

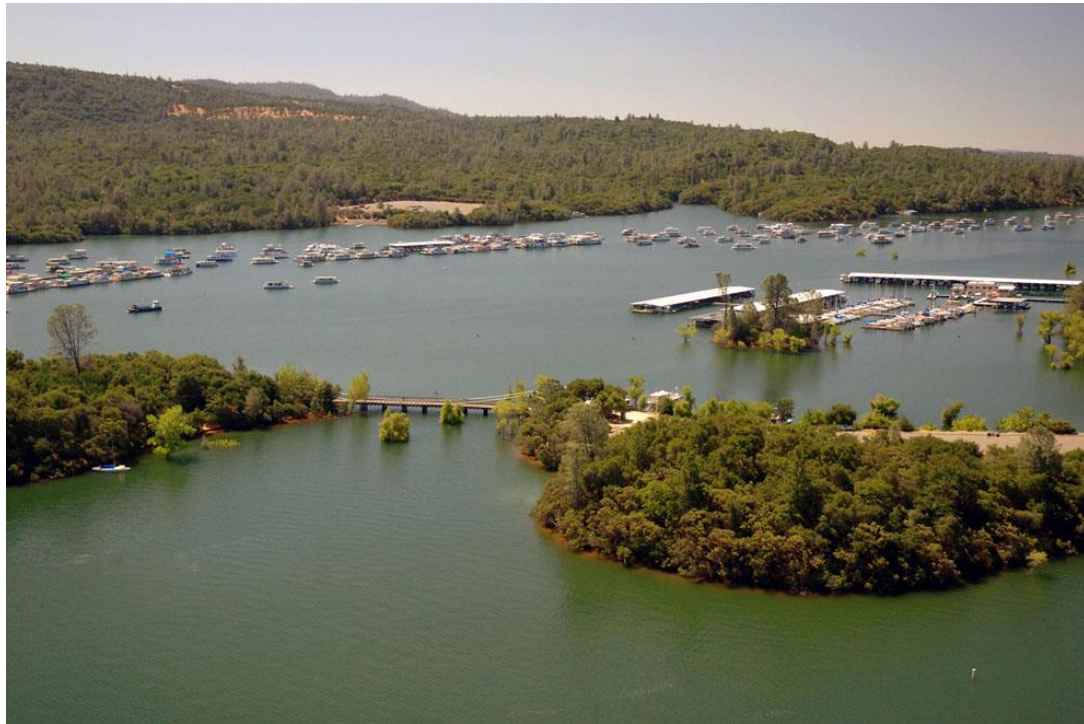
# Sustainability at Ventura County CCD

Fall 2014



# Lake Oroville, CA

**July 20, 2011**



**August 19, 2014**





# Lake Oroville, CA

**July 20, 2011**



**August 19, 2014**





# Lake Oroville, CA

**July 20, 2011**



**August 19, 2014**





# Lake Shasta, CA

**August 30, 2014**



**August 30, 2014**



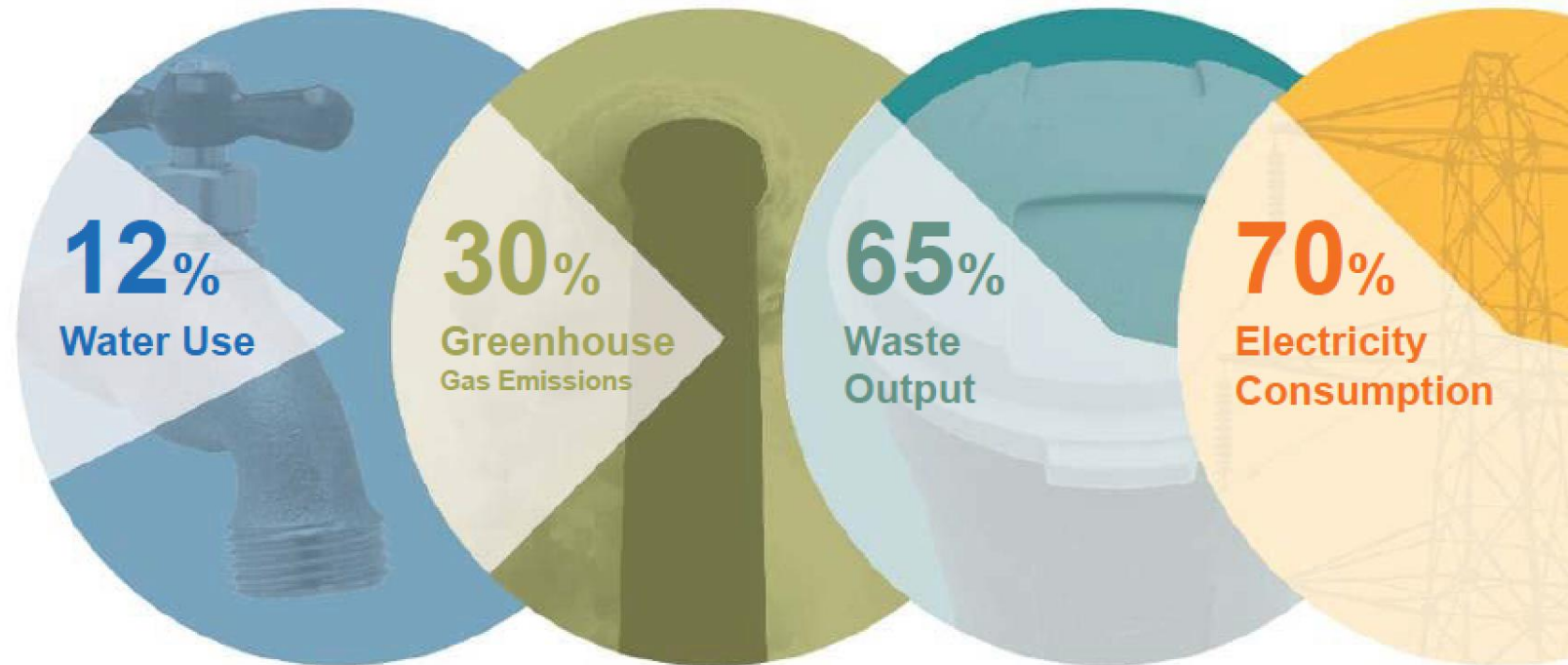


**GOLD!!**

**WATER!!**

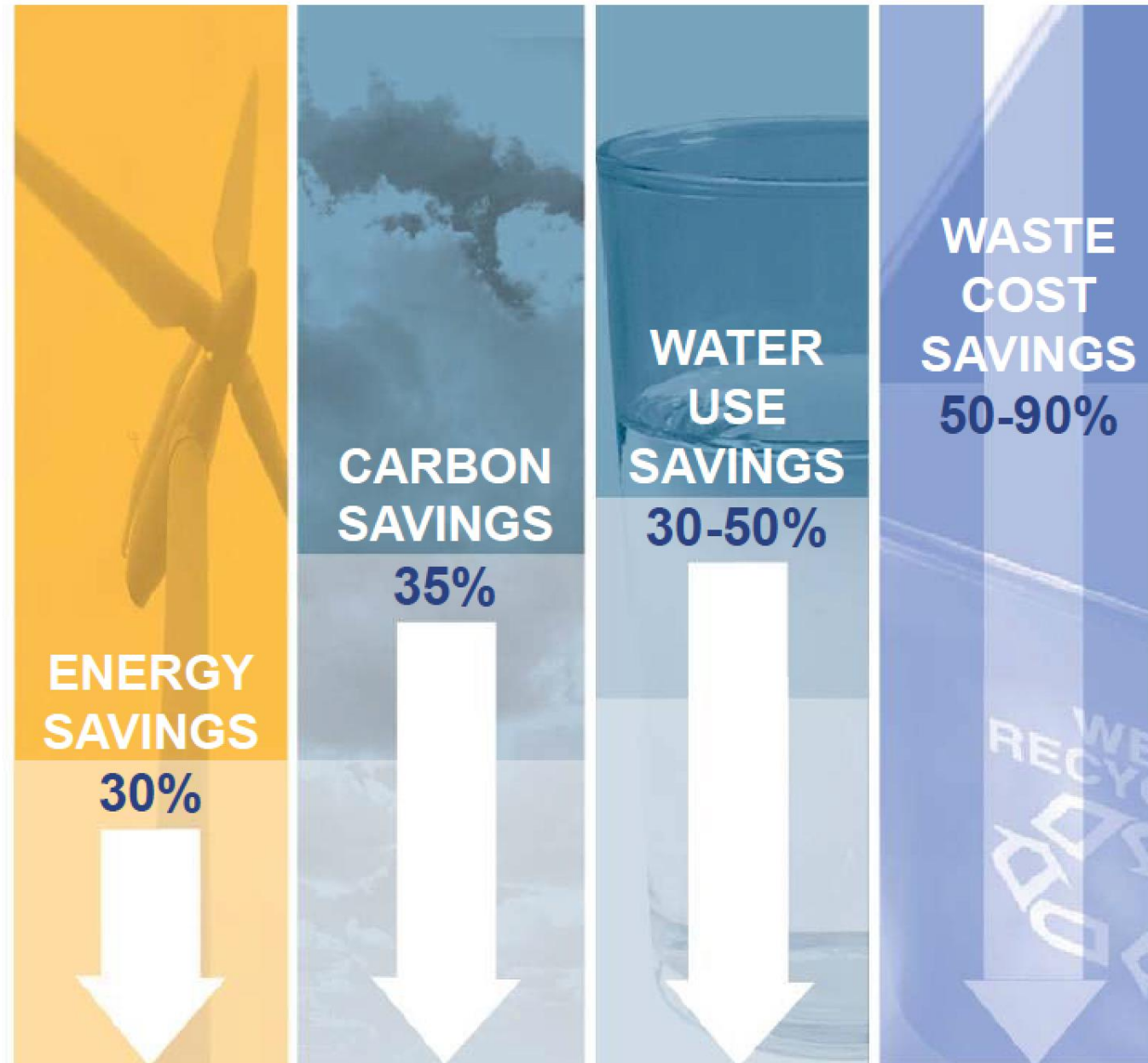


## U.S. Building Impacts:





**Average  
Savings of  
Green  
Buildings**



Source:  
Capital E

Results of the  
California  
Study:  
Average  
Bottom Line  
Savings

GREEN IMPROVEMENTS PAY FOR  
THEMSELVES IN **3** YEARS

(ANNUAL RETURN ON INVESTMENT IS 25-40%)



The William and  
Flora Hewlett  
Foundation  
Menlo Park CA  
LEED Gold





**Increased  
Productivity.**

**SCHOOLS**

**IMPROVED TEST  
PERFORMANCE**

**HOSPITALS**

**EARLIER  
DISCHARGE**

**RETAIL**

**INCREASE  
IN SALES PER  
SQUARE FOOT**

**Factories**

**INCREASED  
PRODUCTION**

**OFFICES**

**2-16%  
PRODUCTIVITY  
INCREASE**

**The Triple  
Bottom  
Line.**

**Reduced  
Environmental  
Impact.**

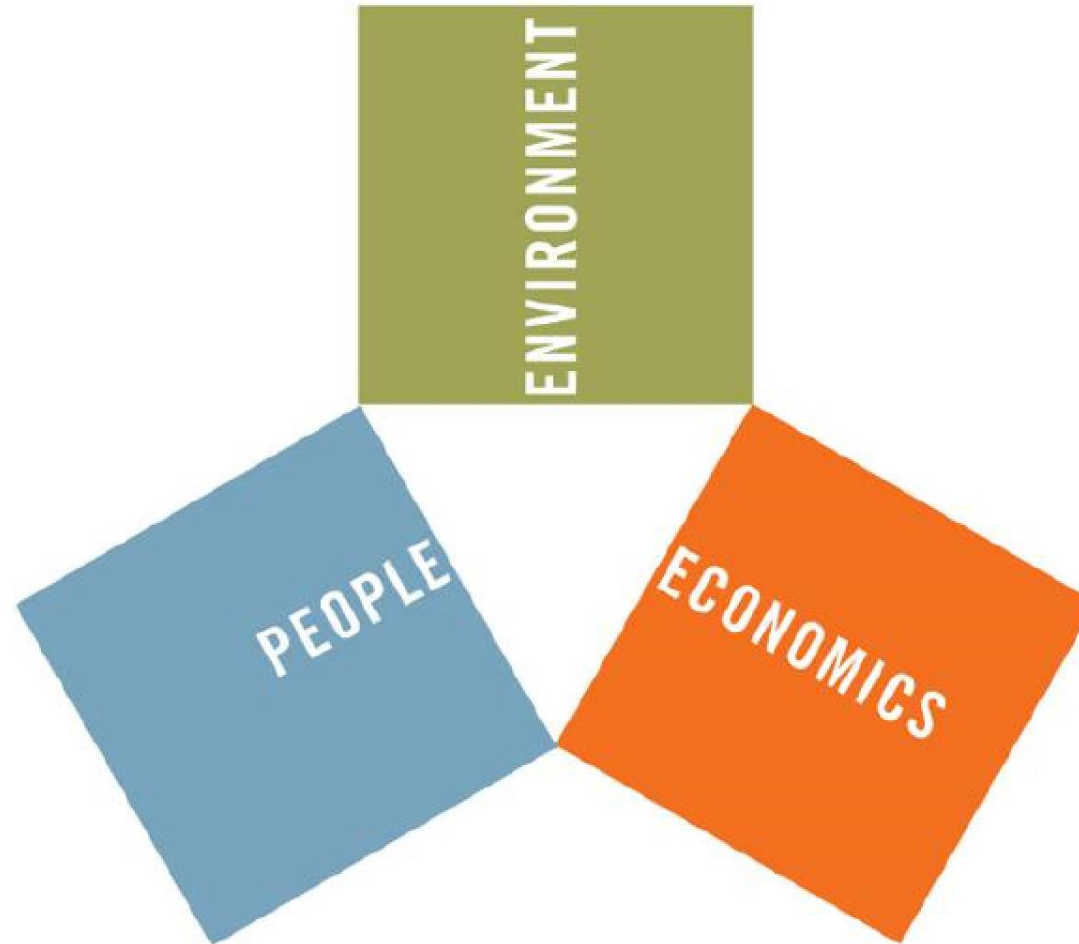
**Peak Efficiency.**

**Improved  
Capitalization  
Rates.**

**Increased  
Marketability.  
Higher Lease  
Rates.**

**Improved  
Productivity.  
Reduced  
Absenteeism.**

**Build Green.  
Everyone  
Profits.**





# Primary Goals



Reduce contribution to **global climate change**



Enhance individual **human health**



Protect and restore **water resources**



Protect and enhance **biodiversity and ecosystem services**



Promote **sustainable and regenerative** material cycles



Build a **green economy**



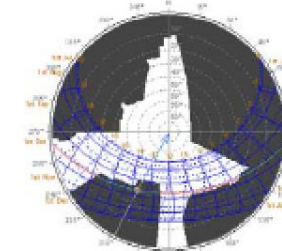
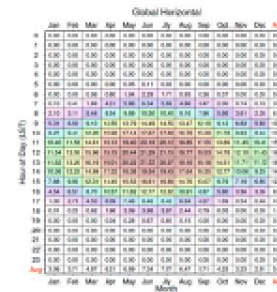
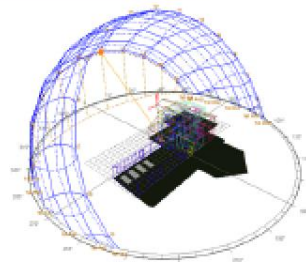
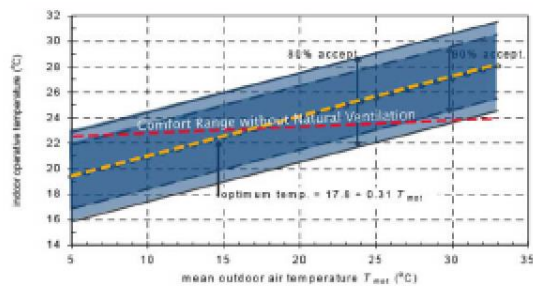
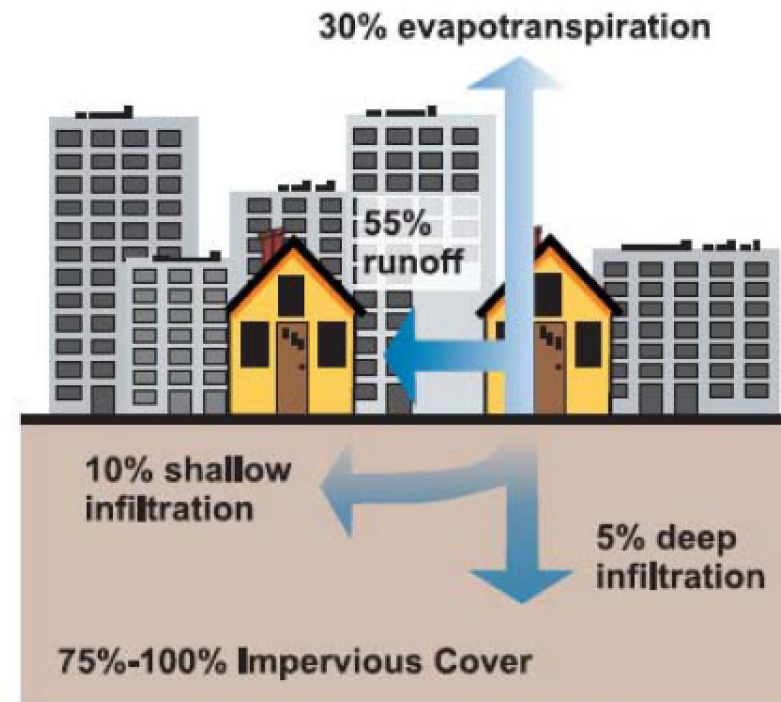
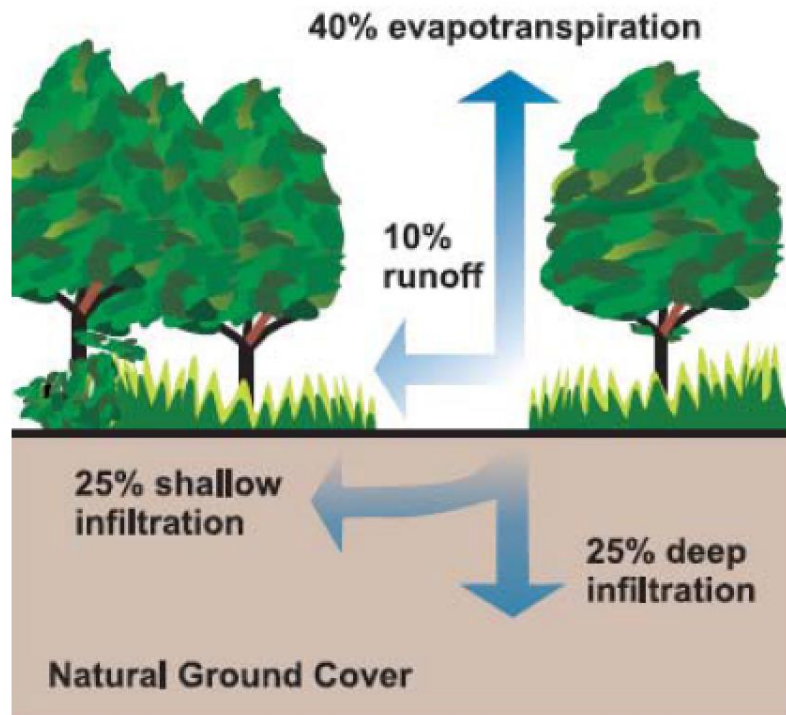
Enhance **community quality of life**

# LEED – Leadership in Energy & Environmental Design



- Certification program that guides the design, construction, operations and maintenance.
- The most widely recognized green building program in the world
- 1.5 million sf/day certified in 135 countries
- >54,000 projects current LEED projects → 10.1 billion sf





Emphasis on LOW IMPACT DEVELOPMENT

## Additional Metering + Demand Response



SIDEBAR: 2013 California Energy Code  
+/- 30% stricter than the current code  
postponed to July 1, 2014



## HIGH EFFICIENCY

- HVAC
- Lighting
- Appliances
- Construction

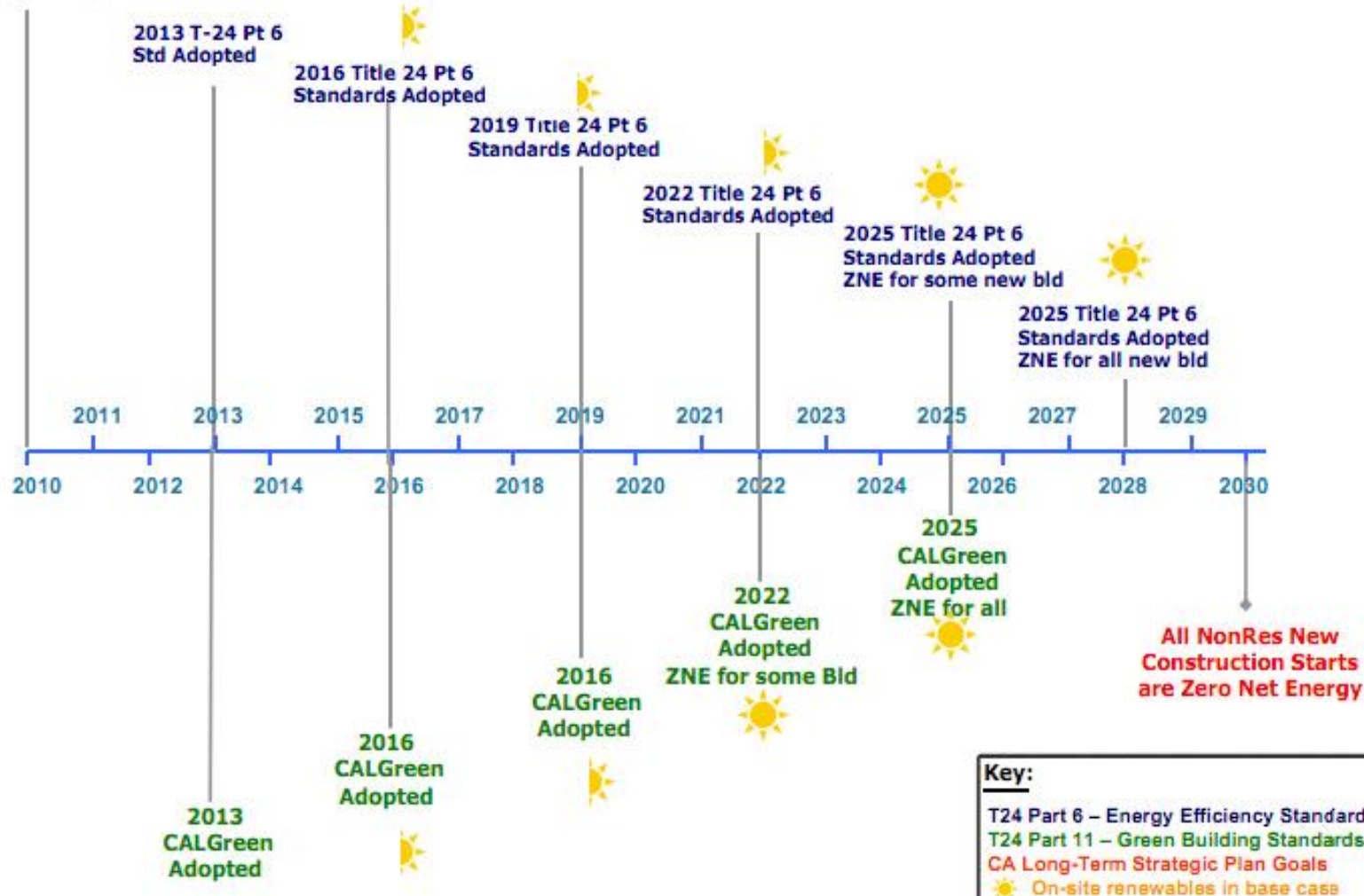
# Net Zero Energy

## SOLAR ELECTRIC & SOLAR THERMAL



# Title 24 Path to Net Zero – Nonresidential Building Standards

2008 Title 24 part 6  
Standards in Effect







#### **EnvelopeFirst™**

*The first step to Net-Zero Energy Buildings. Insulation is the most improvement for the least cost.*



#### **Energy Efficiency Measures (EEMs)**

*Optimised building services and controls.*



#### **Insulate & Generate**

*EnvelopeFirst™ + EEMs + Integrated Renewable Technologies.*



#### **Net-Zero Energy Buildings**

*Highly energy efficient buildings that are energy neutral over the course of a year.*





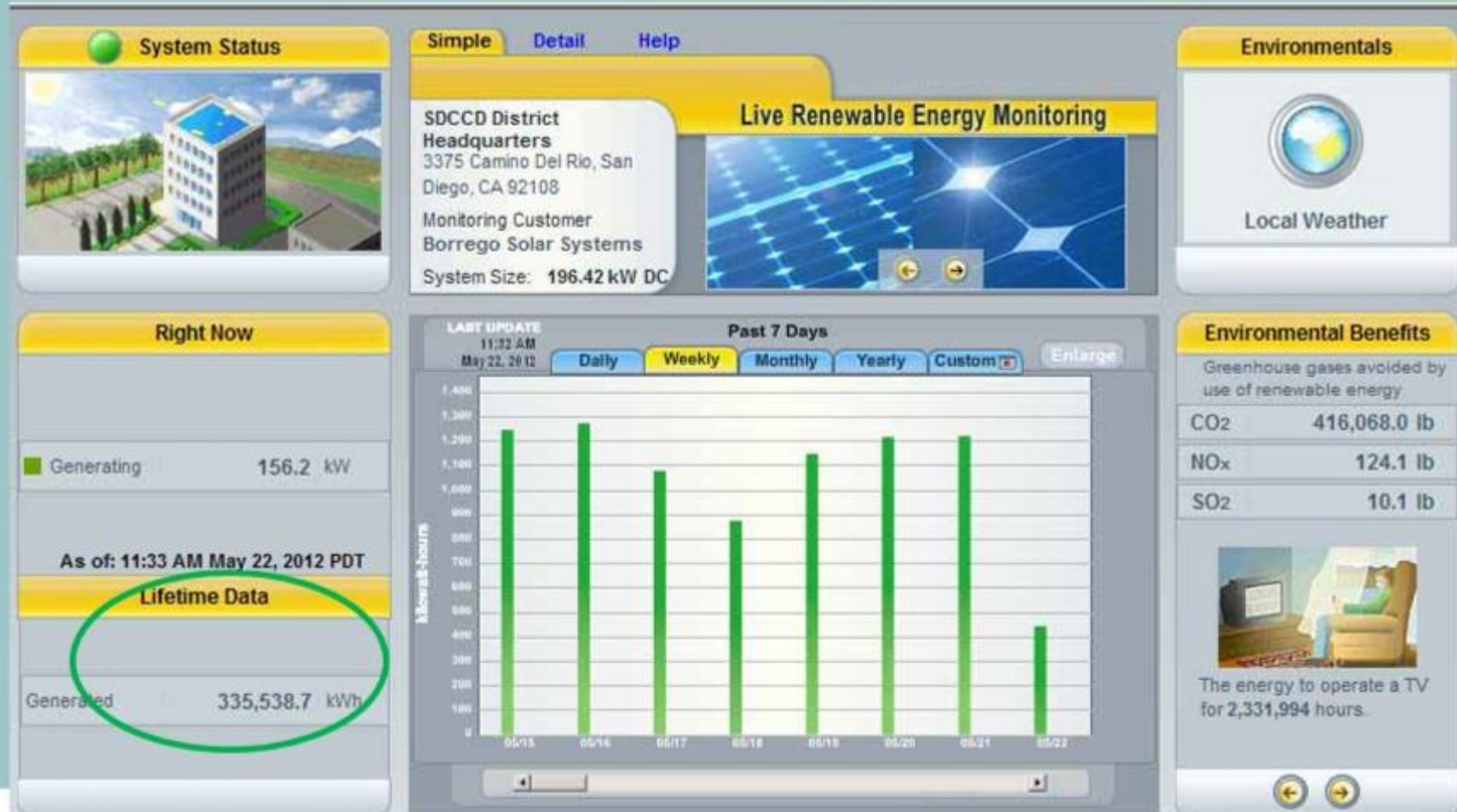






# Solar PV Power Production Dashboards

## SDCCD District Headquarters







# SAN DIEGO COMMUNITY COLLEGE DISTRICT

CITY COLLEGE • MESA COLLEGE • MIRAMAR COLLEGE • CONTINUING EDUCATION



District

Trends

Device Status

City College

Mesa College

Miramar College

District

Energy Performance



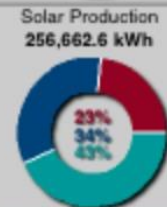
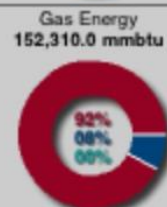
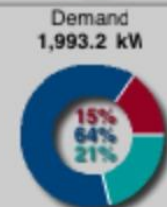
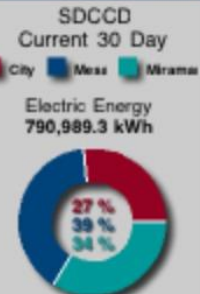
San Diego City College



San Diego Mesa College

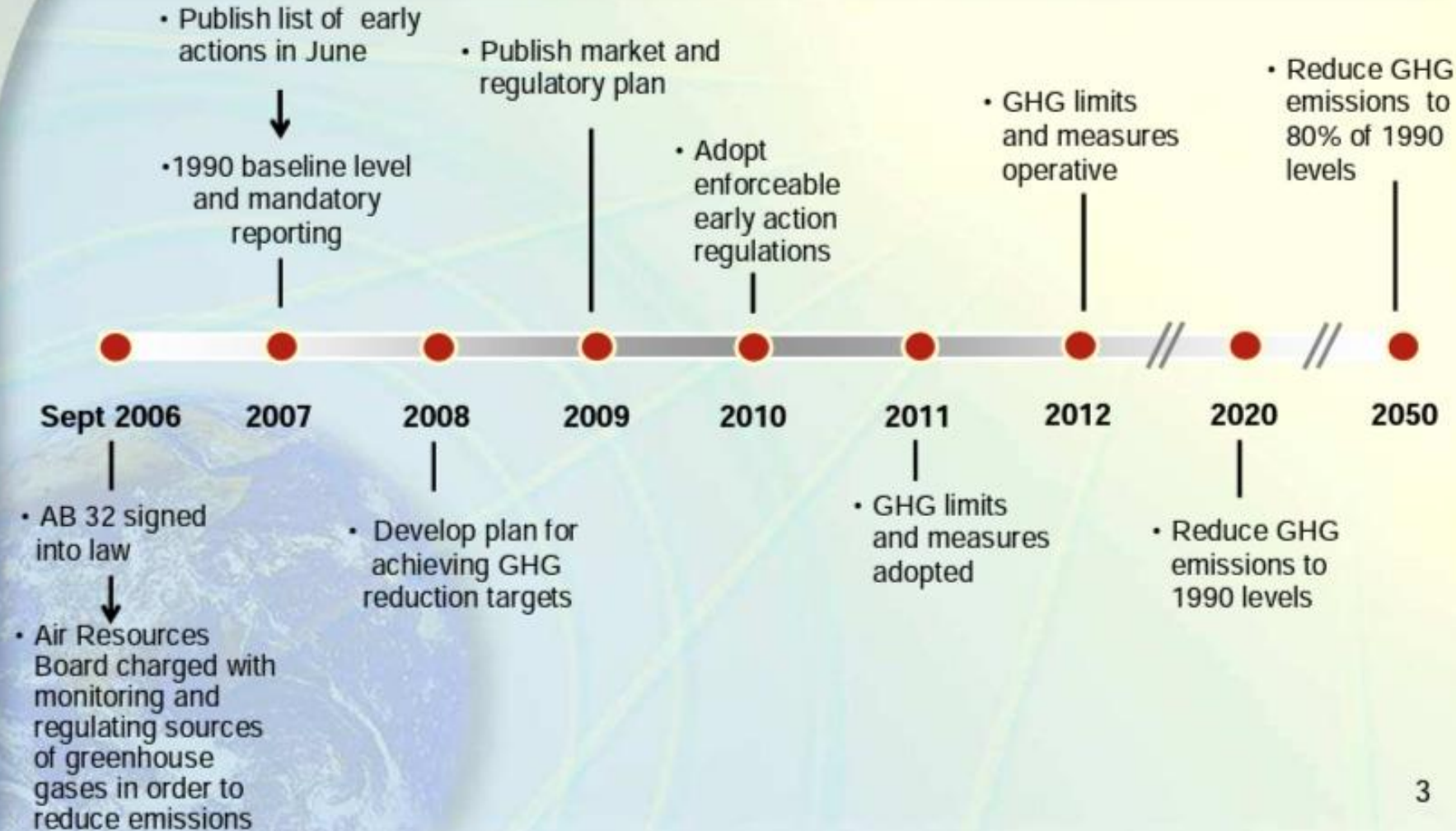


San Diego Miramar College



# Overview of AB 32

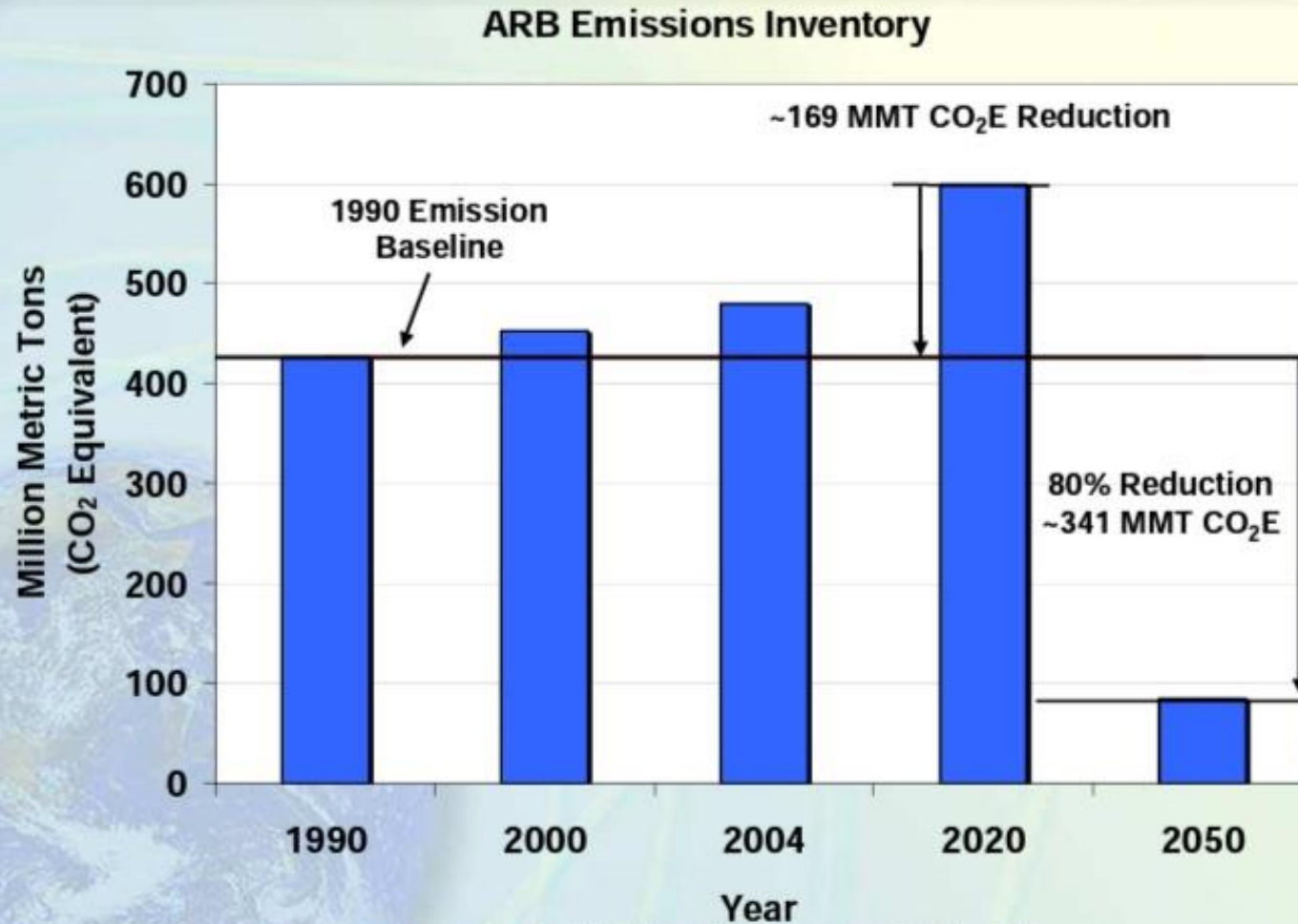
## California Global Warming Solutions Act





# Magnitude of the Challenge

## California's GHG Reduction Targets



Source: California Air Resources Board



# Green Building Strategy

## Solution for Cross-Sector GHG Reductions

- Green Building Achieves GHG Emission Reductions from Multiple Sectors
  - Transportation, Energy, Waste, and Water Sectors
- Offers Increased Public Health Benefits
  - Due to Improved Indoor Air Quality
- Scoping Plan Goals to Reduce GHG Emissions
  - New Construction
    - Green Building Standards Code
    - Beyond Code: Local Government Goals to Exceed Standards
  - Existing Building Retrofits
- Represents 15% of the AB 32 2020 Target

# Sustainability Plan Outline

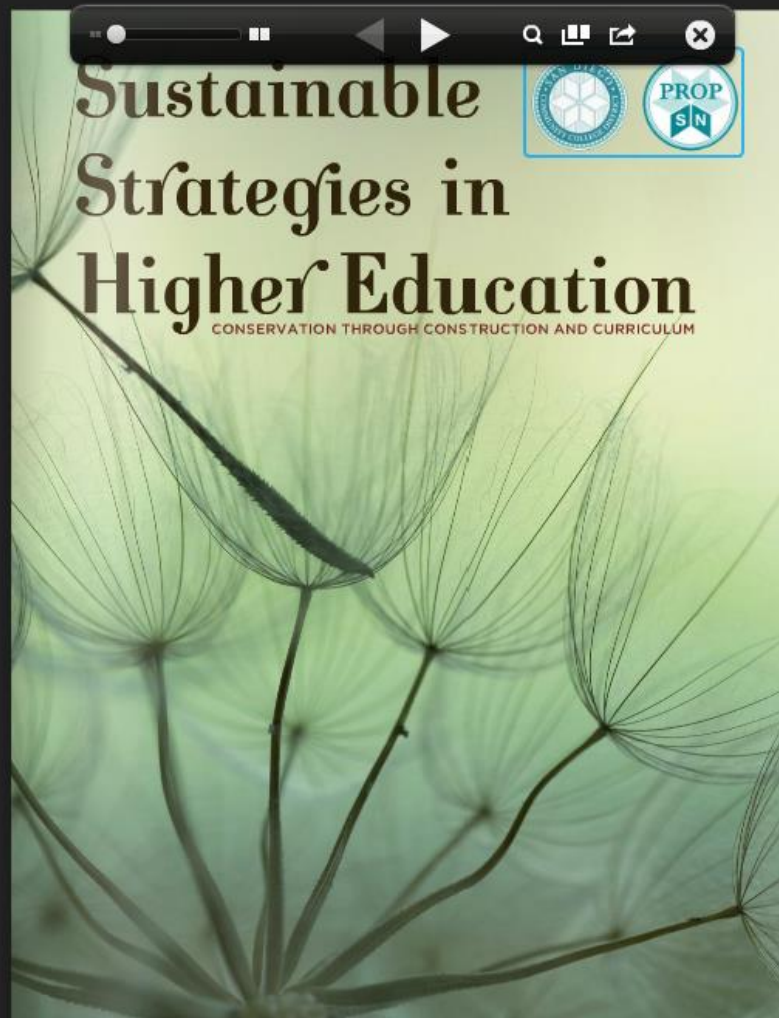
- Reduce, Reuse, Recycle
- Smart Metering
- Increased Energy Efficiency
- Reduced Water Usage
- Reduced Storm Water Impacts
- Production of Renewable Energy (Solar)
- Greenhouse Gas Reduction

# Moorpark College

## Your Opportunity for Input







issuu

<http://issuu.com/sdccd/docs/sustainabilityreport?e=6723145/3387280>