

5.8 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

This section addresses potential hazards at the proposed project site, including existing environmental contamination. It also covers the use of hazardous materials and the generation of hazardous waste. This analysis is based on [a-Phase I and Phase II Environmental Site Assessments](#) by ERM in 2011 ([ERM 2011a and 2011b](#)) and on a search of the State Water Resources Control Board's GeoTracker Database and California Department of Forestry and Fire Protection maps.

5.8.1 Setting

The topography of the proposed substation site and the vicinity slopes gently to the south and west. The proposed substation site was previously developed and contains remnant structures consisting of four concrete cinder block walls from one of the former commercial buildings and a small wood shed. There is also evidence of subsurface infrastructure features associated with the former industrial use of the site. There are low concentrations of fuel(s), oil(s), and chlorinated solvents present in the soil and shallow groundwater at the substation site (ERM 2011a, ERM 2011b, PG&E 2011). This contamination could be related to on-site activities, off-site sources, or a combination of both. Arsenic and cobalt were both detected in the soil in excess of industrial screening levels; however, the levels of arsenic and cobalt may represent natural soil conditions (PG&E 2011). Detections of metals in the soil also appear to be related to natural background concentrations; however, this cannot be definitively established with

existing data (PG&E 2011). It is also possible that higher concentrations of regulated hazardous substances are present in areas that were not sampled.

Testing also detected low concentrations of range of volatile organic compounds (VOCs) in soil vapor. Most of the detected compounds are characteristic of fuel or oil. Chlorinated VOC cis-1-, 2-Dichloroethene (1, 2-DCE) was also detected at one sampling location. Xylenes were detected in one groundwater sample location, but were below the established Environmental Screening Level and California Maximum Containment Level. The groundwater sample may represent seasonal, perched water rather than the shallowest aquifer at the site, which is reported to occur at approximately 35 feet below ground surface (bgs) at a nearby site. Samples were not taken at any intervals deeper than 5.5 to 6 feet bgs; therefore, some compounds of concern may be present in deeper groundwater (PG&E 2011).

There have been 13 documented releases of known hazardous materials within 1,000 feet of the project corridor.¹¹ The results of a GeoTracker search for known contamination in areas within 1,000 feet of the substation site and the distribution lines are in Table 5.8-1. The majority of the facilities listed have low potential to affect soil and groundwater beneath the station site due to their distance from the site, the nature of the contamination, and the status of remediation. GeoTracker data indicate that there are nine open cases of known contamination within 1,000 feet of the project corridor. Two of these are moderately likely to affect soil that would be encountered during distribution line work. An additional three sites have a low potential to be encountered, and two sites are under investigation.

The sections below describe potential hazards.

Hazardous Materials. The proposed substation would include three 30-megavolt ampere (MVA) transformers. Each transformer would contain approximately 5,000 gallons of mineral oil used as a coolant. The mineral oil that would be used at the substation would not contain polycarbonated biphenyls (PCB). The substation would be equipped with a retention basin that would meet Spill Prevention, Countermeasure, and Control (SPCC) Guidelines (40 CFR 112). The SPCC basin would be sufficiently sized to contain all of the transformer coolant liquid from the transformer, as well as 10 percent of additional space to allow for rainwater.

Lead-acid batteries would be installed at the substation to provide backup power for monitoring, alarms, protective relaying, instrumentation and control, and emergency lighting during power outages. Containment would be constructed around and under the battery racks according to SPCC Guidelines for containment of a battery leak. In addition, cylinders of compressed nitrogen gas would be used to maintain a slight pressure on oil-filled electric equipment. This would keep out moisture that could potentially damage equipment.

Electrocution Risk. The proposed substation could pose an electric shock hazard to site trespassers. The tie in from the Fulton No. 1 60 kV power line to the proposed substation would be in accordance with CPUC's Order 95 Guidelines for safe ground clearances established to protect the public from electric shock. In addition, a 10-foot tall wall and fencing around the proposed project site would restrict site access and minimize potential exposure to electric shock hazards. Warning signs also would be posted related to potential electrical hazards.

¹¹ The project corridor consists of the substation property boundary, a 20-foot buffer around distribution lines, and a 50 foot buffer around poles.

Table 5.8-1. Summary of Areas of Concern – Windsor Substation and Associated Distribution Line Improvement Areas

Site Name/Address (Windsor)	Contamination Suspected	Media Affected	Site Status	Distance from Project Corridor	Potential to Affect Project	Rationale
Windsor Chevron 9120 Old Redwood Highway	Gasoline, Waste Oil / Motor / Hydraulic / Lubricating	Well used for drinking water supply	Open – Remediation	218.38 ft Northeast	Low	In 1999, two underground storage tanks (USTs) were removed from the site. From 2004 through 2007 the site was investigated. Site closed on 7/23/2010.
Circle K Store (former) 290 Windsor River Rd	Gasoline	Aquifer used for drinking water supply	Open – Site Assessment	771.31 ft Southeast	Low	Former convenience store and gas station. In 1987 three USTs were removed and petroleum hydrocarbons detected in soil samples. After monitoring, groundwater and soil vapor remediation began in 1997. As of 2002, remediation efforts included groundwater extraction and the installation of a Spray Aeration and Vapor Extraction (SAVE) system.
Empire Waste Management 10611 Old Redwood Highway	Gasoline	Aquifer used for drinking water supply	Completed – Case Closed	314.23 East	None	Case completed on October 5, 1994.
Phils (former) 10221 Old Redwood Highway	Gasoline	Aquifer used for drinking water supply	Completed – case closed	In Project Corridor	None	Case completed on September 6, 2011.
West Coast Metals 10439 Old Redwood Highway	Gasoline	Under investigation	Open – Inactive	112.07 Southwest	Unknown	Site under investigation as of March 27, 2009
Red Door Tavern 9551 Old Redwood Highway	Gasoline	Soil	Completed – case closed	68.57 ft Southwest	None	Case completed May 31, 2001.
Windsor Fuel 9600 Old Redwood Highway	Gasoline, Waste Oil / Motor / Hydraulic / Lubricating	Aquifer used for drinking water supply	Open – Assessment and Interim Remedial Action	62.82 ft Southwest	Moderate	The site is an active fuel distributor with multiple USTs removed. Soil and groundwater have been impacted with heavy weight petroleum hydrocarbons, and the extent of contamination defined. The plume does not appear to be migrating. A Feasibility Study/ Corrective Action Plan (FS/CAP) includes excavation of impacted soils when site is redeveloped, and as of July 2011 monitoring was reduced until redevelopment begins.
Godfrey Property 9661 Old Redwood Highway	Gasoline	Aquifer used for drinking water supply	Completed – case closed	135.02 ft Southwest	None	Case completed May 28, 1996.

Table 5.8-1. Summary of Areas of Concern – Windsor Substation and Associated Distribution Line Improvement Areas

Site Name/Address (Windsor)	Contamination Suspected	Media Affected	Site Status	Distance from Project Corridor	Potential to Affect Project	Rationale
Aaction Rents 10510 Old Redwood Highway	Gasoline, Diesel	Aquifer used for drinking water supply	Completed – case closed	205.15 ft Northeast	None	Case completed July 23, 2010.
Godoy Property 9397 Old Redwood Highway	Gasoline	Aquifer used for drinking water supply	Completed – case closed	63.95 ft Southwest	None	Case completed May 24, 2000.
Banks Property 340 Windsor River Road	Gasoline	Aquifer used for drinking water supply	Open – Site Assessment	364.82 ft South	Low	Two USTs were removed from the site in 1992. In 1995 the former tank area was overexcavated, and a 350 gallon waste oil tank was discovered. The site was investigated from 2000-2008 when a FS/CAP was prepared.
SCDPW Windsor Phase I Old Redwood Highway	Aviation	Under investigation	Open – Inactive	8.06 ft Northeast	Unknown	Site under investigation as of September 8, 2008.
Shell Service Station 9033 Old Redwood Highway	Gasoline, Diesel, Waste Oil / Motor / Hydraulic / Lubricating	Aquifer used for drinking water supply	Open – Remediation	153.43 ft East	Moderate	In 1987, a former waste oil tank was removed from the site and petroleum hydrocarbons, oil, and grease contamination discovered. Remediation efforts include Soil Vapor Extraction (SVE) in 1997-1999 which was shut down due to ineffectiveness. Groundwater extraction in 2004 removed some contaminants from the site. Site monitoring was ongoing as of March 2010.

Source: State Water Resources Control Board 2011 – GeoTracker

Fire Risk. The proposed project would be located in a moderate fire hazard severity zone according to the California Department of Forestry and Fire Protection Fire Hazard Severity Zone Maps (CALFIRE 2007). However, construction of the proposed project would occur in an urban area with no adjacent wildlands. The areas directly surrounding the proposed substation site are developed or open space comprised largely of annual grasses dominated by weeds. The areas surrounding the 12 kV distribution line along Old Redwood Highway and the Fulton No. 1 60 kV Power Line are mostly ruderal, grasslands, and woodland habitats as well as developed areas and residences. The Windsor Fire Protection District serves the Town of Windsor under a joint powers agreement with the Rincon Valley Fire District (WFPD 2011). The area of the proposed substation is served by the Windsor Fire Station Two. This station is staffed 24 hours per day. Windsor Road is a primary emergency access road for the Windsor Fire Station Two (PG&E 2011).

Air Transportation. The proposed project site is located approximately 3.6 miles northwest of the Charles M. Schulz Sonoma County Airport (Sonoma County Airport). It is outside both the Comprehensive Airport Land Use Plan Safety Zones and the Relocated Comprehensive Airport Land Use Plan Safety Zones as proposed in the Draft Environmental Impact Report for the Charles M. Schulz – Sonoma County Airport Master Plan Implementation Project (Sonoma County 2011). See Section 5.16, Traffic and Transportation, for discussion of potential impacts to public safety due to the location of an airstrip in the proposed project vicinity.

Electromagnetic Fields. Electric voltage and electric current from transmission lines create electromagnetic fields (EMF). Possible health effects associated with exposure to EMF have been the subject of scientific investigation since the 1970s. There continues to be public concern about the health effects of EMF exposure; however, EMF is not addressed here as an environmental impact under CEQA. The CPUC has repeatedly recognized that EMF is not an environmental impact to be analyzed in the context of CEQA because (1) there is no agreement among scientists that EMF does create a potential health risk, and (2) there are no defined or adopted CEQA standards for defining health risks from EMF. Section 4.16 provides greater detail regarding EMF and lists PG&E's "no cost" and "low cost" magnetic field reduction steps in the design of the proposed substation in accordance with Section X(A) of GO 131-D, CPUC Decision No. D.06-01-042, and PG&E's EMF Design Guidelines.

Regulatory Setting

Hazardous substances are defined by federal and State regulations, which aim to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous substances are defined in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and also in the California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261, which provides the following definition:

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA). The federal Toxic Substances Control Act and RCRA established a program administered by the U.S. Environmental Protection Agency (EPA) for regulating the generation, transportation, treatment,

storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA, including the Superfund program, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Clean Water Act/SPCC Rule. The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The proposed project is within the jurisdiction of the North Coast RWQCB.

Section 402 of the Clean Water Act authorizes the California State Water Resources Control Board to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the “General Construction Permit.” Construction activities can comply with and be covered under the General Construction Permit provided that they:

- ¾ Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters;
- ¾ Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation; and
- ¾ Perform inspections of all BMPs.

As part of the CWA, the U.S. EPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112) which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare, amend and implement SPCC Plans. A facility is subject to SPCC regulations if a single oil (or gasoline, or diesel fuel) storage tank has a capacity greater than 660 gallons, or the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the “Navigable Waters” of the United States.

CPUC General Order (GO) 95: Rules for Overhead Electric Line Construction. GO 95 is the key standard governing the design, construction, operation, and maintenance of overhead electric lines in the State. It was adopted in 1941 and updated most recently in 2006. GO 95 includes safety standards for overhead electric lines, including minimum distances for conductor spacing, minimum conductor ground clearance, standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements.

CCR Title 24, Part 9. California Fire Code (2007). The California Fire Code establishes fire-safe building standards and practices, including emergency ingress and egress. Sonoma County has adopted the California Fire Code, with amendments, as the County Fire Code.

California Environmental Protection Agency (Cal/EPA). Cal/EPA created in 1991, unified California's environmental authority in a single cabinet-level agency and brought the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board (IWMB), Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA "umbrella" for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Cal/EPA's mission is to restore, protect, and enhance the environment, and to ensure public health, environmental quality, and economic vitality.

California Hazardous Waste Control Law (HWCL). California's HWCL is administered by Cal/EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Department of Toxic Substances Control (DTSC). DTSC is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California and implements the federal program primarily under the authority of the HWCL and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

Hazardous Materials Release Response Plans and Inventory Act of 1985. The California Health and Safety Code, Division 20, Chapter 6.95, known as the Hazardous Materials Release Response Plans and Inventory Act or the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Businesses must submit this information to the County Environmental Health Division. The Environmental Health Division verifies the information and provides it to agencies responsible for protection of public health and safety and the environment. Business Plans are required to include emergency response plans and

procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:

- ¾ Immediate notification to the administering agency and to the appropriate local emergency rescue personnel.
- ¾ Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
- ¾ Evacuation plans and procedures, including immediate notice, for the business site.

Business Plans are also required to include training for all new employees, and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are: Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting); Aboveground Petroleum Storage Tank Spill Prevention Control and Countermeasure Plan (SPCC); Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or “Community-Right-To-Know”); California Accidental Release Prevention Program (Cal ARP); Underground Storage Tank Program; and Uniform Fire Code Plans and Inventory Requirements. The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

California Department of Pesticide Regulation. The California Department of Pesticide Regulation’s Licensing and Certification Program is responsible for examining and licensing qualified pesticide and herbicide applicators and for certifying pesticide and herbicide applicators who use or supervise the use of restricted pesticides and herbicides. The Department of Pesticide Regulation regulates the use of pesticides and herbicides under the authority of the California Code of Regulations, Title 3, Division 6.

California Department of Transportation (Caltrans). An oversize/overweight permit is required for the transportation of any load greater than 80,000 pounds on State Highways and Interstate Highways within California under Section 35780 of Division 15 of the California Vehicle Code. The proposed project’s substation transformers weigh approximately 150,000 pounds each and would be subject to this permitting requirement. Oversize/overweight permits are considered on a case-by-case basis but may include requirements such as California Highway Patrol escort, special speed limits, and other restrictions.

Sonoma County. The Hazardous Materials Management Services branch of the Sonoma County Health Department’s Environmental Health Division is the Certified Unified Program Agency (CUPA) for Sonoma County. It is responsible for enforcement of the following programs for the project vicinity: Hazardous Material Business Plan and Inventory Program; California Accidental Release Prevention Program; Hazardous Waste Generator Program; Hazardous Waste Onsite Treatment; Underground Storage Tank Pro-

gram; Above Ground Petroleum Storage Tank Program; and the Uniform Fire Code as it relates to hazardous materials.

5.8.2 Environmental Impacts and Mitigation Measures

PG&E proposes to implement measures during the design, construction, and operation of the proposed project to ensure it would occur with minimal environmental impacts in a manner consistent with applicable rules and regulations. Applicant Proposed Measures (APMs) are considered part of the proposed project in the evaluation of environmental impacts. CPUC approval would be based upon PG&E adhering to the proposed project as described in this document, including this project description and the APMs (see Table 4-5 in the Project Description), as well as any adopted mitigation measures identified by this Initial Study.

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT. Hazardous materials used during construction would consist primarily of small volumes of petroleum hydrocarbons and their derivatives (e.g., fuels, oils, lubricants, and solvents) required for operating equipment used during construction/installation (PG&E 2010). These materials are routinely used during construction activities. A Hazardous Substance Control and Emergency Response Plan (**APM HM-1**) for the proposed project would prescribe hazardous material handling procedures to reduce the potential for a spill during construction or exposure of workers or the public to hazardous materials. Environmental and construction safety training would be conducted prior to construction to educate workers of potential safety issues. As described in **APM HM-2**, emergency spill response and clean-up kits would be on site and immediately accessible in case of an accidental release of a hazardous fluid or material. Minor spills or releases of hazardous materials could occur due to improper handling and/or storage practices during construction activities. These potential impacts would be avoided by PG&E through the implementation of a site-specific Construction Storm Water Pollution Prevention Plan (SWPPP) and by training construction personnel in the handling and storage of hazardous materials in compliance with OSHA standards, as described in **APM HM-3**. Development and implementation of the SWPPP is described in more detail in Section 5.9 (Hydrology and Water Quality) under **APMs WQ-2** and **APM WQ-4**. PG&E would also prepare a Spill Prevention, Control, and Countermeasure (SPCC) plan. Requirements for the SPCC are described **APM WQ-5**. In addition, **APM WQ-7** requires that construction work avoid all wetlands, swales, and drainages during construction if possible. If waters cannot be avoided, work would only be performed in these areas outside the wet season. Finally, **APM WQ-8** prohibits handling vehicle maintenance wastes within 100 feet of waterbodies. Compliance with RCRA and Cal/EPA's HWCL and implementation of the aforementioned APMs would ensure that impacts from transport, use, and disposal of hazardous materials during construction would be less than significant.

During the construction phase, large quantities of transformer oil would be transported to the site for use in the substation transformers. Soil, surface water, groundwater, or members of the public could be significantly impacted if a spill of motor vehicle fuel or transformer fluid were to occur as a result of transportation of these materials to the site for project construction. However, such materials are routinely and safely transported on public roadways. The transport of large quantities of hazardous materials is strictly regulated by the CHP, and the transport of oversize/overweight loads is regulated by Caltrans. Large quantities of hazardous materials used during project construction would be transported along regulated routes by a licensed transporter, and would not pose a significant hazard to people or the environment.

Operation and maintenance of the proposed substation would involve periodic transport, use, and disposal of minor amounts of hazardous materials, primarily mineral oil and petroleum products (lubricating and insulating oils). Proper handling of these materials would prevent any significant hazards to the public or the environment by reducing the potential for a spill. As mentioned above, PG&E would prepare a SPCC Plan for the substation prior to any equipment containing oil being brought to the site, and the substation design would include spill control features, including a spill retention basin. Compressed nitrogen gas would be used on oil-filled equipment. Release of nitrogen gas could occur if a cylinder valve is broken off. Accidental loss of nitrogen gas would be prevented by properly confining the valves. Personnel who move cylinders would do so only when protective caps are in place over the valves. The new oil-filled transformer would be installed, operated, and maintained in accordance with the SPCC plan. The SPCC and procedures for vehicle maintenance are described in **APM WQ-5** and **APM WQ-8**. With the implementation of these APMs and compliance with all relevant regulations related to handling of hazardous materials, impacts from operation and maintenance of the proposed project would be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

LESS THAN SIGNIFICANT. The proposed project requires construction activities adjacent to one roadside ditch, two drainage ditches, and a seasonal wetland. Additionally, the distribution line activities require pole removal and distribution line improvements adjacent to roadside ditches, drainages, seasonal wetlands, and Starr Creek. These construction activities have the potential to inadvertently release petroleum hydrocarbons and other contaminants into waterways. PG&E would implement hazardous materials and water quality BMPs described in **APMs HM-1, HM-2, HM-3** and **APMs WQ-2, WQ-4, WQ-5, WQ-10**. With the implementation of these measures, potential impacts from upset or accidental spills of hazardous materials during construction and during project operations and maintenance would be less than significant. Refer to section 5.9, Hydrology and Water Quality, for a complete discussion of potential impacts to waterways.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS THAN SIGNIFICANT. There is one school (Windsor Christian Academy/First Baptist School) within approximately 500 feet (0.1 miles) of the Fulton No. 1 60 kV power line. A field for the school is 60 feet from the power line. The school building is 2,100 feet (0.4 miles) from the proposed substation site. Work on the Fulton No. 1 60 kV power line would be localized and temporary. With the implementation of APMs related to minimizing impacts of hazardous materials (**APMs HM-1, HM-2, and HM-3**), potential impacts related to the school would be less than significant.

d. Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or the environment?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The Cortese List includes hazardous waste facilities, contaminated drinking water wells, sites listed as having underground storage tank leaks that have discharged into surface water or groundwater, and other sites with known spills of hazardous materials or waste. The database search for the proposed substation site (ERM 2011a and ERM 2011b) reveals that the proposed substation site is not listed on the Cortese List. However, low concentrations of hazardous materials, fuel(s), oil(s), and chlorinated solvents, are present in the soil, soil vapor, and shallow

groundwater at the site. The concentrations of the detected chemicals are generally not within ranges that would result in regulatory enforcement. However, it is possible that higher concentrations of regulated hazardous substances are present in areas that were not sampled, including in deeper groundwater (PG&E 2011). A GeoTracker search for the substation site and associated distribution line areas found nine open cases of known hazardous materials contamination within 1,000 feet of the substation site and the associated distribution line areas.

For this analysis, soil that is excavated from a site containing hazardous materials would be considered to be a hazardous waste if it exceeded specific CCR Title 22 criteria or criteria defined in CERCLA or other relevant federal regulations. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site would be required. Even if soils or groundwater at a contaminated site do not have the characteristics required to be defined as hazardous wastes, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking lead jurisdiction.

PG&E's APM HM-1 and PG&E BMPs for proper handling, reporting, transporting, and disposal would provide the necessary training for workers and proper response procedures. APM HM-4 specifies that if contaminated soils or groundwater are encountered, appropriate abatement actions would be implemented in accordance with applicable regulatory requirements. These measures do not specify how or who will determine if regulatory limits are exceeded, and if laboratory data is not properly interpreted environmentally contaminated soil or groundwater could be improperly handled and disposed of resulting in additional environmental contamination or exposure of workers to contaminated materials. **Mitigation Measure Haz-1** is recommended to ensure proper sampling, data review, regulatory coordination, and documentation of compliance. With the implementation of APM HM-1, APM HM-2, and Mitigation Measure Haz-1, impacts related to encountering contaminated soil would be less than significant.

Haz-1 **If contaminated soil is encountered, ensure proper sampling, data review, regulatory coordination, and documentation of compliance.** If construction crews uncover unanticipated buried contaminated soils, rock, or groundwater during substation construction or excavation activities associated with distribution work, samples shall be collected by an OSHA-trained technician with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer and/or PG&E's representative and they shall coordinate with the appropriate regulatory agency if contamination is confirmed, to determine the suitable level of worker protection and the necessary handling and/or disposal requirements.

If during grading or excavation work, the contractor observes visual or olfactory evidence of contamination in the exposed soil, a report of the location and the potential contamination, results of laboratory testing, recommended mitigation (if contamination is verified), and actions taken shall be submitted to the CPUC for each event. This report shall be submitted within 30 days of receipt of laboratory data.

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, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The proposed substation site is 3.6 miles northwest of the end of the Sonoma County Airport runway. The new distribution line poles would be 2.17 miles northwest from the end of the Sonoma County Airport runway. Neither the proposed substation nor the distribution poles are within the Com-

prehensive Airport Land Use Plan Safety Zones and the Relocated Comprehensive Airport Land Use Plan Safety Zones as proposed in the Draft Environmental Impact Report for the Charles M. Schulz – Sonoma County Airport Master Plan Implementation Project (Sonoma County 2011). The proposed project would not be located within two miles of a public airport nor would it interfere with or extend into navigable airspace. The height and dimensions of the proposed project comply with all federal, state and local requirements. There would be no potential impacts to the safety of persons working or residing within the proposed project area associated with aircraft operations. See section 5.16, Transportation and Traffic for further analyses of potential impacts associated with the proposed project's proximity to the airport.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. No private airstrips are within the vicinity of the proposed substation site; therefore, there would be no potential impact to public safety associated with private airstrip operations. The nearest private airstrip is the Santa Rosa Memorial Hospital Heliport, approximately 10 miles from the substation site. The Charles M. Schulz Sonoma Airport, a public airport, is approximately 2.5 miles from the southern end of the project corridor (AOPA 2012).

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Windsor Road south of the transmission line reconducting is a primary emergency access for the Windsor Fire Station Two (PG&E 2011). Reconducting activities would occur at the intersection of Windsor Road and Windsor River Road and along Old Redwood Highway. Temporary road closures would be required during underground cable installation, pole removal and installation, and conductor stringing activities. Road closures could lengthen the response time required for emergency vehicles passing through the construction zone. Implementing **Mitigation Measure T-2** (Ensure emergency response access), described in Section 5.16, Transportation and Traffic, would ensure advance coordination with emergency service providers to avoid restricting movements of emergency vehicles. With the implementation of this measure, impacts would be less than significant.

h. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

LESS THAN SIGNIFICANT. Construction of the proposed project would occur in an urban area. There are no adjacent wildlands that would expose people or structures to fire risks from wildfire. The areas directly surrounding the proposed substation site are developed or open space comprised largely of annual grasses dominated by weeds or contain portions of gravel. The areas surrounding the 12 kV distribution line along Old Redwood Highway and the Fulton No. 1 60 kV Power Line are mostly ruderal, grasslands, and woodland habitats as well as developed areas and residences. These grasslands areas can be susceptible to fires, though not on a wildfire scale.

Heat or sparks from vehicles or equipment have the potential to ignite dry vegetation and cause a fire. Risk of fire would be reduced since all vehicles and equipment would use predominantly existing roads to access the site; all roads to the project site, including one new access road would be paved. In addition, most of the proposed 4.11-acre substation site was previously developed, and any remaining vegetation would be cleared during the initial grading activities. PG&E would require construction crews to

carry fire extinguishing equipment, prohibit trash burning, restrict smoking to cleared areas, and designate parking areas away from any remaining dry vegetation to reduce potential ignition of unforeseen fire hazards at or near the project site (PG&E 2010). By following these preventative measures, the fire-related impacts from construction activities would be less than significant.

Since the proposed project involves the transmission of electricity, operation of the proposed substation and power lines would pose a potential fire hazard. Incidents such as downed power lines or equipment failure could generate sparks and start a fire. PG&E routinely installs high-speed relay equipment that senses broken lines and automatically de-energize the lines in milliseconds. Additionally, the area within the walled/fenced substation would be maintained free of vegetation and combustible materials, and the overhead power lines would remain clear of vegetation as required by the CPUC. Therefore, operational impacts to people and structures from wildland fires would be less than significant.

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