

Chapter 8. Greenhouse Gases

This section describes the regulatory background and existing conditions related to GHG emissions. It discusses the estimated GHG emissions of the two CWP alternatives, the potential impacts of the emissions, and mitigation to reduce impacts.

8.1 Existing Setting

Greenhouse gas (GHG) includes naturally occurring and anthropogenic gases, such as carbon dioxide (CO₂), methane, nitrous oxide, hydro-chlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs absorb infrared radiation, trap the energy from the sun, and help maintain the temperature of the Earth’s surface, creating a process known as the greenhouse effect. The accumulation of GHGs in the atmosphere influences the long-term range of average atmospheric temperatures. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The climate change associated with this global warming is predicted to produce economic and social consequences across the globe. GHGs are collectively measured as CO₂-equivalent (CO₂e), where the global warming potential of each greenhouse gas is equated to that of CO₂.

GHGs are collectively measured as CO₂-equivalent (CO₂e), where the global warming potential of each gas is equivalent to CO₂. In 2012, the most recent year for which data is provided, the annual California statewide GHG emissions were 458.68 million metric tons of CO₂e (ARB, 2015). The transportation sector accounts for about 37 percent of the statewide GHG emissions inventory. The electric power sector accounts for about 21 percent of the total statewide GHG emissions inventory.

According to BAAQMD, in 2007 GHG emissions were 95.8 million metric tons of CO₂e, of which about 36 percent was from the transportation sector and 16 percent was from electricity use/co-generation (BAAQMD, 2010). The dominant GHG emitted was CO₂, primarily from fossil fuel combustion.

The City updated its 2005 GHG inventory in its CAP (Pacific Municipal Consultants, 2015). In 2005, the City’s community-wide GHG emissions totaled 804,290 metric tons of carbon dioxide equivalent (MTCO₂e) for the sectors as shown in Table 8-1. The sector with the largest portion of emissions was on-road transportation, which produced 464,070 MTCO₂e, or 58 percent of all community emissions. The next largest sector, commercial/industrial built environment, produced 144,790 MTCO₂e, 18 percent of the total. Water and wastewater (3,030 MTCO₂e) each comprised less than 1 percent of total emissions.

TABLE 8-1
San Mateo 2005 Community-Wide GHG Emissions
Programmatic Environmental Impact Report, City of San Mateo Clean Water Program

Sector	MTCO ₂ e	Percentage
On-road transportation	464,070	58
Commercial/industrial built environment	144,790	18
Residential built environment	136,790	17
Solid waste generation	26,960	3
Off-road equipment	11,690	1
Landfill	7,020	1%
Point sources	6,070	1
Caltrain	3,870	Less than 1
Water and wastewater	3,030	Less than 1
Total	804,290	100

Source: Pacific Municipal Consultants, 2015

The City's GHG inventory of 2010 indicates that the GHG emissions were 9 percent below 2005 levels. The three largest sources of emissions (on-road transportation, commercial/industrial built environment, and residential built environment) all had lower emissions in 2010 than in 2005, along with the landfill and solid waste generation sectors. Emission levels increased in four remaining sectors, most noticeably in the off-road equipment sector, although the relatively small size of these sources meant that they had only a limited impact on communitywide emissions. The relative distribution of emissions within the sectors did not change in a meaningful way from 2005 to 2010 (Pacific Municipal Consultants, 2015).

8.2 Regulatory Framework

8.2.1 Federal Regulations

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the National Clean Car Program and Executive Order (EO) 13514 – Federal Leadership in Environmental, Energy and Economic Performance. These focus on reducing GHGs internally in federal agency missions, programs and operations and also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is developing a national strategy for adapting to climate change.

U.S. Environmental Protection Agency (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs must meet the definition of air pollutants under the existing Clean Air Act and be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs constitute a threat to public health and welfare. Thus, it was the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that formed the basis for EPA's regulatory actions. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010 (Center for Climate and Energy Solutions, 2014).

The EPA and the NHTSA are taking coordinated steps to enable the production of a new generation of "clean" vehicles with reduced GHG emissions and improved fuel efficiency for on-road vehicles and engines. The next steps include developing the first GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and save 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012 through 2016).

On August 28, 2012, EPA and NHTSA issued a joint final rulemaking to extend the national program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model years 2017 through 2025 standards, projections are that approximately 4 billion barrels of oil would be saved and 2 billion metric tons of GHG emissions would be eliminated.

The complementary EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards would cut GHG emissions and domestic oil use significantly. This program responds to President Obama's 2010 request to jointly establish GHG emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards would reduce CO₂ emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy duty vehicles.

In March 2013, EPA proposed Tier 3 Motor Vehicle Emission and Fuel Standards to reduce air pollution from passenger cars and trucks to set new vehicle emissions standards and lower the sulfur content of gasoline, considering the vehicle and its fuel as an integrated system.

8.2.2 State Regulations

With the passage of several pieces of legislation, including State Senate and Assembly Bills and EOs, California launched an innovative and proactive approach to address GHG emissions and potential climate change-related impacts. The legislation includes the following:

- AB 1493, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year.
- EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to (1) year 2000 levels by 2010, (2) year 1990 levels by the 2020, and (3) 80 percent below year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32.
- AB 32, The Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." In December 2008, the ARB approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Key elements of the initial Scoping Plan included the following:
 - Expand and strengthen energy efficiency programs, including building and appliance standards.
 - Increase electricity generation from renewable resources to at least 33 percent of the statewide electricity mix by 2020.
 - Establish targets for passenger vehicle-related GHG emissions for regions throughout California and pursue policies and incentives to achieve those targets. Included with this strategy is support for the development and implementation of a high speed rail system to expand mobility choices and reduce GHG emissions.
 - Adopt and implement measures pursuant to existing State laws and policies, including California's clean car standards and the Low Carbon Fuel Standard.
 - Develop a cap-and-trade program to ensure the target is met, while providing flexibility to California businesses to reduce emissions at low cost.

In May 2014, ARB approved the first update to the Climate Change Scoping Plan (First Update). The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

- EO S-20-06 (October 18, 2006): This EO establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency and state agencies with regard to climate change.
- EO S-01-07 (January 18, 2007): This EO set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.
- SB 97, Chapter 185, 2007, Greenhouse Gas Emissions: SB 97 required the Governor's Office of Planning and Research to develop recommended amendments to the CEQA Guidelines for addressing GHG emissions. The amendments became effective March 18, 2010.

- SB 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a "Sustainable Communities Strategy" that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.
- SB 391, Chapter 585, 2009 California Transportation Plan: This bill requires the state's long-range transportation plan to meet California's climate change goals under AB 32.
- Renewables Portfolio Standard (RPS): Established in 2002 under SB 1078, accelerated in 2006 under Senate Bill 107 and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

8.2.3 Local Climate Actions

San Mateo's CAP is a comprehensive strategy to reduce GHG emissions and streamline the environmental review of GHG emissions of future development projects in the City (Pacific Municipal Consultants, 2015). The CAP identifies a strategy, reduction measures, and implementation actions the City will use to achieve the GHG emissions reduction target of 15 percent below 2005 emissions levels by 2020.

Specific measures to reduce GHG emissions that could be applicable to the CWP include the following:

- RE5 – renewable energy systems for new nonresidential buildings
- RE6 – renewable energy systems for existing nonresidential buildings
- ME1 – energy efficiency for new City buildings
- ME2 – energy efficiency at existing City buildings
- WW2 – water efficient landscaping
- WW3 – develop new sources of nonpotable water
- OR2 – alternative fuel construction equipment

However, as described in the CAP, applying these strategies City-wide would be estimated to result in only 720 of the 57,210 MTCO₂e, or just over one percent, targeted for emissions reduction.

8.3 Assessment Methods and Thresholds of Significance

Under California Environmental Quality Act (CEQA), state and local agencies are required to identify any significant environmental impacts that occur as a result of their actions. CEQA also requires that these agencies avoid or mitigate any impacts on the extent feasible. BAAQMD has developed specific GHG guidelines for compliance with CEQA (BAAQMD, 2012), which provide criteria on how to assess and mitigate project-related impacts on GHG.

Impacts on GHG emissions may occur if the CWP or associated projects would result in the following:

- GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

BAAQMD adopted CEQA thresholds of significance for GHGs in June 2010 that are currently the subject of recent judicial actions (BAAQMD, 2014) and BAAQMD is no longer recommending these thresholds. However, the City has determined, in its discretion, that the BAAQMD guidelines and thresholds of significance for GHG emissions are based on substantial evidence to "attribute an appropriate share of

greenhouse gas emission reductions necessary to reach AB 32 goals to land use development projects in BAAQMD’s jurisdiction that are evaluated pursuant to CEQA” (BAAQMD, 2011). Therefore, in its discretion, the City is using these guidelines for the purpose of evaluating the proposed CWP. The proposed 2010 BAAQMD threshold at a plan level for operational GHG emissions is compliance with a qualified GHG reduction strategy or 6.6 MTCO₂e per service population (SP) per year (BAAQMD, 2011). The emissions from wastewater treatment represent only a fraction of the total per capita GHG emissions. Therefore, the CWP GHG impacts were evaluated based on whether the CWP GHG emissions may have a significant impact on the environment, more specifically, if the GHG emissions from the CWP would hinder or delay California’s ability to meet the GHG reduction targets set in AB 32, i.e. to reduce California’s GHG emissions to year 2000 levels by 2010, year 1990 levels by 2020, and 80 percent below year 1990 levels by 2050, or if the CWP would hinder or delay the City’s GHG emission reduction goals in the CAP (Pacific Municipal Consultants, 2015).

8.4 Environmental Impacts

GHG and climate change impacts associated with construction and operation of CWP projects were analyzed based on the anticipated activities and associated emission changes. The impacts are summarized in Table 8-2 and described in detail following the table.

TABLE 8-2

Summary of Air Quality Impacts

Programmatic Environmental Impact Report, City of San Mateo Clean Water Program

Impact	In-System Storage Program	Full Conveyance Program	New Headworks Project	Primary Clarifier Project
Impact 8-1. The implementation of the CWP would generate GHG emissions that could affect the environment.	Less than significant impact with mitigation			
Impact 8-2. The CWP may conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	Less than significant impact with mitigation			

Impact 8-1. The implementation of the CWP would generate GHG emissions that could affect the environment.

In-System Storage Program

The GHG impacts for the In-System Storage Program were evaluated based on whether the GHG emissions would hinder or delay California’s ability to meet the GHG reduction targets set in AB 32 and in the region’s climate action plan.

GHG emissions increases would occur during construction from the construction equipment and vehicles. During operation, direct emissions of GHG from the WWTP may increase. In-System Storage Program operation would also increase the electricity usage due to the upgraded WWTP with its greater level of treatment facilities to pump wet weather flows, and would result in indirect GHG emissions from power generation.

Although a quantitative threshold is not used, for information purposes, construction and operation emissions of GHG were estimated. GHG emissions from the construction equipment and vehicles from the proposed In-System Storage Program construction were estimated using CalEEMod (California Air Pollution Control Officers Association, 2013). The same construction assumptions used for the air quality impact

analysis were used for the GHG emission estimate. To be conservative, the worst-case daily GHG emissions were multiplied by 365 days to obtain the annual GHG emissions.

A summary of the GHG emissions from the In-System Storage Program construction are shown in Table 8-3. Emissions in Table 8-3 represent a conservative estimate of the GHG emissions, assuming the worst-case daily emissions would occur on everything day for the entire year. GHG emissions from construction would be short term. Implementation of **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures** would minimize idling times and maintain equipment in good condition, reducing GHG emissions.

TABLE 8-3

Construction GHG Emissions for In-System Storage Program

Programmatic Environmental Impact Report, City of San Mateo Clean Water Program

Program	MTCO ₂ e per Year
New WWTP Project	719.0
New WWTP Project	719.0
Large Pipeline Project	404.9
Large Pipeline Project	404.9
Average Pipeline Project	403.4
Average Pipeline Project	403.4
Average Pipeline Project	403.4
Large Pump Station Wet Well	296.6
In-system Storage Basin	316.9
Total for In-System Storage Program	4,071.7

Note:

Construction emissions were modeled using CalEEMod. Assumed all construction activities would occur simultaneously during a worst-case day.

Operation of the In-system Storage would result in direct GHG emissions from the WWTP equipment operation and indirect emissions associated with the electricity usage. Direct GHG emissions were not quantified for the WWTP operation. In-System Storage Program has treatment options as described in Chapter 2 and may result in slightly different GHG emissions from the plant operation. However, because the annual average treatment capacity of the WWTP would not change, direct GHG emissions related to WWTP operation are expected to be similar to current emission levels, and substantial GHG emission increases would not be expected. Methane would be captured and flared or converted to a useable form such as compressed natural gas.

Indirect GHG emissions are due to the additional power usage that would be required to operate the upgraded WWTP and to pump wet weather flows from equalization basins. GHG emissions associated with power generation were estimated for the existing condition and future operations. Power usage of the existing condition was obtained from the plant electricity use record. Future electricity use was calculated using standard measures. The anticipated minimum and maximum electricity usages for the In-system Storage operation in future years were estimated to represent the potential electricity usage range. GHG emission factors for power generation were obtained from EPA eGRID 9th Edition Version 1.0, Year 2010 GHG Annual Output Emission Rates (EPA, 2014). A summary of the GHG emission increase due to the increase electricity usage are shown in Table 8-4. Indirect GHG emissions may increase by 1,058 to 2,122 metric tons per year from implementation of the In-System Storage Program. Appendix B provides the construction calculations and assumptions used to assess GHG emissions.

TABLE 8-4

Indirect GHG Emissions from Operations for In-System Storage Program*Programmatic Environmental Impact Report, City of San Mateo Clean Water Program*

Program	Energy Usage (megawatt-hours per year)	MTCO ₂ e per Year	MTCO ₂ e Increase per Year
Existing Condition ^a	6,753.62	1,879	NA
Operation (maximum)	14,382.49	4,001	2,122
Operation (minimum)	10,558.18	2,937	1,058

Note:

Energy usage of existing condition was based on the historical data record of the WWTP and pump station operation.

The GHG emission increases shown in Table 8-4 represent a conservative estimate of the operation emissions. The estimated increase in energy use and GHG emissions would result primarily from the increased level of treatment, as well as the modest increase in. The highly treated effluent would be available for recycled water use, potentially offsetting energy use to treat and pump water from potable sources. In addition, the emission calculation used the EPA 2010 eGRID emission factor published in February 2014, and it assumes that GHG emission rate from power generation would not change in future years. As discussed in the sections below, all electricity retailers in California is required by the RPS program to reach a goal of using 33 percent renewable energy by 2020. Therefore, GHG emissions associated with the In-System Storage Program electricity use are expected to decrease in future years, and the actual emission increase would be lower.

The In-System Storage Program would use the electricity that is coming from the California's power grid. The new RPS signed under SB 2 in 2011 preempts ARB's 33 percent Renewable Electricity Standard and applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. As mandated by the new RPS, all of these entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020. Therefore, consuming electric energy from California's power grid would be within the already regulated RPS program.

In summary, the In-System Storage Program construction would have temporary GHG emissions from the construction equipment and vehicles. Construction GHG emissions would be minimized by implementing **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures**. Indirect operational emission may increase because of the increased electricity needs. Because the In-System Storage Program would use electricity from the California power grid that complies with the RPS and AB 32 Scoping Plan requirements, operation is consistent with the state and local GHG reduction strategies. With implementation of **Mitigation Measure 4-1**, the In-System Storage Program would result in a less than significant impact on GHG emissions.

Full Conveyance Program

The Full Conveyance Program would include similar treatment facilities as the In-System Storage Program. The Full Conveyance Program would include a new pump station instead of in-system storage basins. Therefore, potential impacts would be similar as described for the In-System Storage Program.

The estimated GHG emissions for construction the Full Conveyance Program are shown in Table 8-5. Emissions in Table 8-5 represent a conservative estimate of the GHG emissions, assuming the worst-case daily emissions would occur on everything day for the entire year. GHG emissions from construction would be short term. Implementation of **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures** would minimize idling times and maintain equipment in good condition, reducing GHG emissions.

TABLE 8-5

Construction GHG Emissions for Full Conveyance Program*Programmatic Environmental Impact Report, City of San Mateo Clean Water Program*

Program	MTCO ₂ e per Year
New WWTP Project	719.0
New WWTP Project	719.0
Large Pipeline Project	404.9
Large Pipeline Project	404.9
Average Pipeline Project	403.4
Average Pipeline Project	403.4
Average Pipeline Project	403.4
Large Pump Station Wet Well	296.6
New Pump Station	296.6
Total for Full Conveyance Program	4,051.4

Note:

Construction emissions were modeled using CalEEMod. Assumed all construction activities would occur simultaneously during a worst-case day.

Operations emissions from the Full Conveyance Program would be the same as for the In-System Storage Programs shown in Table 8-4.

In summary, the Full Conveyance Program construction would have temporary GHG emissions from the construction equipment and vehicles. Construction GHG emissions would be minimized by implementing **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures**. Indirect operational emission may increase because of the increased electricity needs. Because the Full Conveyance Program would use electricity from the California power grid that complies with the RPS and AB 32 Scoping Plan requirements, operation is consistent with the state and local GHG reduction strategies. With implementation of **Mitigation Measure 4-1**, the Full Conveyance Program would result in a less than significant impact on GHG emissions.

New Headworks Project and Primary Clarifier Project

Emissions from construction of the New Headworks Project and the Primary Clarifier Project are shown in Table 8-6. Emissions in Table 8-6 represent a conservative estimate of the GHG emissions, assuming the worst-case daily emissions would occur on every day for the entire year. GHG emissions from construction would be short term. Implementation of **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures** would minimize idling times and maintain equipment in good condition, reducing GHG emissions.

TABLE 8-6

Construction GHG Emissions for New Headworks Project and Primary Clarifier Project*Programmatic Environmental Impact Report, City of San Mateo Clean Water Program*

Program	MTCO ₂ e per Year
New Headworks Project	920.1
Primary Clarifier Project	920.1
Total for New Headworks Project and Primary Clarifier Project	1,840.2

Note:

Construction emissions were modeled using CalEEMod. Assumed all construction activities would occur simultaneously during a worst-case day.

Operations emissions from the New Headworks Project and Primary Clarifier Project would be part of the emissions described for the In-System Storage Program, shown in Table 8-4.

In summary, construction of the New Headworks Project and Primary Clarifier Project would have temporary GHG emissions from the construction equipment and vehicles. Construction GHG emissions would be minimized by implementing **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures**. Indirect operational emission may increase because of the increased electricity needs. Because the New Headworks Project and Primary Clarifier Project would use electricity from the California power grid that complies with the RPS and AB 32 Scoping Plan requirements, operation is consistent with the state and local GHG reduction strategies. With implementation of **Mitigation Measure 4-1**, the New Headworks Project and Primary Clarifier Project would result in a less than significant impact on GHG emissions.

Impact 8-2. The CWP may conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

In-System Storage Program, Full Conveyance Program, New Headworks Project and Primary Clarifier Project

Other than the EO S-3-5 and AB 32 GHG reduction goals and the AB 32 Scoping Plan and the First Update, the CAP (Pacific Municipal Consultants, 2015) set the local GHG emission reduction goals. Based on the City's GHG emission inventory, the water and wastewater sectors combined contribute less than one percent of the GHG inventory of the City. As shown in Table 8-4, operation of the CWP would generate up to approximately twice the current level of GHG emissions from the existing WWTP and pump stations. This would still represent less than two percent of the City's GHG inventory. Therefore, the GHG emission changes associated with this CWP are unlikely to affect or hinder the City's ability to meet the GHG reduction goal. Implementation of **Mitigation Measure 4-1 Implement BAAQMD construction emission control measures** would minimize idling times and maintain equipment in good condition, reducing GHG emissions. Operation of the CWP would use electricity from the state's power grid that comply with the RPS and AB 32 Scoping Plan GHG reduction strategy. Therefore, the CWP GHG emissions would not hinder or otherwise conflict with the AB 32 or the AB 32 Scoping Plan and the updates of reducing GHG emissions to 1990 levels by 2020.

Although the First Update identified and described a long-term vision and near-term activities to put California on the path to its 2050 emission reductions goal, many factors would influence the state's ability to attain the 2050 GHG reduction goal, including changes in regulatory standards, fuel, transportation and power generation technologies, growth in population, land use development patterns and other factors that cannot presently be known. Because reaching a conclusion about the project's effect on compliance with the 2050 target identified in EO S-3-5 and the AB 32 would require speculation, the CWP is unable to reach a determination about the project's potential to result in a significant impact with regard to this goal. In all other respects the proposed project would not hinder or delay California's ability to meet the GHG reduction targets in AB 32 and the Scoping Plan.

The CWP would support implementation of several measures of the City's CAP. For example, opportunities for incorporating renewable energy, such as rooftop solar panels, would be evaluated for individual CWP projects as feasible, supporting implementation of CAP Measures RE5 (renewable energy systems for new nonresidential buildings) and RE6 (renewable energy systems for existing nonresidential buildings). The new facilities and equipment will provide greater energy efficiency than existing equipment, supporting implementation of CAP Measures ME1 (energy efficiency for new City buildings) and ME2 (energy efficiency at existing City buildings). Consistent with CAP Measure WW3, the CWP would produce water available for recycled use, thereby creating a new source of nonpotable water. Therefore, the CWP would not conflict with nor hinder the City's ability to meet its GHG reduction goals in the CAP.

8.5 Mitigation Measures

Mitigation Measure 4-1 Implement BAAQMD construction emission control measures is described in Chapter 4.

8.6 References

- Bay Area Air Quality Management District (BAAQMD). 2010. *Source Inventory of Bay Area Greenhouse Gas Emissions*. February.
- _____. 2011. CEQA Air Quality Guidelines. May.
- _____. 2012. *California Environmental Quality Act Air Quality Guidelines*.
<http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>. Updated May 2012.
- California Air Pollution Control Officers Association. 2013. California Emission Estimator Model User's Guide Version 2013.2. July.
- California Air Resources Board (ARB). 2015.
http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf.pdf. Accessed June 14, 2015.
- Center for Climate and Energy Solutions. 2015. Federal Vehicle Standards website.
http://www.c2es.org/federal/executive/vehicle-standards#ldv_2012_to_2025. Accessed October 14.
- Pacific Municipal Consultants. 2015. *City of San Mateo Climate Action Plan*. Prepared for City of San Mateo. February.
- U.S. Environmental Protection Agency (EPA). 2014. eGRID 9th Edition Version 1.0, Year 2010 GHG Annual Output Emission Rates. February.