



Agenda Item

DATE: NOVEMBER 22, 2011

TO: CITY COUNCIL

**FROM: JOAN MALLOY, ECONOMIC AND COMMUNITY
DEVELOPMENT DIRECTOR**

SUBJECT: CLIMATE ACTION PLAN IMPLEMENTATION UPDATE

On October 21, 2011, the City Council requested an update on Climate Action Plan implementation. This report provides an overview on the Climate Action Plan, a summary of implementation activities in 2011, and a list of planned implementation activities for 2012.

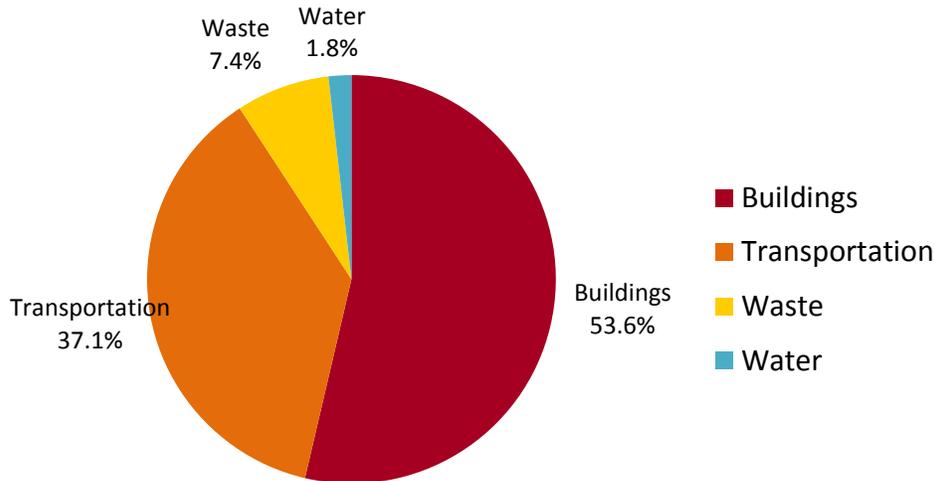
BACKGROUND

The City Council adopted the Union City Climate Action Plan in October 2010. The adoption of the Climate Action Plan was the result of nearly five-years of work on environmental sustainability in Union City.

In 2006, the City Council joined ICLEI (formerly referred to as the International Council for Local Environmental Initiatives) and the Alameda County Climate Protection Project. This project is a regional effort to reduce greenhouse gas emissions and, to date, all Alameda County cities are participating. ICLEI assisted Union City in preparing a baseline greenhouse gas (GHG) emissions inventory for the community to determine the levels of GHG emissions that the community emitted in its base year. Due to readily available data, 2005 was selected as Union City's base year.

The following chart shows the percentages of Union City's 2005 GHG inventory by sector. Buildings and the energy they use constitutes approximately 53.6% of citywide emissions. Transportation is responsible for 37.1% of emissions. Waste contributes 7.4% of emissions. Finally, the conveyance of water makes up 1.8% of emissions.

Percentage of 2005 GHG Emission by Sector



In 2008, the City Council added a Sustainability Element to the Union City General Plan. The element contained a goal and implementation program to reduce GHG emissions within the City. The implementation program identified five steps to reduce GHG emissions that included: quantification of citywide greenhouse gas emissions, setting of a reduction goal, identification of measures to reduce GHG emissions, implementation of measures and on-going monitoring.

In January 2009, the City Council adopted a goal to reduce GHG emissions by thirty percent (30%) below 2005 levels by the year 2020. After adoption of the goal, City staff began work on a Climate Action Plan (CAP) to identify measures for reducing GHG emissions within the community. Staff utilized Federal Energy Efficiency and Conservation Block Grant funds to hire a consultant, AECOM, to assist the City in preparing the plan.

In April 2009, the City Council appointed members to the Union City Climate Protection Task Force to provide comments on the draft Climate Action Plan and represent the diverse interests of Union City throughout the process. Members included representatives from the City Council, Planning Commission, Senior Commission, Union Sanitary District, New Haven Unified School District, Chamber of Commerce as well as Union City residents. The consultant team began working with the Task Force and City staff to identify potential measures to reduce GHG emissions within the City. The Task Force met eight times over a one-year period. Staff hosted a public meeting in May 2010 to present these draft measures to the community for their feedback.

In July 2010, staff presented two scenarios to the City Council regarding the future reduction of GHG emissions within the City. The first scenario contained measures necessary to reach the original reduction goal of 30 percent below 2005 levels by 2020. This goal required the implementation of mandatory measures, some of which were not well-received by the Task Force or community because of the high financial cost that would be carried by homeowners and the private sector. An example of a mandatory measure included in the 30 percent scenario was implementation of a Residential Energy Conservation Ordinance that required energy efficiency upgrades when someone sold their home. It should be noted that several cities are currently struggling on implementation of a similar measure.

The second scenario included measures necessary to achieve a target of 20 percent below 2005 levels by 2020. The measures listed in this scenario were largely voluntary resulting in lower participation rates and associated smaller GHG emission reductions. Taking into consideration the feedback from the community and Task Force, the City Council provided direction to revise the CAP goal to reflect the second scenario, which proposed a reduction of 20 percent below 2005 levels by 2020.

Climate Action Plan Overview

Implementation of the measures listed in the CAP, along with statewide reductions associated with AB 32 enabling legislation, generate a combined reduction of 100,060 Metric Tons (MT) of Carbon Dioxide emissions (CO₂e) per year, or approximately 22.8 percent below 2005 levels, which exceeds the City's reduction goal. The consultant team recommended the inclusion of measures within the CAP that would generate GHG emissions reductions in excess of the goal to account for any uncertainty associated with implementation.

The CAP is broken down into four chapters, and includes several appendices. The complete CAP is located on the City's Going Green website <http://www.greenunioncity.org> and can be found by clicking the [Climate Action Plan link](#) on the left-hand side of the page. Chapter 1 provides an introduction on the topic of climate change and provides background information regarding the local, regional and state context. This chapter provides a summary of Union City's climate protection achievements as of the date the plan was established, which was the basis for several measures within the plan.

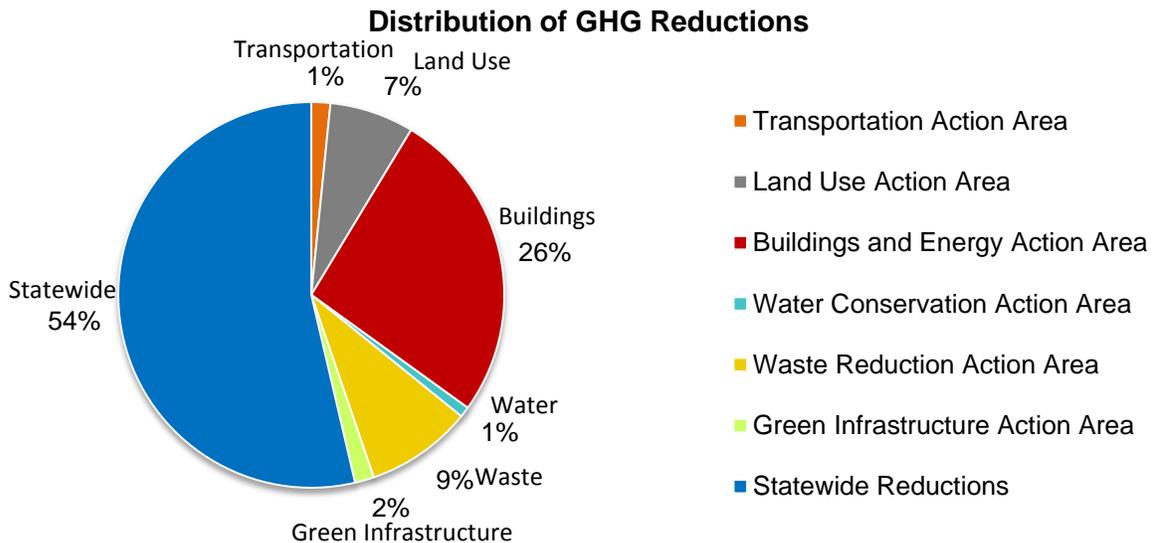
Chapter 2 describes the planning process and includes background information regarding the City's 2005 GHG emissions inventory and the City's projected 2020 emissions. The projected 2020 GHG emissions are based on a business-as-usual scenario and assume that

the historical and current GHG-generating practices and trends for energy consumption, transportation, solid waste and water consumption will continue until 2020.

Chapter 3 contains measures and actions necessary to reduce GHG emissions to reach the identified goal. This chapter is split up into six action areas, which include Land Use, Transportation, Buildings and Energy, Water Conservation, Waste Reduction and Green Infrastructure. Attached to this staff report is a summary of all of the CAP measures. Each measure includes implementation actions that are identified as either short-term, medium-term or long-term. The following information is also provided for each measure: GHG reduction potential, community co-benefits, cost to city, and cost/savings to residents or businesses from implementation of the measure.

The following chart shows the GHG reductions achieved by the CAP in each resource area. Statewide reductions make up a significant portion (54%) of the reductions in the CAP. This is due to Statewide legislation resulting from AB32, including:

- AB 1493, which establishes performance standards for GHG emissions from motor vehicle;
- EO-S-1-07, which establishes performance standards for the carbon intensity of transportation fuels;
- Senate Bill (SB) 107, which establishes performance standards for GHG emission reductions from electric utilities;
- SB 7, which sets out a water use reduction target; and
- AB 811, which facilitates alternative financing mechanisms for energy efficiency and renewable energy installations.



After the Statewide policies, the greatest potential reductions occur in the Buildings and Energy Action Area (26%), Waste Reduction Action Area (9%), and Land Use Action Area (7%).

The Climate Adaptation section addresses what Union City can do to mitigate the effects of climate change. Potential adaptation strategies include working with Hayward and other regional agencies on solutions to protect the City's shoreline such as the construction of levees. The Optional Measures section includes the mandatory measures that were required to meet the City Council's original goal of a 30 percent GHG reduction. These optional, mandatory measures have been included so that the City Council can revisit these strategies at a future date if the City is not achieving its reduction goal.

Chapter 4 addresses the issue of implementation of the CAP. Ensuring that the measures listed in the CAP achieve the City's reduction goal is critical. This chapter contains specific information relating to the implementation of each measure. Chapter 4 also includes information relating to the on-going monitoring of the plan. To remain relevant, the CAP and the related emissions inventory must be periodically updated to address a variety of factors, including actual participation rates, new GHG reduction technologies, and new statewide legislation. The CAP requires the City to update the community-wide emissions inventory in 2015 and in 2020 to gauge the level of GHG reduction target attainment.

Appendices A-D and F include additional background information regarding the GHG inventory, GHG reductions calculations, economic analysis, building energy analysis and Bay Area Air Quality Management District qualification standards. Appendix E summarizes the City's public outreach efforts as they relate to the CAP process and Appendix G includes all of the public comment received on the draft CAP.

DISCUSSION

CAP Implementation Activities Completed in 2011

Staff held a CAP implementation kick-off meeting in February 2011 to prioritize first-year implementation efforts. Staff chose to initially focus on CAP implementation activities that would result in the greatest GHG reduction with the least amount of fiscal impacts. As noted above, buildings and energy constitute 53.6% of Union City's 2005 emissions, followed by transportation, which makes up 37.1% of emissions. The Green Action Team, a staff-level interdepartmental committee, held a meeting in early November, 2011 to review CAP implementation activities that had taken place in 2011

and to outline strategies for implementing the CAP in 2012. Numerous achievements have been made in all five CAP resource categories, as summarized in the following sections. The corresponding CAP measures are included in parenthesis after each item. A complete list of CAP measures with key information is attached for your reference.



Land Use

Land use patterns impact transportation-related GHG emissions. Factors that influence decisions about vehicle use include density, mix of uses, proximity to transit, and street design. Making land use decisions that support biking, walking, and transit is key to reducing transportation-related GHG emissions. In 2011, the City continued to support transit-oriented development in the Intermodal Station District. The Mid-Peninsula Housing Coalition has completed Phase 1 of their 157-unit affordable housing development in the Station District and residents have begun to move in (LU-1.1). It is anticipated that Phase 2 will be completed in early 2012. The City is also in the process of constructing a public plaza and pedestrian promenade in the Station District (LU-1.1). The plaza will be located adjacent to the future east entrance to the BART station and the pedestrian promenade extends between 11th Street and Cheeves Way between Block 3 and 4 of the Station District. Lastly, a Request for Proposals has been issued to select a new developer for Block 2 and 3 in the Station District (LU-1.1).

In 2011, a report on the preferred pedestrian/bicycle crossing of the UP Railroad Tracks was also approved by the City Council. This proposed crossing would connect the Station District to the jobs center to the east, thereby minimizing the need to drive between the two areas.

In 2012, staff intends to undertake the following Land Use Action Area implementation activities:

- Work with a new developer through the entitlement process for Blocks 2 and 3 in the Intermodal Station District (LU-1.1).
- Evaluate the potential of an unbundled parking requirement for higher density residential products and/or reducing parking requirements (LU-3.1).



Transportation

Transportation is responsible for approximately one-third of Union City's GHG emissions. While State-level regulations will result in reduced emissions, local actions can have a significant effect on meeting Union City's GHG reduction targets. Approximately 73 percent of commute, shopping, and recreational trips are done in private automobiles and City is working to make walking, biking, and transit attractive alternatives. Public Works continues to consider all modes of travel when making upgrades to the City's street network. Notable CAP implementation activities in 2011 include:

- Updated Americans with Disabilities Act (ADA) Transition Plan, including inventory of all existing sidewalk and street intersections to identify deficiencies in the Pedestrian system. Additionally, 163 wheelchair ramps were installed (T-1.1).
- Continued build out of the Pedestrian and Bicycle Master Plan, which is now at 21% completion. Notably, the Alvarado Niles Road – Union City Blvd. gap closure project was completed (T-1.1).
- Approved Sidewalk Maintenance and Loan Policy on October 25, 2011, which provides citizens with the opportunity to get a loan from the City to replace and repair sidewalks (T-1.1).
- Performed walk-audits and identified additional Safe Routes to Schools improvements, which will be added to the updated Pedestrian and Bicycle Master Plan. Several of the Safe Routes to Schools-related improvements identified in the Pedestrian and Bicycle Master Plan were installed, such as high visibility ladder style crosswalks and bike related signage in vicinity of several schools (T-1.2).

Union City Transit has worked to increase transit use and has successfully converted the bus fleet to alternative fuel vehicles. Notable CAP implementation activities in 2011 include:

- Approved six replacement Compressed Natural Gas buses, which will make the active revenue fleet completely CNG. Delivery of the vehicles is expected in December 2012. The new buses have bike rack brackets and three-position bike racks will be installed once the vehicles arrive (T-2.2 and T-2.3).
- Installed new shelters and replacement shelters, including some with schedule information holders (T-2.3).
- Began research on shared bike-transit lane along Alvarado-Niles Road to provide a priority lane for buses during highly congested periods (T-4.1).

In 2012, staff intends to undertake the following Transportation Action Area implementation activities:

- Repair the worst uplifted/broken sidewalks (T-1.1).
- Remove obstructions or widen sidewalks to make them passable by people in wheelchairs and pedestrians (T-1.1).
- Trim trees and bushes encroaching onto sidewalks (T-1.1).
- Make traffic signal push buttons accessible to pedestrians and people in wheelchairs and make other pedestrian-friendly improvements to the traffic signal systems as identified in the ADA Transition plan (T-1.1).
- Work with Caltrans to accommodate bike lanes on Mission Blvd. within City limits (T-1.1).
- Study options for bike lane gap closure on Alvarado-Niles Road at I-880 overpass (T-1.1).
- Analyze 20% of the existing sidewalks each year and determine which sidewalks need to be repaired or replaced. Work with residents to have sidewalks repaired under the guidelines of the recently adopted Sidewalk Maintenance and Loan policy. It is the intent that every sidewalk in the City will be analyzed at least once every five years (T-1.1).
- Continue to implement pedestrian and bicycle related improvements in the vicinity of schools as identified in the Master Plan (T-1.2 and T-2.1).
- Complete Short Range Transit Plan, which will act as the planning and guidance document for the next 3-5 years. Performing a rider survey is a component of this process (T-2.3 and T-4.1).
- Investigate transit stop lighting options (T-2.3).
- Consider hiring a graduate student who specializes in transportation planning as an intern to facilitate the establishment of an employer-run Union City Transportation Management Association (T-3.1).
- Update the General Plan Circulation Element for Complete Streets, which is a requirement for continued regional funding (T-4.1).



Buildings and Energy

The buildings and energy sector were responsible for 53.6 percent of citywide GHG emissions in 2005. In February 2011, Council authorized the use of approximately \$100,000 of American Recovery and Reinvestment Act (ARRA) funds from the Department of Energy to hire a contract Sustainability Coordinator through September 2012. Due to the relative impact of the buildings and energy sector and the grant-funded position, the buildings and energy sector has been a top implementation priority in 2011.

As a largely built-out community, existing buildings are key to reducing Union City's energy use. In 2011, the sustainability coordinator has focused primarily on expanding outreach to the community, including the following activities:

- Posted regular sustainability tips on Facebook (E-1.1).
- Attended community events, throughout the summer, and most recently, the Halloween Carnival at Kennedy Center on October 30 and the upcoming Masonic Home tree lighting event on December 13, 2011 (E-1.1).
- Purchased GreenUnionCity.Org domain name and started website redesign project. New Green Union City site scheduled to launch in spring 2012 (E-1.1).
- Outreached directly to large businesses (over 100,000 sq. ft. of area) and top employers with tailored information on energy-efficiency programs (E-3.1).
- Met with NHUSD and PG&E to review energy-efficiency projects to date. NHUSD has signed a disclosure form to provide energy-saving project data to City. Similar meetings are in the process of being scheduled with USD, Kaiser, and Tri-CED (E-3.1 and E-8.1).

Residential energy-efficiency outreach has been a priority in 2011, as the residential sector contributes 41% of the GHG emissions in the buildings and energy category. Most notably, Rising Sun Energy Center completed their first summer of managing a California Youth Energy Service (CYES) program site office in Union City. With the use of ARRA grant funds, the City contracted with Rising Sun to promote energy conservation and sustainable living via an employment program for youth ages 15-22. The CYES program trained and employed nine youth this past summer and provided "Green House Calls" to 231 homes. Outreach for next summer will continue with Rising Sun holding a holiday light swap at the Masonic Home Tree Lighting event on December 13 (E-1.1). Continued efforts to achieve greater residential energy efficiency, also included:

- Continued work with Stopwaste.Org on Energy Upgrade California residential energy-efficiency retrofit program. Held joint meeting in Hayward on September 15, 2011 for multi-family property owners (E-1.1).
- Provided full-page color Energy Upgrade ad in the Fall Leisure Services Activity Guide, 17,000 of which are mailed to Union City residents. Added website content on GreenUnionCity.com and City's homepage advertising Energy Upgrade program and Energize for the Prize contest. Flyers and handouts were distributed at the permit counter (E-1.1).

Staff has worked to promote non-residential energy-efficiency projects as a valuable cost-saving strategy. Most notably, staff launched the Union City Energy Smart Campaign in September, which is a partnership between the City, PG&E, and the Chamber of Commerce to offer Union City businesses valuable no-cost energy assessments, no-cost programs, and financial incentives and rebates. As of November 7, 2011, PG&E and third-party contractors have visited 171 Union City businesses and provided 31 free energy audits as part of the Energy Smart Campaign (E-3.1). An Energy Smart luncheon hosted by the City and PG&E was held on November 16 at the Crown Plaza to bring specialized energy-efficiency program information to food manufacturers and large warehouses (E-3.1).

Staff has continued to implement the Green Building Ordinance, which was expanded to apply to private development projects in 2010. New residential construction is required to be GreenPoint Rated and commercial projects must comply with the Stopwaste.Org Small Commercial Green Building Checklist (E-4.1). Notably, the Mid-Peninsula Housing development is in the process of obtaining a minimum LEED Gold certification (E-4.1). As a result of California Energy Code updates and the Small Commercial Green Building Checklist, businesses are increasingly including cool roofs, which are made of materials with higher solar reflectivity, as part of their retrofit projects. The increased reflectivity helps reduce the need for air conditioning during the summer months and combats the urban heat island effect. At last count, over 1,000,000 square feet of cool roofs had been installed since 2005 (E-3.2).

Solar activity has continued to increase. To incentivize solar energy, the City established a fixed fee for residential and commercial solar permits (E-7.1 and E-7.2) In 2011, 14 residential solar installations totaling 111kw were completed, up from eight installations totaling 27kw in 2010 (E-7.1). In 2010 and 2011, four non-residential solar installations were completed totaling 586kw (E-7.2).

In August 2010, Chevron Energy Solutions completed an energy audit of municipal buildings, including City Hall/Police Department, Library, Senior Center, Holly Community Center, Kennedy Community Center, Union City Sports Center, and Corporation Yard. The purpose of this audit was to identify cost-effective energy-efficiency upgrades for municipal buildings which resulted in a \$5.82 million service contract with Chevron Energy Solutions to perform the retrofit work identified as top-priority in the audit, including (E-3.1):

- Central plant retrofit at City Hall/PD Station;
- Rooftop air handler units and roof replacement at City Hall and Holly Center;
- Installation of an energy management system at City Hall, Library, and Holly Center;

- Heat pump unit replacement at Kennedy Center;
- Interior/exterior lighting retrofit; and
- Street light retrofit of 4,200 high pressure sodium street lights with energy-efficient induction lights.

\$211,000 of ARRA funds were contributed towards these projects. In 2011, Chevron completed the majority of their scope of work and it is anticipated that the project will be completed by the end of November, 2011.

In 2012, staff intends to undertake the following Buildings and Energy Action Area implementation activities:

- Conduct Energy Upgrade homeowner outreach meeting in January 2012 in partnership with Fremont and Newark and continue to promote the program to homeowners (E-1.1).
- Re-build GreenUnionCity.Org website with comprehensive information for businesses and residents to be re-launched in spring 2012 (E-1.1).
- Collaborate with PG&E and ACWD to encourage voluntary replacement of inefficient appliances with new Energy Star appliances (E-2.1).
- Continue outreach to large businesses on energy-saving opportunities. Hold workshops and provide presentations to business owners at economic development forums, such as the industrial roundtable (E-3.1).
- Continue implementing the Green Building Ordinance (E-3.2 and E-4.1).
- Work with PG&E to develop an outreach program that informs property owners and businesses about smart grid and smart appliance technologies (E-5.1).
- Work with the Smart Solar program through the East Bay Energy Watch and partner with surrounding cities to host public workshops connecting residents with qualified solar providers. Continue to support financing options for energy-efficiency retrofits and solar installation (E-7.1 and E-7.3).
- Continue to meet with USD and other agencies regarding planned projects and opportunities to reduce energy usage (E-8.1).



Waste Reduction

Waste-related GHG emissions result from personal consumption and waste disposal patterns as well as from industrial processes. The waste sector accounts for 8.8% of Union City's GHG emissions. In 2011, staff continued to focus on increasing Union City's diversion rate from 75% to 90% as outlined in the CAP. Efforts to increase diversion focused around reducing the use of materials that go to the landfill and increasing participation in the City's recycling program. To increase waste diversion, staff:

- Worked closely with Stopwaste.org to draft county-wide mandatory commercial recycling ordinance, which requires businesses and multi-family dwellings of five or more units that generate four cubic yards or more of solid waste collection per week to recycle. If approved, this requirement would become effective July 2012 (WR-1.1).
- Assisted in drafting single-use bag ban ordinance, which will prohibit the free distribution of single use carryout plastic bags at stores in Alameda County that sell packaged food. Distribution of single use paper bags would require a 10 cent per bag fee. The ban is expected to be approved by the Alameda County Waste Management Authority in December 2011 (WR-1.1).
- Approved mandatory \$6 per unit recycling fee for multi-family apartments and other multi-family units with a reduced fee for high-density senior complexes (WR-1.1).
- Joined with Stopwaste Partnership and Allied Waste in a new effort to target major waste generators. Reviewed business database to identify candidates for enhanced recycling assistance (WR-2.1).
- Conducted solid waste/recycling audits on behalf of the Alameda County Green Business Program (WR-2.1).
- Entered Phase Three of the Food Scrap Recycling for Business Program. To date, have successfully recruited nearly 40 restaurants and other food waste generators (WR-3.1).
- Conducted numerous site visits, training sessions and distributed educational material (WR-3.1).

Staff also worked to expand outreach efforts on the City's recycling programs. Key outreach efforts in 2011 include:

- Updated information on Construction and Demolition (C&D) page on the City website. Also joined C&D work group at Stopwaste.org and exchanged ideas and resources with C&D recycling coordinators in neighboring jurisdictions (WR-1.2).
- Attended East Bay Sustainable Business Trends & Awards ceremony, which honored two Union City businesses (WR-2.1).

- Performed recycling outreach at several events including:
 - Annual business expo where staff distributed materials promoting City's commercial recycling program (WR-3.1).
 - Science in the Park event which attracted several thousand visitors. Hosted popular recycling booth, and shared recycling information with general public and business leaders (WR-3.1 and W-3.2).
 - National Night Out event where staff distributed information about recycling program (WR-3.2).
- Provided recycling receptacles for groundbreaking ceremony at Intermodal Station District (WR-3.2).

Lastly, staff has worked to reduce waste at City facilities. Key efforts have included meeting with janitorial staff to increase recycling at City facilities, purchasing new janitorial carts to facilitate collection of recyclables from City facilities, and increasing recycling capacity at City Hall by replacing small carts with large mixed recycling bin (WR-5.1). Additionally, the following steps were taken to reduce waste at City facilities:

- Ordered a new seven-yard recycling bin from waste hauler for Corporation Yard to complement existing boxes used for recycling and composting at the site (WR-5.1).
- Attended several EPP workshops sponsored by ABAG and Stopwaste.org to learn more about sustainable purchasing resources and tools (WR-5.1).
- Set printers at City Hall and other City facilities to print double-sided as default (WR-5.1).
- Provided Council electronic meeting packets in place of printed packets (WR-5.1).
- Used re-fillable water jugs at Planning Commission meetings in place of bottled water (WR-5.1).

In 2012, staff intends to undertake the following Waste Reduction Action Area implementation activities:

- Implement educational outreach requirements included in mandatory commercial recycling legislation at the local (Stopwaste.org regulations) and state level (AB341) (WR-1.1).
- Conduct year-long educational outreach campaign regarding single use bag ban ordinance. Educate businesses and community in anticipation of the January 1, 2013 enforcement date (WR-1.1).
- Audit solid waste and recycling needs at multi-family facilities impacted by new fee and provide assistance in making service level adjustments in anticipation of increased recycling (WR-1.1).

- Expand implementation of City's existing C&D ordinance and explore introduction of new tracking system (WR-1.2).
- Increase recruitment of certified green businesses in Union City (WR-2.1).
- Work with Allied Waste and Tri-CED to develop new recycling outreach materials (WR-3.1).
- Plan and organize recognition awards program honoring green businesses in Union City (WR-3.1).
- Expand participation by restaurants in the Food Scrap Recycling for Business Program (WR-3.1).
- Continue outreach and provision of recycling facilities at large community events (WR-3.2).
- Expand implementation of City's Environmentally Preferable Purchasing Policy (WR-5.1).
- Continue review and adjustment of recycling levels at City facilities (WR-5.1).



Water Conservation

Energy is required to pump, treat, cool, heat, and transport potable water and wastewater. Staff has continued to implement water conservation strategies when reviewing new private development projects, including ensuring appropriate stormwater infiltration in compliance with regional standards (C.3) and requiring the use of low-water using (Bay-Friendly) landscapes. City staff received training in the new regional clean water regulations which become effective December 1, 2011 and continue to be active members of the Clean Water program committee and subcommittees (WC-3.1). The new C.3 regulations include a lower threshold for projects (5,000 vs. 10,000 sq. ft. of impervious surfaces) and demand that stormwater runoff be treated with non-mechanical, natural methods utilizing Low Impact Development (LID) practices. As developers apply for new projects, staff is required to condition the projects to comply with the new C.3 regulations, which require LID practices.

The City has also shown leadership in stormwater treatment and water conservation efforts on public projects. A demonstration garden was installed at Willow Park, which was designated the highest rated Bay Friendly Landscape in the Bay Area. Self-guided tour explains bay friendly practices to the public (WC-3.1). The City unsuccessfully applied for a grant from the EPA for the Decoto Green Street project, which will be resubmitted to the State for proposition 84 grant funds (WC-3.1 and GI-3.1). This project would improve C Street from 5th through 9th Street using LID measures including

pervious pavers and bio-filtration with sub-drains connected to rain garden landscaped areas. This project is one of 80 projects selected by the reviewing committee to apply for grant funding.

The following additional clean water and water conservation projects were completed in 2011:

- Installed bio-swales along Cheeves Way (WC-3.1).
- Installed bio-retention pre-treatment storm water facility at Sea Breeze Park, including renovating irrigation with low volume bubblers and planting 60 trees to aid in phosphate and nitrate removal (WC-3.1).
- Maintained automatic sump pumps at retention pond on Green Street for automatic operation and removed litter from ponds (WC-3.1).
- Installed Bay-Friendly landscapes at (WC-3.1, GI-3.1 and GI-1.2):
 - Contempo Park
 - Alvarado Boulevard/Galaxy Drive
 - Holly Community Center
 - Cesar Chavez Park
 - Old Alvarado Park
 - Fire Station #40 Eastin Court
- Awarded ACWD water conservation business of the year award for the last five years (WC-3.1).
- Installed Smart Controllers at the following locations (WC-4.1):
 - Contempo Park
 - Charles Kennedy
 - Casa Verde Park
 - Two locations at Whipple Road
- Installed low-volume sprinklers at the Skate Park and Holly Community Center and low-volume bubblers at Alvarado Road/Galaxy Drive (WC-4.1).

Alameda County Water District (ACWD) also runs a variety of water conservation programs that will help Union City residents and businesses reduce their water usage. These programs include rebates for smart irrigation controllers, turf replacement, efficient washers, and low-flow toilets. ACWD also offers audits for various uses to identify opportunities to conserve water.

In 2012, staff intends to undertake the following Water Conservation Action Area implementation activities:

- Update Water Efficient Landscape Ordinance (WC-1.1).

- Work with ACWD and other agencies to promote water conserving programs (WC-2.1 and WC-2.2)
- Apply for the Prop 84 grant to improve C Street from 5th through 9th Street using Low Impact Development measures including pervious pavers and bio-filtration with sub-drains connected to rain garden landscaped areas (WC-3.1).
- Implement the new C.3 regulations on all projects (WC-3.1).
- Complete additional Bay-Friendly landscape projects using volunteers, including at Casa Verde Park (WC-3.1, GI-1.2 and GI-3.1).



Green Infrastructure

Green infrastructure refers to a wide variety of natural features that can provide valuable ecosystem services to the community. In Union City, this includes the urban forest, natural stormwater-absorbing landscapes, and community gardens. The benefit of these systems is reduced urban heat island effects, reduced building energy use, improved stormwater and waste management, and better air quality. Union City has approximately 20,000 trees within City easements and property and staff is planting an average of 500 trees per year (GI-1.1). Approximately 100 trees per year are removed, which means that for every tree lost, five new trees are planted (GI-1.1). Trees are frequently planted along roadsides to help shade urban heat islands (GI-1.1). Every year, 200 saplings are given away at an annual Earth Day event (GI-1.1). Additionally, the following tree planting projects and landscape installations were completed in 2011 to help increase Union City's green infrastructure:

- Planted 70 native trees at Old Alameda Creek at Sugar Mill Park for Arbor Day, installed watershed signage, and attached ten bird boxes to a grove of trees. (GI-1.2)
- Restored portions of Dry Creek on Lewis Ave by planting 30 native trees and mulching all bare areas with wood chips that were recycled from tree crew operations. Installed four creek signs and a doggie dispenser. (GI-1.2)
- Sowed wildflower poppies and lupines along Mission Blvd and Meyers Dr.
- Native trees planted include (GI-1.3):
 - 60 at stormwater pre-treatment pond
 - 70 along Old Alameda Creek
 - 30 along Dry Creek
 - 15 along Zone 5 line M creek at City Hall
- Added 20 new plots at the Seven Hills Community Garden. Currently, 95% of all plots are in use. A greenhouse was placed at Community Garden to propagate vegetables (GI-2.1).

- Three city employees received their Bay Friendly training and are now qualified (GI-3.1).
- Recently completed four Bay-Friendly sheet mulch/planting projects (GI-3.1).
- Hosted Public Works Day at Kitiyama Elementary School, where staff educated children on clean water practices, gave out workbooks to students about keeping the Bay clean and distributed worksheets on tree information and care (GI-3.1).

In 2012, staff intends to undertake the following Green Infrastructure Action Area implementation activities:

- Add landscaping to neighborhoods using Eagle Scout volunteers (GI-1.1).
- Continue to plant 500 trees per year (GI-1.1).
- Continue to give away 200 baby trees each year at Earth Day celebration (GI-1.1).
- Sow native wildflowers along roadways (GI-1.2).
- Plant 100 native trees along Old Alameda Creek in April (GI-1.3).
- Install fruit orchard at Community Garden (GI-2.1).
- Explore options for possible second Community Garden site (GI-2.1).
- Send more employees to Bay-Friendly training (GI-3.1).

Conclusion

Staff has implemented a wide variety of CAP measures in 2011 and plans to continue these efforts in 2012 and beyond. Staff intends to continue to prioritize implementation actions that result in the greatest reduction in GHG emissions with the least amount of implementation costs. The Green Action Team will meet quarterly to discuss implementation and will provide the City Council with an annual update on implementation activities.

FISCAL IMPACT

There is no fiscal impact as a result of receiving this report. As noted when the CAP was adopted, full implementation will result in additional costs for the City, in terms of staff time and resources associated with drafting ordinances, creating and managing new programs, outreach to the community, and making infrastructure improvements such as construction of additional bicycle and pedestrian projects. The plan identifies the need for an additional staff position to manage these tasks to ensure successful implementation of the CAP, which should be considered during the City's next budget update. Staff will continue searching and applying for grants that could provide funding on a temporary basis for additional staff as well as grant opportunities for implementation of infrastructure projects listed in the CAP.

RECOMMENDATION

Staff recommends that the City Council accept this report, ask questions, and provide any feedback to staff. There are no actions required at this time.

Attachments: Matrix of CAP Measures

Prepared by:
Avalon Schultz
Associate Planner

Carmela Campbell, AICP
Planning Manager

Submitted by:
Joan Malloy
Economic & Community Development Director

Approved by: Larry Cheeves
City Manager