



Achieving A New Normal in California Landscapes



Gathering to accelerate the pace of change
toward more sustainable landscapes in California

2014 LANDSCAPE SYMPOSIA REPORT



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Photo courtesy Amy Williams Photography / City of Santa Monica

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A NOTE FROM THE COUNCIL

The California Urban Water Conservation Council is very pleased to have had the opportunity to, with our partners, plan and host the two symposia whose proceedings are reported here.

The Council is a unique organization comprised of water service providers, public advocacy organizations, and water industry professionals. Founded in 1991, the Council has been actively promoting Best Management Practices for urban water conservation in California for nearly a quarter century.

From the beginning, the Council's BMPs have included provisions on outdoor water use. Over the last several years, the Council's interest in outdoor water use has grown from its traditional focus on reducing unnecessary outdoor irrigation to a more holistic, multi-benefit, watershed-based approach.

As outlined in the accompanying report, lead by the Council's Landscape Committee, the Council has developed a vision for a "new norm" for California's urban landscape. The new norm is meant to be a system-wide upgrade to the urban environment. In addition to reducing outdoor irrigation, the new norm promotes:

- rainwater capture and storage;
- stormwater reduction, capture and infiltration;
- reduced pesticide application and runoff;
- reduced "green waste;"
- reduced energy use and greenhouse gas emissions;
- and provision of food and habitat for beneficial insects and wildlife.

Critical to the success of this effort is the development and use of market transformation principles. Long familiar to businesses, and more recently applied in the energy sector, a market transformation approach takes a vision, works with early adopters to refine and "ground truth" it, and then communicates the benefits and successes to those who are ready to invest in a proven new approach. As detailed in this report, one of the critical take-away messages from the symposia was a widespread belief that the Council should help lead a collaborative effort to develop a strategic market transformation and implementation plan. Such a plan will allow the many public, private, and nonprofit stakeholders to maximize the potential synergies of their individual efforts and resources.

As an institutionalized collaboration of public, private and nonprofit stakeholders, the Council is uniquely situated to play a prominent role in facilitating collaborative planning and implementation. The task is not easy, nor will results be quick. California's current landscape norm is nearly 100 years old. The potential watershed-wide benefits from the new norm; however, are great. The Council is excited about working with its partners to encourage Californians to change their relationship with their urban landscape.

The Council is eager to help its present and future partners build on this initial success.

Let's get going!

Fiona Sanchez, Council Chair
Irvine Ranch Water District

Heather Cooley, Council Vice-Chair
Pacific Institute

Gregory Weber, Executive Director
California Urban Water
Conservation Council

FOREWORD

California's landscapes provide essential functions throughout our urban environment. It's where we recreate, cool our buildings, enhance property values, capture, clean and recharge groundwater, provide wildlife habitat, grow food locally, and much more. The optimal design, installation and management of these spaces is critical to enhancing California's quality of life while protecting our limited natural resources.

“According to USEPA, experts estimate that up to 50 percent of commercial and residential irrigation water use goes to waste due to evaporation, wind, improper system design, or overwatering.”²

It's estimated that about half of California's total urban water use is dedicated to sustaining our urban landscapes.¹ However, examples of excessive water use are all too common throughout the Golden State. In fact, according to USEPA, experts estimate that up to 50 percent of commercial and residential irrigation water use goes to waste due to evaporation, wind, improper system design, or overwatering.²

For more than two decades, California's urban water utilities have collaborated alongside environmental interests and the private sector through the California Urban Water Conservation Council to identify and implement best management practices for water conservation. Despite significant gains over the years much work remains to be done, and landscape resource efficiency is the next frontier. To that end, in 2011 the Council tasked its Landscape Committee with developing a long-term vision for sustainable urban landscapes.

The Committee's work included identifying common elements from a variety of public and private sustainability programs and resources, and surveying subject matter experts and other stakeholders for input on the latest sustainable landscaping practices. Dubbed the “New Norm,” what emerged from this process is a holistic and integrated vision for landscape sustainability that transcends beyond water-use efficiency to also address a multitude of related benefits, including:

- Abatement of dry-season runoff
- Onsite retention of stormwater
- Embedded energy savings
- Reduced green waste generation
- Reduced greenhouse gas emissions
- Enhanced wildlife habitat in urban settings

The many inputs and outputs associated with our landscapes make these vital urban spaces the focus of multiple regulations, public agency programs, and nonprofit initiatives. A systematic shift to more sustainable landscaping practices throughout California's watersheds has the potential to generate





Photo courtesy of Marum Partnership Landscape Architecture

“Implementation of the new norm has been framed as a long-term market transformation process with a significant role for everyone to play.”

tremendous benefits at the local, regional and state levels. Tapping these benefits won't be easy; landscapes are complex. However, current conditions, such as the 2014 drought emergency, rising water prices, new stormwater regulations, etc., have created an ideal climate to usher in a new era for sustainable California landscapes.

Adoption of the new norm will require a focused and coordinated effort across multiple sectors. Significant obstacles to overcome include pre-conceived negative notions by consumers about the look and feel of water-efficient landscapes (e.g., overly sparse and dry) and a low level of technical proficiency by the workforce. Therefore, implementation of the new norm has been framed as a long-term market transformation process with a significant role for everyone to play. The magnitude of the potential benefits enumerated above underscores the vast importance to the state of ensuring that this transformation occurs as quickly as possible.

To kick off the dialogue among like-minded public agencies, the Council convened two statewide symposia in May 2014. Co-sponsored by several state agencies, these events in Northern and Southern California were attended by more than 350 people. This report captures potential next steps to implement the new norm while also highlighting the work of various participants who are open to future partnership and collaboration opportunities.

Sustainable landscapes are an upgrade, not a compromise. Please join the dialogue and take an active role implementing this pivotal initiative for California.

Carlos Michelin and Deb Lane

Landscape Committee Co-Chairs

1. 2013 California Water Plan Update, Vol. III, California Department of Water Resources, <http://www.waterplan.water.ca.gov/>

2. USEPA WaterSense Website, <http://www.epa.gov/WaterSense/pubs/outdoor.html>

ACKNOWLEDGEMENTS

The Council would like to thank the planners and sponsors of the two symposia. The Council's Landscape Committee, lead by Co-Chairs **Deb Lane** and **Carlos Michelin**, and Council Board liaison **Joe Berg**, deserve full credit for developing the vision and leading the planning efforts. Their knowledge, commitment and passion have kept the "vision" moving forward. They and the rest of the Planning Committee were ably supported by Council Deputy Director **Sarah Foley**. A complete list of Planning Committee Members is on page 14.

Special recognition goes to the state agencies that helped the Council plan this conference:

- **California Department of Water Resources;**
- **California State Water Resources Control Board;**
- **California Department of Pesticide Regulation;**
- **Cal Recycle; and**
- **University of California, Davis**

These agencies helped develop and implement the program. They generously provided resources and guidance through this effort.

The symposia would not be possible without the support of its financial sponsors:

- **California Department of Water Resources;**
- **California Department of Pesticide Regulation;**
- **Cal Recycle; and the**
- **Water Forum**

The Council would also like to thank **Cheryl Buckwalter** and **Marian Bender** from **EcoLandscape California** for their excellent meeting planning and symposia coordination services.

Finally, many thanks go out to the local agencies and organizations that participated in the planning of the symposia, made presentations and were actively engaged in discussions.

The efforts of the above agencies and organizations, together with the work of Council staff and its Landscape Committee, to produce these two symposia demonstrate on a small scale the benefits of cross sector collaboration.



EXECUTIVE SUMMARY

For many years, groups of innovators have been working to address water resource issues in California. Their independent efforts have focused on the importance of water conservation, water quality, waste reduction, environmental preservation and more. At a time when the sustainability of California's water supply is affecting every part of the state, the "Achieving a New Normal in California Landscapes" symposia brought these innovators together for the first time to discuss how their efforts overlap with one another, and coincide with the California Urban Water Conservation Council's vision for a "new norm" in California Landscapes.

The new norm is a watershed-based approach to urban landscapes that promotes a balance between resource efficiency and protection, environmental stewardship and quality of life. Envisioned by the Council's Landscape Committee in 2012, the new norm seeks a more collaborative and integrated way of managing water, soil, energy and air resources, as well as improving water quality, reducing runoff, protecting wildlife habitat, reducing waste and mitigating the effects of climate change.

The two symposia provided an extraordinary opportunity for representatives from state agencies, water providers, industry associations, nonprofit organizations and private businesses to discuss the challenges and opportunities facing sustainable landscaping in California. The Council was pleased to lead the coordination of this effort. Each symposium was broken into two sessions. In the morning, state agencies, water providers and nonprofit groups presented on a variety of topics related to sustainable landscaping in California. In the afternoon, attendees participated in a facilitated audience discussion with small group break-outs. The morning presentations were a primer for the afternoon discussions, which focused on: why sustainable landscapes are not the normal practice today; the obstacles and opportunities to making sustainable landscapes the new norm; and the actions needed to achieve the new norm in California.

An exciting energy filled the room each day, particularly during the small-group break-outs. There was a sense of urgency to get the new norm moving, and participants were eager to share their thoughts and brainstorm methods for change. With water resources at the forefront of California's conservation and economic concerns, symposia participants felt that this is the perfect time to position the new norm approach to sustainable landscaping as a key part of the state's response to water resource issues. Participants also stressed that the new norm is more than just a response to the current drought, but a long-term project with significant opportunities and obstacles.

Some of the major obstacles identified by participants included:

- traditional attitudes towards grass and water;
- financial constraints for homeowners, communities, businesses and nonprofits;
- the general lack of knowledge about sustainable landscapes from all segments of the community (industry professionals, government officials, utility workers, property owners, and more); and
- lack of communication between industry professionals, public agencies and consumers.

Some of the major opportunities identified by participants included:

- public concern over current drought conditions;
- creation of a unified theme, brand identity, logo and commonly-accepted terms for the new norm;
- promotion of the unified theme to young Californians;
- consolidation and coordination of existing sustainable landscaping resources; and
- the creation of long-term partnerships and improved coordination between stakeholders.

During the small group break-out sessions, symposia participants brainstormed a variety of ideas to support the transformation of California landscapes to a new norm. Their ideas, detailed in Chapter 4, gravitated towards the following five overarching themes:

1. **Transforming the Market-** Participants were deeply interested in identifying the most effective ways to generate lasting change and instill new norm principles in Californians.
2. **Harnessing New Norm Economics-** Attendees agreed that landscape professionals, property owners, manufacturers, businesses, and private citizens are just a sampling of those who can benefit from sustainable landscaping practices. They all will need a better understanding of both the financial and health benefits of the new norm if they are going to change their habits.

Furthermore, incentives will encourage property owners to place value on their landscapes and take action to maintain and enhance that value.



Photo courtesy of San Diego County Water Authority

3. **Supporting Collaboration-** Participants stressed that government agencies, utilities and nonprofit organizations cannot solve California's water resource problems on their own. Watershed-scale change will require major cooperation from multiple entities at many levels.
4. **Changing the Industry-** Attendees felt that the landscape industry has grown to support unsustainable practices, because the majority of current landscaping in California is devoted to growing turf, non-native plants and ornamentals. Even though these practices are known to pose significant threats to the ecosystem, climate-inappropriate plants still dominate nursery shelves, destructive fertilizers are still available to untrained gardeners, and sod is still the landscape plant of choice for builders, property owners and HOAs.
5. **Educating the Public-** Participants recognized that community education will be a critical part of moving towards a new norm in California. The residential sector will need to be approached from multiple angles and engaging children will be an important element of transforming California landscapes.

One of the major take-away messages from symposia presentations and small group discussions was the belief that transforming California to a new norm will be a long-term process. However, participants identified a variety of actions that will get things moving quickly. The breadth of ideas outlined in Chapter 4 illustrates the complexity of transforming California landscapes. Chapter 5 pares down those ideas and provides the following recommendations for immediate actions that support the new norm right now:

1. **Developing a Market Transformation Plan-** California is at the beginning stages of a new norm market transformation and just starting to find new ways to approach peoples' relationships with their lawns and landscapes. An effective new norm market transformation plan will require stakeholder collaboration and the assistance of market transformation specialists. The Council is ready now to help lead the collaborative effort to develop and implement a strategic market transformation and implementation plan.
2. **Leading by Example-** Many properties owned by cities and other public agencies have lawns and impermeable surfaces that should be converted now into sustainable landscapes that highlight region-appropriate plants and the multiple benefits of the new norm approach.
3. **Creating a Task Force-** A new norm task force that includes government agencies (DWR, DPR, CalRecycle, Water Board, for example), utilities, landscape professionals, private businesses, community groups, HOAs, citizens and media outlets should be created now to begin tackling the many issues and ideas addressed in this report.
4. **Recognizing the Early Adopters-** Communities that are currently in the process of transforming to sustainable landscapes should be publicly recognized for their efforts and used as examples for other regions via a website of successful transformation projects. Through its website, the Council is ready to serve as a central clearinghouse for publicizing these early efforts.
5. **Completing the Crowdsourcing Platform-** An online crowdsourcing platform to share new norm related tools and resources will hasten the transition to a new norm in California. The Council's Landscape Committee is in the process of developing the "New Norm Landscape Toolbox" to serve such a purpose. Continued advancement of the toolbox will require modest financial backing to moderate submissions and ensure a continually updated set of tools.
6. **Consolidating Consumer Resources-** Making consumer resources both easier to find and more user friendly will be an important element of the new norm. How-to videos, climate appropriate plant guides and free landscape design blue prints are currently available online, but they are housed in too many locations. Consolidating existing consumer resources into a single website will ease the education process. H2Ouse.org is an interactive website hosted by the Council that leads visitors on a tour of the water savings opportunities in each area of a typical single family residence and could be adapted to house new norm consumer resources. Presently, the website needs to be redesigned with a more modern "look and feel" and updated to include new norm principles and resources.

7. **Expanding the California Sprinkler Adjustment Notification System-** CSANS is a free, subscription-based service developed by the Municipal Water District of Orange County in partnership with MWD, DWR, Reclamation and EBMUD that should be expanded to the entire state as soon as possible. CSANS sends periodic sprinkler adjustment reminder emails to homeowners and businesses in California. Water agencies can customize these emails to include additional agency-specific information, such as seasonally appropriate gardening suggestions, rebate program information, water supply updates, and more.
8. **Increasing Sustainable Landscape Messaging-** Programs like Save Our Water, WaterSmart San Diego and WaterWise in Santa Barbara County have already developed advertising campaigns and outreach materials that include new norm principles, and are eager to share their models with the rest of the state. It is recommended that water service providers, government agencies (local, state and federal) and nonprofit organizations all take advantage of these resources and promote sustainable landscaping in their communities now.
9. **Bridging the Public-Private Divide-** Adoption of new norm principles throughout California will require the unification of public and private sector efforts. There is an immediate need for galvanizing utilities, businesses, philanthropic organizations, community-based organizations, government agencies and individual citizens to consolidate their endeavors and resources in initiatives that target transforming California landscapes. This can be achieved by identifying an ambassador organization, such as the Council, to generate interest in partnerships and facilitate communication across sectors.

The need to identify and develop resources to support California's transformation to the new norm resonated throughout the symposia. It was a topic that traversed many small group discussions, but did not produce concrete strategies. Rather, discussions gravitated towards calls for third-party and state agency funding and suggestions for funding priorities. However, participants also agreed that state, local and federal governments cannot be expected to fund California's transition to a new norm. Moreover, the need for resources goes beyond mere funding. It speaks to the necessity of time and talent provided by the leaders, staff members and volunteers of government agencies, nonprofit organizations and the public. This is an important topic that will require further consideration.

The Council has proudly taken on the challenge of spearheading new norm efforts and was pleased to collaborate on the "Achieving a New Normal in California Landscapes" symposia. Now, the Council is eager to develop more new partnerships and move forward with a market transformation plan that will move California to the new norm. For this to happen, stakeholders will need to combine their efforts and work towards common goals. Fortunately, the watershed-based approach encompassed by the new norm speaks to both the shared interests and diverse perspectives of Californians across the state.

TERMS, ACRONYMS AND ABBREVIATIONS

ACWA	Association of California Water Agencies
APWA	American Public Works Association
AWWA	American Water Works Association
BMP	Best Management Practice
CIMIS	California Irrigation Management Information System
CSANS	California Sprinkler Adjustment Notification System
Council	California Urban Water Conservation Council
DPR	California Department of Pesticide Regulation
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utility District
ET _o	Reference Evapotranspiration
HOA	Homeowner's Association
IA	Irrigation Association
IPM	Integrated Pest Management
MAWA	Maximum Applied Water Allowance
MWD	Metropolitan Water District of Southern California
MWDOC	Municipal Water District of Orange County
Reclamation	U.S. Bureau of Reclamation
RWA	Regional Water Authority
Water Board	State Water Resources Control Board



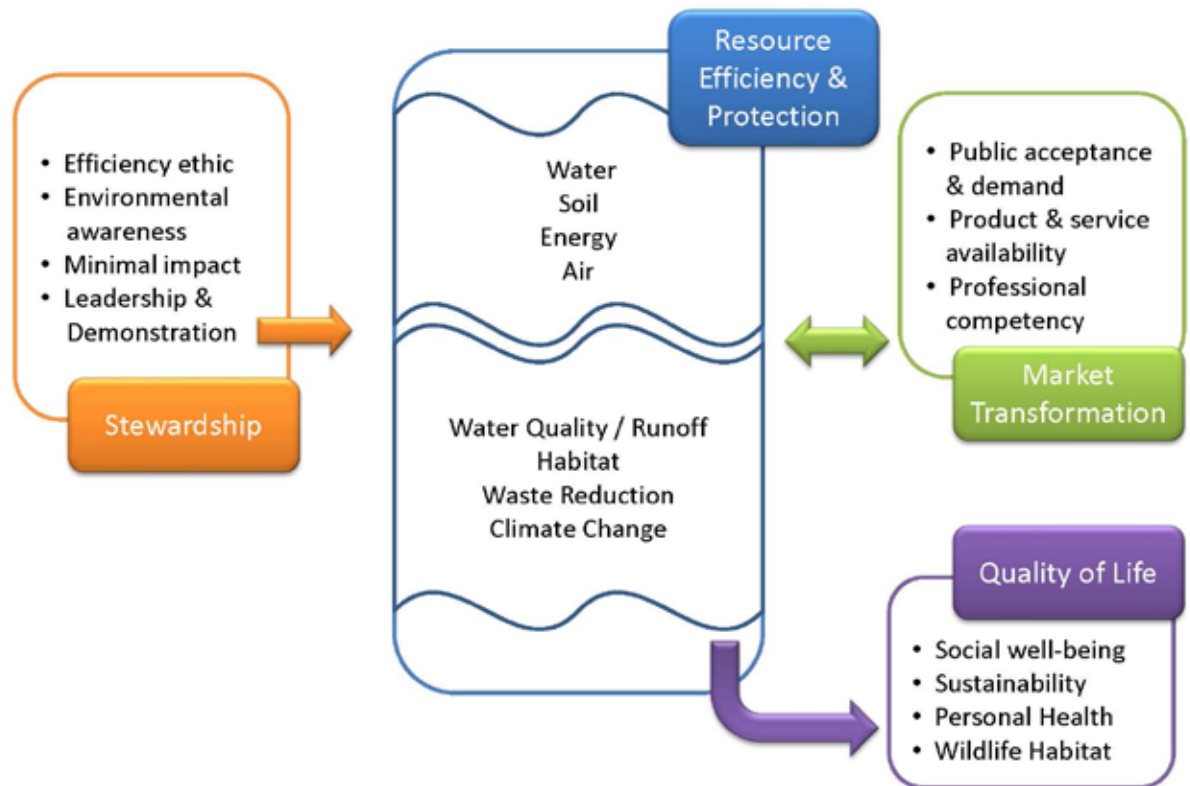
1. INTRODUCTION

In May 2014, the California Urban Water Conservation Council hosted two symposia dedicated to “Achieving a New Normal in California Landscapes.” The new normal or “new norm” is a watershed-based approach to urban landscapes that aims to leverage multiple benefits through a holistic, integrated and broadly-applicable set of criteria with site-specific adaptations. Figure 1 is the conceptual model of the Council’s vision for the new norm. The symposia were sponsored by the Department of Water Resources, Department of Pesticide Regulation, CalRecycle, and the Water Forum. The purpose was to bring relevant agencies and other stakeholders together to accomplish two goals: 1) identify commonalities, potential partnerships, and barriers to change related to the new norm; and 2) to brainstorm ideas for systematic changes that would make it easier for sustainable landscapes to become the new norm in California.

Figure 1. The California Urban Water Conservation Council Landscape Committee’s conceptual model for the New Norm, a watershed-based approach to sustainable landscaping.

Urban Landscape New Norm - “The What”

A Watershed-based Approach



1. INTRODUCTION

1.1 Background

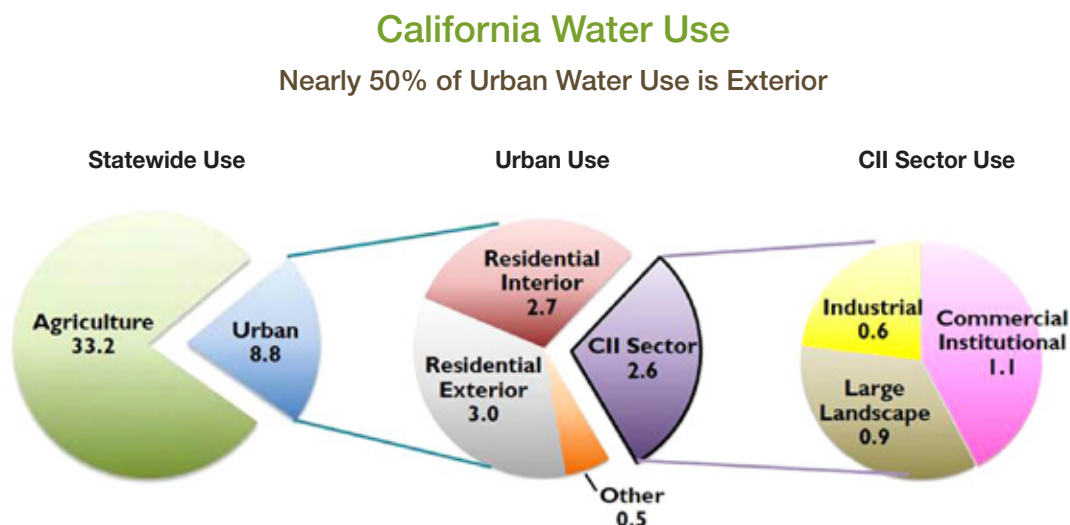
As part of its 2011-2015 Strategic Plan, the Council took on the task of helping to “articulate and define a ‘new norm’ for water use and consumption practices by engaging Council committees to establish efficient water use metrics.” Recognizing that 50 to 70 percent of urban water is used on landscapes (Figure 2), the Council’s Landscape Committee made working on a definition of the new norm for California landscapes the focus of its 2012 activities. In November of that year, the Council’s Board approved the Committee’s vision of the new norm as a watershed-based model for urban landscapes. It directed the Committee to continue working on an implementation plan to begin transforming California.

In 2013, the Council was provided funding from DWR to conduct two statewide landscape symposia that would bring stakeholders together to discuss how to make California’s urban landscapes more sustainable. Council staff and DWR were joined by DPR, CalRecycle, the State Water Resource Control Board, University of California, Davis and other Council members, including Landscape Committee leadership, to form a committee and begin planning the symposia. DPR and CalRecycle also helped to fund the effort. Table 1 lists the symposia planning committee members.

During this process the planning committee discussed the term new norm and decided to refer to it as the “new normal” in symposia marketing materials. The symposia flyer invited potential attendees to an event titled, “Achieving a New Normal in California Landscapes.” The events were billed as two gatherings to accelerate the pace of change toward more sustainable landscapes in California.

In this report the term new norm refers to the watershed-based approach to sustainable landscaping outlined by the Council’s Landscape Committee, and the term “new normal” refers to the symposia name.

Figure 2. California’s water use from the DWR presentation delivered at both landscape symposia.



DWR estimates that four million acre-feet of water is used across the state each year to sustain urban residential and commercial landscapes.

Note: Based on 1998-2005 CWP averages. Volumes shown are in millions of acre-feet per year.

1.2 What is the “New Norm?”

In a November 2012 report to the Council’s Board of Directors, the Council’s Landscape Committee presented its vision for a new norm for the California landscape. The following is an excerpt from that report that provides an in depth explanation of the new norm:

Introduction to a New Norm for California Landscapes

Conventional Landscaping: It is generally recognized that the majority of potential water savings in the urban sector is related to landscape water use. [50 to 70 percent of urban water is used for landscapes.] Contributing factors include an over-reliance on high-water-use plants (e.g.,

cool season turf); irrigation system inefficiencies; and a host of market obstacles impacting the design, installation, maintenance and management of landscapes. This is further compounded by a general lack of landscape water management awareness and proficiency on the part of both property owners and service providers.

Public Perception and Values: In addressing the known deficiencies of conventional landscaping, the Committee took a long-term view of California landscapes. Emphasis was on identifying core objectives for water-use efficiency, and related best practices for long-term sustainability. The Committee’s vision for the new norm is a watershed-based approach that seeks to improve quality of life while enhancing the urban environment. This approach aims to leverage multiple benefits through a holistic and integrated set of criteria. The emerging new norm framework is universally applicable, with site-specific adaptations.

An Upgrade, Not a Compromise: In contrast to conventional landscaping practices, the new norm seeks to promote balance with the environment, more diverse and beautiful aesthetic qualities, added value and cost-effectiveness, and greater emphasis on site stewardship and resource efficiency. Public opinion surveys show that homeowners are generally apprehensive about the look and feel of “water-efficient landscapes”; the term connotes a dry, parched landscape. However, California’s Mediterranean climate actually supports a rich diversity of possibilities. The Committee’s consensus is that, relative to conventional landscapes, the new norm represents an upgrade – not a compromise.

Defining the new norm for California Landscapes

A Watershed-Based Model for Sustainability: Although not readily apparent, how water moves through our environment is determined by the characteristics of each watershed. Seemingly disconnected geographic areas are actually part of a larger whole – and activities occurring upstream (e.g., landscape runoff) can have significant detrimental impacts downstream. As discussed below, a watershed-based model provides the needed connective framework for advancing the new norm. This is further re-enforced by the Department of Water Resources’ recent emphasis on watershed-based resource management through the Integrated Regional Water Management process.

Resource Efficiency & Protection: In contrast to the water-centric focus of traditional landscape water-use efficiency programs, the new norm embraces a broader and more holistic view for



1. INTRODUCTION

conserving water and other natural resources, as well as protecting and enhancing the natural environment. A watershed-based approach promotes a more collaborative and integrated way of managing water, soil, energy and air resources; improving water quality, reducing runoff, protecting habitat, reducing waste and mitigating climate change.

Stewardship: Conventional landscaping practices have negatively impacted the natural environment through excessive resource consumption, adverse water quality impacts, and unintended harm to wildlife. The Committee agrees that shifting to the new norm will be a process of increasing environmental awareness. It will require that both public and private sectors demonstrate leadership by embracing a new resource efficiency ethic. Application of the new norm in demonstration sites will promote acceptance and adoption of the new norm throughout our communities and across all urban land uses.

Table 1.
Landscape Symposia
Planning Committee

Member	Affiliation
Manucher Alemi	Department of Water Resources
Marian Bender	EcoLandscape California
Joe Berg	Municipal Water District of Orange County
Peter Brostrom	Department of Water Resources
Diana Brooks	Department of Water Resources
Chris Brown	California Urban Water Conservation Council
Cheryl Buckwalter	EcoLandscape California
Martha Davis	Inland Empire Utilities Agency
Chris Dundon	Contra Costa Water District
Sarah Foley	California Urban Water Conservation Council
Matt Fossen	Department of Pesticide Regulation
Dave Fujino	University of California Davis
Greg Gearheart	State Water Resources Control Board
Deb Lane	City of Santa Rosa
Brian Larimore	CalRecycle
Brian Leahy	Department of Pesticide Regulation
Carlos Michelon	San Diego County Water Authority
Loren Oki	University of California Davis
Julie Saar-Edmonds	Department of Water Resources
Lu Saephon	Department of Pesticide Regulation
Nan Singhasemanon	Department of Pesticide Regulation
Brian Stalker	CalRecycle
Gregory Weber	California Urban Water Conservation Council
Elena Yates	CalRecycle

Market Transformation: Success of the new norm depends on various market factors, including public acceptance and demand, greater availability of products and services, and a higher degree of professional competency. As these changes in the market take hold, they will further reinforce the resource efficiency and protection objectives of the new norm. As awareness of these objectives becomes stronger, this will drive greater demand in the marketplace for new norm products and services. Ultimately, the beauty, cost-effectiveness, and added property value implicit in a new norm landscape will be the ongoing drivers for creating change.

Quality of Life: The ultimate desired outcome from a watershed-based new norm approach is to preserve and enhance the quality of life throughout California's urban communities. The new norm will ensure that our landscapes are diverse, robust, productive, and resilient – all necessary conditions to support personal health and the sustained well-being of life in the urban environment.

1.3 Organization of Report

The first third of this report summarizes the symposia. The second part of the report addresses the key opportunities, challenges and ideas that came out of the small group discussion sessions. The final portion of the report provides recommendations for moving California towards a new norm.



2014 LANDSCAPE SYMPOSIA REPORT

2. SETTING THE SCENE

More than 350 representatives from public and private sectors attended the symposia, which consisted of a Southern California event held in Rancho Cucamonga on May 22, 2014, and a Northern California event held in Citrus Heights on May 29, 2014. The morning sessions included speakers, panel discussions and poster presentations. The afternoon sessions featured a facilitated audience discussion with multiple small group break-outs.

Seventeen presenters contributed to the morning sessions on topics that included: *Time for a Change in Landscaping in California*, *Thinking INSIDE the Box: Public-Private Partnerships*, *Unleashing our Collaborative Genius through the Community Resilience Challenge*, and *garden/ garden: A Comparison Study*. Poster presentations included: *Help your landscape survive the drought* from EcoLandscape California, *Ocean Friendly Gardens Program* from the Surfrider Foundation, *Measured Water Savings and Cost Effectiveness of Smart Timers and Rotating Nozzles* from MWDQC, and *New Norm Resources in San Diego* from the San Diego County Water Authority. Table 2 contains a complete list of poster presentations. A copy of the symposia agenda is located in Appendix A. Copies of the individual presentations are available at <http://cuwcc.org/Resources/Workshops.aspx?folderId=1832&view=gridview&pageSize=10>.

2.1 State Agencies and the New Norm

During their presentations, representatives from DWR, DPR, the Water Board and CalRecycle discussed the roles and responsibilities of their agencies in respect to California landscapes. They also highlighted some of the projects and programs related to sustainable landscaping that are currently underway. DWR developed the Landscape Model Ordinance and manages the

California Irrigation Management Information System. DPR administers the Maintenance Gardener Pest Control Certification and provides IPM workshops. The Water Board promotes a holistic approach to stormwater management that sees stormwater as a resource and emphasizes the importance of low impact development, known as LID. CalRecycle promotes reduction of green waste and recycling of municipally derived organic materials into beneficial products/uses such as compost and mulch.

It is clear from their independent efforts that each of the state agencies has a vested interest in the success of sustainable landscaping in California, but the beauty of the new norm is its ability to encompass the varying objectives of each of these agencies in a single, united approach. Transitioning to a new norm will support

DWR's water use efficiency and conservation objectives, DPR's pesticide use and environmental impact objectives, the Water Board's water quality and water rights objectives, and CalRecycle's green waste management objectives. Details from these presentations are highlighted in the blue boxes in this report.



DPR Director Brian R. Leahy discussed the various state agencies that are concerned with urban landscaping pesticide runoff.

2. SETTING THE SCENE



Bob Tincher discussed how public and private sector partners benefit from the Inland Empire Garden Friendly Program.

2.2 Collaborating For Success: Projects that “Moved the Needle” Toward Sustainable Landscapes

A variety of successful sustainable landscape projects were presented at the symposia. Representatives from Northern and Southern California shared the development, results and benefits of programs that encompass the new norm approach, all of which can be replicated in other areas. In fact, the presenters unanimously encouraged symposia participants to take these projects and make them their own. Each of the projects had a collaborative element. Between the seven presentations, 46 utilities, government agencies, nonprofits and private companies played a part in the projects along with countless volunteers. Synopses of these presentations are featured in the orange boxes throughout this report.

Many top notch ideas came out of small group discussions at the Landscape Symposia. Eighteen standout notions that deserve an extra “New Norm Nod” are highlighted in these green boxes throughout this report.



Landscape Symposia Presentations

State Agencies and the New Norm

Department of Water Resources

Diana Brooks, Chief, Water Use and Efficiency Branch

Department of Pesticide Regulation

Brian R. Leahy, Director

State Water Resources Control Board

Frances Spivy-Weber, Board Vice-Chair

State Water Resources Control Board

Steven Moore, Board Member

CalRecycle

Bob Horowitz, Supervisor of Organics Management

CalRecycle

Kyle Pogue, Manager in the Department of Resources Recycling & Recovery

Collaborating For Success: Projects that “Moved the Needle” Toward Sustainable Landscapes

The Community Resilience Challenge

Trathen Heckman, Daily Acts

“garden/garden”: A Comparison Study

Russell Ackerman, City of Santa Monica

Inland Empire Garden Friendly Program

Bob Tincher, San Bernardino Valley Municipal Water District

Pesticide-Free Park and Demonstration Garden at Guadalupe River Park

Matt Fossen, DPR Pest Management and Licensing Branch

The San Diego Sustainable Landscape Program

Carlos Michelon, San Diego County Water Authority

San Pablo Avenue Rain Gardens and the Green Spine

Maria Sanders, City of El Cerrito

2.3 Changing Hearts, Minds and Practices at the Program Level: Regional “Friendly” Groups Working Throughout the State



“Friendly” discussion panel from left to right: Deb Lane, Ellen Mackey, Stuart Rickard, Paul Herzog and Cheryl Buckwalter.

The “Friendly” discussion panel featured representatives from nonprofit organizations that include watershed health and sustainable landscapes as a major focus. Moderator Deb Lane, Council Landscape Committee Co-Chair and Water Resources Analyst for the City of Santa Rosa Utilities Department, highlighted the importance of nonprofit organizations in the landscape transformation process. She asked panelists to 1) share their successful programs and projects and 2) discuss the issues that need to be addressed to make the new norm successful. Highlights of the discussion can be found in the green boxes throughout this report

Landscape Symposia Discussion Panel

Changing Hearts, Minds and Practices at the Program Level: Regional “Friendly” Groups Working Throughout the State

Santa Rosa Utilities Department

Deb Lane, Panel Moderator

Bay-Friendly Landscaping and Gardening Coalition

Stuart Rickard, Interim Executive Director

Council for Watershed Health

Ellen Mackey, Senior Ecologist

River-Friendly Landscaping

Cheryl Buckwalter, EcoLandscape California

Ocean Friendly Garden Program

Paul Herzog, Surfrider Foundation



Small group discussion break-out session at the Southern California Symposium.

2.4 Small Group Discussions

After exploring the Council’s vision for the new norm, the role of state agencies, existing sustainable landscape projects and the nonprofit perspective, participants went to work in small group discussions. In the initial round of small groups, symposia participants first discussed why sustainable landscapes are not the normal practice today and then identified challenges and opportunities to make them the new norm. The ideas that sprang from these discussions were organized into topical categories. These categories were used to facilitate a second set of small group discussions, which focused on identifying and defining actions needed to achieve the new norm across California.

2. SETTING THE SCENE

Table 2.
Landscape Symposia Poster Presentations

Poster Title	Presenter
Bringing Back the Natives Garden Tour & Mow no Mo! Workshops	Kathy Kramer
Eco-Friendly Landscape Design Plans for the New California Landscape	Cheryl Buckwalter, EcoLandscape California
Engaging the Homeowner and Contractor in Customized Landscape Water Budgets	East Bay Municipal Utility District
Farmscape: A statewide program to convert lawn to edible landscapes	Lara Hermanson
Improving Water Quality Through Runoff Reduction	Shane Burckle, City of Newport Beach
Long Beach Lawn-to-Garden Program	Ontario CARES & California-Friendly Program
Measured Water Savings and Cost Effectiveness of Smart Timers and Rotating Nozzles	Municipal Water District of Orange County
New Norm Resources in San Diego	Carlos Michelin, San Diego County Water Authority
Ocean Friendly Gardens Program	Paul Herzog, Surfrider Foundation
Overwatering is Out- Fostering Partnerships between Water Agencies and NPDES Permit Administrators	Jenna Voss, County of Orange Stormwater Program
Santa Monica's garden/garden Program	Kathy Kramer
Taking Regional Garden Friendly Events a Step Further	Jenna Voss, County of Orange Stormwater Program
The Need for Site-Specific Maintenance Manuals for Public and Private Native Plant Landscapes	Ellen Mackey, MWD of Southern CA/LA and the Council for Watershed Health
The Role of Rainfall on Pesticide Runoff in Urban Neighborhoods in Northern California	Mike Ensminger, California Department of Pesticide Regulation



Task force of resource-related state agencies to develop a consistently aligned focus and messaging, identify issues, review codes, guide standards and identify areas of overlap.



CalRecycle and the New Norm

Bob Horowitz, Supervisor of Organics Management for CalRecycle, explained that composting and mulching are sustainable practices that can benefit California's water and recycling needs. According to Kyle Pogue, Manager in the Department of Resources Recycling & Recovery for CalRecycle, the use of compost and mulch is an important part of new norm landscapes that will reduce the amount of waste going to landfills, increase the water holding capacity of soil, reduce the amount of surface water runoff and protect water quality.

New Norm Activities

CalRecycle is extensively involved in advancing the new norm by:

- Collaborating with DWR on the Model Water Efficient Landscape Ordinance,
- Working with Caltrans on procurement guidelines for compost and mulch,
- Supporting the River-Friendly and Bay-Friendly landscape coalitions,
- Offering compost and erosion control workshops,
- Providing sustainable landscape resources website, and
- Funding erosion control projects and case studies.

Looking Ahead

As California moves toward a new norm, CalRecycle plans to:

- Quantify real-world water savings from compost and mulch use in California landscapes.
- Partner with cities, counties and other agencies to encourage policies that incentivize compost/mulch use by residents, businesses.
- Encourage policies that use more recycled organics in roadways, parks, burned areas, etc.
- Support business incentives to expand the compost and mulch infrastructure.
- Provide financial incentives for capital investments in composting that will result in reduced greenhouse gas emissions.



Compost and mulching project on Highway 99 at 47th Avenue in Sacramento from the CalRecycle symposia presentation.

Increased promotion as to the benefits of sustainable landscaping in reducing waste in landfills. Mulching should be equated to recycling with the benefit of reduced carbon emissions from reduced transportation and landfill maintenance.



2. SETTING THE SCENE

Successful Sustainable Landscape Project

Pesticide-Free Park and Demonstration Garden at Guadalupe River Park (San Jose)

Presented by: Matt Fossen, Senior Environmental Scientist (Specialist) for the Pest Management and Licensing Branch of the California Department of Pesticide Regulation.

Purpose: By demonstrating the effectiveness of IPM through the demonstration gardens, training of municipal and commercial landscapers and residents, and various multimedia educational materials and guides, the project will promote widespread adoption of IPM as an effective means of pest management in urban parks and gardens.

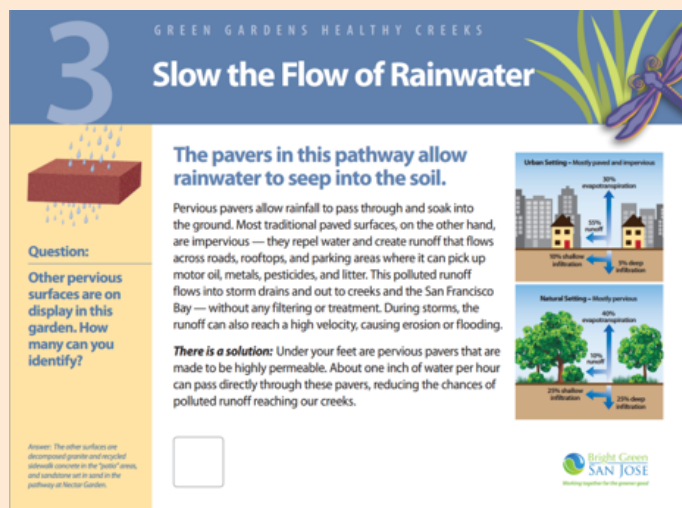
Project: A two-year \$200,000 Pest Management Alliance grant to create a pesticide-free urban park to demonstrate IPM-based horticultural practices, educate local residents via demonstration gardens, trainings, and printed materials, provide IPM training for city staff and residential landscapers, and create a pesticide-free park case study.

Collaborators: Team members: City of San Jose Environmental Services Department, City of San Jose Parks, Recreation, and Neighborhood Services Department, Guadalupe River Park Conservancy and Santa Clara County. Additional contributors: Ecology Action of Santa Cruz, Bay-Friendly Coalition, Bay Area Water Supply and Conservation Agency (BAWSCA) and Santa Clara Valley Eco Gardeners.

Results:

- 15,000 ft² weed-prevention trial within the Courtyard Gardens area of Guadalupe River Park
- Two 900 ft² residential demonstration gardens
- Pest Tolerant Home Garden printed materials
- Municipal landscaping IPM training module
- Online IPM training module for residents based on demonstration gardens
- Volunteer-based demonstration garden maintenance plan
- Sustainable landscaping training to city and county staff (96 participants)
- Training to professional landscapers (96 participants)
- Hands-on training to residents (171 participants)
- Group and self-guided tours available, brochures and interactive online maps
- Report available through City of San Jose, County of Santa Clara, BAWSCA, Santa Clara Valley Water District, and others

More information: at http://www.cdpr.ca.gov/docs/pestmgt/grants/final-reports/pestfree_park.pdf



Sample demonstration garden sign from Guadalupe River Park explaining the use of a permeable paver to “Slow the Flow of Rainwater” from the DPR symposia presentation.



3. NEW NORM OBSTACLES AND OPPORTUNITIES

With a third year of drought consuming California, water sustainability is at the forefront of both conservation and economic concerns. Symposia participants felt that this is the perfect time to position the new norm approach to sustainable landscaping as a key part of the state's response to water resource issues. However, participants stressed that the new norm is more than just a response to the drought. It is a long-term project with significant opportunities and obstacles.

3.1 Obstacles

Symposia attendees agreed that one of the biggest obstacles facing a new norm in California will be **overcoming traditional mindsets**, because the prevailing belief that grass is good and water is cheap has been engrained in our society for so long. A multi-faceted approach will be required to institute statewide behavioral changes, and government agencies, utilities, nonprofits, private companies and consumers will each play a part in the needed transformation process. There is no “quick fix” to this problem, but a systematic approach can eventually lead to sustainability.

Financial constraints were identified by multiple small groups as obstacles to a new norm. Installing sod is considered a cheap and easy landscape solution, which is why it is the standard for home builders. Additionally, renovating existing lawns is cost prohibitive for homeowners and local communities. Despite multiple studies showing that sustainable landscapes can be cost effective (City of Santa Monica, 2013; City of Portland, 2007), public perception is a strong factor, and nonprofit groups are eager to help, but their funding is also limited and unpredictable from year to year.

Changing public perception is especially difficult when there is a general **lack of knowledge about sustainable landscapes**, and this does not just mean homeowners. Symposia attendees noted that the lack of knowledge reaches all segments of the community including: landscape professionals, maintenance crews, property managers, business owners, utility workers and government officials. If the purpose and benefits of a sustainable landscape are not fully understood then it will not be seen as a value to society.

Symposia participants recognized that a lack of knowledge often stems from a **lack of effective communication** between industry professionals, public agencies, and consumers. Communication barriers prevent public/private partnerships from taking root; create internal language that alienates others; and encourage misconceptions. For example, terms like “sustainable,” “drought tolerant,” “climate appropriate,” “water efficient” and “native” are used by industry insiders, but outsiders may not understand or appreciate the terms. Furthermore, government agencies and utilities may have different or competing goals that may prevent cooperation and communication. For example, regional water boards have differing stormwater runoff requirements, which can make enforcement difficult, especially for municipalities and local water agencies whose coverage areas encompass multiple regions. Furthermore, various state agencies are working independently on similar objectives. For example, water quality and water conservation initiatives have traditionally been seen as separate issues. In reality, the objectives are aligned, and the responsive efforts could be more effective if conducted in a collaborative way.

Top 20 Challenges to the New Norm

Attendees at the Landscape Symposia identified a variety of challenges for the new norm.

1. **The Desert Landscape-** Water efficient landscapes are associated with sand, rocks and, other than cacti, very little life or color.
2. **The Lawn Look-** Lawns are seen as a sign of success and wealth, and there is social pressure to standardize landscapes with a lawn.
3. **Cheap and Easy-** Sod is relatively inexpensive and simple to install, provides instant green gratification, and is the standard for most builders and Homeowners Associations (HOAs).
4. **Breaking the Bank-** The upfront costs of transforming an already established lawn into a climate appropriate landscape are cost prohibitive for many homeowners.
5. **The Comfort Zone-** People are comfortable with tradition, adverse to change, and behavioral alteration is not a simple process.
6. **Grey is the New Green –** Grey water is not well understood or promoted
7. **Show Me the Money -** There are not enough incentives available, and those that are available are not effectively promoted.
8. **Practice What You Preach -** There are not enough government facilities demonstrating sustainable landscapes.
9. **Using the Shield -** Enforcement of landscape ordinances is difficult.
10. **United We Stand -** There are a plethora of brands promoting water conservation throughout the state, but no unified brand like Energy Star, Smokey the Bear or Give a Hoot Don't Pollute.
11. **Cooperation -** There is a lack of collaboration between state agencies; goals and messages are not unified.
12. **Sorting it Out-** The vast amount of resources available to the public are not well organized or consolidated, and often presented in a less than user friendly manner.
13. **Be the Change –** The number of demonstration landscapes is lacking, and nonexistent in many regions.
14. **Teach Me -** Educational opportunities focusing on sustainable landscapes are lacking for consumers, landscape professionals, maintenance workers and property managers.
15. **We're Old School -** Landscape certification and licensing needs to be updated.
16. **Crunching Numbers -** Data to quantify sustainable landscape savings is limited.
17. **Building Bridges -** There is a lack of collaboration between public and private stakeholders.
18. **Setting the Bar -** Landscape design and maintenance standards are not uniform.
19. **It's All Greek to Me -** Drought tolerant, sustainable, water efficient, climate appropriate, native, low impact, landscape, lawn, sod, turf, grass, and the list goes on; there is too much jargon that can be confusing and detract from the main objective.
20. **K.I.S.S -** The entire process is very complex, because the needs and objectives of stakeholders are vast.

Successful Sustainable Landscape Project

Inland Empire Garden Friendly Program



Presented by: Bob Tincher, Manager of Water Resources, San Bernardino Valley Municipal Water District

Challenge: The public has become more aware of the need to use climate-appropriate plants, but consumers do not know where to begin. Many people think a climate-appropriate landscape only includes rocks and cacti.

Solution: The Chino Basin Water Conservation District, Eastern Municipal Water District, Inland Empire Utilities Agency, Rancho Santa Ana Botanic Garden, San Bernardino Valley Municipal Water District, Water Resources Institute at Cal State San Bernardino, and the Western Municipal Water District developed the Inland Empire Garden Friendly program. This program provides education and access to climate appropriate plants to the 3.1 million people living in the Inland Empire. The group partnered with Home Depot stores in the Inland Empire to offer climate-appropriate plants and host special events featuring those plants.

- The utility partners developed a unified message and logo, conducted free workshops, and promoted the program through bill inserts, radio promotion, and online.
- Home Depot provided a stock of plants, purchased plant labels and hosted the Inland Empire Garden Friendly Plant Sales.

Results: From 2010 to 2011, sales at Home Depot stores that held Inland Empire Garden Friendly Plant Sales increased significantly higher than the stores that did not host plant sales, and Inland Empire residents were introduced to the program.

Keys to Success:

- Casting a vision that highlights benefits for each stakeholder:
 - Customers save money by replacing plants
 - Businesses increase sales growth by providing the plants that customers need
 - Utilities reduce overall water consumption
- Making the brand easily identifiable
- Celebrating the success by recognizing business partners at the store and higher levels.
- Good communication between the utility partners, business and customers.



For more information: contact **Bob Tincher** at bobt@sbvmwd.com

www.iegardenfriendly.com

3. NEW NORM OBSTACLES AND OPPORTUNITIES

3.2 Opportunities

While the obstacles facing a new norm seem daunting, participants agreed that **the opportunities far surpass the challenges**. California is already a leader in sustainable practices like green building, solar energy and cap and trade. Now, participants urged, the state needs to become a leader in sustainable landscaping. Transitions to more sustainable and environmentally friendly practices have been underway for many years throughout the state; environmental concepts that were foreign to us a decade ago are now becoming commonplace; and now more than ever people are aware of our responsibility for the environment and how our practices affect the world in which we live.

Public concern over current drought conditions was seen as an immediate opportunity to leverage one of the driest years on record to get people thinking “beyond the drought.” The media has spent much time and energy highlighting drought conditions in the state. Momentum growing out of this coverage can be used to congratulate people on successful indoor water

conservation, and explain how making simple changes to outdoor habits can greatly benefit the community. Right now, the public is more aware of outdoor water waste in their communities, which provides the perfect opportunity to highlight the challenges of landscape water management and offer solutions. However, developing drought messaging is time sensitive, because when the rain returns it will wash away the public’s memory of the drought.

Produce large regional landscape expos focused around the new norm and based around an already identified structure (Earth Day, Water Week, etc.)



Symposia attendees also felt strongly that the **creation of a unified theme**, brand identity, logo and commonly-accepted terms for the new norm will be essential for success. Developing a united message that can be used statewide, with local adaptations, would provide an easily recognizable “new norm stamp of approval” for various projects, programs, products and services. It would also provide an opportunity to discuss new norm standards.

Promoting the unified theme to young Californians was recognized as a primary opportunity to promote lifelong sustainability. Development of sustainable landscaping curricula along with outreach to school-aged children will promote the new norm approach and break down the outdated attitude that there is no beauty in water efficient landscapes. Furthermore, children are

tremendous messengers: they embrace new concepts, share with families and encourage behavioral changes at home.

The substantial amount of new norm-related resources already available was seen as a tremendous opportunity to support change. The **consolidation and coordination of these resources**



Photo courtesy Amy Williams Photography / City of Santa Monica

California Department of Water Resources and the New Norm

Diana Brooks, Chief, Water Use and Efficiency Branch, highlighted drought and climate change issues facing California's water supply, and explained DWR's responsibility for protecting California's water through collaboration with other agencies on items like the State Water Project, the California Water Plan, flood and safety issues, and the operation of dams.

New Norm Activities

DWR is extensively involved in advancing the new norm through:

- Development of the California Water Plan and the California Water Action Plan, both of which have extensive sections promoting multi-benefit, integrated resource management,
- Leading the creation of the Model Water Efficient Landscape Ordinance,
- Management of CIMIS, and
- Providing grants and loans (e.g., drought, IRWM, water use efficiency, water/energy nexus).

Looking Ahead

As California moves toward a new norm, DWR plans to:

- Support the continued diversification of the state's water supply through increased use of recycled, stormwater, desalinated water and grey water,
- Continue planning and research efforts,
- Expand the use of CIMIS data,
- Collaborate with other organizations and agencies to: provide education and information; offer financial incentives through rates and rebates; embrace new technology; and expand the plant palette.



This slide from the DWR symposia presentation highlights some of the benefits sustainable landscaping will bring to California.

3. NEW NORM OBSTACLES AND OPPORTUNITIES

should start with a catalogue of existing assets to ensure that limited funding is not used to duplicate existing tools. Partners can then collaborate on the production of necessary resources that fill in the gaps.

Creating long-term partnerships and improving coordination between stakeholders as California transitions to a new norm was also seen as a substantial opportunity. A task force that includes representatives from each relevant sector (state agencies, local governments, utilities, private businesses, funders, nonprofits, residents, etc.) would help to bridge communication barriers and determine our state's goals for sustainable landscaping. This type of transition will not work through state mandates and regulations alone. It needs to be an engaging process that seeks community involvement and support.

Stuart Rickard, Interim Executive Director of the Bay-Friendly Landscaping and Gardening Coalition, illustrated the success of the Bay-Friendly Professional Training & Qualification Program. Since 2007, the program has graduated close to 1,300 experienced professionals who spread the word about Bay-Friendly landscaping. The program has indirectly created an affinity network of professionals promoting both the organization and Bay-Friendly principles. More information on the program can be found at www.bayfriendlycoalition.org.

Rickard noted that there needs to be an agreement on what is acceptable for the new norm. Currently, branding is fragmented throughout the state. For change

to occur, a united message and brand needs to be accessible, understandable and reasonable for consumers.





4. TAKING ACTION

During the small group break-out sessions, symposia participants brainstormed a variety of actions that could help support the transformation of California landscapes to a new norm. Ideas gravitated towards five overriding themes supported by an assortment of strategies to effect change. Detailed below, these seven themes included: 1) Transforming the Market; 2) Harnessing New Norm Economics; 3) Supporting Collaboration; 4) Changing the Industry; 5) and Educating the Public.

4.1 Transforming the Market

Symposia participants were deeply interested in identifying the most effective ways to transform California to the new norm. To generate lasting change in market behavior, barriers will have to be identified and removed, and a new demand for sustainable landscapes created in the state. Detailed below, the four market transformation strategies identified at the symposia included: 1) developing a new norm market transformation plan; 2) launching a comprehensive statewide advertising campaign; 3) transitioning government facilities to the new norm immediately; and 4) using the drought to transform California to a new norm.

Online guide for those who want to convert to the new norm, but cannot do it all at one time that includes various timeframes for conversions (1-, 2-, 3-years); what to change each season; conserving without removing a lawn; fastest ways to save; easiest ways to save; and more.



Strategies

1. **Develop a new norm market transformation plan, i.e., a strategic plan to help accelerate California's move to sustainable landscaping, with the assistance of market transformation specialists.** This plan could begin by defining desired outcomes and studying successful parallel markets (e.g., Energy Star). It should include systematic research on barriers to change; identify and sequence the most important market-based mechanisms (e.g., working with selected "early adopters") to overcome those barriers; and provide careful monitoring actions to measured success. Such a plan should also include consultation with behavioral and social psychologists who appreciate the complexities of urban landscaping in California, and understand that transforming to the new norm will go beyond a simple product adoption.

Once the most critical target audiences are identified, integral to such an overall strategic plan will be the development of an effective marketing plan. Participants recommended that this marketing plan start with a self-assessment, e.g., a SWOT (Strengths Weaknesses Opportunities Threats) analysis. It should also draw upon focus groups (industry, homeowners, etc.) and surveys to answer questions including:

- What do people really want from their landscape?
- What benefits will change public behavior?
- What types of regulations and penalties will affect change?
- What are the top three to five concerns/misconceptions people have about water efficient/native/climate tolerant/etc. landscapes?
- What types of assistance do landscape professionals need (training, help with marketing)?

Successful Sustainable Landscape Project

The Community Resilience Challenge

Presented by: Trathen Heckman, Executive Director and Founder of Daily Acts

Overview: The Community Resilience Challenge is a collaboration of nonprofits, municipalities, businesses and individuals working together to bring awareness to the need for community-based local solutions, in Sonoma County, to pivot global ecological issues. The annual event offers an assortment of action items that participants pledge to do during the month of May. Challenge participants register their action items and commit to act online. All actions are aggregated on an online map that demonstrates the growing movement at work.

History: In 2010, the inaugural Challenge (then titled the 350 Garden Challenge) began with a goal of creating and/or retrofitting 350 gardens in one weekend and ended with an astounding 628 garden actions. The following year, the program was expanded to include actions beyond the garden and achieved 1,044 actions. By 2012 and 2013, the actions had grown to more than 2,000 and 3,000 respectively, and other community groups began replicating the Challenge.

Goal: The goal for 2014 was to inspire 3,500 actions in Sonoma County and 6,500 actions across the U.S. in collaboration with partner organizations including Transition US, Sustainable Contra Costa, Marin Garden Challenge and Victory Garden Foundation.

Results: The Community Resilience Challenge more than doubled its goal with over 7,000 actions registered for Sonoma County.

Keys to Success: 1) “Be the Model” and start at home, the neighborhood, town and region will follow; and 2) Foster community stewardship with a “Sheet Mulch Movement” and “People-Powered” parks.

For more information: visit www.dailyacts.org or email thechallenge@dailyacts.org



Before (top) and after (bottom) photos of a sustainable landscape from the Community Resilience Challenge presentation.

Interactive side-by-side comparisons of various landscapes (lawn dominated, functional lawn, water efficient, native plant, climate appropriate, etc.) with a scroll-over feature that provides useful information (amount of water saved, cost to install, cost to maintain, list of plants in the photo, links etc.) Individual landscape images could link to separate pages with detailed information on that landscape (cost comparisons to other landscapes, sample design plans, list of qualified professionals, do it yourself interactive design program, list of additional plants, links to additional resources including classes and workshops, etc.).



This plan should include a compilation of existing brands, such as San Diego County Water Authority's "WaterSmart," MWD's "California Friendly," and Regional Water Authority's "Be Water Smart," that could be expanded and used as an umbrella brand for the state. Multiple regions have already invested in brands that are very successful and recognizable. Many symposia attendees believed it would benefit the state as a whole to harness the momentum of those brands instead of starting from scratch.

2. Many symposia discussion groups recommended the launch of a **comprehensive statewide advertising campaign** to promote sustainable landscaping after the unified "brand" is determined. Television, radio, billboard and print ad placement should accompany online banner ads and resource links. The campaign could be in partnership with Save Our Water and include a social media outreach effort through multiple platforms including Facebook, Twitter and YouTube. For the campaign to be successful, all public, private and nonprofit stakeholders will need to support the effort on websites, products, marketing collateral and programmatic materials. Funding for this effort will need to be sustained over the long-run and come from multiple sources.



Demonstration landscape from the Council for Watershed Health symposia presentation.

Ellen Mackey, Senior Ecologist at the Council for Watershed Health, described the benefits of a successful demonstration project in the Elmer Avenue neighborhood of Los Angeles that transformed conventional paved areas into sustainable watershed-friendly landscapes. The project included extensive monitoring which provided data on stormwater run-off reduction, water quality improvement and increased groundwater recharge. Elmer Avenue also provided a learning process that allowed for adaptation and better design at other sites. More information on the project can be found at <http://watershedhealth.org/programsandprojects/was.aspx>.

Mackey noted that demonstration landscapes will be a vital part of transitioning to the new norm, because they provide hands-on opportunities for the public, but a major concern is maintenance funding. Grants usually cover the cost of building the new landscape, but not maintaining it, and contractors are often untrained to care for these landscapes.



California State Water Resources Control Board and the New Norm

Frances Spivy-Weber, Board Vice-Chair, explained that some of the barriers to sustainable water use and landscaping in California come from the fragmentation associated with water and watershed management; stormwater permits that don't generally regulate most individual landscapes; and too many competing priorities. According to Board Member Steven Moore, coordination with other state agencies like DPR, DWR and the Department of Toxic Substances Control, and stakeholders like landscaping and gardening groups, water conservation groups and retail outlets can help overcome some of these barriers.

New Norm Activities

The State Water Board is extensively involved in advancing the new norm through:

- The Total Maximum Daily Load (TMDL) program that addresses impairments caused by pesticides,
- Initiative and permits that advocate for proper use of recycled water for irrigation,
- Stormwater permits that include low impact development requirements that are to mimic natural hydrology when land is developed,
- Stormwater permits that require municipal landscape design and maintenance to utilize climate appropriate and native plants and reduce the amount of water, pesticides herbicides and fertilizers used, and
- The "Slow the Flow" film series which includes seven short videos that educate viewers on stormwater issues, low impact landscaping, end more. The video series is available at <http://www.waterboards.ca.gov/stormfilm/>.

Looking Ahead

As California moves toward a new norm, the State Water Board is coordinating with regional water boards, public interest groups, non-governmental agencies and other state agencies on a Stormwater Strategic Initiative that will prioritize a list of potential issues and Water Board actions focused on:

- Utilizing stormwater as a resource,
- Removing stormwater pollutants by true source control, and
- Improving Water Board program efficiency and effectiveness.



Stormwater collection landscape design from the State Water Board symposia presentation.

Mandate maintenance funding for all public projects as a part of the initial project funding to avoid high profile project failures.



A Council-produced turnkey new norm workshop (geared towards utilities, state agencies and professionals). The initial workshop(s) would be hosted by the Council. Then the workshop materials would be made available to member agencies that want to do internal training. Finally, the workshop could be offered to outside organizations (for a fee?) that want to host open workshops.



3. As development of the new norm market transformation plan begins, symposia participants suggested that **government facilities transition to new norm landscape immediately**—beginning with the State Capitol. The Capitol building in Sacramento has extensive lawns that could be transformed into a climate appropriate oasis. This transformation could kick-start a massive turf conversion program that would encourage the transformation of public facilities and land including medians, sidewalks and other hardscapes (e.g., parking lots and curbs). Furthermore, communities that have already transformed or are in the process of transforming their landscapes should be publicly recognized for their efforts and utilized as examples for other regions.
4. Symposia attendees agreed that **using the drought to transform California to a new norm** has to happen immediately. Most people are unhappy with the brown dead lawns dominating their communities. Others are concerned over the wasteful water practices of their neighbors. These issues must be addressed now while they are on everyone's radar. Partnerships should be developed with local media outlets (television, radio, print, and internet) to profile sustainable landscapes and offer daily/weekly conservation quick tips. Profiles could highlight demonstration gardens; side-by-side comparisons of traditional landscapes and sustainable landscapes during a drought; the reduction in temperature around homes with sustainable landscapes compared to turf dominated homes; and the benefits of a living landscape versus letting turf go brown.

4.2 Harnessing New Norm Economics

Symposia participants agreed that builders, home owners, property managers, manufacturers, business owners, maintenance crews and others can benefit from sustainable landscaping practices. A better understanding of the financial benefits of increased water retention and quality, reduced air pollution, erosion control, flood control, wildlife protection and climate moderation will support transition to a new norm. Detailed below, strategies to promote the economic benefits of the new norm include: 1) developing a business case for sustainable landscaping; 2) persuading local governments to adopt sustainable landscapes; 3) providing utilities with effective tools to promote sustainable landscapes; and 4) motivating residents to convert to the new norm.



Strategies

1. **Develop a business case for sustainable landscaping.** If businesses are expected to buy in to the new norm, they will have to be shown the benefits of change. Some of the benefits identified by symposia participants included:
 - Property owners will save money on maintenance, water and waste expenses.
 - More work will be available for landscape designers and landscape maintenance contractors with sustainable landscaping and water management experience.

Successful Sustainable Landscape Project

San Pablo Avenue Rain Gardens and the Green Spine

Presented by: Maria Sanders,
Environmental Analyst for the
City of El Cerrito

Overview: San Pablo Avenue (SPA) runs the 22 miles from Crockett to Oakland and functions as the main street for the City of El Cerrito (2.7 miles). Also known as the Lincoln Highway or State Highway 23, SPA is a commercial strip with aging infrastructure. In the early 2000s, the City of El Cerrito began retrofitting SPA to spur economic development and create a multi-modal street (cars, bikes, public transit and pedestrians).

Scope: The City collaborated with the San Francisco Estuary Partnership to retrofit the highly urbanized street with green infrastructure. The project included the installation of two demonstration rain gardens that detain and treat stormwater from SPA through funding from an American Recovery and Reinvestment Act grant.

Challenges: The design needed to go 3 to 4 feet deep into the ground and work with existing street constraints including street lights, water mains and cable lines.

Results: The gardens not only add value to the street by providing visual interest and a buffer between the roadway and sidewalk, but treat stormwater runoff from the surrounding area. The bio retention system captured contaminants very well with a 60 percent to 80 percent reduction in contaminants from inflow to outflow.

Outcome: The project was so successful that it inspired the San Pablo Avenue Green Stormwater Spine Project which involves seven cities along SPA (Oakland, Emeryville, Berkeley, Albany, El Cerrito, Richmond and San Pablo). The project uses Bay-Friendly landscape principles, and is funded by the EPA, Caltrans, DWR, Urban Greening Program, and the participating cities.

For more information: contact Maria Sanders at msanders@ci.el-cerrito.ca.us.



San Pablo Avenue a) before and b) after conversion to rain gardens from the City of El Cerrito presentation.

Increased promotion of the benefits of using California Native plants.



Retrofit on Resale Ordinance



- Industry professionals who adopt new norm principals will be promoted by utilities and government agencies.
- Nurseries that emphasize climate appropriate plants will realize an increase in customers (and sales) as government agencies and utilities promote the new norm to their consumers.
- Businesses that sell compost and mulch will see an increase in sales.
- Manufacturers that offer high-efficiency products will receive an increase in orders as local businesses promote sustainable landscaping to their customers.
- Businesses that provide free workshops and training on new norm topics and tools will see an increase in sales and customer loyalty.
- Being “green” is not only trendy, but customers are looking to support companies that are environmentally conscious.
- The reduced costs of a new norm landscape compared to a turf landscape, including installation and maintenance over time.

2. **Persuade local governments to adopt sustainable landscapes.** Transitioning to sustainable practices is not free, and if local governments are expected to spend scarce resources on the new norm they will need proof that the long-term benefits are more valuable than the upfront costs. Points to make when illustrating these benefits could include:

- Reduced non-point source runoff pollution and air pollution leads to a cleaner watershed and ocean. This supports healthier people with decreased medical costs.

Cheryl Buckwalter, Executive Director of EcoLandscape California, explained that collaborations are vital to successful programs such as the Green Gardener Training Program to educate landscape professionals. The program was initially developed by the City and County of Santa Barbara and Ecology Action with funding from the State Water Resources Control Board and eventually transitioned over to EcoLandscape

California. Eleven River-Friendly Landscaping Green Gardener classes have been hosted in Sacramento since 2009. EcoLandscape has also partnered with private companies to offer do it yourself hands-on expos that bring professional advice to residents.

More information about the training program can be found at http://www.ecolandscape.org/programs_GreenGardenerPro.html.

Buckwalter pointed to a variety of challenges to implementing the new norm, including engaging buy-in from developers, HOAs and property managers; the need for more demonstration landscapes, but a lack of funding; and a fragmented strategy.



4. TAKING ACTION

Creation of a social media working group or committee to coordinate how to promote the new norm using currently available online resources- websites (Save Our Water, H2Ouse.org, RWA, IA, ACWA, AWWA, APWA), Facebook pages, Twitter, LinkedIn, etc.



- Less yard waste requires less transportation and landfill processing, which reduces greenhouse gas emissions and lowers energy costs.
 - The transformation of public spaces will encourage the transformation of private properties, which will increase the positive benefits for the community as a whole, including increased property values.
 - There is embedded water and energy savings in sustainable landscapes.
 - Captured stormwater can be used to recharge aquifers.
 - Sustainable landscape can lead to reduced pollution abatement costs.
3. **Provide utilities with effective tools to promote sustainable landscapes.** Many water service providers are small and may not have the resources or occasion to develop a full range of water conservation and efficiency programs. Resources need to be available to help the utilities identify the ways they can get maximum water savings in a minimum amount of time (e.g., rate structure templates, model waste water ordinances, “how-to” videos).

Successful Sustainable Landscape Project

The San Diego Sustainable Landscape Program

Presented by: Carlos Michelin, Principal Water Resource Specialist for the San Diego County Water Authority (SDCWA) and Co-Chair of the CUWCC Landscape Committee.

Overview: The San Diego Region’s Sustainable Landscape Program is designed to reduce water waste and pollutant infiltration into waterways. The project was developed in 2010 in collaboration with the County of San Diego, City of San Diego, San Diego County Water Authority, Surfrider Foundation, Association of Compost Producers and California American Water. The program includes the integration of landscape standards and specifications development, education and training, materials, incentives, outreach, and technical assistance.

Benefits: The voluntary program is consistent with the Model efficient Landscape Ordinance and the County MS4 permit related to stormwater management, and will result in water use reduction, green waste reduction, maintenance reduction, emission reduction and improved water quality.

Results: The program received over one million in Integrated Regional Water Management grant funding from the state in 2012, and program work will be implemented from 2014 to 2016.

For more information: contact Carlos Michelin at cmichelon@sdcwa.org or call 858-522-6756.



Hands on workshop
focusing on how to
install and maintain
a new norm
landscape.



4. **Motivate residents to convert to a new norm.** Customers are likely unaware of the benefits associated with sustainable landscaping. For customers to change, they will need to understand the value of sustainable landscaping. For example:

- Sustainable landscapes require less maintenance time than traditional lawns.
- Healthier soil means healthier plants and increased food production.
- Sustainable landscapes can improve the value of a home.
- A healthier landscape is better for children and pets.

Furthermore, incentivizing the new norm will encourage property owners to place value on their landscapes and take action to maintain and enhance that value. In Section 3.1 of this report, financial constraints were identified as one of the major obstacles to the new norm. Economic incentives can help to alleviate the financial burden for both home and commercial property owners. Symposia participants also felt strongly in non-financial incentives, because people often respond to the community-wide recognition of their good actions. Incentives suggested by symposia participants can be found in Appendix B1.

4.3 Supporting Collaboration

Government agencies, utilities and nonprofit organizations cannot solve California's water resource problems on their own. Watershed-scale change, in particular, will require major cooperation at many levels. Collaboration is a broad topic, and symposia participants recognized a variety of partnership strategies, including: 1) a technical advisory committee; 2) statewide monthly or seasonal topics; 3) new norm plant and product labeling project; 4) new norm photo bank; 5) sustainable landscaping programs; and 6) facilitated utility partnerships.

Strategies

1. **Establish a Technical Advisory Committee** between stakeholder agencies (e.g., DWR, DPR, CalRecycle, the Water Boards), landscape professionals and industry associations to lead the discussion on topics including:

- A “qualified” list of professionals recommended by the state via a transparent vetting process.
- Certification for new norm professionals with statewide standards and continued education requirements.
- Sustainable landscape certification process similar to LEED (perhaps an adaptation of the Sustainable SITES Initiative).
- Outreach to manufacturers to produce and promote sustainable landscaping products.
- Programs that encourage entrepreneurship for a watershed-based approach.
- Multi-benefit projects that speak to the needs of the watershed and are communicated as cumulative cost savings to ratepayers.

4. TAKING ACTION



2. Promote **statewide monthly or seasonal public outreach topics** with a list of suggested promotions, activities, and outreach efforts related to sustainable landscaping. Each water purveyor, state agency and region has unique local circumstances and; therefore, a different focus when it comes to managing its watershed. Presenting a unified message from all fronts will promote behavioral changes on a bigger scale. Topics should not be too specific, but offer big picture themes that allow for regional variation. Save Our Water currently offers these types of tools to partner organizations for free.

3. Modeled after programs like Inland Empire Garden Friendly and Bay-Friendly Plant Labeling, symposia participants suggested the creation of **a new norm plant and product labeling project**. While the actual logo(s) to be used needs to be chosen (see Section 4.1), labeling with a consistent new norm logo will make consumer choice easier. Suggested collaborative elements for the plant and product labelling project can be found in Appendix B2.

4. Symposia discussion groups recommended the creation of **a new norm photo bank** to provide a consistent illustration of new norm landscapes and practices for use by the media, educators, government agencies, and other groups. The collection could include before and after photos, model landscapes, various landscape sizes, and various settings (e.g., private homes, public buildings, parks).

5. Encourage and promote regional **sustainable landscaping programs**. For example:

- The City of Santa Monica offers education for the local professional community on sustainable landscaping, including information on the latest technologies in water efficiency with free hands-on training presented by landscape professionals and experts.
- The City of San Diego encourages the use of less-toxic alternatives to pest management with multilingual workshops, interactive healthy gardening kiosks and multilingual tip cards.
- The Metropolitan Water District of Southern California provides both online and in-person classes for home gardeners and landscape professionals in both Spanish and English, along with vast online resources through bewaterwise.com.

6. Utilities may have funds set aside for community projects, but cannot afford the administrative costs of incentive programs. Others may have research needs, but cannot afford to fund an entire case study on their own. **Facilitated utility partnerships** would benefit both of these scenarios and more. Symposia participants recognized that water purveyors may have a different set of goals, but collaboration on overlapping items can be beneficial, especially for smaller utilities. Suggested research topics can be found in Appendix B3.

A complete list of collaborations proposed in symposia discussion groups can be found in Appendix B4.

MOU language templates for public/private partnerships that define the responsibilities of each party.



Successful Sustainable Landscape Project

City of Newport Beach Runoff Reduction Project

Presented by: Shane Burckle, Water Quality and Conservation Coordinator for the City of Newport

Challenge: Urban development in the City of Newport Beach (CNB) has significantly increased dry weather runoff, which was minimal to non-existent in 1938. Runoff is a major cause of increased pollutant loads in receiving waters, amplified beach erosion and the destabilization of canyons in the area.

Solution: To reduce runoff, CNB collaborated with the MWDOC, MWD and the Irvine Ranch Water District to implement a \$1.2 million Bureau of Reclamation grant from 2011 to 2013. Their efforts included:

- Conducting 1,130 water audits and evaluations
- Installing 1,215 weather station-based irrigation controllers
- Installing 85,725 high efficiency nozzles
- Educating residents and businesses
- Creating a sustainable outreach program

Results: Between 2011 and 2013, 951 customers were served (with an 84 percent customer retention rate) and 110 million gallons of water per year was saved. There was a reduction in water use of just over 14 percent from 2012 (41,921,660 gallons) to 2013 (36,652,748 gallons).

Keys to Success:

- Instilling confidence in customers
- Offering products that are easy to use and understand
- Making customer and service provider training available
- Manufacturer interaction with customers through local representatives
- Contractor and manufacturer same day response times

For more information: contact **Shane Burckle** at sburckle@newportbeachca.gov or call 949-644-3214.



Photos of the restoration of Buck Gully from the City of Newport Beach presentation.

4. TAKING ACTION

4.4 Changing the Industry

Symposia attendees felt that the landscape industry has grown to support unsustainable practices, because the majority of current landscaping in California is devoted to growing turf, non-native plants and ornamentals. These practices pose significant threats to the ecosystem: excessive use of fertilizers and pesticides can diminish water quality and destroy wildlife populations; “mow and blow” gardening can pollute the air and increase greenhouse gasses; and extensive lawns absorb large volumes of ever-decreasing water supplies. Despite all of these problems, climate-inappropriate plants still dominate nursery shelves, destructive fertilizers are still available to untrained gardeners, and sod is still the landscape plant of choice for builders, property owners and HOAs. Because of all this, the transition to a new norm will require an industry overhaul. Detailed below, the strategies identified for changing the industry included: 1) new norm certification for landscape professionals; 2) effective outreach to HOAs, property managers, gardeners and landscape professionals; 3) regulations and enforcement; and 4) connecting with the “mow and blow” sector.

Paul Herzog, Ocean Friendly Gardens Program Coordinator for the Surfrider Foundation, has found that hands-on training and teamwork are the keys to success. According to Herzog, Ocean Friendly Garden walks, talks and workdays have been their most effective projects, especially when they bring together government agencies, nonprofits, professionals, activists and residents. Each of these partners brings something unique to the table, and all walk away with a better appreciation for the others.

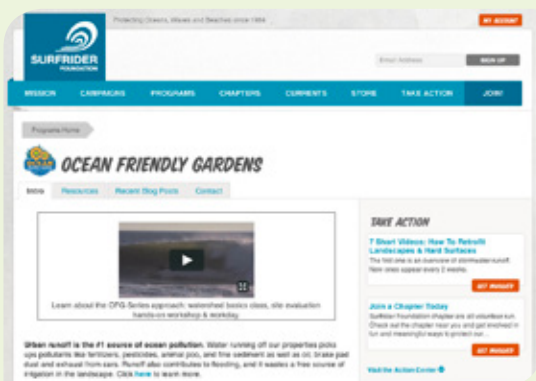
The Surfrider Foundation is always looking to collaborate on events and scale-up implementation. More information about the program can be found at <http://www.surfrider.org/programs/entry/ocean-friendly-gardens>.

Herzog explained that the different government agencies will need to come together and develop a collaborative plan if the new norm is going to be successful. Additionally, the state is going to need to

provide funding for workforce development (training for public, private and government representatives) and program coordination.



Images of a hands-on workday building an Ocean-Friendly landscape from the Surfrider Foundation presentation.



Provide model water budgets based on parcel size and location.



Strategies

1. As discussed in Section 4.2 of this report (Harnessing New Norm Economics), there is a financial benefit for landscape contractors and designers who embrace sustainable landscaping principles. However, symposia participants recognized that distinguishing those professionals that are truly trained in and practicing sustainable landscaping will be difficult. In supporting the transition, **landscape professionals should be encouraged to become new norm certified**. Suggestions for new norm licensing and certification programs can be found in Appendix B5.
2. Symposia participants recognized that **effective outreach to HOAs, property managers, gardeners and maintenance professionals** can have a huge impact on the success of sustainable landscapes in our state. These groups have direct contact with property owners, help shape what is considered a “beautiful landscape,” and deal with the reality of maintaining landscapes. Providing easy access to training and sustainable landscape tools for HOAs will support an industry overhaul to new norm practices. Specific outreach efforts suggested by symposia attendees can be found in Appendix B6.
3. Ideally, the transition to a new norm would occur without the need for government mandates. Symposia discussion groups noted, however, that too often, self-regulation has been ineffective. Therefore, **regulations and enforcement** will be an important part of the process, but successful regulations will include input from all stakeholders. Government agencies will need to work cooperatively with utilities, landscape professionals, maintenance crews and others to design effective methods for requiring sustainable landscaping practices while leaving room for regional variance. Regulatory elements might include modification of the Model Water Efficient Landscape Ordinance (AB 1881) to reduce the MAWA, for new development from a factor of 0.7 to 0.5 and reduce square footage thresholds. A full list of regulatory proposals can be found in Appendix B7.
4. Symposia participants noted that **connecting with the “mow and blow” sector** may prove challenging in transitioning to the new norm. To connect with these individuals, outreach could be conducted through local representatives of the sector who can do one-on-one or small group education and workshops. This could be accomplished through connections with local churches, community organizations, and similar groups, especially when targeting non-English speakers.

4.5 Educating the Public

Symposia participants recognized that community education will be a critical part of moving towards a new norm in California. To advance individual change, the residential sector will need to be approached from multiple angles. The market transformation plan discussed in Section 4.1 of this report will provide insight as to what the public wants from their landscapes. With that knowledge, outreach efforts should incorporate new norm principles with public ideals. Furthermore, symposia attendees identified seven strategies for educating the public on the new norm, including: 1) making consumer resources easy to find and user friendly; 2) update the H2Ouse.org website; 3) expansion of web-based irrigation scheduling applications; 4) off-line outreach efforts; 5) consumer workshops; 6) demonstration landscapes; 7) fostering the utility-customer relationship; and 8) engaging children.

4. TAKING ACTION

Strategies

1. Symposia participants agreed that **making consumer resources both easy to find and user friendly** will be a key to the success of the new norm. There are a number of online tools currently available to consumers including “how-to” videos, climate appropriate plant guides, free landscape design blue prints and more, but they are housed in too many places and not consistently available across the state. Consolidating consumer resources into a single easy to access location will ease the education process. Appendix B8 contains resources suggested at the symposia.
2. Developed by the Council, the **H2Ouse.org** website already provides a framework for delivering useful water conservation and sustainable landscaping information. Furthermore, many agencies in and out of state reference H2Ouse.org in promotional materials. Symposia attendees recommended that the Council seek funding to inventory existing resources, update H2Ouse.org, and develop missing components.
3. Participants urged the **expansion of web-based irrigation scheduling applications** like CSANS. This system sends weekly or monthly irrigation factors, efficiency tips and rebate program information directly to end-users via email subscriptions. It uses CIMIS data and common irrigation factors for reducing irrigation run times to better match ETo statewide.
4. Online resources were recognized as a cost-effective and efficient way of educating a large segment of the public. However, symposia participants strongly supported the idea of **“offline” outreach efforts** in promoting the new norm. There are segments of society that do not use the internet or prefer in-person training. Furthermore, all of the nonprofit representatives on the symposia “Friendly” panels commented on the importance of hands-on training to the long-term success of their programs. Free and low cost consumer workshops and demonstration landscapes were identified as important outreach efforts by multiple symposia discussion groups. Additional outreach efforts suggested at the symposia can be found in Appendix B9.
5. **New norm consumer workshops** should be taught by experts (local landscape designers, master gardeners, nonprofits, etc.) and focus on topics including: Types of water conscious landscapes (e.g., native, climate appropriate, water efficient); Sprinklers 101- How much water they actually use/waste; efficient watering time; how to fix, replace, and retime; alternative watering options; and installing a new norm landscape (one-shot makeovers v. long-term makeover options). A list of workshop topics compiled from symposia small group discussions can be found in Appendix B10.

Mobile new norm exhibits for street fairs, farmers markets, etc. The mobile exhibits need to be engaging and interactive, not just a booth with a tent and some handouts, but actual hands-on activities and systems that are educating people while engaging them.



6. **Demonstration Landscapes** offer real life examples that people can touch, smell and feel, but the number of demonstration landscapes in California is limited, and needs to be expanded immediately. Symposia participants suggested a number of methods to increase the amount of demonstration landscapes; their ideas can be found in Appendix B11.

California Department of Pesticide Regulation and the New Norm

DPR Director Brian R. Leahy explained that DPR is primarily interested in California landscaping because of pesticide runoff. This frequently comes from the improper application of pesticides and herbicides by untrained homeowners and gardeners. In 2013, DPR found that some of the most frequently detected pesticides at water monitoring stations throughout the state included pyrethroids (the active ingredient in most commercial household insecticides), fipronil (the main active ingredient in many domestic pet flea and tick treatments) and their metabolites. According to Leahy, the presence of these chemicals demonstrates that pesticides are escaping application zones and moving through watersheds.



Pesticide-free landscaping project at Guadalupe Park in San Jose, funded by a DPR grant from the DPR presentation.

New Norm Activities

DPR is extensively involved in advancing the new norm through the:

- Qualified Applicator Certification for gardening maintenance businesses,
- Annual Integrated Pest Management Innovator Awards,
- Research and Pest Management Alliance grants, and
- Integrated Pest Management Workshops.

Looking Ahead

As California moves toward a new norm, DPR plans to continue and expand its efforts to:

- Collaborate with retailers to educate consumers and encourage them to choose less toxic garden products by presenting them with a variety of options and a place and person to go to with questions;
- Encourage chemical producers to develop less toxic pest management products;
- Train and certify gardeners on pest management practices, and Coordinate with other stakeholder agencies and organizations to reduced pesticide runoff from urban landscapes.

Workshop on the proper use of herbicides and pesticides for the home gardener.



4. TAKING ACTION

7. The **utility-customer relationship** will be a vital part of new norm education. As the purveyors of water, utilities are already positioned as experts when it comes to water resources. This can be extended to sustainable landscaping if utilities maintain and increase customer outreach efforts. The most prominent methods for interaction between utilities and customers are water bills and websites. Symposia attendees agreed that effective water bills should, at a minimum, be provided monthly, convert water use from units to gallons, and include water use comparison charts. Furthermore, utility websites need to be engaging, user friendly and include incentives for visiting. Additional ideas related to the utility-customer relationship can be found in Appendix B12.
8. Symposia participants strongly agreed that **engaging children** will be an important element of transitioning to a new norm. A model sustainable landscape education program focused on new norm principles would help teachers and administrators reach children in the classroom. This program should be coordinated with the Cal/EPA's Education and the Environment Initiative Curriculum, Department of Education, Department of Food and Agriculture, as well as individual school site committees, parent/teacher groups and administrators. Additional youth education ideas can be found in Appendix B13.

Greywater 101: A workshop on the benefits, risks, costs, various system options, and more.



Photo courtesy Amy Williams Photography / City of Santa Monica



5. MOVING FORWARD

One of the major take-away messages from symposia presentations and small group discussions was the belief that transforming California to a new norm will be a long-term process. Transformation will come in phases, and many of the ideas discussed at the symposia will be accomplished later than others. Nevertheless, participants also identified a variety of actions that will get things moving quickly. The breadth of ideas outlined in the previous chapter illustrates the complexity of transforming the California landscape. This chapter pares down those ideas and provides recommendations for nine immediate actions to support the new norm right now.

Detailed below, steps include: 1) Developing a Market Transformation Plan; 2) Leading by Example; 3) Creating a Task Force; 4) Recognizing the Early Adopters; 5) Consolidating Consumer Resources; 6) Completing Crowdsourcing Resources; 7) Expanding CSANS; 8) Increasing Sustainable Landscape Messaging; and 9) Bridging the Public-Private Divide. Table 8 lists the nine steps described in this chapter and shows their connection to the themes and strategies discussed in the previous chapter.

1. Developing a Market Transformation Plan

Market transformation is the strategic approach of intervention in a market to generate widespread, lasting change. Figure 3 illustrates how ideas spread through a market. In this case, the left-hand side of the curve represents the new norm vision developed by the Council in 2012. The innovators have developed demonstration gardens, high-efficiency irrigation products, composting and mulching research, sustainable landscape training programs, turf

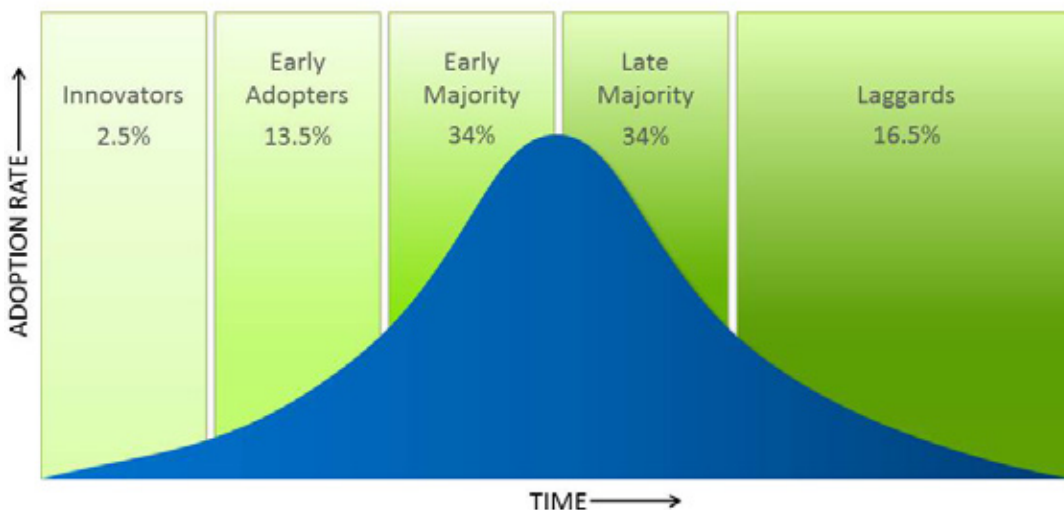


Figure 3: Roger's Bell curve is a well accepted model that describes how products and ideas spread through a market.

replacement rebates and more. A small group of people (the early adopters) have embraced these products and principles, but the audience base is still small. This is where market transformation really begins. It is not a gimmick or a quick-fix, but a long-term project that identifies the most effective and efficient ways to reach a broader audience and mainstream sustainable landscaping.

Landscape symposia participants reinforced the Council vision for a new norm, but now a road map must be developed to move forward. California is at the beginning stages of a new norm market transformation (somewhere between the innovators and early adopters) and just starting to deal with peoples' relationships with their lawns and landscapes. An effective new norm market transformation plan will require stakeholder collaboration and the assistance of market transformation specialists. Symposia participants strongly agreed that the Council should help

Successful Sustainable Landscape Project

“garden/garden”: A Comparison Study

Presented by: Russell Ackerman, Sustainability Analyst for the City of Santa Monica

Challenge: Persuade homeowners and landscape professionals that sustainable landscaping was not only better for the environment than traditional landscaping, but was just as attractive and made good economic sense.

Solution: The City of Santa Monica partnered with Santa Monica College and MWD to create the garden\garden demonstration project. The project developed and studied two adjacent front yards. It contrasted the benefits of climate-appropriate plantings and efficient water use with the style of garden that has traditionally been planted in Santa Monica in modern times.

The sustainable garden featured California-native plants, a water-efficient drip irrigation system, a weather sensitive controller and a system for capturing stormwater runoff for groundwater recharge. The traditional garden featured exotic plants that originated in Northern Europe and the Eastern United States, user controlled sprinkler irrigation system and no provision for runoff mitigation. Both gardens were professionally designed and installed in 2004.

Metrics: Monthly water use, green waste and labor hours were collected for each landscape.

Results: From 2004 to 2013, the sustainable garden required 83 percent less water, 68 percent less maintenance and generated 56 percent less green waste than the traditional garden.

Conclusions: You can create a beautiful garden while:

- Saving 80 percent on outdoor water use.
- Reducing maintenance.
- Eliminating the need for toxic chemicals to control pests and weeds.
- Nearly eliminating garden-generated air contaminants.
- Reducing the green waste of the garden by half.

For more information: contact Russell Ackerman at Russell.ackerman@smgov.net or call 310-458-8405.



“Planning for the Transformation” workshop that answers questions like: How much time will it take? How much money will it take? Where can I get financing?



lead the collaborative effort to develop and implement a strategic market transformation plan immediately. Through this plan, the Council would research key market sectors and identify critical market makers and players. Based on the research, the Council would identify the sequence of strategies that best uses available resources to leverage commitments by the early adopters. The plan will strengthen market

recognition of the value of sustainable landscaping by facilitating knowledge exchange, working to remove barriers to change, and building on the efforts of others. Making sustainable landscaping the California standard will take a substantial investment of time, collaborate effort, and funding. In light of the multiple benefits offered by the new norm approach, it is an investment that symposia participants believe Californians need to make.

Possible Leaders: Council, DWR, DPR, CalRecycle

2. Leading by Example

Leading by example is still the most effective way to inspire change, and symposia participants agreed that it is the responsibility of state and local governments to model the new norm by transforming public lands to sustainable landscapes right away. Many cities and government properties have vast lawns and impermeable areas that should be immediately converted into sustainable landscapes that highlight region-appropriate plants. These conversions could provide partnership opportunities for both nonprofit organizations and private companies looking to support the transformation process. Furthermore, enacting and enforcing water waste ordinances will be more palatable if government facilities and city landscapes are following the prescribed guidelines.

Possible leaders: Governor’s Office, State Legislature, Department of Parks and Recreation, Department of General Services, local governments, universities, utilities

3. Creating a Task Force

The Landscape Symposia was a tremendous first step in bringing together the innovators and early adopters of sustainable landscaping, but now the public needs to get involved. Research has shown that people are more engaged in projects when they are directly involved in the development process (De Young, 2003). Symposia participants encouraged the immediate creation of a new norm task force that includes government agencies, utilities, landscape professionals, private businesses, community groups, HOAs, citizens and media outlets such as Sunset Magazine. The task force could begin to tackle many of the topics addressed in this report, including: the development of new norm standards, the creation of statewide new norm messaging; expansion of regional sustainable landscaping programs; and identification of the most effective rebates.

Possible leaders: Council

4. Recognizing the Early Adopters

Several communities are in the process of transforming to sustainable landscapes. These early adopters should be publicly recognized for their efforts and used as examples for other regions. The creation of an online database of successful transformation projects (searchable by topic, region or keyword) would serve both purposes. Project information could include a project overview, checklist for implementation, tips for success, sample promotional materials and media releases, contact information, and links to additional information. Each month, the website could feature a different program or business from the database.

Possible leaders: Council, Save Our Water, government agencies, local governments, community-based organizations, community leaders, media outlets

5. Completing the Crowdsourcing Platform

Symposia participants identified the need for an online platform to share new norm-related tools and resources, and recommended that a crowdsourcing platform be created to fulfill this need. Crowdsourcing is “the practice of obtaining needed services, ideas, or content by soliciting contributions from a large group of people and especially from the online community rather than from traditional employees or suppliers” (Merriam-Webster, 2013). The benefits of crowdsourcing include speeding up resource availability, spreading out the workload, diversifying content, engaging stakeholders and target audience and saving time for project coordinators. The Council’s Landscape Committee is in the process of developing a new norm Landscape Toolbox to serve such a purpose. Continued advancement of the new norm Landscape Toolbox will require a financial backing, as well as help with collecting relevant resources (see the New Norm Landscape Toolbox box on the following page for more information). The New Norm Landscape Toolbox could also serve as the website discussed in Step 4: Recognizing the Early Adopters.

Possible leaders: Council and its members, industry associations, utilities, businesses

“New Norm Landscape Toolbox”

The New Norm Landscape Toolbox is a clearinghouse and dynamic conduit of information that will support implementation of the new norm watershed-based approach to California landscapes. The Council’s Landscape Committee is currently developing the Toolbox.

When fully realized, the Toolbox will provide a searchable online database (using a SQL platform) of sustainable landscaping resources, including case studies, “How To” resources, pilot programs, policies and ordinances, business metrics and more! As of the date of this report (August 2014), the Committee is working on populating the Toolbox and increasing functionality.

To add a resource to the Toolbox, please visit <http://cuwcc.toolbox.sgizmo.com/s3/>.



Photo courtesy Amy Williams
Photography / City of Santa Monica

6. Consolidating Consumer Resources

Californians are busy with work, school, kids, bills and much more. Even if they want to be environmentally conscious, there is little time to wade through the extensive materials on sustainable landscaping. It is recommended that new norm materials be collected and housed on a single website with a user-friendly interface to simplify public education. H2Ouse.org is an interactive website hosted by the Council that leads visitors on a tour of the water savings opportunities in each area of a typical single family residence. The website allows retail water agencies to direct their customers to a single site for specific ideas and information about water conservation, and could easily be adapted to house new norm consumer resources. H2Ouse.org is already referenced by organizations throughout the state (and the nation), but technologies

have advanced significantly since its original launch in 2004 and the website needs a make-over. It is recommended that the website be redesigned with a more modern “look and feel” and updated to include new norm resources.

Possible Leaders: Council, DWR, Save Our Water

7. Expanding the California Sprinkler Adjustment Notification System

CSANS is a free, subscription-based service that sends periodic sprinkler adjustment reminder emails to homeowners and businesses in California. The system was developed by the MWDOC in partnership with MWD, DWR, Reclamation, and EBMUD. It uses CIMIS data to determine the irrigation index factor for California regions based on zip code. CSANS includes a widget, or application, that water agencies can post on their websites, at no cost to the agency. Customers are encouraged to click on the widget and register to receive regular e-mails from their water provider containing the updated irrigation index for their zip code. Water agencies can customize these emails to include additional agency-specific information, such as seasonally appropriate gardening suggestions, rebate program information, water supply updates, etc. MWDOC and EBMUD are currently hosting CSANS pilot programs. Based on the successful results of those programs, it is recommended that the system be expanded to the entire state of California.

Possible Leaders: DWR

What is CIMIS?

The California Irrigation Management Information System is a network of over 145 automated weather stations in California. Developed in 1982 by the California Department of Water Resources and the University of California, Davis, CIMIS was designed to assist irrigators in efficient management of water resources.

Minute-by-minute data is collected by each CIMIS station and transmitted to a centralized computer hourly. The data is made available through an online portal with customizable reports, email options and Web API interfaces. Unlimited access to both calculated parameters (e.g., reference evapotranspiration (ET_o), dew point temperature) and measured parameters (e.g., solar radiation, air temperature, wind speed) is free for registered users. To learn more about CIMIS visit www.cimis.water.ca.gov.



8. Increasing Sustainable Landscape Messaging

Symposia attendees agreed that now is the time to expand sustainable landscape messaging throughout the state. But, there is no need to start from scratch. Programs like Save Our Water, WaterSmart San Diego and WaterWise in Santa Barbara County have already developed advertising campaigns and outreach materials that highlight new norm principles, and are eager to share their models with the rest of the state. Save Our Water, for example, encourages the free use of their materials, which can be modified to include utility logos. It is recommended that water service providers, local governments and nonprofit organizations all take advantage of these resources and promote sustainable landscaping to their communities now.

Possible Leaders: Utilities, governments (local, state and federal), community based organizations, industry associations

9. Bridging the Public-Private Divide

Adoption of new norm principles throughout California will require the unification of public and private sector efforts. The current disconnect between these sectors was identified by symposia participants who also recognized an immediate need for galvanizing utilities, businesses, philanthropic organizations, community-based organizations, government agencies and individual citizens to consolidate their endeavors and resources in initiatives that target transforming California landscapes. This can be achieved by appointing an ambassador organization to generate interest in partnerships and facilitate communication across sectors. A dedicated organization could act as a partnership hub and would provide multiple benefits, including: promoting partnership opportunities; providing accountability; monitoring and evaluating progress; collecting and sharing data; vetting potential partners; anticipate problem areas; and celebrate success.

Possible Leaders: Council, industry associations

Table 3.

The nine steps described in Chapter 5 and their connection to the themes and strategies discussed in Chapter 4.

Theme	Strategy	Steps								
		5.1 Developing a Market Transformation Plan	5.2 Leading by Example	5.3 Creating a Task Force	5.4 Recognizing the Early Adopters	5.5 Completing the Crowdsourcing Platform	5.6 Consolidating Consumer Resources	5.7 Expanding CSANS	5.8 Increasing Sustainable Landscape Messaging	5.9 Bridging the Public-Private Divide
4.1 Transforming the Market	1. New Norm Market Research Transformation Plan	•				•	•			•
	2. Comprehensive statewide advertising campaign	•	•	•		•	•		•	•
	3. Transition government facilities to the new norm immediately		•	•					•	•
	4. Using the drought to transform California to a new norm		•	•	•	•	•		•	•
4.2 Harnessing New Norm Economics	1. Developing a business case for sustainable landscaping	•	•	•	•	•	•			•
	2. Persuading local governments to adopt sustainable landscapes	•	•	•	•	•			•	•
	3. Providing utilities with tools to promote sustainable landscapes	•		•	•	•		•		•
	4. Motivating residents to convert to the new norm	•	•	•	•	•	•		•	•
4.3 Supporting Collaboration	1. Creating a technical advisory committee		•	•	•					•
	2. Statewide monthly or seasonal topics	•	•	•	•	•		•		•
	3. New norm plant labeling project		•	•	•	•				•
	4. New norm photo bank		•	•	•	•	•			•
	5. Promote regional sustainable landscaping programs	•		•	•	•	•			•
	6. Facilitate utility partnerships			•						•

5. MOVING FORWARD

Table 3. continued

		Steps								
Theme	Strategy	5.1 Developing a Market Transformation Plan	5.2 Leading by Example	5.3 Creating a Task Force	5.4 Recognizing the Early Adopters	5.5 Completing the Crowdsourcing Platform	5.6 Consolidating Consumer Resources	5.7 Expanding CSANS	5.8 Increasing Sustainable Landscape Messaging	5.9 Bridging the Public-Private Divide
4.4 Changing the Industry	1. New norm certification for landscape professionals			•						•
	2. Outreach to HOAs, property managers and landscape professionals	•		•	•	•	•			•
	3. Regulations and enforcement		•	•	•					•
	4. Connecting with the “mow and blow” sector	•	•	•						•
4.5 Educating the Public	1. Making consumer resources easy to find and user friendly		•	•	•	•	•	•		•
	2. Update H2Ouse.org			•		•	•			•
	3. Expanding web-based irrigation scheduling applications			•				•		•
	4. Off-line outreach efforts	•	•	•		•	•			•
	5. Consumer workshops	•	•	•	•	•	•			•
	6. Demonstration landscapes	•	•	•	•	•	•			•
	7. Fostering the utility-customer relationship	•		•		•	•	•	•	•
	8. Educating Children						•		•	•



AFTERWORD

Resourcing the Transition to a New Norm

This short Afterword offers further Council thoughts about the need to identify and develop resources to implement the many good ideas symposia participants offered.

It is an “Afterward,” but not an “afterthought.” The need for resources—time, talent, and money—to move from new norm vision to new norm ... norm ... was discussed in many small groups. It was, indeed, one of the cross-cutting themes of those discussions. For that reason, it could have been included in Chapter 4, along with the other themes.

Unlike the other themes; however, for the most part, this theme did not produce a specifically identifiable strategy to actually identify or develop the necessary resources. Moreover, most of the discussion focused on calls for third-party funding. Indeed, throughout the small group discussions, there were multiple calls for financial support from state agencies. At the same time, symposia participants generally agreed that state, local and federal agencies cannot be expected, by themselves, to fund the state’s transition to a new norm. Rather, there is a role for both the commercial sector and foundations to help. And ultimately, individual Californians will make the personal investments in their own landscapes that will truly fund the transition.

Funding, while important, is only one leg of the resources tripod. More broadly conceived, “resources” should include time and talent as well as money. For many aspects of the transition, time and talent will be as important, if not more important, than financial resources. Time and talent will come from the leaders and staff members of state, local and government agencies. Time and talent will come from the leaders and staff members of nonprofit organizations. And both agency and nonprofit initiatives will need time and talent from many thousands of volunteers.

The Council believes that the market transformation plan will need to address how best to identify, develop and strategically coordinate the resources necessary to implement the plan.

Suggestions from several of the small groups demonstrated that many symposia participants are ready to offer their thoughts about funding priorities. Some of the ideas are peppered throughout chapters 4 and 5. A sampling is included here:

- Provide funding for the Council to facilitate the overall development and implementation of a new norm market transformation plan.
- Prioritize state and federal funding to support new norm project proposals or proposals with new norm elements.
- Develop a centralized “fund” that coordinates financial resources from multiple sectors into a hub available for new norm projects.
- Develop long-term funding options for the maintenance of public transformation projects and demonstration landscapes.
- Fund the development of new norm curricula.

- Provide financial incentives for the transformation of public facilities and land including medians, sidewalks, and similar areas.
- Provide low or no cost loans for public and private new norm projects.
- Offer tax breaks to vacant lot owners to transform and maintain a sustainable landscape or demonstration landscape for community use.

This is clearly a topic that needs further exploration. Funding the new norm may be a good discussion for the new norm task force recommended above, in Chapter 5, Step 3.

Wherever it occurs, the Council is eager to facilitate this critical conversation.



Gregory S. Weber
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California Urban Water Conservation Council
August 31, 2014

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APPENDIX A

2014 SYMPOSIA AGENDA 8:00 a.m. – 5:00 p.m.

8:00	Registration and Breakfast Poster Presentations Open	Paul Herzog , Ocean Friendly Gardens Program Coordinator, Surfrider Foundation
8:30	Introduction and Welcome In Southern CA: Fiona Sanchez , Board Chair, California Urban Water Conservation Council. Director of Water Resources, Irvine Ranch Water District In Northern CA: Heather Cooley , Vice-Chair, California Urban Water Conservation Council. Water Program Director, Pacific Institute	Cheryl Buckwalter , River-Friendly Landscaping, Executive Director, EcoLandscape California
8:40	Envisioning a New Normal in California Landscapes Gregory Weber , Executive Director, California Urban Water Conservation Council <i>What is the New Normal? How can we get there?</i>	11:00 Collaborating For Success: Four Projects That “Moved The Needle” Toward Sustainable Landscapes May 22, Southern California: Shane Burckle , City of Newport Beach “Improving Water Quality Through Runoff Reduction” Bob Tincher , Inland Empire Water Agency “Thinking INSIDE the Box, Public-Private Partnerships” Carlos Michelin , San Diego County Water Authority. Co-Chair CUWCC Landscape Committee “The San Diego Sustainable Landscape Program” Russell Ackerman , City of Santa Monica “garden/garden: a comparison case study”
9:00	Overview of the Day Tara Zagofsky , Facilitator	May 29, Northern California: Bob Tincher , Inland Empire Water Agency “Thinking INSIDE the Box, Public-Private Partnerships” Matt Fossen , CA Department of Pesticide Regulation “Pesticide-Free Parks in San Jose: A Successful Alliance” Trathen Heckman , Executive Director, Daily Acts, Petaluma, CA “Unleashing our Collaborative Genius Through the Community Resilience Challenge” Maria Sanders , City of El Cerrito “San Pablo Avenue Rain Gardens and the Green Spine”
9:05	California State Agencies: What role do they play in achieving the new normal? <i>Agency leaders share current programs, future plans, and challenges faced</i> Diana S. Brooks , Chief, Water Use and Efficiency Branch, California Department of Water Resources Brian R. Leahy , Director, California Department of Pesticide Regulation Frances Spivy-Weber , Board Vice-Chair, State Water Resources Control Board (Southern CA only) Steven Moore , Board Member, State Water Resources Control Board (Northern CA only) Bob Horowitz , Supervisor, Organics Management, CalRecycle (Southern CA only) Kyle Pogue , Manager, Resources Recycling & Recovery, CalRecycle (Northern CA only)	12:00 Small Group Discussion One: <i>Why aren’t sustainable landscapes the normal practice today? Identifying challenges and opportunities</i>
10:05	Introduction of Poster Presentations	12:30 Lunch Poster Presentations Open
10:10	Break	1:45 Introduction to afternoon facilitated audience discussion process Tara Zagofsky , Facilitator
10:30	Changing Hearts, Minds And Practices At The Program Level: Regional “Friendly” Groups Working Throughout The State Moderator – Deb Lane , Water Resources Analyst, City of Santa Rosa Utilities Department; Co-Chair, CUWCC Landscape Committee Drew Ready , Sustainable Landscapes Program Manager, Council for Watershed Health (Southern CA only) Ellen Mackey , Senior Ecologist, Council for Watershed Health (Northern CA only) Stuart Rickard , Interim Executive Director, Bay-Friendly Landscaping & Gardening Coalition	1:50 Small Group Discussion Two: <i>Identifying and defining action steps needed to achieve the New Normal across California</i> Round One Round Two Round Three
		3:05 Refreshment Break
		3:20 Report Out/Gallery Walk to Share Action Steps
		3:50 Synthesis, Next Steps, Closing
		4:15 Social hour – Networking, Poster Presentations Open

APPENDIX B

During the Landscape Symposia small group break-out sessions, participants brainstormed many excellent strategies to help support the transformation of California landscapes to a new norm. Detailed below, their ideas have been sorted into thirteen categories.

1. Financial and recognition based incentives:

- Turf replacement, high-efficiency sprinkler head and smart irrigation timer rebate programs that have proven successful in many areas should be expanded throughout the state.
- Rebate programs for installing rain harvesting, drip irrigation and greywater systems.
- Free new norm audits (akin to the Water Wise House Calls) and free or low-cost sustainable landscape design consultations (Long Beach Lawn to Garden Turf Replacement Program) should also be expanded statewide.
- A free sustainable plant program (modeled after the Sacramento Tree Foundation's Shade Tree program in partnership with the Sacramento Municipal Utility District) which would deliver education and climate-appropriate plants to residents.
- Tax breaks or rebates for contractors, gardeners, landscape designers, and others who get their customers to make new norm changes.
- New norm retrofit loans modeled after the solar industry.
- Government recognition of HOAs that adopt new norm principles into their covenants, conditions and restrictions.
- Annual utility-administered sustainable landscape awards for customers (residential and commercial) who embrace the new norm.
- Annual community-administered sustainable landscape awards for utilities that promote new norm activities.
- Statewide recognition of regions that are transforming to the new norm or using new and innovative approaches to promote the new norm.
- "Nominate Your Neighbor" awards for sustainable landscaping.
- Monthly recognition of community water savers on utility websites, as bill inserts, and in local media releases.
- Monthly recognition of successful utility programs that benefit the new norm, on association and government websites, in newsletters and through media releases.

2. Collaborative elements for the plant and product labelling project:

- Water purveyors outreaching to consumers through bill inserts and emails (explaining the labels, showing examples like "Look for the [new norm-consistent] logo" and providing a list of local participating stores).
- Media promotion (e.g., partnership with local, regional and statewide magazines).
- Participating stores labeling and promoting "new norm-consistent" plants and products.
- Communities highlighting the project on websites, in newsletters and at local events.
- The program could include a mobile application that would allow the user to choose a specific region, find plants recommended for that region and map local participating stores.

3. Research topics for facilitated utility partnerships:

- Literature review of new norm landscape principles and synthesis of useful existing data.
- A case study to demonstrate the increased cost(s) associated with a lack of appropriate maintenance of a typical turf landscape (perhaps a spin off the garden/garden project)
- Quantified benefits of new norm landscapes in different parts of the state.
- A case study by region or by customer on how different programs are doing- how much water is being saved because of water efficient products, general conservation, and rate increases.
- Literature review of greywater projects that help to assess qualitative and quantitative savings from various systems (basic “laundry to landscape” to a full home collection system), and the development of case studies to fill in the gaps.
- The continued usefulness of rebates for clothes washing machines. Since these machines have become much more water efficient, participants wondered whether the funding would have better results if transferred to outdoor rebate options.
- More case studies on the benefits of mulching and composting.

4. Collaborations:

- Literature review of new norm landscape principles and synthesis of useful existing data.
- Case study demonstrating the increased cost(s) of the inappropriate maintenance of a typical turf landscape.
- Quantified benefits of new norm landscapes in different parts of the state.
- Case study by region or by customer on how different programs are doing, how much water is being saved because of water efficient products, general conservation, and rate increases.
- State agency coalition for consistent messaging/goals across state departments.
- Task force of resource-related state agencies and private sector stakeholders to develop a consistently aligned focus and identify issues, review codes, guide standards and identify what all the groups have in common.
- The state should facilitate a connection between nonprofit/community groups and the private sector.
- Creation of MOU language templates for public/private partnerships that defines the responsibilities of each party.
- Creation of a social media working group or committee to coordinate how to promote the new norm using currently available online resources- websites (Save Our Water, H2Ouse.org, RWA, IA, ACWA, AWWA, APWA), Facebook pages, twitter, LinkedIn, etc.
- A Council-produced turn key new norm workshop (geared towards utilities, state agencies and professionals). The initial workshop(s) would be hosted by the Council. Then the workshop materials would be made available to member agencies that want to do internal training. Finally, the workshop could be offered to outside organizations that want to host open workshops.
- Continuing education credits for as many industry segments as possible should be offered to encourage greater attendance.

- Create new norm research grants for California college students through a combination of private and public funds.
- Get more agencies to share data.
- Connect with other stakeholder groups for potential partnerships and program overlaps (Audubon Society, California Landscape Conservation Cooperative, Professional Landcare Network)
- Creation of programs that encourage entrepreneurship for a watershed-based approach.
- Development of multi-benefit projects that speak to the needs of the watershed and are communicated as cumulative cost savings to ratepayers.

5. New norm licensing and certification programs:

- Develop a statewide certification on basic new norm principles paired with a regional certification model. This could provide an easy metric for identifying new norm professionals. The City of Santa Monica's *Sustainable Landscape Program*, EcoLandscape California's *River-Friendly Landscaping Green Gardener Training Program*, the Bay-Friendly Landscaping & Gardening Coalition's *Bay-Friendly Training & Qualification Program* and G3 Green Garden Group's *Professional Training Series* are just a few examples of the existing regional training programs on eco-friendly landscaping that could be used as model programs for certification.
- Update the C-27 Landscape Contractor License exam to include new norm principles, expiration dates and continuing education requirements (Working with the Irrigation Association, Association of Professional Landscape Designers, American Society of Landscape Architects, and California Landscape Contractors Association)
- Compile a list of "qualified" professionals available to the public and promoted by government agencies, utilities and nonprofits.
- Partner with community colleges to offer a series of sustainable landscaping classes that lead to certification.
- Update university landscape architect curricula to include efficient irrigation design requirements.

6. Outreach efforts to HOAs, property managers, gardeners and maintenance professionals

Training

- Free or low cost workshops focusing on installation and maintenance of new norm landscapes for property managers, gardeners and maintenance crews with a "we will come to your facility" hands-on training option.
- Workshops for HOAs on the residential and community benefits of the new norm (e.g., a healthier community, no more brown landscapes during drier years, a beautiful landscape year-round, increased property value, community and government acknowledgment for sustainability, recognition by other HOAs).
- A new norm training program developed by industry associations (e.g., California Landscape Contractors Association, National Association of Residential Property Managers, and AWWA) with in-person and distance learning options in multiple languages.
- Expansion and promotion of nonprofit projects like the Ocean-Friendly, Bay-Friendly and River-Friendly landscaping programs.

Tools

- Model language and templates for amending HOA covenants, conditions and restrictions.
- Contract language for property managers that provide performance based incentives for maintenance contracts.
- New norm landscape maintenance contract template or scope of work for HOAs to use to seek and hire a new norm expert.
- New norm landscape standards guide (stand alone or as part of an existing landscape guide).
- Guide to the benefits of the new norm for use by professionals with their customers.

7. Regulatory proposals

- Modify the Model Water Efficient Landscape Ordinance (AB 1881) by reducing the MAWA for new development from a factor of 0.7 to 0.5 and the square footage thresholds.
- Mulch and compost requirements for landscapes.
- Streamline the permitting process for greywater and reduce statewide restrictions.
- Change landscape ordinances and building codes to include new norm principles.
- Ban the sale of the least efficient species of sod.
- Mandate landscape retrofits when a house is sold.
- Require all new homes, remodels, buildings, etc., to use high efficiency irrigation techniques.
- Prohibit the sale of anything except high efficiency irrigation parts.
- Offer tax breaks for landscape changes.
- Mandate maintenance funding for all public projects as a part of the initial project funding to avoid high profile project failures.
- Strengthen enforcement and penalty structures.

8. New norm resources

- Online guide for those who want to convert to the new norm, but cannot do it all at one time. The guide could include: various timeframes for conversions (1-, 2-, 3-years); what to change each season; conserving without removing a lawn; fastest ways to save; easiest ways to save; and more.
- Interactive map of California broken into regions with a scroll over feature that provides regional sustainable landscape information (before and after photos of homes, buildings and public spaces, regional plant choices, list of vendors, links, etc.).

- Interactive side-by-side comparisons of various landscapes (lawn dominated, functional lawn, water efficient, native plant, climate appropriate, etc.) with a scroll-over feature that provides useful information (amount of water saved, cost to install, cost to maintain, list of plants in the photo, links etc.) Individual landscape images could link to separate pages with detailed information on that landscape (cost comparisons to other landscapes, sample design plans, list of qualified professionals, do it yourself interactive design program, list of additional plants, links to additional resources including classes and workshops, etc.)
- An online list of “qualified” state approved landscape contractors, landscapers and maintenance crews.
- Module that addresses the health concerns of greywater with vetted facts, costs and savings, scalable systems, qualified engineers for those who need help, and offers do it yourself options (easy design for laundry to landscape system, etc.).
- State agency sponsored “landscape area measurements by parcel” tool provided on a GIS platform.
- Model water budgets based on parcel size.

9. Public outreach efforts

- Creating mobile new norm exhibits for street fairs, farmers markets, etc. The mobile exhibits need to be engaging and interactive, not just a booth with a tent and some handouts, but actual hands-on activities and systems that are educating people while engaging them.
- Developing large regional landscape expos focused around the new norm and based around an already identified structure (Earth Day, Water Week, etc.)
- Develop a Save Our Water Day and use it as a platform to encourage transformation programs. Promotion of Save Our Water Day could be modeled after Earth Day, National Fossil Day, etc. with suggested activities; online forum to post activities and share photos; community challenges like the Community Resilience Challenge in Petaluma. A task force of multiple groups or an individual nonprofit could be tasked with overseeing the project (with state funding), developing sample activities and templates for activities/events, creating a website/forum, outreach, etc. Save Our Water Day could kick-start a statewide Community Resilience Challenge and/or a statewide student competition.
- New norm landscape information guides to be given out by real estate agents at all new home sales, and included in address change packages from USPS.
- Yard signs provided to homeowners. The signs should vary, and include easy-to-understand information like: “70 percent of residential water use is outdoors,” “One sprinkler head is the same as one shower head,” and “how long does your lawn shower?”
- Yard makeover television/internet series.
- Win a professionally designed landscape makeover.

10. Workshop topics

- Types of water conscious landscapes (native, climate appropriate, water efficient)
- Sprinklers 101: water use and waste, efficient watering times; maintenance; alternatives.
- Installing a new norm landscape (one-shot makeovers v. long-term makeover options).
- How to maintain a new norm landscape.
- The importance of hiring a qualified professional versus a “mow and blow” crew.
- Vetting your gardener.
- Planning for the transformation: How much time will it take? How much will it cost? Where can I get financing?
- Greywater 101: benefits, risks, costs, various system options, etc.
- Proper use of herbicides and pesticides for the home gardener.
- Integrated Pest Management for your home.
- Building healthy soil.
- Rainwater Harvesting 101: benefits, uses, systems, construction specifications, etc.
- Taking the first steps: removing sod/sheet mulching; prepping a site for passive rainwater harvesting; directing rain gutters into swales.
- Less is More: A new norm landscape provides less waste, less air pollution, less water needs, less pesticides, etc.
- Down and Dirty: How to compost and mulch.

11. Increase the amount of demonstration landscapes

- Asking communities to set time-specific goals for retrofitting their landscapes akin to 20 by 2020 targets (encouraged by competition between communities or cities and recognition from community based organizations).
- Identifying a task force/committee to research successful demonstration landscape projects, and identify volunteers/ groups to be tasked with developing demonstration landscape project plans that can be reproduced in other areas.
- Promoting and expanding current nonprofit field trips, tours, classes and workdays at existing demonstration landscapes (like the Greener Gardens Project tour in Elk Grove or the Bring Back the Natives tours in the East Bay).
- Listing existing demonstration and early-adopter landscapes on an interactive, crowd sourced online map, so that interested parties can find a place to visit.
- Encouraging community based landscape makeover programs like those supported by the Surfrider Ocean Friendly Gardens Program or Daily Acts’ Community Resilience Challenge (e.g., invite residents to help transform the community center as hands-on training, volunteerism and a way to support the community).

12. The utility-customer relationship

Water bills

- Compare “your” water use to neighbors, service area, zip code, county, etc. For example: “This month, you used 2000 gallons more water than the average house on your street,” or “ This month you used 300 gallons less water than the average house in your zip code.”
- Offer monthly new norm conservation tips.
- Show the number of gallons needed to reduce use by 5 percent or 10 percent for the following month.
- Offer workshops/training/educational materials on sustainable landscaping.
- Show the amount of water per square foot used by a home with a new norm landscape compared to the users per square foot usage.

Website and mobile applications

Many utilities offer valuable conservation and water use information via online portals, but getting the customer to go to the website can be tricky. Customers who do use the website may only use the bill pay option and bypass the other features. To encourage customers to use the other features, utilities should consider **incentives** like an entry into a monthly drawing every time a user logs into his/her account or every time he/she visits the “my water use” tab. The website could also require the user to look at their water use information before the bill can be paid.

Incentives will drive some customers to the website, but other customers might be more mobile. For those users, a **monthly email** option would be beneficial. Not just a simple email with a link to the bill or website that requires a log in, but a useful email with billing, water use, savings information and conservation tips in the body of the email.

Making water use information available on a **mobile application** would target an even greater audience, and could include an alert feature. The alert feature could be used (sparingly- no one likes spam) to send out special seasonal reminders (time to change your sprinkler settings, etc.) or “Spare the Water” warnings for particularly bad days. For utilities that use smart meters and have the ability to share real time data, an individual alert could be sent out to customers when they are exceeding some daily water limit. Customers could also opt in to customizable reminder and conservation features with daily, weekly and monthly options.

13. Youth education

- Curricula options for various ages (elementary, middle school, high school) and modules for different classes (e.g., science, physical education, art, vocational.).
- Templates for starting a club or supplementing an existing club with suggested activities and field trips.
- new norm related topics and ideas for senior projects with a list of individuals and organizations willing to be project mentors.
- A guide for developing and maintaining a demonstration landscape on school property with templates for fundraising and community awareness.
- Samples of sustainable landscaping themes and ideas for science fairs.



Photo courtesy of San Diego County Water Authority



The California Urban Water Conservation Council is a membership organization dedicated to maximizing urban water conservation throughout California by supporting and integrating innovative technologies and practices; encouraging effective public policies; advancing research, training, and public education; and building on collaborative approaches and partnerships. Find out more about our programs at www.CUWCC.org

