**DATE:** November 15, 2016

**TO:** Carolyn Lehr, City Manager

**FROM:** Maurice Kaufman, Public Works Director

**SUBJECT:** **Resolution Of The City Council Of The City Of Emeryville Adopting The City Of Emeryville Climate Action Plan 2.0 And The Climate Action Plan 2.0 Implementation Plan And Goals For 2030 And Authorize The City Manager To Amend Said Implementation Plan As Needed With Developments InTechnology And Or Best Practices; CEQA Determination: Exempt Pursuant To 15307 And 15061(b)3**

# RECOMMENDATION

Staff recommends that the City Council approves and adopts the Climate Action Plan 2.0. and the Climate Action Plan 2.0 Implementation Plan and authorizes staff to amend it as needed in response to local conditions, developments in technology, changes in regulation, resource availability, or best practices.

# BACKGROUND

Since the City of Emeryville approved its first Climate Action Plan in 2008, there has been significant momentum in the climate change arena. The United Nations Intergovernmental Panel on Climate Change (IPCC) released the Fifth Assessment Report (AR5) on climate change science in 2013. The report indicated that the average global temperature has increased by 0.85 degrees Celsius from 1880 to 2012 and global average sea level has risen by 19 cm from 1901 to 2010[[1]](#footnote-1). Given the current atmospheric concentrations of greenhouse gases (GHG), major contributors to climate change, the global temperature is projected to increase by more than 2.5 degrees Celsius by the end of the century[[2]](#footnote-2). This is a scenario that will have catastrophic impacts on global agriculture, urban cities, forests, oceans, and other systems.

In December 2015, at the United Nations Climate Change Conference (COP 21) in Paris, France, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) reached a historic international agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable, low-carbon future. The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) to keep the global temperature rise this century at less than 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. There will be a global review of data every five years to assess collective progress towards achieving the purpose of the Paris agreement and to inform further individual actions by Parties. The United States signed on to the Paris Agreement along with 174 other nations on Earth Day, April 22, 2016.

With the support of President Obama, mayors from around the U.S signed on to the United Nations’ Compact of Mayors to show city government’s commitment to combatting climate change. The Compact of Mayors provides a common platform for capturing cities’ actions and provides a tool for consistent measurement and public reporting of climate change mitigation and adaptation efforts[[3]](#footnote-3). Signatories pledge to reduce CO2 emissions by at least 40% by 2030 and to adopt an integrated approach to tackling climate change mitigation and adaptation. The City of Emeryville signed on to the Compact of Mayors in November 2015, to show its commitment to climate change mitigation and adaptation. Compliance with the Compact of Mayors requires a recent GHG emissions inventory, a GHG reduction target, a climate mitigation action plan, climate hazard reporting, a climate change vulnerability assessment, and a climate adaptation action plan within three years of signing on to the agreement. Recently the Compact of Mayors merged with the European Union’s Covenant of Mayors to form the new Global Covenant of Mayors for Climate and Energy[[4]](#footnote-4). All signatories to either agreement are part of this new Global Covenant of Mayors.

At the state level, ambitious targets have been set for climate mitigation. In April 2015, California Governor Jerry Brown issued Executive Order B-30-15, which built upon Governor Arnold Schwarzenegger’s Executive Order S-3-05, to set a statewide target for reducing GHG emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. This Executive Order was signed into law as SB 32 in September 2016. In October, 2015, California Senate Bill 350 was approved; it aims to increase retail sale of renewable electricity to 50% and double energy efficiency savings in electricity and natural gas end uses by 2030.

**DISCUSSION**

The goal of updating Emeryville’s Climate Action Plan (CAP) is to comply with the Global Covenant of Mayors initiatives and to incorporate the new state mitigation targets, while also addressing the opportunities afforded by rapidly-evolving technology. To achieve this goal, the City of Emeryville participated in the Governor’s Initiative program, CivicSpark AmeriCorps, and hired a CivicSpark Fellow to increase staff capacity around climate change projects. The CivicSpark Fellow focused primarily on developing the CAP 2.0, which included conducting community and municipal GHG inventories, doing community outreach on climate mitigation and adaptation issues, researching new technologies and best practices, and completing a Sustainability Action Plan through participation, along with other City staff, in the REV Sustainability Circle, a peer-based learning program.

Community and municipal GHG inventories with the most recent available data were completed at the end of April 2016 and uploaded to both the CDP and Carbon*n* online platforms to comply with the Global Covenant of Mayors reporting requirements. Due to the City of Emeryville’s uniquely small land area and the high proportion of state highways in the Bay Area, total GHG emissions data with traffic from state highways included can hide the results of local traffic mitigation efforts, therefore, it was useful to look at an alternative GHG emission total with local traffic only, for the purpose of analyzing the effectiveness of local mitigation strategies. Results from both total traffic and local traffic scenarios are reported in the CAP 2.0, and will be tracked over time, while only the total traffic scenario results were included for the Global Covenant of Mayors reporting.

As seen in Table 1, there was a 7.49% decrease in overall community emissions in comparison to baseline 2004 levels when excluding pass-thru traffic on state highways. At a per-capita level, there was an 18.15% reduction in total per-capita emissions for the all-traffic scenario and 30.31% reduction for the local traffic only scenario, as seen in Table 2. This indicates that the City of Emeryville is on the right track for GHG emissions reductions, but more drastic action must be taken to reach the ambitious state targets for 2030 and 2050. Table 3 shows the emissions from municipal operations; those emissions have decreased 7.29% from the earliest complete inventory, in 2010.

**Table 1: Community GHG Emissions by Sector from 2004 and 2014.** All emissions are reported in metric tons of CO2 equivalent (CO2e)

|  |
| --- |
| **All Traffic (CO2e metric tons)** |
| **Year** | **Residential** | **Commercial** | **Transportation** | **Waste** | **Water** | **TOTAL** |
| 2004 | 10,021 | 76,038 | 68,644 | 2,646 | 713 | **158,062** |
| 2014 | 9,357 | 62,706 | 96,234 | 3,165 | 617 | **172,080** |
| **Local Traffic Only (CO2e metric tons)** |
| **Year** | **Residential** | **Commercial** | **Transportation** | **Waste** | **Water** | **TOTAL** |
| 2004 | 10,021 | 76,038 | 40,194 | 2,646 | 713 | **129,612** |
| 2014 | 9,357 | 62,706 | 44,282 | 3,165 | 617 | **120,128** |

**Table 2: Community Per-Capita GHG Emissions**

|  |  |  |
| --- | --- | --- |
| **Year** | **All Traffic****(metric ton** CO2e**/person)** | **Local Traffic Only****(metric ton** CO2e**/person)** |
| 2004 | 19.89 | 16.31 |
| 2014 | 16.28 | 11.36 |
| Reduction | 18.15% | 30.32% |

**Table 3: Comparison of Government Operations GHG Emissions from 2004-2014.** All emissions are measured in metric tons of CO2e. The vehicle fleet sector emissions in 2004 and 2010 include the Emeryville Fire Department while emissions in 2014 do not. No data is available for transit fleet, employee commute, and fugitive emissions from refrigerants and generators in 2004.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **Building Energy** | **Street & Traffic Lights** | **Vehicle Fleet** | **Solid Waste** | **Water & Wastewater** | **Transit Fleet** | **Employee Commute** | **Fugitive Emissions** | **Total** |
| 2004 | 427 | 313 | 414 | 160 | 14 | - | - | - | 1,328 |
| 2010 | 498 | 284 | 489 | 175 | 1 | 11 | 282 | 27 | 1,767 |
| 2014 | 402 | 234 | 410 | 131 | 1 | 7 | 431 | 27 | 1,643 |

The City of Emeryville held three public outreach workshops, one on May 7 and two on May 10 of 2016 along with an online survey to get feedback on the draft climate action plan objectives and initiatives. Overall community response to the proposed plan was positive and supportive, and new ideas from participants were incorporated into the initiatives.

In its current form, the CAP 2.0 contains 17 mitigation goals, 5 adaptation goals, 98 mitigation initiatives, 38 adaptation initiatives, and 5 long-term strategies for carbon neutrality. All of the goals relate back to meeting the state’s target for reducing GHG emissions by 40% below baseline levels by 2030 while the long-term strategies speak to the 2050 vision for 80% reduction. The associated initiatives are described in the CAP 2.0 Implementation Plan (Exhibit B). Since technology and best practices are rapidly evolving in this field, staff is asking for authorization to amend the initiatives as needed in response to local conditions, developments in technology, changes in regulation, resource availability, or best practices to best meet the goals in the CAP 2.0.

The 4 mitigation goals and 19 initiatives relating to local government operations came from the Sustainability Action Plan, the product of the City’s participation in a REV Sustainability Circle. Many of the energy-related initiatives were first fleshed out in the City of Emeryville’s Strategic Energy Plan, developed with assistance from East Bay Energy Watch (EBEW) and their consultant, Newcomb Anderson McCormick. Consultants hired through StopWaste, 427 Climate Solutions, completed the climate vulnerability assessment and adaptation recommendations that are incorporated in the plan.

The 2030 goals include:

*TRANSPORTATION*

1. Create vibrant neighborhoods where residents can easily walk to their basic daily needs.
2. Reduce the total vehicle miles traveled on local roads by 30%.
3. Reduce the carbon intensity of vehicles by 30%.

*BUILDINGS*

1. Reduce the total energy use of buildings built in 2016 or before by 15%.
2. Achieve zero net carbon emissions for 50% of new construction.

*ENERGY*

1. Increase local renewable energy capacity in Emeryville by 30%.
2. Develop or support green jobs training program around increasing local renewable energy capacity and energy efficiency.

*CONSUMPTION AND WASTE*

1. Reduce food scraps sent to landfills.
2. Achieve zero waste to landfills.
3. Reduce consumption-related emissions by encouraging sustainable consumption and minimization of the carbon intensity of business supply chains.

*WATER USE*

1. Reduce water use in the community by 30%.

*URBAN SPACE*

1. Expand the urban forest with a minimum canopy cover of 50% in the Triangle and Doyle medium density residential neighborhoods and 25% in other city areas.
2. Expand access to healthy and local food.

*LOCAL GOVERNMENT OPERATIONS*

1. Reduce energy use in city facilities by 30%.
2. Reduce water use in city facilities by 30%.
3. Reduce emissions in the city fleet sector and employee commute by 30%.
4. Achieve zero waste to landfill from city facilities.

*ADAPTATION*

1. Reduce risk and impacts of heat and drought by preparing for hotter, drier summers with increased incidence of extreme heat days.
2. Reduce risk and impacts of flooding by preparing for more intense rain events.
3. Reduce risk and impacts from sea level rise.
4. Build community capacity for responding to climate change.
5. Engage businesses on climate resilience and behavior change.

As a result of the CivicSpark Fellow’s work with other City staff on the CAP 2.0, the City of Emeryville has been selected as part of the Office of Planning and Research (OPR)’s Best Practices Pilot Program. The CivicSpark Fellow documented the CAP 2.0 development process in a case study report for OPR as part of Phase 1 of the program. The compiled reports will be posted to OPR’s web page and will be promoted as best practice examples of policy or program implementation at the local level. Phase 2 of the program in the coming year will involve technical assistance and capacity building for jurisdictions as well as focus on policy areas without robust guidance or case studies in place now.

**ENVIRONMENTAL REVIEW**

This project is exempt from environmental review under CEQA guidelines under section 15307, “Actions by regulatory agencies for protection of natural resources,” and the general rule at section 15061(b)3 because it can be seen with certainty that there is no possibility that the proposal may have a significant effect on the environment.

# FISCAL IMPACT

Implementing the CAP 2.0 to meet the state targets will require significant financial investment and staff resources. Climate change is a pressing international issue with huge potential negative ramifications for the local economy, ecosystem, and community. Investing financial capital now to transition to a low carbon future will not only help mitigate those effects, but also result in more local jobs, increased community resilience, improved air quality and public health, savings on water and energy bills, and improved social/environmental systems. There is no fiscal impact adopting the CAP 2.0, although individual initiatives will require funding through the Capital Improvement Plan or other budgetary sources.

**PREPARED BY:** Nancy Humphrey, Environmental Programs Supervisor

**APPROVED AND FORWARDED TO THE
CITY COUNCIL OF THE CITY OF EMERYVILLE:**

Carolyn Lehr, City Manager

Attachments:

1. Resolution
2. Climate Action Plan 2.0
3. Implementation Plan
1. IPCC Fifth Assessment Report, https://www.ipcc.ch/report/ar5/ [↑](#footnote-ref-1)
2. U.S. Environmental Protection Agency, https://www.epa.gov/climate-change-science/future-climate-change [↑](#footnote-ref-2)
3. Compact of Mayors, https://www.compactofmayors.org/ [↑](#footnote-ref-3)
4. Global Covenant of Mayors, https://www.compactofmayors.org/globalcovenantofmayors/ [↑](#footnote-ref-4)