

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



education consulting design community



www.greengardensgroup.com



October 2011

EPA Watersmart Innovations 2011

**A COMMUNITY APPROACH TO
LANDSCAPE BEHAVIORAL CHANGE**

We Want To Affect Profound Behavioral Change



So Do Our Partners Like Surfrider Foundation



A **grassroots** environmental organization dedicated to the protection and enjoyment of oceans, waves and beaches through a powerful **activist network**.

You Probably Know About Surfrider

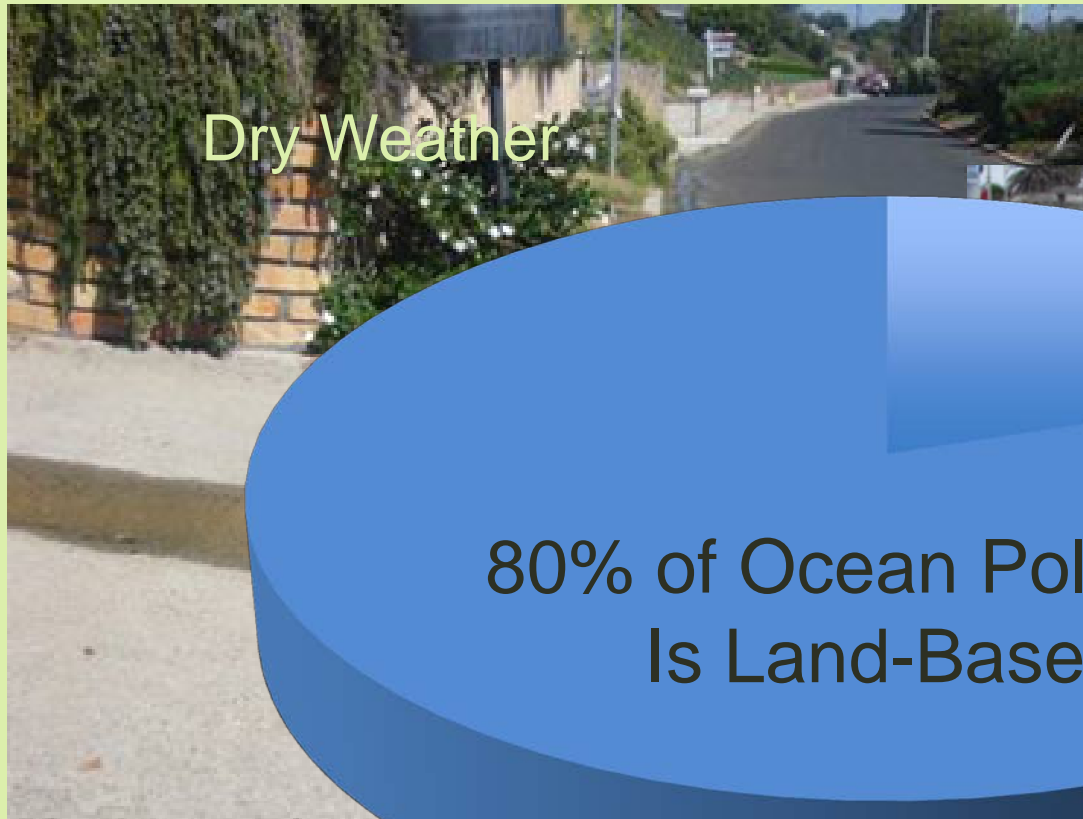


From Beach Cleanups

Cool Campaigns



And Activism Surrounding Ocean & Beach Health



Something More Than Cleanup and Testing Is Needed



Image courtesy of Heal the Bay



We Want You To Be Confident, Engaged, Empowered!

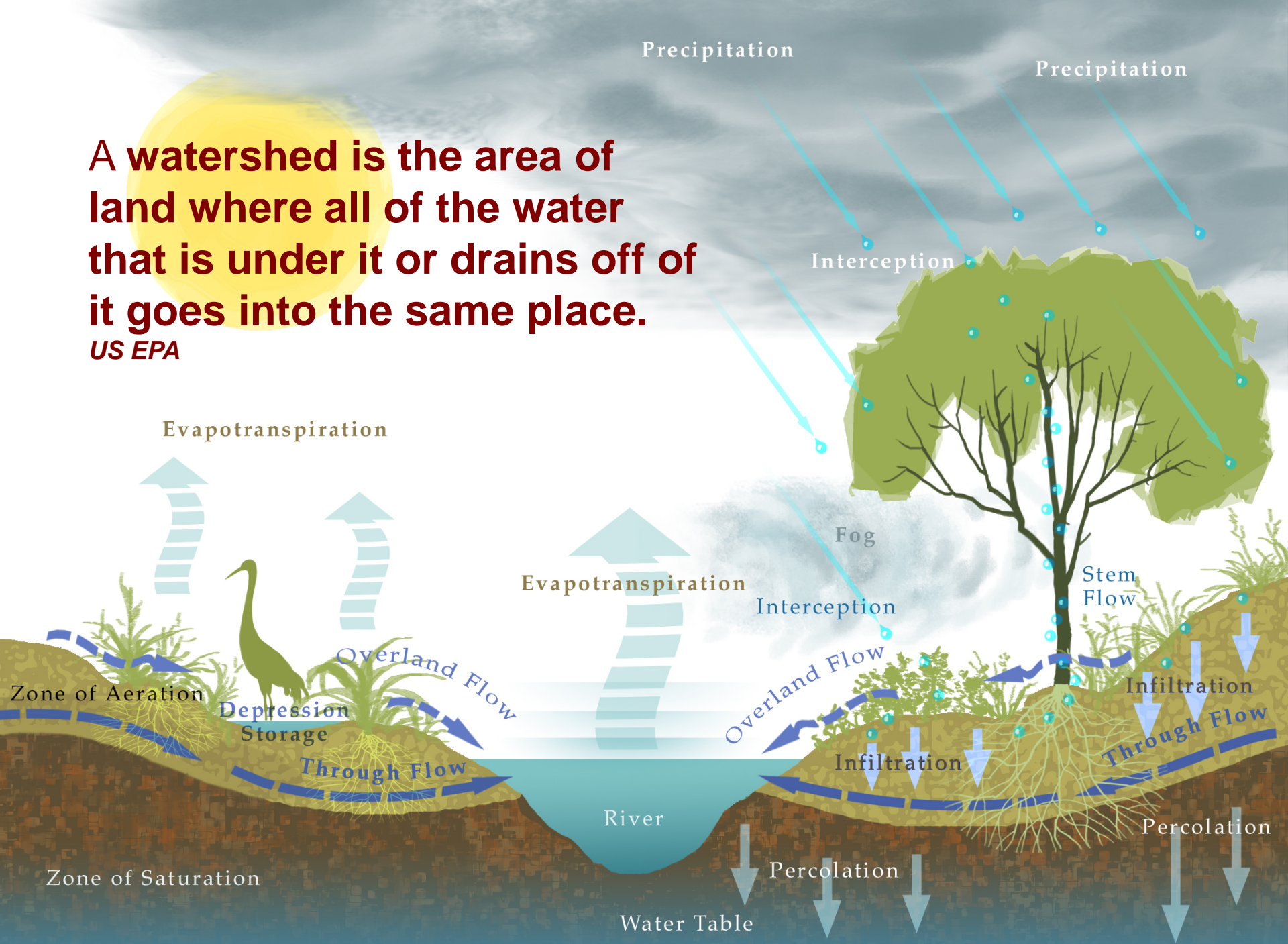


So We Developed This Program



A watershed is the area of land where all of the water that is under it or drains off of it goes into the same place.

US EPA



Even Though You're Here Today



A satellite map showing a landscape with a mix of urban, agricultural, and natural features. A red pin with the letter 'A' is placed on a road in the center-left. A thin black line follows the road from the pin towards the bottom of the frame. The top of the image shows a city area with buildings and green spaces. The bottom shows a more rural, hilly area with some vegetation. The text 'You're Part of A Watershed' is at the top, and 'Your Landscape Choices Affect That Watershed' is at the bottom.

You're Part of A Watershed

Your Landscape Choices Affect That Watershed

Start Thinking of Your Property As **A Mini-Watershed**

Conservation

Permeability

Retention

Apply OFG Principles of C.P.R. To Revive
Waterways

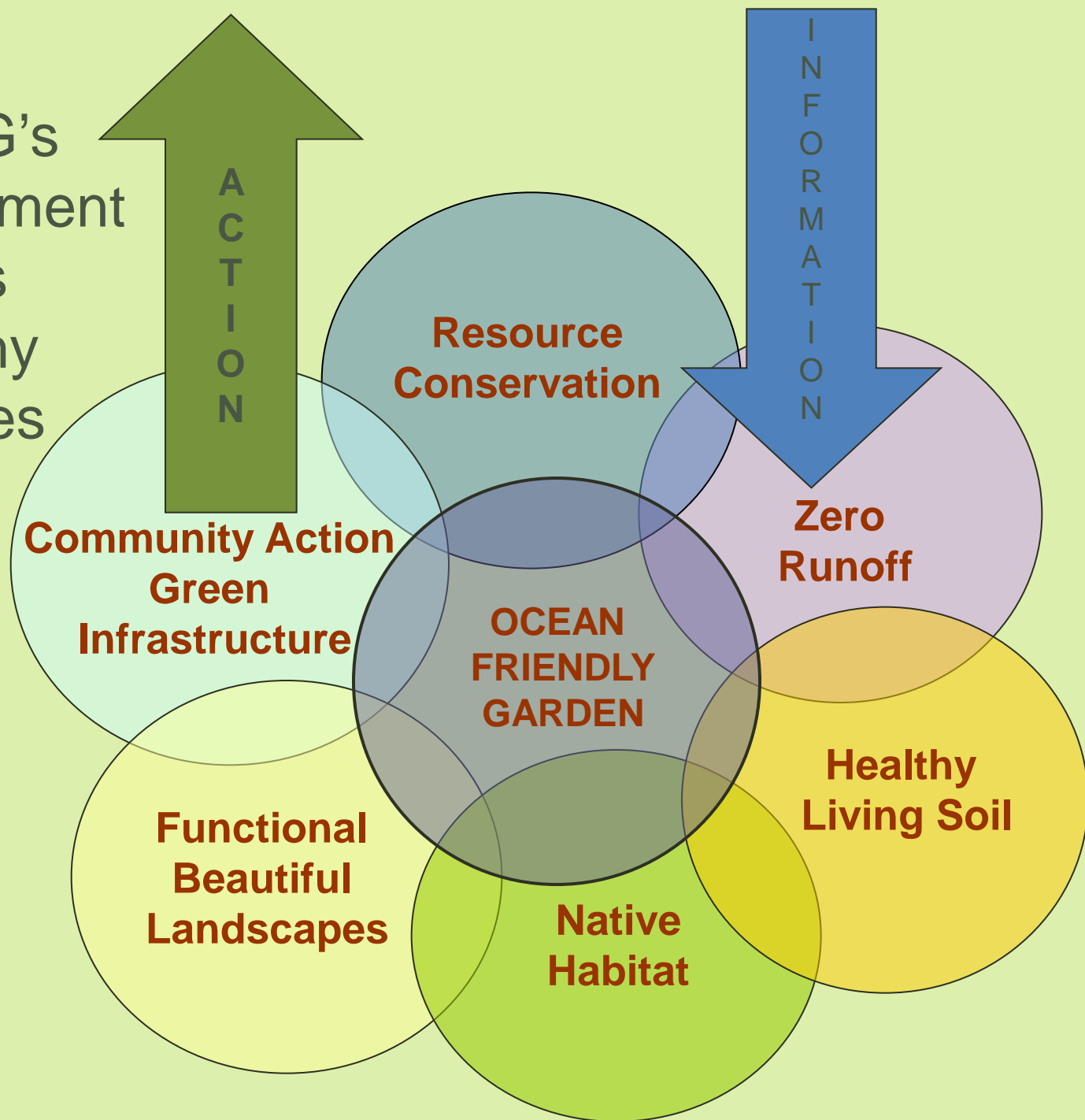


C.P.R. Applies Whether You Live At The Beach...

Or Not.

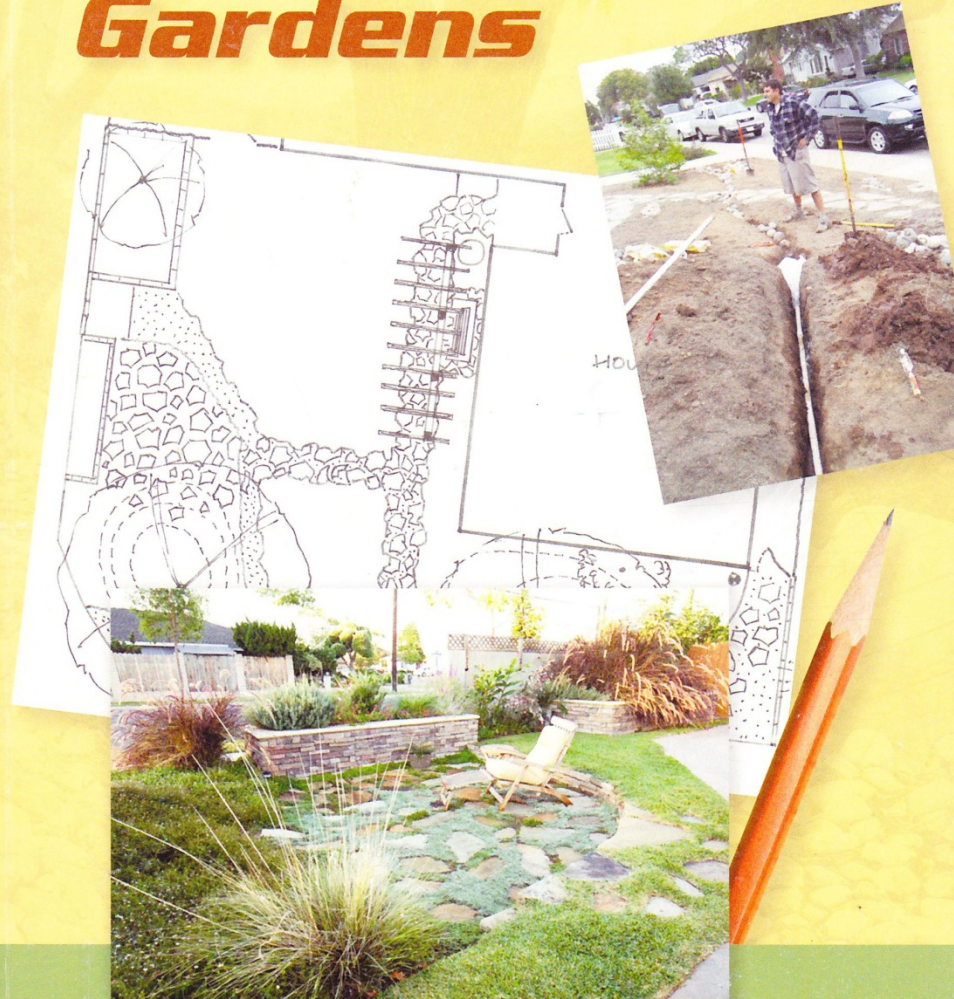


Utilize OFG's
Best Management
Practices
For Healthy
Landscapes



Ocean Friendly Gardens

And Implement
The Program



**A How-To Gardening Guide to Help
Restore a Healthy Coast and Ocean**

DOUGLAS KENT / EDITED BY JOE GEEVER

SURFRIDER FOUNDATION

http://www.surfrider.org/programs/entry/ocean-friendly-gardens

Reader

surfrider

G3, The Gre... Landscapes G3, The Gree...p: Projects StateScape - Home Santa Monica How To « WordPress.tv Edit Wordpress Apple Yahoo! Google Maps YouTube Wikipedia

Ocean Friendly Gardens | Surfride...

Protecting Oceans, Waves and Beaches since 1984


MY ACCOUNT

SIGN UP FOR OUR WEEKLY SOUP NEWSLETTER!


email zip code SIGN UP

MISSION CAMPAIGNS PROGRAMS CHAPTERS CURRENTS STORE TAKE ACTION JOIN!

Programs Home

 **OCEAN FRIENDLY GARDENS**

Intro Resources Blog Contact



What does a garden have to do with the ocean?

Urban runoff is often the primary source of ocean pollution. But where does it come from? Gardens and adjacent hardscape like driveways can be a major source: pesticides and herbicides, synthetic fertilizers, sediment, oil and brake pad dust, dog poo, etc. It can run off the property during rain storms and during dry periods with sprinklers overwatering and overshooting the landscape. The use of gas-powered equipment to mow lawns, prune and haul away over-planted vegetation also contribute to air pollution - which eventually settles into water bodies.

TAKE ACTION

Join a Chapter Today

Surfrider Foundation chapter are all volunteer run. Check out the chapter near you and get involved in fun and meaningful ways to protect our...

GET INVOLVED

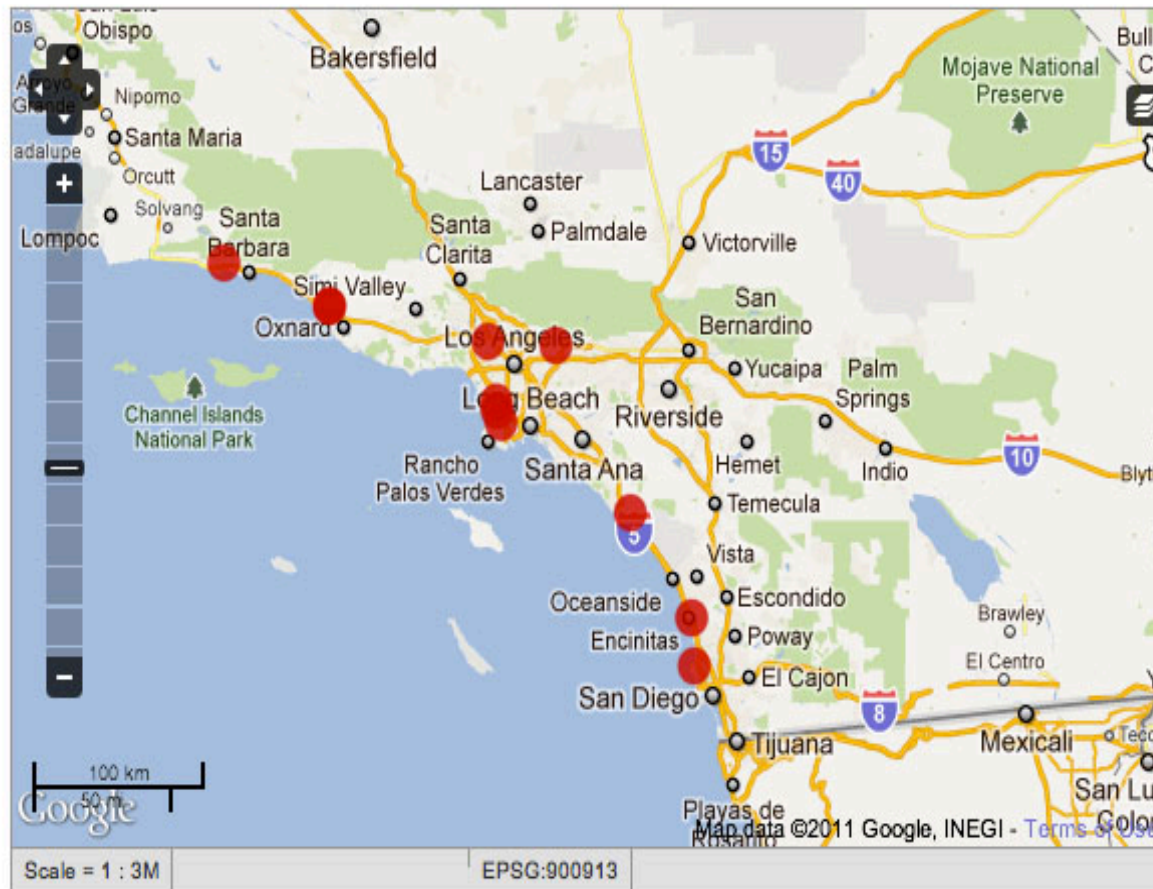
[Visit the Action Center](#)

www.oceanfriendlygardens.org

An Ocean Friendly Garden (OFG) is a garden that applies CPR – Conservation, Permeability, and Retention – to revive the health of our watersheds and oceans. Please tell us about your yard. Click "Instructions" button to start.

FILTERS → **REPORTS** NEWS PICTURES VIDEO ALL

↓ CATEGORY FILTER [HIDE]



From: Feb 2011 to: Jul 2011

Play

ALL CATEGORIES

PERMEABILITY

CONSERVATION

RETENTION

How to Report

1. By sending an email to mrauscher@surfrider.org
2. By filling this form

We Track Ocean Friendly Gardens

And Give People
Yard Signs
When They Apply
C.P.R.



We Conduct OFG Classes By Partnering With Water Agencies (Conservation) & Cities (Retention)



Here's A West Basin MWD OFG Class In Hawthorne, CA

Where We Talk About Resource Conservation



And Build Awareness About Runoff



What Are The Impermeable Surfaces?

While The Internet And Social Media Play Important Roles In Getting Out The Word...



Volunteer Outreach Is The Backbone Of OFG



That Means Taking The Message To Where People Gather



Grocery Stores

Farmers' Markets



Creating a Person-to-Person Network



One small step for people.
One giant leap for the environment.

Conservation

Retention

Permeability

Community



Lawn Patrol

Lawn Patrol Neighborhood Walks are a part of Surfrider Foundation's Ocean Friendly Gardens (OFG) Program teaching people how to identify OFGs and inspiring them to implement C.P.R. (Conservation, Permeability, and Retention) in their own homes. Join us in YOUR neighborhood, as we scope out design elements in local gardens that conserve resources, capture rainwater, and prevent toxic runoff to local waterways and the ocean.

Visit our website at: www.oceanfriendlygardens.org.



To Raise Community
Awareness
We Developed
Lawn Patrol
Neighborhood Walks

Inviting Everyone To Scope Out OFGs In Their Hood



Lawn Patrols Are Educational, Social And FUN!



We Train Your Eyes

Poor Air Quality

No Shade

No Food Security

No Rainwater Harvesting

No Habitat

Green waste

Unused Landscape

Evaporation

Overspray

Compacted Soil

Impermeable Surfaces

**Wasted Resources &
Poor Quality of Life**

Runoff

We Look For Gardens That Are Ocean Friendly



And Educate About Gardens That Are Not

OCEAN FRIENDLY GARDENS PROGRAM FROM THE SURFRIDER FOUNDATION

LAWN PATROL STOPPED BY, AND WE LOVE YOUR GARDEN!



DATE: _____

TIME: _____

We toured your neighborhood, and noticed your garden has many features of an Ocean Friendly Garden which utilizes CPR:

<input type="checkbox"/> Conservation	Great LEED GOLD House!
<input type="checkbox"/> Permeability	
<input type="checkbox"/> Retention	

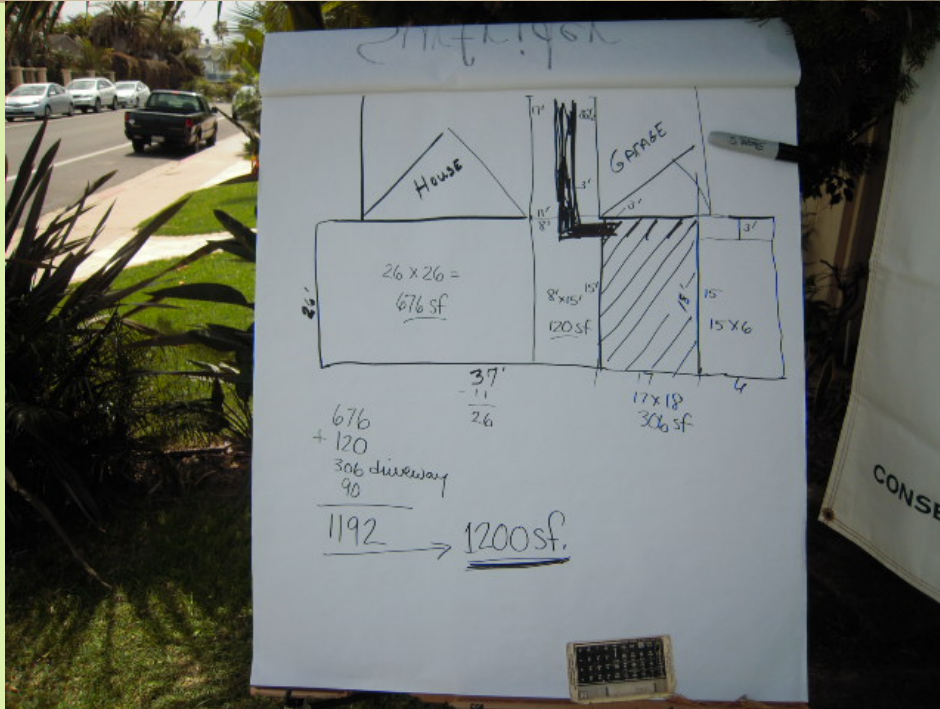
Comments:

Rainchain is connected to stormdrain. Why not redirect it into the landscape and reduce runoff? A Hands-on Workshop will show you HOW and build your confidence!

We Added Peer-to-Peer Neighborhood Based Learning



Hands-on Workshop (HOW)



Evaluate Your Site



Determine Actual Water Use



Professionals Lead And Help Group Analyze Data

Water Use Calculations

$$1 \times 748 \text{ gal.}$$

$$24 \times 748 = \underline{18,000} / \text{mo.}$$

$$1'' = .625 \text{ gal.}$$

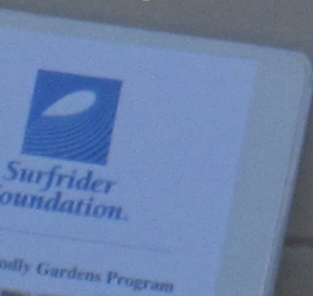
$$1'' \text{ on } 1000 = \underline{625} \text{ gal.}$$

1450sf. roof
 $\frac{1}{2}$ captured =

$$725 \text{sf} = \underline{450 \text{ gal/'' rain}}$$

$$11 \times 450 = \underline{4,950 \text{ gal.}}$$

Runoff Calculations

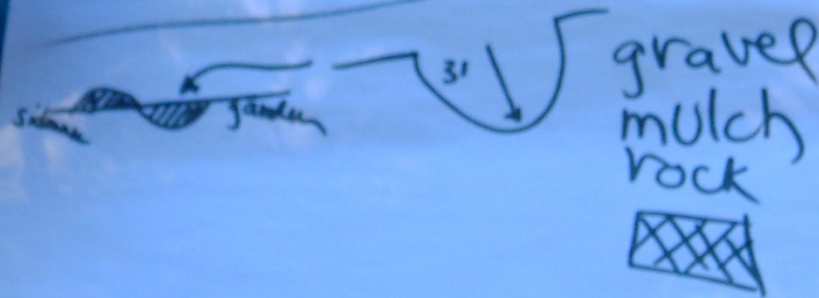
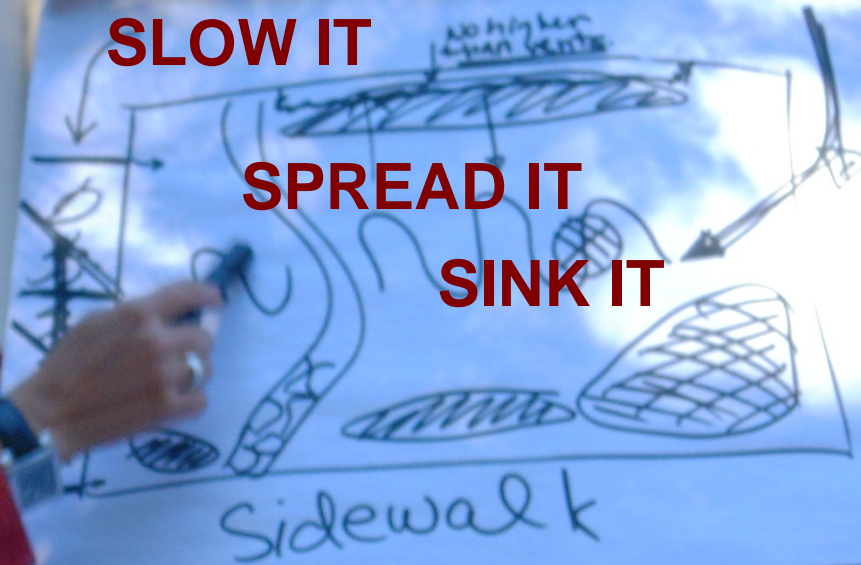


And Propose Design Solutions

SLOW IT

SPREAD IT

SINK IT



Then Homeowners Invite Family & Friends To Garden Raising



Surfrider Brings Media And Volunteers: GAP Workday





Building
Ocean Friendly Gardens

Homeowner Agrees To Spread The Word

G3 Associate Agrees To Follow The OFG Principles

Reduced Water Use by 90%
Zero Dry-Weather Runoff
Zero Wet-Weather Runoff



And The Next Lawn Patrol Starts With That OFG



Our City & Agency
Partners Facilitate
Grant-Funded OFG
Demonstration
Projects

West Basin MWD:
Edward C. Little
Water Recycling Facility



G3 Trains Professionals And Brings Them In As Associates





G3 Associates Become Our Teachers

generation
water

Leading Hands On Workshops (HOWs)

Gravelpave Grid Laid on Sandy Base



Where Professionals And Homeowners Get Practice



Our Certified Professionals Get Field Experience

Hands-On Builds Confidence



Building OFGs

Water Agency Agrees To Spread The Word



Reduced Water Use by 80%
Zero Dry-Weather Runoff
Greatly Reduced Wet-Weather Runoff



A high-angle photograph of a group of approximately 25 people, mostly men, gathered on a concrete surface. They are dressed in casual work clothes like t-shirts, polo shirts, and jeans. Many are holding tools such as shovels and rakes. In the foreground, there is a large, rectangular excavation pit filled with sand. A black tarp is partially covering the pit, and a white pipe is visible. To the right, a woman is carrying a large, dark, patterned bag. The scene appears to be a hands-on training exercise or a construction site demonstration.

People Learn Best
By Doing

This Guy Heard About The HOW At
The Hawthorne OFG Basics Class

Turns Out He's The Head Librarian In Hawthorne



Where Surfrider Is Also Conducting A GAP Workday



He Learns Many Skills
Including Sheet Mulching
To Remove Turf
Without Chemicals

And Sees That
The Kids
Are Learning Too





At This Guy's House

He Invites The Librarian In Lawndale To A GAP Workday



Where She Learns About OFG



And Sees How Much The Kids Are Learning Too

She Has An Idea For An OFG Demonstration Project

1,300 Sq. Ft. Lawn Behind the Lawndale Library



Together We Found
Some Funding
(Conservation &
Retention)



West Basin MWD, Metropolitan
Water District of Southern California,
Surfrider, G3, Local Businesses,
Teen Friends of the Library



This Guy Is Paying It Forward



To Conduct A
Site Evaluation HOW

This Guy Learns To
Build His Own OFG



Maintenance &
Stewardship HOW





Including These
Homeowners

The Garden Was
Built With Paid
Professionals And
Volunteers






The Lawndale OFG Became Reality

City And County Library Agree To Spread The Word



Reduced Water Use by 80%
Zero Dry-Weather Runoff
Zero Wet-Weather Runoff



- 
- ✓ Attend Pre-Requisite Classes or Events
 - ✓ Get An OFG Design
 - ✓ Join Surfrider
 - ✓ Pay For Professional Design Review
 - ✓ Pay For And Gather All Materials
 - ✓ Invite Family, (2) Friends, & (3) Neighbors
 - ✓ Host The Food
 - ✓ Participate & Learn
 - ✓ Pay It Forward
 - ✓ Lead Lawn Patrol & Organize Events

Turns Out They Want An OFG At Their Home Too



Remember These
Guys?

Professionals

Homeowner Volunteer

Volunteers Bring Skills From Previous Workdays



And They Teach Others About OFG BMPs

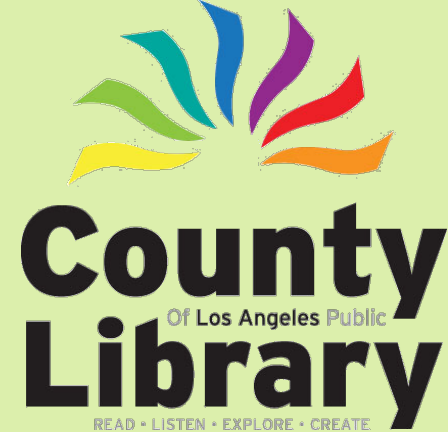


Building Another OFG



Reduced Water Use by 80%
Zero Dry-Weather Runoff
Zero Wet-Weather Runoff
Takes Neighborhood Run-on





WATER: DO MORE WITH LESS



**No ONE Organization
or Agency Can Do It
ALONE**



OFG Requires An **Integrated** Approach



When one tugs on a thing in Nature, he finds it attached to the entire world. John Muir

- ✧ Program Content Includes Conservation & Retention
- ✧ Professional Leadership & Involvement
- ✧ Multiple Funding Partners
- ✧ Public Demonstration Gardens
- ✧ Multiple NGOs

With Multiple Stakeholders Working Together



Recipients Of Volunteer Hours Must PAY IT FORWARD!



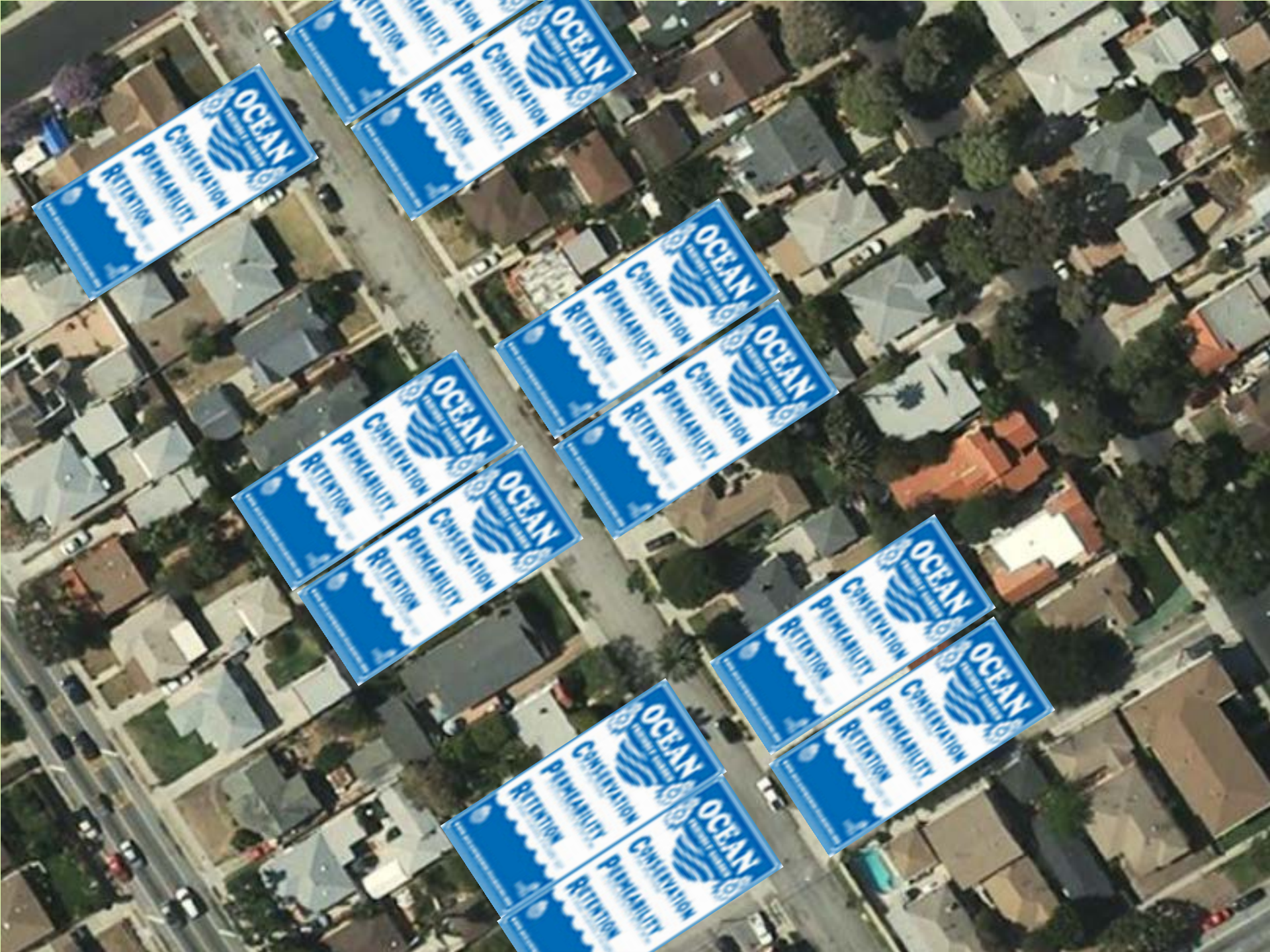
G3 Associates Also Must Put In Volunteer Hours

An aerial photograph of a suburban neighborhood. The image shows a grid of streets with houses on either side. The houses have various roof colors, including grey, brown, and red. There are many green trees scattered throughout the neighborhood. A swimming pool is visible in the lower right quadrant. The text is overlaid in the center of the image.

**ALL 22 HOMES
ON THIS
STREET HAVE
LANDSCAPE
CHOICES
GOING TO THE
OCEAN**

**CHANGE IS MADE
ONE
OCEAN FRIENDLY
GARDEN
AT A TIME**







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Pamela Berstler
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This Guy Paid \$25 To
Attend An OFG Basics
Class Sponsored By

Surfrider
Ventura

City of Ventura

G3 Professional Training in Ventura
Qualified These People As Associates

www.oceanfriendlygardens.org



River

His Name Was Selected Out Of A Hat For A
Site Evaluation HOW And GAP Volunteer Day



He'd Already Gotten Started Sheet Mulching

When We Showed Up...

But It Wasn't Right



With A Little Professional Coaching He Developed A Design



Surfrider Brought The Muscle



His All-In Cost Was \$600 Including Food





Another OFG Has Been Built

But The Proof of the Sponge Is In The Rain It Holds
December 2010 – 4” or 1,600 gallons



The Proof of the Sponge Is In The Rain It Holds

February 2011 – 3.5” or 1,450 gallons



Native Plants Love The Sponge Garden

April 2011 – Needs 0 gallons irrigation



August 2011: STILL NO IRRIGATION!



And This Garden Starts The Lawn Patrol



That's How OFG Works