oversee the cleanup of contaminated sites and hazardous substances releases. Contaminated sites that fail to score above a certain threshold level in the EPA's ranking system may be placed on the California Superfund list of hazardous wastes requiring cleanup.

Hazardous Materials Release Response Plans and Inventory Act of 1985, California Health and Safety Code Section 25500 ET SEQ

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, defines hazardous materials as raw or unused materials that are part of a process or manufacturing step.

Although hazardous materials are not strictly defined as hazardous wastes, the health concerns involved are similar, and facility descriptions, materials inventories, and emergency response plans are required.

Hazardous Waste Control Act

The Hazardous Waste Control Act is implemented by regulations contained in Title 26 of the California Code of Regulations that describe requirements for the proper management of hazardous wastes. The act created the state hazardous waste management program, which is similar to but more stringent than the federal RCRA program. The program includes hazardous waste criteria for:

- identification and classification;
- generation and transportation;
- design and permitting of recycling, treatment, storage, and disposal facilities;
- treatment standards;
- operation of facilities and staff training; and
- closure of facilities and liability requirements.

The Hazardous Waste Control Act and Title 26 regulations list more than 800 potentially hazardous materials and establish criteria for identifying, packaging, and disposing of such wastes. Under these regulations, the generator of hazardous waste material must complete a manifest that accompanies the material from the point of generation to transportation to the ultimate disposal location, with copies of the manifest filed with DTSC.

Environmental Health Standards for the Management of Hazardous Waste, Title 22, Division 4.5 of the California Code of Regulations

Some state agencies have the responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies, which include the California Highway Patrol (CHP), the California Department of Transportation (Caltrans), and DTSC.

Regulations governing hazardous materials transport are included in the California Vehicle Code (Title 13 of the California Code of Regulations, the State Fire Marshal Regulations (Title 19 of the California Code of Regulations), and Title 22 of the California Code of Regulations.

Transport of hazardous materials can only be conducted under a registration issued by DTSC. ID numbers are issued by DTSC or EPA for hazardous waste transporters and treatment, storage and disposal facilities for hazardous materials. These numbers used to identify the hazardous waste handler and to track waste from point of origin to final disposal. All material transport takes place under manifest, and compliance with Title 22 requires that transporters take immediate action to protect human health and the environment in the event of spill, release, or mishap.

Emergency Services Act

Under the Emergency Services Act (California Government Code Section 8850 et seq.), the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Quick response to incidents involving hazardous materials or hazardous waste is a key part of the plan. The Governor's Office of Emergency Services administers the plan, coordinating the responses of other agencies, including EPA, the California Highway Patrol, RWQCBs, air quality management districts, and county disaster response offices.

Hazardous Waste and Substances Sites List

The Hazardous Waste and Substances Sites List (Cortese List) is a planning document required by California Government Code Section 65962.5. DTSC is required to compile the list, which consists of potentially contaminated sites in the state. It is used by state agencies, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites.

Underground Storage Tank Program

The California Department of Public Health (formerly the California Department of Health Services) and the SWRCB list hazardous sites of underground storage tanks (USTs) listed for remedial action because of unauthorized release of toxic substances. Leak prevention, cleanup, enforcement, and tank testing certification are the elements of the UST Program, which is administered by the SWRCB.

California Integrated Waste Management Act

This act requires the development and implementation of household hazardous-waste disposal plans. The CIWMB oversees compliance with this act and enforces operational plans for solid-waste facilities.

Toxic Release Contingency Plan

The Toxic Release Contingency Plan (California Government Code Section 8574.16) requires that regional and local planning agencies incorporate within their planning the State's effort to respond to emergency toxic releases, and ensure the effective and efficient use of regional and local resources in the areas of traffic and crowd control, firefighting, hazardous materials response and cleanup, radio and communications control, and provision of emergency medical services.

National Pollutant Discharge Elimination System (NPDES) General Permit for Construction

The SWRCB's statewide stormwater general permit for construction activity (Order 2009-0009-DWQ) applies to all land-disturbing construction activities that would disturb more than one acre.

Construction activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. The permit also requires dischargers to consider the use of post-construction permanent BMPs that will remain in service to protect water quality throughout the life of the project. Types of BMPs include source controls, treatment controls, and site planning measures.

Activities subject to the NPDES general permit for construction activity must develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and description of construction activities and identifies the BMPs that will be employed to prevent soil erosion and discharge of other construction related pollutants, such as petroleum products, solvents, paints, and cement, that could contaminate nearby water resources. A monitoring program is generally required to ensure that BMPs are implemented according to the SWPPP and are effective at controlling discharges of storm water related pollutants.

Asbestos Airborne Toxics Control Measure (ATCM) for Asbestos-Containing Serpentine

The Asbestos Airborne Toxics Control Measure (ATCM) for Asbestos-Containing Serpentine, adopted in 1990, prohibited the use of serpentine aggregate for surfacing if the asbestos content was five percent or more asbestos. The limit on asbestos content was lowered to 0.25 percent in 2000 and modified to include ultramafic rock. The Sacramento Metropolitan Air Quality Management District (SMAQMD) enforces the California Air Resources Board's Asbestos ATCM to control dust emissions and human exposure to the asbestos fibers found in serpentine and ultramafic rock.

California Fire Plan

The Strategic California Fire Plan is the state's road map for reducing the risk of wildfire. The plan was finalized in early 2010 and revised in April 2016, and directs each CAL FIRE Unit to prepare a locally specific Fire Management Plan. The Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. By placing the emphasis on what needs to be done long before a fire starts, the Fire Plan looks to reduce fire fighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health.

Wildland-Urban Interface Building Standards

On September 20, 2005 the Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the California Code of Regulations, Title 24, Part 2, known as the 2007 California Building Code (CBC). The broad objective of the Wildland-Urban Interface Fire Area Building Standards is to establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in Wildland-Urban Interface Fire Areas. These codes include provisions for ignition-resistant construction standards in the wildland urban interface. The purpose of this Government Code chapter is to classify lands in accordance with whether a very high fire hazard severity is present so that public officials are able to identify measures that will mitigate the rate of spread, and reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property, and to require that those measures be taken.

LOCAL LAWS AND REGULATIONS

City of Folsom Community Wildfire Protection Plan

The 2013 City of Folsom Community Wildfire Protection Plan is a cooperative effort between Cal-Fire, the Folsom Fire Department, and the Folsom Fire Safe Council to address a regional need for improved defense plans against wildfires. The plan identifies areas of prime concern, describes fire prevention strategies, describes measures property owners can take to reduce the ignitibility of structures, and identifies best practices for fuel reduction. The Healthy Forest Restoration Act of 2003 requires that recommendations within community wildfire protection plans are used in developing annual programs of work to reduce hazardous fuels and increase protection for at-risk communities.

Fire Code (Folsom Municipal Code Chapter 8.36)

This chapter adopts the 2015 Edition of the International Fire Code with amendments adopted by the California Building Standards Commission and published as the 2016 Edition of the California Fire Code, with the express purpose of prescribing regulations governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises.

Hazardous Materials Disclosure (Folsom Municipal Code Chapter 9.34)

This section of the FMC defines hazardous materials and requires filing of a Hazardous Material Disclosure Form by businesses that manufacture, use, or store such materials. The fire department is required to maintain files of all disclosure forms received. Any person who knowingly violates the provisions of this chapter would be guilty of a misdemeanor.

Underground Storage of Hazardous Substances (Folsom Municipal Code Chapter 9.35)

This section of the FMC establishes standards for the construction and monitoring of facilities used for the underground storage of hazardous substances, and establishes a procedure for issuance of permits for the use of these facilities. The regulations include design standards and monitoring system requirements for new facilities. The regulations also require permits and monitoring systems installed, or alternative monitoring systems established, for existing underground storage tanks (installed on or before January 1, 1984).

Fire Danger in Open Public Space (Folsom Municipal Code Chapter 9.37)

This chapter aims to reduce and prevent fire hazards and fire danger in the public open space throughout the city. Unauthorized fire in the city's public open space during one of the most severe droughts on record in California constitutes an urgent and immediate threat to the public's life, health and safety. Section 9.37.030 prohibits unauthorized fire in any public open space, except within a designated picnic area.

Standard Construction Specifications

Requirements of the City's Design and Procedures Manual and Improvement Standards related to asbestos control during grading include:

- *4.10B Custom Home Residential Grading Plan Requirements, 4.19 Grading Permit Requirements, 10.4 Erosion and Sedimentation Control* – These measures require that grading plans for residential lots within the City of Folsom that are located in a geologic unit which is likely to contain naturally occurring asbestos shall be required to adhere to requirements established by the Sacramento Metropolitan Air Quality Management District prior to approval of any grading plan and/or grading permit for the lot.

Requirements of the City's Standard Construction Specifications and Details, General Provisions related to hazards include:

- *6.05C Protection of Workers* - Requires contractors to take every precaution or the safety of all employees to prevent accident or injury.
- *6.*05I *Protection of Adjacent Property* – Requires contractors to contact USA Underground Service Alert to locate underground utilities prior to the initiation of work.
- *6.06 Asbestos Related Work* - Requires compliance with California Labor Code, sections 6501.5 through 6510, inclusive, and California Administrative Code, Title 8, Section 5208 and all other pertinent laws, rules, regulations, codes, ordinances, decrees and orders.
- *6.07 Air Pollution Control* - requires compliance with all SMAQMD and City air pollution regulations, including obtaining all necessary SMAQMD permits for demolition and/or construction in areas of naturally occurring asbestos.
- *10.*03 *Sewers and Appurtenances/Contaminations* – requires contractors that working with existing sewers treat such facilities as sources of both disease causing organisms and hazardous materials, and protect workers from these hazards.

CHAPTER 14: HYDROLOGY AND WATER QUALITY

FEDERAL LAWS AND REGULATIONS

Clean Water Act Section 404 and 401

For information regarding Sections 404 and 401 of the Clean Water Act, please see above under Biological Resources.

Clean Water Act Section 402

Section 402 of the Clean Water Act requires that all construction involving the disturbance of one acre or greater of land, as well as municipal, industrial and commercial facilities discharging wastewater or stormwater directly from a point source (a pipe, ditch or channel) into a surface water of the United States (a lake, river, and/or ocean) must obtain a permit under the National Pollutant Discharge Elimination System (NPDES). All NPDES permits are written to ensure the Nation's receiving waters will achieve specified Water Quality Standards.

In California, the SWRCB and the nine RWQCBs are responsible for issuing NPDES permits, and have adopted specific NPDES permits for a variety of activities that have potential to discharge wastes to waters of the state. The City of Folsom is under the jurisdiction of the Central Valley RWQCB. The SWRCB's statewide stormwater general permit for construction activity (Order 2009-0009-DWQ) is applicable to all land-disturbing construction activities that would disturb 1 acre or more. The Central Valley RWQCB's general NPDES permit for construction dewatering activity

(Order 5-00-175) authorizes direct discharges to surface waters up to 250,000 gallons per day for no more than a 4-month period each year. The Central Valley RWQCB may also issue site-specific Waste Discharge Requirements (WDRs), or waivers to WDRs, for certain waste discharges to land or waters of the state. In particular, Central Valley RWQCB Resolution R5-2003-0008 identifies activities subject to waivers of RWDs and/or WDRs, including minor dredging activities and construction dewatering activities that discharge to land.

Discharges subject to the SWRCB NPDES general permit for construction activity are subject to development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). SWPPPs typically include a site map and description of construction activities and identify the Best Management Practices (BMPs) that would be employed to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources.

National Flood Insurance Act

The National Flood Insurance Program is administered by the Federal Emergency Management Agency (FEMA) to provide subsidized flood insurance to communities that comply with FEMA regulations that limit development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection covered by the FIRMs is established by FEMA, with the minimum level of flood protection for new development determined to be the 1-in-100 (i.e. a fllod with a 0.01 annual exceedance probability, or 100-year flood event). As developments are proposed and constructed FEMA is also responsible for issuing revisions to FIRMs, such as Conditional Letters of Map Revision (CLOMR) and Letters of Map Revision (LOMR) through the local agencies that work with the National Flood Insurance Program.

CALIFORNIA LAWS AND REGULATIONS

Porter-Cologne Water Quality Control Act

For information regarding the Porter-Cologne Water Quality Control Act, please see above under Biological Resources.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) establishes a framework for sustainable, local groundwater management. SGMA requires groundwater-dependent regions to halt overdraft and bring basins into balanced levels of pumping and recharge. It's principle provisions:

- Establish a definition of "sustainable groundwater management"
- Require that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California
- Establishe a timetable for adoption of Groundwater Sustainability Plans
- Empower local agencies to manage basins sustainably
- Establish basic requirements for Groundwater Sustainability Plans
- Provide for a limited state role

Upon passage of SGMA, DWR launched the Sustainable Groundwater Management (SGM) Program to implement the law and provide ongoing support to local agencies around the state.

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency (SAFCA) leads flood control improvement projects to provide a minimum of 100-year level flood protection immediately with the intention of eventually achieving 200-year level protection. The Folsom Dam Joint Federal Project, which would improve dam safety and management of large flood events at the dam, and result in 200-year flood protection, is a SAFCA project. The main improvements to Folsom Dam and some of the ancillary dams are within the City of Folsom, including: creation of an Auxiliary Spillway structure that allows the Bureau of Reclamation to release water from Folsom Lake earlier and more safely during a high water event; and the raising of the Mormon Island Auxiliary Dam, and the wing dams and dykes that support Folsom Dam by 7 feet to increase flood protection.

Senate Bill 5

SB 5, signed into law on October 10, 2007, enacts the Central Valley Flood Protection Act of 2008. The bill:

- Requires the California Department of Water Resources (DWR) and the Central Valley Flood Protection Board (CVFPB, previously known as the State Reclamation Board) to:
    - Prepare and adopt a Central Valley Flood Protection Plan (the Plan) by 2012.
    - Establish 200-year (0.005 AEP) protection as the minimum urban level of flood protection, effective with respect to specific development projects as of 2015 or 2025, as explained below.
- Requires DWR to produce preliminary (i.e. Best Available) maps for 100-year (0.01 AEP) and 200-year floodplains protected by project levees, and to make them available to cities and counties in the Sacramento-San Joaquin Valley ("Central Valley"). (California Water Code Section 9610[a]) These best available maps were made available on September 8, 2008, and can be found on the California Department of Water Resources website at: http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/.
- Sets deadlines for cities and counties in the Central Valley to amend their general plans and their zoning ordinances to conform to the Plan within 24 months and 36 months (i.e., approximately 2014 and 2015), respectively, of its adoption.
- Obligates Central Valley counties to develop flood emergency plans within 24 months of adoption of the Plan.
- Requires DWR to propose amendments to the California Building Standards Code (Building Code) to protect areas with flood depths anticipated to exceed three feet for the 200-year flood (0.005 AEP) event. SB 5 requires that the Building Code amendments are designed to reduce the risk of flood damage and increase safety.

In addition, No later than 2015, but potentially sooner depending on when the Central Valley Flood Protection Plan takes effect, SB 5 prohibits local governments from entering development agreements or approving entitlements or permits, including ministerial permits resulting in construction of a new residence in a flood hazard zone, which result in construction of a new residence in a flood zone unless one of three conditions are met:

- Flood management facilities provide level of protection necessary to withstand the 200-year flood event
- The development agreement or other entitlements include conditions that provide protections necessary to withstand 200-year flood event
- The local flood management agency has made adequate progress on construction of a flood protection system that shall result in protections necessary to withstand 200-year flood event by 2025.

Central Valley Flood Protection Plan

The Central Valley Flood Protection Plan (as set forth in California Water Code, Section 9614) is a descriptive document that includes the following elements:

- A description of the Flood Management System, its performance, and the challenges to modifying it
- A description of the facilities included in the State Plan of Flood Control
- A description of probable impacts of projected climate change, land-use patterns, and other potential challenges
- An evaluation of needed structural improvements and a list of facilities recommended for removal
- A description of both structural and nonstructural methods for providing an urban level of flood protection to currently urbanized areas in the Central Valley.

California Water Code – Dam Safety Program

The California Water Code designates the regulatory Dam Safety Program to DWR, Division of Safety of Dams (DSOD). The principal goal of this program is to avoid dam failure and thus prevent loss of life and destruction of property. The DSOD reviews plans and specifications for the construction of new dams and for the enlargement, alteration, repair, or removal of existing dams, and must grant written approval before the owner can proceed with construction. Professional engineers and geologists from the DSOD evaluate each project, investigate proposed sites, and check available construction materials. DSOD regulations also require periodic inspections of existing dams under their jurisdiction.

Dams under DSOD jurisdiction include artificial barriers (together with appurtenant works) that are 25 feet or more in height or have an impounding capacity of 50 acre-feet or more. Any artificial barrier not in excess of 6 feet in height, regardless of storage capacity, or that has a storage capacity not in excess of 15 acre-feet, regardless of height, is not considered jurisdictional.

LOCAL LAWS AND REGULATIONS

City of Folsom Ordinances

Stormwater Management and Discharge Control (FMC Chapter 8.70)
The City of Folsom is a co-permittee to the Sacramento Areawide NPDES MS4 Permit (NPDES Permit No. CAS082597), for which a Stormwater Quality Improvement Plan (SQIP) was developed and adopted. The NPDES MS4 Permit and SQIP require the City to conduct a broad range of activities to prevent urban runoff pollution in the City. Chapter 8.70 of the Folsom Municipal Code,

otherwise known as the City's Stormwater Ordinance, was established in compliance with the SQIP in order to protect the quality of water in the storm drain system. The Stormwater Ordinance sets forth general provisions, prohibited discharges, general requirements for reduction of pollutants in stormwater (Section 8.70.200), and enforcement.

Grading and Drainage (FMC Chapter 14.29)

Chapter 14.29 of the Folsom Municipal Code, otherwise known as the City's Grading Ordinance, sets forth a number of requirements, such as requirements pertaining to grading permits, grading permit requirements, plans and specifications, grading standards, setbacks, storm drainage system standards, and erosion control. Per Section 14.29.260, "no person shall do any grading without first obtaining a grading permit from the public works director." Included in a grading permit application should be plans and specifications, including a drainage plan and an erosion control plan where necessary. Stormwater drainage systems must comply with Section 14.29.322, Storm drainage system standards, which states the following:

> Drainage facilities are to be adequate to assure that the development will not result in stormwater runoff that could cause flooding, ponding, soil erosion, sediment production, and sediment pollution. The following standards also apply:
>
> 1. Site development is to be accomplished wherever possible in a manner that will maximize percolation and infiltration of precipitation into the ground and will minimize direct surface runoff into adjoining streets, water courses, or properties.
> 2. In general, the release rate of stormwater from all parts of the subject site after development should not exceed the stormwater runoff rate from the area in its previous undeveloped state for all intensities and durations of rainfall. The carrying capacity of the channels immediately downstream is to be considered in determining the permitted amount of the stormwater release.
> 3. All drainage facilities are to be designed to carry stormwaters to the nearest stable channel or natural drainage way with adequate capacity to carry the flow. If drainage facilities discharge onto natural ground, the applicant is to provide a method to reduce the velocity of flow in order to prevent erosion or other harmful effects to the subject site or other adjoining properties. (Ord. 415 § 1 (part), 1981)

Flood Damage Prevention (FMC Chapter 14.32)

The purpose of Chapter 14.32 of the Folsom Municipal Code is to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

> 1. Protect human life and health;
> 2. Minimize expenditure of public money for costly flood-control projects;
> 3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
> 4. Minimize prolonged business interruptions;
> 5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
> 6. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;

7. Insure that potential buyers are notified that property is in an area of special flood hazard; and
8. Insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

The Chapter list the following methods for reducing flood losses:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
4. Controlling filling, grading, dredging, and other development which may increase flood damage; and
5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. 882 § 2 (part), 1998)

City of Folsom Hillside Development Guidelines (FMC Chapter 14.33)
On February 14, 1995, the Folsom Planning Department adopted Resolution No. 4604—Hillside Development Guidelines—the purpose of which is to illustrate key design principles and issues that City staff will use in evaluating applications for development of any site within hillside areas of the City. The guidelines address street design, grading, site design, parking, drainage, architecture, landscaping, visual impact, and preservation of natural features, and are based on the City's Hillside Development Procedures and Standards Ordinance (Ordinance No. 798).

Sacramento Stormwater Quality Partnership
The permittees of the NPDES Municipal Stormwater Permit (Sacramento County and the Cities of Folsom, Sacramento, Citrus Heights, Elk Grove, Galt, and Rancho Cordova) have joined together to form the Sacramento Stormwater Quality Partnership (SSQP). The SSQP is a collaborative partnership that protects and improves water quality in local waterways for the benefit of the community and the environment. The goals of the SSQP are to:

- Improve the quality of urban runoff;
- Increase public awareness about water quality and encourage pollution prevention behavior;
- Strive for countywide consistency between permittee agency programs;
- Improve internal communication and coordination to facilitate agency wide compliance;
- Use public funds efficiently and effectively; and
- Keep apprised of new and evolving regulations that may affect the Program in the future.

The permittees cooperatively participate in decision-making and goal-setting for the monitoring program, are involved in consultant selection and review, and comment on compliance reports and other work products. Annual Reports are produced that describe the activities conducted to comply with the NPDES permit.

The stormwater pollution prevention efforts needed to satisfy the NPDES permit requirements are implemented by the SSQP, either jointly or by the individual permittees. The major categories of activities, conducted jointly by the SSQP, are:

- Program management – including legal authority and funding, inter- and intra-agency coordination, effectiveness assessment
- Target pollutant program (including implementation of plans to target mercury and pesticides)
- Monitoring program to satisfy monitoring requirements specified in the monitoring and reporting program portion of the NPDES permit
- Special studies
- Regional public outreach

Additionally, the permittees may share resources related to selected program element activities, such as commercial and/or industrial inspections. Program activities implemented by individual permittees (e.g., the City of Folsom) primarily involve activities related to program management (e.g., legal authority, funding, regulatory liaison, compliance reporting, training and coordination within and outside of the organization), construction, commercial/industrial inspections, municipal operations, illicit discharges, public outreach, and new development.

Folsom Standard Construction Specifications

- *Section 6.01J: Use of Pesticides* - Defines the responsibilities of construction contractors pertaining to the use of pesticides, including any certifications that may be required for purchase, use, storage or application. Pesticides include, but are not limited to, herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliants, desiccants, soil sterilants and repellants.
- *Section 6.08: Water Pollution* – Requires compliance with all City of Folsom rules, regulations, ordinances and statutes which apply to water pollution, including Section 7-1.01G of the State Specifications and the City's NPDES permit requirements, including preparation of a Storm Water Pollution Prevention Plan (SWPPP).
- *Section 8.3: Reseeding* - Section 8.3 specifies requirements related to reseeding of disturbed areas in order to protect storm water quality. The section specifies the seed mix and reseeding techniques required.
- *Section 9.1: Clearing and Grubbing* - Section 9.1 pertains to Clearing and Grubbing during grading operations. The section specifies measures to protect storm water quality, including removal of debris, disposal of abandoned pipes, maintaining drainage facilities, the protection of trees and shrubbery, disposal of materials, and erosion and silt control for stormwater pollution prevention.

CHAPTER 15: NOISE AND VIBRATION

FEDERAL LAWS AND REGULATIONS

Federal Noise Control Act of 1972

The federal Noise Control Act of 1972 (Public Law 92 574) established a requirement that all federal agencies administer their programs to promote an environment free of noise that would jeopardize public health or welfare. The U.S. Environmental Protection Agency (EPA) was given the responsibility for:

- Providing information to the public regarding identifiable effects of noise on public health and welfare,
- Publishing information on the levels of environmental noise that will protect the public health and welfare with an adequate margin of safety,
- Coordinating federal research and activities related to noise control, and
- Establishing federal noise emission standards for selected products distributed in interstate commerce.

The Noise Control Act also directed that all federal agencies comply with applicable federal, state, interstate and local noise control regulations.

Although the EPA was given major roles in disseminating information to the public and coordinating federal agencies, each federal agency retains authority to adopt noise regulations pertaining to agency programs. The EPA, however, can require other federal agencies to justify their noise regulations in terms of Noise Control Act policy requirements. The Occupational Safety and Health Administration retains primary authority for setting workplace noise exposure standards, the Federal Aviation Administration retains primary jurisdiction over aircraft noise standards, the Federal Highway Administration (FHWA) retains primary jurisdiction over highway noise standards, and the Federal Transit Administration (FTA) retains primary jurisdiction over transit noise standards.

Environmental Protection Agency

In 1974, in response to the requirements of the Noise Control Act, the EPA identified indoor and outdoor noise limits to protect public health and welfare (e.g., communication disruption, sleep disturbance and hearing damage). Day-night average sound level (Ldn) limits of 55 decibels (dB) outdoors and 45 dB indoors are identified as desirable to protect against speech interference and sleep disturbance for residential, educational and healthcare areas. Sound-level criteria identified to protect against hearing damage in commercial and industrial areas are 24-hour equivalent sound level (Leq) values of 70 dB (both outdoors and indoors).

U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) has established guidelines for evaluating noise impacts on residential projects seeking financial support under various grant programs. 23 CFR 772 and 24 CFR 51(B) describe HUD policies and programs to protect citizens against excessive noise in their communities and places of residence. These policies and programs apply to development projects with HUD involvement. Section 51.101 states the HUD goal that the

interior noise level in residences should not exceed 45 dB Ldn. The normally acceptable noise level for exterior uses is 65 dB Ldn.

Federal Transit Administration (FTA)

Federal Transit Administration procedures for the evaluation of noise from transit projects are specified in the document titled Transit Noise and Vibration Impact Assessment (Federal Transit Administration, 2006). The FTA noise impact criteria group noise-sensitive land uses into the following three categories:

- Category 1: Buildings or parks where quiet is an essential element of their purpose.
- Category 2: Residences and buildings where people normally sleep. This includes residences, hospitals and hotels where nighttime sensitivity is assumed to be of utmost importance.
- Category 3: Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, churches and active parks.

Ldn is used to characterize noise exposure for residential areas (Category 2). For other noise-sensitive land uses, such as outdoor amphitheaters and school buildings (Categories 1 and 3), the maximum 1-hour Leq during the facility's operating period is used.

There are two levels of impact included in the FTA criteria. The interpretation of these two levels of impact is summarized below:

- **Severe:** Severe noise impacts are considered "significant" as this term is used in the National Environmental Policy Act (NEPA) and implementing regulations. Noise mitigation normally will be specified for severe impact areas unless there is no practical method of mitigating the noise.
- **Impact:** In this range of noise impacts, sometimes referred to as moderate impacts, other project-specific factors must be considered to determine the magnitude of the impact and the need for mitigation. These other factors can include the predicted increase compared with existing noise levels, the types and number of noise-sensitive land uses affected, existing outdoor-indoor sound insulation and the cost- effectiveness of mitigating noise to more acceptable levels.

The noise impact criteria are summarized in Table NOISE-1. The first column shows the existing noise exposure, and the remaining columns show the additional noise exposure from the transit project that would cause either a moderate or severe impact. The future noise exposure would be the combination of the existing noise exposure and the additional noise exposure caused by the transit project.

Table NOISE-1: FTA Noise Impact Criteria

Existing Noise Exposure, L_{eq} or L_{dn}	Project Noise Exposure Impact Thresholds, L_{dn} or L_{eq} (dBA)			
	Category 1 or 2 Sites		Category 3 Sites	
	Impact	Severe Impact	Impact	Severe Impact
<43	Amb. + 10	Amb. + 15	Amb. + 15	Amb. + 20
43	52	58	57	63
44	52	59	57	64
45	52	59	57	64
46	52	59	57	64
47	52	59	57	64
48	53	59	58	64
49	53	59	58	64
50	53	60	58	65
51	54	60	59	65
52	54	60	59	65
53	54	60	59	65
54	55	61	60	66
55	55	61	60	66
56	56	62	61	67
57	56	62	61	67
58	57	62	62	67
59	57	63	62	68
60	58	63	63	68
61	58	64	63	69
62	59	64	63	69
63	60	65	64	70
64	60	66	64	71
65	61	66	65	71
66	61	67	65	72
67	62	67	66	72
68	63	68	66	73
69	64	69	67	74
70	64	69	68	74
71	65	70	69	75
72	65	71	69	76
73	65	72	70	77
74	65	72	70	77
75	65	73	70	78
76	65	74	70	79
77	65	75	70	80
>77	65	75	70	80

Source: Federal Transit Administration 2006.

Federal Highway Administration

Title 23, part 772, of the Code of Federal Regulations (CFR) "Procedures for Abatement of Highway Traffic Noise" provides procedures for conducting noise studies for Federal-aid highway projects and implementing noise abatement measures to help to protect the public health and welfare, supplies noise abatement criteria (NAC). Under this regulation, noise abatement must be considered for highway construction projects if they are predicted to result in a traffic noise impact. Such an impact is considered to occur when the project results in a substantial noise increase or when the predicted noise levels approach or exceed the NAC specified in the regulation. 23 CFR

772 does not specifically define the term approach or what constitutes a substantial increase; instead, it leaves interpretation of these terms to the states. Table NOISE-2 summarizes NAC specified in 23 CFR 772.

Table NOISE-2: Activity Categories and Noise Abatement Criteria (23CFR772)

Activity Category	Activity L_{eq} [h][1]	Evaluation Location	Description of Activities
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	Exterior	Residential.
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurant/bars, and other developed lands, properties, or activities not included in A-D or F.
F			Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G			Undeveloped lands that are not permitted.

1 The L_{eq} (h) activity criteria values are for impact determination only and are not design standards for noise abatement measures. All values are A-weighted decibels (dBA).
2 Includes undeveloped lands permitted for this activity category.

Federal Railroad Administration

The Federal Railroad Administration (FRA) noise standards are the same as those applied by FTA as described above.

Federal Aviation Administration

14 CFR Part 150, "Airport Noise Compatibility Planning," prescribes the procedures, standards and methodology to be applied airport noise compatibility planning activities. Table NOISE-3 summarizes land use compatibility standards applied by the Federal Aviation Administration (FAA).

Table NOISE-3: Land Use Compatibility* With Yearly Day-Night Average Sound Levels

Land Use	Yearly Day-Night Average Sound Level (L_{dn}) in Decibels					
	65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N[1]	N[1]	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N[1]	N[1]	N[1]	N	N

Table NOISE-3: Land Use Compatibility* With Yearly Day-Night Average Sound Levels

Public Use						
Schools	Y	N[1]	N[1]	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y[2]	Y[3]	Y[4]	Y[4]
Parking	Y	Y	Y[2]	Y[3]	Y[4]	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail building materials, hardware and farm equipment	Y	Y	Y[2]	Y[3]	Y[4]	N
Retail trade general	Y	Y	25	30	N	N
Utilities	Y	Y	Y[2]	Y[3]	Y[4]	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y[2]	Y[3]	Y[4]	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y[6]	Y[7]	Y[8]	Y[8]	Y[8]
Livestock farming and breeding	Y	Y[6]	Y[7]	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y[5]	Y[5]	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	N	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

*The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable or unacceptable under federal, state or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise-compatible land uses.

Key to Table NOISE-3:

Y (Yes)=Land use and related structures compatible without restrictions.

N (No)=Land use and related structures are not compatible and should be prohibited.

25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Notes:

1. Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to- indoor noise level reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB; thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
2. Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas or where the normal noise level is low.
3. Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas or where the normal noise level is low.
4. Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas or where the normal level is low.
5. Land use compatible provided special sound reinforcement systems are installed.
6. Residential buildings require an NLR of 25.
7. Residential buildings require an NLR of 30.
8. Residential buildings not permitted.

Federal Interagency Commission on Noise (FICON)

The California Environmental Quality Act (CEQA) guidelines (discussed in next section) require identification of significant noise impacts if the project would result in substantial permanent or temporary increases in noise. However, the CEQA guidelines do not specify the numeric noise level increase which is considered substantial.

It is generally recognized that an increase of at least 3 dB for similar noise sources is usually required before most people will perceive a change in noise levels, and an increase of 6 dB is required before the change will be clearly noticeable (Egan, Architectural Acoustics, page 21, 1988, McGraw Hill).

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project related noise level increases. Table NOISE-4 was developed by FICON as a means of developing thresholds for impact identification for project related noise level increases. The FICON standards have been used extensively in recent years in the preparation of noise sections of Environmental Impact Reports that have been certified in many California Cities and Counties.

The rationale for the graduated scale used in the FICON standards is that test subjects' reactions to increases in noise levels varied depending on the starting level of noise. Specifically, with lower ambient noise environments, such as those below 60 dB Ldn, a larger increase in noise levels was required to achieve a negative reaction than was necessary in more elevated noise environments.

The use of the FICON standards are considered conservative relative to thresholds used by other agencies in the State of California. For example, the California Department of Transportation (Caltrans) requires a project related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project related noise level increases between 5-10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding of significant noise impacts as low as 1.5 dB, provides a conservative approach to impact assessment.

Table NOISE-4: FICON Criteria for Determination of Significance of Changes in Cumulative Noise Exposure

Ambient Noise Level Without Project, Ldn	Increase Required for Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON)

Based on the FICON research, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB Ldn. Where pre-project ambient conditions are between 60 and 65 dB Ldn, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels, specifically pre-project noise levels in excess of 65 dB Ldn, a 1.5 dB increase is considered by FICON as the threshold of significance.

This graduated scale indicates that in quieter noise environments, test subjects tolerated a higher increase in noise levels due to a project before the onset of adverse noise impacts than did test subjects in louder environments.

According to the FICON study, if screening analysis shows that noise-sensitive areas will be at or above DNL 65 dB and will have an increase of DNL 1.5 or more, further analysis should be conducted. The FICON study also reported the following: Every change in the noise environment does not necessarily impact public health and welfare.

Audibility is not a test of significance according to CEQA. If this were the case, any project which added any audible amount of noise to the environment would be considered unacceptable according to CEQA. Because every physical process creates noise, whether by the addition of a single vehicle on a roadway, or a tractor in an agricultural field, the use of audibility alone as significance criteria would be unworkable. CEQA requires a substantial increase in noise levels before noise impacts are identified, not simply an audible change.

CALIFORNIA LAWS AND REGULATIONS

California General Plan Guidelines

The State of California General Plan Guidelines (Governor's Office of Planning and Research 2003) provide guidance to be used in development of the General Plan Noise Element in accordance with the requirements of California Government Code Section 65302(f).

These guidelines include a sound level/land use compatibility chart that divides various outdoor Ldn ranges into four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable and clearly unacceptable) based on land use. For many land uses, the chart shows overlapping Ldn ranges for two or more categories. These overlapping Ldn ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

The compatibility chart Table NOISE-5 identifies the normally acceptable range for low- density residential uses as less than 60 dB and the conditionally acceptable range as 55–70 dB. The normally acceptable range for high-density residential uses is identified as Ldn values below 65 dB, and the conditionally acceptable range is identified as 60–70 dB. For educational and medical facilities, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 60–70 dB are considered conditionally acceptable. For office and commercial land uses, Ldn values below 70 dB are considered normally acceptable, and Ldn values of 67.5–77.5 are categorized as conditionally acceptable.

Table NOISE-5: State Land Use Compatibility Standards for Community Noise

	Community Noise Exposure—Ldn or CNEL (dB)							
Land Use Category	**50**	**55**	**60**	**65**	**70**	**75**	**80**	
Residential—low-density single-family, duplex, mobile homes								
Residential—multifamily								
Transient lodging—motels, hotels								
Schools, libraries, churches, hospitals, nursing homes								
Auditoriums, concert halls, amphitheaters								
Sports arenas, outdoor spectator sports								
Playgrounds, neighborhood parks								
Golf courses, riding stables, water recreation, cemeteries								
Office buildings, business commercial and professional								
Industrial, manufacturing, utilities, agriculture								

Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made, and needed noise insulation features must be included in the design.

Clearly Unacceptable
New construction or development generally should not be undertaken.

Note: CNEL = Community noise equivalent level.

California Environmental Quality Act

The state legislature adopted the California Environmental Quality Act (CEQA) as a result of a public mandate for thorough environmental analysis of projects that might affect the environment. CEQA considers excessive noise to be an environmental impact. Implementation of CEQA ensures that during the decision making stage of development, City officials and the general public assess the noise impacts associated with public and private development projects. The CEQA Appendix G Guidelines which pertain to noise and vibration state that a project would result in significant noise or vibration impact if the project would result in any of the following:

A. Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.

B. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

C. A substantial permanent increase in ambient noise levels in the project vicinity above levels without the project.

D. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the area to excessive noise levels resulting from the proposed project.

F. For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

California Noise Insulation Standards (Title 24)

The California Commission of Housing and Community Development officially adopted noise standards in 1974. In 1988, the Building Standards Commission approved revisions to the standards (Title 24, Part 2, California Code of Regulations). As revised, Title 24 establishes an interior noise standard of 45 dBA for residential space (Community Noise Equivalent Level [CNEL] or L_{dn}). Acoustical studies must be prepared for residential structures that are to be located within noise contours of 60 dBA or greater from freeways, major streets, thoroughfares, rail lines, rapid transit lines or industrial noise sources. The studies must demonstrate that the building is designed to reduce interior noise to 45 dBA or lower.

California Division of Aeronautics Noise Standards

Title 21 Chapter 5000 of the CCR identifies noise compatibility standards for airport operations. Section 5014 of the code states that the standard for the acceptable level of aircraft noise for persons living in the vicinity of airports is established to be a community noise equivalent level (CNEL) of 65 dB. Land uses such as residences, schools, hospitals, or places of worship exposed to aircraft noise exceeding 65 dB CNEL are deemed to be in a noise-impact area. This standard forms the basis for the limitation that no proprietor of an airport shall operate an airport such that

incompatible land uses as those described above lie within a noise-impact area, unless the operator has applied for or received a variance.

LOCAL LAWS AND REGULATIONS

City of Folsom General Plan

The adopted Folsom General Plan contains a Noise Element and policies related to noise as described below. The purpose of the Noise Element is to mitigate noise conflicts where they presently exist and to minimize future noise conflicts by the adoption of policies and implementation measures designed to achieve land use compatibility for proposed development.

Goal 30: To protect the citizen of Folsom from the harmful effects of exposure to excessive noise and to protect the economic base of Folsom by preventing the encroachment of incompatible land uses within areas affect by existing noise producing use.

Policy 30.1: Provide sufficient noise exposure information in the General Plan database so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes.

Policy 30.2: Develop and implement effective strategies to abate and avoid excessive noise exposures in the City by requiring that effective noise mitigation measures be incorporated into the design of new noise- generating and new noise-sensitive land uses.

Policy 30.3: Protect areas within the city where the present noise environment is within acceptable limits.

Policy 30.4: Areas within the City of Folsom shall be designated as noise impacted if exposed to existing or projected exterior noise levels exceeding 60 dB Ldn/CNEL or the performance standards of Table 26-3 of the Noise Element [shown here as Table NOISE-6]. Each of the noise level standards specified above shall be reduced by five dBA for simple tone noises, noises consisting primarily of speech or music or for recurring impulsive noises. Noise from single occurrences such as the passage of locomotives, heavy trucks or aircraft should also be evaluated in terms of single event noise levels. The maximum noise level created by such an event may have the potential to result in activity interference even though the cumulative noise exposure in terms of Ldn is within acceptable limits. The potential for sleep disturbance is usually of primary concern in such cases and should be evaluated on a case-by- case basis.

Table NOISE-6: Exterior Noise Level Standards, dBA

Category	Cumulative Number of Minutes in any One-Hour Time Period	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

Source: City of Folsom General Plan 1993.

Policy 30.5: New development of residential or other noise sensitive land uses will not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to:

- For noise due to traffic on public roadways, railroad line operations, and aircraft: 60 dB Ldn/ CNEL or less In outdoor activity areas and interior noise levels to 45 dB Ldn/CNEL or less. Where it is not possible to reduce exterior noise due to these sources to 60 dB Ldn/CNEL or less by incorporating a practical application of the best available noise reduction technology, an exterior noise level of up to 65 dB Ldn/CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB Ldn/CNEL with the windows and doors closed.
- For non-transportation related noise sources: achieve compliance with the performance standards contained within Table NOISE-6.
- If compliance with the adopted standards and policies of the Noise Element will not be achieved, a statement of overriding considerations for the project must be provided.

Policy 30.6: When industrial, commercial land uses or other uses including non-transportation related noise sources are proposed which would affect areas containing noise sensitive land uses, noise levels generated by the proposed use shall not exceed the performance standards contained within Table NOISE-6.

Policy 30.7: Prior to approval of proposed development of residential or other noise-sensitive land uses in a noise impacted area, an Acoustical Analysis may be required. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- Include estimated noise levels In terms of Ldn/CNEL and/or the standards of Table NOISE-6 for existing and projected future (20 years hence) conditions with a comparison made to the adopted policies of the Noise Element.

- Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.
- Include estimates of noise exposure after the prescribed mitigation measures have been implemented.

Policy 30.8: The City of Folsom shall endeavor to develop and employ procedures to ensure that requirements Imposed pursuant to the findings of an acoust1cal analysis are implemented as part of the project rev1ewand building permit processes. The appropriate time for requ1rtng an acoustical analys1s would be as early in the project review process as possible so that noise mitigation may be an integral part of the project design.

Policy 30.9: Noise level criteria applied to land uses other than reslden t1al or other noise sensitive uses shall be consistent with the standards in Figure NOISE-6.

Policy 30.10: The City of Folsom shall enforce the State Noise Insulation Standards (California Administrative Code Title) and Chapter 35 of the Uniform Building Code (UBC). Title 24 requires that an acoustical analysis be prepared for all new developments of multi-family dwellings, condominiums, hotels and motels proposed for areas within the 60 dB Ldn/CNEL contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn/CNEL or below will be achieved. UBC Chapter 35 requires that common wall and floor ceiling assemblies within multi-family dwellings comply with minimum standards concerning the transmission of airborne sound and structureborne impact noise.

Policy 30.11: The City of Folsom shall adopt a community noise control ordinance to address noise complaints and to provide local industry with performance standards for future development and equipment modifications. The ordinance should be consistent with the model noise control ordinance contained in the data base of the General Plan.

Policy 30.12: The City of Folsom shall actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

Policy 30.13: The findings and specific policies of the Noise Element shall be incorporated into the City of Folsom Zoning Code as appropriate.

Policy 30.14: The City of Folsom shall periodically review and update the Noise Element to ensure that noise exposure information and specific policies are consistent with changing condition within the community and with noise control regulations enacted after the adoption of this Element.

Policy 30.15: If noise barriers are required to achieve the noise level standards contained within this Element the following construction practices are recommended:

- Noise barriers exceeding six feet in height relative to the roadway should incorporate an earth berm so that the total height of the solid portion of the barrier (such as masonry or concrete) does not exceed six feet.

- The total height of a noise barrier above roadway elevation should normally be limited to 12 feet.
- The noise barriers should be designed so that their appearance is consistent with other noise barriers in the project vicinity.

City of Folsom Noise Ordinance

In 1993 the City of Folsom adopted a Noise Control Ordinance that was codified as Chapter 8.42 in the Municipal Code. The Noise Ordinance is provided below.

8.42.010 Purpose.

The city council declares and finds that excessive noise levels are detrimental to the public health, welfare and safety and contrary to the public interest as follows:

A. By interfering with sleep, communication, relaxation and the full use of one's property;
B. By contributing to hearing impairment and a wide range of adverse physiological stress conditions; and
C. By adversely affecting the value of real property.

It is the intent of this chapter to protect persons from excessive levels of noise within or near a residence, school, church, hospital or public library. (Ord. 764 § 3 (part), 1993)

8.42.020 Definitions.

The following words, phrases and terms as used in this chapter shall have the following meanings:

"Agricultural property" means land used for or devoted to the production of crops and livestock.

"Ambient noise level" means the composite of noise from all sources excluding the alleged offensive noise. In this context it represents the normal or existing level of environmental noise at a given location for a specified time of the day or night.

"A-weighted sound level" means the sound level in decibels as measured with a sound level meter using the A-weighted network (scale) at slow meter response. The unit measurement is referred to herein as dB(A) or dBA.

"Construction" means construction, erection, enlargement, alteration, conversion or movement of any building, structures or land together with any scientific surveys associated therewith.

"Cumulative period" means an additive period of time composed of individual time segments which may be continuous or interrupted.

"Decibel" means a unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals.

"Emergency work" means the use of any machinery, equipment, vehicle, manpower or other activity in a short-term effort to protect, or restore safe

conditions in the community, or work by private or public utilities when restoring unplanned interruption of utility service.

"Enforcement officer" means the community development director or duly authorized deputy.

"Fixed noise source" means a device or machine which creates sounds while fixed or stationary, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.

"Hospital" means any building or portion thereof used for the overnight accommodation and medical care of the sick, injured or infirm persons and includes rest homes and nursing homes.

"Impulsive noise" means a noise of short duration, usually less than 1 second, with an abrupt onset and rapid decay.

"Intruding noise level" means the sound level created, caused, maintained or originating from an alleged offensive source, measured in decibels, at a specified location while the alleged offensive source is in operation.

"Mobile noise source" means any noise source other than a fixed noise source. "Noise disturbance" means any sound which violates the quantitative standards set forth in this chapter.

"Noise level category" means a division formed for the purposes of referring to a certain sound level standard measured by minutes in a 1-hour time period on the basis of daytime or nighttime hours.

"Residential property" means a parcel of real property which is developed and lawfully used either in whole or in part for residential purposes.
"**School"** means public or private institutions conducting regular academic instruction at preschool, kindergarten, elementary, secondary or collegiate levels.

"Simple tone noise" means any noise which is distinctly audible as a single pitch (frequency) or set of pitches as determined by the enforcement officer.

"Sound level meter" means an instrument meeting American National Standards Institute Standard S1.4-1971 for Type 1 or Type 2 sound level meters or an instrument and the associated recording and analyzing equipment which will provide equivalent data. (Ord. 764 § 3 (part), 1993)

8.42.030 Noise measurement criteria.

Any noise measurement made pursuant to the provisions of this chapter shall be made with a sound level meter using the A-weighted network (scale) at slow meter response. Fast meter response shall be used for impulsive type sounds. Calibration of the measurement equipment utilizing an acoustical calibrator shall be performed immediately prior to recording any noise data.

The exterior noise levels shall be measured within 50 feet of the affected residence, school, church, hospital or public library. Where practical, the microphone shall be positioned 3 to 5 feet above the ground and away from reflective surfaces. The interior noise levels shall be

measured within the affected dwelling unit, at points at least 4 feet from the wall, ceiling or floor nearest the noise source, with windows in the normal seasonal configuration. The reported interior noise level shall be determined by taking the arithmetic average of the readings taken at the various microphone locations. (Ord. 764 § 3 (part), 1993)

8.42.040 Exterior noise standards.

A. It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school, church, hospital or public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth in the following table:

Table NOISE-7: Exterior Noise Level Standards, dBA

Category	Cumulative Number of Minutes in any One-Hour Time Period	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

Source: City of Folsom Noise Ordinance 1993

B. In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.

C. Each of the noise level standards specified above shall be reduced by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring noises.

D. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be the noise level standards as specified above.

8.42.050 Interior noise standards.

A. It is unlawful for any person, at any location within the city, to operate or cause to be operated within a dwelling unit, any source of sound or to allow the creation of any noise which causes the noise level when measured inside a receiving dwelling unit situated in the area either within the city or adjacent to the city to exceed the noise level standards as set forth in the following table:

B.

Table NOISE-8: Interior Noise Level Standards, dBA			
Category	**Cumulative Number of Minutes in any One-Hour Time Period**	**Daytime (7 a.m. to 10 p.m.)**	**Nighttime (10 p.m. to 7 a.m.)**
1	5	45	35
2	1	50	40
3	0	55	45

C. In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.

D. Each of the noise level standards specified above shall be reduced by 5 dB(A) for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

E. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be the noise level standards as specified above. (Ord. 764 § 3 (part), 1993)

8.42.060 Noise source exemptions.

The following activities shall be exempt from the provisions of this chapter:

A. Activities conducted in unlighted public parks, public playgrounds, and public or private school grounds, during the hours of 7 a.m. to dusk, and in lighted public parks, public playgrounds, and public or private school grounds, during the hours of 7 a.m. to 11 p.m., including but not limited to school athletic and school entertainment events;

B. Any mechanical device, apparatus, or equipment used, related to, or connected with emergency activities or emergency work;

C. Noise sources associated with construction, provided such activities do not take place before 7 a.m. or after 6 p.m. on any day except Saturday or Sunday, or before 8 a.m. or after 5 p.m. on Saturday or Sunday;

D. Noise sources associated with the maintenance of residential property provided such activities take place between the hours of seven a.m. to dusk on any day except Saturday or Sunday, between the hours of 8 a.m. to dusk on Saturday or Sunday;

E. Noise sources associated with agricultural activities on agricultural property;

F. Noise sources associated with a lawful commercial or industrial activity caused by mechanical devices or equipment, including air conditioning or refrigeration systems,

installed prior to the effective date of this chapter. This exemption shall expire one year after the effective date of this chapter;

G. Noise sources associated with the collection of waste or garbage from property devoted to commercial or industrial uses; and

H. Any activity to the extent regulation thereof has been preempted by State or Federal law.

8.42.070 Air conditioning and refrigeration.

Notwithstanding the provisions of Section 8.42.040 or 8.42.050, where the intruding noise source when measured as provided in Section 8.42.030 is an air-conditioning or refrigeration system or associated equipment installed prior to the effective date of this chapter, the exterior noise level shall not exceed 55 dBA, except where such equipment is otherwise exempt from the provisions of this chapter. The exterior noise level shall not exceed 50 dBA for such equipment installed or in use after 1 year after the effective date of this chapter. (Ord. 764 § 3 (part), 1993)

8.42.080 Electrical substations.

Notwithstanding the provisions of Sections 8.42.040 and 8.42.050, noise sources associated with the operation of electrical substations shall not exceed 50 dBA when measured as provided in Section 8.42.030. (Ord. 764 § 3 (part), 1993)

8.42.090 Variances.

A. The owner or operator of a noise source which the enforcement officer has determined violates any of the provisions of this chapter may file an application with the enforcement officer for variance from strict compliance with any particular provisions of this chapter where such variance will not result in a hazardous condition or a nuisance and strict compliance would be unreasonable in view of all circumstances. The owner or operator shall set forth all actions taken to comply with such provisions and the reasons why immediate compliance cannot be achieved. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership or fixed sources under common ownership on a single property may be combined into one application.

B. Upon receipt of a complete application and fee, and within 30 days thereafter, the enforcement officer shall either (1) approve such request in whole or in part, (2) deny the request, or (3) refer the request directly to the city council for action thereon in accordance with the provisions of this chapter. In the event the variance is approved, reasonable conditions may be imposed which may include restriction on noise level, noise duration and operating hours, an approved method of achieving compliance and a time schedule for its implementation. The decision of the enforcement officer is subject to appeal to the city council for a public hearing by filing a written appeal with the enforcement officer not later than 15 days following the date of the enforcement officer's written decision to the applicant.

C. Factors which the enforcement officer or the city council must consider shall include but not be limited to the following:

1. Present and potential uses of property within the area affected by noise;
2. Factors related to initiating and completing all remedial work;
3. Age and useful life of the existing noise source; and
4. The general public interest, health, safety and welfare.

F. The applicant may appeal the decision of the enforcement officer to the city council by filing a notice of appeal with the city clerk. The city council shall either affirm, modify or reverse the decision of the enforcement officer. Such decisions shall be final and shall be based upon the considerations set forth in this section. (Ord. 764 § 3 (part), 1993)

8.42.100 Violation—Enforcement.

A. The violation of any of the provisions of this chapter shall be an infraction as specified in Chapter 1.12 of this code. The provisions of this chapter may also be enforced by a court-ordered injunction brought by the city. Any violation of the provisions of this chapter shall be deemed to be a public nuisance.

B. Except as otherwise provided herein, violations of any provisions of this chapter shall be as follows:

Violation	Penalty
First	Written notification
Second	$100 fine
Third	$200 fine
Fourth or subsequent violations	$500 fine

C. The enforcement officer shall enforce the provisions of this chapter. Right of entry for inspection shall be as provided in Chapter 1.08 of this code. (Ord. 764 § 3 (part), 1993)

City of Folsom Zoning Code

The Folsom Municipal Code also contains noise regulations for specific land uses in Chapter 17 – Zoning. Those sections are as follows:

17.24.030.B Adult Related Businesses: No loudspeakers or sound equipment shall be used by an adult related business for amplification of sound to a level discernible by the public beyond the walls of the building or portion thereof in which the adult related business is conducted.

17.35.040 Agricultural-Reserve District: Applications for use permits will be reviewed for compatibility with the long-term uses designated for the area on the general plan. Uses which have the potential to emit noise and/or odor beyond the property lines will not be approved.

17.52.520.A.1.b Historic District - River way subarea special use and design standards: Uses which may produce visual, noise, odor, parking, or other effects which may be objectionable to surrounding uses require a conditional use permit from the historic district commission.

17.61.070.E Home Occupations – Nuisances: No activity which produces noise, smoke, odors, glare, electrical interference, or vibrations discernible beyond the site is allowed.

17.110.060.3 Condominium conversion requirements – Vibration Transmission: All permanent mechanical equipment (such as motors, compressors, pumps and compactors) which are determined by the building official to be a source of structural vibration or structural-borne noise shall be vibration-isolated with inertia blocks or bases or vibration isolator springs in accordance with the standards in effect at the time the last building was constructed on the site.

17.110.060.4 Condominium conversion requirements – Noise Standards: The structures shall conform to all interior and exterior sound transmission standards of the California Code of Regulations and applicable sections of the California Building Code. Where these standards cannot be feasibly met, in the discretion of the building official, reduced requirements may be allowed by the building official and the subdivider shall include notice of the deficiency in the final physical elements report.

17.114.10 Marijuana Cultivation: The marijuana cultivation area shall not result in a nuisance or adversely affect the health, welfare, or safety of the resident or nearby residents by creating dust, glare, heat, noise, noxious gases, odors, smoke, traffic, vibration, or other impacts, or be hazardous due to use or storage of materials, processes, products or wastes.

17.114.10.C Marijuana Cultivation: A repeated disruption to the free passage of persons or vehicles in the neighborhood, excessive noise which is disturbing to people of normal sensitivity on adjacent or nearby property or areas open to the public.

17.114.10.D Marijuana Cultivation: Any other impacts on the neighborhood which are disruptive of normal activity in the area including, but not limited to, grow lighting visible outside the dwelling, excessive vehicular traffic or parking occurring at or near the dwelling, and excessive noise emanating from the dwelling.

FOLSOM SOUTH OF U.S. HIGHWAY 50 SPECIFIC PLAN PROJECT: APPLICABLE MITIGATION MEASURES

Measures are listed in the order of the Mitigation Monitoring and Reporting Program for the Folsom South of U.S. Highway 50 Specific Plan, dated May 2011.

Mitigation Measure 3A.1-1: Construct and Maintain a Landscape Corridor Adjacent to U.S. 50. The project applicant(s) for any particular discretionary development application adjacent to U.S. 50 shall fund, construct, and maintain a landscaped corridor within the SPA, south of U.S. 50. This corridor shall be 50 feet wide, except that the landscaped corridor width shall be reduced to 25 feet adjacent to the proposed regional mall. Landscaping plans and specifications shall be approved by Caltrans and the City of Folsom, and constructed by the project applicant(s) before the start of earthmoving activities associated with residential or commercial units. Landscaped areas would not be required within the preserved oak woodlands. As practicable, landscaping shall primarily contain native and/or drought tolerant plants. Landscaped corridors shall be maintained in perpetuity to the satisfaction of the City of Folsom.

Mitigation Measure 3A.1-4: Screen Construction Staging Areas. The project applicant(s) for any particular discretionary development application shall locate staging and material storage areas as far away from sensitive biological resources and sensitive land uses (e.g., residential areas, schools, parks) as feasible. Staging and material storage areas shall be approved by the appropriate agency (identified below) before the approval of grading plans for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include, but are not limited to, the use of such visual barriers such as berms or fences. The screen design shall be approved by the appropriate agency to further reduce visual effects to the extent possible.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries shall be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, and Caltrans) to reduce to the extent feasible the visual effects of construction activities on adjacent project land uses that have already been developed.

Mitigation Measure 3A.1-5: Establish and Require Conformance to Lighting Standards and Prepare and Implement a Lighting Plan. To reduce impacts associated with light and glare, the City shall:

- Establish standards for on-site outdoor lighting to reduce high-intensity nighttime lighting and glare as part of the Folsom Specific Plan design guidelines/standards. Consideration shall be given to design features, namely directional shielding for street lighting, parking lot lighting, and other substantial light sources, that would reduce effects of nighttime lighting. In addition, consideration shall be given to the use of automatic shutoffs or motion sensors for lighting features to further reduce excess nighttime light.

- Use shielded or screened public lighting fixtures to prevent the light from shining off of the surface intended to be illuminated.

To reduce impacts associated with light and glare, the project applicant(s) of all project phases shall:

- Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties.
- Flood and area lighting needed for construction activities, nighttime sporting activities, and/or security shall be screened or aimed no higher than 45 degrees above straight down (half-way between straight down and straight to the side) when the source is visible from any off-site residential property or public roadway.
- For public lighting in residential neighborhoods, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash.
- Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways.
- Design exterior on-site lighting as an integral part of the building and landscape design in the Folsom Specific Plan area. Lighting fixtures shall be architecturally consistent with the overall site design.
- Lighting of off-site facilities within the City of Folsom shall be consistent with the City's General Plan standards.
- Lighting of the off-site detention basin shall be consistent with Sacramento County General Plan standards.
- Lighting of the two local roadway connections from Folsom Heights off-site into El Dorado Hills shall be consistent with El Dorado County General Plan standards.

A lighting plan for all on- and off-site elements within the each agency's jurisdictional boundaries (specified below) shall be submitted to the relevant jurisdictional agency for review and approval, which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans, and shall be submitted before the installation of any lighting or the approval of building permits for each phase. The project applicant(s) for any particular discretionary development application shall implement the approved lighting plan.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties).

Mitigation Measure 3A.2-1a: Implement Measures to Control Air Pollutant Emissions Generated by Construction of On-Site Elements. To reduce short-term construction emissions, the project applicant(s) for any particular discretionary development application shall require their contractors to implement SMAQMD's list of Basic Construction Emission Control Practices, Enhanced Fugitive PM Dust Control Practices, and Enhanced Exhaust Control Practices (list below) in effect at the time individual portions of the site undergo construction. In addition to SMAQMD-recommended measures, construction operations shall comply with all applicable SMAQMD rules and regulations.

Basic Construction Emission Control Practices

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Enhanced Fugitive PM Dust Control Practices – Soil Disturbance Areas

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.
- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
- Plant vegetative ground cover (fast-germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

Enhanced Fugitive PM Dust Control Practices – Unpaved Roads

- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
- Post a publicly visible sign with the telephone number and person to contact at the construction site regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of SMAQMD and the City contact person shall also be posted to ensure compliance.

Enhanced Exhaust Control Practices

- The project shall provide a plan, for approval by the City of Folsom Community Development Department and SMAQMD, demonstrating that the heavy-duty (50 horsepower [hp] or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most current California Air Resources Board (ARB) fleet average that exists at the time of construction. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel

products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The project applicant(s) of each project phase or its representative shall submit to the City of Folsom Community Development Department and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that would be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. SMAQMD's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction. The project shall ensure that emissions from all off-road diesel powered equipment used on the SPA do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the City and SMAQMD shall be notified within 48 hours of identification of non- compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. SMAQMD staff and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation measure shall supersede other SMAQMD or state rules or regulations.

- If at the time of construction, SMAQMD has adopted a regulation or new guidance applicable to construction emissions, compliance with the regulation or new guidance may completely or partially replace this mitigation if it is equal to or more effective than the mitigation contained herein, and if SMAQMD so permits.

Mitigation Measure 3A.2-1b: Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of On-Site Elements. Implementation of the Proposed Project or the other four other action alternatives would result in construction-generated NO_X emissions that exceed the SMAQMD threshold of significance, even after implementation of the SMAQMD Enhanced Exhaust Control Practices (listed in Mitigation Measure 3A.2-1a). Additionally, Mitigation Measure 3A.4-1 (Implement Additional Measures to Control Construction-Generated GHG Emissions, pages 3A.4-14 to 15) has the potential to both reduce and increase NOX emissions, depending on the types of alternative fuels and engine types employed.

Therefore, the project applicant(s) shall pay SMAQMD an off-site mitigation fee for implementation of any of the five action alternatives for the purpose of reducing NOX emissions to a less-than-significant level (i.e., less than 85 lb/day). All NOX emission reductions and increases associated with GHG mitigation shall be added to or subtracted from the amount above the construction threshold to determine off-site mitigation fees, when possible. The specific fee amounts shall be calculated when the daily construction emissions can be more accurately determined: that is, if the City/USACE select and certify the EIR/EIS and approves the Proposed Project or one of the other

four other action alternatives, the City and the applicants must establish the phasing by which development would occur, and the applicants must develop a detailed construction schedule. Calculation of fees associated with each project development phase shall be conducted by the project applicant(s) in consultation with SMAQMD staff before the approval of grading plans by the City. The project applicant(s) for any particular discretionary development application shall pay into SMAQMD's off-site construction mitigation fund to further mitigate construction- generated emissions of NOX that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of daily NOX emissions shall be based on the cost rate established by SMAQMD at the time the calculation and payment are made. At the time of writing this EIR/EIS the cost rate is $16,000 to reduce 1 ton of NOX plus a 5% administrative fee (SMAQMD 2008c). The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any ground disturbance occurs for any project phase. Based on information available at the time of writing this EIR/EIS, and assuming that construction would be performed at a consistent rate over a 19-year period (and averaging of 22 work days per month), it is estimated that the off-site construction mitigation fees would range from $517,410 to $824,149, depending on which alternative is selected. Because the fee is based on the mass quantity of emissions that exceed SMAQMD's daily threshold of significance of 85 lb/day, total fees would be substantially greater if construction activity is more intense during some phases and less intense during other phases of the 19-year build out period, and in any event, based on the actual cost rate applied by SMAQMD. (This fee is used by SMAQMD to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.)

Mitigation Measure 3A.2-1c: Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of On-Site Elements. Prior to construction of each discretionary development entitlement of on-site land uses, the project applicant shall perform a project-level CEQA analysis (e.g., supporting documentation for an exemption, negative declaration, or project-specific EIR) that includes detailed dispersion modeling of construction-generated PM_{10} to disclose what PM_{10} concentrations would be at nearby sensitive receptors. The dispersion modeling shall be performed in accordance with applicable SMAQMD guidance that is in place at the time the analysis is performed. At the time of writing this EIR/EIS, SMAQMD's most current and most detailed guidance for addressing construction-generated PM_{10} emissions is found in its Guide to Air Quality Assessment in Sacramento County (SMAQMD 2009a). The project-level analysis shall incorporate detailed parameters of the construction equipment and activities, including the year during which construction would be performed, as well as the proximity of potentially affected receptors, including receptors proposed by the project that exist at the time the construction activity would occur.

Mitigation Measure 3A.2-1d: Implement SMAQMD's Basic Construction Emission Control Practices during Construction of all Off- site Elements located in Sacramento County. The applicants responsible for the construction of each off-site element in Sacramento County shall require their contractors to implement SMAQMD's Basic Construction Emission Control Practices during construction. A list of SMAQMD's Basic Construction Emission Control Practices is provided under Mitigation Measure 3A.2-1a.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Sacramento County or Caltrans) to implement SMAQMD's Basic Construction Emission Control Practices or comparable feasible measures.

Mitigation Measure 3A.2-1f: Implement SMAQMD's Enhanced Exhaust Control Practices during Construction of all Off-site Elements. Implement SMAQMD's Enhanced Exhaust Control Practices, which are listed in Mitigation Measure 3A.2-1a, in order to control NO_X emissions generated by construction of all off-site elements (in Sacramento and El Dorado Counties, or Caltrans right-of-way).

Mitigation Measure 3A.2-1g: Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of Off-site Elements. The off-site elements could result in construction-generated NO_X emissions that exceed the SMAQMD threshold of significance, even after implementation of the SMAQMD Enhanced Exhaust Control Practices (listed in Mitigation Measure 3A.2-1a). Therefore, the responsible project applicant(s) for each off-site element in Sacramento County shall pay SMAQMD an off-site mitigation fee for implementation of each off-site element in Sacramento County for the purpose of reducing NO_X emissions to a less-than-significant level (i.e., less than 85 lb/day). The specific fee amounts shall be calculated when the daily construction emissions can be more accurately determined. This calculation shall occur if the City/USACE certify the EIR/EIS and select and approves the Proposed Project or one of the other four other action alternatives, the City, Sacramento County, and the applicants establish the phasing by which construction of the off- site elements would occur, and the applicants develop a detailed construction schedule. Calculation of fees associated with each off-site element shall be conducted by the project applicant(s) in consultation with SMAQMD staff before 'the approval of respective grading plans by Sacramento County. The project applicant(s) responsible for each off-site element in Sacramento County shall pay into SMAQMD's off- site construction mitigation fund to further mitigate construction-generated emissions of NO_X that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of daily NO_X emissions shall be based on the cost rate established by SMAQMD at the time the calculation and payment are made. At the time of writing this EIR/EIS the cost rate is $16,000 to reduce 1 ton of NO_X plus a 5% administrative fee (SMAQMD 2008c). The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any ground disturbance occurs for any project phase. Because the fee is based on the mass quantity of emissions that exceed SMAQMD's daily threshold of significance of 85 lb/day, total fees for construction of the off-site elements would vary according to the timing and potential overlap of construction schedules for off-site elements. This measure applies only to those off-site elements located in SMAQMD's jurisdiction (i.e., in Sacramento County) because EDCAQMD does not offer a similar off-set fee program for construction- generated NO_X emissions in its jurisdiction. (This fee is used by SMAQMD to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.)

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., Sacramento County or Caltrans).

Mitigation Measure 3A.2-1h: Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of Off-site Elements. Prior to construction of each off-site element located in Sacramento County that would involve site grading or earth disturbance activity that would exceed 15 acres in one day, the responsible agency or its selected consultant shall conduct detailed dispersion modeling of construction-generated PM_{10} emissions pursuant to SMAQMD guidance that is in place at the time the analysis is performed. At the time of writing this EIR/EIS, SMAQMD's most current and most detailed guidance for addressing construction-generated PM10 emissions is found in its Guide to Air Quality Assessment in Sacramento County SMAQMD 2009a). SMAQMD emphasizes that PM_{10} emission concentrations at nearby sensitive receptors be disclosed in project-level CEQA analysis. Each project-level analysis shall incorporate detailed parameters of the construction equipment and activities, including the year during which construction would be performed, as well as the proximity of potentially affected receptors, including receptors proposed by the project that exist at the time the construction activity would occur. If the modeling analysis determines that construction activity would result in an exceedance or substantial contribution to the CAAQS and NAAQS at a nearby receptor, then the project applicant(s) shall require their respective contractors to implement additional measures for controlling construction-generated PM_{10} exhaust emission and fugitive PM_{10} dust emissions in accordance with SMAQMD guidance, requirements, and/or rules that apply at the time the project-level analysis is performed. It is likely that these measures would be the same or similar to those listed as Enhanced Fugitive PM Dust Control Practices for Soil Disturbance Areas and Unpaved Roads and Enhanced Exhaust Control Practices included in Mitigation Measure 3A.2-1a. Dispersion modeling is not required for the two El Dorado County roadway connections because the total amount of disturbed acreage is expected to be less than the EDCAQMD screening level of 12 acres.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., Sacramento County or Caltrans).

Mitigation Measure 3A.2-2: Implement All Measures Prescribed by the Air Quality Mitigation Plan to Reduce Operational Air Pollutant Emissions. To reduce operational emissions, the project applicant(s) for any particular discretionary development application shall implement all measures prescribed in the SMAQMD-approved Folsom Plan Area Specific Plan Air Quality Mitigation Plan (AQMP) (Torrence Planning 2008), a copy of which is included in Appendix C2. The AQMP is intended to improve mobility, reduce vehicle miles traveled, and improve air quality as required by AB 32 and SB 375. The AQMP includes, among others, measures designed to provide bicycle parking at commercial land uses, an integrated pedestrian/bicycle path network, transit stops with shelters, a prohibition against the use the wood-burning fireplaces, energy star roofing materials, electric lawnmowers provided to homeowners at no charge, and on-site transportation alternatives to passenger vehicles (including light rail) that provide connectivity with other local and regional alternative transportation networks.

Mitigation Measure 3A.2-4a: Develop and Implement a Plan to Reduce Exposure of Sensitive Receptors to Construction-Generated Toxic Air Contaminant Emissions. The project applicant(s) for any particular discretionary development application shall develop a plan to

reduce the exposure of sensitive receptors to TACs generated by project construction activity associated with buildout of the selected alternative. Each plan shall be developed by the project applicant(s) in consultation with SMAQMD. The plan shall be submitted to the City for review and approval before the approval of any grading plans.

The plan may include such measures as scheduling activities when the residences are the least likely to be occupied, requiring equipment to be shut off when not in use, and prohibiting heavy trucks from idling. Applicable measures shall be included in all project plans and specifications for all project phases.

The implementation and enforcement of all measures identified in each plan shall be funded by the project applicant(s) for the respective phase of development.

Mitigation Measure 3A.2-4b: Implement Measures to Reduce Exposure of Sensitive Receptors to Operational Emissions of Toxic Air Contaminants. The following measures shall be implemented to reduce exposure of sensitive receptors to Toxic Air Contaminants.

- Proposed commercial and industrial land uses that have the potential to emit TACs or host TAC-generating activity (e.g., loading docks) shall be located away from existing and proposed on-site sensitive receptors such that they do not expose sensitive receptors to TAC emissions that exceed an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0.
- The multi-family residences planned across from the off-site corporation yard near the southwest corner of the SPA shall be set back as far as possible from the boundary of the corporation yard and/or relocated to another area.
- Where necessary to reduce exposure of sensitive receptors to an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0, proposed commercial and industrial land uses that would host diesel trucks shall incorporate idle reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for TRUs, to allow diesel engines to be completely turned off.
- Signs shall be posted in at all loading docks and truck loading areas which indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by the California Office of Administrative Law in January 2005.
- Implement the following additional guidelines, which are recommended in ARB's Land Use Handbook: A Community Health Perspective (ARB 2005) and are considered to be advisory and not regulatory:
  - √ Sensitive receptors, such as residential units and daycare centers, shall not be located in the same building as dry-cleaning operations that use perchloroethylene. Dry-cleaning operations that use perchloroethylene shall not be located within 300 feet of any sensitive receptor. A setback of 500 feet shall be provided for operations with two or more machines.
  - √ Large gasoline stations (defined as facilities with a throughput of 3.6 million gallons per year or greater) and sensitive land uses shall not be sited within 300 feet of each other.

Small gasoline-dispensing facilities (less than 3.6 million gallons of throughput per year) and sensitive land uses shall not be sited within 50 feet of each other.

Mitigation Measure 3A.2-5: Implement A Site Investigation to Determine the Presence of NOA and, if necessary, Prepare and Implement an Asbestos Dust Control Plan. A site investigation shall be performed to determine whether and where NOA is present in the soil and rock on the SPA. The site investigation shall include the collection of soil and rock samples by a qualified geologist. If the site investigation determines that NOA is present on the SPA then the project applicant shall prepare an Asbestos Dust Control Plan for approval by SMAQMD as required in Title 17, Section 93105 of the California Code of Regulations, "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations." The Asbestos Dust Control Plan shall specify measures, such as periodic watering to reduce airborne dust and ceasing construction during high winds. Measures in the Asbestos Dust Control Plan may include but shall not be limited to dust control measures required by Mitigation Measure 3A.2-1a. The project applicant shall submit the plan to the Folsom Community Development Department for review and SMAQMD for review and approval before construction of the first project phase. SMAQMD approval of the plan must be received before any asbestos-containing rock (serpentinite) can be disturbed. Upon approval of the Asbestos Dust Control Plan by SMAQMD, the applicant shall ensure that construction contractors implement the terms of the plan throughout the construction period.

Mitigation Measure 3A.2-6: Implement Measures to Control Exposure of Sensitive Receptors to Operational Odorous Emissions. The project applicant(s) for any particular discretionary development application shall implement the following measures:

- The odor-producing potential of land uses shall be considered when the exact type of facility that would occupy areas zoned for commercial, industrial, or mixed-use land uses is determined. Facilities that have the potential to emit objectionable odors shall be located as far away as feasible from existing and proposed sensitive receptors.
- The multi-family residences planned across from the off-site corporation yard near the southwest corner of the SPA shall be set back as far as possible from the boundary of the corporation yard and/or relocated to another area. (This measure is also required by Mitigation Measure 3A.2-4b to limit exposure to TAC emissions.)
- Before the approval of building permits, odor control devices shall be identified to mitigate the exposure of receptors to objectionable odors if a potential odor-producing source is to occupy an area zoned for commercial, industrial, or mixed-use land uses. The identified odor control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use. The odor- producing potential of a source and control devices shall be determined in coordination with SMAQMD and based on the number of complaints associated with existing sources of the same nature.
- The deeds to all properties located within the plan area that are within one mile of an on- or off-site area zoned or used for agricultural use (including livestock grazing) shall be accompanied by a written disclosure from the transferor, in a form approved by the City of Folsom, advising any transferee of the potential adverse odor impacts from surrounding agricultural operations, which disclosure shall direct the transferee to contact the County of

Sacramento concerning any such property within the County zoned for agricultural uses within one mile of the subject property being transferred.

- Truck loading docks and delivery areas shall be located as far away as feasible from existing and proposed sensitive receptors.
- Signs shall be posted at all loading docks and truck loading areas which indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by California's Office of Administrative Law in January 2005. (This measure is also required by Mitigation Measure 3A.2-4b to limit TAC emissions.)
- Proposed commercial and industrial land uses that have the potential to host diesel trucks shall incorporate idle reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for TRUs, to allow diesel engines to be completely turned off. (This measure is also required by Mitigation Measure 3A.2-4b to limit TAC emissions.)

Mitigation Measure 3A.3-1a: Design Stormwater Drainage Plans and Erosion and Sediment Control Plans to Avoid and Minimize Erosion and Runoff to All Wetlands and Other Waters That Are to Remain on the SPA and Use Low Impact Development Features. To minimize indirect effects on water quality and wetland hydrology, the project applicant(s) for any particular discretionary development application shall include stormwater drainage plans and erosion and sediment control plans in their improvement plans and shall submit these plans to the City Public Works Department for review and approval. For off-site elements within Sacramento County or El Dorado County jurisdiction (e.g., off-site detention basin and off-site roadway connections to El Dorado Hills), plans shall be submitted to the appropriate county planning department. Before approval of these improvement plans, the project applicant(s) for any particular discretionary development application shall obtain a NPDES MS4 Municipal Stormwater Permit and Grading Permit, comply with the City's Grading Ordinance and County drainage and stormwater quality standards, and commit to implementing all measures in their drainage plans and erosion and sediment control plans to avoid and minimize erosion and runoff into Alder Creek and all wetlands and other waters that would remain on-site. Detailed information about stormwater runoff standards and relevant City and County regulation is provided in Chapter 3A.9, "Hydrology and Water Quality."

The project applicant(s) for any particular discretionary development entitlement shall implement stormwater quality treatment controls consistent with the Stormwater Quality Design Manual for Sacramento and South Placer Regions in effect at the time the application is submitted. Appropriate runoff controls such as berms, storm gates, off-stream detention basins, overflow collection areas, filtration systems,

and sediment traps shall be implemented to control siltation and the potential discharge of pollutants. Development plans shall incorporate Low Impact Development (LID) features, such as pervious strips, permeable pavements, bioretention ponds, vegetated swales, disconnected rain gutter downspouts, and rain gardens, where appropriate. Use of LID features is recommended by the EPA to minimize impacts on water quality, hydrology, and stream geomorphology and is

specified as a method for protecting water quality in the proposed specific plan. In addition, free spanning bridge systems shall be used for all roadway crossings over wetlands and other waters that are retained in the on-site open space. These bridge systems would maintain the natural and restored channels of creeks, including the associated wetlands, and would be designed with sufficient span width and depth to provide for wildlife movement along the creek corridors even during high-flow or flood events, as specified in the 404 permit.

In addition to compliance with City ordinances, the project applicant(s) for any particular discretionary development application shall prepare a Stormwater Pollution Prevention Plan (SWPPP), and implement Best Management Practices (BMPs) that comply with the General Construction Stormwater Permit from the Central Valley RWQCB, to reduce water quality effects during construction. Detailed information about the SWPPP and BMPs are provided in Chapter 3A.9, "Hydrology and Water Quality."

Each project development shall result in no net change to peak flows into Alder Creek and associated tributaries, or to Buffalo Creek, Carson Creek, and Coyote Creek. The project applicant(s) shall establish a baseline of conditions for drainage on-site. The baseline-flow conditions shall be established for 2-, 5-, and 100-year storm events. These baseline conditions shall be used to develop monitoring standards for the stormwater system on the SPA. The baseline conditions, monitoring standards, and a monitoring program shall be submitted to USACE and the City for their approval. Water quality and detention basins shall be designed and constructed to ensure that the performance standards, which are described in Chapter 3A.9, "Hydrology and Water Quality," are met and shall be designed as off-stream detention basins. Discharge sites into Alder Creek and associated tributaries, as well as tributaries to Carson Creek, Coyote Creek, and Buffalo Creek, shall be monitored to ensure that preproject conditions are being met. Corrective measures shall be implemented as necessary. The mitigation measures will be satisfied when the monitoring standards are met for 5 consecutive years without undertaking corrective measures to meet the performance standard.

See FEIR/FEIS Appendix S showing that the detention basin in the northeast corner of the SPA has been moved off stream.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., El Dorado County for the roadway connections, Sacramento County for the detention basin west of Prairie City Road, and Caltrans for the U.S. 50 interchange improvements) such that the performance standards described in Chapter 3A.9, "Hydrology and Water Quality," are met.

Mitigation Measure 3A.3-1b: Secure Clean Water Act Section 404 Permit and Implement All Permit Conditions; Ensure No Net Loss of Functions and Values of Wetlands, Other Waters of the U.S., and Waters of the State. Before the approval of grading and improvement plans and before any groundbreaking activity associated with each distinct discretionary development entitlement, the project applicant(s) for any particular discretionary development application requiring fill of wetlands or other waters of the U.S. or waters of the state shall obtain all necessary permits under Sections 401 and 404 of the CWA or the state's Porter- Cologne Act for the respective phase. For each respective discretionary development entitlement, all permits, regulatory

approvals, and permit conditions for effects on wetland habitats shall be secured before implementation of any grading activities within 250 feet of waters of the U.S. or wetland habitats or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS, including waters of the state, that potentially support Federally listed species. The project applicant(s) shall commit to replace, restore, or enhance on a "no net loss" basis (in accordance with USACE and the Central Valley RWQCB) the acreage of all wetlands and other waters of the U.S. that would be removed, lost, and/or degraded with implementation of project plans for that development increment. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, the Central Valley RWQCB, and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes.

As part of the Section 404 permitting process, a draft wetland mitigation and monitoring plan (MMP) shall be developed for the project on behalf of the project applicant(s). Before any ground-disturbing activities in an area that would adversely affect wetlands and before engaging in mitigation activities associated with each discretionary development entitlement, the project applicant(s) shall submit the draft wetland MMP to USACE, the Central Valley RWQCB, Sacramento County, El Dorado County, and the City for review and approval of those portions of the plan over which they have jurisdiction. The MMP would have to be finalized prior to impacting any wetlands. Once the final MMP is approved and implemented, mitigation monitoring shall continue for a minimum of 5 years from completion of mitigation, or human intervention (including recontouring and grading), or until the performance standards identified in the approved MMP have been met, whichever is longer.

As part of the MMP, the project applicant(s) shall prepare and submit plans for the creation of aquatic habitat in order to adequately offset and replace the aquatic functions and services that would be lost at the SPA, account for the temporal loss of habitat, and contain an adequate margin of safety to reflect anticipated success. Restoration of previously altered and degraded wetlands shall be a priority of the MMP for offsetting losses of aquatic functions on the SPA because it is typically easier to achieve functional success in restored wetlands than in those created from uplands. The MMP must demonstrate how the aquatic functions and values that would be lost through project implementation will be replaced.

The habitat MMP for jurisdictional wetland features shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230) and USACE's October 26, 2010 *Memorandum Re: Minimum Level of Documentation Required for Permit Decisions*. According to the Final Rule, mitigation banks should be given preference over other types of mitigation because a lot of the risk and uncertainty regarding mitigation success is alleviated by the fact that mitigation bank wetlands must be established and demonstrating functionality before credits can be sold. The use of mitigation credits also alleviates temporal losses of wetland function while compensatory wetlands are being established. Mitigation banks also tend to be on larger, more ecologically valuable parcels and are subjected to more rigorous scientific study and planning and implementation procedures than typical permittee-responsible mitigation sites (USACE and EPA, 2008). Permittee-responsible on-site mitigation areas can be exposed to long-term negative effects of surrounding development since they tend to be smaller and less buffered than mitigation banks. The Final Rule also establishes a preference for a "watershed approach" in selecting locations for compensatory mitigation project locations, that mitigation selection must be "appropriate and practicable" and that mitigation banks

must address watershed needs based on criteria set forth in the Final Rule. The watershed approach accomplishes this objective by expanding the informational and analytic basis of mitigation project site selection decisions and ensuring that both authorized impacts and mitigation are considered on a watershed scale rather than only project by project. This requires a degree of flexibility so that district engineers can authorize mitigation projects that most effectively address the case-specific circumstances and needs of the watershed, while remaining practicable for the permittee. The SPA includes portions of the Alder Creek, Buffalo Creek, Coyote Creek, and Carson Creek Watersheds. The majority of the SPA is within the Alder Creek Watershed. Alder Creek and Buffalo Creek are part of the Lower American River Watershed. Carson Creek and Coyote Creek are part of the Cosumnes River Watershed. Mitigation credits may be available within the Cosumnes Watershed, but not within the American River Watershed and not within the sub-watersheds of the SPA. Therefore aquatic habitats may need to be restored or created on the SPA and adjacent off-site lands, preferably within the affected watersheds, in order to successfully replace lost functions at the appropriate watershed scale where loss of function would occur. It is not likely feasible to provide compensatory mitigation for all aquatic resource impacts on site. Therefore, a combination of on-site and off-site permittee-responsible mitigation and mitigation banking would likely be necessary to achieve the no-net-loss standard.

The SPA is located within the service areas of several approved mitigation banks (e.g., Bryte Ranch, Clay Station, Fitzgerald Ranch, and Twin City Mitigation Bank). The majority of compensatory mitigation for wetland impacts is proposed to be accomplished at an agency- approved mitigation bank or banks authorized to sell credits to offset impacts in the SPA. The applicants' biological consultant, ECORP, has identified availability of approximately 31 vernal pool credits and 228 seasonal wetland credits at mitigation banks whose service area includes the SPA. Additional credits may also be available from pending, but not yet approved, mitigation banks. However, availability is subject to change and, as noted above, a combination of mitigation bank credits and permittee-responsible on and off-site mitigation may be necessary to fully offset project impacts on wetlands and other waters of the U.S. If USACE determines that the use of mitigation bank credits is not sufficient mitigation to offset impacts within the SPA, the October 26, 2010 Memorandum Re: Minimum Level of Documentation Required for Permit Decisions requires USACE to specifically demonstrate why the use of bank credits is not acceptable to USACE in accordance with Section 33 CFR 332.3(a)(1).

Compensatory mitigation for losses of stream and intermittent drainage channels shall follow the Final Rule Guidelines, which specify that compensatory mitigation should be achieved through in-kind preservation, restoration, or enhancement within the same watershed, subject to practicability considerations. The wetland MMP shall address how to mitigate impacts on vernal pool, seasonal swale, seasonal wetland, seep, marsh, pond, and intermittent and perennial stream habitat, and shall describe specific method(s) to be implemented to avoid and/or mitigate any off-site project-related impacts. The wetland compensation section of the habitat MMP shall include the following:

- Compensatory mitigation sites and criteria for selecting these mitigation sites. In General, compensatory mitigation sites should meet the following criteria, based on the Final Rule;
  - located within the same watershed as the wetland or other waters that would be lost, as appropriate and practicable;
  - located in the most likely position to successfully replace wetland functions lost on the impact site considering watershed-scale features such as aquatic habitat diversity, habitat connectivity, available water sources and hydrologic relationships, land use trends, ecological

benefits, and compatibility with adjacent land uses, and the likelihood for success and sustainability;

- A complete assessment of the existing biological resources in both the on-site preservation areas and off-site compensatory mitigation areas, including wetland functional assessment using the California Rapid Assessment Method (CRAM) (Collins et al. 2008), or other appropriate wetland assessment protocol as determined through consultation with USACE and the USFWS, to establish baseline conditions;
- Specific creation and restoration plans for each mitigation site;
- Use of CRAM to compare compensatory wetlands to the baseline CRAM scores from wetlands in the SPA. The compensatory wetland CRAM scores shall be compared against the highest quality wetland of each type from the SPA;
- CRAM scores, or other wetland assessment protocol scores, from the compensatory wetlands shall be compared against the highest quality wetland scores for each wetland type to document success of compensatory wetlands in replacing the functions of the affected wetlands to be replaced;
- Monitoring protocol, including schedule and annual report requirements, and the following elements:
  - ecological performance standards, based on the best available science, that can be assessed in a practicable manner (e.g., performance standards proposed by Barbour et al. 2007). Performance standards must be based on attributes that are objective and verifiable;
  - assessments conducted annually for 5 years after construction or restoration of compensatory wetlands to determine whether these areas are acquiring wetland functions and to plot the performance trajectory of preserved, restored, or created wetlands over time. Assessments results for compensatory wetlands shall also be compared against scores for reference wetlands assessed in the same year;
  - assessments analysis conducted annually for 5 years after any construction adjacent to wetlands preserved on the SPA to determine whether these areas are retaining functions and values. Assessments results for wetlands preserved on site shall also be compared against scores for reference wetlands assessed in the same year;
  - analysis of assessments data, including assessment of potential stressors, to determine whether any remedial activities may be necessary;
  - corrective measures if performance standards are not met;
  - monitoring of plant communities as performance criteria (annual measure of success, during monitoring period) and success criteria (indicative of achievement of mitigation habitat requirement at end of monitoring period) for hydrologic function have become established and the creation site "matures" over time;
  - GIS analysis of compensatory wetlands to demonstrate actual acreage of functioning wetland habitat;
  - adaptive management measures to be applied if performance standards and acreage requirements are not being met;
  - responsible parties for monitoring and preparing reports; and
  - responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.

A final operations and management plan (OMP) for all on- and off-site permittee-sponsored wetland preservation and mitigation areas shall be prepared and submitted to USACE and USFWS for review, comment and preliminary approval prior to the issuance of any permits under Section

404 of the CWA. The plan shall include detailed information on the habitats present within the preservation and mitigation areas, the long-term management and monitoring of these habitats, legal protection for the preservation and mitigation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment). A final OMP for each discretionary development entitlement affecting wetlands must be approved prior to construction.

USACE has determined that the project will require an individual permit. In its final stage and once approved by USACE, the MMP for the project is expected to detail proposed wetland restoration, enhancement, and/or replacement activities that would ensure no net loss of aquatic functions in the project vicinity. Approval and implementation of the wetland MMP shall aim to fully mitigate all unavoidable impacts on jurisdictional waters of the U.S., including jurisdictional wetlands. In addition to USACE approval, approval by the City, Sacramento County, El Dorado County, and the Central Valley RWQCB, as appropriate depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes, will also be required. Approvals from Sacramento County and El Dorado County shall be required for impacts resulting from off-site project elements occurring in these counties, such as the off-site detention basin in Sacramento County and the roadway connections into El Dorado County. To satisfy the requirements of the City and the Central Valley RWQCB, mitigation of impacts on the nonjurisdictional wetlands beyond the jurisdiction of USACE shall be included in the same MMP. All mitigation requirements determined through this process shall be implemented before grading plans are approved. The MMP shall be submitted to USACE and approved prior to the issuance of any permits under Section 404 of the CWA.

Water quality certification pursuant to Section 401 of the CWA will be required before issuance of a Section 404 permit. Before construction in any areas containing wetland features, the project applicant(s) shall obtain water quality certification for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., Caltrans, El Dorado and/or Sacramento Counties).

Mitigation Measure 3A.3-2a: Avoid Direct Loss of Swainson's Hawk and Other Raptor Nests. To mitigate impacts on Swainson's hawk and other raptors (including burrowing owl), the project applicant(s) of all project phases shall retain a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 0.5 mile of the SPA and active burrows on the SPA. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction for all project phases. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk. If no nests are found, no further mitigation is required.

If active nests are found, impacts on nesting Swainson's hawks and other raptors shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in consultation with DFG that reducing the buffer would not result in nest

abandonment. DFG guidelines recommend implementation of 0.25- or 0.5-mile-wide buffers, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with DFG, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

If active burrows are found, a mitigation plan shall be submitted to the City for review and approval before any ground-disturbing activities. The City shall consult with DFG. The mitigation plan may consist of installation of one-way doors on all burrows to allow owls to exit, but not reenter, and construction of artificial burrows within the project vicinity, as needed; however, burrow owl exclusions may only be used if a qualified biologist verifies that the burrow does not contain eggs or dependent young. If active burrows contain eggs and/or young, no construction shall occur within 50 feet of the burrow until young have fledged. Once it is confirmed that there are no owls inside burrows, these burrows may be collapsed.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans), such that the performance criteria set forth in DFG's guidelines are determined to be met.

Mitigation Measure 3A.3-2b: Prepare and Implement a Swainson's Hawk Mitigation Plan. To mitigate for the loss of Swainson's hawk foraging habitat, the project applicant(s) of all project phases shall prepare and implement a Swainson's hawk mitigation plan including, but not limited to the requirements described below.

Before the approval of grading and improvement plans or before any ground-disturbing activities, whichever occurs first, the project applicant(s) shall preserve, to the satisfaction of the City or Sacramento County, as appropriate depending on agency jurisdiction, suitable Swainson's hawk foraging habitat to ensure 1:1 mitigation of habitat value for Swainson's hawk foraging habitat lost as a result of the project, as determined by the City, or Sacramento County, after consultation with DFG and a qualified biologist.

The 1:1 habitat value shall be based on Swainson's hawk nesting distribution and an assessment of habitat quality, availability, and use within the City's planning area, or Sacramento County jurisdiction. The mitigation ratio shall be consistent with the 1994 DFG *Swainson's Hawk Guidelines included in the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California*, which call for the following mitigation ratios for loss of foraging habitat in these categories: 1:1 if within 1 mile of an active nest site, 0.75:1 if over 1 mile but less than 5 miles, and 0.5:1 if over 5 miles but less than 10 miles from an active nest site. Such mitigation shall be accomplished through credit purchase from an established mitigation bank approved to sell Swainson's hawk foraging habitat credits to mitigate losses in the SPA, if available, or through the transfer of fee title or perpetual conservation easement. The mitigation land shall be located within the known foraging area and within Sacramento County. The City, or Sacramento County if outside City jurisdiction, after consultation with DFG, will determine the appropriateness of the mitigation land.

Before approval of such proposed mitigation, the City, or Sacramento County for the off-site detention basin, shall consult with DFG regarding the appropriateness of the mitigation. If mitigation is accomplished through conservation easement, then such an easement shall ensure the continued management of the land to maintain Swainson's hawk foraging values, including but not limited to ongoing agricultural uses and the maintenance of all existing water rights associated with the land. The conservation easement shall be recordable and shall prohibit any activity that substantially impairs or diminishes the land's capacity as suitable Swainson's hawk habitat.

The project applicant(s) shall transfer said Swainson's hawk mitigation land, through either conservation easement or fee title, to a third- party, nonprofit conservation organization (Conservation Operator), with the City and DFG named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City or County, after consultation with DFG. The City, or County, after consultation with DFG and the Conservation Operator, shall approve the content and form of the conservation easement. The City, or County, DFG, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to assure compliance with the terms of the easement.

The project applicant(s), after consultation with the City, or County of jurisdiction, DFG, and the Conservation Operator, shall establish an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement. If an endowment is used, either the endowment funds shall be submitted to the City for impacts on lands within the City's jurisdiction or Sacramento County for the off-site detention basin to be distributed to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without prior written approval of the City and DFG. Mitigation lands established or acquired for impacts incurred at the off-site detention basin shall require approval from Sacramento County prior to sale or transfer of mitigation lands or conservation easement.

If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and DFG, or Sacramento County and DFG depending on jurisdiction of the affected habitat. The City Planning Department shall ensure that mitigation habitat established for impacts on habitat within the City's planning area is properly established and is functioning as habitat by reviewing regular monitoring reports prepared by the Conservation Operator of the mitigation site(s). Monitoring of the mitigation site(s) shall continue for the first 10 years after establishment of the easement and shall be funded through the endowment, or other appropriate funding mechanism, established by the project applicant(s). Sacramento County shall review the monitoring reports for impacts on habitat at the off-site detention basin.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Sacramento County and Caltrans).

Mitigation Measure 3A.3-2c: Avoid and Minimize Impacts to Tricolored Blackbird Nesting Colonies. To avoid and minimize impacts to tricolored blackbird, the project applicant(s) of all project phases shall conduct a preconstruction survey for any project activity that would occur during the tricolored blackbird's nesting season (March 1–August 31). The preconstruction survey shall be conducted by a qualified biologist before any activity occurring within 500 feet of suitable nesting habitat, including freshwater marsh and areas of riparian scrub vegetation. The survey shall be conducted within 14 days before project activity begins.

If no tricolored blackbird colony is present, no further mitigation is required. If a colony is found, the qualified biologist shall establish a buffer around the nesting colony. No project activity shall commence within the buffer area until a qualified biologist confirms that the colony is no longer active. The size of the buffer shall be determined in consultation with DFG. Buffer size is anticipated to range from 100 to 500 feet, depending on the nature of the project activity, the extent of existing disturbance in the area, and other relevant circumstances.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries (i.e., U.S. 50 interchange improvements) must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., Caltrans) and must be sufficient to achieve the performance criteria described above.

Mitigation Measure 3A.3-2d: Avoid and Minimize Impacts to Special-Status Bat Roosts. The project applicant of all project phases containing potential bat roosting habitat shall retain a qualified biologist to conduct surveys for roosting bats. Surveys shall be conducted in the fall to determine if the mine shaft is used as a hibernaculum and in spring and/or summer to determine if it is used as a maternity or day roost. Surveys shall consist of evening emergence surveys to note the presence or absence of bats and could consist of visual surveys at the time of emergence. If evidence of bat use is observed, the number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no bat roosts are found, then no further study shall be required.

If roosts of pallid bat or Townsend's big-eared bats are determined to be present and must be removed, the bats shall be excluded from the roosting site before the mine shaft is removed. A mitigation program addressing compensation, exclusion methods, and roost removal procedures shall be developed in consultation with DFG before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) will be replaced in consultation with DFG and may include construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the mine shaft may be removed.

Mitigation Measure 3A.3-2e: Obtain an Incidental Take Permit under Section 10(a) of ESA; Develop and Implement a Habitat Conservation Plan to Compensate for the Loss of Vernal

Pool Habitat. The project applicant(s) for all project phases shall obtain an incidental take permit under Section 10(a) of ESA. No project construction shall proceed in areas supporting potential habitat for Federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a BO has been issued by USFWS and the project applicant(s) have abided by conditions in the BO (including all conservation and minimization measures). Conservation and minimization measures are likely to include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction.

Under the No Federal Action Alternative, interagency consultation under Section 7 of ESA would not occur; therefore, the project applicant(s) would be required to develop a habitat conservation plan to mitigate impacts on Federally listed vernal pool invertebrates. The project applicant(s) shall complete and implement, or participate in, a habitat conservation plan that shall compensate for the loss of acreage, function, and value of affected vernal pool habitat. The habitat conservation plan shall be consistent with the goals of the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005) and must be approved by USFWS.

The project applicant(s) for all project phases shall ensure that there is sufficient upland habitat within the target areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. The land used to satisfy this mitigation measure shall be protected through a fee title or conservation easement acceptable to the City and USFWS.

The project applicant(s) for all project phases shall identify the extent of indirectly affected vernal pool and seasonal wetland habitat, either by identifying all such habitat within 250 feet of project construction activities or by providing an alternative technical evaluation in support of a lesser indirect impact distance. If a lesser distance is pursued, this distance shall be approved by USFWS. The project applicant(s) shall preserve 2 wetted acres of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat, and before any ground-disturbing activity within 250 feet of the habitat. The project applicant(s) will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan.

A standard set of BMPs shall be applied to construction occurring in areas within 250 feet of off-site vernal pool habitat, or within any lesser distance deemed adequate by a qualified biologist (with approval from USFWS) to constitute a sufficient buffer from such habitat. Refer to Section 3A.9, "Hydrology and Water Quality - Land" for the details of BMPs to be implemented.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties or Caltrans).

Mitigation Measure 3A.3-2f: Obtain an Incidental Take Permit under Section 10(a) of ESA; Develop and Implement a Habitat Conservation Plan to Compensate for the Loss of VELB Habitat. As long as valley elderberry longhorn beetle remains a species protected under ESA, the project applicant(s) of all project phases containing elderberry shrubs shall obtain an incidental take

permit under Section 10(a) of ESA for valley elderberry longhorn beetle. No project construction shall proceed in areas potentially containing valley elderberry longhorn beetle until a BO has been issued by USFWS, and the project applicant(s) for all project phases have abided by all pertinent conditions in the take permit relating to the proposed construction, including all conservation and minimization measures. Conservation and minimization measures are likely to include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in a conservation area.

Under the No Federal Action Alternative, interagency consultation under Section 7 of ESA would not occur; therefore, the project applicant(s) would be required to develop a habitat conservation plan to mitigate impacts on valley elderberry longhorn beetle. The project applicant(s) shall complete and implement a habitat conservation plan that will compensate for the loss of valley elderberry longhorn beetle. Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented on a no-net-loss basis. Detailed information on monitoring success of relocated and planted shrubs and measures to compensate (should success criteria not be met) would also likely be required in the BO. Ratios for mitigation of valley elderberry longhorn beetle habitat will ultimately be determined through the ESA Section 10(a) consultation process with USFWS, but shall be a minimum of "no net loss."

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries (i.e., U.S. 50 interchange improvements) must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Caltrans).

Mitigation Measure 3A.3-2g: Secure Take Authorization for Federally Listed Vernal Pool Invertebrates and Implement All Permit Conditions. No project construction shall proceed in areas supporting potential habitat for Federally listed vernal pool invertebrates, or within adequate buffer areas (250 feet or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS), until a biological opinion (BO) or Not Likely to Adversely Affect (NLAA) letter has been issued by USFWS and the project applicant(s) for any particular discretionary development entitlements affecting such areas have abided by conditions in the BO (including conservation and minimization measures) intended to be completed before on-site construction. Conservation and minimization measures shall include preparation of supporting documentation describing methods to protect existing vernal pools during and after project construction, a detailed monitoring plan, and reporting requirements.

As described under Mitigation Measure 3A.3-1a, an MMP shall be developed that describes details how loss of vernal pool and other wetland habitats shall be offset, including details on creation of habitat, account for the temporal loss of habitat, contain performance standards to ensure success, and outline remedial actions if performance standards are not met.

The project applicant(s) for any particular discretionary development application potentially affecting vernal pool habitat shall complete and implement a habitat MMP that will result in no net loss of acreage, function, and value of affected vernal pool habitat. The final habitat MMP shall be consistent with guidance provided in *Programmatic Formal Endangered Species Act Consultation on Issuance of 404 Permits for Projects with Relatively Small Effects on Listed Vernal Pool Crustaceans within the Jurisdiction of the Sacramento Field Office, California* (USFWS 1996) or shall provide an alternative approach that is

acceptable to the City, USACE, and USFWS and accomplishes no net loss of habitat acreage, function, and value.

The project applicant(s) for any particular discretionary development application "potentially affecting vernal pool habitat" shall ensure that there is sufficient upland habitat within the target areas for creation and restoration of vernal pools and vernal pool complexes to provide ecosystem health. This standard shall be accomplished by requiring the project applicant(s) for any discretionary development application affecting vernal pool or seasonal wetland habitat to identify the extent of indirectly affected vernal pool and seasonal wetland habitat, either by identifying all such habitat within 250 feet of project construction activities or by providing an alternative technical evaluation. If a lesser distance is pursued, this distance shall be approved by USFWS. The project applicant(s) shall preserve acreage of vernal pool habitat for each wetted acre of any indirectly affected vernal pool habitat at a ratio approved by USFWS at the conclusion of the Section 7 consultation. This mitigation shall occur before the approval of any grading or improvement plans for any project phase that would allow work within 250 feet of such habitat or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS, and before any ground- disturbing activity within 250 feet of the habitat or lesser distance deemed sufficiently protective by a qualified biologist with approval from USFWS. The project applicant(s) will not be required to complete this mitigation measure for direct or indirect impacts that have already been mitigated to the satisfaction of USFWS through another BO or mitigation plan (i.e., if impacts on specific habitat acreage are mitigated by one project phase or element, the project applicant(s) will not be required to mitigate for it again in another phase of the project).

A standard set of BMPs shall be applied to construction occurring in areas within 250 feet of off-site vernal pool habitat, or within any lesser distance deemed adequate by a qualified biologist (with approval from USFWS) to constitute a sufficient buffer from such habitat. Refer to Section 3A.9, "Hydrology and Water Quality - Land" for the details of BMPs to be implemented.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.3-2h: Obtain Incidental Take Permit for Impacts on Valley Elderberry Longhorn Beetle and Implement All Permit Conditions. Before each phase of the project, the project applicant(s) shall have a qualified biologist identify any elderberry shrubs within 100 feet of the project footprint and conduct a survey for valley elderberry longhorn beetle exit holes in stems greater than 1 inch in diameter. If no project activity, including grading or use of herbicides, would occur within 100 feet of an elderberry shrub, then no further mitigation shall be required for valley elderberry longhorn beetle in those areas.

If project activities would occur within 100 feet of any elderberry shrubs, consultation with USFWS under Section 7 will be required. No project construction shall proceed in areas potentially containing valley elderberry longhorn beetle until a BO has been issued by USFWS, and the project applicant(s) of all project phases have abided by all pertinent conditions in the BO relating to the proposed construction, including conservation and minimization measures, intended to be completed before on-site construction. Conservation and minimization measures are likely to

include preparation of supporting documentation that describes methods for relocation of existing shrubs and maintaining existing shrubs and other vegetation in a conservation area.

Relocation of existing elderberry shrubs and planting of new elderberry seedlings shall be implemented consistent with the mitigation ratios described in the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). The 1999 conservation guidelines mitigation ratios are based on whether the affected shrub is located in riparian or non riparian habitat, the size of stems affected, and the presence of beetle exit holes. Compensatory mitigation for elderberry shrubs that would be removed from their current locations would be developed in consultation with USFWS during the Section 7 consultation process. Compensatory mitigation may include planting replacement elderberry seedlings or cuttings and associated native plants within the open space areas of the SPA, planting replacement elderberry seedlings or cuttings and associated native plants at a suitable off-site location, purchasing credits at an approved mitigation bank, or a combination thereof. Relocated and replacement shrubs and associated native plantings shall be placed in conservation areas providing a minimum of 1,800 square feet per transplanted shrub. These conservation areas shall be preserved in perpetuity as habitat for valley elderberry longhorn beetle. The number of elderberry shrubs that would be affected by implementing the project is expected to be low because there are currently a total of less than 10 shrubs known to be present on the SPA. Ratios for mitigation of valley elderberry longhorn beetle habitat will ultimately be determined through the ESA Section 7 consultation process with USFWS, but shall be a minimum of "no net loss." USFWS uses stem count data, presence or absence of exit holes, and whether the affected elderberry shrubs are located in riparian habitat to determine the number of elderberry seedlings or cuttings and associated riparian vegetation that would need to be planted as compensatory mitigation for affected elderberry longhorn beetle habitat. The final VELB mitigation plan, including transplanting procedures, long-term protection, management of the mitigation areas, and monitoring procedures shall be consistent with the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999).

The population of valley elderberry longhorn beetles, the general condition of the conservation area, and the condition of the elderberry and associated native plantings in the conservation area must be monitored over a period of either ten consecutive years or for seven years over a 15-year period. A minimum survival rate of at least 60% of the elderberry plants and 60% of the associated native plants must be maintained throughout the monitoring period. Within one year of discovering that survival has dropped below 60%, the project applicant(s) shall replace failed plantings to bring survival above this level. Detailed information on monitoring success of relocated and planted shrubs and measures to compensate (should success criteria not be met) would be required in the BO.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries (i.e., U.S. 50 interchange improvements) must be developed by the project applicant(s) of each applicable project phase in consultation with the affected oversight agency(ies) (i.e., Caltrans) and must be sufficient to achieve the performance criteria described above.

Mitigation Measure 3A.3-3: Conduct Special-Status Plant Surveys; Implement Avoidance and Mitigation Measures or Compensatory Mitigation. To mitigate for the potential loss or degradation of special-status plant species and habitat, the project applicant(s) for any particular discretionary development application shall adhere to the requirements described below.

- The project applicant(s) for any particular discretionary development application, including the proposed off-site elements, shall retain a qualified botanist to conduct protocol level preconstruction special-status plant surveys for all potentially occurring species. Preconstruction special-status plant surveys shall not be required for those portions of the SPA that have already been surveyed according to DFG and USFWS guidelines. If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report to USFWS, DFG, the City of Folsom, Caltrans (for interchange improvements to U.S. 50), El Dorado County (for roadway connections in El Dorado County), and Sacramento County (for the off-site detention basin) and no further mitigation shall be required.
- If special-status plant populations are found, the project applicant(s) of affected developments shall consult with DFG and USFWS, as appropriate depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts on any special- status plant population that could occur as a result of project implementation. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals.
- If potential impacts on special-status plant species are likely, a mitigation and monitoring plan shall be developed before the approval of grading plans or any ground-breaking activity within 250 feet of a special-status plant population. The mitigation plan shall be submitted to Caltrans (for interchange improvements to U.S. 50), El Dorado County (for impacts in roadway connections in El Dorado County), Sacramento County (for impacts in the off-site detention basin footprint), or the City of Folsom (for on-site impacts and all other off-site elements), for review and approval. It shall be submitted concurrently to DFG or USFWS, as appropriate depending on species status, for review and comment. The plan shall require maintaining viable plant populations on-site and shall identify avoidance measures for any existing population(s) to be retained and compensatory measures for any populations directly affected. Possible avoidance measures include fencing populations before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. The mitigation plan shall also include monitoring and reporting requirements for populations to be preserved on site or protected or enhanced off site.
- If relocation efforts are part of the mitigation plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long- term management, conservation easement holders, long-term management requirements, and other details, as appropriate to target the preservation on long term viable populations.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Caltrans, El Dorado and/or Sacramento Counties).

Mitigation Measure 3A.3-4a: Secure and Implement Section 1602 Streambed Alteration Agreement. The project applicant(s) for any particular discretionary development application shall obtain a Section 1602 streambed alteration agreement from DFG for all construction activities that would occur in the bed and bank of Alder Creek and other drainage channels and ponds on the SPA. As a condition of issuance of the streambed alteration agreement, the project applicant(s) for any particular discretionary development application affecting riparian habitat shall hire a qualified restoration ecologist to prepare a riparian habitat MMP. The draft MMP shall describe specific method(s) to be implemented to avoid and/or compensate for impacts on the stream channel of Alder Creek and other drainage channels within DFG jurisdiction, and the bed and banks of the on-site ponds. Mitigation measures may include establishment or restoration of riparian habitat within the project's open space areas along preserved stream corridors, riparian habitat restoration off-site, or preservation and enhancement of existing riparian habitat either on or off the SPA. The compensation habitat shall be similar in composition and structure to the habitat to be removed and shall be at ratios adequate to offset the loss of riparian habitat functions and services at the SPA. The riparian habitat compensation section of the habitat MMP shall include the following:

- compensatory mitigation sites and criteria for selecting these mitigation sites;
- complete assessment of the existing biological resources in both the on-site and off-site preservation and restoration areas;
- site-specific management procedures to benefit establishment and maintenance of native riparian plant species, including black willow, arroyo willow, white alder, and Fremont cottonwood;
- a planting and irrigation program if needed for establishment of native riparian trees and shrubs at strategic locations within each mitigation site (planting and irrigation may not be necessary if preservation of functioning riparian habitat is chosen as mitigation or if restoration can be accomplished without irrigation or planting);
- in kind reference habitats for comparison with compensatory riparian habitats (using performance and success criteria) to document success;
- monitoring protocol, including schedule and annual report requirements (compensatory riparian habitats shall be monitored for a minimum period of five years);
- ecological performance standards, based on the best available science and including specifications for native riparian plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80% survival of planted riparian trees and shrubs by the end of the five-year maintenance and monitoring period or dead and dying trees shall be replaced and monitoring continued until 80% survivorship is achieved;
- corrective measures if performance standards are not met;
- responsible parties for monitoring and preparing reports; and
- responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.

Any conditions of issuance of the Streambed Alteration Agreement shall be implemented as part of project construction activities that adversely affect the bed and bank and riparian habitat associated with Alder Creek and other drainage channels and ponds that are within the project area that is subject to DFG jurisdiction. The agreement shall be executed by the project applicant(s) and DFG before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the bed and bank of Alder Creek and other on-site or off-

site drainage channels under DFG jurisdiction and their associated freshwater marsh and riparian habitat.

Mitigation for the U.S. 50 interchange improvements must be coordinated by the project applicant(s) of each applicable project phase with the Caltrans.

Mitigation Measure 3A.3-4b: Conduct Surveys to Identify and Map Valley Needlegrass Grassland; Implement Avoidance and Minimization Measures or Compensatory Mitigation. The project applicant(s) of all project phases shall retain a qualified botanist to conduct preconstruction surveys to determine if valley needlegrass grassland is present on the SPA. This could be done concurrently with any special-status plant surveys conducted on site as special-status plant surveys are floristic in nature, i.e. require that all species encountered be identified, and require preparation of a plant community map. If valley needlegrass grassland is not found on the SPA, the botanist shall document the findings in a letter report to the City of Folsom, and no further mitigation shall be required. Valley needlegrass grassland was not found in any of the off-site project elements.

If valley needlegrass grassland is found on the SPA, the location and extent of the community shall be mapped and the acreage of this community type, if any, that would be removed by project implementation shall be calculated. The project applicant(s) for any particular discretionary development application affecting valley needlegrass grassland shall consult with DFG and the City of Folsom to determine appropriate mitigation for removal of valley needlegrass grassland resulting from project implementation. Mitigation measures shall include one or more of the following components sufficient to achieve no net loss of valley needlegrass grassland acreage: establishment of valley needlegrass grassland within project's open space areas currently characterized by annual grassland, establishment of valley needlegrass grassland off-site, or preservation and enhancement of existing valley needlegrass grassland either on or off the SPA. The applicant(s) shall compensate for any loss of valley needlegrass grassland resulting from project implementation at a minimum 1:1 replacement ratio.

Mitigation Measure 3A.3-5: Conduct Tree Survey, Prepare and Implement an Oak Woodland Mitigation Plan, Replace Native Oak Trees Removed, and Implement Measures to Avoid and Minimize Indirect Impacts on Oak Trees Retained On Site. The project applicant(s) shall prepare an oak woodland mitigation and monitoring plan. The project applicant(s) of all on- and off-site project phases containing oak woodland habitat or individual trees shall adhere to the requirements described below, which are consistent with those outlined in California Public Resources Code 21083.4.

Pursuant to Sacramento County General Plan policy, the acreage of oak woodland habitat for determining impacts and mitigation requirements was calculated as the oak tree canopy area within stands of oak trees having greater than 10% cover plus a 30-foot-radius buffer measured from the outer edge of the tree canopy. Oak trees located in areas greater than 30 feet from stands meeting the greater than 10% tree canopy cover criterion were considered isolated trees and not part of the blue oak woodland community. Mitigation for impacts on isolated oak trees is discussed separately below.

- Preserve approximately 399 acres of existing oak woodland habitat in the SPA (this acreage is based on the extent of oak woodland habitat as determined from aerial photograph interpretation; however, following completion of ground verification by a qualified arborist, the actual amount of oak woodland present within impact areas could be slightly greater or lesser than the amount calculated from aerial photograph and, therefore, the amount preserved could also be slightly greater or lesser than 399 acres).
- Create 243 acres of oak woodland habitat in the SPA by planting a combination of blue oak acorns, seedlings, and trees in the following SPA locations:
  - Non-wooded areas that are adjacent to or contiguous with the existing oak woodland habitat.
  - Preserve and passive open space zones throughout the SPA.
  - Open space areas that are adjacent to existing oak woodlands that will be impacted by project grading (i.e. catch slopes).
  - Other practical locations within the SPA in or adjacent to open space.

Oak Woodlands Mitigation Planting Criteria

The following oak woodland mitigation planting criteria shall be used to create oak woodland habitat:

- A minimum of 55 planting sites per acre (with a total of 70 units, as defined below) will mitigate for one acre of oak woodland impacts. A combination of acorns, seedlings, and various sizes of container trees (#1 container, #5 container, #15 container) or transplanted trees shall be incorporated into the planting design. Mitigation acreage that is planted solely with larger oak trees (no acorns) shall have a minimum of 35 planting sites per acre. The units are defined as follows:
  - One established acorn equals one unit (acorns will be over planted to maximize potential germination).
  - One oak seedling equals one unit.
  - One #1 container oak tree equals two units.
  - One #5 container oak tree equals three units.
  - One #15 container oak tree equals four units.
  - One 24-inch boxed oak tree equals six units.
  - One transplanted oak tree equals four units per trunk diameter inch (dbh).
  - Native non oak species characteristic of oak woodlands shall be included in the mitigation planting plan to augment overall habitat values. Each non oak tree species shall represent unit values described above for oak trees, but non oak species shall comprise no more than 10% of the mitigation plantings.

- Preserve and protect existing off-site oak woodland habitat. Existing, unprotected oak woodland habitat within Sacramento and El Dorado Counties may be secured and placed under conservation easement in lieu of onsite mitigation measures if necessary. The off-site locations would be managed as oak woodland habitat in perpetuity.
- Create oak woodlands off site. Plant a combination of blue oak acorns, seedlings, and trees at off-site location(s), if needed to achieve the creation goal of 243 acres of new blue oak woodland habitat. This measure would only be needed if 243 acres of blue oak woodland could not be created in the SPA. Off-site creation shall follow the same guidelines as outlined in the Mitigation Planting Criteria for on- site creation. Off-site tree planting shall occur at sites within

Sacramento County that should naturally support blue oak woodland and shall be used to restore former blue oak woodland habitat that has been degraded or removed through human activities. Restoration shall be designed to result in species composition and densities similar to those in the SPA prior to project development. Planted areas shall be placed under conservation easement and managed as oak woodland habitat in perpetuity.

- The oak woodland mitigation plan prepared by the project applicant(s) shall include a maintenance and monitoring program for any replacement trees. The program shall include monitoring and reporting requirements, schedule, and success criteria. Replacement oak trees shall be maintained and monitored for a minimum of eight years from the date of planting and irrigation shall be provided to planted trees for the first five years after planting. Any replacement trees that die during the monitoring period shall be replaced in sufficient numbers to achieve 80% survival rate for planted trees by the end of the eight-year maintenance and monitoring period. Dead and dying trees shall be replaced and monitoring continued until 80% survivorship is achieved. Security acceptable to the City and sufficient to cover maintenance and monitoring costs for eight years shall be provided to the City Planning Department. The security will be forfeited if the project applicant or designated responsible party fails to provide maintenance and monitoring and meet the success criteria.

Isolated Oak Tree Mitigation

The project applicant(s) of all on-site project phases containing oak woodland habitat or isolated trees and the off-site Prairie City Road and Oak Avenue interchange improvements to U.S. 50; Rowberry Drive Overcrossing; and the underground sewer force main shall develop a map depicting the tree canopy of all oak trees in the survey area and identifying the acreage of tree canopy that would be preserved and the acreage that would be removed. A tree permit for removal of isolated oak trees (those not located within the delineated boundary of oak woodland habitat) shall be obtained from the City Planning Director. As a condition of the tree removal permit, project applicant(s) shall be required to develop a Planting and Maintenance Agreement. The City's Tree Preservation Code requires compensatory mitigation and the City and the project applicants have developed a plan, as set forth Section 10 of the Folsom Plan Area Specific Plan (attached to this EIR/EIS as Appendix N) specifically to avoid and minimize adverse effects on isolated oak trees from project development and to provide compensatory mitigation for removal of protected trees in the SPA. In addition to the language contained in the Folsom Plan Area Specific Plan, the following elements shall be included in a protected tree mitigation plan to be developed by the project applicants and agreed upon by the City:

- Project applicant(s) of projects containing isolated oak trees shall retain a certified arborist or registered professional forester to perform a determinate survey of tree species, size (dbh), condition, and location for all areas of the project site proposed for tree removal and encroachment of development. The condition of individual trees shall be assessed according to the American Society of Consulting Arborists rating system with the following added explanations:
  - 5 = Excellent; No problems – tree has no structural problems, branches are properly spaced and tree characteristics are nearly perfect for the species.
  - 4 = Good; No apparent problems – tree is in good condition and no apparent problems from visual inspection. If potential structural or health problems are tended at this stage, future hazard can be reduced and more serious health problems can be averted.

- 3 = Fair; Minor problems – There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.
- 2 = Poor; Major problems – the tree is in poor condition, but the condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, and fertilization. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.
- 1 = Hazardous or non correctable condition – the tree is in extremely poor condition and in non-reversible decline. This rating is assigned to a tree that has structural and/or health problems that no amount of tree care work or effort can change. The issues may or may not be considered a dangerous situation. The tree may also be infested with a disease or pest(s) that is non-controllable at this time and is causing an unacceptable risk of spreading the disease or pests(s) to other trees.
- 0 = Dead – the tree has no significant signs of life (dead or very close to being dead).

Isolated Oak Tree Mitigation Planting Criteria

- The determination for whether an isolated tree shall be preserved, removed without compensation, or removed with compensatory mitigation shall be based on the condition and size of the tree as follows:
  - Trees rated 0 or 1 may be removed with no mitigation.
  - Trees rated 2 may be removed at 50% of the normal Folsom Municipal Code mitigation.
  - Trees rated 3, 4, and/or 5 may be removed at the normal Folsom Municipal Code mitigation.
  - Native isolated oaks measuring 24 inches or greater dbh for a single trunk or 40 inches or more for a multi-trunked tree and rated a 3 to5 shall be retained, unless retaining wall(s) higher than 4 feet tall (from bottom of footing to the top of the wall) would be required to protect the tree(s) from mass grading of the SPA properties.
  - Native oaks measuring between 12 and 24 inches dbh and rated a 4 or 5 shall not be removed or mitigated unless wall(s) higher than 4 feet tall (from bottom of footing to the top of the wall) would be required to protect the tree(s) from mass grading of the SPA properties. Trees in this size class but rated 2 or 3 shall not be removed unless unreasonable costs to save the tree(s) (greater than the cost of implementing the isolated oak tree mitigation planting criteria described here) would result.
  - Native oaks measuring 5 inches or greater dbh but less than 12 inches dbh shall not be removed unless unreasonable costs to save the tree(s) (greater than the cost of implementing the isolated oak tree mitigation planting criteria described here) would result.
  - Native oak trees measuring 1 inch or greater dbh but less than 5 inches dbh may be preserved to receive a Small Tree Preservation Credit (STPC). Any tree that is to be considered for preservation credit shall be evaluated, included in the arborist report, and shall have been found to be rated a 3, 4, or a 5. Credits shall only be accepted if the tree protection zone (TPZ) (i.e., the outer edge of the tree canopy drip line) is protected with fencing in the exact manner that 5 inches dbh and greater trees are protected on a construction site, and the spacing is equal to the proper tree spacing dictated by the Folsom Master Tree List. STPC shall not count if they the tree is in a poor growing space due to its position within the TPZ of another protected tree to be preserved. The City shall accept the

preservation of native oak trees in this size class as credit towards the total removed inches based on the following STPC criteria:

Caliper of Tree Preserved	Mitigation Tree Credit Equivalent
1 inch or greater, but less than 2 inches	One #15 container tree or two #5 container trees
2 inches or greater, but less than 3 inches	Two #15 container trees
3 inches or greater, but less than 4 inches	Three #15 container trees
4 inches or greater, but less than 5 inches	Four #15 container trees

- Folsom Municipal Code requires one of the following be planted as compensation for each diameter inch of protected tree removed:
  - half of a 24-inch box tree;
  - one #15 container tree;
  - two #5 container trees; or
  - $150 in-lieu payment or other fee set by City Council Resolution.
- The Planting and Maintenance Agreement shall include a planting plan, planting and irrigation design details, and a weaning schedule for the establishment period. The plan shall include a 5-year establishment period for trees and 8 years for planted acorns with an annual monitoring report that includes corrections needed with proposed work plan, and notice of compliance within 90-days of annual monitoring report. Security in an form acceptable to the City and sufficient to cover maintenance and monitoring costs for eight years shall be provided to the City Planning Department. The security will be forfeited if the project applicant or designated responsible party fails to fulfill the Planting and Maintenance Agreement.
- To avoid and minimize indirect impacts on protected trees to remain on the SPA, the project applicant(s) of all affected project phases shall install high visibility fencing outside the outer edge of the drip lines of all trees to be retained on the SPA during project construction. The fencing may be installed around groups or stands of trees or whole wooded areas bust must be installed so that the drip lines of all trees are protected. Grading, trenching, equipment or materials storage, parking, paving, irrigation, and landscaping shall be prohibited within the fenced areas (i.e. drip lines of protected trees). If the activities listed cannot be avoided within the drip line of a particular tree, that tree shall be counted as an affected tree and compensatory mitigation shall be provided, or the tree in question shall be monitored for a period of five years and replaced only if the tree appears to be dead or dying within five years of project implementation.

Through a combination of the mitigation options presented above along with the proposed on-site preservation of blue oak woodland habitat in the open space areas, the project applicant(s) can satisfy the mitigation requirements for removal of trees protected under the Folsom Municipal Code while also mitigating the impacts on oak woodland habitat, as determined through consultation with the Sacramento County Planning Department (for County off-site impacts only) and/or the City of Folsom.

Mitigation for the U.S. 50 interchange improvements must be coordinated by the project applicant(s) of each applicable project phase with Caltrans.

Mitigation Measure 3A.4-1: Implement Additional Measures to Control Construction-Generated GHG Emissions. To further reduce construction-generated GHG emissions, the project applicant(s) any particular discretionary development application shall implement all feasible measures for reducing GHG emissions associated with construction that are recommended by

SMAQMD at the time individual portions of the site undergo construction. Such measures may reduce GHG exhaust emissions from the use of on-site equipment, worker commute trips, and truck trips carrying materials and equipment to and from the SPA, as well as GHG emissions embodied in the materials selected for construction (e.g., concrete). Other measures may pertain to the materials used in construction. Prior to releasing each request for bid to contractors for the construction of each discretionary development entitlement, the project applicant(s) shall obtain the most current list of GHG reduction measures that are recommended by SMAQMD and stipulate that these measures be implemented in the respective request for bid as well as the subsequent construction contract with the selected primary contractor. The project applicant(s) for any particular discretionary development application may submit to the City and SMAQMD a report that substantiates why specific measures are considered infeasible for construction of that particular development phase and/or at that point in time. The report, including the substantiation for not implementing particular GHG reduction measures, shall be approved by the City, in consultation with SMAQMD prior to the release of a request for bid by the project applicant(s) for seeking a primary contractor to manage the construction of each development project. By requiring that the list of feasible measures be established prior to the selection of a primary contractor, this measure requires that the ability of a contractor to effectively implement the selected GHG reduction measures be inherent to the selection process.

SMAQMD's recommended measures for reducing construction-related GHG emissions at the time of writing this EIR/EIS are listed below and the project applicant(s) shall, at a minimum, be required to implement the following:

- Improve fuel efficiency from construction equipment:
  - reduce unnecessary idling (modify work practices, install auxiliary power for driver comfort);
  - perform equipment maintenance (inspections, detect failures early, corrections);
  - train equipment operators in proper use of equipment;
  - use the proper size of equipment for the job; and
  - use equipment with new technologies (repowered engines, electric drive trains).
- Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.
- Use an ARB-approved low-carbon fuel, such as biodiesel or renewable diesel for construction equipment. (Emissions of oxides of nitrogen [NO_x] emissions from the use of low carbon fuel must be reviewed and increases mitigated.) Additional information about low-carbon fuels is available from ARB's Low Carbon Fuel Standard Program (ARB 2009b).
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials).
- Minimize the amount of concrete used for paved surfaces or use a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.

- Use EPA-certified SmartWay trucks for deliveries and equipment transport. Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle Greenhouse Gas Measure (ARB 2009c) and EPA (EPA 2009).
- Develop a plan in consultation with SMAQMD to efficiently use water for adequate dust control. This may consist of the use of non-potable water from a local source.

In addition to SMAQMD-recommended measures, construction activity shall comply with all applicable rules and regulations established by SMAQMD and ARB.

Mitigation Measure 3A.4-2a: Implement Additional Measures to Reduce Operational GHG Emissions. Each increment of new development within the project site requiring a discretionary approval (e.g., proposed tentative subdivision map, conditional use permit), shall be subject to a project-specific environmental review (which could support an applicable exemption, negative or mitigated negative declaration or project-specific EIR) and will require that GHG emissions from operation of each phase of development, including supporting roadway and infrastructure improvements that are part of the selected action alternative, will be reduced by an amount sufficient to achieve the 2020-based threshold of significance of 4.36 CO_2e/SP/year for development that would become operational on or before the year 2020, and the 2030-based threshold of significance of 2.86 CO_2e/SP/year for development that would become operational on or before the year 2030.

The above-stated thresholds of significance may be subject to change if SMAQMD approves its own GHG significance thresholds, in which case, SMAQMD-adopted thresholds will be used. The amount of GHG reduction required to achieve the applicable significance thresholds will furthermore depend on existing and future regulatory measures including those developed under AB 32).

For each increment of new discretionary development, the City shall submit to the project applicant(s) a list of potentially feasible GHG reduction measures to be considered in the development design. The City's list of potentially feasible GHG reduction measures shall reflect the current state of the regulatory environment, available incentives, and thresholds of significance that may be developed by SMAQMD, which will evolve under the mandate of AB 32 and Executive Order S-3-05. If the project applicant(s) asserts it cannot meet the 2020-based goal, then the report shall also demonstrate why measures not selected are considered infeasible. The City shall review and ensure inclusion of the design features in the Proposed Project Alternative before applicant(s) can receive the City's discretionary approval for the any increment of development. In determining what measures should appropriately be imposed by the City under the circumstances, the City shall consider the following factors:

- the extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the SPA are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by EPA;
- the extent to which mobile-source GHG emissions, which at the time of writing this EIR/EIS comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length;
- the extent to which GHG emissions emitted by the mix of power generation operated by SMUD, the electrical utility that will serve the SPA, are projected to decrease pursuant to the Renewables Portfolio Standard required by SB 1078 and SB 107, as well as any future

regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation;
- the extent to which any stationary sources of GHG emissions that would be operated on a proposed land use (e.g., industrial) are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that will be developed as part of ARB's implementation of AB 32, or other pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions;
- the extent to which other mitigation measures imposed on the project to reduce other air pollutant emissions may also reduce GHG emissions;
- the extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies will continue, effecting cost-benefit analyses that determine economic feasibility; and
- whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures required for the proposed development, are so great that a reasonably prudent property owner would not proceed with the project in the face of such costs.

In considering how much, and what kind of, mitigation is necessary in light of these factors, the City shall consider the following list of options, though the list is not intended to be exhaustive, as GHG emission reduction strategies and their respective feasibility are likely to evolve over time. These measures are derived from multiple sources including the Mitigation Measure Summary in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, CEQA & Climate Change (CAPCOA 2009a); CAPCOA's Model Policies for Greenhouse Gases in General Plans (CAPCOA 2009b); and the California Attorney General's Office publication, The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level (California Attorney General's Office 2008).

Energy Efficiency
- Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines).
- Design buildings to meet CEC Tier II requirements (e.g., exceeding the requirements of the Title 24 [as of 2007] by 35%).
- Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use.
- Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings.
- Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes.

Water Conservation and Efficiency
- With the exception of ornamental shade trees, use water-efficient landscapes with native, drought- resistant species in all public area and commercial landscaping. Use water-efficient turf in parks and other turf-dependant spaces.
- Install the infrastructure to use reclaimed water for landscape irrigation and/or washing cars.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Design buildings and lots to be water-efficient. Only install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to nonvegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking

lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and Restrictions of the community.
- Provide education about water conservation and available programs and incentives.
- To reduce stormwater runoff, which typically bogs down wastewater treatment systems and increases their energy consumption, construct driveways to single-family detached residences and parking lots and driveways of multifamily residential uses with pervious surfaces. Possible designs include Hollywood drives (two concrete strips with vegetation or aggregate in between) and/or the use of porous concrete, porous asphalt, turf blocks, or pervious pavers.

Solid Waste Measures
- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste at all buildings.
- Provide adequate recycling containers in public areas, including parks, school grounds, golf courses, and pedestrian zones in areas of mixed-use development.
- Provide education and publicity about reducing waste and available recycling services.

Transportation and Motor Vehicles
- Promote ride-sharing programs and employment centers (e.g., by designating a certain %age of parking spaces for ride-sharing vehicles, designating adequate passenger loading and unloading zones and waiting areas for ride-share vehicles, and providing a Web site or message board for coordinating ride-sharing).
- Provide the necessary facilities and infrastructure in all land use types to encourage the use of low- or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- At industrial and commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used on-site at non-residential land uses shall be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption.

Mitigation Measure 3A.4-2b: Participate in and Implement an Urban and Community Forestry Program and/or Off-Site Tree Program to Off-Set Loss of On-Site Trees. The trees on the project site contain sequestered carbon and would continue to provide future carbon sequestration during their growing life. For all harvestable trees that are subject to removal, the project applicant(s) for any particular discretionary development application shall participate in and provide necessary funding for urban and community forestry program (such as the UrbanWood program managed by the Urban Forest Ecosystems Institute [Urban Forest Ecosystems Institute 2009]) to ensure that wood with an equivalent carbon sequestration value to that of all harvestable removed trees is harvested for an end-use that would retain its carbon sequestration (e.g., furniture building, cabinet making). For all nonharvestable trees that are subject to removal, the project applicant(s) shall develop and fund an off-site tree program that includes a level of tree planting that, at a minimum, increases carbon sequestration by an amount equivalent to what would have been sequestered by the blue oak woodland during its lifetime. This program shall be funded by the project applicant(s) of each development phase and reviewed for comment by an independent Certified Arborist unaffiliated with the project applicant(s) and shall be coordinated with the requirements of Mitigation Measure 3.3-5, as stated in Section 3A.3, "Biological Resources - Land." Final approval of the program shall be provided by the City. Components of the program may include, but not be limited to, providing urban tree canopy in the City of Folsom, or reforestation in

suitable areas outside the City. Reforestation in natural habitat areas outside the City of Folsom would simultaneously mitigate the loss of oak woodland habitat while planting trees within the urban forest canopy would not. The California Urban Forestry Greenhouse Gas Reporting Protocol shall be used to assess this mitigation program (CCAR 2008). All unused vegetation and tree material shall be mulched for use in landscaping on the project site, shipped to the nearest composting facility, or shipped to a landfill that is equipped with a methane collection system, or combusted in a biomass power plant. Tree and vegetative material should not be burned on- or off-site unless used as fuel in a biomass power plant.

Mitigation Measure 3A.5-1a: Comply with the Programmatic Agreement. The PA for the proposed project is incorporated by reference. The PA provides a management framework for identifying historic properties, determining adverse effects, and resolving those adverse effects as required under Section 106 of the NHPA. This document is incorporated by reference. The PA is available for public inspection and review at the California Office of Historic Preservation 1725 23rd Street Sacramento, CA 95816.

Mitigation Measure 3A.5-1b: Perform an Inventory and Evaluation of Cultural Resources for the California Register of Historic Places, Minimize or Avoid Damage or Destruction, and Perform Treatment Where Damage or Destruction Cannot be Avoided. Management of cultural resources eligible for or listed on the CRHR under CEQA mirrors management steps required under Section 106. These steps may be combined with deliverables and management steps performed for Section 106 provided that management documents prepared for the PA also clearly reference the CRHR listing criteria and significance thresholds that apply under CEQA. Prior to ground- disturbing work for each individual development phase or off-site element, the applicable oversight agency (City of Folsom, El Dorado County, Sacramento County, or Caltrans), or the project applicant(s) of all project phases, with applicable agency oversight, shall perform the following actions:

- Retain the services of a qualified archaeologist to perform an inventory of cultural resources within each individual development phase or off-site element subject to approval under CEQA. Identified resources shall be evaluated for listing on the CRHR. The inventory report shall also identify locations that are sensitive for undiscovered cultural resources based upon the location of known resources, geomorphology, and topography. The inventory report shall specify the location of monitoring of ground-disturbing work in these areas by a qualified archaeologist, and monitoring in the vicinity of identified resources that may be damaged by construction, if appropriate. The identification of sensitive locations subject to monitoring during construction of each individual development phase shall be performed in concert with monitoring activities performed under the PA to minimize the potential for conflicting requirements.
- For each resource that is determined eligible for the CRHR, the applicable agency or the project applicant(s) for any particular discretionary development (under the agency's direction) shall obtain the services of a qualified archaeologist who shall determine if implementation of the individual project development would result in damage or destruction of "significant" (under CEQA) cultural resources. These findings shall be reviewed by the applicable agency for consistency with the significance thresholds and treatment measures provided in this EIR/EIS.
- Where possible, the project shall be configured or redesigned to avoid impacts on eligible or listed resources. Alternatively, these resources may be preserved in place if possible, as suggested

under California Public Resources Code Section 21083.2. Avoidance of historic properties is required under certain circumstances under the Public Resource Code and 36 CFR Part 800.

- Where impacts cannot be avoided, the applicable agency or the project applicant(s) of all project phases (under the applicable agency's direction) shall prepare and implement treatment measures that are determined to be necessary by a qualified archaeologist. These measures may consist of data recovery excavations for resources that are eligible for listing because of the data they contain (which may contribute to research). Alternatively, for historical architectural, engineered, or landscape features, treatment measures may consist of a preparation of interpretive, narrative, or photographic documentation. These measures shall be reviewed by the applicable oversight agency for consistency with the significance thresholds and standards provided in this EIR/EIS.
- To support the evaluation and treatment required under this mitigation measure, the archaeologist retained by either the applicable oversight agency or the project applicant(s) of all project phases shall prepare an appropriate prehistoric and historic context that identifies relevant prehistoric, ethnographic, and historic themes and research questions against which to determine the significance of identified resources and appropriate treatment.
- These steps and documents may be combined with the phasing of management and documents prepared pursuant to the PA to minimize the potential for inconsistency and duplicative management efforts.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.5-2: Conduct Construction Personnel Education, Conduct On-Site Monitoring if Required, Stop Work if Cultural Resources are Discovered, Assess the Significance of the Find, and Perform Treatment or Avoidance as Required. To reduce potential impacts to previously undiscovered cultural resources, the project applicant(s) of all project phases shall do the following:

- Before the start of ground-disturbing activities, the project applicant(s) of all project phases shall retain a qualified archaeologist to conduct training for construction workers as necessary based upon the sensitivity of the project APE, to educate them about the possibility of encountering buried cultural resources, and inform them of the proper procedures should cultural resources be encountered.
- As a result of the work conducted for Mitigation Measures 3A.5-1a and 3A.5-1b, if the archaeologist determines that any portion of the SPA or the off-site elements should be monitored for potential discovery of as-yet-unknown cultural resources, the project applicant(s) of all project phases shall implement such monitoring in the locations specified by the archaeologist. USACE should review and approve any recommendations by archaeologists with respect to monitoring.
- Should any cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, or architectural remains be encountered during any construction activities, work shall be suspended in the vicinity of the find and the appropriate oversight agency(ies) (identified below) shall be notified immediately. The appropriate oversight agency(ies) shall retain a qualified archaeologist who shall conduct a field investigation of the specific site and shall assess the significance of the find by evaluating the resource for eligibility for listing on the CRHR and the NRHP. If the resource is eligible for listing on the CRHR or NRHP and it would be subject to disturbance or destruction, the actions required in Mitigation Measures 3A.5-1a and 3A.5-1b

shall be implemented. The oversight agency shall be responsible for approval of recommended mitigation if it is determined to be feasible in light of the approved land uses, and shall implement the approved mitigation before resuming construction activities at the archaeological site.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.5-3: Suspend Ground-Disturbing Activities if Human Remains are Encountered and Comply with California Health and Safety Code Procedures. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, including those associated with off-site elements, the project applicant(s) of all project phases shall immediately halt all ground-disturbing activities in the area of the find and notify the applicable county coroner and a professional archaeologist skilled in osteological analysis to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or public lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]).

After the coroner's findings are complete, the project applicant(s), an archaeologist, and the NAHC-designated MLD shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting on notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code.

Upon the discovery of Native American remains, the procedures above regarding involvement of the applicable county coroner, notification of the NAHC, and identification of an MLD shall be followed. The project applicant(s) of all project phases shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have at least 48 hours after being granted access to the site to inspect the site and make recommendations. A range of possible treatments for the remains may be discussed: nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment. As suggested by Assembly Bill (AB) 2641 (Chapter 863, Statutes of 2006), the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the project applicant(s) shall comply with one or more of the following requirements:

- record the site with the NAHC or the appropriate Information Center,
- use an open-space or conservation zoning designation or easement, or
- record a document with the county in which the property is located.

The project applicant(s) or its authorized representative of all project phases shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify an MLD or

if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The project applicant(s) or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner. Ground disturbance in the zone of suspended activity shall not recommence without authorization from the archaeologist.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.7-1a: Prepare Site-Specific Geotechnical Report per CBC Requirements and Implement Appropriate Recommendations. Before building permits are issued and construction activities begin any project development phase, the project applicant(s) of each project phase shall hire a licensed geotechnical engineer to prepare a final geotechnical subsurface investigation report for the on- and off-site facilities, which shall be submitted for review and approval to the appropriate City or county department (identified below). The final geotechnical engineering report shall address and make recommendations on the following:

- site preparation;
- soil bearing capacity;
- appropriate sources and types of fill;
- potential need for soil amendments;
- road, pavement, and parking areas;
- structural foundations, including retaining-wall design;
- grading practices;
- soil corrosion of concrete and steel;
- erosion/winterization;
- seismic ground shaking;
- liquefaction; and
- expansive/unstable soils.

In addition to the recommendations for the conditions listed above, the geotechnical investigation shall include subsurface testing of soil and groundwater conditions, and shall determine appropriate foundation designs that are consistent with the version of the CBC that is applicable at the time building and grading permits are applied for. All recommendations contained in the final geotechnical engineering report shall be implemented by the project applicant(s) of each project phase. Special recommendations contained in the geotechnical engineering report shall be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all new project development shall be in accordance with the CBC. The project applicant(s) shall provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the geotechnical report.

Mitigation Measure 3A.7-1b: Monitor Earthwork during Earthmoving Activities. All earthwork shall be monitored by a qualified geotechnical or soils engineer retained by the project applicant(s) of each project phase. The geotechnical or soils engineer shall provide oversight during

all excavation, placement of fill, and disposal of materials removed from and deposited on both on- and off-site construction areas.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.7-3: Prepare and Implement the Appropriate Grading and Erosion Control Plan. Before grading permits are issued, the project applicant(s) of each project phase that would be located within the City of Folsom shall retain a California Registered Civil Engineer to prepare a grading and erosion control plan. The grading and erosion control plan shall be submitted to the City Public Works Department before issuance of grading permits for all new development. The plan shall be consistent with the City's Grading Ordinance, the City's Hillside Development Guidelines, and the state's NPDES permit, and shall include the site-specific grading associated with development for all project phases.

For the two off-site roadways into El Dorado Hills, the project applicant(s) of that phase shall retain a California Registered Civil Engineer to prepare a grading and erosion control plan. The grading and erosion control plan shall be submitted to the El Dorado County Public Works Department and the El Dorado Hills Community Service District before issuance of grading permits for roadway construction in El Dorado Hills. The plan shall be consistent with El Dorado County's Grading, Erosion, and Sediment Control Ordinance and the state's NPDES permit, and shall include the site-specific grading associated with roadway development.

For the off-site detention basin west of Prairie City Road, the project applicant(s) of that phase shall retain a California Registered Civil Engineer to prepare a grading and erosion control plan. The grading and erosion control plan shall be submitted to the Sacramento County Public Works Department before issuance of a grading permit. The plan shall be consistent with Sacramento County's Grading, Erosion, and Sediment Control Ordinance and the state's NPDES permit, and shall include the site-specific grading associated with construction of the detention basin.

The plans referenced above shall include the location, implementation schedule, and maintenance schedule of all erosion and sediment control measures, a description of measures designed to control dust and stabilize the construction-site road and entrance, and a description of the location and methods of storage and disposal of construction materials. Erosion and sediment control measures could include the use of detention basins, berms, swales, wattles, and silt fencing, and covering or watering of stockpiled soils to reduce wind erosion. Stabilization on steep slopes could include construction of retaining walls and reseeding with vegetation after construction. Stabilization of construction entrances to minimize trackout (control dust) is commonly achieved by installing filter fabric and crushed rock to a depth of approximately 1 foot. The project applicant(s) shall ensure that the construction contractor is responsible for securing a source of transportation and deposition of excavated materials.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties).

Implementation of Mitigation Measure 3A.9-1 (discussed in Section 3A.9, "Hydrology and Water Quality – Land") would also help reduce erosion-related impacts.

Mitigation Measure 3A.7-4: Prepare a Seismic Refraction Survey and Obtain Appropriate Permits for all On-Site and Off-site Elements East of Old Placerville Road. Before the start of all construction activities east of Old Placerville Road, the project applicant(s) for any discretionary development application shall retain a licensed geotechnical engineer to perform a seismic refraction survey. Project-related excavation activities shall be carried out as recommend by the geotechnical engineer. Excavation may include the use of heavy-duty equipment such as large bulldozers or large excavators, and may include blasting. Appropriate permits for blasting operations shall be obtained from the relevant City or county jurisdiction prior to the start of any blasting activities.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties).

Mitigation Measure 3A.7-5: Divert Seasonal Water Flows Away from Building Foundations. The project applicant(s) of all project phases shall either install subdrains (which typically consist of perforated pipe and gravel, surrounded by nonwoven geotextile fabric), or take such other actions as recommended by the geotechnical or civil engineer for the project that would serve to divert seasonal flows caused by surface infiltration, water seepage, and perched water during the winter months away from building foundations.

Mitigation Measure 3A.7-9: Conduct Soil Sampling in Areas of the SPA Designated as MRZ-3 for Kaolin Clay and if Found, Delineate its Location and Notify Lead Agency and the California Division of Mines and Geology. The project applicant(s) of all applicable project phases shall retain a licensed geotechnical or soils engineer to analyze soil core samples that shall be extracted from that portion of the SPA zoned MRZ-3 for kaolin clay, as shown on Exhibit 3A.7-3. In the event that kaolin clay is discovered, the City of Folsom, Sacramento County, and CDMG shall be notified. In addition, the approximate horizontal and vertical extent of available kaolin clay shall be delineated by the geotechnical or soils engineer.

Mitigation Measure 3A.7-10: Conduct Construction Personnel Education, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan as Required. To minimize potential adverse impacts on previously unknown potentially unique, scientifically important paleontological resources, the project applicant(s) of all project phases where construction would occur in the Ione and Mehrten Formations shall do the following:

- Before the start of any earthmoving activities for any project phase in the Ione or Mehrten Formations, the project applicant(s) shall retain a qualified paleontologist or archaeologist to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of

fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

- If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the appropriate lead agency (identified below). The project applicant(s) shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the lead agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Sacramento County).

Mitigation Measure 3A.8-2: Complete Investigations Related to the Extent to Which Soil and/or Groundwater May Have Been Contaminated in Areas Not Covered by the Phase I and II Environmental Site Assessments and Implement Required Measures. The project applicant(s) for any discretionary development application shall conduct Phase I Environmental Site Assessments (where an Phase I has not been conducted), and if necessary, Phase II Environmental Site Assessments, and/or other appropriate testing for all areas of the SPA and include, as necessary, analysis of soil and/or groundwater samples for the potential contamination sites that have not yet been covered by previous investigations (as shown in Exhibit 3A.8-1) before construction activities begin in those areas. Recommendations in the Phase I and II Environmental Site Assessments to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.

The project applicant(s) shall implement the following measures before ground-disturbing activities to reduce health hazards associated with potential exposure to hazardous substances:

- Prepare a plan that identifies any necessary remediation activities appropriate for proposed on- and off-site uses, including excavation and removal of on-site contaminated soils, redistribution of clean fill material in the SPA, and closure of any abandoned mine shafts. The plan shall include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The project applicant(s) shall be required to comply with the plan and applicable Federal, state, and local laws. The plan shall outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility.
- Notify the appropriate Federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the Sacramento County Environmental

Management Department, Central Valley RWQCB, DTSC, and/or other appropriate Federal, state, or local regulatory agencies.

- Obtain an assessment conducted by PG&E and SMUD pertaining to the contents of any existing pole-mounted transformers located in the SPA. The assessment shall determine whether existing on-site electrical transformers contain PCBs and whether there are any records of spills from such equipment. If equipment containing PCB is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act under the authority of the Sacramento County Environmental Health Department.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Sacramento County).

Mitigation Measure 3A.8-3a: Require the Project Applicant(s) to Cooperate with Aerojet and Regulatory Agencies to Preserve, Modify, or Close Existing Groundwater Monitoring Wells. The project applicant(s) for any particular discretionary development that would occur in or adjacent to the Area 40 boundary shall consult with Aerojet, EPA, DTSC, and/or the Central Valley RWQCB or any successor in interest to establish the preservation, modification, or closure of existing groundwater monitoring wells. If necessary, Aerojet, or any successor may purchase lots or obtain access agreements from the project applicant(s) to maintain access to monitoring wells and/or remediation systems. If groundwater wells are to be affected by proposed tentative maps, then the project applicant(s) or successors shall provide the City with evidence that the relocation, modification, or closure of the well(s) is approved by the appropriate agencies as part of the City's final map approval process and before development.

The project applicant(s) for activities related to the off-site detention basin located outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) with Sacramento County.

Mitigation Measure 3A.8-3b: Coordinate Development Activities to Avoid Interference with Remediation Activities. The project applicant(s) for any particular discretionary development that would occur in or adjacent to the Area 40 boundary shall provide notice to Aerojet or any successor in interest and DTSC, the Central Valley RWQCB, and the City of Folsom of the location, nature, and duration of construction activities least 30 days before construction activities begin in areas on or near property with current or planned remediation activities (Area 40). Remedial actions, as required by DTSC, RWQCB, and/or the EPA, may include, but are not limited to:

- deed restrictions on land and groundwater use;
- requirements for building ventilation, heating, and air conditioning design;
- monitoring;
- installation of vertical barriers;
- biological, chemical, and/or physical treatment;
- extraction or excavation; and/or

- pump and treat activities.

Before the approval of grading plans which include areas within the Area 40 boundary or the off-site detention basin, the project applicant(s) shall consult with Aerojet, EPA, DTSC, and/or the Central Valley RWQCB or any successor to schedule the timing of construction activities to prevent potential conflicts with investigation and remediation activities.

The project applicant(s) for activities related to the off-site detention basin located outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) with Sacramento County.

Mitigation Measure 3A.8-3c: Provide Written Notification to the City that, as required by EPA, DTSC, and the Central Valley RWQCB, -Required Notification Obligations and/or Easements Have Been Fulfilled to Ensure that Construction Activities Do Not Interfere with Remedial Actions. Pursuant to their oversight over investigations of hazardous substances and determination of remedial action, EPA and/or DTSC establish, as appropriate, deed restrictions (e.g., restrictions on future groundwater uses or future land uses) or easements (e.g., continued access to groundwater wells and pipelines) on property with associated notice requirements. The project applicant(s) for all such affected project activities, located within the Area 40 boundary, the off-site detention basin, or lands subject to monitoring or other remediation activities shall provide notification in writing to the City (or Sacramento County for the off-site detention basin) that said required notification obligations have been fulfilled. Evidence of the method of notification required by EPA and/or DTSC shall be submitted to the City before approval of tentative maps or improvement plans.

The project applicant(s) for such affected project activities shall coordinate with the City to include this provision as part of tentative map approval within the Area 40 boundary or lands subject to monitoring or other remediation activities. The project applicant(s) shall coordinate with Sacramento County for such affected project activities pertaining to the off-site detention basin.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., Sacramento County).

Mitigation Measure 3A.8-3d: Land Use Restrictions for Contaminated Soil and Groundwater within Area 40 as depicted on the Remedial Restrictions Area Exhibit 3A.8-9. Prior to approval of any tentative maps, improvement plans, or discretionary project approvals for locations within Area 40, as depicted in the Remedial Restrictions Area (Exhibit 3A.8-9), the project applicant(s) shall designate those areas that are subject to off-gassing hazards in excess of an indoor air standard, as open space or park use, as required by the City and Aerojet in consultation with the EPA. Areas designated for open space or park under this mitigation measure shall be determined by the City and by Aerojet in consultation with the EPA using risk calculations (completed in accordance with EPA's 1989 Risk Assessment Guidance for Superfund [EPA/540/1-89-002] and DTSC's 1992 Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities and 1994 Preliminary Endangerment Assessment Guidance Manual, or such guidance as may be in place at the time risk assessment is performed) for

exposure to off-gassing from either soil or groundwater based on detected PCE and TCE concentrations. The project applicant(s) for such affected areas located within Area 40 as depicted on the Remedial Restrictions Area Exhibit 3A.8-9 shall implement this measure as part of tentative map applications or other discretionary project approvals when such applications are submitted to the City.

If the portions of Area 40 that are designated for park and open space use are not available for use as park and open space as identified in the SPA concurrently with surrounding development that creates demand for park and open space use, the project applicant(s), and the owners of land within the SPA shall identify and the City may rezone equivalent acreage of suitable park and open space land within the SPA for development as interim or permanent park and open space to meet the then current demand.

Mitigation Measure 3A.8-5: Prepare and Implement a Blasting Safety Plan in Consultation with a Qualified Blaster. To reduce the potential for accidental injury or death related to blasting, contractors whose work on the SPA will include blasting shall prepare and implement a blasting safety plan. This plan shall be created in coordination with a qualified blaster, as defined by the Construction Safety and Health Outreach Program, Subpart U, Section 1926.901, and distributed to all appropriate members of construction teams. The plan shall apply to project applicant(s) of all project phases in which blasting would be employed. The plan shall include, but is not limited to:

- storage locations that meet ATF standards contained in 27 CFR Part 55;
- safety requirements for workers (e.g., daily safety meetings, personal protective equipment);
- an accident management plan that considers misfires (i.e. explosive fails to detonate), unexpected ignition, and flyrock; and
- measures to protect surrounding property (e.g., netting, announcement of dates of expected blasting, barricades, and audible and visual warnings).

Upon completion of a blasting safety plan, the project applicant(s) contractor shall secure any required permits from the City of Folsom Fire Department and the El Dorado County Sheriff's Department for blasting activities in Sacramento County and El Dorado County, respectively.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado County).

Mitigation Measure 3A.9-1: Acquire Appropriate Regulatory Permits and Prepare and Implement SWPPP and BMPs. Prior to the issuance of grading permits, the project applicant(s) of all projects disturbing one or more acres (including phased construction of smaller areas which are part of a larger project) shall obtain coverage under the SWRCB's NPDES stormwater permit for general construction activity (Order 2009-0009-DWQ), including preparation and submittal of a project-specific SWPPP at the time the NOI is filed. The project applicant(s) shall also prepare and submit any other necessary erosion and sediment control and engineering plans and specifications for pollution prevention and control to Sacramento County, City of Folsom, El Dorado County (for

the off-site roadways into El Dorado Hills under the Proposed Project Alternative). The SWPPP and other appropriate plans shall identify and specify:

- the use of an effective combination of robust erosion and sediment control BMPs and construction techniques accepted by the local jurisdictions for use in the project area at the time of construction, that shall reduce the potential for runoff and the release, mobilization, and exposure of pollutants, including legacy sources of mercury from project-related construction sites. These may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, inlet protection, perforated riser pipes, check dams, and silt fences
- the implementation of approved local plans, non-stormwater management controls, permanent post-construction BMPs, and inspection and maintenance responsibilities;
- the pollutants that are likely to be used during construction that could be present in stormwater drainage and nonstormwater discharges, including fuels, lubricants, and other types of materials used for equipment operation;
- spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;
- personnel training requirements and procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and
- the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.

Where applicable, BMPs identified in the SWPPP shall be in place throughout all site work and construction/demolition activities and shall be used in all subsequent site development activities. BMPs may include, but are not limited to, such measures as those listed below.

- Implementing temporary erosion and sediment control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances, in compliance with state and local standards in effect at the time of construction. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation.
- Establishing permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration.
- Using drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways and facility infrastructure.

A copy of the approved SWPPP shall be maintained and available at all times on the construction site.

For those areas that would be disturbed as part of the U.S. 50 interchange improvements, Caltrans shall coordinate with the development and implementation of the overall project SWPPP, or develop and implement its own SWPPP specific to the interchange improvements, to ensure that water quality degradation would be avoided or minimized to the maximum extent practicable.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, or Caltrans).

Mitigation Measure 3A.9-2: Prepare and Submit Final Drainage Plans and Implement Requirements Contained in Those Plans. Before the approval of grading plans and building permits, the project applicant(s) of all project phases shall submit final drainage plans to the City, and to El Dorado County for the off-site roadway connections into El Dorado Hills, demonstrating that off-site upstream runoff would be appropriately conveyed through the SPA, and that project-related on-site runoff would be appropriately contained in detention basins or managed with through other improvements (e.g., source controls, biotechnical stream stabilization) to reduce flooding and hydromodfication impacts.

The plans shall include, but not be limited to, the following items:

- an accurate calculation of pre-project and post-project runoff scenarios, obtained using appropriate engineering methods, that accurately evaluates potential changes to runoff, including increased surface runoff;
- runoff calculations for the 10-year and 100-year (0.01 AEP) storm events (and other, smaller storm events as required) shall be performed and the trunk drainage pipeline sizes confirmed based on alignments and detention facility locations finalized in the design phase;
- a description of the proposed maintenance program for the on-site drainage system;
- project-specific standards for installing drainage systems;
- City and El Dorado County flood control design requirements and measures designed to comply with them;
  Implementation of stormwater management BMPs that avoid increases in the erosive force of flows beyond a specific range of conditions needed to limit hydromodification and maintain current stream geomorphology. These BMPs will be designed and constructed in accordance with the forthcoming SSQP Hydromodification Management Plan (to be adopted by the RWQCB) and may include, but are not limited to, the following:
  - use of Low Impact Development (LID) techniques to limit increases in stormwater runoff at the point of origination (these may include, but are not limited to: surface swales; replacement of conventional impervious surfaces with pervious surfaces [e.g., porous pavement]; impervious surfaces disconnection; and trees planted to intercept stormwater);
  - enlarged detention basins to minimize flow changes and changes to flow duration characteristics;
  - bioengineered stream stabilization to minimize bank erosion, utilizing vegetative and rock stabilization, and inset floodplain restoration features that provide for enhancement of riparian habitat and maintenance of natural hydrologic and channel to floodplain interactions;
  - minimize slope differences between any stormwater or detention facility outfall channel with the existing receiving channel gradient to reduce flow velocity; and
  - minimize to the extent possible detention basin, bridge embankment, and other encroachments into the channel and floodplain corridor, and utilize open bottom box culverts to allow sediment passage on smaller drainage courses.

- The final drainage plan shall demonstrate to the satisfaction of the City of Folsom Community Development and Public Works Departments and El Dorado County Department of Transportation that 100-year (0.01 AEP) flood flows would be appropriately channeled and contained, such that the risk to people or damage to structures within or down gradient of the SPA would not occur, and that hydromodification would not be increased from pre-development levels such that existing stream geomorphology would be changed (the range of conditions should be calculated for each receiving water if feasible, or a conservative estimate should be used, e.g., an Ep of 1 ±10% or other as approved by the Sacramento Stormwater Quality Partnership and/or City of Folsom Public Works Department).

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with El Dorado County.

Mitigation Measure 3A.9-3: Develop and Implement a BMP and Water Quality Maintenance Plan. Before approval of the grading permits for any development project requiring a subdivision map, a detailed BMP and water quality maintenance plan shall be prepared by a qualified engineer retained by the project applicant(s) the development project. Drafts of the plan shall be submitted to the City of Folsom and El Dorado County for the off-site roadway connections into El Dorado Hills, for review and approval concurrently with development of tentative subdivision maps for all project phases. The plan shall finalize the water quality improvements and further detail the structural and nonstructural BMPs proposed for the project. The plan shall include the elements described below.

- A quantitative hydrologic and water quality analysis of proposed conditions incorporating the proposed drainage design features.
- Predevelopment and postdevelopment calculations demonstrating that the proposed water quality BMPs meet or exceed requirements established by the City of Folsom and including details regarding the size, geometry, and functional timing of storage and release pursuant to the "'Stormwater Quality Design Manual for Sacramento and South Placer Regions" ([SSQP 2007b] per NPDES Permit No. CAS082597 WDR Order No. R5-2008-0142, page 46) and El Dorado County's NPDES SWMP (County of El Dorado 2004).
- Source control programs to control water quality pollutants on the SPA, which may include but are limited to recycling, street sweeping, storm drain cleaning, household hazardous waste collection, waste minimization, prevention of spills and illegal dumping, and effective management of public trash collection areas.
- A pond management component for the proposed basins that shall include management and maintenance requirements for the design features and BMPs, and responsible parties for maintenance and funding.
- LID control measures shall be integrated into the BMP and water quality maintenance plan. These may include, but are not limited to:
  - surface swales;
  - replacement of conventional impervious surfaces with pervious surfaces (e.g., porous pavement);
  - impervious surfaces disconnection; and
  - trees planted to intercept stormwater.
- New stormwater facilities shall be placed along the natural drainage courses within the SPA to the extent practicable so as to mimic the natural drainage patterns. The reduction in runoff as a

result of the LID configurations shall be quantified based on the runoff reduction credit system methodology described in "Stormwater Quality Design Manual for the Sacramento and South Placer Regions, Chapter 5 and Appendix D4" (SSQP 2007b) and proposed detention basins and other water quality BMPs shall be sized to handle these runoff volumes.

For those areas that would be disturbed as part of the U.S. 50 interchange improvements, it is anticipated that Caltrans would coordinate with the development and implementation of the overall project SWPPP, or develop and implement its own SWPPP specific to the interchange improvements, to ensure that water quality degradation would be avoided or minimized to the maximum extent practicable.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with El Dorado County and Caltrans.

Mitigation Measure 3A.9-4: Inspect and Evaluate Existing Dams Within and Upstream of the Project Site and Make Improvements if Necessary. Prior to submittal to the City of tentative maps or improvement plans the project applicant(s) of all project phases shall perform conduct studies to determine the extent of inundation in the case of dam failure. If the studies determine potential exposure of people or structures to a significant risk of flooding as a result of the failure of a dam, the applicants(s) shall implement of any feasible recommendations provided in that study, potentially through drainage improvements, subject to the approval of the City of Folsom Public Works Department.

Mitigation Measure 3A.11-1: Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise near Sensitive Receptors. To reduce impacts associated with noise generated during project-related construction activities, the project applicant(s) and their primary contractors for engineering design and construction of all project phases shall ensure that the following requirements are implemented at each work site in any year of project construction to avoid and minimize construction noise effects on sensitive receptors. The project applicant(s) and primary construction contractor(s) shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below:

- Noise-generating construction operations shall be limited to the hours between 7 a.m. and 7 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturdays and Sundays.
- All construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses.
- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine
- Shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- All motorized construction equipment shall be shut down when not in use to prevent idling.
- Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete offsite instead of on-site).

- Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators) as planned phases are built out and future noise sensitive receptors are located within close proximity to future construction activities.
- Written notification of construction activities shall be provided to all noise-sensitive receptors located within 850 feet of construction activities. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification.
- To the extent feasible, acoustic barriers (e.g., lead curtains, sound barriers) shall be constructed to reduce construction-generated noise levels at affected noise-sensitive land uses. The barriers shall be designed to obstruct the line of sight between the noise-sensitive land use and on-site construction equipment. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dB (EPA 1971).
- When future noise sensitive uses are within close proximity to prolonged construction noise, noise-attenuating buffers such as structures, truck trailers, or soil piles shall be located between noise sources and future residences to shield sensitive receptors from construction noise.
- The primary contractor shall prepare and implement a construction noise management plan. This plan shall identify specific measures to ensure compliance with the noise control measures specified above. The noise control plan shall be submitted to the City of Folsom before any noise-generating construction activity begins. Construction shall not commence until the construction noise management plan is approved by the City of Folsom. Mitigation for the two off-site roadway connections into El Dorado County must be coordinated by the project applicant(s) of the applicable project phase with El Dorado County, since the roadway extensions are outside of the City of Folsom's jurisdictional boundaries.

Mitigation Measure 3A.11-3: Implement Measures to Prevent Exposure of Sensitive Receptors to Groundborne Noise or Vibration from Project Generated Construction Activities.

- To the extent feasible, blasting activities shall not be conducted within 275 feet of existing or future sensitive receptors.
- To the extent feasible, bulldozing activities shall not be conducted within 50 feet of existing or future sensitive receptors.
- All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in the State of California.
- A blasting plan, including estimates of vibration levels at the residence closest to the blast, shall be submitted to the enforcement agency for review and approval prior to the commencement of the first blast.
- Each blast shall be monitored and documented for groundbourne noise and vibration levels at the nearest sensitive land use and associated recorded submitted to the enforcement agency.

Mitigation Measure 3A.11-4: Implement Measures to Prevent Exposure of Sensitive Receptors to Increases in Noise from Project-Generated Operational Traffic on Off-site and

On-Site Roadways. To meet applicable noise standards as set forth in the appropriate General Plan or Code (e.g., City of Folsom, County of Sacramento, and County of El Dorado) and to reduce increases in traffic-generated noise levels at noise-sensitive uses, the project applicant(s) of all project phases shall implement the following:

- Obtain the services of a consultant (such as a licensed engineer or licensed architect) to develop noise-attenuation measures for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms) that will produce a minimum composite Sound Transmission Class (STC) rating for buildings of 30 or greater, individually computed for the walls and the floor/ceiling construction of buildings, for the proposed construction of on-site noise-sensitive land uses (i.e., residential dwellings and school classrooms).
- Prior to submittal of tentative subdivision maps and improvement plans, the project applicant(s) shall conduct a site-specific acoustical analysis to determine predicted roadway noise impacts attributable to the project, taking into account site-specific conditions (e.g., site design, location of structures, building characteristics). The acoustical analysis shall evaluate stationary- and mobile-source noise attributable to the proposed use or uses and impacts on nearby noise-sensitive land uses, in accordance with adopted City noise standards. Feasible measures shall be identified to reduce project-related noise impacts. These measures may include, but are not limited to, the following:
  - limiting noise-generating operational activities associated with proposed commercial land uses, including truck deliveries;
  - constructing exterior sound walls;
  - constructing barrier walls and/or berms with vegetation;
  - using "quiet pavement" (e.g., rubberized asphalt) construction methods on local roadways; and,
  - using increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; exterior wall insulation).

Mitigation Measure 3A.11-5: Implement Measures to Reduce Noise from Project-Generated Stationary Sources. The project applicant(s) for any particular discretionary development project shall implement the following measures to reduce the effect of noise levels generated by on-site stationary noise sources that would be located within 600 feet of any noise-sensitive receptor:

- Routine testing and preventive maintenance of emergency electrical generators shall be conducted during the less sensitive daytime hours (i.e., 7:00 a.m. to 6:00 p.m.). All electrical generators shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.
- External mechanical equipment associated with buildings shall incorporate features designed to reduce noise emissions below the stationary noise source criteria. These features may include, but are not limited to, locating generators within equipment rooms or enclosures that incorporate noise-reduction features, such as acoustical louvers, and exhaust and intake silencers. Equipment enclosures shall be oriented so that major openings (i.e., intake louvers, exhaust) are directed away from nearby noise-sensitive receptors.
- Parking lots shall be located and designed so that noise emissions do not exceed the stationary noise source criteria established in this analysis (i.e., 50 dB for 30 minutes in every hour during the daytime [7 a.m. to 10 p.m.] and less than 45 dB for 30 minutes of every hour during the night time [10 p.m. to 7 a.m.]). Reduction of parking lot noise can be achieved by locating

parking lots as far away as feasible from noise sensitive land uses, or using buildings and topographic features to provide acoustic shielding for noise-sensitive land uses.

- Loading docks shall be located and designed so that noise emissions do not exceed the stationary noise source criteria established in this analysis (i.e., 50 dB for 30 minutes in every hour during the daytime [7 a.m. to 10 p.m.] and less than 45 dB for 30 minutes of every hour during the night time [10 p.m. to 7 a.m.]). Reduction of loading dock noise can be achieved by locating loading docks as far away as possible from noise sensitive land uses, constructing noise barriers between loading docks and noise-sensitive land uses, or using buildings and topographic features to provide acoustic shielding for noise-sensitive land uses.

Mitigation Measure 3A.14-1: Prepare and Implement a Construction Traffic Control Plan. The project applicant(s) of all project phases shall prepare and implement traffic control plans for construction activities that may affect road rights-of-way. The traffic control plans must follow any applicable standards of the agency responsible for the affected roadway and must be approved and signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flagperson to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses shall be maintained at all times, with detours used as necessary during road closures. Traffic control plans shall be submitted to the appropriate City or County department or the California Department of Transportation (Caltrans) for review and approval before the approval of all project plans or permits, for all project phases where implementation may cause impacts on traffic.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties and Caltrans).

Mitigation Measure 3A.14-2: Incorporate California Fire Code; City of Folsom Fire Code Requirements; and EDHFD Requirements, if Necessary, into Project Design and Submit Project Design to the City of Folsom Fire Department for Review and Approval. To reduce impacts related to the provision of new fire services, the project applicant(s) of all project phases shall do the following, as described below.

1. Incorporate into project designs fire flow requirements based on the California Fire Code, Folsom Fire Code (City of Folsom Municipal Code Title 8, Chapter 8.36), and other applicable requirements based on the City of Folsom Fire Department fire prevention standards. Improvement plans showing the incorporation automatic sprinkler systems, the availability of adequate fire flow, and the locations of hydrants shall be submitted to the City of Folsom Fire Department for review and approval. In addition, approved plans showing access design shall be provided to the City of Folsom Fire Department as described by Zoning Code Section 17.57.080 ("Vehicular Access Requirements"). These plans shall describe access-road length, dimensions, and finished surfaces for firefighting equipment. The installation of security gates across a fire apparatus access road shall be approved by the City of Folsom Fire Department. The design and operation of gates and barricades shall be in accordance with the Sacramento County Emergency Access Gates and Barriers Standard, as required by the City of Folsom Fire Code.

2. Submit a Fire Systems New Buildings, Additions, and Alterations Document Submittal List to the City of Folsom Community Development Department Building Division for review and approval before the issuance of building permits.

In addition to the above measures, the project applicant(s) of all project phases shall incorporate the provisions described below for the portion of the SPA within the EDHFD service area, if it is determined through City/El Dorado County negotiations that EDHFD would serve the 178-acre portion of the SPA.

3. Incorporate into project designs applicable requirements based on the EDHFD fire prevention standards. For commercial development, improvement plans showing roadways, land splits, buildings, fire sprinkler systems, fire alarm systems, and other commercial building improvements shall be submitted to the EDHFD for review and approval. For residential development, improvement plans showing property lines and adjacent streets or roads; total acreage or square footage of the parcel; the footprint of all structures; driveway plan views describing width, length, turnouts, turnarounds, radiuses, and surfaces; and driveway profile views showing the percent grade from the access road to the structure and vertical clearance shall be submitted to the EDHFD for review and approval.
4. Submit a Fire Prevention Plan Checklist to the EDHFD for review and approval before the issuance of building permits. In addition, residential development requiring automation fire sprinklers shall submit sprinkler design sheet(s) and hydraulic calculations from a California State Licensed C-16 Contractor.

The City shall not authorize the occupancy of any structures until the project applicant(s) have obtained a Certificate of Occupancy from the City of Folsom Community Development Department verifying that all fire prevention items have been addressed on-site to the satisfaction of the City of Folsom Fire Department and/or the EDHFD for the 178-acre area of the SPA within the EDHFD service area.

Mitigation Measure 3A.14-3: Incorporate Fire Flow Requirements into Project Designs. The project applicant(s) of all project phases shall incorporate into their project designs fire flow requirements based on the California Fire Code, Folsom Fire Code, and/or EDHFD for those areas of the SPA within the EDHFD service area and shall verify to City of Folsom Fire Department that adequate water flow is available, prior to approval of improvement plans and issuance of occupancy permits or final inspections for all project phases.

Mitigation Measure 3A.16-1: Submit Proof of Adequate On- and Off-Site Wastewater Conveyance Facilities and Implement On- and Off-Site Infrastructure Service Systems or Ensure That Adequate Financing Is Secured. Before the approval of the final map and issuance of building permits for all project phases, the project applicant(s) of all project phases shall submit proof to the City of Folsom that an adequate wastewater conveyance system either has been constructed or is ensured through payment of the City's facilities augmentation fee as described under the Folsom Municipal Code Title 3, Chapter 3.40, "Facilities Augmentation Fee – Folsom South Area Facilities Plan," or other sureties to the City's satisfaction. Both on-site wastewater conveyance infrastructure and off-site force main sufficient to provide adequate service to the project shall be in place for the amount of development identified in the tentative map before

approval of the final map and issuance of building permits for all project phases, or their financing shall be ensured to the satisfaction of the City.

Mitigation Measure 3A.16-3: Demonstrate Adequate SRWTP Wastewater Treatment Capacity. The project applicant(s) of all project phases shall demonstrate adequate capacity at the SRWTP for new wastewater flows generated by the project. This shall involve preparing a tentative map–level study and paying connection and capacity fees as identified by SRCSD. Approval of the final map and issuance of building permits for all project phases shall not be granted until the City verifies adequate SRWTP capacity is available for the amount of development identified in the tentative map.

Mitigation Measure 3A.16-4: Submit Proof of Adequate EID Off-Site Wastewater Conveyance Facilities and Implement EID Off-Site Infrastructure Service Systems or Ensure That Adequate Financing Is Secured. Before the approval of the final map and issuance of building permits for all project phases, the project applicant(s) of all project phases shall obtain proof from EID that an adequate wastewater conveyance system either has been constructed or is ensured through the use of bonds or other sureties. The project applicants of all project phases shall submit this proof to the City of Folsom. EID off-site wastewater conveyance infrastructure sufficient to provide adequate service to project shall be in place for the amount of development identified in the tentative map before approval of the final map and issuance of building permits for all project phases, and before issuance of occupancy permits, or their financing shall be ensured to the satisfaction of the City.

Mitigation Measure 3A.16-5: Demonstrate Adequate El Dorado Hills Wastewater Treatment Plant Capacity. The project applicant(s) of all project phases shall demonstrate adequate capacity at the El Dorado Hills WWTP for new wastewater flows generated by project development. This shall involve preparing a tentative map–level study and paying connection and capacity fees as identified by EID. Approval of the final map and issuance of building permits for all project phases shall not be granted until the City verifies adequate El Dorado Hills WWTP capacity is available for the amount of development identified in the tentative map.

Mitigation Measure 3A.18-1: Submit Proof of Surface Water Supply Availability.

a. Prior to approval of any small-lot tentative subdivision map subject to Government Code Section 66473.7 (SB 221), the City shall comply with that statute. Prior to approval of any small-lot tentative subdivision map for a proposed residential project not subject to that statute, the City need not comply with Section 66473.7, or formally consult with any public water system that would provide water to the affected area; nevertheless, the City shall make a factual showing or impose conditions similar to those required by Section 66473.7 to ensure an adequate water supply for development authorized by the map.
b. Prior to recordation of each final subdivision map, or prior to City approval of any similar project-specific discretionary approval or entitlement required for nonresidential uses, the project applicant(s) of that project phase or activity shall demonstrate the availability of a reliable and sufficient water supply from a public water system for the amount of development that

would be authorized by the final subdivision map or project-specific discretionary nonresidential approval or entitlement. Such a demonstration shall consist of information showing that both existing sources are available or needed supplies and improvements will be in place prior to occupancy.

Mitigation Measure 3A.18-2a: Submit Proof of Adequate Off-Site Water Conveyance Facilities and Implement Off-Site Infrastructure Service System or Ensure That Adequate Financing Is Secured. Before the approval of the final subdivision map and issuance of building permits for all project phases, the project applicant(s) of any particular discretionary development application shall submit proof to the City of Folsom that an adequate off-site water conveyance system either has been constructed or is ensured or other sureties to the City's satisfaction. The off-site water conveyance infrastructure sufficient to provide adequate service to the project shall be in place for the amount of development identified in the tentative map before approval of the final subdivision map and issuance of building permits for all project phases, or their financing shall be ensured to the satisfaction of the City. A certificate of occupancy shall not be issued for any building within the SPA until the water conveyance infrastructure sufficient to serve such building has been constructed and is in place.

Mitigation Measure 3A.18-2b: Demonstrate Adequate Off-Site Water Treatment Capacity (if the Off-Site Water Treatment Plant Option is Selected). If an off-site water treatment plant (WTP) alternative is selected (as opposed to the on-site WTP alternative), the project applicant(s) for any particular discretionary development application shall demonstrate adequate capacity at the off-site WTP. This shall involve preparing a tentative map–level study and paying connection and capacity fees as determined by the City. Approval of the final project map shall not be granted until the City verifies adequate water treatment capacity either is available or is certain to be available when needed for the amount of development identified in the tentative map before approval of the final map and issuance of building permits for all project phases. A certificate of occupancy shall not be issued for any building within the SPA until the water treatment capacity sufficient to serve such building has been constructed and is in place.

RUSSELL RANCH PROJECT: APPLICABLE MITIGATION MEASURES

Measures are listed in the order of the Mitigation Monitoring and Reporting Program for the Russell Ranch Project, dated April 2015. For measures from the FPASP EIR/EIS, the text of the measure is not duplicated in this section and can be referenced in the section above.

Mitigation Measure 4.1-1: Prior to the approval of the grading plan, the issuance of a building permit, as well as during construction, the project contractor of all project phases shall locate staging and material storage areas as far away from sensitive biological resources and sensitive land uses (e.g., residential areas, schools, parks) as feasible. Staging and material storage areas shall be approved by the appropriate agency (identified below) before the approval of grading plans and building permits for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include, but are not

limited to, the use of visual barriers such as berms or fences. The screen design shall be approved by the City's Community Development Department to reduce visual effects to the extent possible.

Mitigation Measure 4.1-2: Prior to the issuance of a building permit, the project applicant of all project phases shall submit a lighting plan for the project to the Folsom Community Development Department. The lighting plan shall

- shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties;
- place and shield or screen flood and area lighting needed for construction activities, nighttime sporting activities, and/or security so as not to disturb adjacent residential areas and passing motorists;
- for public lighting in residential neighborhoods, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash;
- use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth- toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways; and
- design exterior on-site lighting as an integral part of the building and landscaping design in the Specific Plan Area. Lighting fixtures shall be architecturally consistent with the overall site design.

The project applicant shall implement the approved lighting plan, subject to approval by the Community Development Department.

Mitigation Measure 3A.2-1a (FPASP EIR/EIS): Implement Measures to Control Air Pollutant Emissions Generated by Construction of On-Site Elements.

Mitigation Measure 3A.2-1b (FPASP EIR/EIS): Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of On-Site Elements.

Mitigation Measure 3A.2-1d (FPASP EIR/EIS): Implement SMAQMD's Basic Construction Emission Control Practices during Construction of all Off- site Elements located in Sacramento County.

Mitigation Measure 3A.2-1f (FPASP EIR/EIS): Implement SMAQMD's Enhanced Exhaust Control Practices during Construction of all Off-site Elements.

Mitigation Measure 3A.2-1g (FPASP EIR/EIS): Pay Off-site Mitigation Fee to SMAQMD to Off-Set NO_X Emissions Generated by Construction of Off-site Elements.

Mitigation Measure 3A.2-1h (FPASP EIR/EIS): Analyze and Disclose Projected PM_{10} Emission Concentrations at Nearby Sensitive Receptors Resulting from Construction of Off-site Elements.

Mitigation Measure 3A.2-2 (FP ASP EIR/EIS): Implement All Measures Prescribed by the Air Quality Mitigation Plan to Reduce Operational Air Pollutant Emissions.

Mitigation Measure 4.2-3: Prior to the commencement of any site-disturbing activities, the applicant shall demonstrate to the satisfaction of the SMAQMD that NOA does not exist on site. To demonstrate the applicant shall obtain the services of a California Certified Geologist to conduct a thorough site investigation of the development area per the protocol outlined in the California Geological Survey Special Report 124 to determine whether and where NOA is present in the soil and rock on the project site and/or areas that would be disturbed by the project, except for those areas previously explored and sampled for NOA as part of the Geotechnical Engineering Study for Russell Ranch South prepared by Youndahl Consulting Group, Inc. in December 2013. The site investigation shall include the collection of three soil and rock samples per acre to be analyzed via the CARB 435 Method, or other acceptable method agreed upon by SMAQMD and the City of Folsom. If the investigation determines that NOA is not present on the project site, then the project applicant shall submit a Geologic Exemption to SMAQMD as allowed under Title 17, Section 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining (Asbestos ATCM). The project applicant shall submit proof of compliance with the above to the Community Development Department for review and approval prior to the commencement of any site-disturbing activities.

If the site investigation determines that NOA is present on the project site, or alternatively if the applicant elects to assume presence of trace NOA, then, prior to commencement of any ground disturbance activity, the project applicant shall submit to the SMAQMD for review and approval an Asbestos Dust Mitigation Plan, including, but not limited to, control measures required by the Asbestos ATCM, such as vehicle speed limitations, application of water prior to and during ground disturbance, keeping storage piles wet or covered, and track-out prevention and removal. The project applicant shall submit proof of compliance with the above to the Community Development Department for review and approval prior to the commencement of any site-disturbing activities. Upon approval of the Asbestos Dust Control Plan by the SMAQMD, the applicant shall ensure that construction contractors implement the terms of the plan throughout the construction period.

If NOA is determined to be located on the surface of the project site, all surface soil containing NOA shall be replaced with clean soil or capped with another material (e.g., cinder or rubber), subject to review and approval by the City Engineer.

Mitigation Measure 4.3-1: Prior to the initiation of construction activities, the applicant shall retain a qualified biologist/botanist to consult with the appropriate regulatory agencies (CDFW and USFWS) to determine if additional plant surveys are required. Written results of the consultation efforts shall be provided to the Folsom Community Development Department. If the regulatory agencies (CDFW and USFWS) determine additional plant surveys are required, the following shall be implemented:

- The project applicant shall retain a qualified botanist to conduct protocol-level preconstruction special-status plant surveys for all potentially occurring species in all areas that have not previously been surveyed for special- status plants. If special-status plants are not found during focused surveys, the botanist shall document the findings in a letter report to USFWS, CDFW and, the City of Folsom, and no further mitigation shall be required.
- If special-status plant populations are found, the project applicant shall consult with CDFW and USFWS, as appropriate, depending on species status, to determine the appropriate mitigation measures for direct and indirect impacts on any special-status plant population that could occur as a result of project implementation. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals.
- If potential impacts on special-status plant species are likely, a mitigation and monitoring plan shall be developed before the approval of grading plans or any ground-breaking activity within 250 feet of a special- status plant population. The mitigation plan shall be submitted to the City of Folsom for review and approval. It shall be submitted concurrently to CDFW or USFWS, as appropriate, depending on species status, for review and comment. The plan shall require maintaining viable plant populations on-site and shall identify avoidance measures for any existing population(s) to be retained and compensatory measures for any populations directly affected. Possible avoidance measures include fencing populations before construction and exclusion of project activities from the fenced-off areas, and construction monitoring by a qualified botanist to keep construction crews away from the population. The mitigation plan shall also include monitoring and reporting requirements for populations to be preserved on site or protected or enhanced off-site.
- If relocation efforts are part of the mitigation plan, the plan shall include details on the methods to be used, including collection, storage, propagation, receptor site preparation, installation, long-term protection and management, monitoring and reporting requirements, and remedial action responsibilities should the initial effort fail to meet long-term monitoring requirements.
- If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, and other details, as appropriate to target the preservation of long term viable populations.

Mitigation Measure 4.3-3(a): Conduct Environmental Awareness Training for Construction Employees. Prior to initiation of construction activities, the project applicant shall employ a qualified biologist to conduct environmental awareness training for construction employees. The training will describe the importance of on-site biological resources, including special-status wildlife habitats; potential nests of special-status birds; and roosting habitat for special-status bats. The biologist will also explain the importance of other responsibilities related to the protection of wildlife during construction, such as inspecting open trenches and looking under vehicles and machinery prior to moving them to ensure there are no lizards, snakes, small mammals, or other wildlife that could become trapped, injured, or killed in construction areas or under equipment.

The environmental awareness program shall be provided to all construction personnel to brief them on the life history of special-status species in or adjacent to the project area, the need to avoid impacts on sensitive biological resources, any terms and conditions required by state and federal agencies, and the penalties for not complying with biological mitigation requirements. If new construction personnel are added to the project, the contractor's superintendent shall ensure that the personnel receive the mandatory training before starting work. An environmental awareness handout that describes and illustrates sensitive resources to be avoided during project construction and identifies all relevant permit conditions shall be provided to each person.

Mitigation Measure 4.3-3(b): Conduct Preconstruction Western Spadefoot Toad Survey. The project applicant shall retain a qualified biologist to conduct a preconstruction survey for Western spadefoot toad within 48 hours of the initiation of construction activities for each phase of development. The preconstruction surveys shall evaluate suitable habitats for this species, as determined by the qualified biologist. If no Western spadefoot toad individuals are found during the preconstruction survey, the biologist shall document the findings in a letter report to CDFW and the City of Folsom, and no further mitigation shall be required.

If Western spadefoot toad individuals are found, the qualified biologist shall consult with CDFW to determine appropriate avoidances measures. Mitigation measures may include relocation of aquatic larvae, construction monitoring, or preserving and enhancing existing populations.

Mitigation Measure 4.3-4: The project applicant(s), shall retain a qualified biologist to conduct preconstruction survey for Western pond turtle within 48 hours of the initiation of construction activities for each phase of development. The preconstruction surveys shall evaluate suitable habitats for this species, as determined by the qualified biologist. If no western pond turtles are found during the preconstruction survey, the biologist shall document the findings in a letter report to CDFW and the City of Folsom, and no further mitigation shall be required. If western pond turtles are found, the qualified biologist shall capture and relocate the turtles to a suitable preserved location in the vicinity of the project.

Mitigation Measure 4.3-5(a): Swainson's Hawk Nesting Habitat. To mitigate impacts on Swainson's hawk a qualified biologist shall be retained to conduct preconstruction surveys and to identify active nests on and within 0.5-mile of the project area. The surveys shall be conducted before the approval of grading and/or improvement plans (as applicable) and no less than 14 days and no more than 30 days before the beginning of construction. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk. If no nests are found, no further mitigation is required.

If active nests are found, impacts on nesting Swainson's hawks shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in coordination with CDFW that reducing the buffer would not result in nest abandonment. CDFW guidelines recommend implementation of 0.25- or 0.5-mile-wide buffers, but the size of the buffer may be adjusted if a qualified biologist and the City, in consultation with CDFW, determine that

such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

Mitigation Measure 4**.3-5(b): Swainson's Hawk Foraging Habitat**. To mitigate for the loss of Swainson's hawk foraging habitat, the project applicant(s) shall identify permanent impacts to foraging habitat and prepare and implement a Swainson's hawk mitigation plan, including but not limited to the requirements described below.

Before the approval of grading and improvement plans, or before any ground-disturbing activities, whichever occurs first, the project applicant shall secure suitable Swainson's hawk foraging habitat to ensure 1:1 mitigation of habitat value for Swainson's hawk foraging habitat that is permanently lost as a result of the project, as determined by the City after consultation with CDFW and a qualified biologist.

The 1:1 habitat value (or other agreed-upon ratio) shall be based on Swainson's hawk nesting distribution and an assessment of habitat quality, availability, and use within the project area. The mitigation ratio shall be consistent with the 1994 DFG Swainson's Hawk Guidelines included in the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California. Such mitigation shall be accomplished through purchase of credits at an approved mitigation bank, the transfer of fee title, or perpetual conservation easement. If non-bank mitigation is proposed, the mitigation land shall be located within the known foraging area and within Sacramento County. The City, after consultation with CDFW, will determine the appropriateness of the mitigation land.

The project applicant shall transfer said Swainson's hawk mitigation land, through either conservation easement or fee title, to a third-party, nonprofit conservation organization (Conservation Operator), with the City and CDFW named as third-party beneficiaries. The Conservation Operator shall be a qualified conservation easement land manager that manages land as its primary function. Additionally, the Conservation Operator shall be a tax-exempt nonprofit conservation organization that meets the criteria of Civil Code Section 815.3(a) and shall be selected or approved by the City, after consultation with CDFW. After consultation with CDFW and the Conservation Operator, the City shall approve the content and form of the conservation easement. The City, CDFW, and the Conservation Operator shall each have the power to enforce the terms of the conservation easement. The Conservation Operator shall monitor the easement in perpetuity to assure compliance with the terms of the easement.

After consultation with the City, The project applicant, CDFW, and the Conservation Operator, shall establish an endowment or some other financial mechanism that is sufficient to fund in perpetuity the operation, maintenance, management, and enforcement of the conservation easement. If an endowment is used, either the endowment funds shall be submitted to the City for impacts on lands within the City's jurisdiction to an appropriate third-party nonprofit conservation agency, or they shall be submitted directly to the third-party nonprofit conservation agency in exchange for an agreement to manage and maintain the lands in perpetuity. The Conservation Operator shall not sell, lease, or transfer any interest of any conservation easement or mitigation land it acquires without prior written approval of the City and CDFW.

If the Conservation Operator ceases to exist, the duty to hold, administer, manage, maintain, and enforce the interest shall be transferred to another entity acceptable to the City and CDFW. The City Planning Department shall ensure that mitigation habitat established for impacts on habitat within the City's planning area is properly established and is functioning as habitat by conducting regular monitoring of the mitigation site(s) for the first ten years after establishment of the easement.

Mitigation Measure 4.3-6(a): A qualified biologist shall be retained by the project applicant to conduct a preconstruction survey to identify active burrows within the project area. The surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of construction activities for each phase of development. The preconstruction survey shall follow the protocols outlined in the Staff Report on Burrowing Owl Mitigation (CDFG 2012).

Mitigation Measure 4.3-6(b): If active burrows are found, a mitigation plan shall be submitted to the City for review and approval before any ground-disturbing activities. The City shall consult with CDFW. The mitigation plan may consist of installation of one-way doors on all burrows to allow owls to exit, but not reenter, and construction of artificial burrows within the project vicinity, as needed; however, burrowing owl exclusions may only be used if a qualified biologist verifies that the burrow does not contain eggs or dependent young. If active burrows contain eggs and/or young, no construction shall occur within 50 feet of the burrow until young have fledged. Once it is confirmed that there are no owls inside burrows, these burrows may be collapsed.

Mitigation Measure 4.3-7: A qualified biologist shall conduct a preconstruction survey for any project activity that would occur during the tricolored blackbird's nesting season (March 1–August 31). The preconstruction survey shall be conducted before any activity occurring within 500 feet of suitable nesting habitat, including freshwater marsh and areas of riparian scrub vegetation. The survey shall be conducted within 14 days before project activity begins.

If no tricolored blackbird colony is present, no further mitigation is required. If a colony is found, the qualified biologist shall establish a buffer around the nesting colony. No project activity shall commence within the buffer area until a qualified biologist confirms that the colony is no longer active. The size of the buffer shall be determined in consultation with CDFW. Buffer size is anticipated to range from 100 to 500 feet, depending on the nature of the project activity, the extent of existing disturbance in the area, and other relevant circumstances.

Mitigation Measure 4.3-8(a): Nesting Raptors. To mitigate impacts on nesting raptors, a qualified biologist shall be retained to conduct a preconstruction survey to identify active nests on and within 0.5 miles of the project area. The surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of construction activities for each phase of development.

If active nests are found, impacts on nesting raptors shall be avoided by establishing appropriate buffers around the nests. No project activity shall commence within the buffer area until the young have fledged, the nest is no longer active, or until a qualified biologist has determined in coordination with CDFW that reducing the buffer would not result in nest abandonment. The buffer may be adjusted if a qualified biologist and the City, in consultation with CDFW, determine

that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.

Mitigation Measure 4.3-8(b): Other Nesting Special-Status and Migratory Birds. A qualified biologist shall conduct a preconstruction survey for any project activity that would occur in suitable nesting habitat during the avian nesting season (approximately March 1–August 31). The preconstruction survey shall be conducted within 14 days before any activity occurring within 100 feet of suitable nesting habitat. Suitable habitat includes annual grassland, valley needlegrass grassland, freshwater seep, vernal pool, seasonal wetland, and intermittent drainage habitat within the project site.

If no active special-status or other migratory bird nests are present, no further mitigation is required. If an active nest is found, the qualified biologist shall establish a buffer around the nest. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. The size of the buffer shall be determined in consultation with CDFW. Buffer size is anticipated to range from 50 to 100 feet, depending on the nature of the project activity, the extent of existing disturbance in the area, and other relevant circumstances.

Mitigation Measure 4.3-10: The project applicant(s) shall retain a qualified biologist to conduct preconstruction American badger burrow surveys within 48 hours of the initiation of construction activity. If no American badger burrows are found during the preconstruction survey, the biologist shall document the findings in a letter report to CDFW and the City of Folsom, and no further mitigation shall be required. If potential American badger burrows are found, the qualified biologist shall consult with CDFW to determine appropriate measures.

Mitigation Measure 4.3-11(a): Clean Water Act Sections 401 and 404 Permits. Before the approval of grading and improvement plans and before any groundbreaking activity associated with each distinct project phase, the project applicant shall secure all necessary permits obtained under Sections 401 and 404 of the CWA or the State's Porter-Cologne Act and implement all permit conditions for the proposed project. All permits, regulatory approvals, and permit conditions for effects on wetland habitats shall be secured and conditions implemented before implementation of any grading activities within 250 feet of Waters of the U.S. or wetland habitats, including Waters of the State, that potentially support federally-listed species, or within 100 feet of any other Waters of the U.S. or wetland habitats, including Waters of the State. The project applicant shall adhere to all conditions outlined in the permits. The project applicant shall commit to replace, restore, or enhance on a "no net loss" basis (in accordance with USACE and the Central Valley RWQCB) the acreage of all wetlands and other Waters of the U.S. that would be removed, lost, and/or degraded with implementation of the project. Wetland habitat shall be restored, enhanced, and/or replaced at an acreage and location and by methods agreeable to USACE, the Central Valley RWQCB, and the City, as appropriate, depending on agency jurisdiction, and as determined during the Section 401 and Section 404 permitting processes.

All mitigation requirements to satisfy the requirements of the City and the Central Valley RWQCB, for impacts on the non-jurisdictional wetlands beyond the jurisdiction of USACE, shall be determined and implemented before grading plans are approved.

A water quality certification pursuant to Section 401 of the CWA is required before issuance of the record of decision and before issuance of the Section 404 permit. Before construction in any areas containing wetland features, the project applicant shall obtain water quality certification for the project. Any measures required as part of the issuance of water quality certification shall be implemented.

Mitigation Measure 4.3-11(b): Master Streambed Alteration Agreement. The project applicant shall amend, if necessary, and implement the original Section 1602 Master Streambed Alteration Agreement received from CDFW for all construction activities that would occur in the bed and bank of CDFW jurisdictional features within the project site. As outlined in the Master Streambed Alteration Agreement, the project applicant shall submit a Sub-notification Form (SNF) to CDFW 60 days prior to the commencement of construction to notify CDFW of the project.

Any conditions of issuance of the Master Streambed Alteration Agreement shall be implemented as part of those project construction activities that would adversely affect the bed and bank within on-site drainage channels subject to CDFW jurisdiction. The agreement shall be executed by the project applicant and CDFW before the approval of any grading or improvement plans or any construction activities in any project phase that could potentially affect the bed and bank of on-site drainage channels under CDFW jurisdiction.

Mitigation Measure 4.3-11(c): Valley Needlegrass. The following measures shall be implemented to mitigate for losses of valley needlegrass grassland:

- Prior to ground-breaking activities, high visibility construction fencing should be placed around all Valley needlegrass grassland to be preserved. The construction fencing should not be removed until completion of construction activities.
- All Valley needlegrass grassland areas slated for removal should be replaced at a 1:1 acreage on-site within the preserve areas.
- Needlegrass plants in areas slated for removal should be salvaged, to the extent feasible, and replanted within the preserve areas. If this is infeasible, then seedlings/saplings from a local nursery should be obtained.
- A mitigation plan outlining methods to be used, success criteria to be met, and adaptive management strategies will be completed prior to project construction. At a minimum, unless agreed upon otherwise with regulatory agencies, the Valley needlegrass grassland creation areas shall be monitored twice annually for the first year and once annually for the four subsequent years for a total of five years; success criteria shall be established to ensure an 80 percent success rate is met by the fifth year, and adaptive management techniques shall be implemented to ensure that the 80 percent success rate is met by the fifth year or as otherwise agreed upon in consultation with CDFW. This plan may be combined with the Operations and Management Plan for the open space preserves.

Mitigation Measure 4.4-1: Comply with the First Amended Programmatic Agreement and Carry Out Mitigation. The FAPA provides a management framework for identifying historic properties and Historical Resources, determining adverse effects, and resolving those adverse effects with appropriate mitigation. Proof of compliance with the applicable procedures in the F AP A and implementation of applicable historic property treatment plan (HPTP) (Westwood and Knapp 2013b and 2013c) with regard to mitigation for the Keefe-McDerby Mine Ditch and Brooks Hotel Site shall be provided to the City' s Community Development Department prior to authorization of any ground disturbing activities in any given segment of the project area. Proof of compliance is defined as written approval from the USACE of all applicable mitigation documentation generated from implementation of an approved HPTP and includes the following mitigation actions:

- Historic American Engineering Record Documentation of the Keefe-McDerby Mine Ditch (P-34-1475):
  - √ In order to determine the appropriate level of documentation necessary, the USACE shall first consult with the National Park Service (NPS), which administers the Historic American Engineering Record (HAER) program. Consultation with the NPS will be initiated through the submission of the Department of Parks and Recreation (DPR) site record and copies of applicable technical reports with a request for review and issuance of a stipulation letter. Unless an objection to the requirements of the stipulation letter is expressed and resolved through the process outlined in the FAPA, the level of documentation stipulated by the NPS shall be implemented and all documentation will be approved by the USACE and NPS prior to ground- disturbing activities affecting the resource, or as governed by the permit conditions. Focused archival research conducted as part of the HAER documentation shall be incorporated into the revised cultural context statement for the SPA through the Historic Property Management Plan. A non-archival set of the final documentation shall be submitted to the City' s Community Development Department.
- Data Recovery Excavations of the Brooks Hotel Site (P- 34-2166):
  - √ Data recovery shall follow the standards and guidelines in the HPTP and shall include at least four one meter by one meter excavation units. The results of the data recovery, including results of excavation, laboratory analysis, artifact analysis, and archival research, shall be documented in a confidential data recovery technical report, which shall be submitted to the City' s Community Development Department.
- Geoarchaeological Monitoring:
  - √ Due to a potential for deeply buried archaeological resources down to a depth of 1.5 meters (approximately five feet) below soil formations known as the T-2 terrace, where colluvial deposits grade onto the T-2 terrace, and along the distal edge of tributary alluvial fans, all ground disturbing activity in those areas shall be monitored by a qualified professional archaeologist with a specialization in geoarchaeology. Once subsurface disturbance extends beyond 1.5 meters below surface, monitoring is no longer needed.

A confidential map showing the locations of required monitoring has been submitted to the City's Community Development Department. The City shall apply a map condition that requires geoarchaeological monitoring in the T-2 formation and along the distal edge of tributary alluvial fans only. A copy of the monitoring report shall be submitted as proof of compliance to the City' s Community Development Department.

In the event that future off-site improvements are required, which are not currently identified and are located outside of the boundaries of the FPASP area, then the City and applicant shall comply with the procedures for identification, evaluation, and treatment of Historical Resources under CEQA, as described in Section 4.4.3 of the Cultural Resources Impact Assessment, and with Mitigation Measure 3A.5-1b of the FPASP EIR/EIS.

Mitigation Measure 4.4-2(a): Conduct Construction Worker Awareness Training, Conduct On-Site Monitoring if Required, Stop Work if Cultural Resources are Discovered, Assess the Significance of the Find, and Perform Treatment or Avoidance as Required.

To reduce potential impacts to previously undiscovered cultural resources, the project applicant(s) shall complete the following:

- Before the start of ground-disturbing activities, the project applicant(s) shall retain a qualified archaeologist to conduct training for construction supervisors. Construction supervisors shall inform the workers about the possibility of encountering buried cultural resources and inform the workers of the proper procedures should cultural resources be encountered. Proof of the contractor awareness training shall be submitted to the City's Community Development Department in the form of a copy of training materials and the completed training attendance roster.
- Should any cultural resources, such as structural features, bone or shell, artifacts, or architectural remains be encountered during any construction activities, work shall be suspended within 200 feet of the find and the City of Folsom and USACE shall be notified immediately. The City shall retain a qualified archaeologist who shall conduct a field investigation of the specific site and shall evaluate the significance of the find by evaluating the resource for eligibility for listing on the CRHR and the NRHP. If the resource is eligible for listing on the CRHR or NRHP and would be subject to disturbance or destruction, the actions required by the FAPA and subsequent documentation shall be implemented. The City of Folsom Community Development Department and USACE shall be responsible for approval of recommended mitigation if it is determined to be feasible in light of the approved land uses, and shall implement the approved mitigation and seek written approval on mitigation documentation before resuming construction activities at the archaeological site.

Mitigation Measure 4.4-2(b): Suspend Ground-Disturbing Activities if Human Remains are Encountered and Comply with California Health and Safety Code Procedures. In the event that human remains are discovered, construction activities within 150 feet of the discovery shall be halted or diverted and the requirements for managing unanticipated discoveries in Mitigation Measure 4.4-2(a) shall be implemented. In addition, the provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Assembly Bill 2641 shall be implemented. When human remains are discovered, state law requires that the discovery be reported to the County Coroner (Section 7050.5 of the Health and Safety Code) and that reasonable protection measures be taken during construction to protect the discovery from disturbance (AB 2641).

If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission, which then designates a Native American Most Likely Descendant for the project (Section 5097.98 of the Public Resources Code). The designated Native American Most Likely Descendant then has 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains (AB 2641).

If the landowner does not agree with the recommendations of the Native American Most Likely Descendant, the NAHC can mediate (Section 5097.94 of the Public Resources Code). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a deed restriction with the county in which the property is located (AB 2641).

Mitigation Measure 4.4-3: Conduct Construction Worker Awareness Training, Stop Work if Paleontological Resources are Discovered, Assess the Significance of the Find, and Prepare and Implement a Recovery Plan as Required. Before the start of any earthmoving activities, the project applicant(s) shall retain a qualified professional to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. The training shall be included in the archaeological contractor awareness training program.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work in the vicinity of the find and notify the City of Folsom's Community Development Department. The project applicant(s) shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (1996). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the lead agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) with the affected oversight agency(ies).

Mitigation Measure 3A.11-1 (FPASP EIR/EIS): Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise near Sensitive Receptors.

Mitigation Measure 4.6-3(a): In conjunction with submittal of Improvement Plans for the development phase where noise barrier locations are recommended as illustrated in Figure 4.6-2, the applicant shall show on the Improvement Plans that sound walls and/or landscaped berms shall be constructed along US 50, White Rock Road, and Empire Ranch Road. The specific height and locations of the noise barriers shall be confirmed based upon the final approved site and grading plans. See Figure 4.6-2 and Figure 4.6-3 for the recommended noise barrier placement and required

wall heights. Wall heights shown in the aforementioned figures are relative to building pad elevations. Noise barrier walls shall be constructed of concrete masonry units, earthen berms, other sound attenuation solution acceptable to the City, or any combination of these materials. Wood is not recommended due to eventual warping and degradation of acoustical performance. Abrupt transitions exceeding two feet in height shall be avoided. The Improvement Plans shall be subject to review and approval by the City Engineer.

Alternatively, and at the applicant's discretion, the applicant may submit a site-specific acoustical analysis for a specific development phase where noise barrier locations are recommended in Figure 4.6-2, that is prepared by an acoustical consultant recognized by the City of Folsom to determine confirm whether sound attenuation is needed, taking into account site-specific conditions (e.g. site design, location of structures, building characteristics, building orientation, etc.) in accordance with adopted noise standards. If sound attenuation is determined necessary, the site-specific acoustical analysis shall identify measures to reduce noise impacts to meet the City's noise standards at these locations, including, but not limited to, constructing exterior sound walls, constructing barrier walls and/or berms with vegetation, or other alternative attenuation solution acceptable to the City, provided that the improvement plans are accompanied with the acoustical analysis that confirms whether any proposed alternative solution will meet the adopted City noise standard. The acoustical analysis shall also take into consideration sound attenuation mitigation that may be required of parcels adjacent to the noise barriers.

Mitigation Measure 4.6-3(b): In conjunction with submittal of the Building Permit for the residential uses with direct exposure to US 50 traffic noise, the applicant shall provide detailed analysis of interior noise levels conducted by a qualified acoustical consultant recognized by the City of Folsom. The analysis shall include detailed noise control measures that are required to achieve compliance with the City of Folsom 45 dB Ldn interior noise level standard. The noise control measures may include, but are not limited to, installing windows with an STC rating of 35 to 38 for second floor facades and the use of resilient channels for walls parallel to US 50. The construction drawing for the residential uses with direct exposure to US 50 traffic noise shall denote any recommended noise control measures resulting from the analysis, subject to review and approval by the City Community Development Director.

Mitigation Measure 4.6-3(c): In conjunction with submittal of Building Permits, the applicant shall show on the plans that mechanical ventilation shall be installed in all residential uses to allow residents to keep doors and windows closed, as desired for acoustical isolation. The building plans shall be subject to review and approval by the City Community Development Director.

Mitigation Measure 4.6-5: Implement Mitigation Measures 4.6-3(a) through 4.6-3(c).

Mitigation Measure 3A.18-1 (FPASP EIR/EIS): Submit Proof of Surface Water Supply Availability.

Mitigation Measure 3A.18-2a (FPASP EIR/EIS): Submit Proof of Adequate Off-Site Water Conveyance Facilities and Implement Off-Site Infrastructure Service System or Ensure That Adequate Financing Is Secured.

Mitigation Measure 3A.18-2b: (FPASP EIR/EIS): Demonstrate Adequate Off-Site Water Treatment Capacity (if the Off-Site Water Treatment Plant Option is Selected)

Mitigation Measure 3A.16-1 (FPASP EIR/EIS): Submit Proof of Adequate On- and Off-Site Wastewater Conveyance Facilities and Implement On- and Off-Site Infrastructure Service Systems or Ensure That Adequate Financing Is Secured.

Mitigation Measure 3A.16-3 (FPASP EIR/EIS): Demonstrate Adequate SRWTP Wastewater Treatment Capacity.

Mitigation Measure 3A.14-2 (FP ASP EIR/EIS): Incorporate California Fire Code; City of Folsom Fire Code Requirements; and EDHFD Requirements, if Necessary, into Project Design and Submit Project Design to the City of Folsom Fire Department for Review and Approval.

Mitigation Measure 3A.14-3 (FP ASP EIR/EIS): Incorporate Fire Flow Requirements into Project Designs.

Mitigation Measure 3A.3-1a: (FPASP EIR/EIS): Design Stormwater Drainage Plans and Erosion and Sediment Control Plans to Avoid and Minimize Erosion and Runoff to All Wetlands and Other Waters That Are to Remain on the SPA (*FPASP area*) and Use Low Impact Development Features.

Mitigation Measure 3A.7-3: (FPASP EIR/EIS): Prepare and Implement the Appropriate Grading and Erosion Control Plan.

Mitigation Measure 3A.7-5 (FPASP EIR/EIS): Divert Seasonal Water Flows Away from Building Foundations

Mitigation Measure 3A.9-1 (FPASP EIR/EIS): Acquire Appropriate Regulatory Permits and Prepare and Implement SWPPP and BMPs.

Mitigation Measure 3A.9-2: **(FPASP EIR/EIS):** Prepare and Submit Final Drainage Plans and Implement Requirements Contained in Those Plans.

Mitigation Measure 3A.9-3 (FPASP EIR/EIS): Develop and Implement a BMP and Water Quality Maintenance Plan.

Initial Study VI-1: Prior to issuance of a grading permit, the applicant shall submit to the Engineering Division, for review and approval, a grading plan for the project site which ensures that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the design.

Initial Study VI-2: All foundation plans shall be reviewed and approved by the Building Safety Division, respectively, prior to issuance of building permits to ensure that all geotechnical recommendations specified in the geotechnical report are properly incorporated and utilized in the design.

Initial Study VI-3: Prior to initiation of ground disturbance, a geotechnical engineer shall develop a program to monitor the sites during construction to ensure compliance with the recommendations presented in the geotechnical report(s) and conditions for performing such monitoring. The geotechnical monitoring program shall include a description of the improvements areas where geotechnical monitoring shall be required. The monitoring program shall be subject to review and approval by the Folsom Community Development Department.