

CITY OF VALLEJO NOTICE TO INTENT TO ADOPT A NEGATIVE DECLARATION AND HOLD A PUBLIC HEARING

NOTICE IS HEREBY GIVEN that City of Vallejo has prepared a **Draft Initial Study/ Negative Declaration** pursuant to the requirements of the California Environmental Quality Act and Resolution 96-447 N.C. adopted by the Vallejo City Council on December 10, 1996 for the below described project. The project applies to all of the incorporated City of Vallejo, a project area that includes sites listed as hazardous materials sites compiled pursuant to Government Code §65962.5.

LEAD AGENCY:

City of Vallejo

Economic Development Department, Planning Division

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CONTACT PERSON:

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PROJECT TITLE:

City of Vallejo, Climate Action Plan

PROJECT LOCATION:

Vallejo, CA

PROJECT DESCRIPTION: The proposed project involves preparation of a Climate Action Plan (CAP) to identify measures and actions intended to reduce greenhouse gas (GHG) emissions below the level of emission that existed in 2008. The Vallejo CAP is the beginning of an ongoing planning process that enables the City to comply with state legislation related to GHG emissions. The purpose of the Climate Action Plan is to identify how the City will achieve the state-recommended GHG emission reduction target of 15% below 2008 levels by the year 2020 and to create a path to obtain 2050 state targets associated with Governor's Executive Order S-03-05. The CAP provides goals and associated measures, also referred to as GHG reduction measures, in the sectors of energy use, transportation, land use, water, wastewater, off-road equipment, and solid waste. In addition, the CAP provides goals and measures for longer-term adaptation to the potential risks of climate change.

PUBLIC REVIEW PERIOD: August 22, 2011 to September 21, 2011 at 5:00 pm.

A 30 day public review period for the Draft Initial Study/Negative Declaration will commence on Monday, August 22, 2011 and end on Wednesday, September 21, 2011 at 5:00 pm. Written comments on the Draft Initial Study/Negative Declaration must be received at the above address within the public review period. Comments can also be made during the public hearing. The Draft Climate Action Plan and Draft Initial Study/Negative Declaration is available for review via the City Webpage (http://www.ci.vallejo.ca.us/GovSite/) and copies are also available at the Economic Development Department, Planning Division located at 555 Santa Clara Street in Vallejo, and at the JFK Library located at 505 Santa Clara Street.

PUBLIC HEARING:

October 3, 2011

The City of Vallejo Planning Commission will hold a public hearing to consider adoption of the Negative Declaration and Climate Action Plan at 7:00 pm on **Monday, October 3, 20111** in the City Council Chambers at 555 Santa Clara Street, Vallejo.

DATE OF NOTICE:

August 15, 2011

MICHELLE HIGHTOWER Acting Planning Manager



INITIAL ENVIRONMENTAL STUDY/NEGATIVE DECLARATION FOR THE CITY OF VALLEJO CLIMATE ACTION PLAN

LEAD AGENCY:
CITY OF VALLEJO
555 SANTA CLARA STREET
VALLEJO, CA 94590

AUGUST 18, 2011

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1.0 Introduction

This Initial Study (IS) and Negative Declaration (ND) have been prepared pursuant to the California Environmental Quality Act (CEQA), for the City of Vallejo Climate Action Plan (referred to as the 2011 CAP or the Climate Action Plan). This ND has been prepared in accordance with CEQA, Public Resources Code Sections 21000 et seq., and the CEQA Guidelines.

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment. In accordance with CEQA Guidelines, Section 15064, an environmental impact report (EIR) must be prepared if the Initial Study indicates that the proposed project under review may have a potentially significant impact on the environment. A negative declaration may be prepared instead, if the lead agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration (ND) shall be prepared for a project subject to CEQA when either:

- a) The Initial Study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
- b) The Initial Study identified potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted into the proposed project in accordance with the CEQA Guidelines Section 15070(b), a mitigated negative declaration (MND) is prepared.

1.1 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on these criteria, the City of Vallejo (City; Vallejo) will serve as lead agency for the 2011 Climate Action Plan (CAP).

1.2 Purpose and Document Organization

The purpose of this Initial Study and Negative Declaration (IS/ND) is to evaluate the potential environmental impacts of the proposed 2011 CAP. This document is divided into the following sections:

1.0 Introduction: Provides an introduction and describes the purpose and organization of this document.

- **2.0 Project Description:** Provides a detailed description of the proposed Climate Action Plan.
- **3.0 Environmental Factors Potentially Affected:** Provides an identification of those environmental factors that involve a "potentially significant impact."
- **4.0 Determination:** Provides the environmental determination for the proposed Climate Action Plan.
- 5.0 Environmental Checklist and Evaluation: Describes the environmental setting for each of the environmental subject areas, evaluates a range of impacts classified as "no impact," "less than significant," "potentially significant unless mitigation incorporated," or "potentially significant" in response to the environmental checklist.
- **6.0** References: Identifies a list of resources utilized.

This IS/ND has been prepared in accordance with the California Environmental Quality Act, Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations (CCR) Section 15000 et seq. This IS/ND is a public document to be used by the City to determine whether the Climate Action Plan may have a significant effect on the environment.

2.0 PROJECT DESCRIPTION

2.1 DESCRIPTION OF THE 2011 CAP

The City of Vallejo proposes to adopt a Climate Action Plan (CAP) to identify measures and actions intended to reduce greenhouse gas (GHG) emissions below the level of emission that existed in 2008. The Vallejo CAP is the beginning of an ongoing planning process that enables the City to comply with state legislation related to GHG emissions. The purpose of the Climate Action Plan is to identify how the City will achieve the state-recommended GHG emission reduction target of 15% below 2008 levels by the year 2020 and to create a path to obtain 2050 state targets associated with Governor's Executive Order S-03-05. The CAP provides goals and associated measures, also referred to as GHG reduction measures, in the sectors of energy use, transportation, land use, water, wastewater, off-road equipment, and solid waste. In addition, the CAP provides goals and measures for longer-term adaptation to the potential risks of climate change.

The 2011 CAP provides general information about climate change and how GHG emissions within the city contribute to it, as well as an analysis of the potential effects of climate change on the city. In addition, the 2011 CAP describes the baseline GHG emissions produced in Vallejo and forecasts GHG emissions that could be expected if the 2011 CAP is not implemented. Each proposed strategy is made up of objectives, measures, and actions that would aid in reducing GHG emissions. A list of all of the GHG reduction strategies can be found in the 2011 CAP organized into the following categories:

CITY GOVERNMENT OPERATIONS – Establish Vallejo as a leader in GHG management. By
improving the efficiency of City buildings, vehicles, operations, and water and waste
facilities, City government can model emission reduction measures and programs for
residents and businesses in Vallejo.

- COMMUNITY EDUCATION Educate citizens and businesses about GHG management. Through outreach to students of all ages and to the community, Vallejo will inform citizens and businesses of the ways in which they can support the City's GHG reduction goals.
- **ENERGY Reduce energy demand.** Through energy-efficient improvements, energy conservation, and heat island mitigations, existing and future buildings can optimize energy savings.
- **RENEWABLE ENERGY Support for small-scale renewable energy systems.** Through permit streamlining and financing incentives, the City can reduce traditional energy demand by satisfying a portion through use of renewable systems (e.g., solar, wind, and tidal energy conversion).
- TRANSPORTATION DEMAND MANAGEMENT Reduce single-occupant vehicle trips. By encouraging higher land use densities near transit nodes, improving pedestrian and bicycle infrastructure, modifying parking requirements, enhancing public transit service, and supporting local food systems and supply, the City can discourage single-occupancy vehicle use.
- OPTIMIZED TRAVEL Encourage alternative vehicles and fuels. By supporting highoccupancy vehicle (HOV) lanes and the creation of facilities to encourage ride sharing and alternative fuel vehicles, the City can minimize emissions for each vehicle trip.
- WATER, WASTEWATER, AND SOLID WASTE Minimize waste and optimize conservation. By implementing water conservation measures for both indoor and outdoor water use; encouraging use of greywater, recycled water, and rainwater; and building on past City successes in increasing waste diversion rates and educating residents to become well-informed consumers, Vallejo can reduce water-related energy use and reduce the amount of solid waste sent to landfills.
- OFF-ROAD EQUIPMENT Reduce GHG emissions from off-road equipment. By encouraging the use of electric, compressed natural gas (CNG), or higher efficiency construction and garden equipment, the City can reduce off-road GHG emissions.

The 2011 CAP is a project under CEQA and is subject to environmental review. No specific development projects are proposed as part of the 2011 CAP, and no changes in existing land use zones or densities, nor any changes to land use regulations, are proposed. The 2011 CAP is consistent with the land uses envisioned in the current Vallejo General Plan (GP) and does not require rezoning or changes to the land use designation of any specific properties, nor does it require changes to the Zoning Code that would increase density, result in development not envisioned in the GP, or remove policies that currently protect environmental resources. The 2011 CAP provides measures to encourage reductions in the emission of greenhouse gases in accordance with General Plan Policies.

2.2 BACKGROUND

To understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to identify the greenhouse gases that contribute to this phenomenon. Various gases in the earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters earth's atmosphere and a portion is absorbed by the earth's surface. The earth emits this radiation back

toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, the radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O_3), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

For most nonindustrial development projects, motor vehicles make up the bulk of GHG emissions produced on an operational basis. The primary greenhouse gases emitted by motor vehicles include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons (CARB 2004). Following are descriptions of the primary greenhouse gases attributed to global climate change, including a description of their physical properties, primary sources, and contribution to the greenhouse effect.

Carbon Dioxide

Carbon dioxide (CO₂) is a colorless, odorless gas. CO₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO₂ emissions. The atmospheric lifetime of CO₂ is variable because it is so readily exchanged in the atmosphere (USEPA 2008).

Methane

Methane (CH₄) is a colorless, odorless gas that is not flammable under most circumstances. CH₄ is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years (USEPA 2006a).

Nitrous Oxide

Nitrous oxide (N_2O) is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years (USEPA 2006b).

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products.

The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, which has an atmospheric life of 14 years) (USEPA 2006c).

Perfluorocarbons

Perfluorocarbons (PFCs) are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF4), perfluoroethane (C2F6), perfluoropropane (C3F8), perfluorobutane (C4F10), perfluorocyclobutane (C4F8), perfluoropentane (C5F12), and perfluorohexane (C6F14). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF4 and C2F6 as byproducts. The estimated atmospheric lifetimes for CF4 and C2F6 are 50,000 and 10,000 years, respectively (EFCTC 2003; USEPA 2006a).

Sulfur Hexafluoride

Sulfur hexafluoride (SF₆) is an inorganic compound that is colorless, nontoxic, and generally nonflammable. SF₆ is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80% of all SF₆ produced worldwide. Significant leaks occur from aging equipment and during equipment maintenance and servicing. SF₆ has an atmospheric life of 3,200 years (USEPA 2008b).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Gases with high global warming potential, such as HFCs, PFCs, and SF6, are the most heat-absorbent. Methane traps over 21 times more heat per molecule than CO2, and N2O absorbs 310 times more heat per molecule than CO2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO2e), which weight each gas by its global warming potential (GWP). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO2 were being emitted. **Table 1** shows the GWPs for different greenhouse gases for a 100-year time horizon.

TABLE 1
GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES

Greenhouse Gas	Global Warming Potential
Carbon Díoxide (COz)	1
Methane (CH ₄)	21
Nitrous Dioxide (N₂O)	310
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur Hexafluoride (SF ₆)	23,900

Source: BAAQMD 2006

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO₂ in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (CEC 2006).

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7% of total GHG emissions in the state (CEC 2006). This category was followed by the electric power sector (including both in-state and out-of-state sources) (22.2%) and the industrial sector (20.5%) (CEC 2006).

Effects of Global Climate Change

California can draw on substantial scientific research conducted by experts at various state universities and research institutions. With more than a decade of concerted research, scientists have established that the early signs of climate change are already evident in the state — as shown, for example, in increased average temperatures, changes in temperature extremes, reduced snowpack in the Sierra Nevada, sea level rise, and ecological shifts.

Many of these changes are accelerating — locally, across the country, and around the globe. As a result of emissions already released into the atmosphere, California will face intensifying climate changes in coming decades (CNRA 2009). Generally, research indicates that California should expect overall hotter and drier conditions with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures, and accelerating sea level rise. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing (CNRA 2009).

Climate change temperature projections identified in the 2009 California Climate Adaptation Strategy suggest the following (CNRA 2009):

- Average temperature increase is expected to be more pronounced in the summer than in the winter season.
- Inland areas are likely to experience more pronounced warming than coastal regions.
- Heat waves are expected to increase in frequency, with individual heat waves also showing a tendency toward becoming longer, and extending over a larger area, thus more likely to encompass multiple population centers in California at the same time.
- As GHGs remain in the atmosphere for decades, temperature changes over the next 30 to 40 years are already largely determined by past emissions. By 2050, temperatures are projected to increase by an additional 1.8 to 5.4 °F (an increase one to three times as large as that which occurred over the entire 20th century).
- By 2100, the models project temperature increases between 3.6 to 9 °F.

Precipitation levels are expected to change over the 21st century, though models differ in determining where and how much rain and snowfall patterns will change (CNRA 2009). Eleven out of 12 precipitation models run by the Scripps Institution of Oceanography suggest a small to significant (12–35%) overall decrease in precipitation levels by mid-century (CNRA 2009). In addition, higher temperatures increase evaporation and make for a generally drier climate, as higher temperatures hasten snowmelt. Moreover, the 2009 California Climate Adaptation Strategy concludes that more precipitation will fall as rain rather than as snow, with important implications for water management in the state. California communities have largely depended on runoff from yearly established snowpack to provide the water supplies during the warmer, drier months of late spring, summer, and early autumn. With rainfall and meltwater running off earlier in the year, the state will face increasing challenges of storing the water for the dry season while protecting Californians downstream from floodwaters during the wet season.

Changes in average temperature and precipitation are significant. Yet gradual changes in average conditions are not all for which California must prepare. In the next few decades, it is likely that the state will face a growing number of climate change-related extreme events such as heat waves, wildfires, droughts, and floods. Because communities, infrastructure, and other assets are at risk, such events can cause significant damages and are already responsible for a large fraction of near-term climate-related impacts every year (CNRA 2009).

Most climate projections developed to date, including those used in this report, produce gradual if sometimes substantial changes for a given climate variable. In the past, rapid climate changes have been observed and scientists are increasingly concerned about additional abrupt changes that could push natural systems past thresholds beyond which they could not recover. Such events have been recorded in paleoclimatological records but current global climate models cannot predict when they may occur again (CNRA 2009). Such abrupt changes have been shown to occur over very short periods of time (a few years to decades) and thus represent the most challenging situations to which society and ecosystems would need to adapt (CNRA 2009). Short of being able to predict such abrupt changes, scientists are focusing their attention on aspects of the climate and earth system called "tipping elements" that can rapidly bring about abrupt changes.

Tipping elements refer to thresholds where increases in temperature cause a chain reaction of mutually reinforcing physical processes in the earth's dynamic cycles. The most dangerous of these include the following: (CNRA 2009)

- A reduction in Arctic sea ice, which allows the (darker) polar oceans to absorb more sunlight, thereby increasing regional warming, accelerating sea ice melting even further, and enhancing Arctic warming over neighboring (currently frozen) land areas.
- The release of methane (a potent GHG), which is currently trapped in frozen ground (permafrost) in the Arctic tundra, will increase with regional warming and melting of the ground, leading to further and more rapid warming and resulting in increased permafrost melting.
- Continued warming in the Amazon could cause significant rainfall loss and large-scale dying of forest vegetation, which will further release CO2.
- The accelerated melting of Greenland and West Antarctic ice sheets observed in recent times, together with regional warming over land and in the oceans, involves mechanisms that can reinforce the loss of ice and increase the rate of global sea level rise.

According to the 2009 California Climate Adaptation Strategy, the impacts of global warming in California have the potential to include, but are not limited to, the following areas:

Public Health

Climate change is expected to lead to an increase in ambient (i.e., outdoor) average air temperature, with greater increases expected in summer than in winter months. Larger temperature increases are anticipated in inland communities as compared to the California coast. The potential health impacts from sustained and significantly higher than average temperatures include heat stroke, heat exhaustion, and the exacerbation of existing medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Numerous studies have indicated that there are generally more deaths during periods of sustained higher temperatures, and these are due to cardiovascular

causes and other chronic diseases. The elderly, infants, and socially isolated people with preexisting illnesses who lack access to air conditioning or cooling spaces are among the most at risk during heat waves (CNRA 2009).

Floods and Droughts

The impacts of flooding can be significant. Results may include population displacement, severe psychosocial stress with resulting mental health impacts, exacerbation of pre-existing chronic conditions, and infectious disease (CNRA 2009). Additionally, possible impacts range from a loss of personal belongings, and the emotional ramifications from such loss, to direct injury and/or mortality.

Drinking water contamination outbreaks in the U.S. are associated with extreme precipitation events (CNRA 2009). Runoff from rainfall is also associated with coastal contamination that can lead to contamination of shellfish and contribute to food-borne illness. Floodwaters may contain household, industrial, and agricultural chemicals as well as sewage and animal waste. Flooding and heavy rainfall events can wash pathogens and chemicals from contaminated soils, farms, and streets into drinking water supplies (CNRA 2009). Flooding may also overload storm and wastewater systems, or flood septic systems, also leading to possible contamination of drinking water systems (CNRA 2009).

Drought impacts develop more slowly over time. Risks to public health that Californians may face from drought include impacts on water supply and quality, food production (both agricultural and commercial fisheries), and risks of waterborne illness. As surface water supplies are reduced as a result of drought conditions, the amount of groundwater pumping is expected to increase to make up for the water shortfall. The increase in groundwater pumping has the potential to lower the water tables and cause land subsidence (CNRA 2009). Communities that utilize well water will be adversely effected both by drops in water tables or through changes in water quality. Groundwater supplies have higher levels of total dissolved solids compared to surface waters. This introduces a set of effects for consumers, such as repair and maintenance costs associated with mineral deposits in water heaters and other plumbing fixtures, and on public water system infrastructure designed for lower salinity surface water supplies. Drought may also lead to increased concentration of contaminants in drinking water supplies (CNRA 2009).

Water Resources

The state's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century — especially increases in hydrologic variability — will likely intensify in this century. We can expect to experience more frequent and larger floods and deeper droughts (CNRA 2009). Rising sea level will threaten the Delta water conveyance system and increase salinity in near-coastal groundwater supplies (CNRA 2009). Planning for and adapting to these simultaneous changes, particularly their impacts on public safety and long-term water supply reliability, will be among the most significant challenges facing water and flood managers this century.

Agriculture

Increased GHG emissions could cause widespread changes to the agriculture industry, reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply they need. California's farmers could face greater

water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less than optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts. In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, wildfire occurrence statewide could increase from 57% to 169% by 2085 (CNRA 2009). However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Over the 20th century, sea level has risen by about 7 inches along the California coast (CNRA 2009). It is projected that sea level rise of up to 55 inches (1.4 meters) could occur by the end of this century (CNRA 2009). This projection accounts for the global growth of dams and reservoirs and how they can affect surface runoff into the oceans, but it does not account for the possibility of substantial ice melting from Greenland or the West Antarctic ice sheet, which would drive sea levels along the California coast even higher (CNRA 2009).

2.3 REGULATORY FRAMEWORK

Federal

Federal Regulation and the Clean Air Act

In the past, the U.S. Environmental Protection Agency (USEPA) has not regulated GHGs under the Clean Air Act because it asserted that the act did not authorize the USEPA to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. However, the U.S. Supreme Court held that the USEPA must consider regulation of motor vehicle GHG emissions. In Massachusetts v. Environmental Protection Agency et al., twelve states and cities, including California, together with several environmental organizations, sued to require the USEPA to regulate GHGs as pollutants under the Clean Air Act (127 S. Ct. 1438 (2007)). The Court ruled that GHGs fit within the Clean Air Act's

definition of a pollutant and that the USEPA did not have a valid rationale for not regulating GHGs. In response to this ruling, the USEPA has recently made an endangerment finding that GHGs pose a threat to the public health and welfare. This is the first step necessary for the establishment of federal GHG regulations under the Clean Air Act.

State

Beginning in 2002, California has enacted the following acts, executive orders, and administrative practices to address climate change, and greenhouse gas emissions.

- Assembly Bill (AB) 1493, codified at Health and Safety Code Sections 42823 and 43018.5
- Senate Bill 1771 Greenhouse Gas Emission Reductions: Climate Change, codified at Health and Safety Code Section 42800 et seq. and Public Resources Code Section 25730 et seq.
- Executive Order S-3-05 (2005)
- Assembly Bill (AB) 32, the Global Warming Solutions Act, codified at Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561-38565, 38570, 38571, 38574, 38580, 38590, 38592-38599
- Senate Bill (SB) 375, codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01 as well as Public Resources Code Sections 21061.3, 21159.28, and Chapter 4.2
- Senate Bill (SB) 1368, codified at Public Utilities Code Chapter 3
- Senate Bill 1771, codified at Health and Safety Code Article 6 and Public Resources Code Chapter 8.5
- Senate Bill 527, codified at Health and Safety Code Sections 42400.4, 42801, 42810, 42821–42824, 42840–42843, 42860, 42870, 43021, 42410, 42801.1, 43023
- Senate Bill 1078, Public Utilities Code Sections 387, 390.1, 399.25 and Article 16
- Executive Order \$-13-08 (2008)

Climate Change Scoping Plan

In October of 2008, CARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. The scoping plan contains the main strategies California will implement to achieve reduction of 169 million metric tons (MMT) of CO2e. The scoping plan also includes CARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations are from improving emission standards for light-duty vehicles, implementation of the Low-Carbon Fuel Standard, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems, and a renewable portfolio standard for electricity production. CARB has not yet determined what amount of GHG reductions it recommends from local government operations. However, the proposed scoping plan does state that land use planning and urban growth decisions will play an important role in the state's GHG reductions because local governments have primary authority to plan, zone,

approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. The scoping plan states that "In addition to tracking emissions using these protocols, ARB encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the State commitment to reduce greenhouse gas emissions by approximately." (p.27) With regard to land use planning, the proposed scoping plan expects to achieve substantial reductions with implementation of SB 375. The Climate Change Scoping Plan was approved by CARB on December 11, 2008.

California Building Standards Code

The provisions of California Code of Regulations (CCR), Title 24 govern how buildings are designed and constructed in California. Title 24 includes requirements for the structural, plumbing, electrical and mechanical systems of buildings, and for fire and life safety, energy conservation, green design and accessibility in and about buildings. Title 24, Part 6 of the California Code of Regulations, known as the Building Energy Efficiency Standards, was established in 1978 in response to a legislative mandate to reduce California's energy consumption. On January 12, 2010, the California Building Standards Commission adopted Title 24, Part 11, known as the California Green Building Standards Code or CALGreen. CALGreen is the first statewide green building standards code. CALGreen requires new buildings to reduce water consumption by 20%, divert 50% of construction waste from landfills, and install low pollutant-emitting materials. The 2010 triennial edition of the CCR, Title 24 (California Building Standards Code) applies to all occupancies that applied for a building permit on or after January 1, 2011, and remains in effect until the effective date of the 2013 triennial edition.

Local

Bay Area Air Quality Management District

The project is under jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD developed CEQA Air Quality Guidelines to assist lead agencies in evaluating air quality impacts for projects and plans in the San Francisco Bay Area Basin. The guidelines were updated in 2010 to include guidance on assessing greenhouse gas and climate change impacts as required under CEQA section 15183.5(b) and to establish thresholds of significance for impacts related to greenhouse gas emissions. These thresholds can be used to assess planlevel and project-level impacts and allow a lead agency to determine that a project's impact on GHG emissions is less than significant if it is in compliance with a qualified greenhouse gas reduction strategy.

City of Vallejo Climate Action Plan

The City of Vallejo CAP implements General Plan goals and policies to improve air quality and cooperate with regional agencies to implement regional air quality strategies. Specifically, through compliance with CEQA Guidelines Section 15183.5(b) and following industry standards, the CAP does the following:

 Identifies and quantifies major sources of GHG emissions from activities within the City of Vallejo municipal boundary, including municipal operations and citywide activities.

- Provides feasible strategies to reduce emissions from energy use, transportation, land use, water, wastewater, and solid waste.
- Discusses the various outcomes of reduction efforts and how these reduction efforts can be implemented and advertised.
- Reduces GHG emissions consistent with the direction of the State of California via AB 32 and Governor's Order S-03-05.
- Serves as a CEQA tiering document for projects proposed within the City of Vallejo for climate change, by which all applicable developments within the city will be reviewed.

The ultimate objective of the CAP is to reduce GHG emissions by 15% below 2008 levels by 2020 consistent with the State's goals related to climate change under Governor's Order S-03-05 and Assembly Bill 32, the Global Warming Solutions Act of 2006.

The 2011 CAP represents Vallejo's first effort to describe the measures the City will implement to reduce community-wide GHG emissions in a manner consistent with AB 32. Throughout the Climate Action Plan, the City outlines strategies, objectives, measures, and actions to support multimodal transportation and compact land use patterns to minimize energy consumption and waste and to create and enhance natural assets that improve the community's quality of life. Future City actions, programs, and projects would be consistent with the 2011 CAP if they further the strategies and objectives of the 2011 CAP without obstructing attainment of its goals.

2.4 GHG Inventory, Baseline, and Projections

The 2011 CAP seeks to address greenhouse gas emissions in the City of Vallejo, in the San Francisco Bay Area Air Basin, and the State by implementing greenhouse gas reduction measures within the City of Vallejo. Though the 2011 CAP is expected to have regional benefits, the CAP only applies to the incorporated lands in the City of Vallejo.

Appendix A of the 2011 CAP contains an inventory of greenhouse gas emissions (GHG Inventory) in the calendar year of 2008. The AB 32 Scoping Plan recommends a comparison of projected emissions to the current year, and further defines current year as being between 2005 and 2008. Because the most comprehensive and up to date information available in the City of Vallejo was from 2008, the GHG Inventory establishes 2008 as the baseline year.

The GHG Inventory identifies the source and amount of GHG emissions from City government operations and from the community as a whole. The emissions inventory estimates GHG emissions based on activity data (i.e., energy consumption, vehicle miles traveled [VMT], water consumption) attributed to the jurisdictional boundary of the City of Vallejo. The GHG Inventory identifies the major sources of greenhouse gas emissions within the city and provides a baseline against which future progress can be measured.

The City government operations inventory is consistent with the methodology outlined by the ARB in the Local Government Operations Protocol v1.1. The GHG Inventory of community-wide emissions is prepared per the guidelines set forth by BAAQMD in their updated CEQA Guidelines. In lieu of a community-wide GHG inventory protocol from the state, the BAAQMD CEQA Guidelines include an appendix to guide local agencies in plan-level GHG quantification. The guidance includes proper sources of activity data and emissions coefficients. The GHG Inventory's consistency with BAAQMD guidance is further outlined in Appendix B of the 2011 CAP.

The City of Vallejo emitted approximately 588,040 metric tons of carbon dioxide equivalent (MTCO₂e) in the baseline year 2008. As shown in **Figure 1**, the transportation sector was the largest contributor to emissions (47%) producing approximately 277,720 MTCO₂e in 2008. Emissions from the residential sector were the next largest contributor (29%) producing approximately 172,310 MTCO₂e. The commercial and industrial sectors accounted for a combined 19% of the total, approximately 110,390 MTCO₂e. Emissions from solid waste comprised 2%, or 14,640 MTCO₂e. Emissions from electricity use to pump and treat water and emissions from off-road equipment use accounted for 1% each.

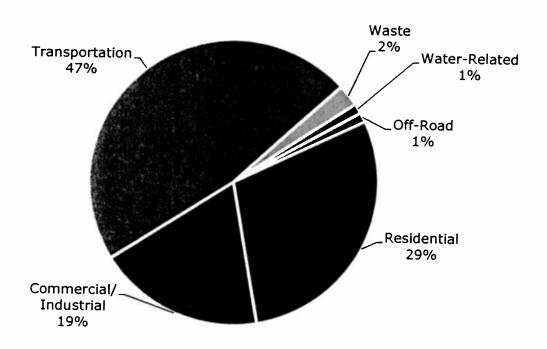


FIGURE 1: COMMUNITY GHG EMISSIONS BY SECTOR

The majority of emissions from the transportation sector were the result of gasoline consumption in private vehicles traveling to, from, or within Vallejo on local roads and highways. GHG figures from the waste sector are the estimated future emissions that will result from the decomposition of waste generated by city residents and businesses in the base year 2008, with a weighted average methane capture factor of 60%.

City government operations and facilities produced approximately 40,680 MTCO2e of greenhouse gas emissions in 2008. As displayed in **Figure 2**, this quantity represents approximately 6% of total community-wide emissions in the city. City government emissions result from waste, energy consumption from water and wastewater facilities, buildings, streetlights and other facilities, and fuel consumption by the vehicle fleet and from employee commutes. Fuel consumption from the City's vehicle, ferry, and transit fleet was the largest contributor to the City's emissions (53 %) producing 21,530 MTCO2e (refer to **Figure 3**). The second largest

¹ Sixty percent (60%) methane capture rate is the default setting in USEPA's WARM model.

contributors (23% and 10%, respectively) were energy consumption in City buildings and facilities and energy consumption from the City's reservoirs, water treatment plants, pumps, and irrigation controllers.

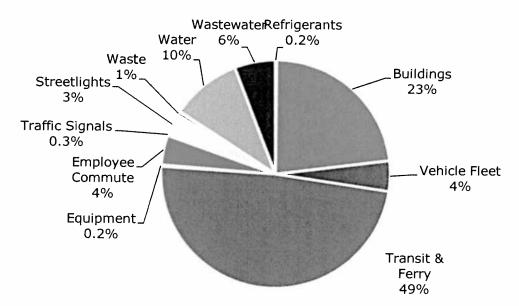
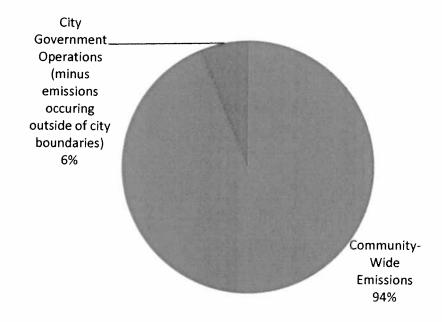


FIGURE 2: CITY GOVERNMENT OPERATIONS GHG EMISSIONS BY SECTOR





The GHG Inventory also includes a "business-as-usual" (BAU) projection of 2020 and 2035 emissions. The years 2020 and 2035 are examined for the following reasons:

- 2020 Forecast: The AB 32 Scoping Plan establishes a state reduction target and local reduction target recommendation, both of which reference 2020 as the target date. The GHG Inventory examines 2020 emissions in order to compare the 2011 CAP outcome to these 2020 goals and targets.
- 2035 Forecast: SB 375 establishes targets for transportation related reductions in greenhouse gas emissions by 2020 and 2035. In order to allow convenient comparison of the 2011 CAP and SB 375 targets, the GHG Inventory also estimates emission levels in 2035.

The BAU projection forecasts emissions to reflect the City's growth projections without regulatory or technical intervention to reduce GHG emissions. The BAU projection is then used as a starting point for the City to determine the level of emissions reductions needed to reach the reduction target. Future emissions forecasts are modeled based on projected growth trends in employment, population, vehicle miles traveled (VMT), and households, among other indicators. The forecast relies on the Association of Bay Area Governments (ABAG) Projections 2009 for 2020 and 2035 population and employment growth, and the Metropolitan Transportation Commission's (MTC) VMT forecasts for Solano County and the Bay Area.

Under the business-as-usual scenario, community-wide emissions will grow by approximately 11% by the year 2020 to 650,340 MTCO₂e and by 24% by 2035 to 728,170 MTCO₂e (refer to **Table 2**).

TABLE 2
2020 AND 2035 GHG EMISSIONS FORECAST

Sector	2008	2010	2020	2035
Residential	172,310	175,370	184,060	198,380
Commercial/Industrial	110,390	107,410	126,100	153,230
Transportation	277,720	2 <i>77</i> ,990	297,790	325,910
Waste	14,640	14,860	16,080	18,100
Water	6,570	6,670	7,220	8,120
Off-Road	6,410	13,300	19,080	24,430
Total	588,040	595,600	650,330	728,170
Percentage Above 2008	0%	1%	11%	24%

With this information, the City established a reduction target of 15% below present emission levels by 2020 in conformance with the State of California's recommended reduction target. To attain this reduction target, the City will need to reduce emissions by 23% below the city's business-asusual emissions. Conformance with the state goal of 80% below 1990 levels by 2050 will require a 64% reduction below present levels by 2035.²

² The AB 32 Scoping Plan, page 27, states that CARB encourages local governments to "move toward establishing similar goals for community emissions that parallel the State commitment to reduce greenhouse gas emissions by approximately 15 percent from current levels by 2020." https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm

2.5 IMPLEMENTATION RESULTS

Implementation of the 2011 CAP would result in community-wide GHG emission reductions of approximately 73,840 MTCO $_2$ e by 2020 to reduce GHG emissions by 15% below 2008 levels by 2020 in compliance with AB 32. The 2011 CAP also projects a reduction of 129,550 MTCO $_2$ e by 2035 to allow for comparison with the reduction targets established by SB 375. **Table 3** below identifies the MTCO $_2$ e reductions and percentages that would be expected from implementation of each proposed strategy and objective.

TABLE 3
CAP GHG REDUCTION SUMMARY

	2010 GHG Reductions (MTCOze/yr)	2020 GHG Reductions (MTCO₂e/yr)	2035 GHG Reductions (MTCO ₂ e/yr)
CAP Goals			
City Government Operations	-40	-4,200	-8,090
Community Engagement	0	0	0
Energy	-270	-12,330	-21,070
Renewable Energy	0	-10,910	-19,900
Transportation Demand Management	-4,770	-13,400	-19,220
Optimized Travel	-4,230	-22,760	-43,770
Water, Wastewater, and Solid Waste	0	-7,870	-13,180
Off-Road Equipment	0	-30	-50
Adaptation	0	0	0
Total CAP Reductions	-9,310	-71,500	-125,280
Reduction Summary			
Baseline (2008) Emissions	588,040	588,040	588,040
Emissions Forecast	595,600	650,340	728,170
State Reductions	-8,290	-79,480	-143,540
Local Reductions	-9,310	-71,500	-125,280
Net Emissions	578,000	499,360	459,350
Percentage Change from 2005 Levels	-2%	-15%	-22%

2.5 ENVIRONMENTAL SETTING AND SURROUNDING LAND USES

The 2011 CAP affects properties and activities located within the city limits of Vallejo. Vallejo is located in the northern part of the San Francisco Bay Area (refer to **Figure 4**) and is bordered on the west by San Pablo Bay, on the north by the City of American Canyon and unincorporated Napa County, on the east by the City of Fairfield's Sphere of Influence and the City of Benicia, and on the south by the Carquinez Strait and Benicia State Park. Vallejo is approximately 30 miles from San Francisco and 60 miles from Sacramento.

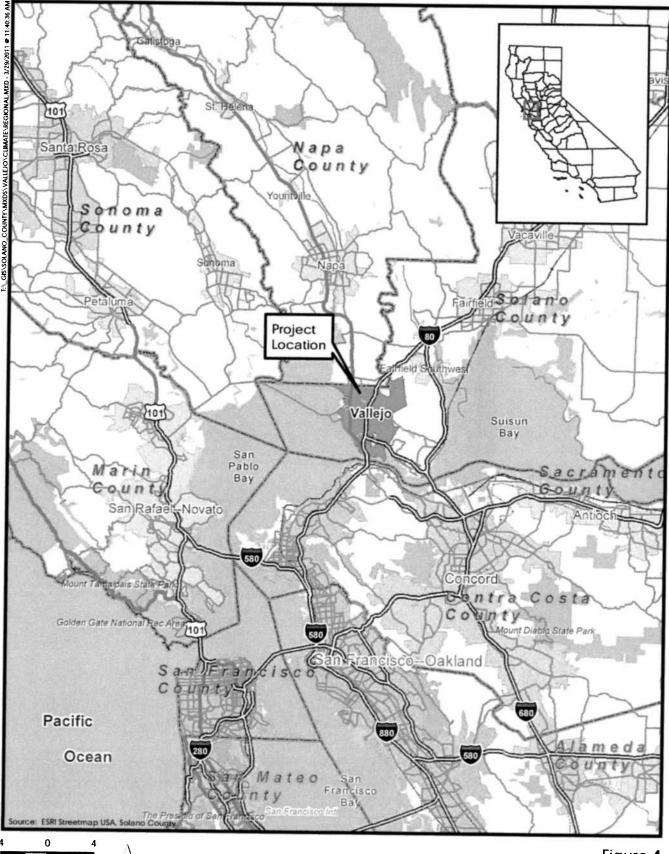
The total area of the incorporated portion of the city is 51.5 square miles (refer to **Figure 5**). Of this total, 25.4 square miles are mainland, 2.4 square miles include Mare Island, and 23.7 square miles are water or submerged lands.

2.6 OTHER APPROVALS REQUIRED

There are no other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement) for the proposed 2011 CAP.

INITIAL ENVIRONMENTAL STUDY/NEGATIVE DECLARATION

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MILES

Figure 4
Regional Setting



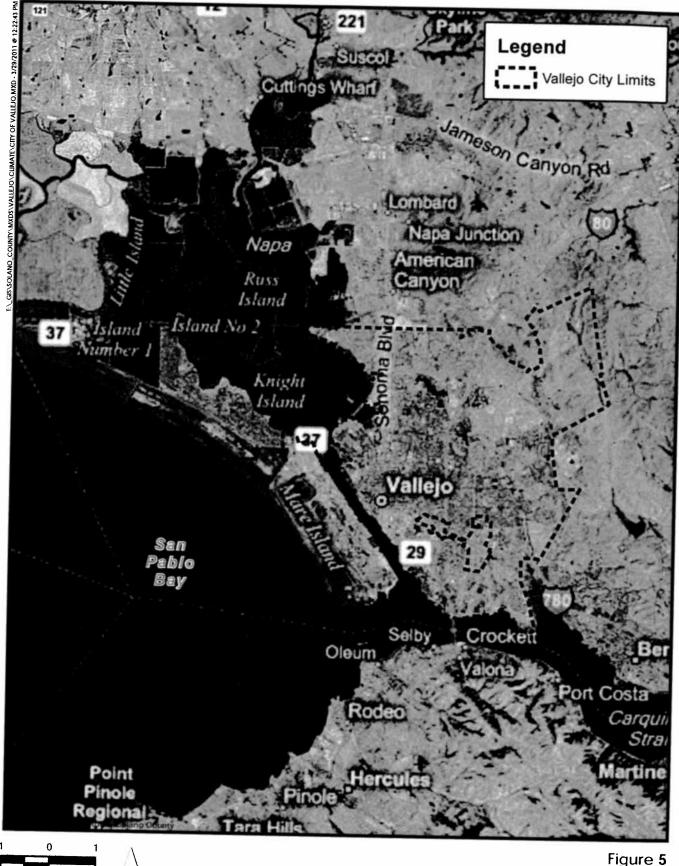


Figure **5** City of Vallejo



3.0 ENVIRONMENTAL CHECKLIST

3.1. BACKGROUND

Project Title:

City of Vallejo Climate Action Plan

Lead Agency Name and

Address:

City of Vallejo

Development Services - Planning Division

555 Santa Clara Street

Vallejo, CA 94590

Project Location:

All land located within the incorporated city limits of the City of

Vallejo

Project Sponsor's Name and

Address:

City of Vallejo

Development Services - Planning Division

555 Santa Clara Street

Vallejo, CA 94590

General Plan Designation(s):

N/A

Zoning:

N/A

Contact Person:

Michelle Hightower

Phone Number:

(707) 648-4506

Date Prepared

August 16, 2011

3.2 **ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED** The environmental factors checked below would be potentially affected by the proposed Climate Action Plan, as indicated by the checklist and corresponding discussion on the following pages. Agricultural and Forestry Aesthetics Air Quality Resources ☐ Biological Resources Cultural Resources Geology/Soils Hazards & Hydrology/Water Hazardous ☐ Greenhouse Gas Emissions **Materials** Quality ☐ Land Use/Planning Noise Population/Housing Public Services Recreation-Mandatory Findings ☐ Transportation/Traffic Utilities/Service Systems of Significance

3.3.	DETERMINATION	
On th	ne basis of this initial evaluation:	
\boxtimes	I find that the proposed project COULD environment, and a NEGATIVE DECLARATION	NOT have a significant effect on the will be prepared.
	I find that although the proposed project environment there will not be a significant of project have been made by or agreed to NEGATIVE DECLARATION will be prepared.	effect in this case because revisions in the
	I find that the proposed project MAY have a an ENVIRONMENTAL IMPACT REPORT is require	significant effect on the environment, and
	I find that the proposed project MAY has "potentially significant unless mitigated" imperfect (1) has been adequately analyzed in a legal standards, and (2) has been address earlier analysis as described on attached she required, but it must analyze only the effects the	act on the environment, but at least one in earlier document pursuant to applicable ed by mitigation measures based on the ets. An ENVIRONMENTAL IMPACT REPORT is
	I find that although the proposed project environment, because all potentially significated adequately in an earlier EIR or NEGATIVE standards, and (b) have been avoided or NEGATIVE DECLARATION, including revisions upon the proposed project, nothing further is re-	icant effects (a) have been analyzed E DECLARATION pursuant to applicable mitigated pursuant to that earlier EIR or or mitigation measures that are imposed.
Signat	Ure O. Hit	B 6 Date
M) C4 Printed	HEWE D.HIGHTOWER	City of Vallejo Economic Development Department – Planning Division

4.0 Environmental Checklist and Evaluation

4.1 EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A "No Impact" answer is adequately supported if the information shows that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).
- 2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses" may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) The explanation of each issue should identify:

- a) The significance criteria or threshold, if any, used to evaluate each question; and
- b) The mitigation measure identified, if any, to reduce the impact to less than significant.

Although the purpose of the 2011 CAP is to reduce the impact that the community will have on global climate change and will therefore benefit the environment, implementation of components contained in the 2011 CAP could potentially result in changes to the physical environmental as a result of construction activity or changes in land use that may alter visual resources, biological resources, or cultural resources. An analysis of each of these potential issue areas is included in Section 5.1 (Environmental Checklist).

Although the 2011 CAP would result in long-term environmental benefits related to reduced GHG emissions, short-term construction emissions and noise impacts from construction activities could potentially occur.

- Construction activities could potentially result in higher urban runoff.
- Construction activities could potentially result in higher ambient noise levels.
- Development of increased-density, mixed-use transit-oriented development could
 potentially increase populations that result in the need for additional services, utilities,
 and infrastructure.

As described in greater detail in this document, these changes are not expected to result in impacts on the physical environment. Similarly, implementation of the CAP is not expected to require amendment to City planning documents and regulations, such as the General Plan, the Zoning Ordinance, and Specific Plans. To the extent that such modifications would be necessary, they would not result in physical environmental impacts. Because changes to planning documents and regulations correspond to established CEQA thresholds of significance, the environmental checklist explains whey no modification is anticipated for the relevant issue areas.

4.2 ENVIRONMENTAL CHECKLIST

	I. AESTHETICS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?				×
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				⊠
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?				\boxtimes
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			О	☒

Setting:

Vallejo is a composite of historic and new commercial areas and neighborhoods, many of which have views to the Carquinez Strait, San Pablo Bay, and upland open space areas. The western edge of the city is bounded by Mare Island, which is adjacent to the San Pablo National Wildlife Refuge. This open space boundary provides a permanent and defined entrance to the city from the west along State Route 37. Rolling hillsides provide valuable scenic amenities throughout the city. The open, rugged slopes of Sulfur Springs Mountain are Vallejo's most outstanding topographic feature and provide an important visual amenity to both residents and visitors. These mountains provide a feeling of openness and nature in the center of an urban area.

Discussion/Conclusion:

a) No Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the aesthetic quality of the environment or to adversely affect visual resources. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. As a policy document, the CAP would have no direct impact on visual resources, but future implementation activities could change community aesthetics.

The Vallejo General Plan identifies Sulfur Springs Mountain as a scenic vista within the city. Policy 2 of the General Plan's Hillside Development Goal seeks to retain areas for visual amenities through development controls to protect the ridgeline and provides for site and design review of all development proposals. Implementation of the proposed Climate Action Plan would not allow for development beyond that identified in the City's General Plan. The 2011 CAP would not adversely affect Sulfur Springs Mountain or any scenic vista. Therefore, no impact would result.

b–c) No Impact. There are no scenic highways in or within view of the city. The proposed Climate Action Plan is a policy-level document. The Climate Action Plan encourages installation of renewable energy systems, building retrofits, construction of more compact transit-oriented development, and construction of bicycle and pedestrian facilities (see 2011 CAP Reduction Measures **CG-4**, **RE-1**, **E-1**, and **TDM-2**). Constructing photovoltaic panels, wind, or other alternative energy infrastructure or facilities; retrofitting buildings; and constructing new mixeduse, transit-oriented development projects could change the visual character of the city, scenic views of San Pablo Bay, and surrounding hillsides, and create new sources of light and glare. As discussed below, existing development standards and requirements are adequate to ensure that none of these changes results in a significant environmental impact.

<u>Renewable Energy Installations</u>: Solar and wind energy systems are presently permitted by the Vallejo General Plan and Zoning Code subject to the development standards and design requirements of the zoning district (Municipal Code §16.74). The CAP would not change this existing condition and would therefore have no impact on visual resources.

Retrofitting Buildings: Zoning Code Chapter 16.38 (Architectural Heritage and Historic Preservation) establishes two overlay zoning districts — the architectural heritage district (AHD) and the historic district (HD) — in areas of the city that exhibit significant architectural heritage or have significant historical, architectural, or aesthetic value. The City of Vallejo requires a certificate of appropriateness before construction or alteration of structures and improvements within historic districts or to historic properties. The 2011 CAP is a policy-level document that does

not propose any changes to the existing standards related to the protection of cultural resources. Consequently, the project would have no impact on cultural resources.

Compact Transit-Oriented Development (TOD): The Climate Action Plan encourages the City to promote increased-density, mixed-use development at transit nodes, but does not identify sites for such development or provide specific details regarding future land use decisions. The 2011 CAP does not propose changing existing land use designations or development standards, and there are a variety of land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) that are able to accommodate higher-density mixed-use development. The 2011 CAP is a policy-level document that does not propose any changes to the existing standards related to the protection of visual resources. Consequently, the project would have no impact on visual resources.

Therefore, implementation of the proposed Climate Action Plan would result in no impact associated with degradation of the visual character of the city, including scenic resources within a designated scenic highway.

d) No Impact. As discussed under b-c) above, the proposed Climate Action Plan is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would increase daytime glare or nighttime illumination in the city. Future development projects would be required to be designed and constructed in accordance with the Vallejo Zoning Code and the Vallejo View Preservation Ordinance, which contain standards for lighting and building materials that do not produce glare. Therefore, implementation of the proposed Climate Action Plan would create no impact associated with increased light and glare.

II. AGRICULTURAL AND FORESTRY RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				⊠
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				⊠
C)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				⊠
d)	Result in the loss of forest land or conversion of forest land to non-forest use?		О		\boxtimes
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			⊠	

Setting:

Few crops are grown in the city itself, and no major intensive agricultural operations occur within the city limits. According to the Vallejo General Plan, a large portion of the city's most valuable agricultural lands has been preempted by urban development. The map of Solano County Important Farmland designates the entire city as "Urban and Built-Up Land," "Grazing Land," "Water," or "Other Land." No property within the City of Vallejo has been designated as "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland." Similarly, the map of Solano County Williamson Act Lands identifies no properties within the city that are subject to a Williamson Act contract.

Discussion/Conclusion:

a-b) No Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect agricultural or forestry resources. The Climate Action Plan does not propose to change existing land use

designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map.

As a policy document, Implementation of the Climate Action Plan would not result in the direct conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as these farmland categories do not exist within the city. The 2011 CAP would not conflict with agricultural operations that are subject to a Williamson Act contract because no such contracts exist within the city. The proposed Climate Action Plan is a policy-level document that includes measures that support farmers markets and community gardens (see 2011 CAP Reduction Measure TDM-6). These measures are likely to increase support for agricultural production in and in the vicinity of Vallejo, but identification of environmental impacts or benefits associated with this measure would be speculative.

Therefore, there would be no impacts associated with the conversion of agricultural lands to non-agricultural uses, as well as impacts associated with conflicts with agricultural zoning and Williamson Act lands.

- e) Less Than Significant Impact. The placement of non-agricultural uses adjacent to agricultural uses can result in agriculture-urban interface conflicts that inadvertently place growth pressure on agricultural lands to convert to urban uses. These conflicts include inconveniences or discomforts associated with dust, smoke, noise, and odor from agricultural operations, restrictions on agricultural operations (such as pesticide application) along interfaces with urban uses, farm equipment and vehicles using roadways, and trespassing and vandalism on active farms. The 2011 CAP does not identify specific sites for community gardens and does not provide specific details regarding future land use decisions or the need to rezone/redesignate specific sites for agricultural use.

If future land use or development proposals include agricultural uses adjacent to developed properties, the City would consider agricultural-urban interface conflicts as part of the appropriate environmental review prior to taking any action to consider the approval of such changes. All future land use would be required to comply with local regulations, including the General Plan, Zoning Code, and adopted building and health and safety standards. Environmental impacts of subsequent land use projects would also be considered pursuant to CEQA on a case-by-case basis following submittal of a specific development proposal.

The 2011 CAP proposes no measures that address forest or timberland uses, and there are no forest or timberlands in or adjacent to the City of Vallejo.

Therefore, impacts associated with changes in the existing environment which, due to their location or nature, could result in conversion of agricultural lands to non-agricultural uses would be considered less than significant.

111.	AIR QUALITY:							
	Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.							
	Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact			
a)	Conflict with or obstruct implementation of the applicable air quality plan?				⋈			
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			⊠				
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			×				
d)	Result in significant construction-related air quality impacts?			\boxtimes				
e)	Expose sensitive receptors to substantial pollutant concentrations?			⊠				
f)	Create objectionable odors affecting a substantial number of people?				×			

Setting:

Air quality issues in the city are under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) as the city is located in the San Francisco Bay Area Air Basin. The San Francisco Bay Area Air Basin comprises a single district, the BAAQMD, and consists of Napa, Marin, San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the western portion of Solano County. The air basin currently exceeds the 24-hour and the annual state PM₁₀ standards, as well as the state annual PM_{2.5} standard. Furthermore, the air basin is currently designated as a nonattainment area for state and national ozone standards.

Both ozone and PM₁₀ are considered criteria pollutants because they are two of several prevalent air pollutants know to be hazardous to human health. As required by federal and state air quality laws, the Bay Area 2005 Ozone Strategy has been prepared to address ozone nonattainment issues. The Bay Area 2005 Ozone Strategy was prepared by the BAAQMD in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments. This document describes the Bay Area's strategy for compliance with state 1-hour ozone standard planning requirements and its strategy to improve air quality in the region and to reduce transport to neighboring air basins. The strategy includes stationary source control measures to be implemented through BAAQMD regulations, mobile source control measures to be implemented through transportation programs in cooperation with MTC, local governments, transit agencies, and others. No PM₁₀ plan has been prepared, nor is one currently required under state air quality planning law.

Discussion/Conclusion:

- a) No Impact. The 2011 CAP is intended to reduce GHG emissions within the city to help contribute to global efforts to reduce the effects of climate change by, among other things, using fuel-efficient and alternatively fueled vehicles (see 2011 CAP Reduction Measures CG-6, CG-8, and OT-1), reducing vehicle use (see 2011 CAP Reduction Measures CG-7, TDM7, TDM-8 and OT-2), developing bicycle and pedestrian facilities (see 2011 CAP Reduction Measure TDM-3), enhancing public transit (see 2011 CAP Reduction Measure TDM-5), using renewable energy (see 2011 CAP Reduction Measures CG-3, RE-1, and RE-2), improving energy efficiency in buildings (see 2011 CAP Reduction Measures CG-5 and E-2), improving energy management (see 2011 CAP Reduction Measures CG-2, CG-4, and E-1), and increasing water conservation (see 2011 CAP Reduction Measures W-1 and W-2). In addition to reducing GHGs, each of these measures would help to reduce criteria air pollutants and would not conflict with or obstruct the Bay Area Air Quality Management District's Air Quality Plan.
- b—e) Less Than Significant Impact. All federal ambient air quality standards except national standards for ozone and the state standards for ozone, PM₁₀, and PM_{2.5} are met in the Vallejo area. However, the state ambient standards of ozone, PM₁₀, and PM_{2.5} are regularly exceeded (CARB 2009a). As discussed in a) above, In addition to reducing GHGs, each of the 2011 CAP measures would help to reduce criteria air pollutants and would not conflict with or obstruct the Bay Area Air Quality Management District's Air Quality Plan. Construction activities such as excavation and grading operations, construction vehicle traffic, and windblown earth could generate exhaust emissions and fugitive particulate matter emissions that would affect local air quality. These effects are temporary and variable depending on the weather, soil conditions, and the amount of activity taking place, as well as the nature of dust control efforts. Likewise, operational air quality impacts are dependent on the types of land uses and mitigation being used. Municipal Code Chapter 12.40 (Excavations, Grading and Filling) establishes construction management requirements related to air quality issues as part of the grading permit. Accordingly, existing City standards are adequate to ensure that there would be no significant air quality impact from construction activity.

In addition, future development would be required to comply with General Plan policies related to air quality and with Zoning Code requirements regarding odor, conform to the Bay Area 2005 Ozone Strategy, and meet National Ambient Air Quality Standards (NAAQS) and BAAQMD thresholds during both construction and operation activities. The proposed Climate Action Plan also contains measures that support energy-conserving programs and encourage development in close proximity to transit. These policies would help to reduce adverse effects to air quality through the reduction of fossil fuel consumption and the use of private motor vehicles. Therefore, the proposed Climate Action Plan would have less than significant impacts associated with contributing substantially to an existing or projected air quality violation, increasing criteria pollutants during both construction and operational activities, and exposing sensitive receptors to substantial pollutant concentrations.

No Impact. Future residential and commercial developments that might be encouraged by CAP measures related to land use densities are not considered to be emission sources that would result in objectionable odors. No impact would occur.

ı	V. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			×	
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?			×	
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			×	
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			×	
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				Ø
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			⊠	

Setting:

Land uses vary throughout the City of Vallejo Planning Area, but the predominant land uses include commercial and residential. Within the Planning Area, there are five distinct floral communities. The largest area consists of grassland and is found throughout the Planning Area. Other floral communities are found in specific locations. Populations of eucalyptus groves and oak trees are found along the city's creeks and drainage channels. Along the western side of Mare Island bordering San Pablo Bay and along the southern boundary of the city, the vegetation is typical of bay muds and salt marshes. The creeks and associated woodlands as well as the waterfront areas of the city support intensive biotic habitats.

A number of special-status plant and animal species can be found or have the potential to be found in the Planning Area. Based on a review of the California Natural Diversity Database, there is the potential to encounter species that have been designated by the federal or state government as rare, threatened, or endangered species. These potential species include Marin knotweed, Mason's liaeopsis, salt marsh harvest mouse, American peregrine falcon, California clapper rail, delta smelt, California black rail, soft bird's beak, and Sacramento splittail.

Discussion/Conclusion:

a) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect biological resources. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. As a policy document, the CAP would have no direct impact on biological resources, but future implementation activities could change the natural landscape.

The 2011 CAP encourages higher-density, mixed-use development near transit nodes. The nature of such transit-oriented development is that it typically occurs in areas that are already urbanized. Should future development projects be proposed in areas where biological resources are present, they would be required to provide site-specific field studies to search for special-status species and to determine whether suitable habitat for any special-status species occurs on or near a study area. The proposed Climate Action Plan does not identify any site-specific designs or development proposals, nor does it grant any entitlements for development. At the time a development proposal is submitted, the City would conduct the appropriate level of environmental review pursuant to CEQA prior to taking any action to consider the approval of such changes. At present, it is speculative to identify biological impacts associated with CAP measures.

Furthermore, the CAP is consistent with and implements the General Plan, and proposes to activities or developments that require a change in General Plan policies or land use standards. Future development projects must be found to be consistent with General Plan policies related to biological resources before such projects may be approved by the City. Specifically, the General Plan requires recognition of areas valuable for marine life production and coordination with the California Department of Fish and Game and Bay Conservation and Development Commission to ensure the protection of such areas from incompatible uses. In addition, future development projects are required to be clustered so that more open space areas are left in a natural state. Therefore, adverse impacts to special-status plant and animal species, as well as their habitats, would be less than significant.

- **b–c)** Less Than Significant Impact. Future development within the city could result in adverse impacts to sensitive natural communities such as riparian habitat and federally protected wetlands. As discussed under **a**) above, the proposed Climate Action Plan does not include any site-specific designs or development proposals, nor does it grant any entitlements for development. In addition, the proposed Climate Action Plan does not provide specific details regarding future land use decisions, as no course of action associated with the proposed reduction measures has been determined. Future development projects will require compliance with General Plan policies related to riparian and wetland resources. Therefore, adverse impacts to federally protected wetlands and riparian resources would be less than significant.
- d) Less Than Significant Impact. Measures contained in the 2011 CAP that promote alternative energy systems could result in the construction of wind energy conversion facilities that may interfere with avian safety because bird mortality is associated with collisions with wind energy facilities. This is less of a problem with small isolated systems than with large wind farms. Nevertheless, Municipal Code Section 16.74 requires a Use Permit for all wind energy systems that are subject to environmental review. At the time a wind energy system is proposed, the City would conduct the appropriate level of environmental review pursuant to CEQA prior to taking any action on a project.

Similarly, while the 2011 CAP encourages higher-density, mixed-use development near transit nodes, it does not include any site-specific designs or development proposals, nor does it grant any entitlements for development. Development near transit nodes tends to involve redevelopment or infill development of existing developed areas that would have limited potential to impede native species habitat or migratory wildlife corridors. Furthermore, the CAP is consistent with and implements the General Plan, and proposes to activities or developments that require a change in General Plan policies or land use standards.

- e) No Impact. Currently, there are no ordinances protecting biological resources in the city (other than General Plan policies). Therefore, the proposed Climate Action Plan would not conflict with any local policies or ordinances protecting biological resources.
- Less Than Significant Impact. In March 1999, the United States Fish and Wildlife Service (USFWS), in accordance with Section 7 of the federal Endangered Species Act (ESA) of 1973 (as amended), issued a Biological Opinion regarding the Solano Project Water Service Contract Renewal between the United States Bureau of Reclamation and the Solano County Water Agency (SCWA). The Solano Project is the reclamation project that makes water available to SCWA and its contractors. SCWA delivers Solano Project water in accordance with its eight member agency contracts. The member agencies include the City of Vallejo. The 25-year contract between the United States Bureau of Reclamation and SCWA provides for continued delivery of Solano Project water for agricultural, municipal, and industrial purposes throughout the SCWA contract service area. In response to the USFWS Biological Opinion, the Solano Multispecies Habitat Conservation Plan (MSHCP) was drafted. The purpose of the MSHCP is to promote the conservation of biological diversity and the preservation of endangered species and their habitats consistent with the recognition of private property rights; provide for a healthy economic environment for citizens, agriculture, and industries; and allow for the ongoing maintenance and operation of public and private facilities in Solano County. Vallejo is located within the MSHCP.

Allowable activities in the MSHCP include the construction of new buildings and associated infrastructure. The Solano MSHCP requires new development to provide fee payments to preserve habitat elsewhere in the plan boundaries. All future development occurring within the city would be considered pursuant to the requirements of the Solano MSHCP on a case-by-case basis following submittal of a specific development proposal. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect MSHCP resources. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. As a policy document, the CAP would have no direct impact on biological resources or the goals and policies of the MSHCP. As a policy document, the proposed Climate Action Plan would have a less than significant impact on the Solano MSHCP.

	V. CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?			⊠	
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?			⊠	
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			⊠	
d)	Disturb any human remains, including those interred outside of formal cemeteries?			⊠	

At the time of European contact in the 18th century, the Solano County area was occupied by the Patwin tribe of California Native Americans. The Patwin occupied the southwestern Sacramento Valley from the town of Princeton, north of Colusa, south to San Pablo and Suisun bays, and from the lower hills of the eastern North Coast Ranges to the Sacramento River.

The Old City area of Vallejo has retained its historic character even though substantial change has occurred over time. The National Register of Historical Places identifies five areas within the city as Historic Places. These areas include the Mare Island Historic District, the Mare Island Naval Shipyard, Saint Vincent's Hill Historic District, the Vallejo City Hall and County Building Branch, and the Vallejo Old City Historic District.

Discussion/Conclusion:

a–d) Less Than Significant Impact. Completing energy-efficient retrofits of existing residential, commercial, and municipal buildings could potentially alter culturally significant historical buildings. Zoning Code Chapter 16.38 (Architectural Heritage and Historic Preservation) establishes two overlay zoning districts — the architectural heritage district (AHD) and the historic district (HD) — in areas of the city that exhibit significant architectural heritage or have significant historical, architectural, or aesthetic value. The City of Vallejo requires a certificate of appropriateness before construction or alteration of structures and improvements within historic districts or to historic properties. Consequently, existing standards and regulations are adequate to ensure that the project would have no impact on historic resources.

There are few archaeological resources in the City of Vallejo. Future development within the city could conflict with undiscovered paleontological and archeological resources that would be encountered and potentially impacted by future construction activities. In the event that this occurs, compliance with state regulations pertaining to discovery of archaeological resources would ensure that this impact is less than significant.

The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect cultural resources. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. As a policy document, the CAP would have

no direct impact on cultural resources, but future implementation activities could result in ground disturbance during construction that could uncover previously unknown human remains. In the unlikely event that this occurs, compliance with state regulations pertaining to discovery of human remains would ensure that this impact is less than significant.

, A	VI. GEOLOGY AND SOILS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			×	
	ii) Strong seismic ground shaking?			Ø	
	iii) Seismic-related ground failure, including liquefaction?			⊠	
	iv) Landslides?			⊠	
b)	Result in substantial soil erosion or the loss of topsoil?			⊠	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			⊠	
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			Ø	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				

The Vallejo area is situated in the Great Valley Geomorphic Province of California. This province is characterized as a relatively undeformed sedimentary basin bounded by highly deformed rock units of the Coastal Ranges to the north and by the gently sloping western foothills of the Sierra Nevada Range to the east. The Sacramento Valley, which forms the northern portion of the Great Valley Province, is composed of unconsolidated and recent-age alluvial sediments. The underlying bedrock is thought to be composed of early tertiary marine deposits.

The regional structure of the Coast Ranges of northern California consists of northwest-trending folds and faults created by the tectonic setting of colliding plate boundaries and subsequent transitional shear along the San Andreas fault system. The regional folding and faulting of the Mesozoic and Tertiary age rocks of this area have created the foothills north of Carquinez Strait, the outlet of the Sacramento-San Joaquin River system.

The city is located in the seismically active San Francisco Bay Area. Active faults that could affect the city include the Concord-Green Valley Fault, the West Napa Fault, the Greenville Fault, the Rodgers Creek Fault, and the Hayward Fault. The Cordelia Fault is considered

potentially or conditionally active. Conditionally active refers to faults whose designation could change upon additional investigation or analysis. Active faults have been mapped and are classified as type A, B, or C faults specifically for use with the California Building Standards Code. Faults are classified based on the magnitude of earthquakes typically associated with the fault and the fault's slip rate. Type A faults cause the greatest potential destruction; Type C cause the least. The Concord-Green Valley Fault, at close proximity to the city, is classified as a Type B fault. Type B faults typically produce earthquakes with a maximum magnitude of 6.5 to 7; slip rates vary with magnitude between 2 and 5 millimeters.

While many soil types are found within Vallejo, the Dibble-Los Osos clay loams complex is a predominant soil series. The United States Department of Agriculture Natural Resource Conservation Service has classified these soils as well drained and medium to fine textured. The permeability is slow and the shrink-swell potential is high.

During a magnitude 7.0 seismic event on the Rodgers Creek Fault, the portions of Vallejo that abut San Pablo Bay, including most of Mare Island, are expected to experience violent ground shaking. Under such an event, the remainder of land within the City of Vallejo would experience strong to very strong ground shaking (ABAG 2003).

Discussion/Conclusion:

- i-iv) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect geologic resources. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. Though the Climate Action Plan does include measures designed to facilitate higherdensity, mixed-use development near transit nodes that could increase the number of people and structures that would be exposed to seismic hazards, the CAP does not necessitate any land use or zoning changes in order to accommodate such development. Because the potential increases in density from future development projects would comply with existing General Plan land use densities, there would be no increased risk of exposure to seismic hazards as a result of the CAP. Further, future development would have to comply with General Plan Policies related to geologic safety and the California Building Code (CBC) to prevent significant damage from ground shaking during seismic events. Therefore, impacts related to seismic hazards would be considered less than significant.
- b) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect geologic resources. As a policy document, the CAP would not result in any direct change in soil erosion, future implementation activities could change surface conditions as the result of moving and grading topsoil that could lead to disturbed soils that are more likely to suffer from erosion. All projects that may be built to implement the 2011 CAP would be subject to Municipal Code Chapter 12.40 (Excavations, Grading and Filling) and CBC building code requirements which ensure that projects are developed in a way that minimizes construction-related erosion due to wind and water. Compliance with existing CBC and other city code requirements will ensure less than significant erosion impacts.
- **c–d)** Less Than Significant Impact. Future development on unstable or expansive soils could create substantial risks to life or property and result in adverse impacts such as on- or off-site

landslides, lateral spreading, subsidence, liquefaction, or collapse. Portions of the city are underlain by bay mud, which is a soil unit with expansion potential. Structures and infrastructure in these areas can be at risk if they are not engineered and built according to appropriate building codes. All projects that may be built to implement the 2011 CAP would be subject to City engineering and CBC building code requirements, which ensure that projects are developed in a way that minimizes the possible effects of expansive soil. Compliance with existing code regulations would ensure a less than significant impact.

e) No Impact. The Vallejo Sanitation and Flood Control District provides waste disposal services in Vallejo. No septic or alternative wastewater systems would be installed as a result of the proposed 2011 CAP. Therefore, no impacts would occur.

VII	. GREENHOUSE GAS EMISSIONS: Would the project	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			⊠	
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			\boxtimes	

California has identified reductions in the state's greenhouse gas (GHG) emissions as a priority and has adopted and is implementing legislation to address this objective. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, requires California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 directs the California Air Resources Board (CARB) to develop and implement regulations that reduce statewide GHG emissions. The Climate Change Scoping Plan was approved by CARB in December 2008 and outlines the State's plan to achieve the GHG reductions required in AB 32. The Scoping Plan encourages local governments to adopt a reduction goal for municipal operations emissions and to establish similar goals for community emissions that reflect the state commitment to reduce GHGs.

The Vallejo General Plan was last updated in 1999 and contains policies that:

- Promote pedestrian, bicycle, and transit modes of transportation to reduce vehicle trips;
- Seek to balance jobs and housing to reduce commuter trips;
- Recommend creation of a Transportation Systems Management (TSP) for new development to reduce carbon monoxide emissions;
- Promote high-density, mixed-use, infill development;
- · Promote the installation of trees in landscaping; and
- Support local hiring practices.

Of particular note, Air Quality Element Goal 3 is "To make a contribution towards improving regional air quality." The first policy of this goal indicates that Vallejo should:

Cooperate with regional air quality planning agencies such as the Bay Area Air Quality
Management District, Metropolitan Transportation Commission, and Association of Bay
Area Governments in the development and implementation of regional air quality
strategies.

The 2011 CAP implements General Plan Air Quality Goal 3 Policy 1 by providing general information about climate change and how GHG emissions within the city contribute to it, as well as an analysis of the potential effects of climate change on the city. Specifically, the 2011 CAP:

- Identifies sources of greenhouse gas emissions from sources within the City of Vallejo's jurisdictional/political boundary and estimates how these emissions may change over time.
- Discusses the various outcomes of reduction efforts and how these reduction efforts can be implemented and advertised.
- Provides energy use, transportation, land use, water use, and solid waste strategies to reduce Vallejo's GHG emissions levels to 15% below 2008 levels by 2020.
- Provides methods for reducing Vallejo's GHG emissions consistent with the direction of the State of California through the Global Warming Solutions Act (AB 32), Executive Order S-03-05, and Public Resources Code Section 21083.3.
- Provides substantial evidence that the emissions reductions estimated in the Climate Action Plan are feasible.

To meet GHG emission targets of AB 32, California would need to generate in the future less GHG emissions than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels or conflict with the goals of AB 32. Moreover, emitting CO₂ into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO₂ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of CO₂ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of CO₂ emitted by the project would result in any altered conditions.

However, the State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, it identifies the myriad environmental problems in California caused by global warming (Health and Safety Code, Section 38501[a]). In response to the relative lack of guidance on addressing GHGs and climate change, SB 97 was passed in order to amend CEQA by directing the Governor's Office of Planning and Research (OPR) to prepare revisions to the State CEQA Guidelines addressing the mitigation of GHGs or their consequences. In acknowledging that perhaps the most difficult part of the climate change analysis will be the determination of significance, AB 32 requires CARB, the state agency charged with regulating statewide air quality, to recommend a method for setting thresholds which will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. While CARB has published Recommended Approaches for Setting Interim Significance for Greenhouse Gases for project-level analysis, it had not completed this task at the time this environmental document was written.

Under CEQA, environmental analysis must identify and focus on the significant environmental effects of a project. Significant effect on the environment means a substantial, or potentially substantial, adverse change in the environment (Public Resources Code, Section 21068). CEQA further states that the CEQA Guidelines shall specify certain criteria to be used in determining

whether projects would have a significant effect on the environment. The Bay Area Air Quality Management District (BAAQMD) established CEQA Air Quality Guidelines to assist lead agencies in evaluating air quality impacts for projects and plans in the San Francisco Bay Area Air Basin (SFBAAB). The guidelines were updated in 2010 to include guidance on assessing greenhouse gas and climate change impacts as required under CEQA section 15183.5(b) and to establish thresholds of significance for impacts related to greenhouse gas emissions. These thresholds can be used to assess plan-level and project-level impacts and allow a lead agency to determine that a project's impact on GHG emissions is less than significant if it is in compliance with a qualified greenhouse gas reduction strategy.

The thresholds of significance for plans (e.g., general plans, community plans, specific plans, regional plans, congestion management plans) within the SFBAAB are summarized below.

Thresholds of Significance for Plans					
Criteria Air Pollutants and Precursors	Construction: none Operational: Consistency with current AQP and projected VMT or vehicle trip increase is less than or equal to projected population increase.				
GHGs	Construction: none Operational: 6.6 MTCO2e/SP/yr (residents & employees) or a Qualified GHG Reduction Strategy. The efficiency threshold should only be applied to general plans. Other plans, e.g., specific plans, congestion management plans, should use the project-level threshold of 4.6 CO2e/SP/yr.				
Local Community Risk and Hazards	Land use diagram identifies special overlay zones around existing and planned sources of TACs and PM2.5, including special overlay zones of at least 500 feet (or Air District-approved modeled distance) on each side of all freeways and high-volume roadways, and plan identifies goals, policies, and objectives to minimize potentially adverse impacts.				
Odors	Identify locations of odor sources in plan; identify goals, policies, and objectives to minimize potentially adverse impacts.				
Regional Plans (transportation and air quality plans)	No net increase in emissions of GHGs, criteria air pollutants and precursors, and toxic air contaminants. Threshold only applies to regional transportation and air quality plans.				

Notes: $AQP = Air\ Quality\ Plan;\ CO2e = carbon\ dioxide\ equivalent;\ GHGs = greenhouse\ gases;\ MT = metric\ tons;\ SP = service\ population;\ TACs = toxic\ air\ contaminants;\ yr = year;\ PM2.5 = fine\ particulate\ matter.$

The City is taking a proactive approach by developing a Climate Action Plan (CAP) that is consistent with the requirements of a Qualified GHG Reduction Strategy per the BAAQMD Guidelines. The 2011 CAP is intended to be periodically updated to ensure that implementation of the City efforts to reduce GHG emissions are in compliance with current regulation. This approach is especially important given the constant flux of new research findings, technological improvements, and legislative updates dealing with climate change.

The Climate Action Plan will be used to help the City attain the goals identified in AB 32 (i.e., reduction of statewide GHG emissions to 1990 levels by 2020) or as outlined in the AB 32 Scoping Plan, the functional equivalent of 15% below "current" (2008) levels by 2020.

Discussion/Conclusion:

- a) Less Than Significant Impact. Implementation of the 2011 CAP would result in community-wide GHG emission reductions of approximately 73,840 MTCO₂e by 2020, a 15% reduction below 2008 baseline levels. The 2011 CAP would therefore directly and indirectly reduce the city's contribution to GHGs.
- b) Less Than Significant Impact. A number of regulations have been promulgated to reduce greenhouse gas (GHG) emissions in California. AB 32, the California Global Warming Solutions Act of 2006, requires California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 directs CARB to develop and implement regulations that reduce statewide GHG emissions. CARB encourages local governments to adopt a reduction goal for municipal operations emissions and similar goals for community emissions with the objective of reducing GHG emissions by 15% below current emissions levels.

Vallejo's 2011 CAP seeks to reduce GHG emissions in a manner consistent with AB 32. Implementation of measures contained in the 2011 CAP would result in annual community-wide GHG emission reductions of approximately 73,840 MTCO2e by 2020, a reduction that complies with AB 32 directives. Such a reduction is projected to reduce net community-wide emissions in Vallejo from a base year volume of 588,040 MTCO2e in 2008 to 497,020 MTCO2e in 2020. At present, there are no adopted regional or local plans, policies, or regulations that are designed to reduce emissions of GHGs.

	VIII. 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?			⊠	
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?			⊠	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			\boxtimes	
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?				
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?				⊠
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?				⊠
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				⊠
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?				

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. According to California Health and Safety Code Section 25501(o), "hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. Searches of the Department of Toxic Substance Control's EnviroStor database and the State Water Resources Control Board Geotracker database identified 52 hazardous material sites in Vallejo that are associated with a hazardous material related release or occurrence (SWRCB 2009; DTSC 2011).

There are no airport-related facilities in the city limits of Vallejo.

Discussion/Conclusion:

a-d) Less Than Significant Impact. The 2011 CAP may be implemented by future construction projects that would require use of construction materials, such as paints and solvents that may be hazardous through exposure during the routine transport, use, or disposal of these materials. The construction activities associated with new mixed-use or transit-oriented development projects or residential and commercial retrofit and renovation projects recommended by the 2011 CAP would not use these materials in large enough quantities to cause adverse effects.

Though Vallejo contains sites that are listed in the California Department of Toxic Substances Control's EnvriStor database, future development projects will require compliance with General Plan policies related to safety and hazardous materials, as well as with Zoning Code standards regarding hazardous materials and allowed placement of compatible land uses, which are designed to safeguard the public from potential adverse impacts associated with certain land uses including those that are associated with the use, disposal, and transportation of hazardous materials. Therefore, the proposed Climate Action Plan would create a less than significant hazard to the public or the environment regarding the transport, storage, use, and disposal of hazardous materials.

- **e-f) No Impact**. Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport. The city is not located within any airport comprehensive land use plan. Therefore, the proposed Climate Action Plan would result in no airport-related impact.
- **g) No** *Impact*. The City does not have a specific adopted emergency response or evacuation plan. The County of Solano manages the following programs in support of emergency response and evacuation planning: Fire Coordination Program, Hazardous Materials Area Plan, Emergency Preparedness Program, and Emergency Response Program. The 2011 CAP recommends strategies and measures to reduce GHG emissions. It does not include recommendations that would physically interfere with the County's Emergency Operations Plan or any established emergency evacuation plan, and there would be no impact.
- h) No Impact. The California Department of Forestry and Fire Protection, Natural Hazard Disclosure (Fire) map shows that the city does not contain any land designated as "Wildland Area That May Contain Substantial Forest Fire Risks and Hazards" or as a "Very High Fire Hazard Severity Zone AB 337" (Cal-Fire 2000). Therefore, no wildland fire impacts would occur.

	IX. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?			\boxtimes	
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			×	
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			×	
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			⊠	
f)	Otherwise substantially degrade water quality?			×	
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			⊠	
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			×	
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j)	Inundation by seiche, tsunami, or mudflow?				\boxtimes

The Vallejo area generally consists of level topography of alluvial origin. The Vaca Mountains, part of the Coast Ranges, are a prominent feature rising north of the city. The major streams in Solano County drain in an easterly or southerly direction from the Vaca Mountains to Suisun Marsh and the San Joaquin-Sacramento River Delta.

A large portion of the City of Vallejo is located in a Zone X designation, or areas determined by the Federal Emergency Management Agency (FEMA) to be located outside a 100-year floodplain. However, many portions of the City are located in a Zone AE designation, or areas determined by FEMA to be subject to inundation by the 1% annual chance flood event determined by detailed methods. Mandatory flood insurance purchase requirements and

floodplain management standards apply to residences within these areas, which include lands adjacent to the city's many waterways and drainages including the Napa River, Austin Creek, Rindler Creek, Blue Rock Springs Creek, Sulfur Springs Creek, the Lemon Street Canal, and San Pablo Bay.

The City of Vallejo partially overlies the Napa-Sonoma Valley Groundwater Basin.

Discussion/Conclusion:

a), f) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect water quality or hydrology. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. As a policy document, the CAP would have no direct impact on water quality or hydrology, but future development within the city could result in both construction and operational impacts to water quality and discharge standards. Potential operational impacts include the use of fertilizers, herbicides, and pesticides to maintain lawns, as well as motor vehicle operation and maintenance. Potential construction impacts include grading and vegetation removal activities that would result in the exposure of raw soil materials to the natural elements (wind, rain, etc.). However, the City enforces erosion control ordinances for new construction to prevent sediment from entering creeks and storm drain. These ordinances have proven very effective, so water quality is not likely to be greatly affected by construction activities associated with projects resulting from implementation of the 2011 CAP.

In addition, future developments would be subject to City of Vallejo General Plan policies intended to reduce impacts associated with hydrology and water quality, as well as to Zoning Code requirements associated with creeks and other natural drainage courses/tributary standards. All new development projects in the city are subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Stormwater Permit #CAS612006, which is enforced by the Regional Water Quality Control Board (RWQCB). The permit requires that the City impose water quality and watershed protection measures for all development projects and prohibits discharges from causing violations of applicable water quality standards or from resulting in conditions that create a nuisance or water quality impairment in receiving waters. The Excavations, Grading and Filling Ordinance (Title 12, Chapter 12.40 of the Municipal Code) establishes administrative procedures, standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, other pollutant runoff, and the disruption of existing drainage and related environmental damage. The ordinance requires that prior to grading activities, a detailed set of plans be developed that include measures to minimize erosion, sediment, and dust created by improvement activities. Compliance with the provisions of the NPDES and the City's Excavations, Grading, and Filling Ordinance would reduce the impacts of future development. Therefore, water quality and waste discharge impacts would be less than significant.

b) No Impact. The 2011 CAP recommends water conservation measures, which may result in reduced demand for water, including potential groundwater, but does not recommend measures that would require additional water from groundwater supplies or that would substantially interfere with groundwater recharge. Furthermore, the City of Vallejo does not use groundwater for its municipal water supply. Therefore, there would be no impact.

c-e) Less Than Significant Impact. The proposed Climate Action Plan encourages the City to consider increased development densities to support more compact development near transit and to construct bicycle and pedestrian facilities. These improvements may indirectly result in slight alterations to drainage patterns, but the changes would not be substantial, and any changes that would occur would be subject to existing federal and state regulations. The 2011 CAP does not recommend any strategy or measure that would directly alter drainage patterns, nor does it include measures that are expected to alter streams.

Future development projects will require compliance with General Plan policies related to hydrology and water quality and with Zoning Code requirements associated with creeks and other natural drainage courses/tributary standards. In addition, all new development projects in the city are subject to the requirements of the NPDES Stormwater Permit No. CAS612006, which is enforced by RWQCB. The permit requires that the City impose water quality and watershed protection measures for all development projects and prohibits discharges from causing violations of applicable water quality standards or from resulting in conditions that create a nuisance or water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the City's Stormwater Quality Improvement Plan (SQIP), which consists of six minimum control elements and requires stormwater quality treatment and/or best management practices (BMPs) in project design for both construction and operation. There are several regulations/procedures in place that implement the SQIP, including the Excavations, Grading and Filling Ordinance (Title 12 Chapter 12.40 of the Municipal Code) and construction standards. The ordinance establishes administrative procedures, standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, other pollutant runoff, and the disruption of existing drainage and related environmental damage. The ordinance requires that prior to grading activities, a detailed set of plans be developed that include measures to minimize erosion, sediment, and dust created by improvement activities. Compliance with the provisions of the NPDES, BMPs, and the City's Excavations, Grading and Filling Ordinance would reduce the impacts of future development.

Therefore, the proposed Climate Action Plan would result in less than significant impacts to drainage or runoff, as no development is proposed and future development envisioned by the Climate Action Plan would be subject to the regulations discussed above.

- **g-h)** Less Than Significant Impact. Portions of the City of Vallejo are located within the FEMA-designated 100-year flood zone. However, as discussed under **a-f**) above, the proposed Climate Action Plan is a policy-level document that does not include any site-specific designs or development proposals, nor does it grant any entitlements for development. Future development projects would be subject to General Plan policies that restrict the placement of any development on land subject to flooding in a 100-year event. In addition, the Flood Damage Protection Ordinance of the City Municipal Code sets standards for development in areas prone to flooding. Therefore, the proposed Climate Action Plan would not place structures within a 100-year flood zone and impacts would be less than significant.
- No Impact. The city is located downstream of several existing dam structures. In California, the Department of Water Resources, Division of Dam Safety is responsible for ensuring that all dams meeting certain criteria must satisfy stringent design criteria covering all possible conditions that could affect the dam, including earthquakes and flood events, without considering probability factors. Therefore, dams are designed to withstand the largest and strongest earthquake that could conceivably affect them. Similarly, dams are required to withstand the largest possible flood that could occur, which is referred to as the maximum probable flood. Since the proposed Climate Action Plan would not otherwise affect the

structural integrity of an existing dam's structure or substantially add to the risk of dam failure, no impact is expected to occur.

No Impact. Tsunamis originating in the Pacific Ocean would dissipate in the San Francisco Bay, thereby posing a reduced hazard to the city because of its location. The Vallejo General Plan notes that a tsunami with a run-up of 20 feet at the Golden Gate would be only about 10% (or 2 feet) once it reached Vallejo. A 20-foot tsunami is predicted to occur once every 200 years. The estimated elevation of the 500-year tsunami run-up in the nearby Carquinez Straits is 4 feet, which in association with factors such as high tides or heavy rainfall, could cause flooding in the city.

Seiches, or earthquake-induced waves in an enclosed waterbody, could occur in association with the several lakes and waterbodies in and around Vallejo and in San Pablo Bay. According to the City's General Plan, the maximum height of a seiche in these bodies of water would be between 1 and 3 feet.

Because climate changes resulting from greenhouse gas emissions are expected to contribute to an increase in sea level, the 2011 CAP would be expected to have a beneficial incremental impact on potential impacts from tsunamis and seiches by retarding the rise in sea level through reductions in GHG emissions. As a policy level document, the 2011 CAP would have no direct impact on Inundation by seiche, tsunami, or mudflow.

x.	LAND USE AND PLANNING: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Physically divide an established community?			\boxtimes	
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			⊠	
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?			\boxtimes	

Vallejo is characterized by a wide range of existing land uses, consisting primarily of residential and commercial/retail uses. In addition, there are office uses, industrial uses, agricultural uses, and public/private recreation and natural preserve uses. Institutional uses such as schools, churches, and other public entities are also present in the city.

Discussion/Conclusion:

a-b) Less Than Significant Impact. The 1999 Vallejo General Plan contains the following goal and policy (refer to Page X-15 of the General Plan):

Air Quality Goal 3: To make a contribution towards improving regional air quality.

Policy:

1. Cooperate with regional air quality planning agencies such as the Bay Area Air Quality Management District, Metropolitan Transportation Commission, and Association of Bay Area Governments in the development and implementation of regional air quality strategies.

The General Plan also contains policies and programs that:

- Promote pedestrian, bicycle, and transit modes of transportation to reduce vehicle trips;
- Seek to balance jobs and housing to reduce commuter trips;
- Recommend creation of a Transportation Systems Management (TSP) for new development to reduce carbon monoxide emissions;
- Promote high-density, mixed-use, infill development;
- Promote the installation of trees in landscaping; and
- Support local hiring practices.

The 2011 CAP implements General Plan Air Quality Goal 3 Policy 1 by providing general information about climate change and how GHG emissions within the city contribute to it, as well as an analysis of the potential effects of climate change on the city. Specifically, the 2011 CAP:

- Identifies and quantifies major sources of GHG emissions from activities within the City of Vallejo municipal boundary, including municipal operations and citywide activities.
- Provides feasible strategies to reduce emissions from energy use, transportation, land use, water, wastewater, and solid waste.
- Discusses the various outcomes of reduction efforts and how these reduction efforts can be implemented and advertised.
- Reduces GHG emissions consistent with the direction of the State of California via AB 32.

Serves as a CEQA tiering document for projects proposed within the City of Vallejo for climate change, by which all applicable developments within the city will be reviewed. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to physically divide the community or conflict with adopted plans. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map.

The 2011 CAP includes measures to reduce GHG emissions by, among other things, promoting increased-density, mixed-use development near transit nodes. However, the CAP does not propose changing existing land use designations or development standards, and there are a variety of land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) that are able to accommodate higher-density mixed-use development. Accordingly, it is not known whether specific future development proposals would be consistent with the development standards for the site or if new zoning designation would be needed to accommodate higher-density uses. Without project-specific information, it would be speculative to identify environmental impacts at this time. Should the City be presented with a transit-oriented development project at some point in the future, the City would undertake the appropriate level of environmental review pursuant to CEQA of potential land use impacts before taking any action to consider the approval of such changes. Accordingly, land use impacts would be less than significant.

c) No Impact. In March 1999, the United States Fish and Wildlife Service (USFWS), in accordance with Section 7 of the federal Endangered Species Act (ESA) of 1973 (as amended), issued a Biological Opinion regarding the Solano Project Water Service Contract Renewal between the United States Bureau of Reclamation and the Solano County Water Agency (SCWA). The Solano Project is the reclamation project that makes water available to SCWA and its contractors. SCWA delivers Solano Project water in accordance with its eight member agency contracts. The member agencies include the City of Vallejo. The 25-year contract between the United States Bureau of Reclamation and SCWA provides for continued delivery of Solano Project water for agricultural, municipal, and industrial purposes throughout the SCWA contract service area. In response to the USFWS Biological Opinion, the Solano Multispecies Habitat Conservation Plan (MSHCP) was drafted. The purpose of the MSHCP is to promote the conservation of biological diversity and the preservation of endangered species and their habitats consistent with the recognition of private property rights; provide for a healthy

economic environment for citizens, agriculture, and industries; and allow for the ongoing maintenance and operation of public and private facilities in Solano County. Vallejo is located within the MSHCP.

Allowable activities in the MSHCP include the construction of new buildings and associated infrastructure. The Solano MSHCP requires new development to provide fee payments to preserve habitat elsewhere in the plan boundaries. All future development occurring within the city would be considered pursuant to the requirements of the Solano MSHCP on a case-by-case basis following submittal of a specific development proposal. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to conflict with the MSHCP. Consequently, there would be no impact to an adopted habitat conservation plan or natural community conservation plan.

	XI. MINERAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				⊠
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				Ø

Solano County is rich in a number of nonfuel mineral resources. Mineral resources mined or produced within Solano County include mercury, sand and gravel, clay, stone products, calcium, and sulfur. Known mineral resource zones (MRZs) are located at the northeastern portion of the Vallejo Planning Area. MRZs are classified by the State Geologist on the basis of geologic factors and may fall into one of four general classifications (MRZ-1 through MRZ-4). The MRZ zones occurring within the Vallejo Planning Area have been classified as an MRZ-2 zone. MRZ-2 zones have a higher probability of having significant mineral deposits compared with MRZ-3 zones which are found elsewhere throughout Solano County.

According to the Vallejo General Plan, a deposit of greenstone and greywacke of Franciscan Complex form, which has value for crushed stone, has been identified in the eastern portion of the City.

Discussion/Conclusion:

a-b) No Impact. The Climate Action Plan is consistent with the land uses envisioned in the General Plan and Zoning Code and would not conflict with an adopted specific plan or remove policies that currently protect mineral resources. Future development proposals will be subject to permitting to ensure conformance with the land use designations, including the mineral resource zones. Existing code requirements will ensure that there would be no impact to mineral resources.

	XII. NOISE: Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or 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 existing without the project?				×
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				\boxtimes
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 expose people residing or working in the project area to excessive noise levels?				×
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				⊠

The major noise sources in the city consist of auto and truck traffic on the major highways and roadways traversing the Planning Area. Residential and other noise-sensitive uses adjacent to area roadways are affected by traffic noise, especially those areas with no sound walls adjacent to the roadway. Development adjacent to Interstates 80 and 780 are affected by highway noise.

Noise sources associated with service commercial uses, such as automotive repair facilities, wrecking yards, tire installation centers, car washes, loading docks, etc., are found at various locations within the city. The noise emissions of these types of uses are dependent on many factors and are therefore difficult to quantify precisely. There are also several park and school uses within the city. Noise generated by these uses depends on the age and number of people utilizing the respective facility and the types of activities they are engaged in. School playing field activities tend to generate more noise than those of neighborhood parks, as the intensity of school playground usage tends to be higher. At a distance of 100 feet from an elementary school playground being used by 100 students, average and maximum noise levels of 60 and 75 dB, respectively, can be expected.

Discussion/Conclusion:

a–d) No Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or development proposals, nor does it grant any entitlements for development. The 2011 CAP includes reduction measures that promote transit-oriented development and bicycle/pedestrian facilities. Future construction of such facilities has the potential to temporarily

increase noise levels. Future development projects will be required to comply with General Plan policies related to noise and with Zoning Code noise and vibration standards. In addition, Chapter 16.72.030 of the Vallejo Municipal Code addresses sound measurement standards, noise control programs, and other noise performance standards for various use types. Existing code requirements are adequate to ensure that there would be no adverse impacts related to a temporary or permanent increase in noise levels.

e-f) No Impact. No portion of the City of Vallejo is located within an airport land use plan area. The closest airport to Vallejo is the Oakland International Airport, which is located approximately 27 miles from the city. Therefore, there would be no impact from airplane noise.

	XIII. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			×	
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				×
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				\boxtimes

Vallejo is located in southwestern Solano County. Based on the 2000 and 2010 Census, the population of Solano County increased by 4.8% from a 2000 population of 394,542 persons to a 2010 population of 413,344 persons. During the same time period, the City of Vallejo's population decreased by about 0.7% from a 2000 population of 116,760 persons to a 2010 population of 115,942 persons. Based on ABAG Projections 2009, the population of Vallejo was projected to increase to 130,900 persons in 2020and to 143,900 persons in 2035.

Discussion/Conclusion:

a) Less Than Significant Impact. The 2011 CAP includes measures to reduce GHG emissions by, among other things, promoting increased-density, mixed-use development near transit nodes. This measure could affect Vallejo's population by creating new housing in mixed-use transit-oriented development projects or by retrofitting existing homes. The 2011 CAP also includes measures that encourage retrofitting existing residential and commercial buildings to make them more energy efficient. Commercial and residential energy efficiency retrofits that may occur as a result of the 2011 CAP would update homes and commercial space that already exists in Vallejo and would not be likely to include additions that make homes or commercial space larger to accommodate more people.

Several existing land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) are able to accommodate higher-density mixed-use development without requiring changes in land use designations that may result in an increase in population. To the extent that a mixed-use transit-oriented development is proposed in an area that would require a change in land use designations, the City would conduct the appropriate level of environmental review pursuant to CEQA, prior to taking any action to consider the approval of such changes. Specifically, future development projects must be in compliance with General Plan policies related to population growth in the city. Without project-specific information, it would be speculative to identify environmental impacts at this time. Consequently, existing land use designations and controls are adequate to ensure that growth-inducing impacts would be less than significant.

b-c) No Impact. The 2011 CAP encourages energy-efficient retrofits for existing homes and encourages new mixed-use and transit-oriented development projects in targeted locations.

While the energy retrofits may cause temporary inconvenience to housing occupants, they would not result in displacement. Future mixed-use development activities would likely lead to greater residential development within the city's commercial corridors and would result in more homes. Accordingly, the proposed Climate Action Plan would not displace or decrease housing units in the city. Therefore, no impact would occur.

X	(IV. PUBLIC SERVICES: Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
nee	stantial adverse physical impacts associated with the provi of for new or physically altered governmental facilities ironmental impacts, in order to maintain acceptable services any of the public services:	s, the constru	ction of which	could cause	significant
	any or the public services				
a)	Fire protection?				
a)	Fire protection?				
a) b)	Fire protection? Police protection?			×	

The City of Vallejo Fire Department provides fire protection to Vallejo. The Fire Department currently has eight fire stations throughout the city. The Fire Department provides fire protection and emergency services, including advanced life support emergency medical service, advanced technology fire suppression, development plan code review, disaster preparedness planning, annual fire prevention and safety surveys, and public education.

The Vallejo Police Department provides police protection in the city. The Police Department is headquartered at 111 Amador Street in Vallejo. Programs in the department include investigations unit, traffic unit, and code enforcement.

The Vallejo City Unified School District provides public school services for the city. The school district boundaries encompass the entire city. Currently, the district operates 25 schools: 16 elementary schools, 4 middle schools, 3 high schools, and 2 alternative education schools.

Park and recreation services in the city are discussed under the Recreation section below.

Discussion/Conclusion:

a-e) Less Than Significant Impact. The proposed Climate Action Plan includes measures that are designed to reduce greenhouse gas emissions, including a measure that recommends that the City promote increased-density, mixed-use development near transit nodes. Policies related to capital improvements to enhance energy efficiency have the potential to compete for limited financial resources that may otherwise be available to pay for operating expenses. This potential conflict would likely be minimal because such retrofits would be part of standard facility maintenance plans, and all expenditures would be prioritized through the Capital Improvement Program for public service providers to ensure continuation of services.

The 2011 CAP does not propose changing existing land use designations or development standards, and there are a variety of land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) that are able to accommodate higher-density mixed-use development. Although future construction of new mixed-use and transit-oriented projects could increase densities within the city, the 2011 CAP anticipates land uses would be consistent with the land use designations

established by the General Plan Land Use Element and existing zoning districts. To the extent that a mixed-use transit-oriented development is proposed in an area that would require a change in land use designations, the City would conduct the appropriate level of environmental review pursuant to CEQA prior to taking any action to consider the approval of such changes. This analysis would include an evaluation of the capacity of emergency service providers, public schools, parks, and libraries to serve the new development. Because existing land use designations and controls are adequate to ensure compliance with General Plan standards, impacts associated with an increased demand for public services would be less than significant.

	XV. RECREATION: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regiona parks or other recreational facilities such that substantia physical deterioration of the facility would occur or be accelerated?			\boxtimes	
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			×	

The Greater Vallejo Recreation District (GVRD) provides parks and recreation services to the Vallejo community. GVRD operates and maintains 4 community parks and 19 neighborhood parks. GVRD also organizes and manages sports programs, after-school care, and a variety of leisure classes for over 120,000 people. In addition, GVRD hosts a variety of special events like the Vallejo Sports Hall of Fame, Breakfast with Santa, and the recent Natalie Coughlin Tribute.

Discussion/Conclusion:

a–b) Less Than Significant Impact. The 2011 CAP does not propose changing existing land use designations or development standards, and there are a variety of land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) that are able to accommodate higher-density mixeduse development. Accordingly, Implementation of the 2011 CAP is not expected to result in substantial population growth and would not result in increased physical deterioration of parks and recreational facilities.

The 2011 CAP does promote the expansion of bicycle and pedestrian facilities, which could provide additional recreational opportunities within the city. Construction of bicycle and pedestrian facilities could potentially impact the environment, but potential impacts would be limited due to the developed, urban nature of the city and the likelihood that such facilities would be constructed within existing rights-of-way. Accordingly, potential adverse environmental effects of construction would not rise to a level of significance.

Future development projects will require compliance with General Plan policies related to parks and trails and with Zoning Code requirements associated with the public and quasi-public facilities zoning district. The City of Vallejo requires new residential developments to provide or fund parks at a standard of 4.25 acres of land for parks per 1,000 residents.

Based on all of the above, potential impacts to existing recreation facilities and from construction of future recreation facilities are expected to be less than significant.

X	(VI. TRANSPORTATION/TRAFFIC: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		.	⊠	
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			×	
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				⊠
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			⊠	
e)	Result in inadequate emergency access?			☒	
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				⊠

Roadways are the primary existing transportation facilities within the city. The existing roadway network consists of highways, thoroughfares, arterials, collectors, and local streets. Existing bicycle, pedestrian, and transit facilities are also present in the city. The following are some of the major roadways in the city limits: Interstates 80 and 780, State Routes 29 and 37, Columbus Parkway, Ascot Parkway, Rollingwood Drive, Tennessee Street, and Curtola Parkway.

There are no airports within the existing city limits. Transit service in Vallejo is provided by bus, ferry, and links to Bay Area Rapid Transit (BART). Bus service is provided locally by Vallejo Transit Lines (VLT), which also provides BART link service. Regionally, Greyhound Bus Line has a station at the transit center on Lemon Street. Vallejo also has its own ferry service to and from San Francisco with a contract with Blue and Gold. This service attracts users from throughout Solano and Napa counties.

Discussion/Conclusion:

a-b) Less Than Significant Impact. The proposed Climate Action Plan includes measures designed to reduce greenhouse gas emissions by expanding the existing pedestrian and bicycle network, promoting a comprehensive transit system, and supporting mixed-use transit-oriented development. The 2011 CAP does not propose changes to existing measures of effectiveness for the performance of the circulation system or congestion management plan.

Implementation of the 2011 CAP measures would increase the availability of transit service, add additional bicycle and pedestrian facilities, and discourage single-occupancy vehicle use. Each of these measures has the potential to reduce the number of vehicle trips, improve volume-to-capacity ratios, and reduce intersection congestion within the city. New mixed-use and transit-oriented development projects would reduce vehicle trips by placing more people within walking distance of commercial uses and public transit.

Future development projects will be required to comply with General Plan policies related to traffic and circulation. For example, Policy 6 of the General Plan's Mobility Goal states that prior to approval of a particular land use, it should be analyzed to determine its impact on the existing circulation system. Therefore, existing land use designations and controls are adequate to ensure that impacts associated with traffic would be less than significant.

- c) No Impact. There are no public or private airports or airstrips located within the City of Vallejo. Therefore, no impact would occur relative to an increase in air traffic.
- **d–e)** Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect traffic. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map.

Future development projects will require compliance with General Plan policies related to traffic and circulation. In addition, future projects would be subject to requirements in the Zoning Code regarding site design and parking. Therefore, impacts would be less than significant.

No Impact. The Climate Action Plan promotes transit-oriented development and bicycle/pedestrian facilities improvements in support of existing General Plan policies. Future development would be required to comply with General Plan policies related to pedestrian and bicycle access and alternative transportation. Therefore, the proposed Climate Action Plan would not conflict with any local policies or ordinances supporting multimodal access and alternative transportation.

	XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			⊠	
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			⊠	
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			⊠	
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			⊠	
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			⊠	
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				
g)	Comply with federal, state, and local statutes and regulations related to solid waste?			×	

The Vallejo Sanitation and Flood Control District (VSFCD) is responsible for wastewater collection and treatment within the City of Vallejo. VSFCD's wastewater treatment system includes the Ryder Street Wastewater Treatment Plant (WWTP), as well as 21 pump stations. The Ryder Street WWTP has a permitted capacity of 15.5 million gallons per day (mgd) average dry weather flow. The Ryder Street WWTP has a wet weather capacity of 35 mgd for secondary treatment and 25 mgd for primary treatment. On past occasions, peak wet weather flows have exceeded the plant's wet weather capacity, resulting in overflows of untreated wastewater into Mare Island Strait. In order to correct this, VSFCD has constructed a temporary holding basin with a capacity of 8.6 million gallons next to the Ryder Street WWTP. The plant discharges treated effluent into both the Mare Island Strait and the Carquinez Strait. Wastewater treated to a secondary level can be discharged into either strait, while wastewater treated to a primary level may only be discharged into the Carquinez Strait.

The City of Vallejo is supplied by the City of Vallejo Water Systems, a public water supplier that purchases, treats, distributes, and sells water in the City of Vallejo and unincorporated areas of Solano County, as well as to the former Mare Island Naval Shipyard and Travis Air Force Base. In total, the City supplies water to approximately 36,500 customers. The City of Vallejo Water Systems currently uses four surface water sources for its entire supply: the State Water Project,

Vallejo Permit Water, Solano Project Water, and Lakes Frey and Madigan. The entitlements from these four sources will total 43,400 acre-feet per year as of 2010 and beyond. The City currently does not have any water supplies drawn from groundwater or recycled water.

Currently, the City operates two water treatment plants: the Fleming Hill Water Treatment Plant (WTP) and the Green Valley WTP. The Fleming Hill WTP, which is the City's main WTP, treats water from the Sacramento River Delta and can treat up to 42 million gallons per day. In addition, the Green Valley WTP can treat 1 mgd. Current estimates indicate that the City serves approximately 165,940 people and is expected to serve a population of 200,610 by 2025. In 2004, the annual average water demand was estimated to be 18.1 mgd, and the maximum per day demand was 28.8 mgd.

Recology Vallejo (formerly Vallejo Garbage Service, Inc.) currently provides solid waste services and yard waste collection for the City of Vallejo. Solid waste collected by Recology Vallejo is transported to the Devlin Road Waste Transfer Station, a regional facility operated by the Napa-Vallejo Waste Management Authority. Compostable yard waste is transported to a compost facility in southern Napa County adjacent to the transfer station and operated by the Waste Management Authority.

The Devlin Road Waste Transfer Station has a permitted capacity to process about 1,600 tons of waste per day (tpd) and currently processes about 600 tpd. Processed waste is transported to the Keller Canyon Landfill in Contra Costa County. The Keller Canyon Landfill has a permitted capacity of 75 million cubic yards and a remaining capacity of over 63 million cubic yards. Currently, the landfill receives approximately 2,500 tpd of garbage and is permitted to receive 3,500 tpd. The expected lifespan of the landfill is 50 years, or until approximately 2058.

VGS, the Devlin Road Waste Transfer Station, and the Keller Canyon Landfill all operate in accordance with state and federal regulations.

a-b); d-e) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely increase demand for utility or public services. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. Accordingly, implementation of the 2011 CAP is not expected to result in additional population growth over that which is permitted under existing land use designations. The proposed Climate Action Plan does include measures recommending that the City promote higher-density, mixed-use development near transit nodes, but does not include any site-specific designs or development proposals, nor does it grant any entitlements for development. There are a variety of existing land use and zoning designations within the city (e.g., the Neighborhood Shopping and Service District and the Pedestrian Shopping and Service District) that are able to accommodate higher-density mixed-use development. Future development proposals would be reviewed by the appropriate service agencies as part of the development application review process in order to ensure that sufficient capacity in all utility and services facilities would be available on time to maintain desired service levels for solid waste, wastewater treatment and water supplies. Therefore, impacts associated with a significant increase in demand for utilities and service systems would be less than significant.

c) Less Than Significant Impact. As a policy document, the 2011 CAP does not include development proposals, grant entitlements, or propose changing land use designations or development standards in a way that would directly alter drainage patterns within Vallejo, but it

does include implementation measures that would involve the creation of trails/bicycle paths, and transit oriented development. At the time such improvements are installed, they have the potential to increase runoff and alter normal drainage patterns.

Future developments would be subject to City of Vallejo General Plan policies intended to reduce impacts associated with changes in hydrology as well as to Zoning Code requirements associated with storm drain improvements. All new development projects in the city are subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Stormwater Permit #CAS612006, which is enforced by the Regional Water Quality Control Board (RWQCB). The permit requires that the City impose watershed protection measures for all development projects and prohibits discharges from causing violations of applicable water quality standards or from resulting in conditions that create a water quality impairment in receiving waters. The Excavations, Grading and Filling Ordinance (Title 12, Chapter 12.40 of the Municipal Code) establishes administrative procedures, standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, other runoff, and the disruption of existing drainage and related environmental damage. Compliance with the provisions of the City's Excavations, Grading, and Filling Ordinance would reduce the impacts of future development on storm drain improvements. Therefore, impacts associated with the construction of new stormwater drainage facilities or the expansion of existing facilities is considered less than significant.

f-g) Less Than Significant Impact. Solid waste collection and disposal would be provided by private haulers, currently the Vallejo Garbage Service. The landfill serving the City has permitted capacity to serve future development consistent with development projected under the General Plan. As a policy document, the 2011 CAP does not include development proposals, grant entitlements, or propose changing land use designations or development standards in a way that would directly **impact** collection and disposal of waste. Reduction measures that involve the creation of trails/bicycle paths, and transit oriented development have the potential to increase demand for waste disposal. At the time such improvements are installed, they will have to comply with AB 939 and the County Integrated Waste Management Plan, both of which require recycling programs that result in a 50% diversion away from landfills. These existing criteria, would ensure that future projects would not result in a substantial increase in waste stream or cause a need for additional solid waste collection services or landfill capacity. Further, the 2011 CAP includes reduction measures that support and enhance waste diversion efforts to decrease the overall waste stream and lengthen the lifespan of the landfill. Therefore, solid waste impacts would be less than significant.

	XVIII. MANDATORY FINDINGS OF SIGNIFICANCE: Does the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			⊠	
b)	Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			×	
c)	Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			⊠	

NOTE: If there are significant environmental impacts which cannot be mitigated and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study as an appendix. This is the first step for starting the environmental impact report (EIR) process.

Discussion/Conclusion:

a), c) Less Than Significant Impact. The 2011 CAP is a policy-level document that does not include any site-specific designs or proposals, nor does it grant any entitlements for development that would have the potential to degrade the quality of the environment or to adversely affect human beings. The Climate Action Plan does not propose to change existing land use designations or zoning districts, and anticipates that land uses will be consistent with the designations established by the General Plan Land Use Element and Land Use Policy Map. While the CAP is expected to have a beneficial impact, identifying the full extent of the environmental benefits associated with these measures would be speculative at this time without any specific development projects identified at this time.

Should the City determine that new land use or zoning designations are necessary at some point in the future, the City would conduct the appropriate level of environmental review pursuant to CEQA prior to taking any action to consider the approval of such changes. Future development projects would require compliance with General Plan policies and other City codes and ordinances intended to protect the environment. The Climate Action Plan would establish measures designed to reduce GHG emissions within the city in compliance with existing federal, state, and local requirements. Therefore, the proposed Climate Action Plan would result in less than significant adverse impacts to the environment or to human beings as a result of environmental degradation.

b) Less Than Significant Impact. As discussed above, the proposed Climate Action Plan is a policy-level document that does not propose any specific development or specify sites for development. Future development projects and/or policies would be subject to environmental review, including a review of cumulative impacts. Therefore, impacts would be less than significant.

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