



Outdoors in Orange County

Creating a Sustainable OC

By Melanie Schlotterbeck

Creativity. Resourcefulness. Ingenuity. Leadership. These are some of the important qualities local and regional decision makers will need to possess as we strive to achieve a more sustainable region. Legislation passed at the state level requires a more sustainable approach to how we develop and redevelop our cities.

A sustainable society relates to a lifestyle involving the use of sustainable methods. In short, it describes the ways in which we can improve our lives while at the same time ensuring we as a society and planet endure with enough resources.

In 2009 Senate Bill 375, also known as the Sustainable Communities Act, was passed by the California Legislature and signed into law by Governor Schwarzenegger. This bill finally unites decisions about the most important aspects of our built landscapes, including: transportation, housing, and land use. This bill has the power to transform our urban cities into attractive, livable neighborhoods. This means less time in traffic, more time with our families, less money going to fuel our cars, more options to get from point A to point B without hopping into a car.

The California Air Resources Board has established targets to reduce our vehicle miles travelled and therefore the smog and carbon dioxide (emissions) that come from our cars and that pollute the air we breathe. These targets will help lead the way to a cleaner, healthier, more sustainable state. Each region of the state was given two targets. The

first is the percentage of emissions to be reduced by 2020, while the second is the 2035 goal. Southern California's targets are 8% and 13%. In order to meet these goals, we can no longer build poorly planned developments far from transit stations and job centers. Instead, we need to build more efficient and effective communities that keep things close together and allow us to use our cars less.

With these ambitious but achievable targets, Orange County will be able to meet the housing needs of future Californians while protecting our clean air and water. Taking abandoned properties in urban areas and transforming them into convenient, attractive neighborhoods will provide the next generation of Californians with great places to live, work, recreate, and raise their own families. Sustainable communities will now meet this growing demand for walkable neighborhoods located closer to jobs, schools, and parks.

Though some leaders are cynical about how this can be achieved, others believe this is a huge opportunity to showcase how creative we can be if we put our minds to it.

When have we, as a society, ever backed down from a challenge? We harnessed electricity. We created the world's first national park system. We found a vaccine for polio. We got a man on the moon. We just helped save 33 miners stuck a half mile below the surface of the Earth!

We can do this - and in the process - we can show ourselves and the world what we are capable of.

Orange County Green Building Council

The U.S. Green Building Council (USGBC) is on a mission to transform the way we build in a single generation. Over the past ten years, USGBC's Leadership in Energy and Environmental Design (LEED) rating system has successfully taken the idea of building green from a niche market toward a mainstream international movement. Most people now realize the benefits of green buildings...employees working in green offices produce more and are absent less; kids in green schools have higher test scores; green homes are better constructed and healthier for their inhabitants.

USGBC's Orange County Chapter has 450 members, over 4,000 affiliates. Our members are actively shaping a more sustainable Orange County. In 2011, we will "green" a public school; mentor OC residents seeking green job skills; and educate commercial building owners and tenants about environmental mandates and the bottom-line benefits of leasing 'green.'

USGBC Orange County is changing lives, one building at a time. We sincerely hope you will join us!

Contact us at info@usgbc-oc.org or 714-832-3616.



Nature Scene Investigators

By: Alex Koeberle

Early in my junior year of high school, I tentatively raised my hand to become project lead for a service-learning project that was vaguely described to me as “essentially creating scavenger hunts in local parks” by representatives of an environmental education and service group, Inside the Outdoors. My former high school, Sage Hill School, has melded service learning into the school curriculum and has students partake in projects ranging from cleaning up local beaches to avocado gleaning.

Determined to find a project that I would be passionate about, I jumped at the chance to do something with the outdoors. Four other students joined me and along with our faculty advisor we began with no idea where our efforts would lead us as this project was far more elaborate than simply picking up trash or packing food into boxes. Almost two years later, NSI (Nature Scene Investigators) has blossomed into a program that has been implemented in 11 Orange County parks and is complete with guide books, rubbing posts, a website, and prizes.

Being involved in the development of this program from day one has been an incredibly gratifying experience and given me valuable knowledge of how the real world functions.

Engaging with groups like OC Parks, Orange County Health Agency, OC Libraries, Latino Health Access, Friends of Harbors, Beaches, and Parks, and REI, and harnessing all these different groups’ help was instrumental to our success. Coordinating efforts between these groups gave me great insight into bureaucracy and how non-profits and government agencies function.

The most important lesson I learned is that the key to any project’s success - in service, business, or anything else - is passion about what you are doing and willingness to see the project to success.

Learn more at: <http://www.getoutdoorsoc.com/nsi.php>



Inside the Outdoors

OC Parks Sustainability Practices

By: Mark Denny, OC Parks

OC Parks’ already-green parks are becoming even more green.

Parks staff are working on and implementing plans for sustainable park management and design. Things like drought-tolerant plants, increased recycling, and high-tech irrigation are helping to ensure OC Parks long remain places of recreation and enduring value.

In an effort to decrease waste that ends up in landfills and increase recycling efforts and awareness with its 11 million annual park visitors, in 2010 OC Parks partnered with OC Waste & Recycling to create a recycling program.

Through a grant, OC Waste & Recycling purchased 85 new recycling bins designed by OC Parks and made from

100% recycled materials. OC Parks more than doubled the total number of recycling bins in its facilities from 79 to 164. The number of facilities recycling tripled, from seven to 22 facilities.

OC Parks is also using cutting-edge technology to keep the signature turf areas of its regional parks lush and green while remaining water-wise.

Craig Regional Park in 2009 installed a system called AquaPhyD, which increases the efficiency of water absorption, thus decreasing the amount of water used. It treats the water before it is sent to the grass, changing its molecular structure. The treated water percolates into the soil deeper and reduces salt accumulation in the soil, lessening soil compaction.

“The system produced an annual water bill savings of \$20,000 compared to the park’s average water bills the previous three years,” North Parks District Supervisor Steve Bonhall said.

This year, Mile Square Regional Park installed 25 Smart Irrigation clock controllers. The new system uses a wireless sensor to measure temperature and humidity, then sends that data to the irrigation clock. Watering time and amount is automatically adjusted according to the readings.

OC Parks is also ordering hybrid vehicles, when appropriate, for its fleet. And design projects are incorporating green building practices, like using drought-tolerant plants, low-flow toilets and architectural features that reduce the need for electricity.

We have much more to do in accomplishing our mission of stewardship going forward. We appreciate any feedback or ideas on our sustainability programs. Please contact me at Mark.Denny@ocparks.com.



OC Parks



OC Parks

What is a LEED Building or Project?

By: Kim Stuart, Stuart Architecture

The U.S. Green Building Council (USGBC) is a 501(c)3 non-profit organization “committed to a prosperous and sustainable future for our nation...” with a mission “to transform the way buildings and communities are designed, built and operated...” (USGBC website).

Rising from the USGBC’s Guiding Principles is a program called Leadership in Energy and Environmental Design (LEED). LEED is an internationally recognized certification system that verifies a building project or neighborhood development was designed using green principles and strategies. Participation by an organization in the LEED certification process is voluntary.

Project team members are credentialed through the Green Building Certification Institute (GBCI) as a qualifying requirement to apply for LEED certification for a building/project. The process is detailed and rigorous, calling forth leadership in innovation and environmental stewardship. The very nature of the process facilitates integrating a whole-building approach with a sustainable building site approach.

Key components of a sustainable project site that LEED measures include: Sustainable Site, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, Locations & Linkages, Awareness & Education, Innovation in Design, and Regional Priority.

Key components of a whole building approach that LEED measures include: Structural, glazing, and sealing systems, mechanical, electrical, and plumbing systems, among many others.

The goal of LEED certifying a building or neighborhood development project is to realize measurable improvements in



energy and water efficiency, reduced CO₂ emissions, improved indoor environmental quality, and resource stewardship, over a non LEED certified project. The application process and certification establishes the framework for tracking and documenting the project’s lifecycle from design, through construction, operations, and maintenance.

Building or project certification occurs through a network of ISO-compliant, international, certifying bodies via the GBCI. The rating systems can apply to all types of buildings - our homes, schools, health care facilities, shopping areas, office buildings, industrial buildings, hospitality, and recreation facilities. A project can achieve LEED certification at the Silver, Gold, or Platinum level, inspiring and leading the way for the next projects.

LEED certification is a comprehensive program with many facets, worthy of better understanding. Information about the numerous LEED certified projects in Orange County with contacts can be found at www.usgbc.org/LEED.

The Environmental Nature Center - A LEED Platinum Building

By: Bo Glover, Environmental Nature Center

The Environmental Nature Center’s (ENC) 8,500 square foot learning center is Orange County’s first building to achieve LEED Platinum Certification by the U.S. Green Building Council. Visitors see examples of natural ventilation, renewable and recycled materials, reduced water usage, and on-site energy production in the form of solar and wind energy. Other sustainable features include light pollution reduction, recycling, composting, and even green housekeeping methods. Below are some of the building’s green features:

- With a 42 kilowatt solar panel array and wind turbine, the ENC produces more energy than it utilizes.
- The use of natural ventilation has eliminated the need for air conditioning.
- The use of low-emitting materials ensure the release of less harmful indoor air contaminants.
- The use of a white-colored roof and light-colored concrete decrease the impact of heat island effect.
- Over 82% of the construction waste was recycled and diverted from landfills.



- Bike racks, special parking spots for low emission vehicles and on-site showers encourage greener transportation.
- The building has waterless urinals, dual-flush toilets and low-flow fixtures saving an estimated 15,000 gallons of potable water a year.
- The building insulation is composed of 85% recycled denim blue jeans and 15% cotton fibers that are rapidly renewable resources.

Visit us on the web at: www.ENCcenter.org.

Birds of a feather...

Be a part of Friends of Harbors, Beaches & Parks.

Help our practical, realistic projects make Orange County a better home for all of us.

Your help, large or small, is deeply appreciated.



Friends of Harbors, Beaches & Parks
P.O. Box 9256
Newport Beach, CA 92658

Yes! I want to help Friends of Harbors, Beaches & Parks.

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Measure M Restoration Projects

By: Melanie Schlotterbeck

In September, the Environmental Oversight Committee, T2020 Committee, and full Orange County Transportation Authority (OCTA) board approved six preliminary and three contingency projects to move forward with restoration funding from the environmental mitigation program provided for under Renewed Measure M. The restoration list represents a variety of watersheds and a variety of habitat types and their implementation will help meet mitigation requirements for some of the 13 freeway projects throughout Orange County. To receive funding, project sponsors must create a Restoration Plan.

The primary projects include:

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|-----------|--|
| \$100,000 | Pelanconi Park (Anaheim) |
| \$87,500 | Big Bend (Laguna Beach) |
| \$1.5M | City Parcel (San Juan Capistrano)* |
| \$2.0M | Fairview Park (Costa Mesa)* |
| \$1.5M | Irvine Ranch (Bee Flat Canyon and Agua Chinon) |
| \$325,000 | UCI Ecological Reserve (Irvine)* |

The contingency projects include:

- | | |
|-----------|---------------------------------------|
| \$2.0M | Chino Hills State Park (Yorba Linda)* |
| \$1.5M | Irvine Ranch (Loma Ridge) |
| \$350,000 | Upper Buck Gully (Newport Beach)* |

* supported by the Measure M Environmental Coalition.

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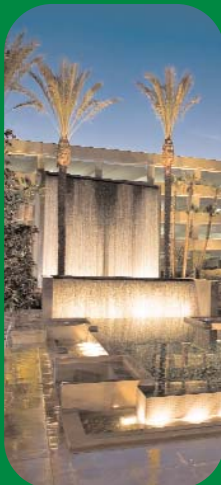
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Green City Initiative Begins in Aliso Viejo

The City of Aliso Viejo has begun work on its Green City Initiative, which will provide the City with a policy and implementation framework to reduce greenhouse gas emissions (GHG) in all development sectors within the City. The Initiative will contain calculations, reduction targets, goals, policies, and implementation measures related to GHG reductions, strategies for adapting to climate change, and a monitoring program to document progress toward achieving target reductions. Residents and business owners in the Aliso Viejo community will be involved during the entire Initiative. The Initiative's first Public Workshop is Thursday, December 9 at 7:00 PM at the Aliso Viejo Conference Center.



CBRE Building, LEED Silver

Visit: www.CityOfAlisoViejo.com

Creating a Zero Waste World

Most of us recycle our bottles and cans - yet our landfills are filling up, oceans are drowning in plastics, and our resources are running out. The challenge is to get beyond recycling to the wonderful "R's" - Rethink, Repair, Reuse, Return, Reduce, and Re-Earth (composting). Buying recycled, closes the loop by creating demand of the recycled materials. A zero waste economy and society is where no waste goes to landfill, incinerator or the environment. A big goal which might seem impossible, yet nature does it everyday... as one's waste is turned into food, shelter or new soil for another. So take the first step on your journey for zero waste by practicing a new "R" everyday!



A Compost Bin

Visit: www.EarthResource.org

Reducing Your Carbon Footprint

Resources are bountiful - now it's easier than ever to find green finish materials, products, and services for residential projects of all kinds. Builders and individuals alike are benefitting from the incentive programs offered from a variety of sources that make pay back on your green investment easier to swallow. Whether your project is a new ground-up custom home, a small remodel, or just new energy efficient appliances -- there are plenty of ways to reduce energy consumption and save money. In fact, local governments are embracing new energy laws, updating ordinances and lists of approvable materials and methods to make your green home easier to achieve while leaving a smaller footprint.



Incentives for Greening Your Home

Visit: www.EnergyStar.gov

Glumac - The Office of the Future

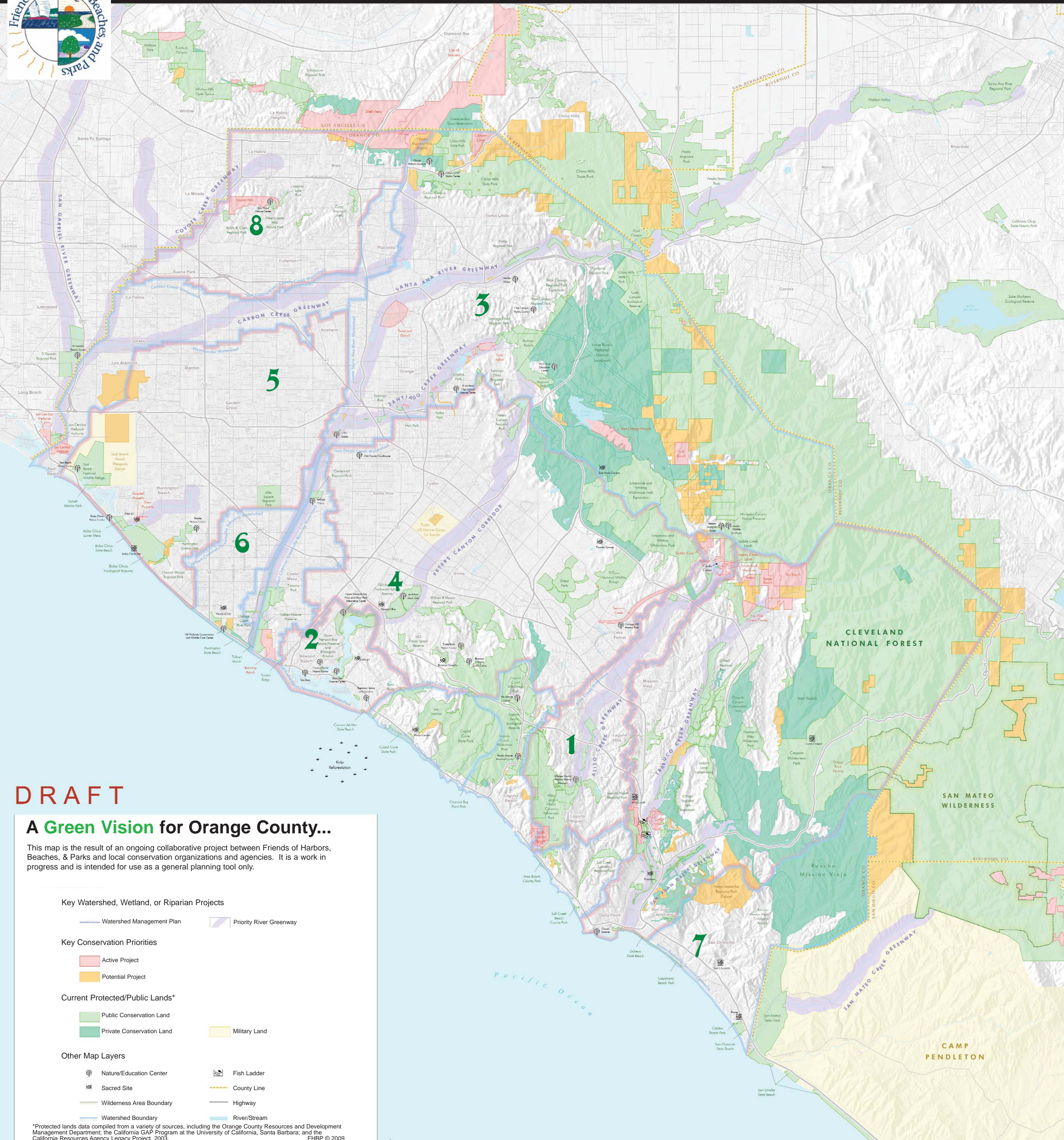
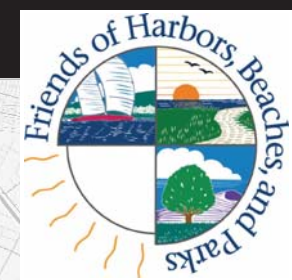
Southern California Edison has bestowed an "Office of the Future" recognition on the Glumac Orange County Office because of the site's innovative MEP (Mechanical, Electrical, and Plumbing) design. The Office of the Future program allows public utilities to experiment with and study new technologies, create energy efficient office spaces, and promote these technologies to others. The new Glumac office has been recognized as the program's first such space in the country, gaining this recognition because of the lighting, along with the temperature controls, and monitoring capabilities. Glumac hopes to promote these technologies to its client and landlord friends to improve energy efficiency in other spaces locally and nationally.



Glumac OC Office

Visit: www.NewBuildings.org

Orange County



DRAFT

A Green Vision for Orange County...

This map is the result of an ongoing collaborative project between Friends of Harbors, Beaches, & Parks and local conservation organizations and agencies. It is a work in progress and is intended for use as a general planning tool only.

- Key Watershed, Wetland, or Riparian Projects**
 - Watershed Management Plan
 - Priority River Greenway
- Key Conservation Priorities**
 - Active Project
 - Potential Project
- Current Protected/Public Lands***
 - Public Conservation Land
 - Private Conservation Land
 - Military Land
- Other Map Layers**
 - Nature/Education Center
 - Sacred Site
 - Wilderness Area Boundary
 - Watershed Boundary
 - Fish Ladder
 - County Line
 - Highway
 - River/Stream

*Protected lands data compiled from a variety of sources, including the Orange County Resources and Development Management Department; the California GAP Program at the University of California, Santa Barbara; and the California Resources Agency Legacy Project, 2003. FHBP © 2009

Green Vision Map

Greening Transportation

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Bus Stop in OC

From transit operations to administrative services, OCTA's going green initiatives follow the three basic principles of sustainability - reduce, reuse, and recycle. OCTA has reduced energy and water usage including reducing the number of times buses are washed per week, installing solar panels at bus stops, replacing landscaping with water wise materials, and using energy efficient lighting fixtures throughout the agency. OCTA has converted 95% of their bus fleet to compressed natural gas (CNG) and liquefied natural gas (LNG), which helps reduce air emissions and the need for higher polluting fuels. OCTA is one of the nation's largest transit agencies with a clean air fleet.

Visit: www.OCTA.net

Fountain Valley's First Solar Home

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Solar Panels Above the Garage

Installed in 2001, the Pachecos installed a solar array and chose to tie it to the grid. The sizing of the array was critical since power usage is based on a 1-year period and excess power is donated to the power company. To size the array they tracked their power usage from past bills. They eliminated items not needed (such as a freezer) and replaced appliances, light bulbs, and electronics with more energy efficient products. They also keep vampire lights off, and control lighting and temperature with energy efficient windows, skylights, and solo tubes. With these changes their 1500 watt solar array yearly electrical bill averages just ~\$50. The Pachecos was the first solar permit issued by the City of Fountain Valley.

Turning Construction Green

7



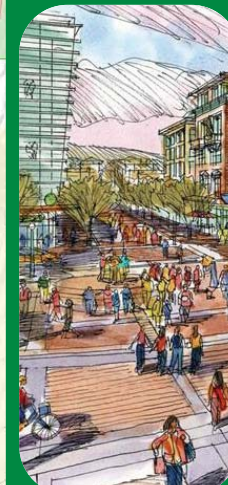
Recycled Salt Tiles

Construction and demolition (C&D) materials account for a large part of the waste ending up in landfills. Materials, such as drywall, carpet, metal, glass, concrete and lumber, can usually be recycled. California laws along with local jurisdictions are achieving reductions and greater diversions of construction waste going to our landfills. City and County ordinances, policies, guidelines and the like, along with the Construction Specifications Institute (CSI) are available and offer information and resources. Information regarding the handling and installation of materials as well as cleanup of the project area can be found there too. Maybe your project qualifies for some funding programs.

Visit: www.CalRecycle.ca.gov

Fullerton's Sustainable General Plan

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Fullerton Plaza

The Fullerton General Plan is currently in the process of being updated and is organized into four parts (Built Environment, Economy, Natural Environment, and Community), which include 21 chapters and a Climate Action Plan. To achieve sustainable economic, environmental, and community outcomes within the context of the built environment, all policies and actions were prepared to address regional, citywide, neighborhood, and project levels and must affirmatively answer the following question: "Is the policy or action supportive of or neutral to realizing a sustainable built environment, natural environment, community, and economy?" Plan adoption is anticipated by mid-2011.

Visit: www.ci.Fullerton.ca.us