

**NOTICE AND CALL OF SPECIAL MEETING (STUDY SESSION) OF THE
CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
COMMUNITY REDEVELOPMENT AGENCY OF THE
CITY OF MORENO VALLEY**

October 20, 2009 - 7:00 PM

NOTICE IS HEREBY GIVEN that a special meeting (Study Session) of the City Council of the City of Moreno Valley, Moreno Valley Community Services District and the Community Redevelopment Agency of the City of Moreno Valley will be held on October 20, 2009 commencing at 7:00 PM, in the City Council Chamber, City Hall, located at 14177 Frederick Street, Moreno Valley, California.

Said special meeting shall be for the purpose of:

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

INVOCATION

ROLL CALL

INTRODUCTIONS

PUBLIC COMMENTS ON MATTERS ON THE SPECIAL MEETING AGENDA

There is a three-minute time limit per person. Please complete and submit a LAVENDER speaker slip to the City Clerk. All remarks and questions shall be addressed to the presiding officer or to the City Council and not to any individual Council Member, staff member or other person.

SPECIAL ORDER OF BUSINESS

- 1 Consider Review of Development Standards for Commercial and Industrial, Particularly Energy Related **(CDD/5 Min.)**
- 2 Consider a Truck Idling Ordinance **(CDD/5 Min.)**
- 3 Consider Updating and/or Modifying the City's Light Standards to Include the International Dark-Sky Association Recommendations **(CDD/5 Min.)**
- 4 Consider Preparing a Citywide Climate Action Plan **(CDD/5 Min.)**
- 5 Consider the Use and Conversion of Existing StreetLights to Light Emitting Diodes (LED) **(PW/10 Min.)**
- 6 Consider Support for a Freeway Uniform Mitigation Fee Program (FUMF) which will include the SR60 Ultimate Improvements and I-215 **(Stewart/10 Min.)** ❖
- 7 Consider the Acquisition, Generation, and Distribution of "Green" Energy by the Moreno Valley Utility **(Stewart/10 Min.)** ❖
- 8 City Council Requests and Communications

(Times shown are only estimates for staff presentation. Items may be deferred by Council if time does not permit full review.)

❖ Oral Presentation only – No written material provided

***Materials related to an item on this Agenda submitted to the City Council/Community Services District/Community Redevelopment Agency after distribution of the agenda packet are available for public inspection in the City Clerk's office at 14177 Frederick Street during normal business hours.**

CLOSED SESSION

A Closed Session of the City Council, Community Services District and Community Redevelopment Agency of the City of Moreno Valley will be held in the City Manager's Conference Room, Second Floor, City Hall. The City Council will meet in Closed Session to confer with its legal counsel regarding the following matter(s) and any additional matter(s) publicly and orally announced by the City Attorney in the Council Chamber at the time of convening the Closed Session.

• PUBLIC COMMENTS ON MATTERS ON THE CLOSED SESSION AGENDA UNDER THE JURISDICTION OF THE CITY COUNCIL

There is a three-minute time limit per person. Please complete and submit a LAVENDER speaker slip to the City Clerk. All remarks and questions shall be addressed to the presiding officer or to the City Council and not to any individual Council member, staff member or other person.

The Closed Session will be held pursuant to Government Code:

1 SECTION 54956.9(b)(1) - CONFERENCE WITH LEGAL COUNSEL - SIGNIFICANT EXPOSURE TO LITIGATION

Number of Cases: 2

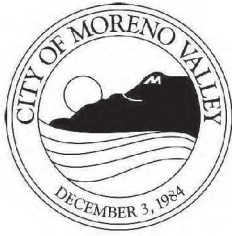
2 SECTION 54956.9(c) - CONFERENCE WITH LEGAL COUNSEL - INITIATION OF LITIGATION

Number of Cases: 2

REPORT OF ACTION FROM CLOSED SESSION, IF ANY, BY CITY ATTORNEY

ADJOURNMENT

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APPROVALS	
BUDGET OFFICER	<i>caf</i>
CITY ATTORNEY	<i>[Signature]</i>
CITY MANAGER	<i>[Signature]</i>

Report to City Council

TO: Mayor and City Council

FROM: Kyle Kollar, Community Development Director

AGENDA DATE: October 20, 2009

TITLE: CONSIDER REVIEW OF DEVELOPMENT STANDARDS FOR COMMERCIAL AND INDUSTRIAL, PARTICULARLY ENERGY RELATED

RECOMMENDED ACTION

Staff recommends that the City Council provide direction as to their interest or lack thereof of reviewing the City's development standards for commercial and industrial development to enhance energy efficiency.

BACKGROUND

The Mayor has requested that staff provide information to the Council for a discussion on the potential review of the City's development standards for commercial and industrial development to enhance energy efficiency.

The City does not have local requirements for enhanced energy efficiency for new commercial and industrial development. Energy efficiency features are currently regulated by the California Energy Efficiency Standards (Title 24), the most stringent state standard in the country. An update to Title 24, approved in late 2008, is intended to increase energy efficiency by at least twenty percent. The new regulations will affect projects submitted for building permits after January 1, 2010. Energy efficiency incentives are available at the local, State and Federal level, including those offered by Moreno Valley Utilities and Southern California Edison.

In an effort to address greenhouse gas emission concerns, some communities in California have adopted standards that require public buildings and/or publicly assisted projects to exceed State standards and encourage privately developed projects to exceed State standards. The production of energy is a major source of greenhouse gases.

DISCUSSION

The City does not require energy efficiency for commercial and industrial development to exceed current or approved State standards. Some local businesses have installed solar panels to meet a portion of their on-site energy demand, most notably the Walgreens Distribution Center in the Moreno Valley Industrial Area and Macys Department Store in the Moreno Valley Mall. Both projects were approved by the Planning Division pursuant to Administrative Plot Plans, a quick process with a current fee of \$607. Several recently approved warehouse/industrial projects have been required to install solar panels to meet the energy demand for their office areas or to purchase alternative energy to meet that demand. These requirements were included to offset projected air pollution emissions. Alternative energy, whether on-site or purchased off the energy grid, is generally more expensive than energy from gas or coal power plants.

City requirements to exceed State energy efficiency standard may place the community at a competitive disadvantage in attracting commercial and industrial projects beneficial to local economic development. Any such requirements should weigh their cost with potential benefits and available incentives.

ALTERNATIVES

Not applicable.

FISCAL IMPACT

Staff time would need to be allocated to investigate and develop proposed regulations for City Council consideration. Such efforts would require the deferral of other non-case related projects or delays in case processing.

CITY COUNCIL GOALS

Not applicable

NOTIFICATION

Listing on Agenda.

ATTACHMENTS/EXHIBITS

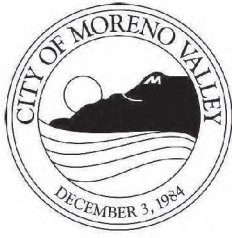
None.

Prepared By:
John C. Terrell AICP
Planning Official

Department Head Approval:
Kyle A. Kollar
Community Development Director

Council Action	
Approved as requested:	Referred to:
Approved as amended:	For:
Denied:	Continued until:
Other:	Hearing set for:

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APPROVALS	
BUDGET OFFICER	<i>caf</i>
CITY ATTORNEY	<i>SMB</i>
CITY MANAGER	<i>RM</i>

Report to City Council

TO: Mayor and City Council

FROM: Kyle Kollar, Community Development Director

AGENDA DATE: October 20, 2009

TITLE: CONSIDER A TRUCK IDLING ORDINANCE

RECOMMENDED ACTION

Staff recommends that the City Council provide direction as to their interest or lack thereof to the preparation of a truck idling ordinance.

BACKGROUND

The Mayor has requested that staff provide information to the Council for a discussion on the potential preparation of a truck idling ordinance.

Truck idling concerns relate primarily to diesel emissions and the resultant air quality and health impacts. Truck idling can also create noise impacts. Regulations limiting the amount of time that trucks may idle their engines have been established by the State. The State regulations limit idling to five minutes, with exceptions for a variety of instances, and may be superseded by any more stringent local or air quality district regulations. Attachment 1 includes these regulations. These regulations are subject to enforcement by the State Air Resources Board, the local air quality district, and peace officers. A number of communities have adopted local regulations regarding truck idling. Some of these regulations reflect noise and odor concerns, while others reflect air quality concerns. Those that relate to air quality concerns appear to mimic the regulations in State Law, and only add a section relative to penalties for violations. Attachment 2 includes a sampling of such regulations. The City does not have a local ordinance that authorizes enforcement of the regulations by City staff. Neither the Police Department or Code Enforcement Division have any record of complaints relating to diesel emissions from truck idling.

DISCUSSION

The City does not currently have a local ordinance regulating truck idling. Given staffing limitations, enforcement would be on a complaint basis only unless otherwise directed by the City Council. Enforcement would likely be provided by the Police Department and Code Enforcement Division. If desired, proactive enforcement would require either additional resources or a review of other City Council enforcement priorities.

ALTERNATIVES

Not applicable.

FISCAL IMPACT

Staff resources would be required for drafting and adoption of a local ordinance. Such efforts would require the deferral of other non-case related projects or delays in case processing. Additional staff resources would be required for proactive enforcement, with some offset in costs provided by fines for ordinance violations.

CITY COUNCIL GOALS

Not applicable.

NOTIFICATION

Listing on agenda.

ATTACHMENTS/EXHIBITS

1. Truck idling statutes.
2. Truck idling codes.

Prepared By:
John C. Terrell AICP
Planning Official

Department Head Approval:
Kyle A. Kollar
Community Development Director

Council Action	
Approved as requested:	Referred to:
Approved as amended:	For:
Denied:	Continued until:
Other:	Hearing set for:

Truck Idling Statutes

California State Codes

California Code of Regulations

§ 2485. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

(a) Purpose. The purpose of this airborne toxic control measure is to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles.

(b) Applicability. This section applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. This specifically includes:

- (1) California-based vehicles; and
- (2) Non-California-based vehicles.

(c) Requirements. On or after February 1, 2005, the driver of any vehicle subject to this section:

- (1) shall not idle the vehicle's primary diesel engine for greater than 5.0 minutes at any location, except as noted in Subsection (d); and
- (2) shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d).

(d) Exceptions. Subsection (c) does not apply for the period or periods during which

- (1) a bus is idling for
 - (A) up to 10.0 minutes prior to passenger boarding, or
 - (B) when passengers are onboard;

ATTACHMENT 1

(2) idling of the primary diesel-engine is necessary to power a heater, air conditioner, or any ancillary equipment during sleeping or resting in a sleeper berth. This provision does not apply when operating within 100 feet of a restricted area;

(3) idling when the vehicle must remain motionless due to traffic conditions, an official traffic control device, or an official traffic control signal over which the driver has no control, or at the direction of a peace officer, or operating a diesel-fueled APS at the direction of a peace officer;

(4) idling when the vehicle is queuing that at all times is beyond 100 feet from any restricted area;

(5) idling of the primary engine or operating a diesel-fueled APS when forced to remain motionless due to immediate adverse weather conditions affecting the safe operation of the vehicle or due to mechanical difficulties over which the driver has no control;

(6) idling to verify that the vehicle is in safe operating condition as required by law and that all equipment is in good working order, either as part of a daily vehicle inspection or as otherwise needed, provided that such engine idling is mandatory for such verification;

(7) idling of the primary engine or operating a diesel-fueled APS is mandatory for testing, servicing, repairing, or diagnostic purposes;

(8) idling when positioning or providing a power source for equipment or operations, other than transporting passengers or propulsion, which involve a power take off or equivalent mechanism and is powered by the primary engine for:

(A) controlling cargo temperature, operating a lift, crane, pump, drill, hoist, mixer (such as a ready mix concrete truck), or other auxiliary equipment;

B) providing mechanical extension to perform work functions for which the vehicle was designed and where substitute alternate means to idling are not reasonably available; or

(C) collection of solid waste or recyclable material by an entity authorized by contract, license, or permit by a school or local government;

(9) idling of the primary engine or operating a diesel-fueled APS when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency;

(10) idling of the primary engine or operating a diesel-fueled APS by authorized emergency vehicles while in the course of providing services for which the vehicle is designed;

(11) idling of military tactical vehicles during periods of training; and

(12) idling when operating equipment such as a wheelchair or people assist lift as prescribed by the Americans with Disabilities Act;

(e) Relationship to Other Law. Nothing in this section allows idling in violation of other applicable law, including, but not limited to:

(1) California Vehicle Code Section 22515;

(2) Title 13, Section 2480, California Code of Regulations;

(3) California Health and Safety Code Section 40720; or

(4) any applicable ordinance, rule, or requirement as stringent as, or more stringent than, this section.

(f) Enforcement. This section may be enforced by the Air Resources Board; peace officers as defined in California Penal Code, title 3, chapter 4.5, Sections 830 et seq. and their respective law enforcement agencies' authorized representatives; and air pollution control or air quality management districts.

(g) Penalties. For violations of subsection (c)(1) or (c)(2), the driver of a subject vehicle is subject to a minimum civil penalty of 100 dollars and to criminal penalties as specified in the Health and Safety Code and the Vehicle Code.

(h) Definitions. The following definitions apply to this section:

(1) "Authorized emergency vehicle" is as defined in .

(2) "Auxiliary power system" or "APS" means any device that provides electrical, mechanical, or thermal energy to the primary diesel engine, truck cab, or sleeper berth, as an alternative to idling the primary diesel engine.

(3) "Bus" means any vehicle defined in Title , subsections (h) (13)-(16), inclusive or as defined in the Vehicle Code Section 16513, California Code of Regulations, Section 2480Vehicle Code Section 233.

(4) "Commercial Motor Vehicle" means any vehicle or combination of vehicles defined in Vehicle Code Section 15210(b) and any other motor truck or bus with a gross vehicle weight rating of 10,001 pounds or more, except the following:

(A) a zero emission vehicle; or

(B) a pickup truck as defined in Vehicle Code Section 471.

(5) "Driver" is as defined in Vehicle Code Section 305.

(6) "Gross vehicle weight rating" is as defined in Vehicle Code Section 350.

(7) "Highway" is as defined in Vehicle Code Section 360.

(8) "Idling" means the vehicle engine is running at any location while the vehicle is stationary.

(9) "Motor truck" or "motortruck" means a motor vehicle designed, used, or maintained primarily for the transportation of property.

(10) "Official traffic control device" is as defined in Vehicle Code Section 440.

(11) "Official traffic control signal" is as defined in Vehicle Code Section 445.

(12) "Owner" is as defined in Vehicle Code Section 460.

(13) "Primary diesel engine" means the diesel-fueled engine used for vehicle propulsion.

(14) "Queuing" means (A) through (C)

(A) the intermittent starting and stopping of a vehicle;

(B) while the driver, in the normal course of doing business, is waiting to perform work or a service; and

(C) when shutting the vehicle engine off would impede the progress of the queue and is not practicable.

(D) Queuing does not include the time a driver may wait motionless in line in anticipation of the start of a workday or opening of a location where work or a service will be performed.

(15) "Restricted area" means any real property zoned for individual or multifamily housing units that has one or more of such units on it.

(16) "Safety or health emergency" means:

(A) a sudden, urgent, or usually unforeseen, occurrence; or

(B) a foreseeable occurrence relative to a medical or physiological condition.

(17) "Sleeper berth" is as defined in Title .

(18) "Vehicle" is as defined in the California Code of Regulations, Section 1265 and Vehicle Code Section 670.

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Truck Idling Codes

Municipal Codes

Auburn Municipal Code

LIMITATION ON ENGINE IDLING § 71.75 FINDINGS AND PURPOSE.

The City Council finds that:

(A) Air pollution is a public health concern in California. The Sacramento Region is currently designated as non-attainment for the 1-hour federal ozone standard, as well as the more stringent state ozone standard. Air pollution can cause or aggravate long illnesses such as acute respiratory infections, asthma, chronic bronchitis, emphysema, and lung cancer. In addition to health impacts, air pollution imposes significant economic costs and negative impacts on our quality of life (nuisance).

(B) Exhaust from motor vehicles (both on- and off-road) is a substantial source of ozone precursors in the Sacramento Region. Vehicle exhaust is also a source of carbon monoxide, particulate matter, toxic air contaminants, and greenhouse gases. Although new engines have become cleaner due to improved emission control technologies, the slow turnover in their inventory and the number of miles/hours these vehicles idle each year is hindering progress in improving regional air quality.

(C) Public agencies can play an important role in improving air quality by limiting the amount of time engines are allowed to idle within their jurisdiction. Public agencies have the responsibility to lead the effort to improve air quality by adopting ordinances that are cost-effective in reducing ozone precursor emissions and toxic air contaminants. This subchapter is based on and derived from the Sacramento Ozone Summit Model Green Contracting Ordinance.

(D) A study of idling exhaust emissions conducted by the U.S. Environmental Protection Agency (EPA420-R-02-025, October 2002) indicates that a typical 1980's-2001 model year truck operating on diesel fuel emits 144 grams per hour of nitrogen oxide and 8,224 grams per hour of carbon dioxide emissions and consumes about 0.82 gallons of diesel while idling.

(E) TIAX, a consultant for the Sacramento Metropolitan Air Quality Management District, estimated idling exhaust emissions from Heavy Duty diesel trucks (HHDV), Medium Heavy Duty Diesel Trucks (MHDV) and off-

ATTACHMENT 2

road construction equipment to be 2.3 tons per day of nitrogen oxide emissions and .23 tons per day of reactive organic gas emissions (Control Measure OFMS 52 & ONMS 45, April 2003). The maximum emissions reductions from full implementation of the Limitation on Engine idling Ordinance in the Sacramento Region was estimated to be 1.725 tons per day of nitrogen oxides emissions and .173 tons per day of reactive organic gas emissions (assuming a 75% compliance).

(F) Under this subchapter, a limitation on engine idling is established by the City of Auburn to discourage the idling of engines in the city.
(Ord. 04-5, eff. 8-10-2004)

§ 71.76 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

COMMERCIAL MOTOR VEHICLE. Any on- road motor vehicle with a manufacturer's gross vehicle weight rating greater than 26,000 pounds, or as defined in Cal. Motor Vehicle Code § 15210(b).

DRIVER. Any person who drives, operates, or is in actual physical control of a vehicle.

EMERGENCY. A sudden, urgent, usually unforeseen occurrence.

EQUIPMENT OPERATOR. Any person who is in actual physical control of a piece of off-road equipment.

GROSS VEHICLE WEIGHT RATING. The weight specified by the manufacturer as the loaded weight of a single vehicle.

IDLING. The engine is running while the vehicle is stationary or the piece of off-road equipment is not performing work.

MEDIUM DUTY VEHICLE. Any motor vehicle with a manufacturer's gross vehicle weight rating of 6,001-14,000 pounds.

OFFICIAL TRAFFIC CONTROL DEVICE. Any sign, signal, marking or device, consistent with Cal. Vehicle Code § 21400, placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic, but does not include islands, curbs, traffic barriers, speed humps, speed bumps or other roadway design features.

OFFICIAL TRAFFIC CONTROL SIGNAL. Any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to

stop and proceed and which is erected by authority of a public body or official having jurisdiction.

OFF-ROAD DIESEL EQUIPMENT. All non- road equipment with a horsepower rating of 70 or greater.

TRANSPORT REFRIGERATION UNIT or TRU. A refrigeration system powered by an engine designed to control the environment of temperature sensitive cargo. A TRU is a piece of off-road equipment regardless of its horsepower rating.

VEHICLE. Any on-road, self-propelled vehicle that is required to be registered and have a license plate by the Department of Motor Vehicles.

VEHICLE/EQUIPMENT OWNER. The registered owner, lessee, licensee or bailee of any heavy- or medium-duty vehicle or piece of off-road equipment who operates or directs the operation of any such vehicle or equipment on either a for hire or not for hire basis.

(Ord. 04-5, eff. 8-10-2004)

§ 71.77 APPLICABILITY.

This subchapter applies to the operation of all diesel fueled commercial vehicles over 26,000 lbs. Gross vehicle weight rating, and all off-road diesel powered equipment over 70 horsepower rating, except as provided in § 71.79. Additionally, this subchapter applies to TRU engines as specified in § 71.76.

(Ord. 04-5, eff. 8-10-2004)

§ 71.78 IDLING.

(A) A driver of a vehicle:

(1) Must turn off the engine upon stopping at a destination; and

(2) Must not cause or allow an engine to idle at any location for more than five consecutive minutes.

(B) An equipment operator of an off-road piece of equipment not identified in subdivision (A)(1) above must not cause or allow an off-road piece of equipment to idle at any location for more than five consecutive minutes.

(C) An equipment operator of a TRU must not cause or allow a TRU to operate within 1,000 feet of a residential area or school unless the cargo will be loaded or has been unloaded within 30 minutes.

(D) An owner of a vehicle, an off-road piece of equipment, or a TRU must ensure that:

(1) The vehicle driver or equipment operator, upon employment and at least once per year thereafter, is informed of the requirements of this Article, and of the consequences under this section, and the fleet owners terms of employment, of not complying with those requirements; and

(2) Upon rental or lease of a vehicle or piece of equipment, notification is provided of the requirements of this subchapter;

(3) All complaints of non-compliance with, and enforcement actions related to the requirements of this subchapter are reviewed and remedial action is taken as necessary.

(E) A private property owner shall not allow a vehicle, an off-road piece of equipment or a TRU located on the owner's property to violate the provisions of this subchapter. A private property owner shall notify owners and operators of vehicles, off-road pieces of equipment, and TRUs entering the owner's private property of the requirements of this subchapter.

(Ord. 04-5, eff. 8-10-2004) Penalty, see § 71.99

§ 71.79 EXEMPTIONS.

(A) This subchapter does not apply to a vehicle or piece of equipment for the period or periods during which:

(1) Idling is necessary while stopped:

(a) For an official traffic control device;

(b) For an official traffic control signal;

(c) For traffic conditions over which the driver has no control, including, but not limited to, stopped in a line of traffic, stopped at a railroad crossing, or stopped at a construction zone; or

(d) At the direction of a peace officer.

(2) Idling is necessary to ascertain that the vehicle and/or the off-road equipment is in safe operating conditions and equipped as required by all provisions of law, and all equipment is in good working order, either as part of the daily vehicle inspection, or as otherwise needed;

(3) Idling is necessary for testing, servicing, repairing or diagnostic purposes;

(4) Idling is necessary for a period not to exceed three to five minutes (as per the recommendation of the manufacturer) to cool down a turbo charged heavy-duty vehicle before turning the engine off;

(5) Idling is necessary to accomplish work for which the vehicle/equipment was designed, other than transporting goods, for example: operating a lift, crane, pump, drill, hoist, mixer or other auxiliary equipment other than a heater or air conditioner;

(6) Idling is necessary to operate a lift or other piece of equipment designed to ensure safe loading and unloading of goods and people;

(7) Idling is necessary to operate defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency, but not solely for the comfort of the driver or passengers;

(a) The only exception for driver comfort would be a vehicle driver that is required to have rest time by law. In this case, the driver may only idle at a designated rest area or truck stop and will not idle within 1,000 feet of a residential area or school;

(b) The only specific exception for passenger comfort would be vehicles with a passenger onboard with a disability or health condition that would be critically aggravated if the vehicle were not maintained at an adequate temperature.

(8) Idling is necessary solely to recharge a battery or other energy storage unit of a hybrid electric vehicle/equipment;

(9) Idling is necessary to operate equipment that runs intermittently;

(10) Alternative diesel fuel vehicles, or any Tier 2 4.8 g/bhp combined Nox and HMHC level;

(11) Idling is necessary in attainment portions of Placer County.

(B) Nothing in this subchapter allows idling in excess of other applicable laws, including but not limited to:

(1) Title 13 California Code of Regulations § 1226; requirement for leaving the driver's compartment when a pupil is aboard a school bus.

(2) Title 13 California Code of Regulations § 2480; requirements/restriction of idling of school buses.

(3) Cal. Vehicle Code § 22515; requirements for leaving a motor vehicle unattended.

(4) Any local ordinance or requirement as stringent as, or more stringent than, this chapter.
(Ord. 04-5, eff. 8-10-2004)

§ 71.80 ENFORCEMENT.

This subchapter may be enforced by the local air pollution control or air quality management district, and/or any peace officer as defined in Cal. Penal Code, Title 3, Chapter 4.5, §§ 830 *et seq.* and their respective agencies authorized representative(s).

(Ord. 04-5, eff. 8-10-2004)

§ 71.99 PENALTY.

(A) Any violation of this chapter for which a penalty is not provided shall be punished according to § 10.99 of this code.

(B)

(1) For each violation of § 71.78, a driver of a vehicle, or an operator of an off-road piece of equipment or TRU will be first given a written warning. Subsequent violations will be subject to a civil penalty of \$50 and criminal penalties as provided by law.

(2) For each violation of § 71.78, an owner of a vehicle, off-road piece of equipment or TRU is subject to a written warning on the first offense, followed by a \$100 minimum civil penalty for a second offense, with a minimum civil penalty of \$200 for all future offenses and criminal penalties as provided by law. All penalties assessed under this section shall be deposited with the City of Auburn, regardless of whether another agency or entity first collects the penalties.

(Ord. 04-5, eff. 8-10-2004)

Cupertino Municipal Code

10.48.055 Motor Vehicle Idling.

Motor vehicles, including automobiles, trucks, motorcycles, motor scooters and trailers or other equipment towed by a motor vehicle, shall not be allowed to remain in one location with the engine or auxiliary motors running for more than three minutes in any hour, in an area other than on a public right-of-way, unless:

- A. The regular noise limits of Section 10.48.040 are met while the engine and/or auxiliary motors are running; or
- B. The vehicle is in use for provision of police, fire, medical, or other emergency services. (Ord. 1871, (part), 2001)

Fountain Valley Municipal Code

§ 6.28.147 Idling motor vehicles. No person shall leave standing any motor vehicle, including refrigeration trailers, with engine idling or auxiliary motor running for in excess of ten minutes between the hours of ten p.m. and seven a.m. if the engine or motor noise disturbs the peace or quiet of any residential neighborhood or causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. The driver, owner, registered owner and legal owner of the motor vehicle or refrigeration trailer shall each be guilty of the offense described herein. (Ord. 1156 § 1, 1990)

Palm Desert Municipal Code

10.98.010 Parking prohibitions and restrictions.

...

- C. While adjacent to a developed residential area within the city, the operator shall not idle the vehicles engine for longer than fifteen minutes. (Ord. 1025, 2002; Ord. 793 § 1 (part), 1996)

Placer County Code

Article 10.14 LIMITATION ON ENGINE IDLING

10.14.010 Findings and purpose.

The Placer County board of supervisors finds that:

- A. Air pollution is a major public health concern in California. The Sacramento region is currently designated as non-attainment for the one-hour federal ozone standard, as well as the more stringent state ozone standard. Air pollution can cause or aggravate lung illnesses such as

acute respiratory infections, asthma, chronic bronchitis, emphysema, and lung cancer. In addition to health impacts, air pollution imposes significant economic costs and negative impacts on our quality of life (nuisance).

B. Exhaust from vehicles (both on- and off-road) is a substantial source of ozone precursors in the Sacramento region. Vehicle exhaust is also a source of carbon monoxide, particulate matter, toxic air contaminants, and greenhouse gases. Although new engines have become cleaner due to improved emission control technologies; the slow turn over in their inventory and the number of miles/hours these vehicles idle each year is hindering progress in improving regional air quality.

C. Public agencies can play an important role in improving air quality by limiting the amount of time engines are allowed to idle within their jurisdiction. Public agencies have the responsibility to lead the effort to improve air quality by adopting ordinances that are cost effective in reducing ozone precursor emissions and toxic air contaminants. This article is based on and derived from the Sacramento Ozone Summit Model Engine Idling Ordinance.

D. A study of idling exhaust emissions conducted by the U.S. Environmental Protection Agency (EPA420-R-02-025, October 2002) indicates that a typical 1980s-2001 model year truck operating on diesel fuel emits one hundred forty-four (144) grams per hour of nitrogen oxide and eight thousand, two hundred twenty-four (8,224) grams per hour of carbon dioxide emissions and consumes about 0.82 gallons of diesel fuel while idling.

E. TIAX, a consultant for the Sacramento Metropolitan Air Quality Management District, estimated idling exhaust emissions from heavy heavy duty diesel trucks (HHDV), medium heavy duty diesel trucks (MHDV) and off road construction equipment to be 2.3 tons per day of nitrogen oxide emissions and .23 tons per day of reactive organic gas emissions. (Control Measures OFMS 52 and ONMS 45, April 2003). The maximum emissions reductions from full implementation of the Limitation on Engine Idling Ordinance in the Sacramento region was estimated to be 1.725 tons per day of nitrogen oxides emissions and .173 tons per day of reactive organic gas emissions (assuming a seventy-five percent (75%) compliance).

F. Under this article, a limitation on engine idling is established by the board of supervisors to discourage the idling of engines in the unincorporated Placer County. (Ord. 5271-B, 2003)

10.14.020 Definitions.

"Driver" means any person who drives, operates, or is in actual physical control of a vehicle.

"Emergency" means a sudden, urgent, usually unforeseen, occurrence.

"Equipment operator" means any person who is in actual physical control of a piece of off-road equipment.

"Gross vehicle weight rating" means the weight specified by the manufacturer as the loaded weight of a single vehicle.

"Commercial motor vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating greater than twenty-six thousand (26,000) pounds or as defined in Motor Vehicle Code Section 15210(b).

"Idling" means the engine is running while the vehicle is stationary or the piece of off-road equipment is not performing work.

"Medium-duty vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating of six thousand one to fourteen thousand (6,001 -- 14,000) pounds.

"Official traffic control device" means any sign, signal, marking or device, consistent with Section 21400 of the vehicle code, placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic, but does not include islands, curbs, traffic barriers, speed humps, speed bumps, or other roadway design features.

"Official traffic control signal" means any device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and proceed and which is erected by authority of a public body or official having jurisdiction.

"Off-road diesel equipment" means all non-road equipment with a horsepower rating of seventy (70) or greater.

"Transport refrigeration unit" or "TRU" means a refrigeration system powered by an engine designed to control the environment of temperature sensitive cargo. A TRU is a piece of off-road equipment regardless of its horsepower rating.

"Vehicle" means any on-road, self-propelled vehicle that is required to be registered and have a license plate by the Department of Motor Vehicles.

"Vehicle/equipment owner" means the registered owner, lessee, licensee, or bailee of any heavy- or medium-duty vehicle or piece of off-road equipment who operates or directs the operation of any such vehicle or equipment on either a for-hire or not-for-hire basis. (Ord. 5271-B, 2003)

10.14.030 Applicability.

There is established an article to be known as "Limitation on Engine Idling" that applies to the operation of all diesel fueled commercial vehicles over twenty-six thousand (26,000) lbs. gross vehicle weight rating, and all off-road diesel-powered equipment over seventy (70) horsepower rating, except as provided in Section 10.14.050. Additionally, this article applies to TRU engines as specified in subsection 10.14.040(C). (Ord. 5271-B, 2003)

10.14.040 Idling.

A. A driver of a vehicle:

1. Must turn off the engine upon stopping at a destination; and
2. Must not cause or allow an engine to idle at any location for more than five consecutive minutes.

B. An equipment operator of an off-road piece of equipment not identified in subsection A of this section must not cause or allow an off-road piece of equipment to idle at any location for more than five consecutive minutes.

C. An equipment operator of a TRU must not cause or allow a TRU to operate within one thousand (1,000) feet of a residential area or school unless the cargo will be loaded or has been unloaded within thirty (30) minutes.

D. An owner of a vehicle, an off-road piece of equipment, or a TRU must ensure that:

1. The vehicle driver or equipment operator, upon employment and at least once per year thereafter, is informed of the requirements in subsections 10.14.040(A)--(C), and of the consequences, under this section and the fleet owners terms of employment, of not complying with those requirements; and
2. Upon rental or lease of a vehicle or piece of equipment, notification is provided of the requirements in subsections 10.14.040(A)--(C); and

3. All complaints of non-compliance with, and enforcement actions related to, the requirements of subsections 10.14.040(A)--(C) are reviewed and remedial action is taken as necessary.

E. A private property owner shall not allow a vehicle, an off-road piece of equipment or a TRU located on the owner's property to violate subsections 10.14.040(A)--(C) respectively. A private property owner shall notify owners and operators of vehicles, off-road pieces of equipment, and TRUs entering the owner's private property of the requirements of subsections 10.14.040(A)--(C). (Ord. 5271-B, 2003)

10.14.050 Exemptions.

This article does not apply to a vehicle or piece of equipment for the period or periods during which:

A. Idling is necessary while stopped:

1. For an official traffic control device;
2. For an official traffic control signal;
3. For traffic conditions over which the driver has no control, including, but not limited to: stopped in a line of traffic, stopped at a railroad crossing, or stopped at a construction zone; or
4. At the direction of a peace officer;

B. Idling is necessary to ascertain that the vehicle and/or the off-road equipment is in safe operating condition and equipped as required by all provisions of law, and all equipment is in good working order, either as part of the daily vehicle inspection, or as otherwise needed;

C. Idling is necessary for testing, servicing, repairing, or diagnostic purposes;

D. Idling is necessary, for a period not to exceed three to five minutes (as per the recommendation of the manufacturer), to cool down a turbo-charged heavy-duty vehicle before turning the engine off;

E. Idling is necessary to accomplish work for which the vehicle/equipment was designed, other than transporting goods, for example: operating a lift, crane, pump, drill, hoist, mixer, or other auxiliary equipment other than a heater or air conditioner;

F. Idling is necessary to operate a lift or other piece of equipment designed to ensure safe loading and unloading of goods and people;

G. Idling is necessary to operate defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency, but not solely for the comfort of the driver or passengers;

1. The only exception for driver comfort would be a vehicle driver that is required to have rest time by law. In this case, the driver may only idle at a designated rest area or truck stop and will not idle within one thousand (1,000) feet of a residential area or school.

2. The only specific exception for passenger comfort would be a paratransit vehicle with a passenger on board with a disability or health condition that would be critically aggravated if the vehicle were not maintained at an adequate temperature.

H. Idling is necessary solely to recharge a battery or other energy storage unit of a hybrid electric vehicle/equipment;

I. Idling is necessary to operate equipment that runs intermittently;

J. Alternative diesel fuel vehicles, or any Tier 2 4.8 g/bhp combined Nox and HMHC level;

K. Idling is necessary in attainment portions of Placer County generally east of Donner Summit. (Ord. 5271-B, 2003)

10.14.060 Relationship to other laws.

Nothing in this article allows idling in excess of other applicable laws, including, but not limited to:

A. Title 13 California Code of Regulations Section 1226;

B. Title 13 California Code of Regulations Section 2480;

C. Vehicle Code Section 22515; or

D. Any local ordinance or requirement as stringent as, or more stringent than this article. (Ord. 5271-B, 2003)

10.14.070 Penalties.

A. For each violation of subsections 10.14.040(A)--(C), a driver of a vehicle, or an operator of off-road piece of equipment or TRU is subject to

a minimum civil penalty of fifty dollars (\$50.00) and to criminal penalties to the maximum extent provided by law.

B. For each violation of subsection 10.14.040(D), an owner of a vehicle, off-road piece of equipment or TRU is subject to a warning on the first offense, followed by a one hundred dollar (\$100.00) minimum civil penalty for a second offense, with a minimum civil penalty of two hundred dollars (\$200.00) for all future offenses and to criminal penalties to the maximum extent provided by law.

C. All fees collected through Section 10.14.070 or the penalty phase of this article shall be accrued in a vehicle replacement grant fund for annual application by commercial and off road vehicle operators. The air pollution control district will manage this fund. (Ord. 5271-B, 2003)

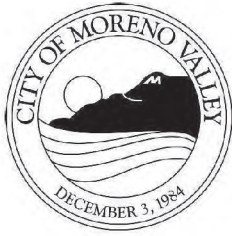
10.14.080 Enforcement.

This article may be enforced by the local air pollution control or air quality management district, and/or any peace officer as defined in California Penal Code, Title 3, Chapter 4.5, Sections 830 et seq. and their respective agencies' authorized representative. (Ord. 5271-B, 2003)

10.14.090 Effective date.

The operation and effective date of the ordinance codified in this article is January 1, 2004. (Ord. 5271-B, 2003)

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APPROVALS	
BUDGET OFFICER	<i>caf</i>
CITY ATTORNEY	<i>SMB</i>
CITY MANAGER	<i>RM</i>

Report to City Council

TO: Mayor and City Council

FROM: Kyle Kollar, Community Development Director

AGENDA DATE: October 20, 2009

TITLE: CONSIDER UPDATING AND/OR MODIFYING THE CITY'S LIGHT STANDARDS TO INCLUDE THE INTERNATIONAL DARK-SKY ASSOCIATION RECOMMENDATIONS

RECOMMENDED ACTION

Staff recommends that the City Council provide direction as to their interest or lack thereof of updating the City's lighting standards to include the International Dark-Sky Association recommendations.

BACKGROUND

The Mayor has requested that staff provide information to the Council for a discussion on the potential preparation of a revision to the City's lighting standards to include the International Dark-Sky Association recommendations.

The International Dark-Sky Association (IDA) is an educational environmental non-profit organization established in 1988 that is dedicated to protecting and preserving the nighttime environment of dark skies through the design and intensity of outdoor lighting. The organization seeks to stop the potential adverse effects of "light pollution" due to concerns including energy waste and negative effects on astronomers and wildlife.

The IDA has published guidelines for lighting regulations to assist local jurisdictions interested in reducing light levels in their communities. Under those guidelines, lighting regulations are encouraged to permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night sky by minimizing glare and obtrusive light from unnecessary or misdirected lighting. The guidelines encourage all lighting installations be fully shielded (full cutoff) and have a maximum lamp wattage of 250 watts (or lumen equivalent) for commercial lighting, 100 watts incandescent, and 26 watts compact fluorescent for residential lighting (or

approximately 1,600 lumens). In residential areas, the guidelines recommend light should be shielded such that the lamp itself or the lamp image is not directly visible outside the property perimeter, and that lighting fixtures are placed at or below the eave line. The guidelines also encourage the use of motion sensor controlled lighting and curfews (i.e. turn lights off automatically after a certain hour when businesses close or traffic is minimal). The guidelines recognize a number of exemptions based on safety (e.g. swimming pool lighting and exit signs), tradition (e.g. holiday lighting) and practicality (e.g. sporting event lighting). Attachment 1 includes the full text of the guidelines.

DISCUSSION

While the City does not technically have a dark sky lighting ordinance, the intent of the IDA guidelines identified above is incorporated within the existing lighting regulations. The City Municipal Code requires that “lighting shall be adequate to help ensure a safe environment, but not cause excessive glare or intense light.” All non-residential lighting is required to be shielded to avoid glare and prevent light spillage over property lines or into the public right of way. The lighting at property lines is limited to a maximum of 0.5 foot candle. The minimum lighting required in parking lots, pedestrian walkways and other areas accessible to the general public is 1 foot-candle and the maximum is 8 foot-candle. The maximum was established in 2005 to address concerns about excessive glare. The minimum and maximum lighting standards are verified by a review of a point by point lighting plan showing the foot-candle lighting for closely spaced points across a development site based on the fixtures proposed for use on the site. Residential lighting is limited to twelve feet in height, below the typical eave line for a house. The City, consistent with most municipal lighting ordinances, uses a foot-candle standard rather than lumens or wattage. Lumens and foot-candle both are measurements of light, one being metric and the other not. The City’s existing lighting requirements are included in Attachment 2.

Areas to consider modifying to comply with the IDA guidelines would be reduce the hours when lighting is required in parking lots and other public spaces to the establishment’s hours of operation and to prohibit swivel fixtures. The City currently requires that parking lots and other public spaces be lit “from dusk to dawn” which exceeds the hours of operation for most establishments, especially office and religious establishments. The City also requires that all exterior commercial doors be lit during hours of darkness, and this requirement is not recommended to be modified due to security concerns. Many wall-mounted fixtures and some light pole fixtures allow lights to swivel at a different angle than originally proposed and approved. Swiveling can cause light to be more glaring or to trespass across property lines. A more detailed review of night sky ordinances in other communities may identify other modifications to further reduce glare or excessive lighting.

Another potential area for review and modification would be street lighting in residential areas. The General Plan Update included a policy to review rural street standards to consider a reduction in the width and improvements (e.g. sidewalks and curbs) to be

more compatible with a rural aesthetic. The City has a rural street standard that has limited application. A more thorough review has been delayed due to staffing constraints and other higher priority policy issues. This review could extend to a reduction in street lighting to intersections or other traffic conflict points. In some communities, such efforts have also extended to standard residential tracts to reduce lighting considered intrusive or costly.

ALTERNATIVES

Not applicable

FISCAL IMPACT

Staff resources would be required for drafting and adoption of a local ordinance. Such efforts would require the deferral of other non-case related projects or delays in case processing.

CITY COUNCIL GOALS

Not applicable

NOTIFICATION

Listing on the agenda

ATTACHMENTS/EXHIBITS

1. IDA Lighting Guidelines
2. City Lighting Standards

Prepared By:
John C. Terrell AICP
Planning Official

Department Head Approval:
Kyle A. Kollar
Community Development Director

Council Action	
Approved as requested:	Referred to:
Approved as amended:	For:
Denied:	Continued until:
Other:	Hearing set for:

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Simple Guidelines for Lighting Regulations for Small Communities, Urban Neighborhoods, and Subdivisions

The purpose of the regulation is to:

- Permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night;
- Curtail and reverse any degradation of the nighttime visual environment and the night sky;
- Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary;
- Conserve energy and resources to the greatest extent possible;
- Help protect the natural environment from the damaging effects of night lighting.

All outdoor lighting fixtures (luminaires) shall be installed in conformance with this Regulation and with the provisions of the Building Code, the Electrical Code, and the Sign Code, as applicable and under permit and inspection, if such is required.

Comment: Practical Considerations:

1. The idea that more light always results in better safety and security is a myth. One needs only the right amount of light, in the right place, at the right time. More light often means wasted light and energy.
2. Use the lowest wattage of lamp that is feasible. The maximum wattage for most commercial applications should be 250 watts of high intensity discharge lighting should be considered the maximum, but less is usually sufficient.
3. Whenever possible, turn off the lights or use motion sensor controlled lighting.
4. Incorporate curfews (i.e. turn lights off automatically after a certain hour when businesses close or traffic is minimal). This is an easy and fast way to initiate dark sky practices.

Maximum Lamp Wattage and Required Luminaire or Lamp Shielding:

All lighting installations shall be designed and installed to be fully shielded (full cutoff), except as in exceptions below, and shall have a maximum lamp wattage of 250 watts HID (or lumen equivalent) for commercial lighting, 100 watts incandescent, and 26 watts compact fluorescent for residential lighting (or approximately 1,600 lumens). In residential areas, light should be shielded such that the lamp itself or the lamp image is not directly visible outside the property perimeter.

Lighting that is exempt from these regulations:

1. Lighting in swimming pools and other water features governed by Article 680 of the National Electrical Code.

2. Exit signs and other illumination required by building codes.
3. Lighting for stairs and ramps, as required by the building code.
4. Signs are regulated by the sign code, but all sign lighting is recommended to be fully shielded.
5. Holiday and temporary lighting (less than thirty days use in any one year).
6. Football, baseball, and softball field lighting; only with permit from the authority recognizing that steps have been taken to minimize glare and light trespass, and utilize sensible curfews.
7. Low voltage landscape lighting, but such lighting should be shielded in such a way as to eliminate glare and light trespass.

Additional requirements:

- Lighting attached to single-family home structures should not exceed the height of the eave.
- Residential pole height restrictions can be considered to control light trespass on adjacent properties.

Notes:

1. The general belief that more light means better safety and security is just a myth. All that is needed is the right amount, in the right place, at the right time. More light just means wasted light and energy.
2. Use the lowest wattage of lamp as possible. For cost saving purposes, consider compact fluorescent lamps rather than incandescent, as they use much less energy and have a much longer lifetime.
3. Whenever possible, turn off the lights.

Definitions:

Glare

Intense and blinding light. Causes visual discomfort or disability.

Landscape lighting

Luminaires mounted in or at grade (but not more than 3 feet above grade) and used solely for landscape rather than any area lighting.

Obtrusive light

Spill light that causes glare, annoyance, discomfort, or loss of visual ability. Light Pollution.

Luminaire (light fixture)

A complete lighting unit consisting of one or more electric lamps, the lamp holder, any reflector or lens, ballast (if any), and any other components and accessories.

Fully shielded (full cutoff) luminaire

A luminaire emitting no light above the horizontal plane.

Spill light

Light from a lighting installation that falls outside of the boundaries of the property on which it is located. Usually results in obtrusive light.

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City of Moreno Valley Lighting Standards

9.08.100 Lighting.

A. All outdoor lighting associated with nonresidential uses shall be shielded and directed away from surrounding residential uses. Such lighting shall not exceed one-half footcandle, minimum maintained of illumination beyond the property containing the nonresidential use, and shall not blink, flash, oscillate or be of unusually high intensity or brightness.

B. All parking lots or structures providing more than five spaces for use by the general public and their pedestrian links shall be provided with a minimum coverage of one footcandle of light with a maximum of eight footcandles on the parking or walkway surface from dusk until dawn, unless otherwise approved, for visibility and security over the entire parking surface. Wiring shall be underground unless existing overhead lines can serve the need without any additional overhead lines. Each parking area of five or more spaces existing prior to the effective date of the ordinance codified in this chapter which is enlarged, constructed, altered or changed from its previous configuration shall be subject to these illumination requirements.

C. Use of the following forms of outdoor lighting shall be prohibited between midnight and dawn:

1. The operation of searchlights for advertising purposes; and
2. The illumination of outdoor public recreational facilities, unless a specific recreational activity requiring the lighting is already in progress. Security lighting shall be provided.

D. Overhead roof lighting is prohibited.

E. Outdoor lighting within residential areas, except for street lighting, shall be on poles or other supports not exceeding twelve (12) feet in height. Such lighting shall be designed to project downward and shall not create glare on adjacent properties.

F. All exterior commercial doors during the hours of darkness shall be illuminated with one footcandle, minimum maintained of light on the surface.

G. Aisles, passageways and recesses related to and within a building complex, during the hours of darkness, shall be illuminated to one-half footcandle, minimum maintained on the surface.

ATTACHMENT 2

- H. All lighting shall be enclosed in vandal-resistant fixtures.
- I. General Guidelines.
 - 1. Lighting shall be adequate to help ensure a safe environment, but not to cause excessive glare or intense light.
 - 2. For safety, identification and convenience, the entrances of building and parking areas shall be illuminated. All illumination of streets, parking areas and other project areas shall provide a variety of light quality and intensity, emphasizing areas of high vehicular and pedestrian activity with increased light intensity.
 - 3. All exterior lighting shall be shielded to prevent spillover onto adjacent properties.
 - 4. Industrial and manufacturing developments shall provide adequate lighting for safe and secure on-site parking, loading, storage, receiving and pedestrian areas.
 - 5. All exterior doors on commercial structures shall be illuminated with a “minimum maintained” of one footcandle of light on the door surface during hours of darkness.
 - 6. Aisles, passageways and recesses within a building complex shall be illuminated with a “minimum maintained” of one-half footcandle of light during hours of darkness.
 - 7. All lighting shall be enclosed in vandal-resistant fixtures.
 - 8. In multifamily developments, laundry rooms shall be well-lit at all times they are intended for tenant use. Lights shall be placed on photo cell or automatic timers, and no switches shall be available to tenants to turn the lights off.
 - 9. All residential dwellings shall display street numbers in a prominent location on the street side of the residence in such a position that the numbers are easily visible to approaching emergency vehicles. The numbers shall be consistently located on each dwelling throughout the development. The numerals shall be no less than four inches in height and shall be of low voltage lighted address fixtures. (Ord. 698 § 3.1(d), 2005; Ord. 359 (part), 1992)

9.16.280 General requirements.

A. Lighting serves both safety and aesthetic purposes, illuminating dark areas and providing for highlights and accents. Effective lighting will highlight building features, add emphasis to important spaces and create an ambience of vitality and security. The intent of these guidelines is to encourage effective and innovative lighting to be incorporated as an integral component of a project.

B. General Guidelines.

1. Exterior lighting should relate to the design elements of the project, highlighting architectural divisions, elements and details.

2. Parking lot and walkway lighting fixture height and brightness should conform to the following table:

Table 9.16.280A

Site Lighting

Lamp Types and Characteristics

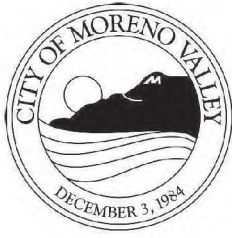
Type	Characteristics
Low Level	Heights below eye level
	Very finite patterns with hour wattage capabilities
	Incandescent, fluorescent
	Lowest maintenance requirements, but highly susceptible to vandals
Mall and Walkway	10' - 15' heights average
	Multi-use because of extreme variety of fixtures and light pattern
	Incandescent, high pressure sodium
	Susceptible to vandalism
Special Purpose	20' - 30' heights average
	Recreational, commercial, residential, industrial
	Metal halide, high or low pressure sodium
	Fixtures monitored by sentry

3. Lighting should improve the visual identification of residences and businesses. Within commercial areas, lighting should help to create a festive atmosphere by encouraging nighttime pedestrian use.

4. Energy efficient lighting of buildings is encouraged.

5. High-intensity security lighting fixtures should be concealed and should be designed either to uplight structures from the ground or to downlight structures from projecting or detached architectural elements.

6. The location, color and intensity of private lighting should relate to and complement public lighting.
7. Lighting fixture design should complement the overall design theme of the project in which they are located.
8. Fixtures should be placed so that light patterns overlap at a height of seven feet, which is sufficiently high to illuminate a person's body vertically. This is a particularly important consideration now that lighting fixture manufacturers are designing luminaries with highly controlled light patterns.
9. At hazardous locations such as changes of grade, lower-level supplemental lighting or additional overhead units should be used.
10. Where low-level lighting (below five feet) is used, fixtures should be placed so that they do not produce glare. Most eye levels occur between three feet eight inches (for wheelchair users) and six feet for standing adults.
11. When walkway lighting is provided primarily by low fixtures, there should be sufficient peripheral lighting to illuminate the immediate surroundings. Peripheral lighting provides for a better feeling of security for individuals because they can see into their surroundings to determine whether passage through an area is safe. Such lighting should be approached from one of two ways:
 - a. By lighting the area so that an object or person may be seen directly; or
 - b. By lighting the area to place an object or a person in silhouette.
(Ord. 698 § 3.1(g), 2005; Ord. 359 (Attach. 2 (part)), 1992)



APPROVALS	
BUDGET OFFICER	<i>caf</i>
CITY ATTORNEY	<i>SMB</i>
CITY MANAGER	<i>RA</i>

Report to City Council

TO: Mayor and City Council

FROM: Kyle Kollar, Community Development Director

AGENDA DATE: October 20, 2009

TITLE: CONSIDER PREPARING A CITYWIDE CLIMATE ACTION PLAN

RECOMMENDED ACTION

Staff recommends that the City Council provide direction as to their interest or lack thereof of preparing a climate action plan for the City.

BACKGROUND

The Mayor has requested that staff provide information to the Council for a discussion on the potential preparation of a climate action plan for the City.

A climate action plan is a commitment on the part of the City Council to pursue a set of goals, objectives and policies aimed at reducing the community's greenhouse gas emissions to a specified target level by a specified target year. Measurement of progress on such a plan generally requires the quantification of level of greenhouse gas emissions in a base year and at the specified target year. Given the unique technical information necessary to estimate and project emissions, outside consulting assistance would be necessary to complete such a plan. Given the potential financial impact of such plans, some level of public outreach should also be involved, similar to what had been done for the General Plan Update.

Many cities and counties in California have adopted climate action plans or initiatives. The Governor's Office of Planning and Research website provides links to efforts in thirty-one cities and six counties (California has 58 counties and 480 cities). It is likely that other jurisdictions have adopted actions that are not listed on the website. The list includes primarily large cities (e.g. Los Angeles, San Diego, San Jose, and San Francisco) and smaller jurisdictions with substantial resources and/or a history of environmental activism (e.g. Davis, Pasadena, Santa Monica, Marin County). A brief review of the information indicates a wide range of efforts, from relatively minor and

qualitative (see Attachment 1 – City of Monterey Personal Climate Action Plan) to extensive and quantitative (see Attachment 2 – excerpt from City of Palo Alto Climate Protection Plan). In the middle are some comprehensive policy initiatives, such as the City of Riverside Green Riverside Action Plan (see Attachment 3), that leave much of the quantitative analysis to the implementation phase. Plans like the one for the City of Riverside imply a commitment of resources, both staff and contractual funding, to implement the stated policies. Some of the plans relate to actions by the jurisdiction for its own operations and others include voluntary and mandatory actions affecting their entire community.

Many of the jurisdictions tie their climate action plans to the US Mayors Climate Protection Agreement (see Attachment 4). The Agreement ties back to the Kyoto Protocol, an international environmental treaty with the goal of achieving “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Although not signed by the United States, the treaty included a national limitation for this country of a 7% decrease in greenhouse gases below the level in 1990.

DISCUSSION

While the City has adopted a number of energy and water saving initiatives that have and will continue to reduce the level of greenhouse gases that would otherwise be emitted in the City, the City does not currently have a climate action plan. Examples of City initiatives are alternative energy incentives offered by Moreno Valley Utilities, the recently adopted water wise landscape ordinance, the use of LED lighting in traffic signals and activities related to the City’s membership in the Riverside County Clean Cities Coalition. The reduction in greenhouse gases is also greatly affected by State and Federal regulations related to building standards, truck diesel emission standards and passenger vehicle mileage standards, and incentives for alternative energy. Private industry has also taken voluntary actions to reduce greenhouse gases for economic and community minded reasons.

The City has received funding under the Federal Stimulus Package Energy Efficiency and Conservation Block Grant to undertake several projects and initiatives to reduce the City organization’s energy use and consequently its greenhouse gas emissions. One of the initiatives is an Energy Strategy Task Force, which would convene a broad-based committee of City staff to estimate the existing energy use and fuel type of City facilities and vehicles, project future energy use and fuel type, identify potential programs and policies to reduce overall City energy use and increase the use of renewable energy, identify potential installation and life cycle costs, identify potential funding sources for proposed program and policy implementation, identify a policy for prioritizing implementation of programs and policies based upon energy efficiency, cost efficiency and potential resources, and suggest priorities for implementation based on the identified policy. The Task Force initiative will also fund contractual services to assist in the estimate of current and future energy use and emissions. The Task Force and resulting work products are intended to provide the basis for a coordinated City effort to

address resource efficiency for the City as an organization. Once completed, and resources permitting, that effort could be expanded to include City-wide incentives and regulations to effect resource efficiency in the private sector. The initial effort is estimated to take eighteen months to complete.

On another track, the State has a number of initiatives to address the implementation of Assembly Bill 32 and Senate Bill 375, both aimed at reducing greenhouse gas emissions in California. SB 375 calls for the preparation of a Sustainable Communities Plan (SCS) by each Council of Governments. Moreno Valley will be part of the SCS prepared by the Southern California Council of Governments (SCAG). Planning staff is involved in the initial SCAG activities to develop the SCS. The SCS will assess current development and future plans, as represented in the adopted general plans of communities to ensure a certain level of greenhouse gas emissions on an area-wide basis. The SCS may identify land use changes that would need to be considered by Moreno Valley and other SCAG member cities to achieve the area-wide emissions reduction target. The SCS is required to be prepared and adopted within the next two years.

Finally, the City received a SCAG COMPASS grant to study the Alessandro Boulevard Corridor from the future Metro-link station to the Riverside County Regional Medical Center in order to identify land use and other planning regulatory changes to enhance the area as a transit corridor. Increased use of transit and other non-auto modes of transportation will reduce the emissions of greenhouse gases and assist in meeting the requirements of the SCS. Planning staff will work with a SCAG-funded consultant to complete the study. The anticipated timeframe for completion of the study is twelve months.

The above-referenced activities will provide a good basis for the future preparation of a City-wide climate action plan, should that be desirable. These other initiatives may also make the future preparation of a climate action plan unnecessary as the objective of greenhouse gas emission reductions will have already been set in motion.

ALTERNATIVES

Not applicable

FISCAL IMPACT

Staff time would need to be allocated to investigate and develop a climate action plan for City Council consideration. The already required initiatives outlined in this report will likely strain limited staff resources. Such efforts may require the deferral of other non-case related projects or delays in case processing.

CITY COUNCIL GOALS

Not applicable

NOTIFICATION

Listing on the agenda

ATTACHMENTS/EXHIBITS

1. City of Monterey Personal Climate Action Plan
2. Excerpt from City of Palo Alto Climate Protection Plan
3. Green Riverside Action Plan
4. US Mayors Climate Protection Agreement

Prepared By:
John C. Terrell AICP
Planning Official

Department Head Approval:
Kyle A. Kollar
Community Development Director

Council Action	
Approved as requested:	Referred to:
Approved as amended:	For:
Denied:	Continued until:
Other:	Hearing set for:

Personal Climate Action Plan

In order for the City of Monterey to reach its greenhouse gas (GHG) emissions reduction target under the Mayors Climate Protection Agreement all of us need to do our part.

Most of the following measures are doable today! Implement them and strive to reduce your household's GHGs by at least 10%.

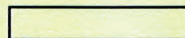
1. Use cold water when doing your laundry.
2. Convert at least one round-trip commute (to school or work) a week to carpool or transit/bike/walk.
3. Replace all incandescent and halogen bulbs with compact fluorescents and turn off unused lights.
4. Turn down the thermostat 3 degrees F during the heating season.
5. Reduce your amount of weekly waste by one garbage bag.
6. Upgrade your showerhead to a water-saving one and keep showers below five minutes.
7. Increase home insulation.
8. Plug all electronics into power strips and turn off when not in use.
9. Keep your tires fully inflated.
10. Replace your old refrigerator with an ENERGY STAR model.

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ATTACHMENT I

SITE MAP

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[History & Art](#) | [Getting Involved](#) | [Community Partnerships](#) | [Contact Us](#)



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Excerpt from City of Palo Alto Climate Action Plan

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Chapter 8: Education and Motivation 77

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Recommendations Cross Referenced to

Climate Protection Actions

Appendix II Possible Actions by Short-Term, II-1

Medium Term and Long Term

Appendix III Draft Elements of Palo Alto Sustainable III -1

Purchasing Policy

Climate Protection Plan 4

Overview

Global warming is nearly universally recognized by scientists, and much of the public, as one of the most important threats facing human civilization, and political stability. This rise in temperatures has major implications for transboundary migration, economic prosperity, and the future of human development. Locally, the effects of climate change are likely to reduce the availability of hydro generated electricity, increase the incidence of forest fires, and lead to a rise in the level of San Francisco Bay that would impact Palo Alto's shoreline.

The Climate Protection Plan (CPP) continues a process, of which the Green Ribbon Task Force (GRTF) recommendations were an earlier step, through which the City government and the community are working together to reduce significantly greenhouse gas (GHG) emissions. A cross reference between the GRTF recommendations and those of the CPP are summarized at the end of each chapter and presented in-full in Appendix I.

ATTACHMENT 2

The goal of the CPP is to present a comprehensive inventory of municipal (City government-generated) and community-generated emissions, propose reduction targets, and propose practical steps to reach those targets.

Setting Emission Reduction Goals

The CPP sets out goals for the reduction of CO₂ emissions from the City and the Community.

These goals are:

Short Term Goal: By 2009 the City will reduce emissions by 5% from 2005 emission levels for a total reduction of 3,266 metric tons of CO₂.

Medium Term Goal: By 2012 the City and Community will reduce emissions by 5% from 2005 emissions levels for a total reduction of 39,702 metric tons of CO₂.

Long Term Goal: By 2020, the City and Community will reduce emissions by 15% of 2005 levels, equal to 119,140 metric tons of CO₂, and bring the community in line with State reduction goals.

Cost Benefit Analysis and Budget Implications

The CPP begins the process of estimating the costs of potential actions, some of which would be borne by the City, and others of which would be borne by the end user or community.

Executive Summary

Climate Protection Plan 5

The cost benefit analyses here should be considered as preliminary only. Additional, more detailed financial analyses should be carried out before many of the actions listed here are implemented. Furthermore, additional funding is required for many of the actions recommended in this report. Any actions deemed by Council worth expending City funds would be integrated into the 2008-10 budget process in spring 2008.

The table at the end of this Executive Summary lists all of the proposed actions in this report, broken out by those requiring no additional funding, and those requiring additional funding and/or additional analysis of funding needs.

Structure of the Report

This report contains eight chapters:

- Chapter 1 is the Introduction.
- Chapter 2 discusses the baseline inventory of City and community-wide greenhouse gas (GHG) emissions, and proposes an overall goal of reducing communitywide emissions by 15% below 2005 levels by 2020.
- Chapter 3 covers the wide array of emission-reducing Utility programs.
- Chapter 4 describes the Sustainable Purchasing portion of the Plan.
- Chapter 5 discusses Transportation and Sustainable Land Use.
- Chapter 6 covers Green Building.
- Chapter 7 discusses Zero Waste, and
- Chapter 8 on Education proposes strategies for enlisting City employees and the Palo Alto community in carbon-reduction efforts.

In each chapter, the subject area is introduced, baseline emissions quantified where possible, and then goals and actions laid out for Short-Term (2008), Medium-Term (2009-2011), and Long-Term (2012-2020) time frames. At the end of each chapter, the GRTF recommendations for that

section are laid out in table format, side-by-side with the recommendations contained in that chapter, with comments regarding differences between the two sets of recommendations.

Appendix 1 lists the entire 250 recommendations of the GRTF and correlates them where possible with the proposed actions of the CPP.

This document primarily assumes a forward-looking vantage point. While several activities throughout the City are already underway to achieve Council policy goals that overlap with climate protection issues, this report attempts to identify the costs and benefits of those activities as they apply to greenhouse gases. It also focuses on the continuation of those activities as well as the introduction of new activities for reducing GHG emissions.

Key Findings

Emissions within Palo Alto are estimated at 814,254 metric tons per year. The CPP presents a number of possible actions to consider implementing to meet the City's emission reduction goals. The three primary sources of emissions from Palo Alto are as follows:

Transportation Fuels: Commute emissions, plus other non-commute driving and Air Travel accounts for 333,400 metric tons of CO₂e or 40% of total emissions.

Climate Protection Plan 6

Energy: Natural Gas and Electricity use accounts for 155,016 metric tons of CO₂e or 19% of total emissions

Solid Waste: Emissions from Solid Waste account for 100,304 metric tons of CO₂e or 14% of total emissions.

A variety of possible actions to reduce these emissions are presented in this report. These actions fall into three categories:

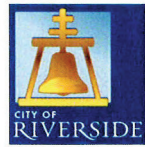
Short Term Actions. These are actions that the City should undertake as soon as possible, for completion by July 2009. Generally these actions cost little or no additional funds, are part of existing programs, or can be accomplished with relatively modest effort on the part of staff. For the most part, these actions do not achieve significant declines in emission levels.

Medium Term Actions. These are actions that the City should aim to complete by 2011. With a few exceptions these actions entail moderate marginal cost. Some actions may require a new program for implementation, and most may be accomplished with a modicum of additional staff, resources and/or community effort.

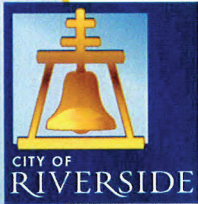
Long Term Actions. These are actions that will require substantial additional resources, considerable staff effort, and substantive community involvement to be effective.

A complete list of proposed actions, and their costs and benefits where known, is included in Appendix II.

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GREEN RIVERSIDE ACTION PLAN



In the summer of 2005, I appointed a Clean & Green Task Force that included community leaders from a wide range of academic campuses, business interests, civic organizations, communities of faith, and professions.

The result of the excellent work of the Task Force was the Sustainable Riverside Policy Statement and an outstanding detailed report, with a practical emphasis on how the City can implement cleaner, greener, and more sustainable policies.



The Task Force also developed guidelines for a Clean and Green City:

Save Water, Keep it Clean, Make it Solar, Make it Shady, Clean the Air, Save Fuel, Make it Smart, and Build Green.

With the goal of transforming the policy statement into an implementation plan, staff developed this 38 point Clean and Green Sustainable Riverside Action Plan, or simply the **Green Action Plan**.

Major benefits of the Green Action Plan include improved air quality, reduction of traffic congestion, increased accessibility and use of parks and open space, and will allow Riverside to further its advancement as an urban, exciting and diverse community.

The City's policies should support good practices with incentives created and modified as we learn about how to develop our own sustainable community. We should encourage change by finding ways to reward good behavior and lead by example. I encourage you to read this Plan and spread the word. More information can be found online at www.GreenRiverside.com or on my web page, www.riversideca.gov/mayor.

It is time for Riverside to take the lead as a Sustainable City. With the community's involvement, we can, and should become a Clean & Green City and an example of what's possible.

Ronald O. Loveridge
Mayor



GREEN RIVERSIDE ACTION PLAN

The City of Riverside is committed to becoming a clean, green and sustainable community. Following the Mayor's State of the City Address in January 2007, the City Council approved the Sustainable Riverside Policy Statement (SRPS). The Clean and Green Task Force framed the SRPS with a practical emphasis on how the City could implement cleaner, greener and more sustainable programs. The Council also directed the City Manager to take the necessary steps to become a model solar city in Southern California and supported the Mayor's endorsement of the U.S. Mayor's Climate Protection Agreement of 2005.

To further Riverside's commitment to a clean, green and sustainable future, the Clean and Green Sustainable Riverside Action Plan was developed. Successful implementation of the Action Plan will ensure sustainable growth while preserving the health of the local environment for generations. The Action Plan is a working document to be continually reviewed with progress reports to be presented to the City Council at least annually.

Reinforcing the blueprint set forth in the SRPS and the goals of the U.S. Mayor's Climate Protection Agreement, the Action Plan highlights seven vital areas of city life:

- Energy**
- Greenhouse Gas Emissions**
- Waste**
- Urban Design**
- Urban Nature**
- Transportation**
- Water**

A first step in addressing the seven vital areas is promoting educational awareness of sustainable living. The Action Plan provides a framework that goes beyond City Hall, envisioning Riverside as an environmental leader in the region and country. However, Riverside cannot accomplish these goals on its own. Outreach and cooperation with local schools, colleges/universities and surrounding communities is essential. Programs such as the Green Valley Initiative between Riverside and San Bernardino Counties will assist in providing the region with a cohesive quality of life focus and a sustainable economy.

With the commitment of the Mayor and City Council, City staff and the business and residential communities, Riverside will become a clean, green and sustainable community through the implementation of the achievable action steps listed below.

Energy

Riverside is committed to providing safe, reliable and affordable power that achieves a balance between high quality, low cost energy and the environmental impacts of providing those energy resources.

ITEM 1 · Adopt and implement a policy to increase the use of renewable energy to meet 33% of the City's electric load by 2020.

ITEM 2 · Promote Riverside as a Solar City by implementing programs for residential and commercial customers that will increase solar generation in the City to 1 MW by 2015 (enough for 1,000 homes), and 3 MW by 2020.

ITEM 3 · Generate at least 10 MW (enough for 10,000 homes) of electric load from regional zero emissions sources by 2025.

ITEM 4 · Reduce the City's per capita base load energy consumption by 10% through energy efficiency and conservation programs by 2016.

ITEM 5 · Implement programs to encourage load shifting to off-peak house and explore demand response solutions by the end of 2008.

Greenhouse Gas Emissions

Riverside is situated in a semi-arid region of Southern California where water resources are dependent on local snow pack and rainfall. As regional temperatures rise and the threat of reduced local precipitation exists, Riversiders are reminded that doing their part to reduce global warming is a local issue. Additionally, Riverside experiences an above-average level of air pollution given its proximity east of Los Angeles and west of the San Bernardino Mountains that essentially “locks-in” smog in the region’s basin. While the City continues to make efforts to reduce pollution through emission reduction measures, additional steps must be created and implemented to improve air quality. Electric Utility greenhouse gas emission targets will meet those jointly developed at State and Federal levels as resources cover many of the Western United States.

ITEM 6 · Establish the 1990 greenhouse gas (GHG) emission baseline for the City government on a per capita basis by the end of 2008.

ITEM 7 · Implement a climate action plan that will reduce GHG emissions by 7% of the 1990 municipal baseline by 2012.

ITEM 8 · Develop a calculation for and establish the 1990 GHG emissions baseline on a per capita basis for the City of Riverside as a geographic locale by the end of 2009.

ITEM 9 · Utilizing the City boundaries as defined in 2008, implement a climate action plan to reduce GHG emissions by 7% of the of the 1990 City baseline by 2012.

ITEM 10 · Establish programs that comply with the South Coast Air Quality Management District (AQMD) and the City’s General Plan 2025 to improve the quality of air in Riverside.

ITEM 11 · Aggressively support programs at the AQMD that reduce GHG and particulate matter generation in the Los Angeles and Orange County regions to improve air quality and reduce pollution in Riverside.

Waste Reduction

Solid waste prevention and recycling can help reduce climate change impacts as less solid waste decreases the amount of heat-trapping GHG emissions linked to everyday trash. Riverside is committed, through programs like CURE (Clean Up Riverside’s Environment) and Keep Riverside Clean and Beautiful (KRCB) to promote the basic principles of recycle, reduce, reuse. Also, in August 2007, the City Council directed the City Manager to develop and implement a Green Purchasing Policy to promote City purchasing of environmentally preferable products.

ITEM 12 · Implement programs to encourage and increase participation of diverted waste from landfills by 2% before the end of 2008.

ITEM 13 · Develop measures to encourage that a minimum of 40% of the waste from all construction sites be recycled throughout Riverside by the end of 2008.

ITEM 14 · Encourage the reduction of any disposable, toxic, or nonrenewable products by 5% through program creation by 2009.

ITEM 15 · Implement educational programs to promote green purchasing throughout the community before 2009.

Urban Design

The Inland Empire is one of the fastest growing regions in the state and nation. In order for Riverside to meet the demands of its existing and anticipated residential and business community, we must adhere to the smart growth goals established in the General Plan 2025. These goals include pedestrian-friendly, high-density, mixed-use and transit-oriented developments that utilize fewer natural resources. Also, Riverside must be dedicated to attracting more green industry into the region to operate sustainable businesses through the assistance of the Economic Development Division and the Greater Riverside Chambers of Commerce.

ITEM 16 · Establish a policy that mandates a green building rating system standard that applies to all new municipal buildings over 5,000 square feet by January 1, 2008.

ITEM 17 · Implement programs to encourage green buildings in the private sector by January 1, 2008.

ITEM 18 · Encourage programs to establish green operations and maintenance for public and private sector businesses before 2009.

ITEM 19 · Apply urban planning principles that encourage high density, mixed-use, walkable/bikeable neighborhoods, and coordinate land-use and transportation with open space systems in 2008.

ITEM 20 · Meet the environmentally sensitive goals of the General Plan 2025 specified in the Mitigation Monitoring Program of the Environmental Impact Report, and the Implementation Plan following the timelines set forth in each.

ITEM 21 · Evaluate programs to address indoor air quality issues by the end of 2008.

Urban Nature

Preservation, expansion and protection of our open spaces are of the utmost importance in maintaining the quality of life for Riverside residents. The parks system is comprised of 51 parks totaling 2,500 acres. Additionally, the 100,000 Tree by 2010 Initiative commits Riverside to expanding the urban forest by 100,000 trees by 2010. Since 2000, over 67,000 trees have been planted and the City is on its way to not only meet, but exceed its tree goal. To guarantee Riverside remains a green city, we must continue to plant trees and preserve park and natural habitat for future generations.

ITEM 22 · Strengthen the City's existing trail inventory while providing a 75% increase of passive recreation and multi-use trails by 2015.

ITEM 23 · Ensure that there is an accessible park, recreational, or public open space within a 1/2 mile of 90% of City residents by 2015.

ITEM 24 · Plant at least 1,000 trees in City parks and right-of-ways and encourage the planting of at least 3,000 shade trees on private property annually.

ITEM 25 · While actively protecting critical habitat corridors, coordinate with the Multi-Species Habitat Conservation Plan (MSHCP) to develop and implement a plan to protect natural habitat and wildlife through increasing the amount of preserve and reserve areas in the City by 150 acres by 2009

Transportation

While transportation is crucial to the economy and our personal lives, the environmental impacts of transportation are equally significant and wide ranging. Today's cars and trucks burn fuel 35% more efficiently with 95% less emissions than 30 years ago, but the continuing increase in vehicle miles traveled has slowed the progress toward environmentally sustainable transportation. It is vital that the City adopt strategies that improve regional mobility and vehicle emissions.

ITEM 26 · Synchronize traffic signals along primary City arterials by the end of 2008.

ITEM 27 · Implement a program to design, construct or close at least one of the 26 railroad grade separations each year.

ITEM 28 · Reconstruct at least two freeway/street interchanges by 2012.

ITEM 29 · Increase the number of clean vehicles in the non-emergency City fleet to at least 60% by 2010.

ITEM 30 · Encourage the use of bicycles as an alternative form of transportation, not just recreation, by increasing the number of bike trails by 15 miles and bike lanes by 111 miles throughout the City before 2025.

ITEM 31 · Develop programs to reduce mobile sources of pollution, such as encouraging the purchase of alternative fuel vehicles or lower emission hybrids and plug-ins for the residential and business community before 2009.

ITEM 32 · Promote and encourage the use of alternative methods of transportation throughout the community by providing programs to City employees that can be duplicated by local businesses.

ITEM 33 · Implement a regional transit program between educational facilities by 2010.

ITEM 34 · Coordinate a plan with local agencies to expand affordable convenient public transit that will assist in reducing the per capita vehicle trips within the City limits by 2009.

Water

With California's Mediterranean climate, unpredictable rainfall and growing population, the state's water supply is facing some of the most significant challenges seen in the last half-century. While great strides in water conservation and efficiency programs have been made, the collective impacts of record drought, climate change, increased population, court-ordered import reductions and the potential for natural disasters dictates that additional conservation measures must be taken in order to continue to provide safe and reliable water to Riverside's customers.

ITEM 35 · Develop and implement a public education outreach program that addresses the discharge

of preventable contaminants into the sanitary sewer system by Riverside residents and businesses by 2009 (example: no pharmaceuticals or paint down the drain).

ITEM 36 · Develop recycling methods and expand existing uses for recycled wastewater by 2015.

ITEM 37 · Increase the use of recycled water from the wastewater treatment plant to recover 15,000 acre feet or 30% of plant effluent by 2020.

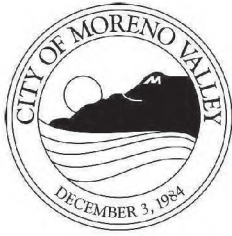
ITEM 38 · Implement water efficiency, conservation and education programs to reduce the City's per capita potable water usage by 15% by 2025.



The U.S. Mayors Climate Protection Agreement
(As endorsed by the 73rd Annual U.S. Conference of Mayors meeting, Chicago, 2005)

- A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;
- B. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that 1) includes clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and
- C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:
 - 1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.
 - 2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;
 - 3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
 - 4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
 - 5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;
 - 6. Purchase only Energy Star equipment and appliances for City use;
 - 7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
 - 8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;
 - 9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
 - 10. Increase recycling rates in City operations and in the community;
 - 11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO₂; and
 - 12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

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APPROVALS	
BUDGET OFFICER	<i>CAF</i>
CITY ATTORNEY	<i>RH</i>
CITY MANAGER	<i>RH</i>

Report to City Council

TO: Mayor and City Council

FROM: Chris A. Vogt, P.E., Public Works Director/City Engineer

AGENDA DATE: October 20, 2009

TITLE: CONSIDER THE USE AND CONVERSION OF EXISTING STREETLIGHTS TO LIGHT EMITTING DIODES (LED)

RECOMMENDED ACTION

None – Study session item for discussion only.

BACKGROUND

The current budget situation has fostered much discussion regarding potential cost saving measures. One such cost saving measure that has been proposed is the potential use or conversion of existing streetlights to light emitting diodes (LED). LED's use far less energy than conventional bulbs. However, as LED's are a new technology with no proven track record, there are concerns about the use of LED's in streetlighting applications.

The installation of new streetlights in the City of Moreno Valley is governed by the City of Moreno Valley's Standard Engineering Plans. Specifically, Moreno Valley Standard Plan 500 spells out the lighting requirements for residential and collector streets. Standard Plan 501 defines the lighting requirements for arterial highway installations (Attachments 1 and 2, respectively). Both standard plans call out high pressure sodium lamp types. There is no mention of LED's on either standard.

There are 8,506 streetlights in Community Services District (CSD) Zone B, and 2,545 in CSD Zone C, for a grand total of 11,051 streetlights. Almost 90% of the streetlights receive electrical service from Southern California Edison (SCE). The balance of the streetlights are served by Moreno Valley Utility.

DISCUSSION

LED's are becoming a more popular choice in lighting applications based largely on their efficacy. For example, the use of LED's in traffic signal applications has resulted in significant energy and money savings in both new and retrofit installations.

The use of LED's in streetlight applications has been slowed for different reasons. For starters, Southern California Edison, which provides service to the majority of the City of Moreno Valley's streetlights does not currently recognize LED streetlights as a proven technology. As such, SCE has not developed a rate applicable to LED streetlights. SCE is currently studying LEDs for use in streetlighting applications. However, SCE has not provided any conclusions about the use of LED's in streetlighting applications. SCE, and others, is concerned primarily 1) with the ability of the LED streetlight to provide ample light on the street, and 2) maintenance and operation concerns such as lamp life and reliability.

Staff is monitoring developments in the use of LEDs in streetlight applications. One current study that is expected to be completed soon will help more precisely identify the expected energy savings, installed cost, as well as issues concerning expected maintenance and operations costs. However, preliminary indications do not suggest that the results will differ too much from the costs and savings numbers mentioned in the Fiscal Impact section of this report.

ENVIRONMENTAL REVIEW

The disposal of high pressure sodium lamps would require special handling, and could result in additional disposal cost. The disposal of LEDs will also require some investigation.

FISCAL IMPACT

From purely an economic perspective, the simple payback for an LED retrofit for streetlights is not very attractive. Using an estimated cost of \$500 per lamp for a conversion kit, and an energy cost savings of approximately \$20 per year, the simple payback is the cost divided by the expected savings, or 25 years. If all 11,051 streetlights in CSD Zone B and C were targeted for conversion to LEDs, the total cost would be greater than \$5.5 million with an anticipated energy cost savings of \$221,000 per year. Currently, there is no funding available for LED conversions. Note that streetlight electric rates include a fixed component that represents approximately 75% of the total cost for service. According to SCE's streetlight tariff, the fixed component represents operating, and maintenance costs associated with electric service to the streetlights. This fixed cost component applies whether the streetlight is on or off, and would remain in effect until the streetlight is physically removed. Any energy cost savings would apply only to the remaining 25% variable component (or energy component) of the streetlight rates.

NOTIFICATION

Posting of the Agenda.

ATTACHMENTS

Attachment 1: Residential and Collector Lighting, Standard Plan 500

Attachment 2: Arterial and Highway Lighting, Standard Plan 501

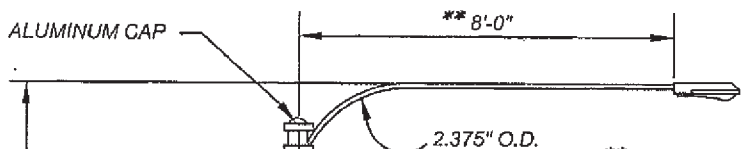
Prepared By: George Hanson
Electric Utility Manager

Department Head Approval: Chris A. Vogt, P. E
Public Works Director/City Engineer

Council Action	
Approved as requested:	Referred to:
Approved as amended:	For:
Denied:	Continued until:
Other:	Hearing set for:

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LUMINAIRE RESIDENTIAL 9500 LUMEN
100W HIGH PRESSURE SODIUM
TYPE TO BE SHOWN ON GENERAL
STREET LIGHTING PLAN.

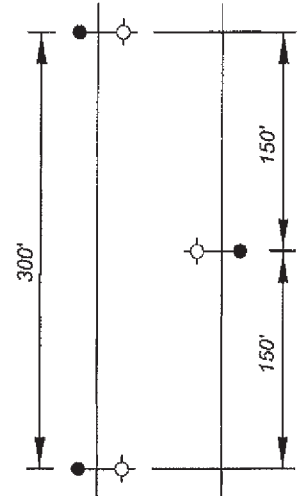
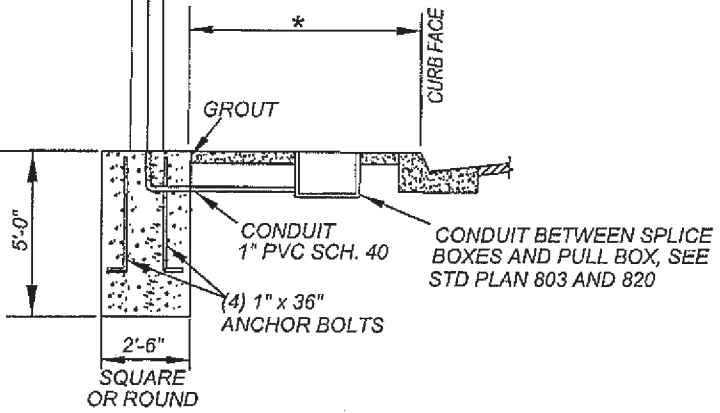
** TYPE: 1AP8 OR EQUIVALENT
** WHEN STREET LIGHT IS INSTALLED
ADJACENT TO CURB, MAST ARM
LENGTH SHALL BE 4'-0" (TYPE 1AP4 OR EQUIVALENT)

POLE NOTES

- 1.) THE POLE TYPE SHALL BE MARBELITE, - AMERON 1C1-28 OR EQUIVALENT.
- 2.) IT SHALL BE OCTAGONAL IN SHAPE, SYMMETRICALLY TAPERED, MADE OF PRECAST/PRESTRESSED CONCRETE, AND NATURAL GRAY IN COLOR WITH BLACK AND WHITE AGGREGATE WITH ANTI-GRAFFITI SURFACE.
- 3.) IT SHALL BE BASE MOUNTED, DIRECT BURIAL IS NOT ALLOWED.
- 4.) SHALL BE PLUMB, MAXIMUM VARIANCE 0.08"/FT.
- 5.) LOCATION (TO POLE CENTER) SHALL BE -1' 3" FROM BACK OF SIDEWALK (WHEN SIDEWALK IS ADJACENT TO CURB), 1' 6" FROM FACE OF CURB WHEN SIDEWALKS ARE NOT PROPOSED, 5' FROM BCR/ECR, 9' FROM FIRE HYDRANT CENTER, 5' FROM DRIVEWAY EDGE, 5' FROM UTILITY TRANSFORMER AND OTHER OBSTRUCTIONS.
- 6.) BOLT CIRCLE DIAMETER, 12 1/2" AMERON, 11 1/2" CENTRECON OR EQUIVALENT.
- 7.) MATERIALS SHALL BE FROM SAME MANUFACTURER ALONG SAME STREET AND IN THE SAME TRACT.

MOUNTING HEIGHT = 26' (+/-) 1'

* 6'-0" STANDARD
1'-6" WHEN SIDEWALKS ARE
NOT PROPOSED FOR
INSTALLATION
* MIN. 4' CLEARANCE FOR SIDEWALK



RESIDENTIAL - 9500 LUMEN

NOTES:

1. THESE LIGHTING STANDARDS MAY BE SUPERSEDED BY THE STANDARDS OF THE SERVING UTILITY IF THEY ARE IN ACCORDANCE WITH THE NATIONAL STREET LIGHTING GUIDE.
2. LIGHTING SHALL BE PLACED 150' MAX (±20') APART ON ALTERNATING SIDES OF THE STREET AND AS NOTED BELOW:
 - A) AT THE MIDDLE OF A CUL-DE-SAC
 - B) AT THE FAR SIDE OF A T-INTERSECTION
 - C) AT THE BEGINNING OF A CURB RETURN
 - D) AT LOCATIONS DETERMINED BY THE CITY TO INCREASE ILLUMINATION.
3. DESIGN ENGINEER TO VERIFY POLE FOUNDATION IS ADEQUATE DEPENDING ON SITE SOIL CONDITIONS.

SPECIAL DISTRICTS	DATE 1/08
APPROVED BY <i>[Signature]</i> PUBLIC WORKS DIRECTOR/ CITY ENGINEER	DIVISION MANAGER INITIAL <i>[Signature]</i>

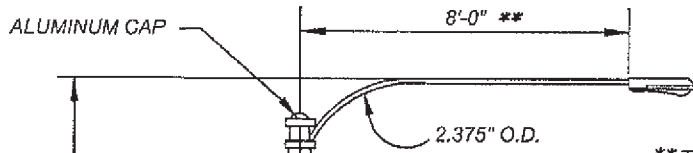
CITY OF MORENO VALLEY

PREPARED BY CAPITAL PROJECTS

**RESIDENTIAL & COLLECTOR
LIGHTING**

1 of 1
NO.
500

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LUMINAIRE 22,000 LUMEN
 200W HIGH PRESSURE SODIUM
 TYPE TO BE SHOWN ON GENERAL
 STREET LIGHTING PLAN.

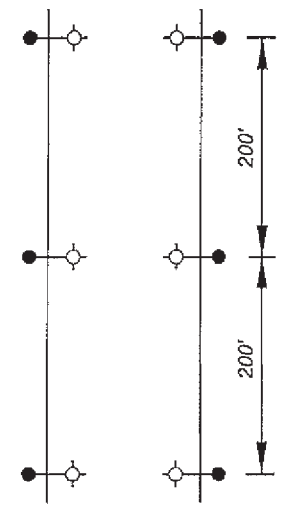
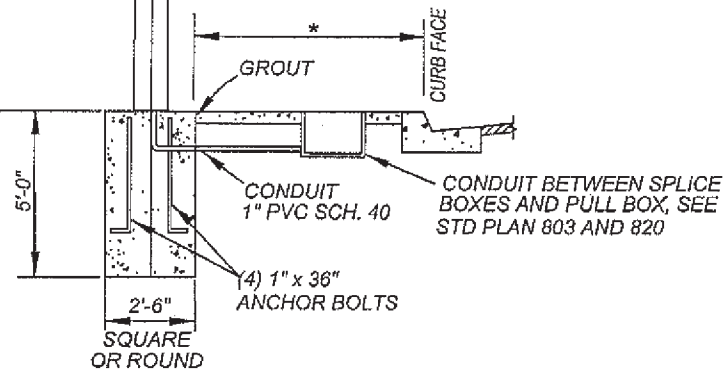
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- 4.) SHALL BE PLUMB, MAXIMUM VARIANCE 0.08"/FT.
- 5.) LOCATION (TO POLE CENTER) SHALL BE -1' 3" FROM BACK OF SIDEWALK (WHEN SIDEWALK IS ADJACENT TO CURB), 1' 6" FROM FACE OF CURB WHEN SIDEWALKS ARE NOT PROPOSED, 5' FROM BCR/EOR, 9' FROM FIRE HYDRANT CENTER, 5' FROM DRIVEWAY EDGE, 5' FROM UTILITY TRANSFORMER AND OTHER OBSTRUCTIONS.
- 6.) BOLT CIRCLE DIAMETER, 12 1/2" AMERON, 11 1/2" CENTRECON OR EQUIVALENT.
- 7.) MATERIALS SHALL BE FROM SAME MANUFACTURER ALONG SAME STREET AND IN THE SAME TRACT.

* 6'-0" STANDARD
 1'-6" WHEN SIDEWALKS ARE
 NOT PROPOSED FOR
 INSTALLATION
 *MIN. 4' CLEARANCE FOR SIDEWALK

MOUNTING HEIGHT = 31' (+/-) 1'



ARTERIAL - 22000 LUMEN

NOTES:

- 1.) THESE LIGHTING STANDARDS MAY BE SUPERSEDED BY THE STANDARDS OF THE SERVING UTILITY IF THEY ARE IN ACCORDANCE WITH THE NATIONAL STREET LIGHTING GUIDE.
- 2.) LIGHTING SHALL BE SPACED 200' MAX (±20') DISTANCE APART ON EACH SIDE OF THE STREET.
- 3.) THE CITY MAY REQUIRE ADDITIONAL LIGHTING IN AREAS WHERE INCREASED ILLUMINATION IS DETERMINED TO BE NEEDED.
- 4.) DESIGN ENGINEER TO VERIFY POLE FOUNDATION IS ADEQUATE DEPENDING ON SITE SOIL CONDITIONS.

SPECIAL DISTRICTS		DATE	1/08	CITY OF MORENO VALLEY	
APPROVED BY		DIVISION MANAGER INITIAL		PREPARED BY CAPITAL PROJECTS	
 PUBLIC WORKS DIRECTOR/ CITY ENGINEER		 DIVISION MANAGER INITIAL		ARTERIAL HIGHWAY LIGHTING	
				1 of 1	NO. 501

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