

CONNECTING THE DROPS FROM SUMMIT TO SEA

CASQA 2018 FOURTEENTH
ANNUAL CONFERENCE

October 15–17, 2018

Riverside Convention Center
Riverside, California

CASQA 2018
CONFERENCE



California Stormwater
Quality Association®



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sustainable stormwater management,
water quality and restoration**



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2018 CASQA Conference

The 2018 California Stormwater Quality Association (CASQA) Annual Conference is being held in downtown Riverside, the heart of the Inland Empire. This year's conference theme reflects its location in the upper portion of the Santa Ana River Watershed, an area of diverse habitat and extreme topography. The densely populated watershed is home to over six million people in four southern California counties. Here, as in all of California and beyond, stormwater professionals are hard at work complying with National Pollutant Discharge Elimination System (NPDES) permits and Total Maximum Daily Loads (TMDLs), creating urban infrastructure that implements low impact development and reduces hydromodification impacts, capturing stormwater for water supply, and providing protection for groundwater and surface water resources.

At this year's conference we will "connect the drops" by providing an extensive program of training workshops, technical presentations, and posters addressing a range of challenges and opportunities facing urban stormwater practitioners

including sustainability, source control, conservation, stormwater capture, communication, pollutant management, and permitting.

The conference will highlight the recent integrating approaches developed by the State Water Board's program – Strategy to Optimize Resource Management of Storm Water (STORMS) – and the CASQA Vision to establish stormwater as a vital resource through focused efforts and resources.

Join over 1,100 attendees and 58 exhibitors for 3 days of important training and discussions on the future of our stormwater programs.

CASQA is the largest professional association dedicated to stormwater quality issues. For 30 years, CASQA has assisted municipalities, special districts, businesses, the state of California, and the United States Environmental Protection Agency in developing and implementing effective stormwater quality management programs in response to municipal, industrial, and construction NPDES stormwater permit requirements.

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Personalize your conference experience with our CASQA Annual Conference mobile app for Apple iOS or Android devices.

- Bookmark presentations and events in the conference agenda to create a personalized schedule, which can be exported to the native calendar on your smartphone or digital tablet.
- Preview Training Workshop agendas, Technical Program abstracts, and speaker bios.
- Find meeting rooms, exhibitor booths, and event locations via the interactive conference maps.
- Message other attendees directly, easily access individual message threads, and share contact information to stay connected after the conference.

Photos: Left side cover, courtesy of the City of Riverside; To right, © 2017 Joan Cielick



Scenes from the 2017 CASQA Conference

Riverside Conference Center and Area Information

RIVERSIDE CONVENTION CENTER

The Riverside Convention Center, 3637 Fifth St., Riverside, CA 92501, is located in downtown Riverside near the Marriott and The Mission Inn Hotel. The Convention Center Parking entrance is located at 3698 Third St. at intersection of Main St.; Daily parking fee is \$8.00 (subject to change – special event rates may also apply)

AREA INFORMATION

Named for its location beside the Santa Ana River, Riverside is the largest city in the Inland Empire metropolitan area and was founded in 1870. It is the birthplace of the California citrus industry and home of the Mission Inn Hotel & Spa, the largest Mission Revival style building in the United States. The average temperatures for Riverside in October are 82°F high/55°F low.

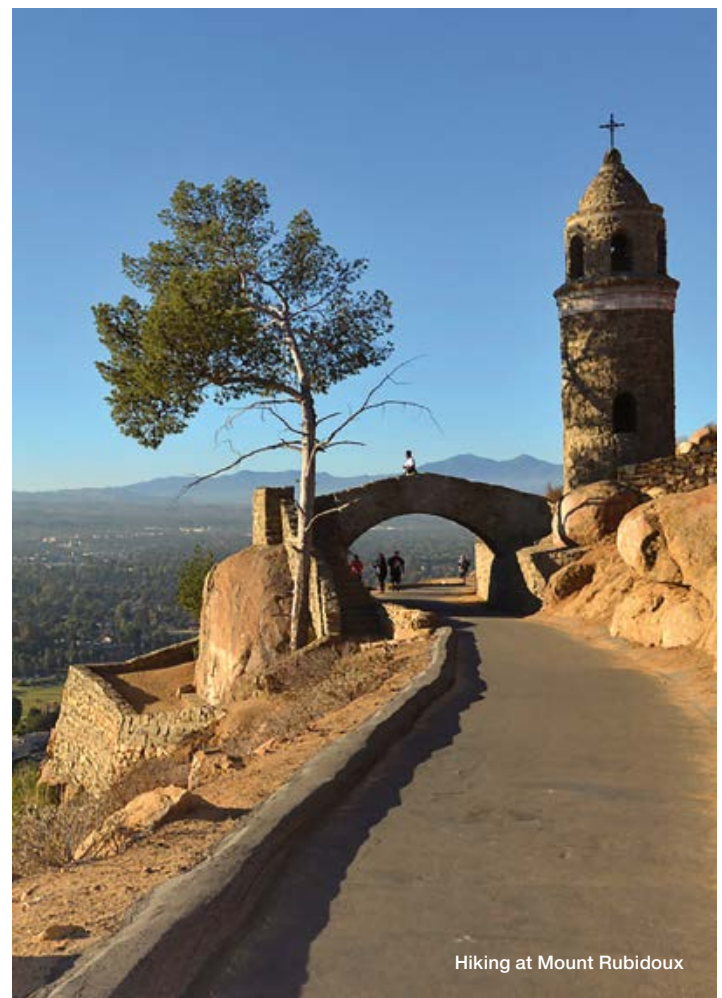
Consider staying after the conference to take advantage of nearby activities for all ages including the Fox Performing Arts Center, the Riverside Metropolitan Museum, which houses exhibits and artifacts of local history, the California Museum of Photography, the California Citrus State Historic Park, and the Parent Washington Navel Orange Tree, the last of the two original trees from which all California Navel Oranges have descended. Riverside is also home to the University of California, Riverside, including the UCR Botanical Gardens with 40 acres of plants and 4 miles of walking trails. You can also browse for antiques along downtown's Main Street.

Other nearby attractions: Mount Rubidoux, Riverside's most historic and iconic landmark; March Field Air Museum; Castle Amusement Park; Jurupa Mountains Cultural Center; Jensen Alvarado Ranch, completely restored to portray rural life of times past.



The Riverside Convention Center is the venue for the 2018 CASQA Conference

Courtesy of Riverside Convention Center



Hiking at Mount Rubidoux

Courtesy of Riverside Visitors and Convention Bureau

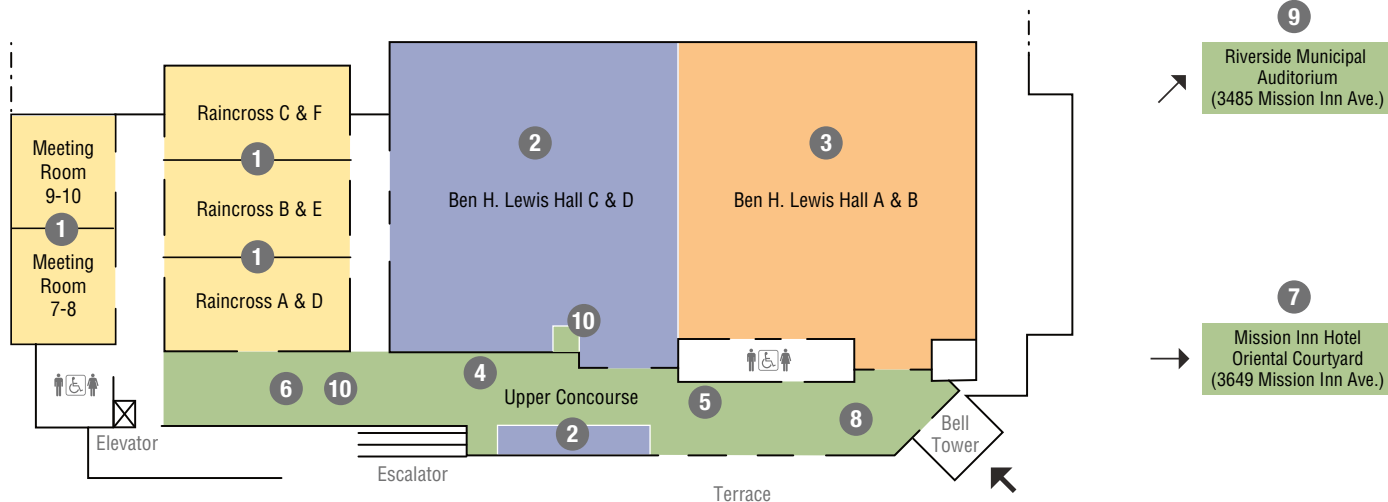


California Citrus State Historic Park

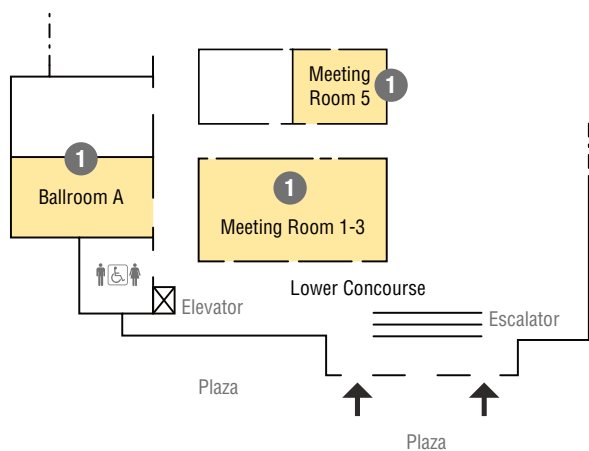
Courtesy of Riverside Visitors and Convention Bureau

Conference Map

UPPER LEVEL

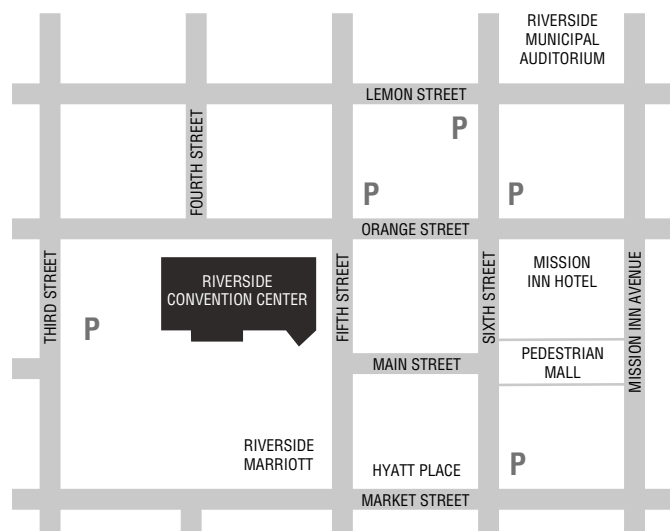


LOWER LEVEL



- 1. Conference Training Workshops; Technical Program
- 2. Exhibits; Exhibitor Reception; Breaks on Monday Afternoon, Tuesday and Wednesday
- 3. Plenary Session; Awards Presentation; Lunches
- 4. Conference Services
- 5. Registration Desk
- 6. Poster Presentations
- 7. New Member-New Attendee Event (3 min. walking distance)
- 8. Monday Morning Break
- 9. Monday Night Offsite Networking Event (6 min. walking distance)
- 10. Charging Stations

STREET MAP



Parking at the Convention Center is \$8.00 per day.
Metered street parking is \$1.00-1.50 per hour. Other public parking structures have \$1.50 hourly rates with an \$8.00 maximum.

As it flows from summit to sea, the Santa Ana River is filtered through the Prado Wetlands, which were created to remove pollutants prior to downstream groundwater recharge—providing a local water supply and saving millions of dollars each year.



Aerial view

Photo by Jian Peng; inset photo by Orange County Water District



The 2018 Training Workshops include full-day and half-day training workshops and a full-day offsite field tour (descriptions below). All Training Workshops are on Monday, October 15. For further details, the conference agenda provides an up-to-date hourly view of the program and speakers. (See the Training Workshops agenda on pages 11–14.)

For full Training Workshops overview descriptions, please visit our website: www.casqa.org/events/annual-conference/conference-program/training-workshops

FULL DAY

Field Tour: Empire Strikes Stormwater

(limited to confirmed registrants)

The Inland Empire field tour will walk through a university and college connecting youth to green infrastructure, through a commercial facility making an individual impact on stormwater, and end at Riverside County Flood Control and Water Conservation District.

Data-Driven Decision Making: Managing Stormwater in the Data Digital Age

The workshop will cover real-world models where data is enabling more targeted and efficient adaptive management, common issues and stumbling blocks with data management, a range of data sourcing opportunities from remote sensors to open data, and perspectives on the digital future of stormwater.

Industrial General Permit: Compliance

Implementation and TMDLs The workshop will focus on challenging aspects of compliance with the IGP, as well as lessons learned. Many dischargers, for example, have exceeded numeric action levels and officially entered the "Exceedance Response Action Level 1 or 2" process requiring the identification of pollutant sources and development of BMPs/actions to achieve numeric action levels.

International Low Impact Development

This second CASQA international workshop on low impact development and green infrastructure practices will bring practitioners from around the world to share their knowledge on recent developments, newest technologies, funding approaches, current research, case studies, performance assessments, community response, and maintenance. This training workshop is sponsored by Shenzhen Harmony Environmental Technology Co., Ltd. and Tetra Tech. A live Chinese language web-cast feed of the workshop will be offered. 本次CASQA国际LID论坛有来自世界各地的专家分享经验，并会全程用中文向国内网上直播。详情请咨询彭舰博士 (微信代号jianpengusc)

HALF DAY – MORNING

Construction: SWPPP Specifications -

Moving Beyond Lump Sum The workshop will review the latest approaches to writing SWPPP development and implementation specifications for construction contracts and explore current practices and how these practices enhance or sabotage compliance.

Municipal Stormwater 101 The workshop will focus on the history of the Clean Water Act, Stormwater NPDES permits, the main elements of the Phase I and II programs, BMP basics, monitoring, and the relevance of CGP and IGP to MS4 programs. Additionally, tools for success will be reviewed, including CASQA handbooks, videos, and program effectiveness assessment.

Quantitative Microbial Risk Assessment:

QMRA: What it is and What it is Not

The workshop will cover what a QMRA is, what information is needed to develop one, and share experiences with others currently in the process of QMRA development.

HALF DAY – AFTERNOON

Legal Update This workshop will provide an overview of the Municipal Separate Stormwater Sewer System (MS4) outcomes from the Commission on State Mandates and related appellate decisions; update on MS4 permit challenges that are currently before the State Water Board; a panel will discuss national water quality policy under the current Presidential administration, including the waters of the U.S. rule and changes at U.S. EPA.

Public Education This workshop will cover changing behavior through Community Based Social Marketing; go over effective strategies for implementing online marketing; developing a strategic Pollutant - Source - Solution matrix to develop your public education strategy, and how to communicate with elected officials, executive management and regulators.

Sustainable Stormwater Management:

Desilofication, Bringing Water Together

in California This workshop will provide an understanding of and different perspectives on stormwater as a resource in California including stormwater capture and use and the latest information from the State Water Resources Control Board regarding STORMs capture and use projects.

Trash: Connecting the PLUs –

Considerations for Developing the Trash Amendment Implementation Plans

This workshop, through the use of a series of panel discussions, will address topics relevant to the Trash Amendments for both Track 1 and Track 2, such as full capture BMP implementation, determination of full capture system equivalency, monitoring, and reporting.

TRACK DESCRIPTIONS

The conference program will feature two full days of concurrent session presentations (October 16 and 17). Each of the major tracks for the concurrent session presentations is outlined below. (For further details, see the Technical Program agenda on pages 22–27.)

For full Technical Track overview descriptions, please visit our website: www.casqa.org/events/annual-conference/conference-overview/technical-program-tracks

Collaboration and Public Outreach

To protect each precious drop of water from summit to sea, agencies and regulated parties will need to reach out to other stakeholders in the community. This track will focus on educating the public on stormwater's potential, innovative ways to engage with sister departments, and working with both governmental and non-governmental agencies.

Construction

Construction stormwater compliance by its nature enhances the quality of our waterways. This track will focus on proven strategies to resolve construction issues, innovative BMPs and controls.

Dollars and Sense

Implementing stormwater programs requires both an understanding of physical assets, and the funding capacity to manage those assets to protect our waterways. This track will discuss assessment management and its role in full stormwater program integration.

Efficient Permit Implementation

This track will explore the following questions: How are maximum extent practical and receiving water limitations incorporated? Are TMDL requirements being written, interpreted, and implemented consistently? Are monitoring programs providing robust data sets? How do watershed-based programs support efficient MS4 permit implementation? What hurdles or successes can be found in pollutant trading networks?

Homelessness and Water Quality

With more than a quarter of the country's homeless population living in California, transient encampments in and near our waterways can increase trash, public safety risk, and human health concerns. This session will examine how water quality managers can work collaboratively with law enforcement, local government agencies, and social services to diminish the impact of transient activities.

Industrial

Strategic approaches to industrial stormwater compliance and innovative treatment are one way to protect our waterways from summit to sea. This track will highlight pollutant source assessments, exceedance response action Levels 1 and 2, monitoring, TMDLs, and Clean Water Act citizen lawsuits.

Innovation in Data

The track will highlight innovations in monitoring, data collection tracking, and stormwater GIS systems; emerging science and technologies related to pollutants of concern; and, advances in watershed planning, modeling, reasonable assurance analysis, and alternative compliance.

Invited Panels

Includes a diverse array of invited panels: Regional Monitoring Programs for Watershed Compliance; The State of Stormwater – Current Issues and Future Trends; Transportation Agencies Innovative Practices Toward Sustainable Stormwater Management

Invited Workshop

In two conference sessions, this workshop will share the findings and recommendations of two national workshops and will seek specific feedback about which findings and recommendations are most relevant to California, and how best to take actions to build state and local capacity to do better in MS4 program management and regulatory oversight.

Making Stormwater BMPs Work

Stormwater BMPs protect our waterways from ubiquitous pollution sources, and ensuring that these BMPs are functional is critical to their success. This track will focus on stormwater BMP pilot studies, design lessons learned, operation and maintenance challenges/solutions, and BMP adaptability after installation for both structural and non-structural BMPs.

Municipal

Focusing on the challenges and solutions in implementing a municipal stormwater program, this track will highlight opportunities to connect municipal stormwater programs and other environmental sectors and agencies, along with novel approaches to implementing municipal stormwater programs for both Phase I and Phase II agencies.

Prioritize and Clarify Regulations

This track will explore California-wide and watershed specific stormwater priorities and how all regulations can be used to more effectively address these priorities and build on efforts of all regulated parties. Also to be covered is how regulators can better incorporate the non-point source nature of stormwater.

Sustainability

This track will look at the sustainable practices, legal requirements, and programs that connect stormwater and other environmental sectors. It will highlight ongoing efforts and opportunities in water supply, water rights, groundwater recharge, Sustainable Groundwater Management Act planning, energy, and climate change.

Total Maximum Daily Loads

This track will highlight the science that goes into developing TMDLs, the challenges associated with complying with those TMDLs, and ways in which different parties to a TMDL can come together to comply with a TMDL.

Trash

This track will incorporate topics related to the state-wide Trash Amendments, such as full capture BMP implementation, monitoring methods, reporting, and demonstrating compliance under Track 2, as well as other trash issues such as source identification, effective and sustainable solutions, data comparability, micro-debris, and relationships between trash and other potential pollutants.

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Exhibitors See full listings on pages 34–37

Super Premium Exhibitors BOOTH

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- CleanWay Environmental Partners, Inc.60
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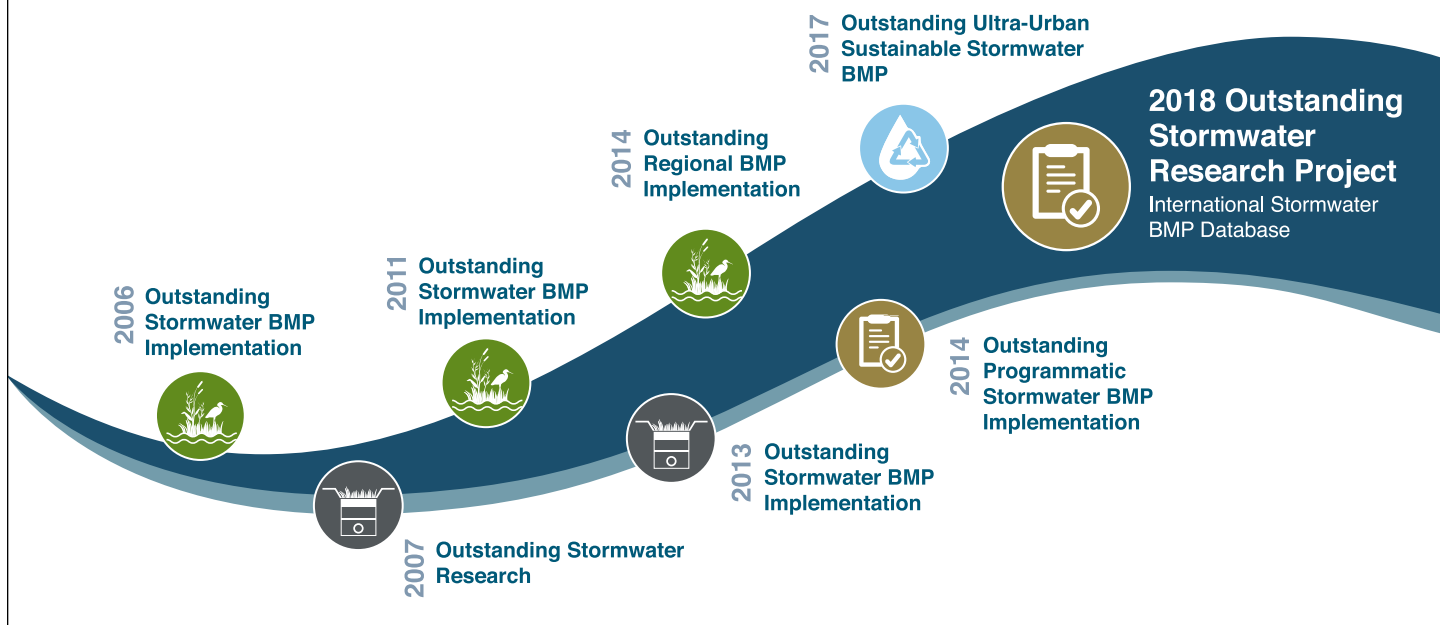
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CASQA Training Workshops Agenda Sunday & Monday, October 14–15

SUNDAY

4:00p–7:00p REGISTRATION DESK AND CONFERENCE SERVICES (Upper Concourse)

5:00p–7:00p NEW MEMBER-NEW ATTENDEE EVENT (The Mission Inn Hotel - Oriental Courtyard)
This casual event is a great way for new CASQA members or first-time conference attendees to break the ice before the official start of the conference. Current CASQA members will be on hand to welcome new members and answer questions. Appetizers will be served; cash bar.

MONDAY

7:30a–5:30p REGISTRATION DESK AND CONFERENCE SERVICES (Upper Concourse)

10:00a–5:00p POSTER SESSION (Upper Level)

12:00p–6:00p EXHIBIT HALL OPEN (Ben H. Lewis Hall C & D and Upper Concourse)

OFF-SITE
FIELD TOUR
8:15a–5:00p

Field Tour Empire Strikes Stormwater

Moderator: Melanie Sotelo, CASC Engineering and Consulting, Inc.

The Inland Empire field tour will walk through a university and college connecting youth to green infrastructure, through a commercial facility making an individual impact on stormwater, and end at Riverside County Flood Control and Water Conservation District. (Meet: Riverside Convention Center main entrance) - Participants limited to confirmed registrants

TRAINING WORKSHOPS (Morning)	Data-Driven Decision Making Managing Stormwater in the Data Digital Age	Industrial General Permit Compliance Implementation and TMDLs	International Low Impact Development Sponsored by Shenzhen Harmony Environmental Technology Co., Ltd. and Tetra Tech	Construction SWPPP Specifications - Moving Beyond Lump Sum	Municipal Stormwater 101	Quantitative Microbial Risk Assessment QMRA: What it is and What it is Not
	FULL-DAY Room: Raincross A & D (Upper Level)	FULL-DAY Room: Raincross B & E (Upper Level)	FULL-DAY Room: Raincross C & F (Upper Level)	MORNING Room: Meeting Room 7-8 (Upper Level)	MORNING Room: Meeting Room 1-3 (Lower Level)	MORNING Room: Ballroom A (Lower Level)
MODERATORS	Eric Bollens CloudCompli Grant Sharp County of Orange	Matt Lentz GSI Environmental Jeremy Laurin Pacific Gas & Electric	Chris Crompton County of Orange Jian Peng County of Orange	Sandy Mathews Larry Walker Associates	Michael Trapp Michael Baker International Brian Currier Office of Water Programs at Sacramento State	Andrea Crumpacker Weston Solutions, Inc.
8:30a to 10:00a	<p>Introduction Grant Sharp County of Orange <i>Eric Bollens</i> <i>CloudCompli</i></p> <p>Models for Quantifying Data: Water Quality Scoring <i>Ken Schiff</i> <i>Southern California Coastal Water Research Project</i></p> <p>Models for Quantifying Data: Bioassessment Scoring <i>Clint Boschen</i> <i>Tetra Tech</i></p> <p>Models for Quantifying Data: Trash Scoring <i>Gary Conley</i> <i>2NDNATURE</i></p> <p>Models for Quantifying Data: BMP Scoring <i>Eric Bollens</i> <i>CloudCompli</i></p>	<p>Welcome /Year in Review <i>Matt Lentz</i>, <i>GSI Environmental</i> <i>Jeremy Laurin</i> <i>Pacific Gas & Electric</i></p> <p>IGP Draft TMDL Amendment and Implementation <i>Shuka Rastegarpour</i> <i>Rebecca Greenwood</i> <i>Laurel Warddrip</i> <i>State Water Resources Control Board</i></p>	<p>Overview of Workshop <i>Chris Crompton</i> <i>Jian Peng</i> <i>County of Orange</i></p> <p>CASQA Vision of LID and Green Infrastructure <i>Daniel Apt</i> <i>Olaunu</i> <i>CASQA Chair</i></p> <p>Identifying a Disconnect Between Walkable Urban Design and Green Infrastructure <i>Thomas Low</i> <i>Civic By Design</i></p> <p>China's Sponge City Practices – A Look Back After 3 Years <i>Zhang Linwei</i> <i>Secretary General,</i> <i>China Association of Water Supply and Drainage,</i> <i>People's Republic of China</i></p>	<p>Introduction and Welcome <i>Sandy Mathews</i> <i>Larry Walker Associates</i></p> <p>Current State of SWPPP Specification Practice <i>Christine Williams</i> <i>Granite Construction</i></p> <p>Major Components of a SWPPP Specification <i>Bob Shults</i> <i>Verux</i></p> <p>Lump Sum and Bid Items Specifications <i>Ben Rau</i> <i>Verux</i></p> <p>Hands on Exercise Part 1 <i>Tanya Bilezikjian</i> <i>Michael Baker International</i> <i>Christine Williams</i> <i>Granite Construction</i></p>	<p>Introduction to Stormwater 101 <i>Michael Trapp</i> <i>Michael Baker International</i></p> <p>Definitions and Impacts of Stormwater; Clean Water Act Terminology <i>Brian Currier</i> <i>Office of Water Programs at Sacramento State</i></p> <p>Why do I Care?: NPDES Permitting: Phase I & II, CGP, IGP, Trash <i>Keith Lichten</i> <i>San Francisco Bay Regional Water Quality Control Board</i></p> <p>BMP Review: Post Construction Treatment <i>Ken Susilo</i> <i>Geosyntec Consultants</i></p> <p>What Is CASQA? Maximize Your Benefits and Get Involved! <i>Daniel Apt</i> <i>Olaunu</i></p>	<p>Introduction <i>Andrea Crumpacker Weston Solutions, Inc.</i></p> <p>State Board Updates <i>Karen Black</i> <i>State Water Resources Control Board</i></p> <p>An Introduction to QMRA <i>John Ravenscroft</i> <i>U.S. EPA</i></p> <p>QMRA Examples <i>Ali Boehm</i> <i>Stanford University</i></p>



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NOTE: This printed agenda is provisional and subject to change

CASQA Training Workshops Agenda Monday, October 15 (continued)

10:00a–10:30a BREAK (Upper Concourse) AND POSTER PRESENTATION AUTHORS AVAILABLE (Upper Level)

TRAINING WORKSHOPS (Morning)	Data-Driven Decision Making Managing Stormwater in the Data Digital Age	Industrial General Permit Compliance Implementation and TMDLs	International Low Impact Development Sponsored by Shenzhen Harmony Environmental Technology Co., Ltd. and Tetra Tech	Construction SWPPP Specifications - Moving Beyond Lump Sum	Municipal Stormwater 101	Quantitative Microbial Risk Assessment QMRA: What it is and What it is Not
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10:30a to 12:00p	<p>Issues with Quantifying Data: Experimental Design <i>Nicole Beck</i> <i>2NDNATURE</i></p> <p>Issues with Quantifying Data: Monitoring Data <i>Eric Stein</i> <i>Southern California Coastal Water Research Project</i></p> <p>Issues with Quantifying Data: BMP Data <i>Nabiul Afrooz</i> <i>Southern California Coastal Water Research Project</i></p> <p>Issues with Quantifying Data: Silos of Data <i>Grant Sharp</i> <i>County of Orange</i></p> <p>Quantifying Data (Breakout)</p>	<p>Panel: Regional Water Quality Control Board Panel on IGP Implementation, Amendment and Enforcement</p> <p><i>Michelle Beckwith</i> <i>Santa Ana Regional Water Quality Control Board</i></p> <p><i>Michelle Rembaum-Fox</i> <i>San Francisco Regional Water Quality Control Board</i></p> <p><i>Richard Muhl</i> <i>Central Valley Regional Water Quality Control Board</i></p> <p><i>Pavlova Vitale</i> <i>Los Angeles Regional Water Quality Control Board</i></p>	<p>The Role of Public–Private Partnerships (PPP) and Other Funding Approaches in Implementing LID</p> <p>China's PPP Practices – Accomplishments and Lessons Learned <i>Man Li</i> <i>PPP Research Institute, Ministry of Finance, the People's Republic of China</i></p> <p>Performance-Based Contracting and Integrated Solutions for Stormwater <i>George Kelly</i> <i>RES</i></p>	<p>Tools for Improving Specifications and Quantifying Uncertainty</p> <p>Estimating Rain Days <i>Tanya Bilezikjian</i> <i>Michael Baker International</i></p> <p>Developing Schedule of Values <i>Bob Shults</i> <i>Verux</i></p> <p>Compliance Responsibility Provisions <i>Ben Rau</i> <i>Verux</i></p> <p>Hands on Exercise Part 2 <i>Tanya Bilezikjian</i> <i>Michael Baker International</i></p> <p><i>Christine Williams</i> <i>Granite Construction</i></p> <p>Case Study: Examples of Real Specifications <i>Russ Foster</i> <i>J.F.Shea Co., Inc.</i></p> <p>Facilitated Discussion: How to Use Tools to Improve Your Specifications <i>Sandy Mathews</i> <i>Larry Walker Associates</i></p> <p><i>Note: Attendees are encouraged to bring their specifications or examples and discuss how they can be improved based on what they have learned.</i></p> <p>Closing Remarks <i>Sandy Mathews</i> <i>Larry Walker Associates</i></p>	<p>The Minimum Measures for an MS4 Program <i>Sherill Huun</i> <i>City of Sacramento</i></p> <p>Monitoring Basics: Getting Actionable Data <i>Michael Trapp</i> <i>Michael Baker International</i></p> <p>CASQA Program Effectiveness Assessment & PEA and Template for Phase II <i>Karen Ashby</i> <i>Larry Walker Associates</i></p> <p>Tools Review: BMP Handbook; LID Phase II Sizing Tool; Phase II Training Videos <i>Brian Currier</i> <i>Office of Water Programs at Sacramento State</i></p>	<p>QMRA Examples <i>Jeff Soller</i> <i>Soller Environmental</i></p> <p>EPA Site-Specific QMRA Implementation Guidance <i>John Ravenscroft</i> <i>U.S. EPA</i></p> <p>Panel Discussion, Q&A <i>All speakers</i></p>

12:00p–1:30p EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse) AND LUNCH (Ben H. Lewis Hall A & B)

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CASQA Training Workshops Agenda Monday, October 15 (continued)

TRAINING WORKSHOPS (Afternoon)	Data-Driven Decision Making Managing Stormwater in the Data Digital Age	Industrial General Permit Compliance Implementation and TMDLs	International Low Impact Development Sponsored by Shenzhen Harmony Environmental Technology Co., Ltd. and Tetra Tech	Legal Update	Public Education	Sustainable Stormwater Management Desilofication, Bringing Water Together in California	Trash Connecting the PLUs – Considerations for Developing the Trash Amendment Implementation Plans
	FULL-DAY Room: Raincross A & D (Upper Level)	FULL-DAY Room: Raincross B & E (Upper Level)	FULL-DAY Room: Raincross C & F (Upper Level)	AFTERNOON Room: Meeting Room 7-8 (Upper Level)	AFTERNOON Room: Meeting Room 9-10 (Upper Level)	AFTERNOON Room: Meeting Room 1-3 (Lower Level)	AFTERNOON Room: Ballroom A (Lower Level)
MODERATORS	Eric Bollens CloudCompli Grant Sharp County of Orange	Matt Lentz GSI Environmental Jeremy Laurin Pacific Gas & Electric	Chris Crompton County of Orange Jian Peng County of Orange	Ryan Baron Best Best & Krieger	Stephen Groner SGA Marketing	Lisa Skutecki Brown and Caldwell Daniel Apt Olaunu	Karen Ashby & Paul Hartman , Larry Walker Associates Chris Sommers EOA
1:30p to 3:00p	<p>Panel: Data Sourcing Opportunities: Remote Sensing</p> <p><i>Panelists:</i> <i>Chris Tull</i> <i>California Data Collaborative</i> <i>Garth Engelhorn</i> <i>Alta Environmental</i> <i>Chad Helmle</i> <i>Tetra Tech</i> <i>Wayne Tate</i> <i>Eagle Aerial</i></p> <p>Data Sourcing Opportunities: Open Data (from the State) <i>David Altare</i> <i>State Water Resources Control Board</i></p> <p>Data Sourcing Opportunities: Open Data (from the County) <i>Cameron Smith</i> <i>County of Orange</i></p> <p>Data Sourcing Opportunities: Open Data (in Stormwater Tools) <i>Eric Bollens</i> <i>CloudCompli</i></p>	<p>Industrial Stormwater and Citizen Suit Enforcement 101 – Roadmap and Lessons Learned <i>Wayne Rosenbaum</i> <i>Environmental Law Group LLP</i></p> <p>Pollutant Source Assessments, Monitoring and Sampling – The Building Blocks that Drive Big \$\$ Decisions <i>Matt Hillyard</i> <i>Farrallon Consulting</i></p> <p>ERA Level 2 Demonstrations and Living in Level 2 <i>Pat Galvin</i> <i>Geosyntec Consultants</i></p>	<p>Innovative LID Case Studies</p> <p>Case Studies from North America and the United Kingdom <i>Thomas Low</i> <i>Civic By Design</i></p> <p>China's Sponge City Case Studies <i>Ethan Guo</i> <i>Qingze Environmental Science and Technology Co. Ltd.</i></p> <p>International LID in Australia: Water Sensitive Urban Design Principles in Practice <i>Brandon Winfrey</i> <i>Monash University, Australia</i></p>	<p>This panel of legal experts will provide a general update on current legal issues affecting the storm water community, including unfunded state mandates litigation and recent claims filed on the statewide trash requirements, and Los Angeles Waterkeeper v. Pruitt, a recent court opinion directing EPA to regulate runoff from commercial, industrial and institutional sites under EPA's residual designation authority. Other recent state issues will be covered.</p> <p><i>Rebecca Andrews</i> <i>Best Best & Krieger</i> <i>Nicole Granquist</i> <i>Downey Brand</i></p>	<p>Understanding Your Audience - Research / Evaluation <i>Stephen Groner</i> <i>SGA Marketing</i></p> <p>Putting Social Media to Work <i>Talia Walsh</i> <i>Heal the Bay</i></p> <p>Outreach & Funding - LA Stormwater Measure <i>Kerion Lee</i> <i>Los Angeles County Department of Public Works</i></p>	<p>Overview of Workshop, Context, and History <i>Daniel Apt</i> <i>Olaunu</i></p> <p><i>Lisa Skutecki</i> <i>Brown & Caldwell</i></p> <p>STORMS Final Report: Enhancing Urban Runoff Capture and Use <i>Chris Beegan</i> <i>State Water Resources Control Board</i></p> <p>Integrated Regional Water Management Plans (IRWMPs) and Stormwater <i>Kelley List</i> <i>Department of Water Resources</i></p> <p>The American Rainwater Catchment System Association (ARCSA) and the National Perspective <i>Neal Shapiro</i> <i>City of Santa Monica</i></p> <p>Communicating the Value of Multi-Benefit Stormwater Capture Projects <i>Nicole Beck</i> <i>2nd Nature, LLC</i></p>	<p>Welcome / Opening <i>Karen Ashby</i> <i>Paul Hartman</i> <i>Larry Walker Associates</i> <i>Chris Sommers</i> <i>EOA</i></p> <p>Regulatory Perspective Panel</p> <p>State Water Board <i>Leo Cosentini</i> <i>Jaime Favila</i> <i>State Water Resources Control Board</i></p> <p>Regional Water Board <i>Barbara Barry</i> <i>Santa Ana Regional Water Quality Control Board</i></p> <p>Mosquito and Vector Control <i>Jennifer Henke</i> <i>Mosquito and Vector Control Association of California</i></p> <p>California Department of Transportation - Approach for Trash – Working with MS4s - Cooperative Agreements <i>Tom Rutsch</i> <i>California Department of Transportation</i></p>

NETWORKING EVENT Monday, October 15, 6:00 p.m.–10:30 p.m. | Riverside Municipal Auditorium



Our eighth annual Networking Event will be held at the nearby Riverside Municipal Auditorium, an historic landmark designed by famed Mission Inn architects Arthur Benton and G. Stanley Wilson in 1928. This is a unique opportunity to socialize after hours, enjoy food and entertainment, and continue the stormwater discussion. Dinner is included. This event is included with a 3-Day Full Conference Pass. A limited number of tickets will be available at Conference Services until 1:30 p.m. on Monday 10/15 (\$80 - onsite pricing). Tickets are not available at-the-door.

CASQA Training Workshops Agenda Monday, October 15 (continued)

3:00p–3:30p BREAK AND EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)							
TRAINING WORKSHOPS (Afternoon)	Data-Driven Decision Making Managing Stormwater in the Data Digital Age	Industrial General Permit Compliance Implementation and TMDLs	International Low Impact Development Sponsored by Shenzhen Harmony Environmental Technology Co., Ltd. and Tetra Tech	Legal Update	Public Education	Sustainable Stormwater Management Desilofication, Bringing Water Together in California	Trash Connecting the PLUs–Considerations for Developing the Trash Amendment Implementation Plans
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MODERATORS	Eric Bollens CloudCompli Grant Sharp County of Orange	Matt Lentz GSI Environmental Jeremy Laurin Pacific Gas & Electric	Chris Crompton County of Orange Jian Peng County of Orange	Ryan Baron Best Best & Krieger	Stephen Groner SGA Marketing	Lisa Skutecki Brown and Caldwell Daniel Apt Olaunu	Karen Ashby & Paul Hartman , Larry Walker Associates Chris Sommers EOA
3:30p to 5:00p	Collaborating with Water Districts <i>Drew Atwater</i> <i>Moulton Niguel Water District</i> Collaborating with Other Agencies <i>Rob Budd</i> <i>California Department of Pesticide Regulation</i> Collaborating with NGOs <i>Ryan Searcy</i> <i>Heal the Bay</i> Collaborating with Research <i>Nalini Venkatasubramanian</i> <i>University of California, Irvine</i> Panel: Future of Data-Driven Stormwater Panelists: <i>Michael Trapp</i> <i>Michael Baker International (Moderator)</i> <i>Greg Gearheart</i> <i>State Water Resources Control Board</i> <i>Chris Tull</i> <i>California Data Collaborative</i> <i>Gary Conley</i> <i>2NDNATURE</i> <i>Grant Sharp</i> <i>County of Orange</i> <i>Eric Bollens</i> <i>CloudCompli</i>	Vendor Treatment Panel - Discussions on Treatment Strategies <i>Lori Pettegrew</i> <i>Farallon Consulting (Panel Moderator)</i> <i>TJ Mothersbaugh</i> <i>Watertectonics</i> <i>Rob Chapler</i> <i>StormwaterRX, LLC</i> <i>Craig Kolodge</i> <i>Filtrexx International</i> Interactive Discussion and Key Items for Next Draft Industrial General Permit <i>Rebecca Greenwood</i> <i>Laurel Warddrip</i> <i>State Water Resources Control Board</i> Q&A and Closing <i>Matt Lentz</i> <i>GSI Environmental</i> <i>Jeremy Laurin</i> <i>Pacific Gas and Electric</i>	Retrofitting China's Old City Blocks – Strategies and Performance <i>Sui Jun</i> <i>Guangdong Shouhullantian Engineering Co. Ltd.</i> LID Performance Assessment, Research, and Modelling of Outcomes LID Planning – A Modeling Approach <i>Stephen Carter</i> <i>John Riverson</i> <i>Paradigm Environmental</i> Orange County Public Works Glassell Campus LID Project Performance Assessment <i>Jian Peng</i> <i>County of Orange</i> Questions and Wrap-up <i>Chris Crompton</i> <i>County of Orange</i>	This panel will discuss the recent wave of third party citizen lawsuits against industrial dischargers and MS4s, including case updates, defense strategies and best practices. <i>Tess Dunham</i> <i>Somach Simmons & Dunn</i> <i>Shawn Hagerty</i> <i>Best Best & Krieger</i>	How to Work With Elected Officials <i>Darcy Kuenzi</i> <i>Riverside County Flood Control and Water Conservation District</i> How to Work With the Media <i>Carolina Gonzalez</i> <i>SGA Marketing</i> Using Stories to Get Your Message Out <i>Jeff Girod</i> <i>University of California, Riverside</i>	Stormwater Capture - Enhancing Recharge and Direct Use Through Data Collection <i>Lee Alexanderson</i> <i>Southern California Water Coalition</i> Bring It Down, Spread It Around, Put It In the Ground <i>Thomas Low</i> <i>Civic By Design</i> Capture and Use Design Strategies and Challenges <i>Jeremy Hohnbaum</i> <i>Tetra Tech</i> Sustainable Stormwater Capture in San Francisco <i>Sarah Bloom</i> <i>San Francisco Public Utilities Commission</i> Panel Discussion <i>All training workshop speakers</i> Closing Summary <i>Daniel Apt</i> <i>Olaunu</i> <i>Lisa Skutecki</i> <i>Brown & Caldwell</i>	Track 1 Perspective and Approaches Phase I <i>Justin Gamble</i> <i>City of Oceanside</i> Phase II <i>Stephanie Reyna-Hiestand</i> <i>City of Tracy</i> Phase I Port <i>Stephanie Bauer</i> <i>Port of San Diego</i> Track 2 Perspective and Approaches Phase I <i>Jim Harry</i> <i>City of San Diego</i> Phase II <i>Delyn Ellison-Lloyd</i> <i>City of Roseville</i> Non-Traditional <i>Amanda Grey</i> <i>University of California, Riverside</i>
5:00p–6:00p EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)							
6:00p–10:30p NETWORKING EVENT (Off-site: Riverside Municipal Auditorium) Included with a 3-Day Full Conference Pass. A limited number of tickets will be available at Conference Services until 1:30 pm on Monday 10/15 (\$80 - onsite pricing). Tickets are not available at-the-door.							

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CleanWay[®] StormClean[®] curb inlet filter inserts are highly effective at filtering and removing pollutants from off the street stormwater runoff. They can be used for direct capture, for pre-treatment, and in treatment trains for protection of downstream devices including swales, detention/retention ponds and infiltration trenches. CleanWay curb inlet filter units fit nearly all existing structures.



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Congratulations to the 2018 CASQA Award Winners

The CASQA annual awards recognize outstanding projects, activities, and people in the stormwater management profession. To learn more about CASQA's 2018 award winners, look for the blue ribbons in the conference program.

OUTSTANDING INDUSTRIAL SUSTAINABLE STORMWATER BMP PROJECT

Relocation of Industrial Activities from Irwindale Plant to Adelanto Zero Discharge Plant

Clark Pacific

BLUE RIBBON POSTER

The sustained growth of Clark Pacific's precast concrete manufacturing and erecting business outpaced the 23-acre Irwindale manufacturing plants production capabilities. The project developed a 111-acre site that would serve operational needs while assuring the reduction or elimination of environmental impacts in the precast manufacturing process. The site presented the opportunity for implementation of LID principles in stormwater reduction, maximized infiltration and reclamation close to its source.

This project successfully achieved its main objectives:

1. Eliminating a stormwater source with the closure of the Irwindale plant;
2. Preventing industrial runoff with the creation of a zero discharge site;
3. Replenishing groundwater;
4. Saving potable water through reclamation of process waters;
5. Providing an additional water source;
6. Meeting sustainability criteria

TSS filtration press



Photos and illustrations courtesy of the respective award winners



Process Water
Recycling Ponds

OUTSTANDING REGIONAL STORMWATER BMP IMPLEMENTATION PROJECT

Dairy Fork Wetland and Habitat Restoration Regional Project

City of Aliso Viejo

The Dairy Fork Wetland and Habitat Restoration Regional Project is a regional project supported by the cities of Aliso Viejo, Lake Forest, Laguna Hills and Laguna Woods. This project included the construction of 2 acres of wetland and the restoration of 25 acres of natural habitat within the Dairy Fork sub-watershed which is a tributary of Aliso Creek watershed in South Orange County. This wetland improves the quality of urban runoff draining from 1,500 acres of mixed residential and commercial area by reducing concentration of pollutants such as bacteria by as much as 99%. The habitat restoration removed non-native species, including about ten acres of invasive Arundo. Funding provided by four partner agencies and grants from Orange County Transportation Authority and Proposition 84.



Project Site
Pre-construction –
February 2016 (left);
Dairy Fork Wetland –
May 2017 (right)



Dairy Fork Wetland –
November 2017

**OUTSTANDING COMMERCIAL
STORMWATER BMP
IMPLEMENTATION PROJECT**

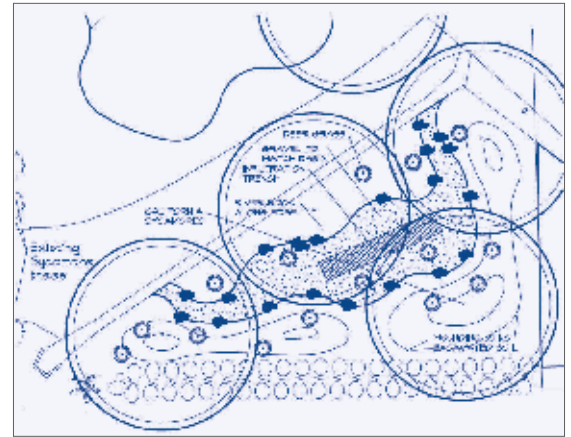
**Urban Low Impact Development
Best Management Practice
Commercial Site Retrofit Project**

CASC Engineering and Consulting

BLUE RIBBON POSTER

Retrofitting of an existing commercial site to reduce stormwater discharges is something that would typically be done only if required by regulation or permit. As a leading stormwater consultant, CASC decided to retrofit their corporate office property into an attractive and effective LID site on their own.

The BMPs drastically reduces the site's stormwater discharges, increases infiltration, reduces potable water use for irrigation, and provides True Source Control by eliminating turf areas and reducing potential discharges of fertilizers and pesticides. The retrofit also provides an opportunity for others to see how LID BMPs can be effectively integrated into a commercial site.



Clockwise from top left: Runoff capture and infiltration;
South Basin schematic design; Infiltration testing

**OUTSTANDING STORMWATER
RESEARCH PROJECT**

International Stormwater BMP Database

*Geosyntec, Wright Water Engineers, Inc.,
Water Research Foundation, with
cooperating organizations: EWRI/ASCE,
USEPA, FHWA, UDFCD, and APWA*

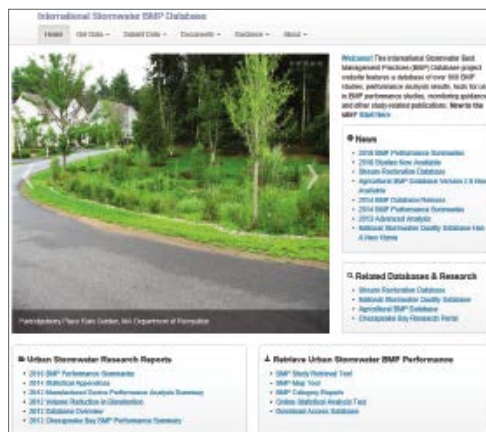
The International Stormwater Best Management Practices Database is a publicly accessible repository for BMP performance, design, and cost information. The overall purpose of the project is to provide scientifically sound information to improve the design, selection and performance of BMPs.

Applications of the project include: informing BMP design and selection by public and private entities; informing regulatory development, including numerous TMDL implementation plans and statewide regulatory initiatives; informing development of regional and local stormwater BMP guidance documents; and providing data sets and summary information for research efforts.

For over 20 years, a national coalition of sponsors has enabled the project to evolve, including Water Environment Research Foundation (now Water Research Foundation), Federal Highway Administration, Environmental and Water Resources Institute of the American Society of Civil Engineers, American Public Works Association, and U.S. Environmental Protection Agency.



Geographical distribution
of stormwater BMPs in the
BMP Database in the U.S.



Project home page:
www.bmpdatabase.org



OUTSTANDING NEWS, INFORMATION, OUTREACH, AND MEDIA PROJECT

Poo Points Program

County of San Diego Public Works, Watershed Protection Program in collaboration with Action Research

BLUE RIBBON POSTER

Poo Points is a youth-driven outreach program aimed at promoting proper management of pet waste by large property owners in San Diego County. The program engages local youth groups, such as Girl and Boy Scout troops and 4-H clubs, who educate and obtain in-person commitments from their neighbors to pick up after their dogs in areas with a high likelihood of runoff. Youths earn a "Poo Patch" for successfully completing the outreach. The program has consistently demonstrated increases in self-reported perceptions of dog waste as a contributor to pollution of local waterways, and increased frequency of clean-up. Additionally, Poo Points provides youth leadership and community service opportunities. To date, hundreds of youth and local residents have participated in the Poo Points program.

Youth engagement with property owner



Program materials, left and Poo Patch, right

Photos and illustrations courtesy of the respective award winners, unless otherwise noted



OUTSTANDING NEWS, INFORMATION, OUTREACH, AND MEDIA PROJECT

Storm Drain Detective's Student Monitoring Program

City of Lodi

BLUE RIBBON POSTER

The Storm Drain Detectives is a program in which students monitor the Mokelumne River at five sites, to determine the impact that the City of Lodi's street stormwater is having on the river. Since 2000, several hundred students each year, working with the City of Lodi and their school teachers, learn to calibrate and monitor following a QAPP. Twice a month, students measure and record pH, nitrates, dissolved oxygen, temperature, turbidity, and electrical conductivity, grading their data according to a score sheet based on the SWRCB San Joaquin River Basin Plan. Yearly, students present their year's data finding to the public as well as post their monthly data online for public review. These experiences have led to many students qualifying for scholarships because of their unusual community service. Throughout the program, students are coached by City of Lodi staff, including Environment Compliance Inspectors, the Watershed Program Coordinator, and others.

Students' data findings can be found at www.lodi.gov/Storm_Drain_Detectives/index.html

Tokay High School students monitor the Mokelumne River



Students calibrate before monitoring at five river sites



Lodi High School Storm Drain Detectives present 2017-2018 data and Water Decontaminator project to the public

**OUTSTANDING NEWS, INFORMATION,
OUTREACH, AND MEDIA PROJECT**

**Where Water Meets Community
Rebranding Public Outreach Campaign**

San Bernardino County Stormwater Program

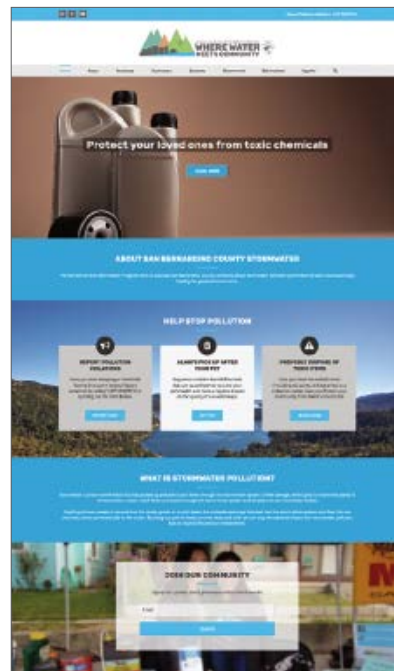
BLUE RIBBON POSTER

The San Bernardino County Stormwater Program's "Where Water Meets Community" is a rebranding effort that created a new public outreach campaign. The campaign focuses on how protecting water quality protects the community. By reframing and targeting with community-oriented messaging, the program found a new voice to motivate residents to action. The program redesigned its website, updated the messaging, developed a branding guide, created new public education materials, and produced an educational animated video.

The rebranding effort adopted a malleable approach to improve the communication and implementation of the program's public education activities. By listening and paying attention to the community's current concerns and issues, the program was able to revitalize interest in stormwater pollution prevention actions.



Various campaign materials



LEADERSHIP AWARD

CASQA is proud to welcome Karen Ashby into the ranks of recipients for its most prestigious award recognizing her outstanding leadership within CASQA and exceptional contributions to the stormwater quality management profession

Karen Ashby

Karen Ashby has been a leader in the stormwater profession in California for over 25 years engaging and listening to stakeholders and working toward comprehensive balanced solutions to complex stormwater and TMDL regulatory and technical problems. She is a vice president at Larry Walker Associates and previously coordinated the Orange County Stormwater Program. Karen has been an active member of CASQA and the prior Stormwater Quality Task Force since the late-1990s and has been a tireless association volunteer and leader. She assisted in the transition of the Task Force to the non-profit CASQA in 2002 and served on the first Board of Directors as Vice-Chair. From 2004 to 2005, she served as the eighth Chair of CASQA. Karen helped to establish the Effectiveness Assessment Subcommittee and throughout its tenure has served intermittently as subcommittee chair and made numerous major contributions to the 2007 and 2015 effectiveness assessment documents. Karen was and continues to be a significant force behind the CASQA Annual Conference, taking on the challenging behind-the-scenes task of Exhibit Coordinator, starting with the 2006 conference.



Karen has been responsible for coordinating exhibitors for the CASQA Annual Conference for the past twelve years. (A scene from the 2017 exhibit hall from is shown above.)

One of the effectiveness assessment documents, below, to which Karen has made major contributions

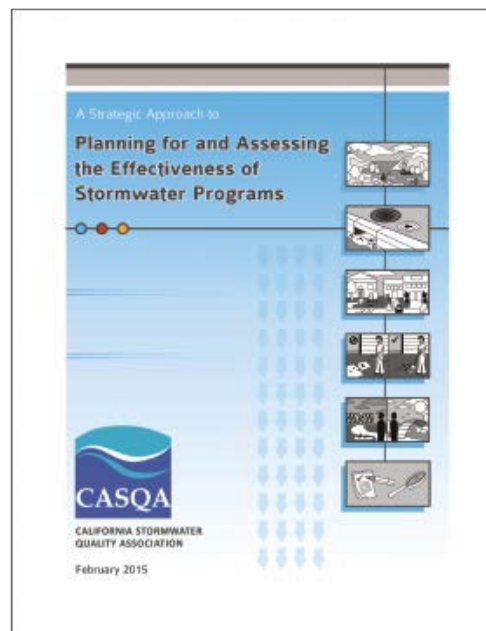


Photo © 2017 Joan Quisick (far left)



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- Drop-inlet option approved as a full capture BMP device
- Curb-inlet option approved as a partial capture BMP device

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CASQA Technical Program Agenda Tuesday, October 16

TUESDAY							
7:30a–5:30p	REGISTRATION DESK AND CONFERENCE SERVICES (Upper Concourse)						
8:00a–5:00p	POSTER SESSION (Upper Level)						
8:00a–7:30p	EXHIBIT HALL OPEN (Ben H. Lewis Hall C & D and Upper Concourse)						
8:30a–9:55a	PLENARY SESSION (Ben H. Lewis Hall A & B) <ul style="list-style-type: none"> WELCOME AND OPENING REMARKS: Daniel Apt, Chair - CASQA Board of Directors CASQA AWARDS ANNOUNCEMENT: Mark Lombos, Chair - Awards Committee CASQA LEADERSHIP AWARD ANNOUNCEMENT AND ACCEPTANCE KEYNOTE ADDRESS: Suzanne Earp, Water Resources Institute, California State University, San Bernardino 						
9:55a–10:20a	BREAK AND EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)						
SESSION 1	Municipal Dry Weather Flows	Homelessness and Water Quality	Dollars and Sense Financial Planning Basics: Getting Organized	Making Stormwater BMPs Work Multi-Faceted Projects	Collaboration and Public Outreach Branding and Outreach	Trash Implementation Planning	Prioritize and Clarify Regulations
	Room: Raincross A & D (Upper Level)	Room: Raincross B & E (Upper Level)	Room: Raincross C & F (Upper Level)	Room: Meeting Room 7-8 (Upper Level)	Room: Meeting Room 9-10 (Upper Level)	Room: Meeting Room 1-3 (Lower Level)	Room: Ballroom A (Lower Level)
MODERATOR	Matt Yeager Riverside County Flood Control & Water Conservation District	Darcy Kuenzi Riverside County Flood Control & Water Conservation District	Ken Susilo Geosyntec Consultants	Andre Sonksen City of San Diego	Jennifer Kaiser Vallejo Flood & Wastewater District	Chris Sommers EOA	Brian Currier Office of Water Programs at Sacramento State
10:20a to 10:50a	Data to Doorsteps: A Rapid Feedback Loop of Low-Flow Data to Inform Outreach Results in Successful Dry Weather Flow Reductions Lauren Moreno County of San Diego	San Bernardino County Homeless Outreach and Proactive Enforcement (HOPE) Program Mike Jones County of San Bernardino	Cracking the Funding Nut! - Lessons Learned from 2018 Balloted Stormwater Funding Efforts John Bliss SCI Consulting Group	Building a SmartBMP: Lakewood's Water Capture Project at Bolívar Park Konya Vivanti City of Lakewood	How to Create an Adaptable Creative Brand that will Amplify your Public Education Efforts Countywide Carolina Gonzalez SGA Marketing	Track 2: Connecting Trash Assessment Data to an Implementation Plan Selena Gonzalez Keish Environmental	Development of New Statewide Guidance on Drywell Siting, Design, and Implementation Matthew Freese State Water Resources Control Board
10:55a to 11:25a	What's in my MS4 Discharge? A New Procedure for Determining Groundwater-Based Flows in Dry Weather Joanna Wisniewska County of San Diego	Every District Counts, What One Special District is Doing to Reduce the Pathway of Homeless Encampment Trash to Waterways Kirsten Struve Santa Clara Valley Water District	Shifting the Mindset: Are You Ready to Sell Your Program for Funding? Jason Drew NCE	The Long-Term Performance, Maintenance, and Operation of LID BMPs in a Semi-Arid Environment Ava Moussavi Riverside County Flood Control and Water Conservation District	A Community-Driven Revitalization Plan for the Lower Los Angeles River Jaime Sayre Tetra Tech	Implementation of Trash Implementation Plans – What Comes Next? Elizabeth Yin Larry Walker Associates	Panel: Prioritize Regulations to Improve MS4 Water Management Outcomes Panelists: Annalisa Kihara State Water Resources Control Board Michelle Beckwith State Water Resources Control Board Richard Boon Riverside County Flood Control & Water Conservation District Greg Gearheart State Water Resources Control Board
11:30a to 12:00p	Isotope Isolation: Using Stable Isotope Analysis to Track Non-Stormwater Flow Sources Alex Messina Wood Environment and Infrastructure Solutions, Inc.	Panel: Homelessness and Water Quality Panelists: Mike Antos Santa Ana Watershed Authority Mike Jones County of San Bernardino Kirsten Struve Santa Clara Valley Water District Natalie Komuro County of Riverside	Lighting the Fire - Making the Business Case and Building a Diverse Funding Portfolio for Green Infrastructure Matthew Fabry San Mateo Countywide Water Pollution Prevention Program	The Big Canyon Restoration and Water Quality Improvement Project – Integrating Water Quality Improvements into Coastal Restoration Steve Gruber Burns & McDonnell Engineering	Engaging the Disengaged: Involving Homeowners Association in Stormwater Management Jennifer Tabanico Action Research	Baseline Trash Generation Rates Specific to the San Diego Region Stephanie Gaines County of San Diego	
12:00p–1:15p	LUNCH (Ben H. Lewis Hall A & B)						
1:15p–1:35p	EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)						

SESSION 2	Municipal Implementation	Total Maximum Daily Loads Bacterial TMDLs	Dollars and Sense Assembling a Funding Portfolio	Making Stormwater BMPs Work Guidance	Collaboration and Public Outreach It's All About Connections	Trash Trash Assessment and Tracking	Prioritize and Clarify Regulations How Should Environmental Flows Inform MS4 Permits
	Room: Raincross A & D (Upper Level)	Room: Raincross B & E (Upper Level)	Room: Raincross C & F (Upper Level)	Room: Meeting Room 7-8 (Upper Level)	Room: Meeting Room 9-10 (Upper Level)	Room: Meeting Room 1-3 (Lower Level)	Room: Ballroom A (Lower Level)
MODERATOR	Arlene Chun San Bernardino County Department of Public Works	Helen Yu San Diego Regional Water Quality Control Board	Gerhardt Hubner Gerhardt J Hubner Consulting	René Vidales County of San Diego	Sharon Gosselin County of Alameda	Delyn Ellison-Lloyd City of Roseville	Chris Beegan State Water Resources Control Board
1:35p to 2:05p	What's the Potential to Generate Alternative Compliance Stormwater Credits within Capital Improvement Programs? <i>Jarrod Miller</i> <i>WSP</i>	Successful Implementation of a Bacteria TMDL in a Complex Urban Environment <i>Richard Meyerhoff</i> <i>GEI Consultants</i>	Asset Management and Rate Structure Development for Municipal Stormwater Programs <i>Erik Porse</i> <i>Office of Water Programs at Sacramento State</i>	Project Success through Full-Scale Infiltration BMP Testing <i>Bill DeJong</i> <i>Torrent Resources</i>	Extra! Extra! Read All About It! Lodi Takes a Novel Approach Connecting People of the Watershed <i>Kathy Grant</i> <i>City of Lodi</i>	A Quantitative Approach to Trash Control Implementation <i>Walter Yu</i> <i>California Department of Transportation</i>	Establishing Environmental Flow Criteria for California Streams <i>Eric Stein</i> <i>Southern California Coastal Water Research Project</i>
2:10p to 2:40p	Implementing a Stormwater Program in the Desert - Approaches for Success <i>Melanie Sotelo</i> <i>CASC Engineering and Consulting, Inc.</i>	Fecal Coliform TMDL Stakeholder Process - What Was Learned <i>Chris Crompton</i> <i>County of Orange</i>	Fees, Sites, and Credits: Alternative Stormwater Compliance in San Francisco <i>Katie Pilat</i> <i>Lotus Water Engineers</i>	Stormwater as a Resource: Best Practices in Design, Construction, and Implementation <i>Keone Kauo</i> <i>Cannon</i>	Wonder Twins Activate! Stormwater and Sewer - Friend or Foe? <i>Lisa Haney</i> <i>Orange County Sanitation District</i>	Butt Out: A Behavior-Based Data-Driven Model for Reducing Trash in Commercial Areas <i>Jennifer Tabanico</i> <i>Action Research</i>	Modeling the Complexities of Water Supply, Water Demand, Instream Flows, and Sustainable Water Management Scenarios <i>John Riverson</i> <i>Paradigm Environmental</i>
2:45p to 3:15p	Connecting Various Watershed Planning Requirement Drops Using the LPR Model <i>Cathleen Garand</i> <i>Santa Barbara County</i>	Microbial Source Identification Study for Buccaneer Beach and Loma Alta Creek <i>Alexander Schriewer</i> <i>Weston Solutions, Inc.</i>	Can User Fees for Stormwater Funding be in Your Future? What Are the Connections Between Service Needs and Effective Methods for User Fee Adoption? <i>Elizabeth Treadway</i> <i>Wood Environment and Infrastructure Solutions, Inc.</i>	Who'll Capture the Rain <i>Dave Mercier</i> <i>Michael Baker International</i>	Young Voices Connecting the Dots for Improved Water Quality from Schools to Shining Sea <i>Bill Dean</i> <i>BCK Programs, LLC</i>	Getting Your Feet Wet – A Fresh Approach to Monitoring Trash Quantities in the Los Angeles River and Ballona Creek <i>Donna Chen</i> <i>ADViTECH Environmental, Inc.</i>	Panel: How Should Environmental Flows Inform MS4 Permits <i>Panelists:</i> <i>Eric Stein</i> <i>Southern California Coastal Water Research Project</i> <i>John Riverson</i> <i>Paradigm Environmental</i> <i>Sean Maguire</i> <i>State Water Resources Control Board</i> <i>Keith Lichten</i> <i>San Francisco Bay Regional Water Quality Control Board</i>
3:15p–3:45p	BREAK AND EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)						



KEYNOTE SPEAKER

Suzanne (Suzie) Earp
Tuesday, October 16, 8:30 a.m.

Suzanne (Suzie) Earp is the Director / Archivist of the Water Resources Institute, California State University,

San Bernardino, and noted Water Historian. Her keynote address will focus around the question: *What do we do when it floods?* Suzie will share stories and images of the great

1938 flood in southern California. Earp has more than 150 pictures of the flood itself along with an extraordinary 1938 home movie.

She will show before and after shots of specific locations that were impacted by the flood, including Mill and E in San Bernardino and the Southern Pacific Yards in Colton. Her talk, which will include background information about local demographics and a brief history of floods in San Bernardino, emphasizes the human and social side of natural disasters: experiences and consequences.

CASQA Technical Program Agenda Tuesday, October 16 (continued)

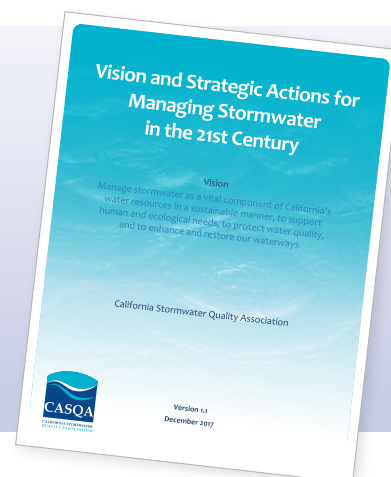
SESSION 3	Municipal Planning	Innovation in Data Panel: Innovation Using Open Source Technology and Public Data Sharing	Dollars and Sense Alternative Procurement and Delivery Methods	Making Stormwater BMPs Work Planning	Industrial Advanced BMPs / Case Studies	Sustainability Solving Sustainability	Efficient Permit Implementation Building Innovative Tools for Collaboration: Session 1
	Room: Raincross A & D (Upper Level)	Room: Raincross B & E (Upper Level)	Room: Raincross C & F (Upper Level)	Room: Meeting Room 7-8 (Upper Level)	Room: Meeting Room 9-10 (Upper Level)	Room: Meeting Room 1-3 (Lower Level)	Room: Ballroom A (Lower Level)
MODERATOR	Sheri Dister Weston Solutions, Inc.	Vicki Kalkirtz City of San Diego	Chad Praul Environmental Incentives	Kimberly Valenzuela City of San Diego	Katie McCoy Kennedy/Jenks Consultants	Stephanie Gaines County of San Diego	Amanda Aprahamian County of Orange
3:45p to 4:15p	Connecting the Drops in Santa Clara Valley - Stormwater Capture Project Identification, Prioritization, and Concept Design to Facilitate Green Stormwater Infrastructure Planning <i>Jill Bicknell</i> Santa Clara Valley Urban Runoff Pollution Prevention Program	<i>Panelists:</i> <i>Robert Larsen</i> Lahontan Regional Water Quality Control Board <i>Cindy Rivers</i> County of Orange <i>Jeanna Long</i> Woodard & Curran	Stormwater Public-Private Partnerships (P3s) as Potential Solutions for Meeting Stormwater Needs: A Summary of Perspectives from the 2018 National P3 Water Summit <i>Ken Susilo</i> Geosyntec Consultants	The Science, Policy, and Economics of Achieving Stormwater Capture and Water Neutrality - A Case Study of the University of California, Irvine Campus <i>Emily Parker</i> University of California, Irvine	Sierra Aluminum Company: A Corporate Priority to Stormwater Compliance <i>Kathryn Hubbard</i> <i>Haley & Aldrich</i>	Solving the Sustainability Puzzle: Designing Urban Greening Concepts That Meet the Needs of the City and Community <i>Wing Tam</i> City of Los Angeles	Sharing the Burden - Cost-Benefit Analysis from the First Reasonable Assurance Analysis Performed in the San Francisco Region <i>Stephen Carter</i> Paradigm Environmental
4:20p to 4:50p	Planning to Implement Your Watershed Management Program: The USGR Feasibility Study <i>James Cramsie</i> City of Industry		How to Engage Private Entrepreneurs Using Pay for Performance <i>Grant Sharp</i> County of Orange	Long Beach Municipal Urban Stormwater Treatment Project - Diverting and Treating Urban Runoff for Compliance and Water Supply Augmentation <i>Ed Othmer</i> Stantec	Lessons Learned from Washington State Industrial Stormwater General Permit: Compliance Strategy for Transportation Facilities under the California Industrial General Stormwater Permit <i>Chris Meng Horng Hsu</i> GSI Environmental	Linkages to Ensure Sustainability - Merging Flood Resiliency Planning, Green Infrastructure, and Water Quality Improvement <i>Leila Talebi</i> Paradigm Environmental	Thinking Outside Linear Compliance - Permit Efficiency through Multi-Discipline-icity <i>Sarah Huber</i> Weston Solutions, Inc.
4:55p to 5:25p	rEWMP: Reducing Cost and Gaining Public Buy-In Using Strategic Adaptive Management <i>Alex Tachiki</i> City of Monrovia		How a Public-Private Partnership (P3) Can Fund Your Project <i>Katie Harrel</i> CWE	Lessons Learned from San Francisco's First Stormwater Schoolyard <i>Sarah Bloom</i> San Francisco Public Utilities Commission	Lessons Learned - Metals Industry Operations and Compliance with the IGP <i>Jodie Crandell</i> KERAMIDA, Inc.	Approaches to Integrating Multi-Benefit Stormwater Projects in Parks <i>Samantha Cohen</i> Brown and Caldwell	Expanding Fee-In-Lieu Programs to Provide Greater Opportunities for Cost-Effective Compliance <i>Jeremy Sokulsky</i> Environmental Incentives
5:30p-7:30p	EXHIBITOR RECEPTION (Ben H. Lewis Hall C & D and Upper Concourse)						

CASQA'S VISION

CASQA's *Vision and Strategic Actions for Managing Stormwater in the 21st Century* addresses the primary issue for stormwater management: The lack of consensus on how best to meet the goals of the Clean Water Act for stormwater. CASQA developed the Vision and Strategic Actions for CASQA, its members, and the public to pursue a comprehensive plan for stormwater that will achieve the goals of the Clean Water Act and improve the efficiency and effectiveness of stormwater management.



> LEARN MORE: Scan the code or go to www.casqa.org/about/vision



WEDNESDAY							
7:30a–3:00p	REGISTRATION DESK AND CONFERENCE SERVICES (Upper Concourse)						
8:00a–8:35a	EXHIBITOR FOCUS (Ben H. Lewis Hall C & D and Upper Concourse)						
8:00a–12:00p	EXHIBIT HALL OPEN (Ben H. Lewis Hall C & D and Upper Concourse)						
8:00a–1:20p	POSTER SESSION (Upper Level)						
SESSION 4	Municipal Green Streets	Innovation in Data Innovations in Methodologies and Standardization	Construction Panel: Partnership with the Regulators - Construction General Permit	Making Stormwater BMPs Work Media Science	Industrial Compliance Strategies	Sustainability Scaling Sustainability	Invited Workshop Municipal Stormwater Program and Permit Evolution
	Room: Raincross A & D (Upper Level)	Room: Raincross B & E (Upper Level)	Room: Raincross C & F (Upper Level)	Room: Meeting Room 7-8 (Upper Level)	Room: Meeting Room 9-10 (Upper Level)	Room: Meeting Room 1-3 (Lower Level)	Room: Meeting Room 5 (Lower Level)
MODERATOR	Cynthia Gabaldon CG Resource Management and Engineering, Inc.	Vada Yoon Michael Baker International	Kadi Whiteside Southern California Edison	Julie Marlett City of San Diego	Laura Carpenter Brown and Caldwell	Erik Porse Office of Water Programs at Sacramento State	Scott Taylor Michael Baker International/ National Municipal Stormwater Alliance
8:35a to 9:05a	The “GreenSuite” – Ramping Up Green Infrastructure Guidance in San Mateo County <i>Reid Bogert</i> San Mateo Countywide Water Pollution Prevention Program	Turning Data into Information: the SMC’s Water Quality Index <i>Ken Schiff</i> Southern California Coastal Water Research Project	This panel will focus on how the construction industry can build partnerships with regulators to promote compliance and vice versa. <i>Laurel Wardrip and Amy Kronson</i> State Water Resources Control Board <i>Richard Muhl</i> Central Valley Regional Water Quality Control Board <i>Michelle Rembaum-Fox</i> San Francisco Bay Regional Water Quality Control Board <i>Keith Elliott</i> Santa Ana Regional Water Quality Control Board <i>Thomas Browne</i> Lahontan Regional Water Quality Control Board	Practical Findings from Supplier Surveys, Material Testing, and Column Studies to Improve Biofiltration Media Specifications <i>Aaron Poresky</i> Geosyntec Consultants	Advanced BMPs for Industrial Facilities: Feasibility, Costs, Agreements, and Alternatives <i>Wayne Rosenbaum</i> Environmental Law Group LLP	Spatially Identification of Sites to Capture Stormwater Runoff Using Geographic Information Systems in a Small Coastal Basin <i>Michelle Hallack</i> Alta Environmental	Workshop Overview: Learning from Program Evolution to Guide Meaningful Change <i>David Smith</i> U.S. EPA, Region 9 Cross-Cutting Program Recommendations
9:10a to 9:40a	Street-Scale, Strategic Green Street Planning in Los Angeles <i>Ryan Edgley</i> Tetra Tech	GI Leadership Exchange: A National Collaborative Study to Distill Modeling and Monitoring Lessons Learned <i>Scott Durbin</i> Lotus Water	<i>Michelle Rembaum-Fox</i> San Francisco Bay Regional Water Quality Control Board <i>Keith Elliott</i> Santa Ana Regional Water Quality Control Board <i>Thomas Browne</i> Lahontan Regional Water Quality Control Board	Bioretention Soil Media Specification for Stormwater Treatment: Research Progress, Challenges, and Opportunities <i>Nabiul Afroz</i> Southern California Coastal Water Research Project	Case Studies Implementing the CASQA IGP Non-Industrial Demonstration Manual (and Expanding Beyond Atmospheric Deposition) <i>Brandon Steets</i> Geosyntec Consultants;	Integrated Water Resources Management: One Street at a Time <i>Melanie Mills</i> Cannon	<i>Drew Kleis</i> City of San Diego Cross-Cutting Permitting Recommendations <i>Thomas Mumley</i> San Francisco Bay Regional Water Quality Control Board
9:45a to 10:15a	Unincorporated Los Angeles County Green Streets Master Plan: Screening Process Development, Considerations, and Results <i>Paul Glenn</i> CDM Smith	Improving the Assessment and Monitoring of Risks of Adverse Toxicological Effects from Short-Term Episodic Contaminant Exposures within Aquatic Environments <i>Chris Stransky</i> Wood Environment and Infrastructure Solutions, Inc	<i>Thomas Browne</i> Lahontan Regional Water Quality Control Board	Fecal Indicator Removal in Enhanced Biofilters: Role of Biochar and Field Conditioning <i>Benjamin Kranner</i> Stanford University	Returning to Baseline from Level 2, the Wholistic Approach <i>Brendan J. Mulholland</i> Lawrence Berkeley National Laboratory	Broadway Neighborhood Greenway Project - Capturing the Water Rights <i>Chris Repp</i> Los Angeles Department of Water and Power	Synthesis: What are the Key Cross-Cutting Actions of Greatest Interest to California Managers? <i>David Smith</i> U.S. EPA, Region 9 <i>Scott Taylor</i> Michael Baker International/ National Municipal Stormwater Alliance
10:15a–11:00a	BREAK, EXHIBITOR FOCUS AND PRIZE DRAWING (Ben H. Lewis Hall C & D and Upper Concourse)						

SESSION 5	Invited Panels The State of Stormwater: Current Issues and Future Trends	Invited Panels Regional Monitoring Programs for Watershed Compliance	Construction Forum: QSD /QSP Collaboration	Industrial Forum: Trainer of Record - Industrial General Permit (IGP ToR) + QISP	Invited Panels Transportation Agencies: Innovative Practices Toward Sustainable Stormwater Management	Invited Workshop MS4 Monitoring, Evaluation, Tracking, and Reporting
	Room: Raincross A & D (Upper Level)	Room: Raincross B & E (Upper Level)	Room: Raincross C & F (Upper Level)	Room: Meeting Room 9-10 (Upper Level)	Room: Meeting Room 1-3 (Lower Level)	Room: Meeting Room 5 (Lower Level)
MODERATOR	Scott Taylor Michael Baker International	Dawn Petschauer City of Los Angeles	Lucy Cortez-Johnson CASC Engineering and Consulting, Inc.	Matt Zucca EKI Environment & Water, Inc. Katie McCoy Kennedy/Jenks Consultants	Ghina Yamout Alta Environmental	Matthew Fabry San Mateo Countywide Water Pollution Prevention Program
11:00a to 12:05p	<p>This panel will explore current legal issues, rules, permit requirements, and trends from a national perspective, as well as describe programs in which practitioners can participate.</p> <p><i>Panelists:</i> Scott Taylor <i>Michael Baker International</i> Steve Dye <i>Water Environment Federation (WEF)</i> Seth Brown <i>Storm and Stream, LLC</i> Geoff Brosseau <i>California Stormwater Quality Association</i></p>	<p>This panel will explore the nexus between regional and site-specific monitoring to answer the question "how does regional monitoring support NPDES compliance?". The panel will consist of the three highest profile regional programs in California comprising more than 100 agencies, over a dozen different habitats, including measurements of flow, chemistry, toxicity, habitat quality and biology.</p> <p><i>Panelists:</i> Bay Area Stormwater Management Agencies Association Regional Stream Monitoring</p> <p>Chris Sommers <i>EOA</i></p> <p>Southern California Stormwater Monitoring Coalition Regional Stream Monitoring</p> <p>Raphael Mazar <i>Southern California Coastal Water Research Project</i></p> <p>Southern California Bight Regional Marine Monitoring</p> <p>Ken Schiff <i>Southern California Coastal Water Research Project</i></p>	<p>This forum will provide an interactive opportunity to engage with other QSD/ QSPs to collaborate on various issues faced within the industry.</p> <p>Laurel Warddrip and Amy Kronson <i>State Water Resources Control Board</i> Richard Muhl <i>Central Valley Regional Water Quality Control Board</i> Keith Elliott <i>Santa Ana Regional Water Quality Control Board</i></p>	<p>Discussion of IGP ToR/QISP Test Statistics</p> <p>Kevin Murphy <i>Office of Water Programs at Sacramento State</i></p> <p>Matt Zucca <i>EKI Environment & Water, Inc.</i></p> <p>Discussion of ERA Level 1 and Level 2 Enforcement Observations and Expectations</p> <p>Michelle Beckwith <i>Santa Ana Regional Water Quality Control Board</i></p> <p>Pavlova Vitale <i>Los Angeles Regional Water Quality Control Board</i></p> <p>Watershed Impairment Pollutant Assessment</p> <p>Katie McCoy <i>Kennedy/Jenks Consultants</i></p>	<p>This panel will discuss the role of transportation agencies and infrastructure in ensuring sustainable stormwater management, specifically the Los Angeles Metro urban environment vision.</p> <p>Adel Hagekhalil <i>Los Angeles Sanitation Bureau</i> Cris Liban <i>Los Angeles County Metropolitan Transportation Authority</i> Paul Alva <i>Los Angeles County Department of Public Works</i></p>	<p>Workshop Overview: Learning from Experience to Improve How We Evaluate and Track Program Progress</p> <p>Dominic Roques <i>Central Coast Regional Water Quality Control Board</i></p> <p>Recommendations for Evolving Monitoring, Evaluation, and Reporting Approaches</p> <p>Chris Minton <i>Larry Walker Associates</i></p> <p>Synthesis - What are the Key Actions We Can Take to Improve Capacity/ Permitting Approaches Concerning Specific Program Elements?</p> <p>Thomas Mumley <i>San Francisco Bay Regional Water Quality Control Board</i></p> <p>Matthew Fabry <i>San Mateo Countywide Water Pollution Prevention Program</i></p>
12:05p - 1:20p LUNCH (Ben H. Lewis Hall A & B)						

SESSION 6	Total Maximum Daily Loads TMDL Compliance Strategies Room: Raincross A & D (Upper Level)	Innovation in Data Innovation in BMP Design and Effectiveness Tracking Room: Raincross B & E (Upper Level)	Construction Site Management Strategies Room: Raincross C & F (Upper Level)	Efficient Permit Implementation Building Innovative Tools for Collaboration: Session 2 Room: Meeting Room 7-8 (Upper Level)	Industrial Alternative Compliance and Incentives Room: Meeting Room 9-10 (Upper Level)	Sustainability One Water Approaches Room: Meeting Room 1-3 (Lower Level)
MODERATOR	Clint Boschen Tetra Tech	Raina Dwivedi Tetra Tech	Sandy Mathews Larry Walker Associates	James Fortuna County of Orange	Wayne Rosenbaum Environmental Law Group LLP	Lisa Skutecki Brown and Caldwell
1:20p–1:50p	Getting to Better Than Natural - Multi-Agency Collaboration on a One Water Inspired Revision to the Canyon Lake and Lake Elsinore Nutrient TMDLs <i>Steven Wolosoff</i> CDM Smith	Potential Infiltration - Improving the Siting and Design of Infiltrating BMPs <i>Scott Meyer</i> Office of Water Programs at Sacramento State	RUSLE2 – The Long Lost, or Misunderstood, Savior to Our Stabilization Questions <i>Andrew Sidor</i> Michael Baker International	The Quest to be a Compliant, Efficient, and Cost-Effective Stormwater Program <i>Heidi Niggemeyer</i> City of Salinas	Innovations in Stormwater Capture Incentivization: LADWP's Plan for an Industrial Stormwater Rebate Program <i>Art Castro</i> Los Angeles Department of Water and Power	Two Approaches to Harnessing Stormwater for Groundwater Recharge and Water Supply <i>Sachi Itagaki</i> Kennedy/Jenks Consultants
1:55p–2:25p	Connecting the Drops: Caltrans Partnership Opportunities with Local Municipalities in TMDL Watersheds <i>Tom Rutsch</i> California Department of Transportation	Monitoring in Autopilot <i>Frank Cheng</i> Los Angeles County Department of Public Works	A 20 Year Look at Chemical Treatment Trains <i>Matt Hromatka</i> Clear Water Services	Connecting Your Organizational Needs and Regulatory Needs Through Integrated Asset Management <i>Terrence Chen</i> Michael Baker International	The Proposed IGP TMDL Requirements Pose Unique Challenges to the City of Los Angeles Harbor Department (Port of Los Angeles): A Case Study of the Harbor Toxics Sediment TMDL <i>Rachel McPherson</i> Port of Los Angeles	Steps Toward a Sustainable Water Future: A Case Study from a STORMS POTW Pilot Project and Stormwater Master Planning Effort <i>Lisa Haney</i> Orange County Sanitation District
2:30p–3:00p	Nutrient Source Tracking to Support Modification of an Algae TMDL in the LA Region <i>Charles Genkel</i> County of Ventura	Santa Barbara Beaches MST Study - Case Study on MST at High Use Beaches <i>Brandon Steets</i> Geosyntec Consultants	Keeping Grey off the Ground: Stucco Management Practices in the Residential Homebuilding Sector <i>Kelly Doyle</i> Rick Engineering Company	Watershed-Wide Collaboration for Efficient and Effective Outreach Messaging and Municipal Permit Compliance <i>Andy Rodgers</i> West Yost Associates	Strategic Approach to Infiltrating Industrial Stormwater <i>Mehran Ebrahimi</i> GSI Environmental, Inc.	Take My Stormwater, Please! - San Diego Region Stormwater Capture and Use Feasibility Study <i>Stephanie Gaines</i> County of San Diego

CONTINUING EDUCATION CREDITS

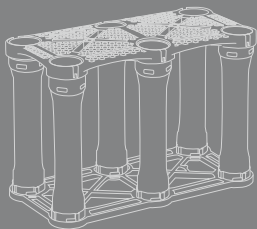
Professional development credits can be earned for in-person attendance and webcast viewing.

2018 Participating Organizations (pending approval of the conference program)

- Certified Inspector Sediment and Erosion Control (CISEC)
- Certified Erosion, Sediment and Stormwater Inspector (CESSWI)
- Certified Municipal Separate Storm Sewer System Specialist (CMS4S)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Certified Professional in Storm Water Quality (CPSWQ)
- California Water Environment Association (CWEA)
- Minimum Continuing Legal Education (MCLE)
- Professional Engineers (PE)



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CASQA Poster Presentations Monday–Wednesday, October 15–17

CASQA is pleased to include a poster session at the Annual Conference again this year. The posters will be displayed in the conference center's Upper Level all days. The poster authors will be available to answer questions at the Monday morning break and during other breaks as available.

2018 CASQA Award Winner –
Outstanding Commercial Stormwater BMP Implementation Project – Urban Low Impact Development Best Management Practice Commercial Site Retrofit Project
Rick Sidor and Jeff Endicott, CASC Engineering and Consulting, Inc.

2018 CASQA Award Winner –
Outstanding Industrial Sustainable Stormwater BMP Project – Relocation of Industrial Activities from Irwindale Plant to Adelanto Zero
Audra Owens and Richard Maddux, Clark Pacific

2018 CASQA Award Winner –
Outstanding News, Information, Outreach, and Media Project – Poo Points Program
Jennifer Tabanico, County of San Diego Public Works

2018 CASQA Award Winner –
Outstanding News, Information, Outreach, and Media Project – Storm Drain Detective's Student Monitoring Program
Kathy Grant, City of Lodi

2018 CASQA Award Winner –
Outstanding News, Information, Outreach, and Media Project – Where Water Meets Community Rebranding Public Outreach Campaign
Arlene Chun, San Bernardino County Stormwater Program

*** Spatially Identification of Sites to Capture Stormwater Runoff Using Geographic Information Systems in a Small Coastal Basin**
Michelle Hallack, Alta Environmental

*** A Quantitative Approach to Trash Control Implementation**
Walter Yu, California Department of Transportation

*** Engaging the Disengaged: Involving Homeowners Associations in Stormwater Management**
Jennifer Tabanico, Action Research

*** Butt Out: A Behavior-Based Data-Driven Model for Reducing Trash in Commercial Areas**
Jennifer Tabanico, Action Research

*** Young Voices Connecting the Dots for Improved Water Quality from Schools to Shining Sea**
Bill Dean, BCK Programs, LLC

*** Unincorporated Los Angeles County Green Streets Master Plan: Screening Process Development, Considerations and Results**
Paul Glenn, CDM Smith

*** Approaches to Integrating Multi-Benefit Stormwater Projects in Parks**
Samantha Cohen, Brown and Caldwell

*** Connecting the Drops: Caltrans Partnership Opportunities with Local Municipalities in TMDL Watersheds**
Tom Rutsch, California Department of Transportation

† Tobacco Product Waste: Tiny Trash Can be Controlled at the Source
Thomas Novotny, San Diego State University

† Visualizing Complete Streets as Low Impact Development Opportunities
Michael Gentile, CASC Engineering and Consulting, Inc.

Transforming Flow Data into Real-Time Interactive Information for Meaningful Dry Weather Flow Reductions
Garth Engelhorn, Alta Environmental

Understanding Water Sensitive Urban Design Approaches
Laurent Ahiablame, UC Cooperative Extension

Measuring Dry Weather Urban Runoff with Ultrasonic Flow Sensors
Sheryl Parsons, Irvine Ranch Water District

Applications of Aerial Imaging and Drones in Mapping, Data Collection, and Documentation
Austin Kay, Alta Environmental

Whitewater River Watershed - Implementing Low Impact Development in the Desert
Melanie Sotelo, CASC Engineering and Consulting, Inc.

Working to Achieve NALs: A Pilot Study Evaluating Use of Flocculant to Reduce Total Suspended Solids and Total Iron Concentrations at a Southern California Landfill
Julie Riggio, Geosyntec Consultants

Tips for Engaging and Educating the Community Through Public Friendly Documents for Engineers and Scientists
Minell Enslin, Wood Environment and Infrastructure Solutions, Inc.

Strategies for Managing Mosquitoes in Stormwater Infrastructure Amid the Increasing Threat of Mosquito-Borne Disease Risk in California
Amber Semrow, Orange County Mosquito and Vector Control District

BMP Effectiveness Study in the San Diego River Watershed: Collaboration Among the County of San Diego, the San Diego River Conservancy, and Urban Corps of San Diego to Find Cost-Effective BMPs for Trash Reduction
Allison Gokbudak, Michael Baker International

Green Alley Retrofits: A Proposition 84 Grant Success Story
Analette Ochoa, WRECO

Green Infrastructure Optimization to Achieve Natural Hydrology Conditions
Hassan Tavakol, San Diego State University

Two Dimensional Hydraulic Modeling of Vegetation Restoration, Calibrated with Streamflow Data and Geomorphic Measurements
Hassan Tavakol, San Diego State University

Control of Pollutants at Source from Roofs and Industrial Activity Run-Off and Introduction of New and Cost-Effective Advanced Treatment System
George Zoumalan, RAMTOX

Deep Well Injection Feasibility Assessment to Assist in Machado Lake Nutrients TMDL Compliance
Samuel Darkwah, Carollo Engineers

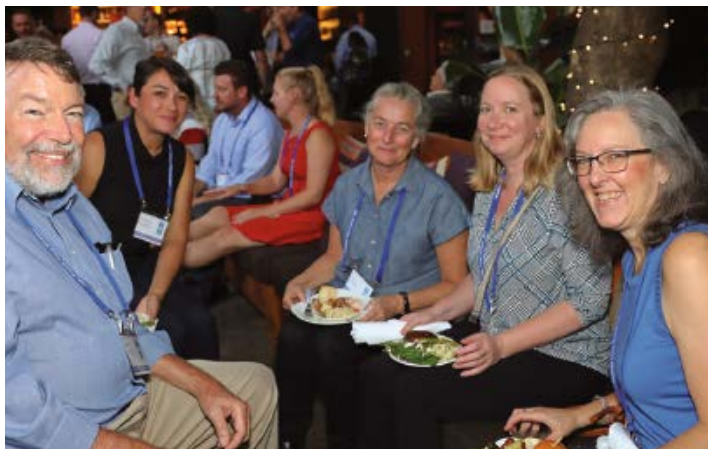
Trash Capture Planning - Lesson Learned by Bay Area Jurisdictions
Curtis Kruger, Contech Engineered Solutions

Approaches for Addressing the Growing Number of TMDLs
Ankita Vyas, Michael Baker International

Hydromodification Continuous Simulation Spreadsheet
Benjie Cho, County of Riverside

Low Impact Development BMP Inspection and Maintenance
Daniel Secrist, CASC Engineering and Consulting

** Poster + oral presentation
 † Poster + alternate presentation*



Scenes from the 2017 CASQA Conference

CASQA Technical Program – Alternate Presentations

In the event of a cancellation of a planned presentation, an alternate presentation below will be substituted.

Collaboration and Public Outreach

Branding and Outreach

How'd we do this Weekend? Real-time Estimates of Stormwater Capture and Triple Bottom Line Benefits Using a Web-Based System Linked to Rainfall Telemetry
Dustin Bambic, Paradigm Environmental

It's All About Connections

Tobacco Product Waste: Tiny Trash Can Be Controlled at the Source
Thomas Novotny, San Diego State University

Construction

Site Management Strategies

Construction Site Management: A Major Developers Strategy
Daniel Secrist, CASC Engineering and Consulting, Inc.

Dollars and Sense

Assembling a Funding Portfolio

Breaking Down the Silos – Integrated Funding Solutions for Sustainable Streets
Matthew Fabry, City/County Association of Governments of San Mateo County

Financial Planning Basics: Getting Organized

What's This I Hear About a New Statewide Stormwater Authority and What Might It Mean for Your Stormwater Program?
Gerhardt Hubner, Gerhardt J Hubner Consulting

Efficient Permit Implementation

Building Innovative Tools for Collaboration: Session 1

Pollutant Trading and Offsets in Newport Bay and Visualization Using a Web-based System
Dustin Bambic, Paradigm Environmental

Building Innovative Tools for Collaboration: Session 2

Offsite Stormwater Alternative Compliance Program
Ray Ngo, City of San Diego

Industrial

Advanced BMPs / Case Studies

Process for Treatment BMP Selection for a Solid Waste Facility
Matthew Ringstad, Clear Water Services

Alternative Compliance and Incentives

Can We Heal the SICness?
Hans Kramer, Terraphase Engineering

Compliance Strategies

Case Study of a Pilot Scale Study and Design of a Low Cost Treatment System for the Port of Port Angeles' Marine Terminal
Laura Weiden, Kennedy/Jenks Consultants

Innovation in Data

Innovation in BMP Design and Effectiveness Tracking

Deep Well Injection Feasibility Assessment to Assist in Machado Lake Nutrients TMDL Compliance
Samuel Darkwah, Carollo Engineers

Making Stormwater BMPs Work

Guidance

Transferability of Post-Construction Stormwater Quality BMP Effectiveness Studies: Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database
Eric Strecker, Geosyntec Consultants

Media Science

Biofiltration and Downspout Filter Media Evaluation for BMP Decision-Making at the Port of Vancouver, WA
Ross Dunning, Kennedy/Jenks Consultants

Multi-Faceted Projects

Turning Floodwater into Groundwater: A Multi-Benefit Stormwater Project in the San Gabriel Valley
Steven Bell, CWE

Planning

Following in San Fernando's Footsteps: A Guide to Efficiently Implementing Cost-Effective, Multi-Benefit BMPs
Vik Bapna, CWE

Municipal

Green Streets

Setting Up a Maintenance Program: Key Elements to Ensure Proper Routine and Long-Term Maintenance
Merrill Taylor, Tetra Tech

Planning

Choosing the Right Capital Projects to Meet Programmatic Goals
Robert Dusenbury, Lotus Water

Sustainability

Scaling Sustainability

Visualizing Complete Streets as Low Impact Development Opportunities
Michael Gentile, CASC Engineering and Consulting, Inc.

Solving Sustainability

Sustainability Evaluation Methods for Stormwater Projects: What Tools and Approaches are Most Appropriate?
Ken Susilo, Geosyntec Consultants

Total Maximum Daily Loads

Bacterial TMDLs

Advancing MS4 Illicit Discharge Detection and Elimination Using Microbial Source Tracking
Jared Ervin, Geosyntec Consultants

Trash

Trash Assessment and Tracking

Decision-Driven Spatial Analytics to Improve Trash Reduction Tracking
Gary Conley, 2NDNATURE LLC

Trash Implementation Planning

Zone-Based Defense - How a Coastal City is Tackling Trash
Bryn Evans, Dudek










UC Riverside entrance (left) and March Field Air Museum (right)



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Booth: 13

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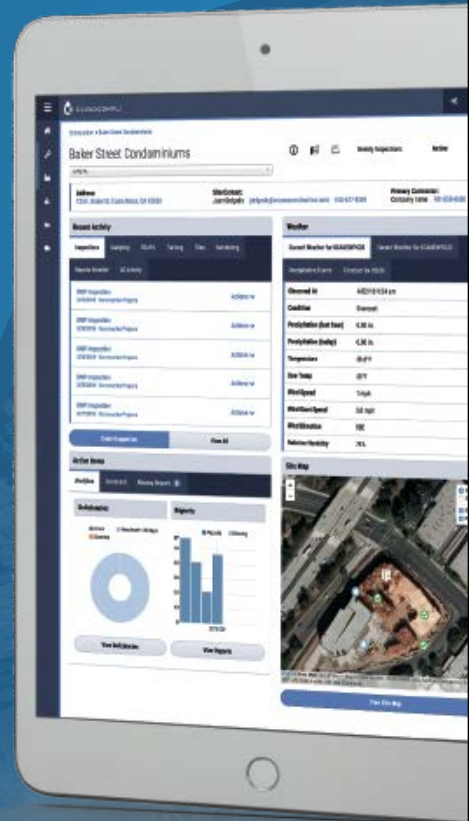
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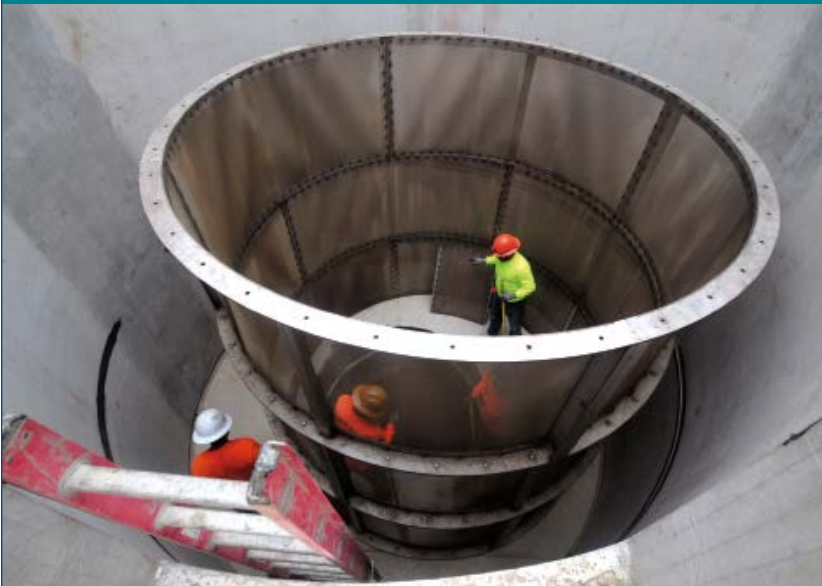


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Conference Exhibitors and Exhibit Hall Map

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EXHIBIT HALL HOURS

Monday, October 15




Exhibit Hall Open	12:00 pm – 6:00 pm
Lunch and Exhibitor Focus	12:00 pm – 1:30 pm
Break and Exhibitor Focus	3:00 pm – 3:30 pm
Exhibitor Focus	5:00 pm – 6:00 pm
Networking Event (offsite)	6:00 pm – 10:30 pm

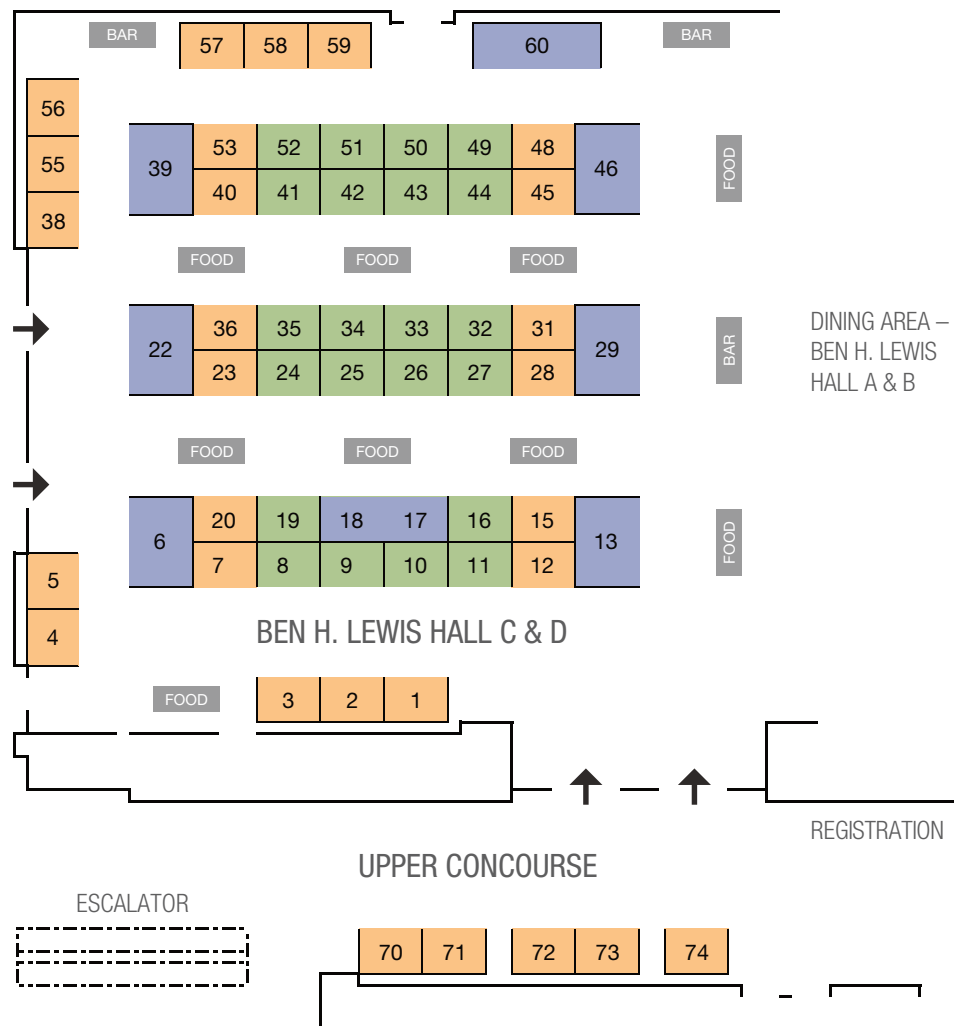
Tuesday, October 16

Exhibit Hall Open	8:00 am – 7:30 pm
Break and Exhibitor Focus	9:55 am – 10:20 am
Lunch and Exhibitor Focus	12:00 pm – 1:35 pm
Break and Exhibitor Focus	3:15 pm – 3:45 pm
Exhibitor Reception	5:30 pm – 7:30 pm

Wednesday, October 17

Exhibit Hall Open	8:00 am – 12:00 pm
Exhibitor Focus	8:00 am – 8:35 am
Break, Exhibitor Focus, and Prize Drawing	10:15 am – 11:00 am

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1	Gullywasher Stormwater Filters Jeff Pettey 5242 57th Avenue South Seattle, WA 98118 (206) 799-3296 www.gullywasher.com	3	Oldcastle Precast - Stormwater Mark Lehnertz 900 Ashwood Parkway, Suite #600 Atlanta, GA 30338 (800) 579-8819 www.oldcastlestormwater.com	5	Storm Water Systems Terry Balog 800 E. Ocean Blvd., Suite 104 Long Beach, CA 90802 (562) 391-2925 www.stormwatersystems.net
2	2ND Nature Nicole Beck 500 Seabright Ave., Suite 205 Santa Cruz, CA 95062 (831) 426-9119 www.2ndnaturellc.com	4	Riverside County Flood Control and Water Conservation District Darcy Kuenzi 1995 Market St. Riverside, CA 92501 (951) 955-1200 www.rcwatershed.org www.rcflood.org		

Conference Exhibitors (continued)

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	Vaikko Allen 11815 NE Glenn Widing Drive Portland, OR 97220 (503) 240-3393 www.conteches.com			Megan Hanson 23441 South Pointe Dr., Ste. 190 Laguna Hills, CA 92653 (800) 677-3718 www.cloudcompli.com			William Harris 398 Via El Centro Oceanside, CA 92058 (760) 433-7640 www.biocleanenvironmental.com
7	ERTEC Environmental Systems		15	Sitka Technology Group		23	ADS
	Joe Sherratt 1150 Ballena Blvd., Ste. 250 Alameda, CA 94501 (510) 521-0724 www.ertecsystems.com			Damon Knight 920 SW Sixth Avenue, Suite 111 Portland, OR 97204 (503) 808-1220 www.sitkatech.com			David Morsch 505 N. 51st Avenue Phoenix, AZ 85043 (619) 405-8771 www.ads-pipe.com
8	AquaShield, Inc.		16	Angelus Block Co.		24	PAT-CHEM LABORATORIES
	Sonya Reagan 2733 Kanasita Drive, Ste. 111 Hixson, TN 37343 (423) 870-8888 www.aquashieldinc.com			David Quinn 3435 S. Riverside Ave. Rialto, CA 92316 (951) 328-9115 www.angelusblock.com			Stephen Berentsen 1824 1st Street San Fernando, CA 91340 (818) 639-5300 www.pat-chem.com
9	ABT, Inc.		17/18	DeepRoot		25	StormTrap
	Brad Short 2813 S. Pine Bar Place Meridian, ID 83642 (949) 633-6111 www.abtdrains.com			Rachel Roberts 101 Montgomery St. Suite 2850 San Francisco, CA 94104 (415) 746-1553 www.deeproot.com			Jeremy Sherwood 1287 Windham Parkway Romeoville, IL 60446 (815) 941-4549 www.stormtrap.com
10	Earth Savers		19	CULTEC, Inc.		26	Babcock Laboratories, Inc.
	Howard Schau P.O. Box 2083 Woodland, CA 95776 (866) 928-8537 www.earth-savers.com			Randy Jevass P.O. Box 280, 878 Federal Rd. Brookfield, CT 06804 (203) 775-4416 www.cultec.com			Cathy Iijima 6100 Quail Valley Ct. Riverside, CA 92507 (951) 653-3351 www.babcocklabs.com
11	WaterTectonics		20	LSC Environmental Products, LLC		27	Prinsco
	TJ Mothersbaugh 6300 Merrill Creek Pkwy., Ste. C100 Everett, WA 98203 (866) 402-2298 www.watertectonics.com			Andy Iturriria 2183 Pennsylvania Ave. Apalachin, NY 13732 (607) 625-3050 www.lscenv.com			Mandy Heinen 1717 16th Street NE Willmar, MN 56201 (320) 222-6810 www.prinsco.com
12	PACE Advanced Water Engineering					28	Porous Technologies, LLC
	Michelle Hoalton 17520 Newhope St., Ste. 200 Fountain Valley, CA 92708 (714) 481-7203 http://pacewater.com						Gregg Novick 163 Thadeus Street South Portland, ME 04106 (888) 357-1161 www.stormcrete.com

Conference Exhibitors (continued)

Super Premium Exhibitors



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29	Jensen Water Resources Caitlin Shanley 825 Steneri Way Sparks, NV 89431 (775) 352-6336 www.jensenprecast.com	34	Weck Laboratories Leo Raab 14859 Clark Avenue Industry, CA 91745 (626) 336-2139 www.wecklabs.com	39	Downstream Services, Inc. Loren Roberts 2855 Progress Place Escondido, CA 92029 (760) 746-2544 www.downstreamservices.com
31	Filtrexx International Craig Kolodge 7301 Borla Place Carlsbad, CA 92009 (760) 429-4041 www.filtrexx.com	35	KERAMIDA Inc. Jodie Crandell 1170 National Drive, Suite 70 Sacramento, CA 95834 (916) 928-6169 www.keramida.com	40	Coanda, Inc. Steve Esmond 3943 Irvine Blvd. #327 Irvine, CA 92602 (714) 389-2113 www.coanda.com
32	RJR Engineering Robert W. Anderson 2340 Palma Dr., #200 Ventura, CA 93003 (805) 485-3935 www.rjreng.com	36	Weston Solutions, Inc. Andrea Crumpacker 5817 Dryden Place, Suite 101 Carlsbad, CA 92008 (760) 795-6987 www.westonsolutions.com	41	REM Revel Environmental Manufacturing, Inc. Bob Marchant 2110 S Grand Ave. Santa Ana, CA 92705 (888) 526-4736 remfilters.com
33	Clear Water Services Nathan Holloway 2525 West Casino Rd. Everett, WA 98204 (452) 412-5700 www.clearwaterservices.com	38	StormwaterRx LLC Anna Steirer 122 SE 27th Avenue Portland, OR 97214 (800) 680-3543 www.stormwaterx.com	42	Stormwater Magazine Dan Waldman 2946 De La Vina St. Santa Barbara, CA 93105 (805) 679-7600 www.foresternetwork.com

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44	StormTree	Paul Iorio 24 Corliss Street, Suite 9092 Providence, RI 02940 (401) 626-8999 www.storm-tree.com
45	Soil Retention	Nick Jansson 2501 State Street Carlsbad, CA 92008 (800) 346-7995 www.soilretention.com
46	United Storm Water, Inc.	Lydia Perry 14000 E. Valley Blvd. Industry, CA 91746 (626) 961-9326 www.unitedstormwater.com
48	Precon Products	Dan Zarraonandia P.O. Box 940669 Simi Valley, CA 93094 (805) 527-0841 www.pre-conproducts.com
49	ACF Environmental	W. Scott Gorneau, P.E. 2831 Cardwell Rd. Richmond, VA 23234 (207) 831-2795 www.acfenvironmental.com
50	California Filtration Specialists	Mitchel Whitson 11021 Via Frontera, Suite E San Diego, CA 92127 (858) 705-6483 www.cafiltrationspecialists.com
51	Mosquito and Vector Control Association of California	Rachel Hickerson One Capitol Mall, Suite 800 Sacramento, CA 95814 (916) 440-0826 www.mvcac.org
52	CIF Composites, Inc.	Brian Lewthwaite 1810 Verling Ave. Victoria, BC V8M 1X6 Canada (250) 652-6313 www.cifcomposites.com
53	Envirocert International, Inc.	Melissa McKinney 6 E. Medical Court Drive Marion, NC 28752 (828) 655-1600 www.envirocert.org
55	KISTERS North America	Becca Fong 1520 Eureka Road, Suite 102 Roseville, CA 95661 (916) 723-1441 www.kisters.net
56	Pure Filter Solutions	Nicole Wilson 2961 Pauls Way Marietta, GA 30062 (404) 663-1607 www.pfilters.com
57	TRUEGRID Pavers	Barry Stiles 2500 Summer St., Ste. 3225 Houston, TX 77007 (855) 355-GRID www.truegridpaver.com
58	Storm Water Inspection & Maintenance Services	Ethan Purkey P.O. Box 1627 Discovery Bay, CA 94505 (925) 516-8966 www.swimsclean.com
59	Aquatic Informatics, Inc.	Jason Myers 2400 - 1111 West Georgia St. Vancouver, BC V6E 4M3 Canada (877) 870-2782 www.aquaticinformatics.com
60	CleanWay Environmental Partners, Inc.	Bridget Garlinghouse P.O. Box 30087 Portland, Oregon 97294 (800) 723-1373 www.cleanwayusa.com
70	G2 Construction, Inc.	John Alvarado 1352 East Borchard Ave. Santa Ana, CA 92705 (714) 748-4242 www.g2construction.com
71	Ramtox Corporation	George Zoumalan 21031 Ventura Blvd., Ste. 512 Woodland Hills, CA 91364 (818) 429-6184 www.ramtox.com
72	StormChambers	Bob Maestro P.O. Box 672 Occoquan, VA 22125 (703) 492-0686 www.stormchambers.com
73	Hydro International	Phil O'Neill 109 First Street Solvang, CA 93463 (805) 350-8163 hydro-int.com
74	Hydra TMDL Systems, Inc.	Denis Friezner 3074 North Lima Street Burbank, CA 91504 (818) 760-5006 www.hydratmdl.com

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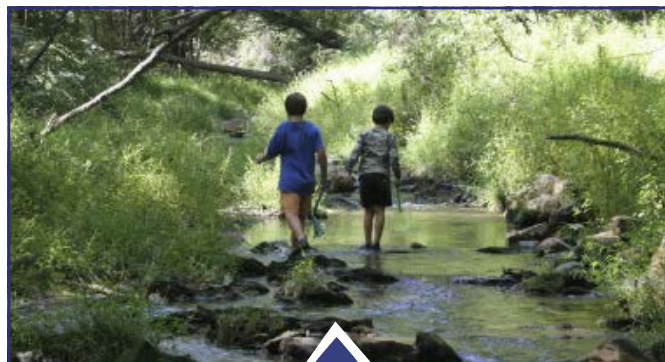
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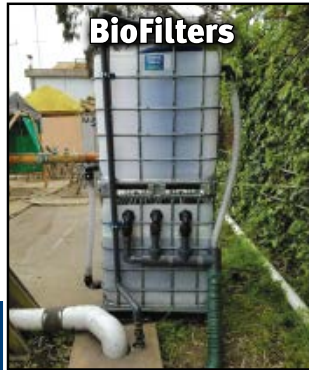
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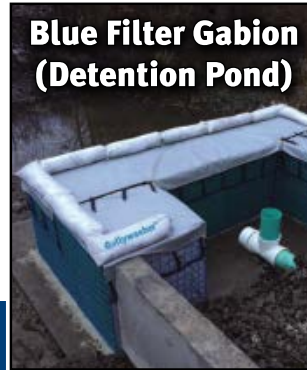
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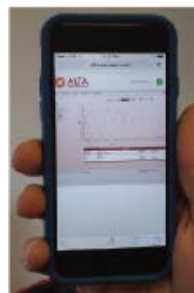
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