GREENHOUSE GAS EMISSIONS

CEQA Thresholds and Screening Tables
City of Ontario, California

Prepared for:

Development Agency
City Hall, First Floor
303 East B Street
Ontario, California 91764

Prepared by:

650 East Hospitality Lane, Suite 450
San Bernardino, California 92408

City Council Approval December 16, 2014
Resolution No. 2012-122

CONTENTS

Introduction **1**

California Environmental Quality Act **1**

CEQA Mandates for Analysis of Impacts 1

Greenhouse Gas Impact Determination **2**

Statewide or Regional Thresholds of Significance 2

Quantitative Analysis Relative to the Ontario Climate Action Plan 3

Methodology Overview 3

The Development Review Process 4

Methodology for the Calculation of GHG Emissions 5

3,000 MT CO_2e Emission Level **5**

Screening Threshold Tables **6**

Instructions for Residential, Commercial, or Industrial Projects **7**

Instructions for Mixed Use Projects **7**

References **21**

APPENDIX A – GHG Development Review Process Flow Chart
APPENDIX B – Transit Priority Project (TPP) and Sustainable Community Project (SCP) Checklist
APPENDIX C – Land Use Development Table
APPENDIX D – Methodology for the development and application of the Screening Table

TABLES

Table 1: Screening Table for Implementation of GHG Reduction Measures for Residental Development 8

Table 2: Screening Table for Implementation of GHG Reduction Measures for Commercial Development 14

Introduction

The Ontario Climate Action Plan (CAP) includes reducing 39,769 Metric Tons of Carbon Dioxide Equivalents ($MTCO_2e$) per year from new development by 2020 as compared to the 2020 unmitigated conditions. This requires new development to be 25% more efficient. Reductions related to transportation, water, solid waste, energy, and renewable energy sources all play a part in gaining this level of efficiency within new development.

Mitigation of GHG emissions impacts through the Development Review Process (DRP) provides one of the most substantial reduction strategies for reducing community-wide emissions associated with new development. The DRP procedures for evaluating GHG impacts and determining significance for CEQA purposes will be streamlined by (1) applying an emissions level that is determined to be less than significant for small projects, and (2) utilizing Screening Tables to mitigate project GHG emissions that exceed the threshold level. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A threshold level of 3,000 $MTCO_2e$ per year will be used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions.

The California Environmental Quality Act ("CEQA") requires assessment of the environmental impacts of proposed projects including the impacts of greenhouse gas (GHG) emissions. The purpose of this document is to provide guidance on how to analyze GHG emissions and determine the significance of those emissions during CEQA review of proposed development projects within the City of Ontario. The analysis, methodology, and significance determination (thresholds) are based upon the CAP, the GHG emission inventories within the CAP, and the GHG reduction measures that reduce emissions to the AB-32 compliant reduction target of the CAP. The Screening Tables can be used by the City of Ontario Community Development Department for review of development projects in order to ensure that the specific reduction strategies in the CAP are implemented as part of the CEQA process for development projects. The Screening Tables provide a menu of options that both–ensures implementation of the reduction strategies and flexibility on how development projects will implement the reduction strategies to achieve an overall reduction of emissions, consistent with the reduction target of the CAP.

California Environmental Quality Act

CEQA MANDATES FOR ANALYSIS OF IMPACTS

CEQA requires that Lead Agencies inform decision makers and the public regarding the following: potential significant environmental effects of proposed projects; feasible ways that environmental damage can be avoided or reduced through the use of feasible mitigation measures and/or project alternatives; and the reasons why the Lead Agency approved a project if significant environmental

effects are involved (CEQA Guidelines §15002). CEQA also requires Lead Agencies to evaluate potential environmental effects based to the fullest extent possible on scientific and factual data (CEQA Guidelines §15064[b]). A determination of whether or not a particular environmental impact will be significant must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines §15064f[5]).

The recently amended CEQA Guidelines (CEQA Guidelines §15064.4[a] [b]) explicitly requires Lead Agencies to evaluate GHG emissions during CEQA review of potential environmental impacts generated by a proposed project. To assist in this effort, two questions were added to Appendix G of the CEQA Guidelines:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

Finally, under the "rule of reason," an EIR is required to evaluate impacts to the extent that is reasonably feasible ([CEQA Guideline § 15151; *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3rd 584]). While CEQA does require Lead Agencies to make a good faith effort to disclose what they reasonably can, CEQA does not demand what is not realistically possible ([*Residents at Hawks Stadium Committee v. Board of Trustees* (1979) 89 Cal.App.3rd 274, 286]).

Greenhouse Gas Impact Determination

STATEWIDE OR REGIONAL THRESHOLDS OF SIGNIFICANCE

There are currently no published statewide thresholds of significance for measuring the impact of GHG emissions generated by a proposed project. CEQA Guidelines §15064.7 indicates only that, "each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects." The County of San Diego has published draft thresholds that, when finalized, jurisdictions within the County can use if they do not have their own thresholds and GHG mitigation plans. However, the CAP for the City of Ontario addresses cumulative GHG emissions, has a reduction target that reduces the cumulative GHG impacts to less than significant, has a set of reduction measures that achieves the reduction target and provides an implementation plan to implement the reduction measures. This document provides guidance in how to address GHG emissions in CEQA analysis and determine the significance of project generated GHG emissions.

QUANTITATIVE ANALYSIS RELATIVE TO THE ONTARIO CLIMATE ACTION PLAN

METHODOLOGY OVERVIEW

An individual project cannot generate enough GHG emissions to influence global climate change. The project participates in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs, which when taken together may have a significant impact on global climate change. To address the State's requirement to reduce GHG emissions, the City prepared the CAP with the target of reducing GHG emissions within Ontario by 30 percent below 2020 business as usual (BAU) emissions. The City's target is consistent with AB 32 and ensures that Ontario is providing GHG reductions locally that will complement the State and international efforts of stabilizing climate change.

Because the City's CAP addresses GHG emissions reduction, is in concert with AB 32 and international efforts to address global climate change, and includes specific local requirements that will substantially lessen the cumulative problem, compliance with the CAP fulfills the description of mitigation found in CEQA Guidelines §15130(a)(3) and §15183.5.

Because GHG emissions are only important in the context of cumulative emissions, the focus of the analysis is on answering the question of whether incremental contributions of GHGs are a cumulatively considerable contribution to climate change impacts. The CAP includes a set of mitigation measures designed to substantially lessen cumulative impacts associated with GHG emissions as described in CEQA Guidelines §15130(a)(3), in determining if a project's effects will result in significant impacts. The CAP has the following components that fulfill cumulative mitigation for GHG emissions:

1. The CAP provides a community-wide GHG emissions reduction target that will substantially lessen the cumulative impact;
2. The CAP provides measures that new development projects must follow to meet the City's reduction target and substantially lessen the cumulative impact;
3. The CAP provides a set of GHG emission inventories that provides quantitative facts and analysis of how the measures within the CAP meet the reduction target that substantially lessens the cumulative impact:
4. The CAP provides an implementation, monitoring and update program to insure that the reduction target is met.

The CAP satisfies the first condition by adopting a target of reducing GHG emissions within Ontario by 30 percent below 2020 business as usual (BAU), which also equates to approximately 15 percent below existing levels within the City of Ontario by 2020. This reduction target is compliant with AB 32; the AB 32 Climate Change Scoping Plan states: "In recognition of the critical role local governments will play in the successful implementation of AB 32, ARB recommended a greenhouse gas reduction goal for local

governments of 15 percent below existing levels by 2020 to ensure that their municipal and community-wide emissions match the State's reduction target" (Scoping Plan page ES-5, CARB, December 2008). In this way, the City is teaming with the State's efforts to reduce GHG emissions globally and substantially lessen the cumulative problem.

The CAP satisfies the second condition through the implementation of the reduction measures for new development. This document supplies the specific criteria that new development must follow to ensure that the reduction measures associated with new development are implemented and the reduction target is met.

The CAP satisfies the third criteria by providing a set of community-wide GHG emissions inventories for existing conditions (2008 baseline), for future 2020 GHG emissions that are anticipated without the reduction measures (Business As Usual; BAU), and reduced levels of 2020 GHG emissions which demonstrates how the implementation of reduction measures achieves the reduction target (30 percent below 2020 business as usual (BAU) emissions). These community-wide GHG emission inventories are found in the appendices of the CAP.

THE DEVELOPMENT REVIEW PROCESS

Integrating the reduction measures of the CAP into the CEQA development review process is the first step in determining how a proposed project will implement the GHG reduction measures within the CAP. The GHG emissions development review process is predicated on a couple of questions. Appendix A of this document is a flow chart that diagrams this development review process. The questions are as follows:

Question 1: Is the Project exempt under CEQA? If it is, then SCAQMD has determined that GHG emissions are less than significant and no additional GHG reductions are needed. A list of CEQA Exemptions are found in CEQA Guidelines §15300 through §15332. There are exemption opportunities associated with transit oriented development (TOD) associated with the Sustainable Communities Strategy (SCS) for the region developed by the Southern California Association of Governments (SCAG) and first introduced in the 2012 Regional Transportation Plan (RTP). Exemptions associated with TOD are divided into two categories, transit priority projects (TPP), and Sustainable Community Projects (SCP). A TPP and SCP Checklist is provided in Appendix B of this document to assist project applicants in determining if a project qualifies for these Exemptions under CEQA. If the Project does not qualify for a CEQA exemption, then move on to Question 2.

Question 2: Are Project GHG emissions less than 3,000 metric tons carbon dioxide equivalents ($MTCO_2e$) per year? To assist applicants in answering this question Appendix C of this document includes a table showing various sizes of typical land use development projects that are typically at or below that level of emissions. Applicants can also calculate emissions using the methodology described below to answer this question. Additional information is provided below on how this level of emissions was determined and what needs to be done if your project is at or below this amount. If the project is above 3,000 $MTCO_2e$ then the applicant needs to either use the screening tables or analyze GHG emissions and provide additional mitigation as shown in Appendix A.

METHODOLOGY FOR THE CALCULATION OF GHG EMISSIONS

Analysis of development projects can either be done through emissions calculations or by using the screening tables beginning on page 6.

Total GHG emissions are the sum of emissions from both direct and indirect sources. Direct sources include mobile sources such as construction equipment, motor vehicles, landscape equipment; and stationary sources such as cooling and heating equipment. Indirect sources are comprised of electrical, and potable water use, and the generation of solid waste, and waste water.

Direct GHG emissions from mobile and stationary sources are determined as the sum of the annual GHG emissions from construction equipment, motor vehicles, landscape equipment, and heating and cooling equipment.

Indirect sources are determined based on source as follows. Electrical usage is reported as annual emissions from electrical usage. Potable water usage is reported as the annual emissions from electricity used for potable water treatment and transportation. Solid waste is reported as the sum of annual emissions from solid waste disposal treatment, transportation, and fugitive emissions of methane at the solid waste facilities. Wastewater usage is reported as the annual emissions from wastewater transport and treatment.

Analysis of development projects not using the screening tables should use the emission factors found in the latest version of the California Climate Action Registry (CCAR) General Reporting Protocol. Quantification of emissions from electricity used for potable water treatment and transportation as well as wastewater transport and treatment can be found in the California Energy Commission (CEC) document titled "Refining Estimates of Water-Related Energy Use in California (CEC December 2006).

3,000 MT CO_2e Emission Level

The City determined the size of development that is too small to be able to provide the level of GHG emission reductions expected from the Screening Tables based upon the 90th percentile capture rate concept. To do this the City determined the GHG emission amount allowed by a project such that 90 percent of the emissions on average from all projects would exceed that level and be "captured" by the Screening Table.

In determining this level of emissions the City used the database of Projects kept by the Governor's Office of Planning and Research (OPR). That database contained 798 Projects, 60 of which were extremely large General Plan Updates, Master Plans, or Specific Plan Projects. The 60 very large projects were removed from the database in order not to skew the emissions value, leaving a net of 738 Projects.

In addition, 27 projects were found to be outliers that would skew the emission value to high, leaving 711 as the sample population to use in determining the 90th percentile capture rate.

The analysis of the 738 Projects within the sample population combined commercial, residential, and mixed use projects. Also note that the sample of projects included warehousing and other industrial land uses but did not include industrial processes (i.e. oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these Projects were calculated by SCAQMD and provide a consistent method of emissions calculations across the sample population further reducing potential errors in the statistical analysis. In calculating the emissions from Projects within the sample population, construction period GHG emissions were amortized over 30-years (the average economic life of a development project). Direct GHG emissions were calculated using URBEMIS and indirect electricity/water use GHG emissions calculated separately and added to the URBEMIS output.

This analysis determined that the 90th percentile ranged from 2,983-3,143 $MTCO_2e$ per year.

The **3,000 MT CO_2e per year** value is used in defining small projects that, when combined with the modest efficiency measures shown in the bullet points below are considered less than significant and do not need to use the Screening Tables or alternative GHG mitigation analysis described below. The efficiency measures required of small projects are summarized below:

- Energy efficiency of at least five percent greater than Title 24 requirements or other equivalent levels of GHG reductions, and
- Water conservation measures that matches the California Green Building Code or equivalent levels of GHG reductions

Screening Threshold Tables

The purpose of this Screening Table is to provide guidance in measuring the reduction of greenhouse gas emissions attributable to certain design and construction measures incorporated into development projects. The analysis, methodology, and significance determination (thresholds) are based upon the CAP, which includes GHG emission inventories (2008 and 2020 forecasts), a year 2020 emission reduction target, the goals and policies to reach the target, together with the Addendum prepared for the CAP. The methodology for the development and application of the Screening Table is set forth in Appendix D of this document.

Instructions for Residential, Commercial, or Industrial Projects

The Screening Table assigns points for each option incorporated into a project as mitigation or a project design feature (collectively referred to as "feature"). The point values correspond to the minimum emissions reduction expected from each feature. The menu of features allows maximum flexibility and options for how development projects can implement the GHG reduction measures. The point levels are based upon improvements compared to 2008 emission levels of efficiency. Projects that garner at least 100 points will be consistent with the reduction quantities anticipated in the City's CAP. As such, those projects that garner a total of 100 points or greater would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

Instructions for Mixed Use Projects

Mixed use projects provide additional opportunities to reduce emissions by combining complimentary land uses in a manner that can reduce vehicle trips. Mixed use projects also have the potential to complement energy efficient infrastructure in a way that reduces emissions. For mixed use projects, fill out both Screening Table 1 and Table 2, but proportion the points identical to the proportioning of the mix of uses. As an example, a mixed use project that is 50% commercial uses and 50% residential uses will show ½ point for each assigned point value in Table 1 and Table 2. Add the points from both tables. Mixed use Projects that garner at least 100 points will be consistent with the reduction quantities in the City's CAP and are considered less than significant for GHG emissions.

Those projects that do not garnish 100 points using the screening tables will need to provide additional analysis to determine the significance of GHG emissions. Nothing in this guidance shall be construed as limiting the City's authority to adopt a statement of overriding consideration for projects with significant GHG impacts. The following tables provides a menu of performance standards/options related to GHG mitigation measures and design features that can be used to demonstrate consistency with the reduction measures and GHG reduction quantities in the CAP.

Table 1: Screening Table for Implementation of GHG Reduction Measures for Residential Development

Feature	Description	Assigned Point Values	Project Points
Reduction Measure PS E1: Residential Energy Efficiency			
Building Envelope			
Insulation	2008 Baseline (walls R-13:, roof/attic: R-30)	0 points	
	Modestly Enhanced Insulation (walls R-13:, roof/attic: R-38)	12 points	
	Enhanced Insulation (rigid wall insulation R-13, roof/attic: R-38)	15 points	
	Greatly Enhanced Insulation (spray foam wall insulated walls R-15 or higher, roof/attic R-38 or higher)	18 points	
Windows	2008 Baseline Windows (0.57 U-factor, 0.4 solar heat gain coefficient (SHGC)	0 points	
	Modestly Enhanced Window Insulation (0.4 U-Factor, 0.32 SHGC)	6 points	
	Enhanced Window Insulation (0.32 U-Factor, 0.25 SHGC)	7 points	
	Greatly Enhanced Window Insulation (0.28 or less U-Factor, 0.22 or less SHGC)	9 points	
Cool Roof	Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	10 points	
	Enhanced Cool Roof(CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance)	12 points	
	Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	14 points	
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		
	Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent)	10 points	
	Blower Door HERS Verified Envelope Leakage or equivalent	8 points	
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.		
	Modest Thermal Mass (10% of floor or 10% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	2 points	
	Enhanced Thermal Mass (20% of floor or 20% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	4 points	

Feature	Description	Assigned Point Values	Project Points
Indoor Space Efficiencies			
Heating/ Cooling Distribution System	Minimum Duct Insulation (R-4.2 required)	0 points	
	Modest Duct insulation (R-6)	7 points	
	Enhanced Duct Insulation (R-8)	8 points	
	Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	12 points	
Space Heating/ Cooling Equipment	2008 Minimum HVAC Efficiency (SEER 13/60% AFUE or 7.7 HSPF)	0 points	
	Improved Efficiency HVAC (SEER 14/65% AFUE or 8 HSPF)	4 points	
	High Efficiency HVAC (SEER 15/72% AFUE or 8.5 HSPF)	7 points	
	Very High Efficiency HVAC (SEER 16/80% AFUE or 9 HSPF)	9 points	
Water Heaters	2008 Minimum Efficiency (0.57 Energy Factor)	0 points	
	Improved Efficiency Water Heater (0.675 Energy Factor)	12 points	
	High Efficiency Water Heater (0.72 Energy Factor)	15 points	
	Very High Efficiency Water Heater (0.92 Energy Factor)	18 points	
	Solar Pre-heat System (0.2 Net Solar Fraction)	4 points	
	Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	8 points	
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		
	All peripheral rooms within the living space have at least one window (required)	0 points	
	All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.)	1 points	
	All rooms daylighted	2 points	
Artificial Lighting	2008 Minimum (required)	0 points	
	Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt)	8 points	
	High Efficiency Lights (50% of in-unit fixtures are high efficacy)	10 points	
	Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)	12 points	
Appliances	Energy Star Refrigerator (new)	1 points	
	Energy Star Dish Washer (new)	1 points	
	Energy Star Washing Machine (new)	1 points	

Feature	Description	Assigned Point Values	Project Points
Miscellaneous Residential Building Efficiencies			
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	5 point	
Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on Jun 21st.	4 Points	
Energy Star Homes	EPA Energy Star for Homes (version 3 or above)	25 points	
Independent Energy Efficiency Calculations	Provide point values based upon energy efficiency modeling of the Project. Note that engineering data will be required documenting the energy efficiency and point values based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Existing Residential Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing residential dwelling units within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Ontario Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated based upon, but not limited to the following; Will the energy efficiency retrofit project benefit low income or disadvantaged residents? Does the energy efficiency retrofit project fit within the overall assumptions in reduction measures associated with existing residential retrofits? Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	
Reduction Measure PS E2: Residential Renewable Energy Generation			
Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power provided augments:		
	Solar Ready Homes (sturdy roof and solar ready service panel)	2 points	
	10 percent of the power needs of the project	10 points	
	20 percent of the power needs of the project	15 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	28 points	
	50 percent of the power needs of the project	35 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	42 points	
	80 percent of the power needs of the project	46 points	

Feature	Description	Assigned Point Values	Project Points
	90 percent of the power needs of the project	52 points	
	100 percent of the power needs of the project	58 points	
Wind turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the area's capability to support wind turbines should be evaluated prior to choosing this feature.		
	Individual wind turbines at homes or collective neighborhood arrangements of wind turbines such that the total power provided augments:		
	10 percent of the power needs of the project	10 points	
	20 percent of the power needs of the project	15 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	28 points	
	50 percent of the power needs of the project	35 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	42 points	
	80 percent of the power needs of the project	46 points	
	90 percent of the power needs of the project	52 points	
	100 percent of the power needs of the project	58 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing homes that will help implement renewable energy within the City. These off-site renewable energy retrofit project proposals will be determined on a case by case basis and must be accompanied by a detailed plan that documents the quantity of renewable energy the proposal will generate. Point values will be determined based upon the energy generated by the proposal.	TBD	
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure PS W1: Residential Water Conservation			
Irrigation and Landscaping			
Water Efficient Landscaping	Limit conventional turf to < 50% of required landscape area	0 points	
	Limit conventional turf to < 25% of required landscape area	4 points	
	No conventional turf (warm season turf to < 50% of required landscape area and/or low water using plants are allowed)	6 points	
	Only California Native Plants that requires no irrigation or some supplemental irrigation	8 points	

Feature	Description	Assigned Point Values	Project Points
Water Efficient irrigation systems	Low precipitation spray heads < .75"/hr or drip irrigation Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	2 point 3 points	
Recycled Water	Recycled connections (purple pipe) to irrigation system on site	6 points	
Water Reuse	Gray water Reuse System collects Gray water from clothes washers, showers and faucets for irrigation use,	12 points	
Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
Potable Water			
Showers	Water Efficient Showerheads (2.0 gpm)	3 points	
Toilets	Water Efficient Toilets (1.5 gpm)	3 points	
Faucets	Water Efficient faucets (1.28 gpm)	3 points	
Dishwasher	Water Efficient Dishwasher (6 gallons per cycle or less)	1	
Washing Machine	Water Efficient Washing Machine (Water factor <5.5)	1	
WaterSense	EPA WaterSense Certification	12 points	
Reduction Measure PS T1: Land Use Based Trips and VMT Reduction			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon a Transportation Impact Analysis (TIA) demonstrating trip reductions and/or reductions in vehicle miles traveled. Suggested ranges: Diversity of land uses complementing each other (2-28 points) Increased destination accessibility other than transit (1-18 points) Increased transit accessibility (1-25 points) Infill location that reduces vehicle trips or VMT beyond the measures described above (points TBD based on traffic data).	TBD	
Residential Near Local Retail (Residential only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled (VMT)	TBD	

Feature	Description	Assigned Point Values	Project Points
Other Trip Reduction Measures	Other trip or VMT reduction measures not listed above with TIA and/or other traffic data supporting the trip and/or VMT for the project.	TBD	
Reduction Measure PS T2: Bicycle Master Plan			
Bicycle Infrastructure	Ontario's Bicycle Master Plan is extensive and describes the construction on 11.5 miles of Class I bike paths and 23 miles of Class II and Class III bikeways to build upon the current 8 miles of bikeways. Provide bicycle paths within project boundaries. Provide bicycle path linkages between residential and other land uses. Provide bicycle path linkages between residential and transit.	TBD 2 points 5 points	
Reduction Measure PS T3: Neighborhood Electric Vehicle Infrastructure			
Electric Vehicle Recharging	Provide circuit and capacity in garages of residential units for use by an electric vehicle. Charging stations are for on-road electric vehicles legally able to drive on all roadways including Interstate Highways and freeways. Install electric vehicle charging stations in the garages of residential units	1 point 8 points	
Total Points Earned by Residential Project:			

Table 2: Screening Table for Implementation of GHG Reduction Measures for Commercial/Industrial Development

Feature	Description	Assigned Point Values	Project Points
Reduction Measure PS E3: Commercial/Industrial Energy Efficiency Development			
Building Envelope			
Insulation	2008 baseline (walls R-13; roof/attic R-30)	0 points	
	Modestly Enhanced Insulation (walls R-13, roof/attic R-38))	15 points	
	Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38)	18 points	
	Greatly Enhanced Insulation (spray foam insulated walls R-15 or higher, roof/attic R-38 or higher) *(Applies to the conditioned space, defined as those areas within the building that have air conditioning and heating.)*	20 points	
Windows	2008 Baseline Windows (0.57 U-factor, 0.4 solar heat gain coefficient [SHGC])	0 points	
	Modestly Enhanced Window Insulation (0.4 U-factor, 0.32 SHGC)	7 points	
	Enhanced Window Insulation (0.32 U-factor, 0.25 SHGC)	8 points	
	Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less SHGC) *(Applies to the conditioned space, defined as those areas within the building that have air conditioning and heating.)*	12 points	
Cool Roof	Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	12 points	
	Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance)	14 points	
	Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	16 points	
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		
	Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent)	12 points	
	Blower Door HERS Verified Envelope Leakage or equivalent *(Applies to the conditioned space, defined as those areas within the building that have air conditioning and heating.)*	10 points	
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.		

Feature	Description	Assigned Point Values	Project Points
	Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	4 points	
	Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	6 points	
	Enhanced Thermal Mass (80% of floor or 80% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	24 points	
Indoor Space Efficiencies			
Heating/ Cooling Distribution System	Minimum Duct Insulation (R-4.2 required)	0 points	
	Modest Duct insulation (R-6)	8 points	
	Enhanced Duct Insulation (R-8)	10 points	
	Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent) *(Applies to the conditioned space, defined as those areas within the building that have air conditioning and heating.)*	14 points	
Space Heating/ Cooling Equipment	2008 Minimum HVAC Efficiency (EER 13/60% AFUE or 7.7 HSPF)	0 points	
	Improved Efficiency HVAC (EER 14/65% AFUE or 8 HSPF)	7 points	
	High Efficiency HVAC (EER 15/72% AFUE or 8.5 HSPF)	8 points	
	Very High Efficiency HVAC (EER 16/80% AFUE or 9 HSPF) *(Applies to the conditioned space, defined as those areas within the building that have air conditioning and heating.)*	12 points	
Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
Water Heaters	2008 Minimum Efficiency (0.57 Energy Factor)	0 points	
	Improved Efficiency Water Heater (0.675 Energy Factor)	14 points	
	High Efficiency Water Heater (0.72 Energy Factor)	16 points	
	Very High Efficiency Water Heater (0.92 Energy Factor)	19 points	
	Solar Pre-heat System (0.2 Net Solar Fraction)	4 points	
	Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	8 points	
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		

Feature	Description	Assigned Point Values	Project Points
	All peripheral rooms within building have at least one window or skylight	1 points	
	All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.)	5 points	
	All rooms daylighted	7 points	
Artificial Lighting	2008 Minimum (required)	0 points	
	Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt)	9 points	
	High Efficiency Lights (50% of in-unit fixtures are high efficacy)	12 points	
	Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)	14 points	
Appliances	Energy Star Commercial Refrigerator (new)	4 points	
	Energy Star Commercial Dish Washer (new)	4 points	
	Energy Star Commercial Cloths Washing	4 points	
Miscellaneous Commercial/Industrial Building Efficiencies			
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	6 point	
Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on June 21st.	6 Points	
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	
Existing Commercial building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing commercial buildings within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Ontario Planning Department. The decision to allow applicants the ability to participate in this program will be evaluated based upon, but not limited to the following:	TBD	

Feature	Description	Assigned Point Values	Project Points
	Will the energy efficiency retrofit project benefit low income or disadvantaged communities? Does the energy efficiency retrofit project fit within the overall assumptions in the reduction measure associated with commercial building energy efficiency retrofits? Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.		
Reduction Measure PS E4: Commercial/Industrial Renewable Energy			
Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments:		
	Solar Ready Roofs (sturdy roof and electric hookups)	2 points	
	10 percent of the power needs of the project	8 points	
	20 percent of the power needs of the project	14 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	26 points	
	50 percent of the power needs of the project	32 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	44 points	
	80 percent of the power needs of the project	50 points	
	90 percent of the power needs of the project	56 points	
	100 percent of the power needs of the project	60 points	
Wind turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Wind turbines as part of the commercial development such that the total power provided augments:		
	10 percent of the power needs of the project	8 points	
	20 percent of the power needs of the project	14 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	26 points	
	50 percent of the power needs of the project	32 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	44 points	

Feature	Description	Assigned Point Values	Project Points
	80 percent of the power needs of the project	50 points	
	90 percent of the power needs of the project	56 points	
	100 percent of the power needs of the project	60 points	
Off-site renewable energy project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing commercial/industrial that will help implement reduction measures associated with existing buildings. These off-site renewable energy retrofit project proposals will be determined on a case by case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure PS W2: Commercial/Industrial Water Conservation			
Irrigation and Landscaping			
Water Efficient Landscaping	Eliminate conventional turf from landscaping	0 points	
	Only moderate water using plants	3 points	
	Only low water using plants	4 points	
	Only California Native landscape that requires no or only supplemental irrigation	8 points	
Trees	Increase tree planting in parking areas 50% beyond City Code requirements	TBD	
Water Efficient irrigation systems	Low precipitation spray heads< .75"/hr or drip irrigation	1 point	
	Weather based irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	5 points	
Recycled Water	Recycled water connection (purple pipe)to irrigation system on site	5 points	
Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	

Feature	Description	Assigned Point Values	Project Points
Potable Water			
Showers	Water Efficient Showerheads (2.0 gpm)	3 points	
Toilets	Water Efficient Toilets/Urinals (1.5gpm) Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	3 points 4 points	
Faucets	Water Efficient faucets (1.28gpm)	3 points	
Commercial Dishwashers	Water Efficient dishwashers (20% water savings)	4 points	
Commercial Laundry Washers	Water Efficient laundry (15% water savings) High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)	3 points 6 points	
Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
Reduction Measure PS T1: Land Use Based Trips and VMT Reduction			
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Local Retail Near Residential (Commercial only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled	TBD	
Reduction Measure PS T2: Bicycle Master Plan			
Bicycle Infrastructure	Ontario's Bicycle Master Plan is extensive and describes the construction on 11.5 miles of Class I bike paths and 23 miles of Class II and Class III bikeways to build upon the current 8 miles of bikeways. Provide bicycle paths within project boundaries. Provide bicycle path linkages between project site and other land uses. Provide bicycle path linkages between project site and transit.	TBD TBD 2 points 5 points	

Feature	Description	Assigned Point Values	Project Points
Reduction Measure PS T3: Electric Vehicle Infrastructure			
Electric Vehicles	Provide public charging station for use by an electric vehicle. *(ten points for each charging station within the facility)*	10 points	
Reduction Measure PS T4: Employee Based Trip &VMT Reduction Policy			
Compressed Work Week	Reduce the number of days per week that employees need to be on site will reduce the number of vehicle trips associated with commercial/industrial development. Compressed work week such that full time employees are on site: 5 days per week 4 days per week on site 3 days per week on site	TBD	
Car/Vanpools	Car/vanpool program Car/vanpool program with preferred parking Car/vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program Combination of all the above	TBD	
Employee Bicycle/ Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks Showers and changing facilities Subsidized employee walk/bike program (Note combine all applicable points for total value)	TBD	
Shuttle/Transit Programs	Local transit within ¼ mile Light rail transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized Transit passes Note combine all applicable points for total value	TBD	
CRT	Employer based Commute Trip Reduction (CRT). CRTs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a TIA that demonstrates the trip/VMT reductions. Suggested point ranges: Incentive based CRT Programs (1-8 points) Mandatory CRT programs (5-20 points)	TBD	
Other Trip Reductions	Other trip or VMT reduction measures not listed above with TIA and/or other traffic data supporting the trip and/or VMT for the project.	TBD	
Total Points from Commercial/Industrial Project:			

References

Association of Environmental Professionals (AEP) White Paper: Alternative Approaches to Analyzing Greenhouse Gases and Global Climate Change Impacts in CEQA Documents, June 2007.

Association of Environmental Professionals (AEP) White Paper: Community-wide Greenhouse Gas Emission Inventory Protocols, September 2010.

Association of Environmental Professionals (AEP) California Environmental Quality Act 2010 Statute & Guidelines, March 2010.

Association of Environmental Professionals (AEP) White Paper: Next Steps, Projections and Target Setting in Climate Action Plans, March 2012

California Air Pollution Control Officers Association (CAPCOA), White Paper: CEQA and Climate Change, January 2008

California Air Pollution Control Officers Association (CAPCOA), Quantifying Greenhouse Gas Mitigation Measures, August 2010

California Air Resources Board, AB 32 Scoping Plan, December 2009

California Climate Action Team's Final Report to the Governor and Legislature, March 2007

California Climate Action Registry, General Reporting Protocol, Version 2.2, March 2007

City of Ontario, Draft Climate Action Plan, October 2013

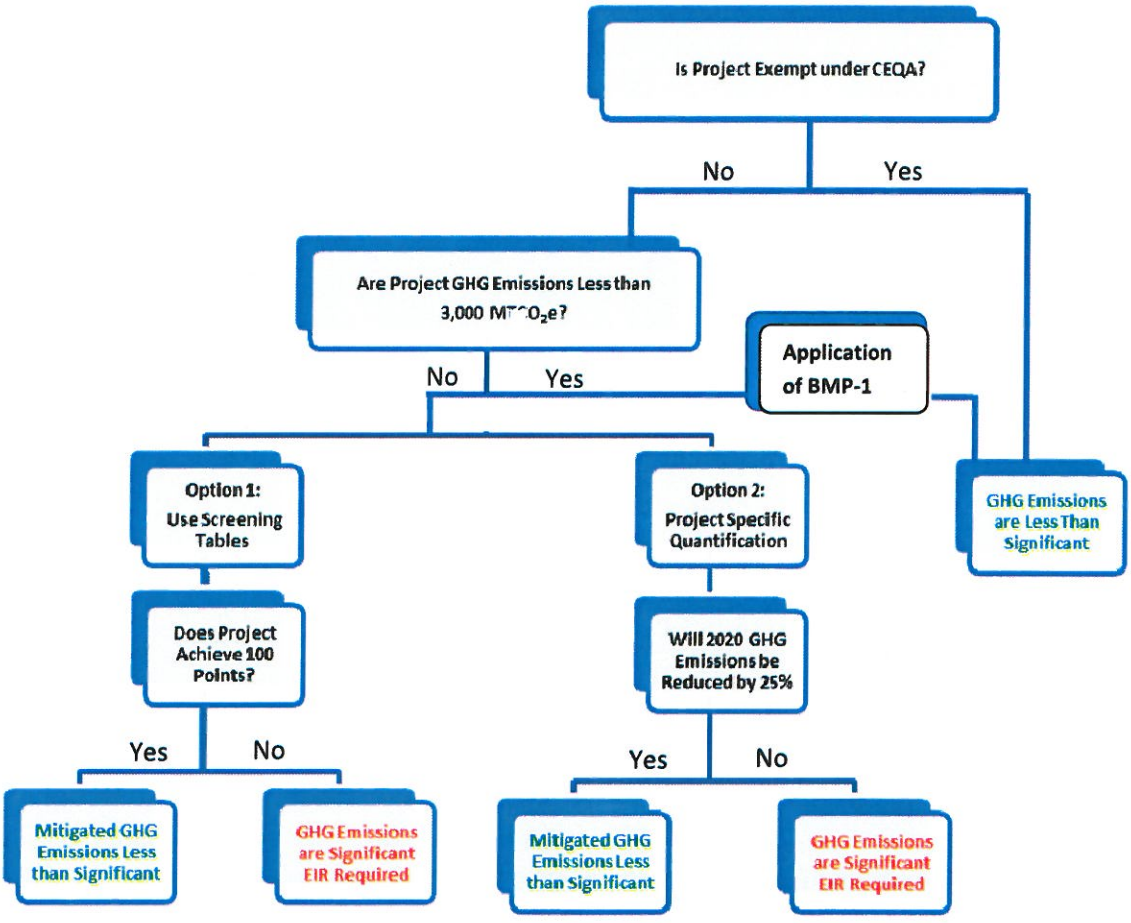
South Coast Air Quality Management District, Rules and Regulations, 2010

U.S. Environmental Protection Agency, AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, September 1995

U.S. Environmental Protection Agency, AP-42, Final Rule on Update to the Compilation of Air Pollutant Emission Factors, October 2009

APPENDIX A: THE GHG DEVELOPMENT REVIEW PROCESS FLOW CHART DIAGRAM

Approach to Implementation of GHG Development Review



APPENDIX B: TRANSIT PRIORITY PROJECT AND SUSTAINABLE COMMUNITY PROJECT CHECKLIST

CITY OF ONTARIO TRANSIT PRIORITY PROJECT CHECKLIST

The following checklist will assist in determining if your Project qualifies as a Transit Priority Project (TPP) and a Sustainable Community Project (SCP) as defined in PRC 21155(a), (b), and PRC 21152.

Yes	No	Is the Project:	
☐	☐	1.	Located within ½ mile from the East Ontario Metrolink Station at 3330 East Francis Street, Ontario or the future Metrolink Station at 198 East Emporia Street, Ontario?
☐	☐	2.	At least 50% residential use based upon total square footage, and non-residential uses within the Project between 26% to 50% of total square footage with FAR of not less than 0.75?
☐	☐	3.	At or above a minimum net density of at least 20 dwelling units per acre?
☐	☐	4.	Is your project consistent with the general land use designations in the SCP (if you answered yes to questions 1 thru 3, then answer yes to this one)?

If you answered **Yes** to questions 1 through 4 then your Project is a Transit Priority Project (TPP) as defined by PRC Section 21155(b). Continue with the next list of environmental questions:

Yes	No	Does the Project:	
☐	☐	5.	Contain sites on the Cortese List?
☐	☐	6.	Site contain any hazardous substances, contaminated soil or hazardous material?
☐	☐	7.	Site include historical resources?
☐	☐	8.	Have an unusually high risk of fire or explosion from material stored or used at properties within ¼ mile of the Project site?
☐	☐	9.	Site currently developed as Open Space (parks, habitat, etc.)?

Continue with the next list of land use questions below:

Yes	No		
☐	☐	10.	Does the Project design have all the buildings at least 15% more efficient than Title 24 energy standards and uses 25% or less water than average households?
☐	☐	11.	Is the Project site eight acres or less in size?
☐	☐	12.	Does the Project not include any single level of a building exceeding 75TSF?
☐	☐	13.	Project does not conflict with nearby industrial uses?
☐	☐	14.	The Project will sell at least 20% of housing to families of moderate income, or 10% of housing will be rented to families of low income, or at least 5% of housing rented to families of very low income, or the Project provides open space equal or greater than 5 acres per 1,000 residents, or the developer will pay in-lieu fees sufficient to result in the development of affordable housing meeting one of the criteria described above?

Determining Eligibility based upon the answers:

Full CEQA Exemption for Sustainable Community Projects (SCPs)

If you answered **Yes** to all the TPP questions 1 through 4, **No** to all the environmental questions 5 through 9, and **Yes** to all the land use questions 10 through 14, then your Project is a SCP and is eligible for a full CEQA Exemption under SB 375.

Transit Priority Projects (TPP)

If you answered **Yes** to all the TPP questions 1 through 4, but did not qualify as a SCP then your project is a TPP. Your TPP also needs to incorporate all appropriate mitigation measures required by an applicable prior CEQA document (such as an adopted EIR for a Specific Plan) for your Project location. If your TPP meets these two criteria then your TPP does not need to analyze the following impacts in the Sustainable Communities Environmental Assessment (SCEA) or CEQA analysis:

- Growth inducing impacts,
- Regional transportation impacts, and
- GHG emissions related to passenger cars and light duty trucks.

The impacts listed above are considered less than significant because the Project is a TPP and the SCEA or CEQA document should reference PRC Section 21155.2(c)

Other Residential and Mixed Use Projects

If you answered Yes to question 4, but did not qualify as an SCP or TPP your project may not need to analyze some of the impacts in the CEQA analysis, if your project is a **residential project or mixed-use project with 75%** of the total building square footage of the Project as residential units. Also, your Project needs to incorporate all appropriate mitigation measures required by an applicable prior to CEQA document (such as an adopted EIR for a Specific Plan) for your Project location. If your project meets these criteria, then the CEQA analysis of your Project does not need to analyze the following Impacts:

- Growth inducing impacts,
- Regional transportation impacts, and
- GHG emissions related to passenger cars and light duty trucks.

The impacts listed above are considered less than significant because the Project meets the criteria in PRC Section 21155.2(c)

APPENDIX C:
LAND USE DEVELOPMENT TABLE

Sample Project Sizes by Land Use Category that are below 3000 MT CO2e

Project Type	Project Size that Generates 3000 Metric Tons of CO2e
Single Family Residential (Single Family Detached)	60units
Apartments/Condominiums/Townhouse	85units
Retirement Community (Senior Housing Age 50 or older)	100units
General Commercial/Retail/Office (refrigeration not to exceed 10% of total sf)	160,000 square feet
Supermarket/Grocery/Discount Club (refrigeration exceed10% of total sf)	36,000 square feet
Restaurants (sit down)	8,200 square feet
Fast-Food Restaurants (Fast Food with or without /Drive Thru)	5,300 square feet
Gas Station	7,200 square feet
Industrial	53,000 square feet
Wireless Communication Towers	2,400 kw
Passive Park	200 acres
Active Park	60 acres

*based upon statistical analysis of Projects run in the CalEEMod model.

* Definitions are provided below

Sample Project Sizes by Land Use Category that are below 3000 MT CO2e Definitions

Definitions:

Single Family Residential

Single-Family Detached homes on individual lots typical of a suburban subdivision.

Apartments/Condominiums/Townhouse

Apartments High Rise:	High-rise apartments are units located in rental buildings that have more than 10 levels and most likely have one or more elevators.
Apartments Low Rise:	Low-rise apartments are units located in rental buildings that have 1-2 levels.
Apartments Mid Rise:	Mid-rise apartments in rental buildings that have between 3 and 10 levels.
Condo/Townhouse:	These are ownership units that have at least one other owned unit within the same building structure.
Condo/Townhouse High Rise:	These are ownership units that have three or more levels.

Retirement Community Senior Housing (Age 50 or older)

These communities provide multiple elements of senior adult living. Housing options may include various combinations of senior adult housing single family and/or multi-family, in support of assisted living, and skilled nursing care aimed at allowing the residents to live in one community as their medical needs change.

General Commercial/Retail/Office (refrigeration not to exceed 10% of total sf)

Home Improvement Super Store, Auto Care Center, Electronic Superstore, Hardware store, Pharmacy/Drugstore with & without drive thru, General Office Building, Bank with & without drive thru, Gov. Civic Center, Gov. Office Building, Medical Office, Office Park, Health Club, and Strip Mall (small strip shopping centers contain a variety of retail shops and specialize in quality apparel, hard goods and services such as real estate offices, dance studios, florists and small restaurants) or Convenience Store not to exceed 5,000 sf.

Supermarket/Grocery/Discount Club (refrigeration exceed 10% of total sf)

Supermarkets: free-standing retail stores selling a complete assortment of food: food preparation and wrapping materials; and household, cleaning items. Supermarkets may also contain the following products and services: ATMs, automobile supplies, bakeries, books and magazines, dry cleaning, floral arrangements, greeting cards, limited-service banks, photo centers, pharmacies and video rental areas.

Discount Club: a discount or warehouse store where shoppers pay a membership fee in order to take advantage of discounted prices on a wide variety of items such as food, clothing, tires and appliances. Many items are sold in large quantities or in bulk.

Restaurants (sit down) Full-service eating establishments with typical turnover rates of at least one hour or longer. Patrons commonly wait to be seated, are served by a waiter, order from menus and pay for meals after they eat.
Fast-Food Restaurants (with or without /Drive Thru) Patrons generally order at a cash register and pay before they eat.
Gas Station Gas Station includes the building square footage and excludes the canopy. Gas/Service Stations Projects that include "One building" with two to three ancillary uses: Fast Food w/Drive Thru, Convenience Market 24hr.
Industrial Warehouse with or without refrigeration, storage, distribution, manufacturing, R&D with exception to those uses that require Title 5 Permit from AQMD (i.e. paint booths).
Wireless Communication Towers Cell Towers-freestanding
Passive Park Amenities that include tot lots, picnic table, non-programmed open space.
Active Park Amenities include one of the following: game fields lighted, pool facility and community center (as per the Comprehensive Park and Recreation Master Plan for Old Model Colony).

APPENDIX D: METHODOLOGY FOR THE DEVELOPMENT AND APPLICATION OF THE SCREENING TABLES

METHODS SUMMARY

The point values in the Screening Tables were derived from the projected emissions reductions that would be achieved by each of the reduction measures associated with new development within the CAP. The points within the Screening Tables were proportioned by residential unit or square feet of commercial/industrial uses. This was accomplished by taking the predicted growth in households and commercial uses in 2020 and proportioning the appropriate reduction quantities for new development to the residential, commercial, and industrial land use sectors within the Screening Table. The result is point values that are proportioned by residential unit or commercial/industrial square feet. Because of this, the size of the project is not relevant to the Screening Table. Regardless of size, each project needs to garnish 100 points to demonstrate consistency with the CAP. Efficiency, not size of the project, is critical. The following equations can be used in determining the amount of emissions reduced per point in the Screening Table:

For Residential Projects:

0.012 MT CO_2e per Point per Residential Unit

For Commercial and Industrial Projects:

0.007 MT CO_2e per Point per 1,000 Square Feet of gross Commercial/Industrial building area

Note that the Screening Table and point values are best used for typical development projects processed by the City. Examples of typical development projects include residential subdivisions, multi-family residential apartments, condominiums and townhouses, retail commercial, big box retail, office buildings, business parks, and typical warehousing. Mixed use projects can use the instructions at the beginning of the Screening Tables. Transit oriented development (TOD), and infill projects are able to use the Screening Tables, but the Screening Tables points are likely to underestimate total emission reductions afforded these types of projects. Note that the Screening Tables include the opportunity to custom develop points (using the formula above) in order to provide points in the sections of the Screening Tables marked TBD and account for the predicted reductions in vehicle trips and vehicle miles traveled within a project specific traffic study and GHG analysis. TOD and infill projects can be more accurately assessed and allocated points using this method.

However, more unusual types of industrial projects such as cement manufacturing, metal foundries, refrigerant manufacturing, electric generating stations—including large alternative energy electric generation, and oil refineries cannot use the Screening Tables because the emission sources for those types of uses were not contemplated in the tables.

DEVELOPMENT OF THE POINT VALUES

Within the City measures, 39,769 MT CO_2e will be reduced using the Performance Standard for new development. The Performance Standard is implemented through Screening Tables and the point allocation within the Screening Tables are tied to 39,769 MT CO_2e of reductions.

The first step in allocating point values is to determine the number of new homes and commercial buildings that are anticipated by year 2020. The City predicts that 16,489 new residential units will be needed by 2020 to accommodate the population growth by 2020 and a total of approximately 36,940,000 square feet of new commercial and industrial buildings within Ontario is needed to accommodate anticipated job growth. Of all new development anticipated by 2020, a total of approximately 1,649 new residential units and 3,694,000 square feet of new commercial and industrial buildings within Ontario are anticipated to be built as small projects using the efficiency measures. Approximately 14,840 new residential units and 33,246,000 square feet of new commercial and industrial buildings within Ontario are anticipated to either use the screening tables or provide an independent analysis demonstrating reductions. Evaluating the growth in residential and commercial/industrial land uses, approximately 44.55% is attributable to residential and 55.45% attributable to commercial/industrial land uses. Using those ratios, the Performance Standard will reduce 17,717 MT CO_2e from residential development and 22,052 MT CO_2e from commercial/industrial development by 2020.

Dividing the 17,717 MT CO_2e reductions of emissions afforded the Screening Table implementation of the Performance Standard for new residential development by the anticipated 14,840 new residential units that will be built yields 1.19 MT CO_2e per residential unit that needs to be reduced to fulfill the anticipated reductions of the CAP. That amount equals 100 points, producing the following equation for the point values:

0.012 MT CO_2e per Point per Residential Unit

A similar process was used to derive the point value for new commercial/industrial development:

0.007 MTCO2e per Point per 1,000 Sq. Ft. of gross Commercial/Industrial building area

The final step was to allocate points to each of the reduction measures in order to provide the menu of point values. Tables 1 and 2 below shows emission reductions afforded each measure. Note that emissions associated with new development are reduced by the State, as well as the City's Performance Standard. The Screening Tables focus on the Performance Standard the City is implementing associated with new development within the City boundaries. For this reason, the menu of options pertains to sectors of emissions associated with new development.

Table 1 Emissions Reduction By Measure

Reduction Number	Reduction Measure Name	Reduced Emissions(MT CO_2e) Commercial/Industrial	Residential
PS-T1	Land Use Based Trips and VMT Reductions	2,500	2,000
PS-T2	Bicycle Master Plan	2,000	1,601
PS-T3	Electric Vehicle Incentives and Infrastructure	2,116	1,714
PS-E1	Residential Energy Efficiency		7,087
PS-E2	Residential Renewable Energy Generation		4,784
PS-E3	Commercial/Industrial Energy Efficiency	8,821	
PS-E4	Commercial/Industrial Renewable Energy Generation	5,954	
PS-W1	Residential Water Conservation		531
PS-W2	Commercial/Industrial Water Conservation	661	
Total PS Reductions for New Development		**22,052**	**17,717**

Table 2 Measure Reduction By Project Size

Project Size	Reduced Emissions(MT CO_2e) Commercial/Industrial	Residential	ALL
BMP-1: (Projects at or below 3000 MT CO_2e)	772	619	1,391
PS-1 (Screening Tables)	22,052	17,717	**39,769**
Total Reductions for New Development from Local Measures	22,824	18,336	41,160

The CAP did not quantify emissions reductions associated with BMP-1 and assumed that new development would reduce 39,769 MT CO2e. However, calculations of anticipated reductions associated with BMP-1 were completed within this document and shown above. The overall reductions of both BMP-1 and PS-1 are anticipated to reduce a total of 41,160 MT CO2e. The predicted excess in reductions allows more certainty that the CAP will achieve the intended reduction goal for new development.