APPENDIX G: ADDITIONAL MITIGATION

UEA Section	UEA - ACTION	Program	Brief Description	GHG Emissions Category*	Reduction Category
Energy					
Energy	1	***Renewable Energy Implementation Projects***	The Integrated Resource Energy strategy listed in Table 4-1 has the ambitious goal of providing 40 percent of the City's energy needs supplied by renewable energy sources. The following set of recommended implementation projects listed below are designed to keep the city on track toward that ambitious goal. These are M3 measures because they were already quantified in Table 4-1, but provide additional support toward the 40 percent renewable goal.	Indirect	M3
Energy	1	***Photovoltaic Solar Projects***	Install photovoltaic solar panels on the Windsor Reservoir, city parking garages, and the Glenarm power plant to generate a total of 19 MW of locally-owned solar photovoltaic power by year 2020.	Indirect	M3
Energy	1	***Photovoltaic Solar Incentive Program***	Provide incentives for new development to install photovoltaic solar panels that to the extent feasible supply all of the energy needs for the development.	Indirect	M3
Energy	1	***Low Income housing Photovoltaic Solar Retrofit Program***	For new development that wishes to participate in the photovoltaic solar incentive program but cannot provide all of its power needs with photovoltaic due to restricted roof area, tree shade or other constraints, provide a fund that the applicant can pay into that will finance the retrofit of existing low income housing with photovoltaic power equal to the power needs of the proposed new development project.	Indirect	M3
Energy	2	***Energy Efficiency Implementation Projects***	UAE 2 has the ambitious goal of reducing the City's annual electricity consumption by an average of 1.33% per year through year 2020 and beyond. UAE 3 has the ambitions goal of reducing existing levels of GHG emissions by 25% in year 2030. These goals will exceed the State's 2020 reduction targets and provide progress toward the ultimate reduction target of 80% below 1990 emission levels by year 2050. The following energy efficiency implementation projects are recommended in order for the City to meet these goals.	Indirect	M3
Energy	2	***Tiered Electric Rates***	Provide a tiered electric rate that encourages energy conservation with the goal of reducing the City's annual electricity consumption by an average of 1.33% per year through year 2020 and beyond.	Indirect	M3
Energy	2	***Energy Audit Program***	Provide energy audits to residential and commercial electric customers and provide energy efficiency recommendations with the goal of helping them keep within the lowest tiered electric rate described above.	Indirect	M3
Energy	2	***Commercial and Industrial Energy Efficiency Programs***	Expand the existing energy efficiency program to include commercial and industrial land uses.	Indirect	M3
Energy	3	***Coal Reduction***	By 2016 reduce the demand for coal power purchased from the Intermountain Utah plant by and additional 35 MW and replace it with renewable energy sources Through the programs described above.	Indirect	M3
Waste Reduction					
Waste Reduction	4	***Additional Implementation Measures of the Waste Reduction Goals and Program (WRGP)***	The City of Pasadena has set an ambitious waste reduction goal of zero waste to landfills and incinerators by 2040. Tracking of waste diversion reveals the solid waste disposal at landfills increased during the period of 2007-2008. While data for 2009 shows that solid waste disposal has decreased from 2008 levels this is attributable to the economic decline that has occurred. In order to keep the City's waste diversion programs on track toward achieving the 2040 zero waste to landfills goal, the following waste diversion projects are recommended.	Indirect	M3

UEA Section	UEA - ACTION	Program	Brief Description	GHG Emissions Category*	Reduction Category
Waste Reduction	4	***Composting for Green Waste***	Develop a composting faculty for the City that is capable of composting green waste currently used as cover at landfills and food waste from restaurant/commercial businesses with the goal of diverting 100 percent of the green waste and food waste materials to the composting facility by 2040..	Indirect	M3
Waste Reduction	5	***AC and Refrigeration Units HGWP***	Refrigerants contribute to global warming since they have a very High Global Warming Potential (HGWP). Implement mandatory regular inspections of AC/HVAC systems to monitor for leakages. City will phase out the use of Hydrochlorofluorocarbons (HCFCs) as technology improves.	Indirect	M3
Waste Reduction	6	***Multi-Family and Commercial Recycling***	Create a Franchise Ordinance to licensed waste haulers in the city servicing commercial/multi-family units that require 100 percent of the green waste is diverted to composting, by 2040.	Indirect	M3
Waste Reduction	6	***Reduce Construction and Demolition Debris***	Enhance the existing construction & demolition debris recycling program- by increasing the requirements for recycling construction debris to 75 percent by 2012 and 100 percent by 2040.	Indirect	M3
Waste Reduction	6	***E-Waste Recycling Program***	Increase the number of days for the E-Waste program.	Indirect	M3
Waste Reduction	6	***Plastic Bag to Green Bag***	Eliminate single-use disposable bags within the City by 2020. Implement Green Bag program to City's Retail stores.	Indirect	M3
Waste Reduction	6	***Reduce methane from Green Waste***	Provide inventory to show emissions reductions if green waste were diverted from landfills to a local composting facility. Reductions are primarily from transportation.	Indirect	M3
Urban Design / Land Use					
Urban Design / Land Use	8	***Eco Industrial Parks***	An Eco-Industrial Park is a commercial/industrial/mixed-use development where the waste stream of one company becomes the feedstock for another within the complex. The development of Eco-Industrial Parks provides benefits for all public and private stakeholders. ▪ Business derives cost savings and new revenues; shared services; reduced regulatory burden; and increased competitiveness. ▪ The community enjoys a cleaner, healthier environment; business and job development; an attraction for recruitment; and an end to conflict between the economy and the environment. ▪ City receives increased tax revenues; reduced enforcement burden; reduced costs of environmental and health damage; and reduced demand on municipal infrastructure. ▪ For the environment there is reduced demand on finite resources; decreased local and global pollution; increased use of renewable energy and materials; and an overall renewal of natural systems.	Indirect	M3
Urban Design / Land Use	8,13,15	***Provide Incentives for Mixed Use Development***	Implementing incentives for mixed-use infill developments ▪ Activates urban areas during more hours of the day; ▪ Increases housing options for diverse household types. ▪ Reduces auto dependence; ▪ Increases travel options; and ▪ Creates a local sense of place.	Indirect & Direct	M3

UEA Section	UEA - ACTION	Program	Brief Description	GHG Emissions Category*	Reduction Category
Urban Design / Land Use	8,13,15	***Transit Oriented Districts (TOD)***	Implement incentives for the creation of compact, walkable communities centered on Metro train systems. By creating dense, walkable communities with access to a train line or bus route, there is a reduction in the need for driving and consumption of fossil fuels. Pasadena currently has several TOD's in place however Pasadena has a tremendous opportunity for expanding TODs with infill projects. Pasadena ARTS and MTA provide transportation to adjacent Cities for work and entertainment.	Direct	M3
Urban Design / Land Use	8,15	***Land Use Strategies***	The following land use strategies reduce vehicle trips and VMT and increase energy efficiency to further reduce GHG emissions.	Indirect & Direct	M3
Urban Design / Land Use	8,15	***Provide Incentives for Higher Density Development***	High-density land uses require less infrastructure, are more energy efficient, and result in vehicle trip reduction. Vehicle trip reduction is accomplished because high density development can support closer amenities, which encourages walking, biking, reduced vehicle trip lengths and the use of public transportation. High-density planning also helps to control the spread of urban suburbs into open lands, improves efficiency in urban infrastructure and services, and results in environmental improvements that support a higher quality of life in cities. The City should provide incentives to new development that increases the density within the urban core of the city, especially within walking distance of transit facilities.	Indirect & Direct	M3
Urban Nature					
Urban Nature	12	***Hahamongna Watershed***	Implement a restoration project for the Hahamonga Watershed including enhancement of water resources, flood management, and habitat restoration in this area.	Indirect	M3
Water					
Water	19	***Additional Water Conservation Projects***	The City of Pasadena's CWC Plan includes the long term goal to reduce per capita water consumption by 10% by 2015. The following water conservation measures are meant to increase water conservation with the additional goal of reducing per capita water consumption by 25% by 2020.	Indirect	M3
Water	19	***Alternative Landscape Design***	Provide new development landscape standards to achieve Xeriscaping and eliminate artificial irrigation of landscape.	Indirect	M3
Water	19	***Landscape retrofit Program***	Provide property owners incentives to retrofit their landscaping to Xeriscape to the greatest extent feasible without removing existing trees that provide the City's urban forest and shade canopy.	Indirect	M3
Water	19,21	***Purple Pipe Program***	**Water reclamation for irrigation:** New building construction shall place infrastructure for water reclamation for irrigation to be available as City infrastructure is implemented. The purple pipes can be expanded to supply water for purposes such as laundry washing, and toilet flushing in addition to irrigation. Install a joint trenching effort between the City and all Utilities so that when upgrades to existing utilities are conducted, infrastructure for "purple pipe" can be expanded.	Indirect	M3
Water	19,21	***Reclaimed wastewater***	Utilize reclaimed waste water for watering golf courses and landscaping alongside public roads and City facilities.	Indirect	M3