

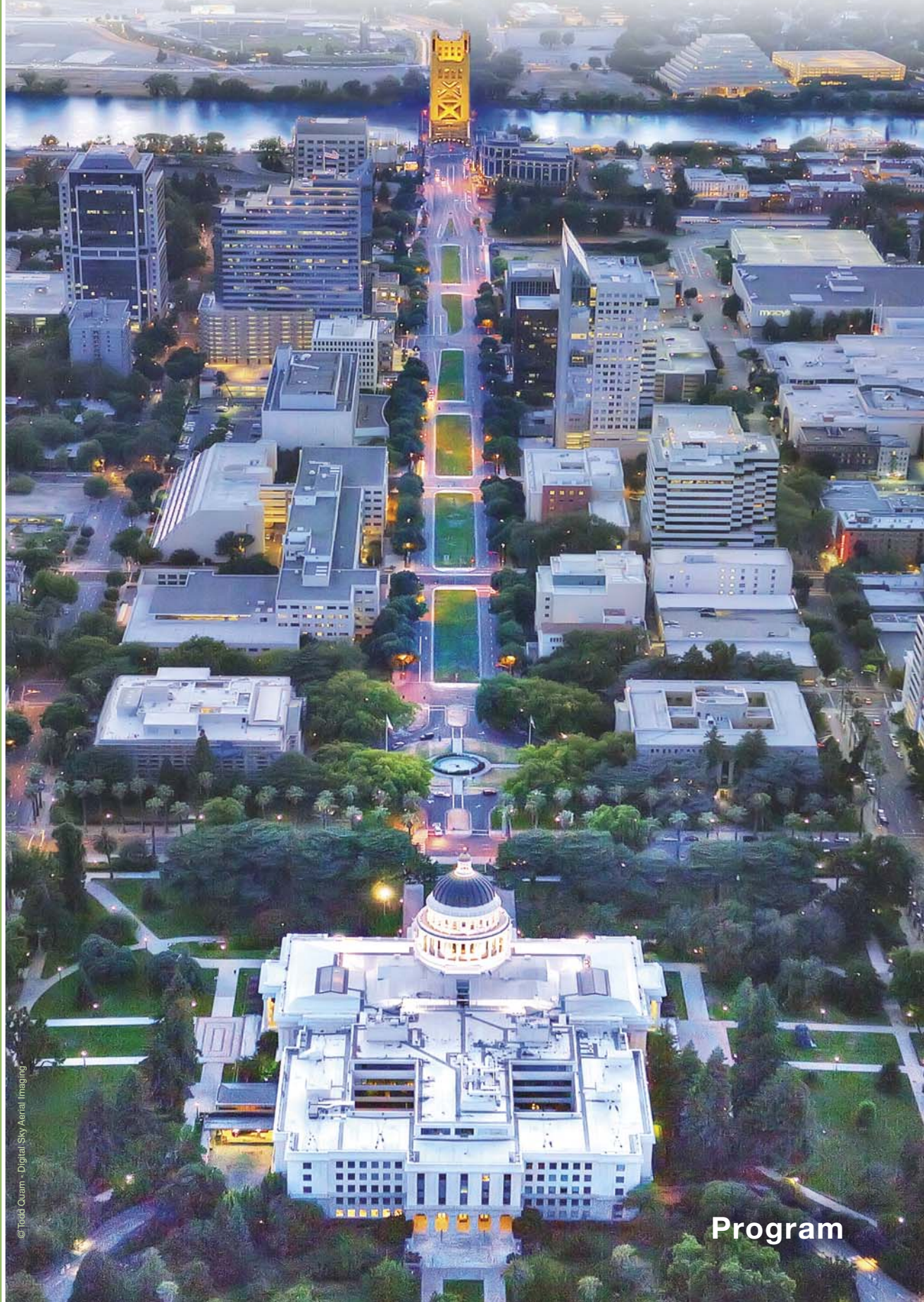
2017 CASQA THIRTEENTH ANNUAL CONFERENCE

SEPTEMBER 25-27, 2017 | SACRAMENTO CONVENTION CENTER / HYATT REGENCY SACRAMENTO



WWW.CASQA.ORG

CASQA IN THE CAPITAL: BUILDING BRIDGES FOR WATER



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Program

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Larry Walker Associates is an environmental engineering and consulting firm providing innovative water quality solutions throughout California. Working closely with our clients, LWA provides practical and constructive solutions for today's critical environmental challenges. LWA endeavors to be a statewide leader in water quality management integrating environmental stewardship, sound science, effective public policy and collaborative problem solving.



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2017 CASQA CONFERENCE

For the first time, the California Stormwater Quality Association (CASQA) Annual Conference is being held in downtown Sacramento, just a few steps away from the historic State Capitol building. The 2017 conference theme, “CASQA in the Capital: Building Bridges for Water” reflects the location at the heart of California government. Building bridges for communication and collaboration is vital to successfully managing the quality and quantity of the stormwater resource in California.

Stormwater receives pollutants from ubiquitous sources, the types of potential pollutants regulated are continuously increasing, and the ability of an agency to control or treat many of the pollutants does not exist at the local level. However, controls do exist or can be created through partnerships with State level agencies such as the State Water Resources Control Board, Department of Pesticide Regulation, and Department of Toxic Substances Control. The conference will bridge the typical gaps between agencies by bringing those agencies together to both learn from successful efforts and discuss new efforts to address issues that cut across organizational, regulatory, and technical boundaries.

As evident from the recent historic drought, water in all its forms is a precious and finite resource subject to competing priorities for public supply, flood safety, groundwater protection, agricultural allocation, and habitat preservation. Since major decisions on water are made in Sacramento, the CASQA conference will be looking at the broader issues of water management, of which urban stormwater is an important and growing component. The conference will highlight integrated and innovative water planning processes, including the experiences of national and international partners, and the ways in which urban stormwater can become a greater resource.

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



Stormwater Outreach: (above) Sacramento Splash children's education; (right, top to bottom) Porous pavement signs in Beijing, China and Orange County

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GET THE CONFERENCE MOBILE APP

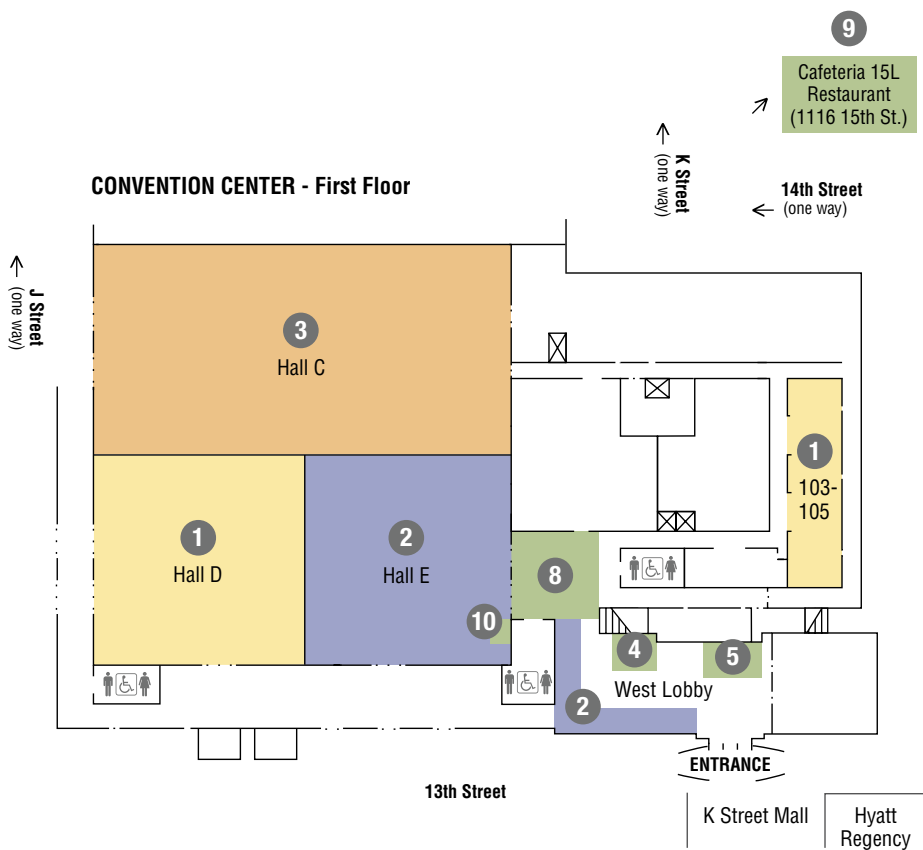
(available in iTunes and Google Play)



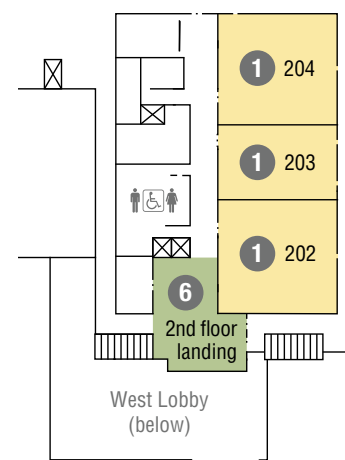
Attendees with Apple iOS or Android devices can personalize their conference experience with our CASQA Annual Conference mobile app. Here are just some of the many features:

- 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.

CONFERENCE MAP

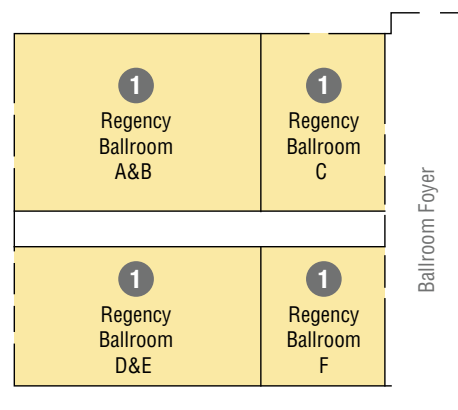


CONVENTION CENTER - Second Floor



- 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
- 8.** Monday Morning Break
- 9.** Monday Night Offsite Networking Event (5 min. walking distance)
- 10.** Charging Station

HYATT REGENCY - First Floor



Note: Maps not drawn to scale

HOTEL, PARKING, AND AREA ACTIVITIES

HOTEL

Hyatt Regency Sacramento

1209 L Street, Sacramento, California 95814

Situated directly across from the California State Capitol, the Hyatt Regency Sacramento is in the heart of the city's vibrant downtown district and is adjacent to the Sacramento Convention Center; location of most of the conference sessions and training workshops, as well as the Exhibit Hall and Plenary Session. The hotel is 11 miles from the Sacramento International Airport and less than 1 mile from the Sacramento Valley Amtrak station.

PARKING

Registered Hyatt Regency Hotel Guests

\$20/day (self-park)

\$29/day (valet-park)

Rates are subject to change as the parking garage is not operated by the hotel.

In and out privileges are available to guests who bill parking charges to their hotel bill.

Non-Hotel Guests

Parking garages located nearest to the Sacramento Convention Center

1056 13th St (between J & K Streets)

1135 12th St (between K & L Streets)

900 13th St (between I & J Streets)

Surrounding Area

For more information on city parking: <https://www.cityofsacramento.org/Public-Works/Parking-Services/Parking-Map>

AREA ACTIVITIES

Designated California's fifth state capital in 1854, Sacramento originated in 1839 and is California's oldest incorporated city. Consider staying after the conference to take advantage of nearby activities for all ages including the California State Capitol, the new Golden 1 Center arena, the Crocker Art Museum, the California Museum for History, Women, and the Arts, Sutter's Fort State Historic Park, and historic Old Sacramento located along the Sacramento River and home to the California State Railroad Museum. Located in California's Central Valley and between the Sacramento and American rivers, the area is a popular spot for bicyclists, runners, water sports, and nature lovers. The 32-mile American River Bike Trail goes from downtown Sacramento to the City of Folsom. The average temperatures for Sacramento in September are 87°F high / 56°F low.

For more information on area activities: <https://sacramento.regency.hyatt.com/en/hotel/activities/area-activities.html>

The Hyatt Regency also offers a selection of indoor and outdoor activities for guests.

For more information on hotel activities: <https://sacramento.regency.hyatt.com/en/hotel/activities/hotel-activities.html>



Photos © Visit Sacramento

The American River Bike Trail (top);
historic Old Sacramento (bottom)

The 2017 Training Workshops include seven half-day and three full-day training workshops, as well as one full-day field tour. Attendee registration includes two half-day training workshops, one full-day training workshop, or the full-day field tour. *(See agenda on pages 11-14)*

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

FULL DAY

Field Tour: A Stroll through Sacramento (limited number of participants)

Tour Sacramento stormwater treatment and low impact development sites.

Industrial: Implementation and Upcoming Challenges With the second full year of the new Industrial General Permit (IGP) officially complete, this training workshop will focus on challenging aspects of compliance with the IGP, as well as lessons learned. Regulators, industry representatives, attorneys, and stormwater practitioners will address: Case studies and compliance strategies; Exceedance Response Action (ERA) Level 1 & 2 questions / comments / clarifications; Total Maximum Daily Load (TMDL)-specific permit requirements; and, Best Management Practices (BMP) effectiveness on a variety of pollutants of concern.

International Low Impact Development

The training workshop is intended to bring together practitioners from different countries to engage with CASQA in a discussion of Low Impact Development (LID) approaches and related initiatives (Sponge City, green infrastructure, sustainable development, etc.). The workshop will look at common values shared, innovative approaches, research being undertaken, engineering standards being applied, and assessments of effectiveness.

Watershed-Based Permits: Working Together for a Healthy Watershed

This training workshop will review and discuss the current state of watershed based stormwater programs, challenges uncovered through planning and early implementation, and important lessons learned. It will explore perspectives on watershed planning outside of the stormwater arena, focusing on future opportunities with new and existing partners, such as water agencies and wastewater agencies.

HALF DAY – MORNING

BMP/Trash Design: Lessons Learned from Trash and BMP Design This training workshop will focus on the selection and design of specific BMPs to meet various regulatory requirements, such as the trash amendments, water quality, and hydromodification..

Financing: Bridging the Great Funding Divide This training workshop presents ideas on the current municipal funding situation and what can be done to solve the funding challenges. The causes of the funding divide will be dissected and current attempts to bridge the divide will be analyzed. The workshop will examine several possible funding sources.

Legal: There's a Lot Going on in Water Quality Law! This training workshop will provide an update on Municipal Separate Storm Sewer System (MS4) proceedings pending before the Commission on State Mandates and related appellate decisions, MS4 permit challenges currently before the State Water Board, and a panel discussion on national water quality policy under the current Presidential administration, including the waters of the U.S. rule and changes at the U.S. EPA.



The International Low Impact Development training workshop is being held in cooperation with the World Future Council.

HALF DAY – AFTERNOON

Construction: Construction Sampling – From Forecasting through Data Submittal (limited to 70 participants)

This training workshop will provide a forum for the presentation and discussion of sampling methodologies and techniques to meet regulatory requirements of the Construction General Permit for pH and turbidity.

Monitoring: Plan Twice, Measure Once: Theory, Art, and Science of Flow Monitoring

This training workshop will explore ways to collect better flow data. Attendees will have the opportunity to review and evaluate their understanding of different flow regimes and “develop” wet and dry weather programs to address various study questions. This workshop will explore different MS4 and receiving water sites, flow monitoring protocols, monitoring equipment and other factors that may impact measured flow.

Outreach: Reaching Politicians, Residents, and Stakeholders: How to Create Engagement and Support for Your Program

This training workshop is focused on the various aspects of communicating your message. It will cover changing behavior through Community Based Social Marketing; effective strategies for implementing online marketing; developing a strategic Pollutant - Source - Solution matrix to develop your public education strategy, and creating engaging public campaigns.

Sustainable Stormwater Management: Eureka! California's New Gold: Stormwater Capture and Use

This training workshop will provide an understanding and current status of stormwater capture and use in California, including examples of projects at different scales. Conducive site-specific conditions for stormwater capture and use (e.g., utilizing existing infrastructure, finding sites in proximity to recharge areas, and having partnerships with other agencies) will be discussed.

TRACK DESCRIPTIONS

The conference program features two full days of concurrent session presentations (September 26 and 27). Each of the major tracks for the concurrent session presentations is outlined below and is described in more detail on the [CASQA website](#). (See agenda on pages 21-26)

Collecting, Managing, and Using Data

Data is an important basis for managing stormwater programs and is even more important as we build bridges to other environmental sectors and agencies. This track will focus on innovative ways analytical, spatial, programmatic, and infrastructure data is gathered, stored, and considered for stormwater managers to use data effectively.

Key topic areas: • *Monitoring* • *GIS and infrastructure* • *Asset management data* • *Implementation tracking* • *Open data* • *Emerging data management techniques* • *Effectiveness evaluation*

Construction

Construction stormwater compliance by its nature builds bridges as it impacts all water sectors. This track will focus on proven and innovative strategies to resolve construction issues and maintain compliance.

Invited Panels/Forums: • *QSD/QSP Forum* • *Regulatory Panel* • *Trainer of Record Forum: Construction General Permit*

Key topic areas: • *Site management and cost control* • *Construction issues and resolutions* • *Innovative use of BMPs and controls* • *Monitoring and sampling* • *Linear utilities and overhead project BMP implementation* • *Case studies*

Industrial

Strategic approaches for industrial stormwater management and innovative treatment are key supports for bridging stormwater compliance issues at industrial facilities and will be covered in this track.

Key topic areas: • *Pollutants of concern/ pollutant source assessment* • *Strategic approaches to compliance* • *Innovative BMP design/ treatment* • *Exceedance Response Action Levels 1 and 2* • *Monitoring* • *TMDLs* • *CWA citizen suits*



Municipal Programs

This track will focus on the challenges and solutions in implementing a municipal stormwater program and opportunities to build bridges between municipal stormwater programs and other environmental sectors and agencies.

Key topic areas: • *Phase II traditional programs* • *Inspection / enforcement* • *New development / redevelopment* • *Outreach / participation / involvement* • *Funding* • *Maintenance* • *Program effectiveness evaluation / adaptive management* • *Emerging regulations* • *Green infrastructure / retrofit planning and implementation* • *Inter-agency / Intra-agency coordination*

Strategy to Optimize Resource Management of Storm Water (STORMS) Invited Panel

Core Implementation Committee representatives and State Water Board Staff will provide updates and panel discussion on STORMS.

Stormwater BMP Implementation

Stormwater BMPs provide the physical infrastructure connecting all water issues, ranging from improving stormwater quality, protecting natural channels from hydromodification, preventing flood impacts to property, recharging groundwater, to providing the opportunities for rainwater harvesting. This track will focus on all forms of stormwater treatment, BMP design considerations, effectiveness assessment, and adaptability.

Key topic areas: • *BMP design / treatment / maintenance / adaptive management* • *LID / green infrastructure* • *Quantity control* • *Stormwater capture and use* • *Effectiveness evaluation and adaptability*

Stormwater Science and Planning

The stormwater community builds bridges to other water and environmental sectors through forward-thinking science and planning. This track will include consideration of early planning issues and emerging science and technologies.

Key topic areas: • *Emerging science and technologies* • *TMDLs* • *Pollutants of concern* • *Trash* • *Watershed management planning and funding* • *Modeling* • *Reasonable assurance analysis* • *Alternative compliance* • *Intra-agency permitting and coordination / funding* • *CEQA / NEPA / addressing stormwater early in the planning process*

Sustainability

Sustainable practices build the basis for the interconnections of all water. This track will look at the sustainable practices, legal requirements, and programs that build the bridges between stormwater and other environmental sectors and highlight ongoing efforts and where further integration may take us in the future.

Key topic areas: • *Recycled water / stormwater* • *Water supply* • *Water rights* • *Integrated regional water management plans* • *Stormwater resources plans* • *Groundwater recharge / Sustainable Groundwater Management Act planning* • *Adaptability / climate change* • *Asset management* • *Cross-agency / media collaboration approaches* • *Social, economic, and environmental equity*

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Exhibitors (Booth #) See full listings on pages 31-36

Super Premium Exhibitors

- ADS (43)
- Bio Clean (36)
- California Filtration Specialists (20/21)
- CleanWay Environmental Partners, Inc. (11)
- CloudCompli (57)
- Contech Engineered Solutions (22)
- DeepRoot Green Infrastructure (27/28)
- Downstream Services (50)
- Gullywasher Stormwater Filters (31/32)
- Jensen Precast (29)
- Oldcastle Precast - Stormwater (37)
- Belgard Commercial (38)
- Safe Drain (63)
- United Storm Water (15)

Premium Exhibitors

- AquaShield, Inc. (45)
- Clearwater Solutions, Inc. (30)
- Coanda, Inc. (34)
- Condor Earth Technologies, Inc. (47)
- Cultec, Inc. (39)
- EnviroCert International, Inc. (16)
- Filtrexx International (8)
- FODS, LLC (9)
- G2 Construction, Inc. (1)
- Golder Associates, Inc. (10)
- Heavyweight Sediment Control Solutions (49)
- HYDRA TMDL (5)
- LSC Environmental Products (25)
- PACE Advanced Water Engineering (23)
- PAT-CHEM LABORATORIES (24)

- Porous Technologies, LLC (41)
- Pre-Con Products (42)
- Prinsco (44)
- Pure Filter Solutions, LLC (6)
- Rotondo Environmental Solutions (46)
- Sacramento Stormwater Quality Partnership (SSQP) (7)
- SCI Consulting Group (35)
- Soil Retention (4)
- StormTrap (33)
- StormwaterRx, LLC (26)
- Storm Water Systems (40)
- Sunmark Environmental (3)
- WaterTectonics (48)
- XERXES Corporation (2)

Regular Exhibitors

- ABT, Inc. (19)
- CAL-Storm Compliance, Inc. (52)
- CBI Systems, Ltd. - MS4web.com (58)
- CIF Composites, Inc. (51)
- dat Mobile Solutions (18)
- Earth-Savers (62)
- ERTEC Environmental Systems (56)
- LaMotte (53)
- Mosquito and Vector Control Association of California (54)
- Outpak Washout (12)
- Revel Environmental Manufacturing, Inc. (17)
- Source Molecular Corporation (14)
- StormTree (55)
- Storm Water Inspection & Maintenance Services, Inc. (61)
- Stormwater Magazine (13)

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City of Folsom
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Photo by Laura Marie Anthony

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Bridge/brij/noun: Something that is intended to form a connector between two things.
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Stormwater BMP 2013



Mill Creek Wetlands
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Regional BMP 2014

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CASQA TRAINING WORKSHOPS AGENDA Sunday & Monday, September 24–25

SUNDAY	
4:00p–7:00p	REGISTRATION DESK AND CONFERENCE SERVICES (Convention Center West Lobby)
5:00p–7:00p	NEW MEMBER-NEW ATTENDEE EVENT – (Hyatt Regency Capitol View Room - 15th Floor)

MONDAY	
7:30a–5:30p	REGISTRATION DESK AND CONFERENCE SERVICES (Convention Center West Lobby)
10:00a–5:00p	POSTER SESSION (Convention Center 2nd Floor Landing)
12:00p–6:00p	EXHIBIT HALL OPEN (Convention Center Hall E and West Lobby)

OFF-SITE FIELD TOUR 8:00a–5:00p	Field Tour A Stroll through Sacramento Moderator: Melanie Sotelo, CASC Engineering and Consulting, Inc. Tour Sacramento stormwater treatment and low impact development sites. (Takes place offsite; Limited number of participants; Bus pick-up/drop off is outside the Hyatt Regency - 1209 L Street)
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TRAINING WORKSHOPS	Legal There's a Lot Going on in Water Quality Law!	Industrial Implementation and Upcoming Challenges	International Low Impact Development	Watershed-Based Permits Working Together for a Healthy Watershed	BMP / Trash Design Lessons Learned from Trash and BMP Design	Financing Bridging the Great Funding Divide
	MORNING Room: Convention Center 103–105	FULL DAY Room: Convention Center 202	FULL DAY Room: Convention Center 203	FULL DAY Room: Convention Center 204	MORNING Room: Hyatt Regency – Regency Ballroom D & E	MORNING Room: Hyatt Regency – Regency Ballroom F
MODERATOR	Ryan Baron Best Best & Krieger LLP	Matt Lentz GSI Environmental, Inc.	Chris Crompton County of Orange	Paul Hartman Larry Walker Associates	Raina Dwivedi Tetra Tech	Richard Watson Richard Watson & Associates, Inc.
8:30a–10:00a	State Update: Alternative Compliance, Unfunded Mandates and Other Proceedings <i>Howard Gest, Burhenn & Gest</i> <i>Theresa Dunham, Somach Simmons & Dunn</i>	Welcome/Opening Remarks Introduction – Year 2 in Review and Data Review <i>Jeremy Laurin, Pacific Gas & Electric Company; Matt Lentz, GSI Environmental, Inc.</i> Stormwater Sampling – Don't Underestimate the Value of a Good Sample <i>Hans Kramer, Terraphase Engineering, Inc.</i> Planning for the TMDL Permit Re-Opener <i>Laurel Warddrip, State Water Resources Control Board</i>	Overview <i>Chris Crompton, County of Orange</i> LID/Green Infrastructure Around the World: A Multi-Continent Overview <i>Daniel Apt, Olaunu</i> LID in the International BMP Database <i>Eric Strecker, Geosyntec Consultants</i> China Sponge City Focus <i>China's Sponge City Practice Zhang Linwei, Ministry of Housing and Urban Development of the People's Republic of China</i>	Introduction Working Together for a Healthy Watershed <i>Paul Hartman, Larry Walker Associates</i> Watershed Planning and Collaboration Watershed Management: Going Beyond the "Iterative Process" in Orange County <i>Richard Boon, Riverside County Flood Control and Water Conservation District</i> Watershed-Based Implementation Watershed Implementation – Experiences in Los Angeles County <i>Paul Alva, Los Angeles County</i>	Statewide Trash Amendment Compliance Strategies Trash Implementation throughout Los Angeles County <i>Genevieve Osmena, Los Angeles County</i> We Made It! Now What? City of LA – Tracing the Steps from Compliance through Post-Implementation <i>Dawn Petschauer, City of Los Angeles</i> Successes and Lessons Learned in the SF Bay Area – Seven Years of Addressing Trash Reduction Requirements <i>Chris Sommers, EOA, Inc.</i> Panel Discussion and Q&A with all Speakers	Introduction to Workshop <i>Richard Watson, Richard Watson & Associates, Inc.</i> Panel Discussion: What Caused the Funding Divide and What We Can Do About It <i>John Bliss, SCI Consulting Group</i> Panel Discussion: State and Federal Attempts to Help Municipalities <i>Jeffrey Albrecht, State Water Resources Control Board; Peter Kozelka, US EPA Region 9</i>
10:00a–10:30a	BREAK (Convention Center West Lobby); POSTER PRESENTATION AUTHORS AVAILABLE (Convention Center 2nd Floor Landing)					

Note: Agenda is provisional and subject to change

CASQA TRAINING WORKSHOPS AGENDA Monday, September 25 (continued)

TRAINING WORKSHOPS	Legal There's a Lot Going on in Water Quality Law!	Industrial Implementation and Upcoming Challenges	International Low Impact Development Training workshop held in cooperation with the World Future Council	Watershed-Based Permits Working Together for a Healthy Watershed	BMP / Trash Design Lessons Learned from Trash and BMP Design	Financing Bridging the Great Funding Divide
	MORNING Room: Convention Center 103–105	FULL DAY Room: Convention Center 202	FULL DAY Room: Convention Center 203	FULL DAY Room: Convention Center 204	MORNING Room: Hyatt Regency – Regency Ballroom D & E	MORNING Room: Hyatt Regency – Regency Ballroom F
MODERATOR	Ryan Baron Best Best & Krieger LLP	Matt Lentz GSI Environmental, Inc.	Chris Crompton County of Orange	Paul Hartman Larry Walker Associates	Raina Dwivedi Tetra Tech	Richard Watson Richard Watson & Associates, Inc.
10:30a–12:00p	<p>Federal Update: U.S. EPA and WOTUS Policy</p> <p><i>Dave Burhenn, Burhenn & Gest</i></p> <p><i>Katharine Wagner Attorney</i></p> <p><i>Ana Schwab, Best Best & Krieger</i></p>	<p>ERA Overview and Key Components</p> <p>ERA Level 2 Action Plan <i>Maureen Daggett, ECM Services</i></p> <p>Non-Industrial Source Demonstration Interactive Scenario <i>Brandon Steets and Jared Ervin, Geosyntec Consultants</i></p>	<p>China Sponge City Focus (continued)</p> <p>China's Sponge City Construction: A Discussion on Technical Approaches <i>Jia Haifeng, Tsinghua University</i></p> <p>China's Sponge City: Perspectives from a Yankee Practitioner <i>John Lentz, Herrera Environmental Consultants</i></p> <p>A Comparison Between Sponge City Program in China and Green Stormwater Infrastructure Program in the U.S. <i>Zhen Xiaoyue, Tetra Tech</i></p>	<p>Watershed-Based MS4 Permitting</p> <p>Watershed-Based MS4 Permits – Experiences in the Los Angeles Region and a Look Ahead <i>Renee Purdy, Los Angeles Regional Water Quality Control Board</i></p> <p>Panel Discussion: Watershed-Based MS4 Permits – Perspectives from the Regulated Community and the Regulators <i>Richard Boon, Riverside County Flood Control and Water Conservation District; Paul Alva, Los Angeles County; Renee Purdy, Los Angeles Regional Water Quality Control Board; Erica Ryan, San Diego Regional Water Quality Control Board</i></p>	<p>Save Time and Money – Los Angeles River Upper Reach 2 Watershed Management Area Feasibility Study for Regional BMPs <i>Gina Nila, City of Commerce</i></p> <p>Presentation and Panel Discussion:</p> <p>Engineering Regional BMPs: Lessons Learned & Navigating Compliance <i>Oliver Galang and Merrill Taylor, Tetra Tech; Kristen Ruffell, Sanitation Districts of Los Angeles County; Neal Shapiro, City of Santa Monica</i></p>	<p>Panel Discussion: Stakeholder Expectations / Recent Developments – Business, Cities, and Environmental Groups <i>Erin Evans-Fudem, League of California Cities; Mike Lewis, Los Angeles County Business Federation (BizFed); Bruce Reznik, Los Angeles Waterkeeper</i></p> <p>Los Angeles County Water Resilience Program <i>Russ Bryden, Los Angeles County Department of Public Works</i></p> <p>Workshop Wrap-Up <i>Richard Watson, Richard Watson & Associates, Inc.</i></p>
12:00p–1:30p	EXHIBITOR FOCUS (Convention Center Hall E and West Lobby) AND LUNCH (Convention Center Hall C)					

CONTINUING EDUCATION CREDITS

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

2017 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)

CASQA TRAINING WORKSHOPS AGENDA Monday, September 25 (continued)

TRAINING WORKSHOPS	Monitoring Plan Twice, Measure Once: Theory, Art, and Science of Flow Monitoring AFTERNOON Room: Convention Center Hall D	Construction Construction Sampling – From Forecasting through Data Submittal (limited to 70 participants) AFTERNOON Room: Convention Center 103–105	Industrial Implementation and Upcoming Challenges FULL DAY Room: Convention Center 202	International Low Impact Development Training workshop held in cooperation with the World Future Council FULL DAY Room: Convention Center 203	Watershed-Based Permits Working Together for a Healthy Watershed FULL DAY Room: Convention Center 204	Sustainable Stormwater Management Eureka! California's New Gold: Stormwater Capture and Use AFTERNOON Room: Hyatt Regency – Regency Ballroom D & E	Outreach Reaching Politicians, Residents, and Stakeholders: How to Create Engagement and Support for Your Program AFTERNOON Room: Hyatt Regency – Regency Ballroom F
MODERATOR	Sara Huber Weston Solutions, Inc.	Tanya Bilezikjian Michael Baker International	Jeremy Laurin Pacific Gas & Electric Company	Chris Crompton County of Orange	Paul Hartman Larry Walker Associates	Daniel Apt Olaunu; Lisa Skutecki Brown and Caldwell	Stephen Groner SGA Marketing
1:30p–3:00p	Panel Discussion: The Art Versus the Math of Flow <i>Sara Huber, Weston Solutions, Inc.</i> <hr/> Site Selection & Integrated Program Planning - Northern California Perspective: <i>J. Brett Calhoun, Santa Clara Valley Water District</i> - Southern California Perspective: <i>Jon Ball, City of Los Angeles</i> <hr/> Defensible Data Collection Begins with Proper Monitoring Station Siting, Design, and Installation, and Requires Ongoing Adjustment <i>Tommy Wells, FMF Pandion</i> <hr/> Evaluating Rivers in Reality from Baseflow to Flood Stage and Everything in Between <i>Damon Owen, Weston Solutions, Inc.</i>	Introduction - Recap Permit Sampling Requirements <i>Kadi Whiteside, Southern California Edison</i> <hr/> Weather Reporting - Recap Permit Weather Criteria - NOAA <i>Andrew Sidor, Michael Baker International</i> <hr/> Sample Location Determination - Construction Related Upstream/Downstream - Good vs. Bad - Co-Mingled Flows <i>Tanya Bilezikjian, Michael Baker International; Kadi Whiteside, Southern California Edison</i> <hr/> Group Activity <i>Tanya Bilezikjian, Michael Baker International</i> <hr/> Sampling Techniques - Techniques per SWAMP - Sampling Equipment - Video <i>Lucy Cortez-Johnson and Daniel Secrist, CASC Engineering and Consulting, Inc.</i>	Advanced Treatment: An Overview <i>Mehran Ebrahimi, GSI Environmental, Inc.</i> <hr/> Stormwater Treatment System Panel: Lessons Learned and Keys to Success <i>Treatment System Vendor Panelists: TJ Mothersbaugh, WaterTectonics; Cal Noling, StormwaterRX, LLC; Terry Balog, Frog Environmental; Matt Mahoney, Clear Creek Systems</i>	Americas and Oceania Focus Adapting LID for a Remote Island (There is No Sandy Loam in New Zealand) <i>Elizabeth Fassman-Beck, Stevens Institute of Technology</i> <hr/> Delivering City Greening Through Stormwater Management <i>Ana Deletic, University of New South Wales</i>	Novel Approaches to Watershed Implementation Exploring Innovative Approaches to Implement and Fund Watershed Programs <i>Drew Kleis, City of San Diego</i> <hr/> New Partners – Breaking Down the Silos - Water Agency Perspective – How to Get Water Agencies to Pay for Stormwater Projects <i>Henry Graumlich, Calleguas Municipal Water District</i> - Flood Control Agency Perspective – What's Flood Got to Do With It? <i>Rick Thomasser, Napa County Stormwater Pollution Prevention Program; Jason Uhley, Riverside County Flood Control and Water Conservation District</i>	Overview of Workshop, Context, and History <i>Daniel Apt, Olaunu; Lisa Skutecki, Brown and Caldwell</i> <hr/> STORMS Capture & Use (Projects 1a/1b) <i>Chris Beegan, State Water Resources Control Board</i> <hr/> Developing Statewide Targets for Groundwater Recharge and Direct Use of Stormwater <i>Nirmala Benin, California Department of Water Resources</i> <hr/> Stormwater Capture & Use – Water Rights <i>Deborah Wordham, Best Best & Krieger</i> <hr/> Public Health Department Regulations & Perspective <i>June Weintraub, San Francisco Department of Public Health</i> <hr/> Water District Perspective <i>Katie Porter, California Urban Water Agencies (CUWA)</i>	Effective Communications – The Basic Formula <i>Stephen Groner, SGA Marketing</i> <hr/> Building Support: Dynamic Presentations that Move Your Audience <i>Sarah Diefendorf, Environmental Finance Center-West</i>
3:00p–3:30p	BREAK AND EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)						

CASQA TRAINING WORKSHOPS AGENDA Monday, September 25 (continued)

TRAINING WORKSHOPS	Monitoring Plan Twice, Measure Once: Theory, Art, and Science of Flow Monitoring	Construction Construction Sampling – From Forecasting through Data Submittal (limited to 70 participants)	Industrial Implementation and Upcoming Challenges	International Low Impact Development	Watershed-Based Permits Working Together for a Healthy Watershed	Sustainable Stormwater Management Eureka! California's New Gold: Stormwater Capture and Use	Outreach Reaching Politicians, Residents, and Stakeholders: How to Create Engagement and Support for Your Program
	AFTERNOON Room: Convention Center Hall D	AFTERNOON Room: Convention Center 103–105	FULL DAY Room: Convention Center 202	FULL DAY Room: Convention Center 203	FULL DAY Room: Convention Center 204	AFTERNOON Room: Hyatt Regency – Regency Ballroom D & E	AFTERNOON Room: Hyatt Regency – Regency Ballroom F
MODERATOR	Sara Huber Weston Solutions, Inc.	Tanya Bilezikjian Michael Baker International	Matt Lentz GSI Environmental, Inc.	Chris Crompton County of Orange	Paul Hartman Larry Walker Associates	Daniel Apt Olaunu; Lisa Skutecki Brown and Caldwell	Stephen Groner SGA Marketing
3:30p–5:00p	Lessons Learned from the Field—Monitoring Station Siting and Planning Exercise(s)	Sampling Techniques (continued) <i>Lucy Cortez-Johnson and Daniel Secrist, CASC Engineering and Consulting, Inc.</i>	Regulatory Panel – Expectations, Common Issues to Learn From, and Enforcement <i>Erica Ryan, San Diego Regional Water Quality Control Board; Richard Muhl, Central Valley Regional Water Quality Control Board; Rebecca Greenwood, State Water Resources Control Board; Pavlova Vitale, Los Angeles Regional Water Quality Control Board</i>	Americas and Oceania Focus (continued) LID in Chile <i>Daniel Apt and Brad Parks, Olaunu</i>	New Partners – Breaking Down the Silos (continued) - Groundwater Agency Perspective – Stormwater as Resource: Barriers, Hope, and Beyond <i>Kerri Schmitz, Sacramento County Water Agency</i>	Simon Bolivar Park Capture & Use Project <i>Richard Watson, Richard Watson & Associates, Inc.; Oliver Galang, Tetra Tech</i>	Reaching your Audience Online and Offline <i>Kathryn Cooke, San Mateo County</i>
		Data Reporting - Field Data Recording - SMARTS Submittal - Exceedances <i>Kadi Whiteside, Southern California Edison; Lucy Cortez-Johnson, CASC Engineering and Consulting, Inc.; Andrew Sidor, Michael Baker International</i>		Assessment of LID Effectiveness at Different Scales	- Wastewater Agency Perspective – Wastewater and Stormwater: United Fronts <i>Lisa Haney, Orange County Sanitation District</i>	Fresno County Capture & Infiltration Basins <i>Daniel Rourke, Fresno Metropolitan Flood Control District</i>	Stakeholders and Elected Officials – Reaching Out to Those with Influence <i>Darcy Kuenzi, Riverside County Flood Control and Water Conservation District</i>
		Data Analysis by the Water Board - Common Mistakes Encountered During Data Submittals - Data Submittal Tips <i>Russell Hansen, State Water Resources Control Board</i>		Overview of LID Monitoring and Assessment <i>Michael Trapp, Michael Baker International; Matt Yeager, Yeager Consulting</i>		Panel Discussion: All Speakers listed above <i>Annalisa Kihara, State Water Resources Control Board; Brian Currier, Office of Water Programs at Sacramento State</i>	Questions and Wrap Up <i>Stephen Groner, SGA Marketing</i>
		Q&A		City of Calgary Source Control Practice (Low Impact Development) Guidance and Monitoring Results <i>David Seeliger, MPE Engineering</i>		Panel Discussion: Breaking Down the Silos in Watershed Management <i>Drew Kleis , City of San Diego; Henry Graumlich, Calleguas Municipal Water District; Jamison Crosby and Rick Thomasser, Napa Countywide Stormwater Pollution Prevention Program; Kerry Schmitz, Sacramento County Water Agency; Lisa Haney, Orange County Sanitation District; Jason Uhley, Riverside County Flood Control and Water Conservation District</i>	
5:00p–6:00p	EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)						
5:30p–10:00p	NETWORKING EVENT – (Off-site: Cafeteria 15L restaurant, 1116 15th Street) 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 9/25 (\$80 - onsite pricing). Tickets are not available at-the-door.						



The Networking Event is being held at nearby Cafeteria 15L, Sacramento's favorite comfort-cool and eclectic urban restaurant. This is a unique opportunity to socialize after hours, enjoy food and entertainment, and continue the stormwater discussion.

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CONGRATULATIONS TO THE 2017 CASQA AWARD WINNERS

The CASQA annual awards recognize outstanding projects, activities, and people in the stormwater management profession. To learn more about CASQA’s 2017 award winners, look for the blue ribbons in the conference program.

OUTSTANDING STORMWATER RESEARCH PROJECT
Elk Grove Dry Well Project

City of Elk Grove, in partnership with the California Office of Environmental Health Hazard Assessment, and the Department of Land, Air, and Water Resources, UC Davis

Many stakeholders and regulators have learned from and have been inspired by the City of Elk Grove, in partnership with the California Office of Environmental Health Hazard Assessment, and Department of Land, Air, and Water Resources, UC Davis, to use dry wells as a stormwater management tool. The project is a model for what other agencies can do to improve water quality, use stormwater as a resource, reduce urban runoff, and recharge their aquifers. Results of this study are being used by the State Water Control Resource Board as it begins the process of developing standards and policy on dry well use in urban areas.

Project team members produced three fact sheets available for other agencies with similar goals. Shown right are pages from the summary of project results.

Assessing the Risks of Using Dry Wells for Stormwater Management and Groundwater Recharge: The Results of the Elk Grove Dry Well Project

PROJECT PURPOSE

The Elk Grove Dry Well project was designed to evaluate the risk of groundwater quality degradation associated with infiltrating stormwater runoff through dry wells.

BACKGROUND

Dry wells, also known as underground injection control (UIC) systems, are stormwater infiltration devices typically constructed of a pipe approximately 3 feet wide and 20 to 50 feet deep, containing perforation at various locations along the pipe and/or at the bottom (Figure 1). Dry wells can be used in a variety of situations, but are especially useful in areas with clay soils because they facilitate the movement of runoff below the constricting clay layers. Dry wells can be used in conjunction with low impact development (LID) practices to reduce the adverse effects of hydromodification on surface water quality, aquatic habitat, and downstream flood risk. They help to adapt to the effects of drought and climate change. However, the use of this technology has raised concerns that contaminants in stormwater could compromise groundwater quality.

In California, dry wells are used under the regulatory authority of the US Environmental Protection Agency's Underground Injection Control Program. Dry wells are categorized as Class V injection wells. Thousands of engineered dry wells have been installed in southern California as part of that region's extensive stormwater capture efforts whereas in northern California, they are used much less frequently. In neighboring states, such as Arizona, Washington, and Oregon, dry wells are used extensively as stormwater and flood control management tools. In these states as well as within California, protection of groundwater quality is of paramount importance. Results of data collection and fate and transport modeling for this project, along with a comprehensive literature review, provided scientific information on the risk to groundwater quality associated with dry well use in urban areas.

PROJECT APPROACH AND PROCEDURES

Two dry wells systems and an associated monitoring well network were constructed at two locations in the City of Elk Grove, California: 1) the Strawberry Creek water quality basin that collects stormwater runoff from a 168-acre residential neighborhood and 2) the City's Corporation Yard which serves as a bus parking and service center with a drainage area of 0.6 acres. At each site, a dry well approximately 40 feet deep was constructed and completed 10-15 feet above the high water table. Before reaching the dry well, stormwater runoff would pass through the vegetated and structural pretreatments. The gravelly swale at the Corporation Yard and the vegetation in the water quality basin served as the vegetated pretreatment and were the primary means of removing particles and associated pollutants from stormwater. Due to design issues, the sedimentation well that was intended to sequester sediment before it flowed into the dry well was not sufficiently deep to perform this function. A groundwater monitoring well network, composed of a vadose zone well as well as one upgradient well (to determine background condition) and two downgradient wells (to determine groundwater influenced by the dry well), were also constructed.

Monitoring of over 200 contaminants in stormwater and groundwater was performed five times over two years. Groundwater monitoring also occurred prior to the dry well construction and after the first and second year of monitoring. The following classes of contaminants were analyzed (Table 1 on the following page):

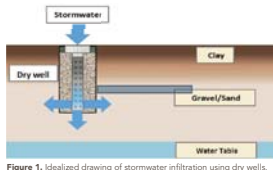


Figure 1. Idealized drawing of stormwater infiltration using dry wells.

Contaminant Class	Examples	Frequency of Detection Above Reporting Limit	Reporting Limits
(6S)	Toluene, ethylbenzene, naphthalene	infrequent	low ppb (µg/L)
(8S)	Dichlorobenzene, benzodiphenyl, phthalates, naphthalene, benzoic acid	rare	low ppb (µg/L)
(16)	Benzodiphenyl, anthracene, pyrene	none	low ppb (µg/L)
(17)	2,4-D, dalphon, pentachlorophenol	rare	low ppb (µg/L)
(9)	Bifenthrin, permethrin, cyfluthrin	frequent	low ppb (µg/L)
(20)	Total chromium, arsenic, lead	frequent	low ppb (µg/L)
	Total coliform, fecal coliform, e. coli	frequent	1.8 (low) and 1600 (high) most probable number/100 ml
carbons	Diesel, gas, motor oil	infrequent	low ppm (mg/L)
	Heavy metal chromium, glyphosate, total suspended solids	Chromium+none Glyphosate rare Total Suspended Solids (TSS): n/a	low ppb (µg/L) ppm (mg/L)
ions (20)	Calcium, specific conductance, total alkalinity	n/a	ppm (mg/L)

its analyzed and frequency of detection. The minimum concentrations that could be quantified with the method are listed in the reporting limits column. Frequency of detection in stormwater: rare < 5 times; infrequent < some in the class detected in all stormwater samples.

Looking inside the dry well. On the left, runoff from the sedimentation well can be seen spilling into the dry well.

ade of stormwater runoff as it entered the dry well and in all subsurface monitoring wells. Twice during the if contaminants was also monitored in influent stormwater composite stormwater samples were used for most data was analyzed, comparing concentrations at different sites and over time, using non-parametric statistical tests and total volume of runoff infiltrated were quantified. Modeling was also performed to evaluate the long-term impacts to reach the water table. The modeling of the well boring logs to assess subsurface composition of values for hydraulic conductivity, fractional organic parameters. HYDRUS 1D was used to estimate the travel time of each contaminant at both project sites.

a literature was performed to examine studies and government reports published over the past 30+ years of groundwater contamination associated with dry well use.

T FINDINGS

stormwater and groundwater monitoring showed no evidence of contamination of the aquifer linked to the chemicals analyzed (Table 1), most were detected rarely or at low frequency, as described below.

requently Detected

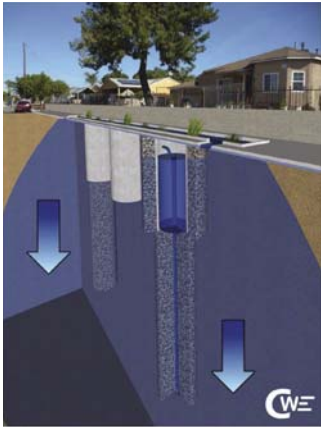
ible and semi-volatile organics and polycyclic aromatic hydrocarbons (PAH) classes were detected in stormwater, at levels just above the reporting limits for the analytical methods. Toluene, acetone, and tert-butyl near their reporting limits in influent stormwater. Pretreatment reduced their concentrations to near/below

OUTSTANDING PUBLIC WORKS
STORMWATER BMP PROJECT
Laurel Canyon Boulevard Green Street Design-Build

City of Los Angeles

A team comprised of LA Sanitation – City of Los Angeles; the Los Angeles Department of Water and Power; civil design and water quality firm CWE; and the nation's largest urban conservation corps, the Los Angeles Conservation Corps, sought an effective plan to revitalize the aging Pacoima neighborhood. The goals were to protect public health and use precious stormwater runoff as a resource for replenishment rather than a waste product. The Laurel Canyon Boulevard Green Street Project results in lowered contaminant levels from runoff in the Los Angeles River, greatly improving aesthetics and capturing enough water and infiltrating it into underground aquifers to supply 80 single-family homes with enough water for a year.

Left to right: A below-ground depiction of the BMP project; A presentation board for public education on display at the project's ground breaking





**OUTSTANDING RETROFIT
SUSTAINABLE STORMWATER
BMP PROJECT**

**Los Amigos Park Stormwater Harvesting
and Direct Use Demonstration Project**

City of Santa Monica

The City of Santa Monica has created this project in partnership with CWE to demonstrate the feasibility of harvesting local water resources, including storm drain flows, to decrease potable water use, reduce polluted urban runoff discharge to the receiving water body, and protect the future of California's water supply. This retrofit project implements a UV treatment train system that treats approximately 80 gallons of water per minute (gpm). The project contributes to sustainability in the areas of stormwater use, water conservation, water reclamation, and true source control.

Top left: Diversion stage, tapping into the existing storm drain line to divert runoff (dry and wet weather runoff) to the park cistern;
Right: Pre-treatment stage, screening in vortex-type vault;
Bottom left: Storage stage, installing the concrete structures to build the 55,000 gallon cistern



Photos and illustrations courtesy of the respective award winners



**OUTSTANDING REGIONAL
SUSTAINABLE STORMWATER
BMP PROJECT**

Gobernadora Multi-Purpose Basin Project

*Santa Margarita Water District, in partnership
with Orange County Public Works,
Rancho Mission Viejo, and PACE Advanced
Water Engineering*

The Santa Margarita Water District, in partnership with Orange County Public Works, Rancho Mission Viejo, and PACE Advanced Water Engineering, developed the Gobernadora Multi-Purpose Basin 26-acre facility as a unique opportunity to reclaim an untapped water resource while improving water quality. The basin features many specialized design elements and provides multiple benefits including groundwater recharge and recovery, non-potable water reclamation, flood mitigation/ storage, urban stormwater treatment, and natural stream stabilization/ habitat restoration.

Illustrative Plan (top) and aerial view (bottom): Careful planning and sophisticated automation of operations allow this basin to successfully serve multiple functions. Automated controls respond to dry weather and various storm conditions to adjust routing of flows (as shown) to maximize capture for recycling and provide adequate flood attenuation.





OUTSTANDING ULTRA-URBAN SUSTAINABLE STORMWATER BMP PROJECT

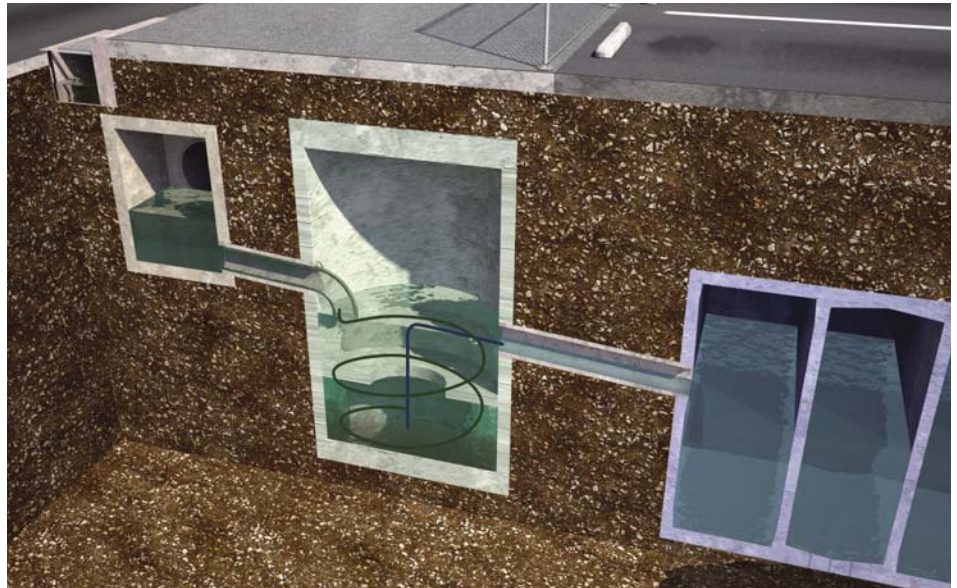
Broadway Neighborhood Stormwater Greenway Project

LA Sanitation - City of Los Angeles

The densely developed Broadway neighborhood of South Los Angeles creates runoff into the Los Angeles River, listed as an impaired waterbody for pH, metals, coliform bacteria, trash, pesticides, nutrients, and oil and grease.

Within this neighborhood, the City of Los Angeles Bureau of Sanitation in partnership with Geosyntec Consultants recently completed the Broadway Neighborhood Stormwater Greenway Project, a regional stormwater and dry-weather runoff capture project developed to help improve downstream water quality, reduce neighborhood flood risk, and increase groundwater supplies through the deployment of Low Impact Development and Stormwater Control Measures.

Right: Rendering of the subsurface diversion, treatment, and infiltration system.



Photos and illustrations courtesy of the respective award winners



OUTSTANDING INDUSTRIAL STORMWATER BMP PROJECT

West Hylebos Pier Biofiltration Stormwater Treatment Project

Port of Tacoma

In 2010, to comply with Washington state's tough Industrial Stormwater General Permit stormwater requirements, the Port of Tacoma faced the choice of coming up with cost-effective treatment for its West Hylebos Log Yard or shutting down the line of business that supports 40 direct jobs at the Port and hundreds of jobs in logging, trucking and associated services. The Port and Kennedy/Jenks Consultants considered a range of runoff treatment approaches, and the aggregate results of the comprehensive evaluation indicated that a biofiltration treatment system would most effectively manage stormwater discharges from 25 acres of paved log yard and best achieve the combined project goals. The Port chose to design (actually invent) and build a \$2.7 million treatment facility utilizing a four stage filtration system employing physical, chemical and biological processes – each stage with pollutant-specific targets. The treatment system immediately reduced pollutant loads by 92% and continues to improve over time.

Right: Vegetated swale – the final stage of stormwater biofiltration



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

**Schools Goin' Green
Youth Outreach Program**

*City of Sunnyvale, City of Cupertino,
and Santa Clara Valley Water District*

Schools Goin' Green is a grant-funded project with local middle school and high school students in the cities of Sunnyvale and Cupertino. A handful of schools have formed Green Teams where the youth are working on various concepts related to litter abatement, pollution prevention, recycling and for one, composting. To document their findings, some use *Litterati*, a mobile app and virtual community for identifying, mapping, and collecting the world's litter, while others perform documented assessments. To aid in collaboration across the schools, hands-on meetings are held periodically for the teams to brainstorm, talk about future plans and goals and to hear from guest speakers on topics relevant to their goals and outreach strategies.

Clockwise, from top left: Schools Goin' Green council;
Documenting litter; Paddling for trash



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

LEADERSHIP AWARD
**For outstanding leadership
within CASQA and exceptional
contributions to the stormwater
quality management profession**

Chris Crompton

Chris Crompton has been an influential force in the stormwater industry, helping to shape and define the profession of stormwater management as it exists today. Chris is the manager of the Water Quality Compliance Division at the County of Orange, OC Public Works, managing county-wide water quality compliance activities, and has led the Orange County Stormwater Program for over 25 years. In numerous key roles, Chris has simultaneously served as a pivotal member of CASQA and the Stormwater Quality Task Force since the mid-1990's. Throughout his career, Chris has developed and nurtured cooperative working relationships across stakeholder groups and always sought to ensure that policy initiatives supporting the evolution of stormwater management have a strong scientific basis. Chris uses his knowledge and experience to encourage different perspectives, critical thought, and identification of key issues, leading to practical and successful solutions based on scientific discussion and debate.



© J. Kai Photo



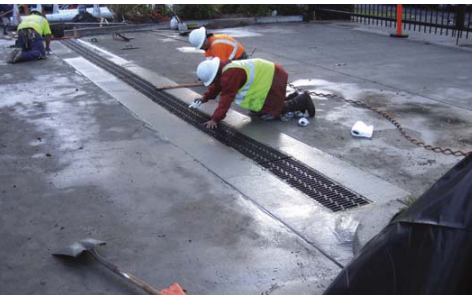
Chris Crompton is moderating the International Low Impact Development (LID) training workshop, including a focus on China's Sponge City program. Above: Monitoring of LID in Beijing, China



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CASQA TECHNICAL PROGRAM AGENDA Tuesday, September 26





TUESDAY	
7:30a–5:30p	REGISTRATION DESK AND CONFERENCE SERVICES (Convention Center West Lobby)
8:00a–5:00p	POSTER SESSION (Convention Center 2nd Floor Landing)
8:00a–7:30p	EXHIBIT HALL OPEN (Convention Center Hall E and West Lobby)
8:30a–9:55a	PLENARY SESSION WELCOME AND OPENING REMARKS: Jill Bicknell, Chair, CASQA CASQA AWARDS: Jeff Endicott, Chair, Awards Committee EXHIBITOR AWARDS: Karen Ashby, Exhibitor Coordinator KEYNOTE ADDRESS (Convention Center Hall C)
9:55a–10:20a	BREAK AND EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)

SESSION 1	Industrial Planning for Industrial Stormwater Compliance Room: Convention Center Hall D	Construction Collaboration in Construction Room: Convention Center 103–105	Municipal Programs Trash Management Room: Convention Center 202	Stormwater Science and Planning Science to Guide Implementation Room: Convention Center 203	Stormwater BMP Implementation Implementing LID and Green Infrastructure Room: Convention Center 204
MODERATOR	Craig Fish Lawrence Livermore National Laboratory	Kadi Whiteside Southern California Edison	Steve Herrera Herrera Engineering Consultants, Inc.	Aaron Poresky Geosyntec Consultants	Ghina Yamout Alta Environmental
10:20a–10:50a	Industrial and Municipal Stormwater Compliance from Challenges to Opportunities – The Industrial General Permit and the Municipal Watershed Planning Nexus <i>David Renfrew</i> <i>Alta Environmental</i>	Collaborative Construction BMP Bidding and Contract Management <i>Bob Shults</i> <i>Verux, Inc.</i>	Preparing for Track 2 – A Practical Guide to Complying with the Statewide Trash Amendments <i>Chris Sommers</i> <i>EOA, Inc.</i>	 2017 CASQA Award Winner – Outstanding Stormwater Research Project The Elk Grove Dry Well Project <i>Connie Nelson</i> <i>Representing the City of Elk Grove</i> <i>Barbara Washburn</i> <i>State of California,</i> <i>Office of Environmental Health</i> <i>Hazard Assessment</i>	 2017 CASQA Award Winner – Outstanding Public Works Stormwater BMP Project Laurel Canyon Boulevard Green Street Design-Build <i>Gordon Haines</i> <i>City of Los Angeles</i>
10:55a–11:25a	Potential Impact of TMDLs on Industrial Dischargers: From Regulatory Background to Strategic Planning for Compliance <i>Chris (Meng-Hong) Hsu</i> <i>GSI Environmental</i>	Trainer of Record Forum: Construction General Permit <i>Forum Moderator:</i> <i>Beth Smiley</i> <i>Thunder Mountain Enterprises, Inc.</i> <i>Richard Muhl</i> <i>Central Valley Regional Water</i> <i>Quality Control Board</i> <i>Mark Grey</i> <i>Building Industry Association of</i> <i>Southern California</i>	Mandated Trash Capture Devices: Impeding Trash without Impeding Mosquito Abatement <i>Joseph Huston</i> <i>Alameda County Mosquito</i> <i>Abatement District</i>	Addressing PCBs and Mercury TMDLs in San Francisco Bay through Urban Stormwater Runoff Controls: Source Property Identification and Municipal O&M Enhancements – CW4CB Pilot Project Results <i>Lisa Sabin</i> <i>EOA, Inc.</i>	After You Have Built Your LID Project, What Comes Next? <i>Jian Peng</i> <i>County of Orange</i>
11:30a–12:00p	Avoiding Level 1 and 2 ERA – It All Starts with a Pollutant Source Assessment <i>Laila Khaled Nasr</i> <i>Geosyntec Consultants</i>	<i>Joe Chretien</i> <i>William Lyon Homes</i> <i>Russell Foster</i> <i>J.F. Shea Co., Inc.</i>	Urban Flooding and the Trash Amendments <i>Remi Candaele</i> <i>Huitt-Zollars</i>	PAH Source Investigation – San Diego, Closing the Knowledge Gap <i>Melissa Valdovinos</i> <i>San Diego Regional Water Quality</i> <i>Control Board</i>	Maintenance Verification of Structural BMPs in the City of Sacramento <i>Dalia Fadl</i> <i>City of Sacramento</i>



Photos © J. Kat Photo

CASQA TECHNICAL PROGRAM AGENDA Tuesday, September 26 (continued)

12:00p–1:15p LUNCH (Convention Center Hall C)					
1:15p–1:35p EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)					
SESSION 2	Industrial Avoiding the ERA Process and Clean Water Act Citizen Suits Room: Convention Center Hall D	Collecting, Managing, and Using Data Building Bridges through Tools and Technologies to Integrate and Share Data for Decision-Making and Collaboration Room: Convention Center 103–105	Municipal Programs Public Outreach Room: Convention Center 202	Sustainability CASQA Award Winners! Room: Convention Center 203	Stormwater BMP Implementation Implementing Innovative BMPs Room: Convention Center 204
MODERATOR	Paul Costa The Boeing Company	Sheri Dister Weston Solutions, Inc.	Jonathan Meronek SCS Engineers	Stephanie Gaines County of San Diego	Eric Mosolgo City of San Diego
1:35p–2:05p	What is BAT/BCT? (Best Available Technology/ Best Control Technology)? <i>Laura Carpenter</i> <i>Brown and Caldwell</i>	Advances in Real-Time Stormwater Data Acquisition, Management, and Analysis in the Tahoe Basin <i>Alan Heyvaert</i> <i>Desert Research Institute</i>	Caltrans' Protect Every Drop Stormwater Public Education and Awareness Campaign <i>Ana Serrano</i> <i>California Department of Transportation</i>	 2017 CASQA Award Winner – Outstanding Retrofit Sustainable Stormwater Project Los Amigos Park Stormwater Harvesting and Direct Use Demonstration <i>Vik Bapna</i> <i>CWE</i>	 2017 CASQA Award Winner – Outstanding Industrial Stormwater BMP Project West Hylebos Pier Log Yard <i>Ross Dunning</i> <i>Kennedy Jenks Consultants</i>
2:10p–2:40p	Public and Private Enforcement of the Industrial General Permit <i>Wayne Rosenbaum</i> <i>Environmental Law Group LLP</i>	Fighting Urban Stream Syndrome in South OC through Integration of Water Use and Water Quality Data <i>Amanda Aprahamian</i> <i>County of Orange</i>	Storytelling: Making Your Audience the Lead in Protecting Clean Water <i>Stephen Groner</i> <i>SGA Marketing</i>	 2017 CASQA Award Winner – Outstanding Regional Sustainable Stormwater Project Gobernadora Multipurpose Basin <i>Bruce Phillips</i> <i>PACE Advanced Water Engineering</i>	Integrating Surface Water Quality Improvements Into Coastal Restoration – An Urban Retrofit BMP Case Study <i>Steve Gruber</i> <i>Burns & McDonnell Engineering</i>
2:45p–3:15p	Citizen Law Suits - Do they Build Bridges to Better Water Quality? <i>Ed Othmer</i> <i>Stantec</i>	Collection, Interpretation, and Dissemination of Bacteria Data: Maximizing Resources for Meaningful Outcomes from Studies at La Jolla Cove and Children's Pool Beaches, San Diego, California <i>Rolf Schottle</i> <i>Amecc Foster Wheeler</i>	Our Water Our World: Building Bridges Between Government Agencies and Manufacturers and Retailers Who Sell Pesticides <i>Ann Joseph</i> <i>Ann Joseph Consulting</i>	 2017 CASQA Award Winner – Outstanding Ultra-Urban Sustainable Stormwater Project Broadway Neighborhood Stormwater Greenway Project <i>Mark Hanna</i> <i>Geosyntec Consultants</i>	From Model to Bench Test to Construction - Sediment Retention Best Management Practice for the Tijeras Arroyo Watershed <i>Brad Sumrall</i> <i>Weston Solutions, Inc.</i>
3:15p–3:45p BREAK AND EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)					

JOIN CASQA



CASQA is a non-profit professional member association dedicated to the advancement of stormwater quality management through collaboration, education, implementation guidance, regulatory review, and scientific assessment.

Regular or affiliate membership in CASQA is open to organizations and individuals in the stormwater field, whether holders of NPDES permits or not. If you are not currently a member, by joining now, you can receive substantial reductions on future CASQA annual conferences. Additional member benefits include exclusive access to the Bi-Weekly Update, Water Quality NewsFlash, Member Library, and Member Forum, as well as member discounts to online and downloadable products, and events. CASQA membership provides substantial benefits even if you are based outside California.

CASQA TECHNICAL PROGRAM AGENDA Tuesday, September 26 (continued)

SESSION 3	Industrial Industrial Stormwater Treatment and Case Studies Room: Convention Center Hall D	Collecting, Managing, and Using Data Advances In Monitoring and Assessment Techniques Room: Convention Center 103–105	Municipal Programs Implementing Green Infrastructure Room: Convention Center 202	Sustainability Stormwater as a Resource Room: Convention Center 203	Stormwater BMP Implementation Implementing BMPs for Challenging Water Quality Room: Convention Center 204
MODERATOR	Matt Lentz GSI Environmental, Inc.	Christian Carleton Office of Water Programs at Sacramento State	Reid Bogert San Mateo Countywide Water Pollution Prevention Program	Brian Currier Office of Water Programs at Sacramento State	Cory Jones CValdo Corporation
3:45p–4:15p	Industrial Stormwater Treatment 101 <i>Tim Bauters</i> <i>TBI Engineering</i>	Let Data Do the Heavy Lifting – Meaningful Dry Weather Flow Reductions Using Remote Telemetry and Collaboration <i>Garth Engelhorn</i> <i>Alta Environmental</i>	Construct the Low Maintenance BMP That You Designed: Green Infrastructure Construction and Inspection <i>Merrill Taylor</i> <i>Tetra Tech</i>	From Channel to Tap – Stormwater as a Potable Water Supply <i>Lisa Skutecki</i> <i>Brown and Caldwell</i>	Cooperative Implementation of the Las Lomas Elementary School Water Capture Project <i>Richard Watson</i> <i>Richard Watson & Associates, Inc.</i>
4:20p–4:50p	Confidential Plastics Manufacturer: A Case Study for Zinc <i>Kathryn Hubbard</i> <i>Haley & Aldrich</i>	Novel Techniques for Successful Stormwater Treatment BMP Effectiveness Monitoring <i>Thomas Arthur</i> <i>AmeC Foster Wheeler</i> <i>Carl Savage</i> <i>California Department of</i> <i>Transportation</i>	Bridging Divides and Integrating Watershed Management into San Francisco–10 Years Later <i>Scott Durbin</i> <i>Lotus Water</i>	San Diego Regional Stormwater Resource Plan – Integrating Stormwater Capture and Use with Stormwater and Watershed Management <i>Stephanie Gaines</i> <i>County of San Diego</i>	Significant New BMP Performance Dataset Available for EWMP/ Water Quality Improvement Plan (WQIP) BMP Design, IGP Level 2 Planning, and PCB RAA Modeling <i>Brandon Steets</i> <i>Geosyntec Consultants</i>
4:55p–5:25p	Waste Facilities on Protected Waterways <i>Nathan Holloway</i> <i>Clear Water Services</i>	Advances In Drone (UAV) Technology for Stormwater Quality and Watershed Management Applications <i>Bruce Phillips</i> <i>PACE Advanced Water</i> <i>Engineering</i>	Greening the Los Angeles Public Right-of-Way: Prioritizing Green Stormwater for Multiple Benefits <i>Ken Susilo</i> <i>Geosyntec Consultants</i>	Non-Potable Reuse and Stormwater Ordinance Synergy: San Francisco's Approach <i>Eric Zickler</i> <i>Lotus Water</i>	Addressing PCBs and Mercury TMDLs in San Francisco Bay through Urban Runoff Treatment Retrofits – CW4CB Pilot Project Results <i>Kelly Havens</i> <i>Geosyntec Consultants</i>
5:30p–7:30p	EXHIBITOR RECEPTION (Convention Center Hall E and West Lobby)				

KEYNOTE SPEAKER

Tuesday, September 26 at 8:30 a.m.



Kamyar Guivetchi was appointed Manager of the Division of Statewide Integrated Water Management in August 2008 with the California Department of Water Resources (DWR). During his 39 years with DWR, Kamyar has worked on many technical and planning projects with the North-Central Region Office, Division of Planning, Bay-Delta Office, and Division of Environmental Services managing the Suisun Marsh Program.

For the past 17 years, Kamyar managed DWR staff work and coordinated the participation of numerous government agencies,

Native American Tribes, stakeholders, and public to prepare the *California Water Plan Updates 2005, 2009 and 2013* using a collaborative and consensus-seeking approach. He chairs the 30-member State Agency Steering Committee for preparing Water Plan Update 2018, and is the State Co-chair of the California Biodiversity Council's Executive Committee.

Kamyar has a Bachelor of Science in Civil Engineering and completed post graduate work in Environmental Engineering at the University of California, Davis; and he is a California-registered Civil Engineer.

CASQA TECHNICAL PROGRAM AGENDA Wednesday, September 27

WEDNESDAY							
7:30a–3:00p	REGISTRATION DESK AND CONFERENCE SERVICES (Convention Center West Lobby)						
8:00a–8:35a	EXHIBITOR FOCUS (Convention Center Hall E and West Lobby)						
8:00a–12:00p	EXHIBIT HALL OPEN (Convention Center Hall E and West Lobby)						
8:00a–1:20p	POSTER SESSION (Convention Center 2nd Floor Landing)						
SESSION 4	Industrial Demonstrating Compliance Through the ERA Process	Construction Data Download	Municipal Programs Watershed Planning	Sustainability Assessment Tools	Stormwater BMP Implementation Benefits of Green Infrastructure Implementation	Stormwater Science and Planning Bacteria and Pathogens	Collecting, Managing, and Using Data Advances in Assessment and Reporting Tools
	Room: Convention Center Hall D	Room: Convention Center 103–105	Room: Convention Center 202	Room: Convention Center 203	Room: Convention Center 204	Room: Hyatt Regency – Regency Ballroom A & B	Room: Hyatt Regency – Regency Ballroom C
	MODERATOR	Lori Pettegrew Farallon Consulting	Sandy Mathews Larry Walker Associates	James Scanlin Alameda Countywide Clean Water Program	Lisa Skutecki Brown and Caldwell	Jacqueline McMillen Alta Environmental	Vicki Kalkirtz City of San Diego
	Michelle Mattson Weston Solutions, Inc.						
8:35a–9:05a	Demonstrating Compliance with Level 2 ERA Process Using a Combination of Volume and Flow- Based Treatment Control BMPs <i>Patrick Galvin Geosyntec Consultants</i>	More Data, More Problems? <i>Dave Mercier Michael Baker International</i>	Balancing Permit Requirements, TMDLs, and the Nexus between Green Infrastructure Plans and Stormwater Resources Plans for the San Francisco Bay Area: City of Dublin Case Study <i>Shannan Young City of Dublin</i>	Envision Tools Help Public Agencies Meet Sustainability Goals <i>Suzanne Wilkins CDM Smith, Inc.</i>	The Martha Gardens Green Alleys Pilot Project: A Successful Collaboration of City and State to Improve Water Quality <i>Carol Boland City of San Jose</i>	Two Perspectives on the Cost Benefit Analysis for San Diego Regional Bacteria TMDLs <i>Chris Crompton County of Orange</i>	A Fistful of Projects: A Cloud-Based System for BMP Tracking and Visualization <i>Dustin Bambic Paradigm Environmental</i>
9:10a–9:40a	Demonstrating Natural Background in Stormwater <i>David Dixon Roux Associates, Inc.</i>	Regulatory Panel: Construction (invited panel) <i>Julia Dyer Central Coast Regional Water Quality Control Board</i> <i>Debra Mahnke and Richard Muhl Central Valley Regional Water Quality Control Board</i>	South Orange County Water Quality Improvement Plan (WQIP): A Roadmap for Watershed Rehabilitation <i>Richard Boon Riverside County Flood Control and Water Conservation District</i>	Stormwater Recharge and Managed Aquifer Recharge: Finding the Link between Improving Groundwater Resources and Stormwater Water Quality Improvement <i>Laura Foglia Larry Walker Associates</i>	Fill 3 Needs with 1 BMP—Integrating Flood Control, Construction and Post Construction Water Quality Strategies at San Diego Airport <i>Jarrod Miller WSP Parsons Brinckerhoff</i>	A Sea Change Ahead for Bacteria TMDL Implementation <i>Brandon Steets Geosyntec Consultants</i>	Improving the Statistical Soundness of Monitoring Programs <i>Eric Bollens CloudCompli</i>
9:45a–10:15a	Infiltration at Industrial Sites Overcoming Institutional Barriers <i>Timothy Simpson GSI Environmental, Inc.</i>	<i>Michelle Rembaum-Fox San Francisco Bay Regional Water Quality Control Board</i> <i>Mona Dougherty North Coast Regional Water Quality Control Board</i> <i>Russell Hansen State Water Resources Control Board</i>	Out on a Limb but in Front of the Line: Preparing the First Stormwater Resource Plan in the San Francisco Bay Area <i>Steve Carter Paradigm Environmental</i>	A Watershed Scale Life Cycle Assessment Framework for Stormwater Management <i>Hassan Tavakol-Davani Geosyntec Consultants</i>	Green Streets and Creek Rehabilitation to Transform a Dense Urban Neighborhood <i>Brianna Martin D-Max Engineering, Inc.</i>	Evaluation of Various Filter Media in Removing Human Pathogens from Stormwater (title to be confirmed) <i>Nabiul Afroz Stanford University</i>	A Pragmatic Approach to Measuring Stormwater Program Effectiveness <i>Nicole Beck 2NDNATURE</i>
10:15a–11:00a	BREAK, EXHIBITOR FOCUS AND PRIZE DRAWING (Convention Center Hall E and West Lobby)						

CASQA TECHNICAL PROGRAM AGENDA Wednesday, September 27 (continued)

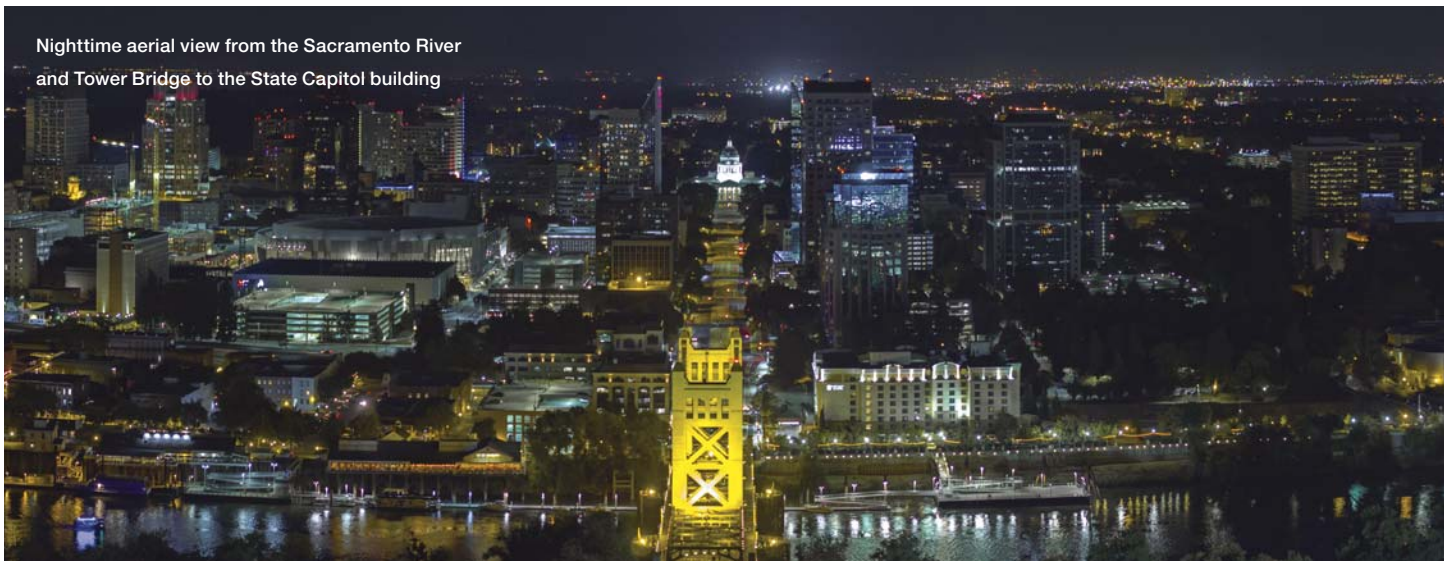
SESSION 5	Industrial Regulatory Panel: Expectations for ERA Level 2 and the TMDL Reopener	Construction QSD/QSP Forum: Strategies for Compliance	Municipal Programs Beyond Outreach	STORMS Panel	Stormwater BMP Implementation Unique Aspects Associated with Green Infrastructure Implementation	Stormwater Science and Planning Planning BMPs to Achieve Multiple Benefits	Collecting, Managing, and Using Data Monitoring Design
	Room: Convention Center Hall D	Room: Convention Center 103–105	Room: Convention Center 202	Room: Convention Center 203	Room: Convention Center 204	Room: Hyatt Regency – Regency Ballroom A & B	Room: Hyatt Regency – Regency Ballroom C
MODERATOR	Jeremy Laurin Pacific Gas & Electric Company	Melanie Sotelo CASC Engineering and Consulting, Inc.	Jason Drew NCE	Annalisa Kihara State Water Resources Control Board	Nicole West LSA	Brendan Ferry El Dorado County	Garth Engelhorn Alta Environmental
11:00a–11:30a	Statewide Stormwater Industrial General Permit – Level 2 Expectations <i>Rebecca Greenwood</i> State Water Resources Control Board	QSD/QSP Forum: Strategies for Compliance (invited panel) <i>Russell Hansen</i> State Water Resources Control Board <i>Walter Yu</i> California Department of Transportation <i>Sandy Mathews</i> Larry Walker Associates <i>Tanya Bilezikjian</i> Michael Baker International	Using Customized Communication, Feedback, and Simplified Messages to Support Annual Operation and Maintenance Verification of Residential Structural Best Management Practices (Structural BMPs) <i>Jennifer Tabanico</i> Action Research	Strategy to Optimize Resource Management of Storm Water (STORMS) Panel (invited panel) <i>Jeffrey Albrecht,</i> <i>Matthew Freese,</i> <i>Chris Beegan,</i> <i>and Beth Payne</i> State Water Resources Control Board <i>Sean Bothwell</i> California Coastkeeper Alliance	Geotechnical Risks of Infiltration BMPs: Estimating Groundwater Mounding and Soil Moisture Effects of Stormwater Infiltration <i>Myles Gray</i> Geosyntec Consultants	Bridging the Stormwater Management Gap: Integrated Watershed Master Planning for Water Quality, Flood Control, and Environmental Restoration <i>Eric Mosolgo</i> City of San Diego	Pollutants of Concern Monitoring: A Low- Intensity, Budget – Conscious Stormwater Sampling Method to Identify Highly Polluted Areas for Potential Management Action <i>Alicia Gilbreath</i> San Francisco Estuary Institute
11:35a–12:05p	Coming Soon: Total Maximum Daily Loads and the Statewide Storm Water Industrial General Permit <i>Shuka Rastegarpour</i> State Water Resources Control Board	<i>Jeff Endicott</i> CASC Engineering and Consulting, Inc.	The Tiger Team Approach: Addressing High Priority Bacteria Sources through Collaboration and Communication <i>Darcy Ebentier</i> Amec Foster Wheeler	<i>Adam Borchard</i> Association of California Water Agencies <i>Geoff Brosseau</i> California Stormwater Quality Association (CASQA) <i>Dawn Koepke</i> California Council for Environmental and Economic Balance <i>Lisa Haney</i> Orange County Sanitation District	Hollenbeck Park Lake Rehabilitation and Stormwater Management <i>Wilfred Hsu</i> CH2M	Multi-Objective Analysis of Stormwater Infrastructure Retrofits Using Genetic Algorithms: Two Case Studies <i>Marc Leisenring</i> Geosyntec Consultants	Assessing Stream Health to Prioritize Water Quality Improvements in Large Watersheds <i>Russ Vadenais</i> CDM Smith, Inc.
12:05p–1:20p LUNCH (Convention Center Hall C)							



Scenes from the 2016 CASQA Conference

SESSION 6	Stormwater Science and Planning Stormwater Management for Biological Endpoints Room: Convention Center 103–105	Municipal Programs Financing Alternatives Room: Convention Center 202	Sustainability Groundwater and Bridging Barriers Room: Convention Center 203	Stormwater BMP Implementation More Benefits of Green Infrastructure Implementation Room: Convention Center 204	Stormwater Science and Planning TMDL Implementation in the Lake Tahoe Watershed Room: Hyatt Regency – Regency Ballroom A & B	Collecting, Managing, and Using Data Asset Management and GIS Applications Room: Hyatt Regency – Regency Ballroom C
MODERATOR	Vada Yoon	Jon Konnan EOA, Inc.	Laura Prickett Horizon Water and Environment	Vaikko Allen Contech Engineered Solutions	Marc Leisenring Geosyntec Consultants	Jacob Rollins City of San Diego
1:20p–1:50p	Screening Causal Assessment to Support Development of Biological Objectives and Prioritizing Implementation Actions <i>Vicki Kalkirtz City of San Diego</i>	Alternative Delivery of Water Projects in California—How Do We Build It? <i>Elizabeth Cousins Nossaman LLP</i>	Sustainable Planning of Hydrology—Investigating the Balance of Water Demand, Water Supplies, and Instream Flows <i>John Riverson Paradigm Environmental</i>	Green Infrastructure Typical Details and Specifications for San Francisco – Review of the Development Process and 3 Years of Lessons Learned <i>Ken Kortkamp San Francisco Public Utilities Commission</i>	A Success Story: Transitioning from Permit Apprehension to Municipal Load Reductions <i>Robert Larsen Lahontan Regional Water Quality Control Board</i>	GIS and Asset Management, an Effective Stormwater Planning Tool <i>Eric Friedlander City of South Lake Tahoe</i>
1:55p–2:25p	The Urban Pesticides Amendments Proposed by the State Water Resources Control Board (State Board): History, Outline, Benefits, and Tools for Compliance <i>Dave Tamayo County of Sacramento</i>	Stormwater Program Funding Portfolio Management <i>Jeremy Sokulsky Environmental Incentives</i>	Bridging the Stormwater Capture Gaps <i>Norris Brandt Brandt Water Technologies</i>	Low Cost Integrated Delivery Urban Green Infrastructure Case Study: University Park Neighborhood Rain Gardens Pilot Study <i>Ken Susilo Geosyntec Consultants</i>	The Sierra Tract Water Quality Improvement Project: A Long, Bumpy, and Collaborative Path to Effective Stormwater Management in South Lake Tahoe <i>Stefan Schuster CDM Smith, Inc.</i>	Achieving a Fit Stormwater Program Using Science- Based Software <i>Gregor Patsch 2NDNATURE, LLC</i>
2:30p–3:00p	State and Regional Biomonitoring Programs as the Bridge to Support Local Stormwater Compliance and Management <i>Ken Schiff Southern California Coastal Water Research Project</i>	Creating a Water Quality Credit Generating Facility and Accounting Program for MS4 Permit Compliance Flexibility: Results of a Case Study Analysis in Orange County, CA <i>Mark Grey Construction Industry Coalition on Water Quality</i>	Following the Path of a Raindrop through the City of San Francisco's Policy Development Process: Informing Stormwater Policy with Inter-Agency Coordination and Technical Support <i>Sarah Minick San Francisco Public Utilities Commission</i>	Optimization of Design and Operation of Torrance Airport Storm Water Infiltration Project <i>Samuel Darkwah Carollo Engineers</i>	The Impact of Pavement Degradation on Stormwater Runoff from Local Roads. Emerging Science of Pavement as a Best Management Practice? <i>Russell Wigart El Dorado County</i>	Asset Management for Living Things <i>Mike Adamow San Francisco Public Utilities Commission</i>

Nighttime aerial view from the Sacramento River
and Tower Bridge to the State Capitol building



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CASQA POSTER PRESENTATIONS Monday–Wednesday, September 25–27

CASQA is pleased to include a poster session at the Annual Conference again this year. The posters will be displayed in the Convention Center 2nd Floor Landing all days. The poster authors will be available to answer questions at the Monday morning break and during other breaks as available.

**2017 CASQA Award Winner –
Outstanding Stormwater News, Information, Outreach,
and Media Category – Schools Goin' Green**
Jackie Davison, City of Sunnyvale

Navigating Selection of a Track in the Statewide
Trash Amendment
Melanie Sotelo, CASC Engineering and Consulting, Inc.

Biofiltration Of Parking Lot Stormwater Runoff Using an
Engineered Bioswale on the Butte College Main Campus
Michael Matiassek, Butte College

MS4 Permittee Options and the Potential Costs Associated with
the Statewide Trash Amendments
Edmond Suher, CASC Engineering and Consulting, Inc.

Effectiveness of California's Surface Water Regulations at
Lowering Pyrethroid Concentrations in Surface Waters
Robert Budd, California Department of Pesticide Regulation

Improving MS4 Program Implementation through
Integrative Assessments
Theodore Von Bitner, Amec Foster Wheeler

How Wet Was It? Putting the Drought-Ending 2017 Water Year
Rains into Perspective
Jeffrey Endicott, CASC Engineering and Consulting, Inc.

Pesticide Mass Loadings Out of a Constructed Water Quality
Treatment Pond in Folsom, CA During Rainstorm Events
Michael Ensminger, California Environmental Protection Agency

Effect of Burn Severity on Dissolved Organic Carbon in
Disturbed Watersheds Following the 2016 Roblar Fire
Auvid Mirhosseini, Geosyntec Consultants

Silva Cell Applications for Stormwater Management:
Performance Findings and Technical Guidance
Shawn Freedberg, DeepRoot

Soil Stabilization: A Proven Strategy for Compliance
and Cost Control
Daniel Secrist, CASC Engineering and Consulting, Inc.

Bridging the Gap for Bacteria TMDL Compliance – How the City
of San Diego Protects Rec-1 in Mission Bay Watershed
Roshan Christoph, Amec Foster Wheeler

The Middle Truckee River Water Quality Database: Building
Accessibility to Promote Data Sharing and Collaboration
Nola Mitchell, CDM Smith

Low Impact Development for Hydromodification
Management: Bioretention Sizing Factors from
Direct Calculation of Erosion Potential
Judd Goodman, Geosyntec Consultants

* Collection, Interpretation, and Dissemination of Bacteria Data:
Maximizing Resources for Meaningful Outcomes from Studies at
La Jolla Cove and Children's Pool Beaches, San Diego, California
Rolf Schottle, Amec Foster Wheeler

† Bridging the Sediment Information Gap:
A Technique for Predicting Suspended Sediment Yield
from Maximum Storm Discharge
Alex Messina, Amec Foster Wheeler

* Using Customized Communication, Feedback, and Simplified
Messages to Support Annual Operation and Maintenance
Verification of Residential Structural Best Management
Practices (Structural BMPs)
Jennifer Tabanico, Action Research

* Integrating Surface Water Quality Improvements Into Coastal
Restoration – An Urban Retrofit BMP Case Study
Steve Gruber, Burns & McDonnell Engineering

* The Martha Gardens Green Alleys Pilot Project: A Successful
Collaboration of City and State to Improve Water Quality
Carol Boland, City of San Jose

* Envision Tools Help Public Agencies Meet Sustainability Goals
Suzanne Wilkins, CDM Smith, Inc.

* Stormwater Recharge and Managed Aquifer Recharge:
Finding the Link Between Improving Groundwater Resources
and Stormwater Water Quality Improvement
Laura Foglia, Larry Walker Associates

* Poster + oral presentation

† Poster + alternate presentation

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CASQA TECHNICAL PROGRAM – ALTERNATE PRESENTATIONS

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

Collecting, Managing, and Using Data

Advances in Assessment and Reporting Tools

How Comparable is your Toxicity Testing?
Ken Schiff, Southern California Coastal Water Research Project

Advances in Monitoring and Assessment Techniques

Influencing Water and Stormwater Resource Decisions with Data – Time to Let Actions Do the Talking
Grant Sharp, County of Orange

Asset Management and GIS Applications

Achieving a Fit Stormwater Program Using Science-Based Software
Gregor Patsch, 2NDNATURE, LLC.

Monitoring Design

Bridging the Sediment Information Gap: A Technique for Predicting Suspended Sediment Yield from Maximum Storm Discharge
Alex Messina, Amec Foster Wheeler

Construction

Collaboration in Construction

The Bottom-Seal is the Thing: Bottom Sealed Filter Barrier Technology for Containment of Stormwater Derived Sediments and Associated Contaminants in Surface Waters
Marvin Sachse, Brash Industries

Industrial

Avoiding the ERA Process and Clean Water Act Citizen Suits

Active Treatment of Industrial Stormwater: When, Why, and How?
TJ Mothersbaugh, WaterTectonics

Demonstrating Compliance Through the ERA Process

Redeveloping a Waterfront Shipping Terminal with Stormwater in Mind
Ross Dunning, Kennedy/Jenks Consultants

Municipal Programs

Beyond Outreach

Watershed Friendly Garden Workshops in Ventura County
David Laak, Ventura County Watershed Protection District

Financing Alternatives

Funding Your Stormwater Program on Layaway
Pablo Perez, NBS

Trash Management

Considerations in the Preparation of a Trash Monitoring and Reporting Plan for Engineered Channels in the City of Los Angeles
Donna Chen, City of Los Angeles (Retired)

Stormwater BMP Implementation

Benefits of Green Infrastructure Implementation

How You Doin' Green Infrastructure? GI Monitoring in SF
Polly Perkins, San Francisco Public Utilities Commission

Implementing BMPs for Challenging Water Quality

Planning Advanced Regional Municipal Stormwater Capture and Reuse System – Long Beach Municipal Urban Stormwater Treatment (LB-MUST)
Bruce Phillips, PACE Advanced Water Engineering

Implementing Innovative BMPs

Building Connections with the Sanitary Sewer for Stormwater Compliance
Kristen Ruffell, Sanitation Districts of Los Angeles County

Implementing LID and Green Infrastructure

Improving LID Tools: Technical Updates to Bioretention and Permeable Paving
David Smith, Interlocking Concrete Pavement Institute

Unique Aspects Associated with Green Infrastructure Implementation

Protecting the Beach & Beneficial Use of Stormwater: Santa Monica CBI Project
Oliver Galang, Tetra Tech

Stormwater Science and Planning

Planning BMPs to Achieve Multiple Benefits

Addressing Flooding Issues and Meeting Trash Reduction Requirements within the San Francisco Bay
Laura Larsen, Michael Baker International

Sustainability

Assessment Tools

Leveraging Existing Watershed Planning to Meet SWRP Requirements
Jason Burke, City of South Lake Tahoe

Stormwater as a Resource

Overview of Groundwater Recharge Projects and Sustainability Benefits in Southern California
Bill Leever, Brown and Caldwell



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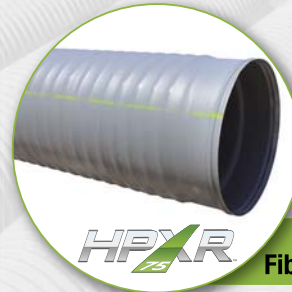
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CONFERENCE EXHIBITORS AND EXHIBIT HALL MAP

CONVENTION CENTER – Hall E and West Lobby

Exhibit Hall Hours

Monday, September 25

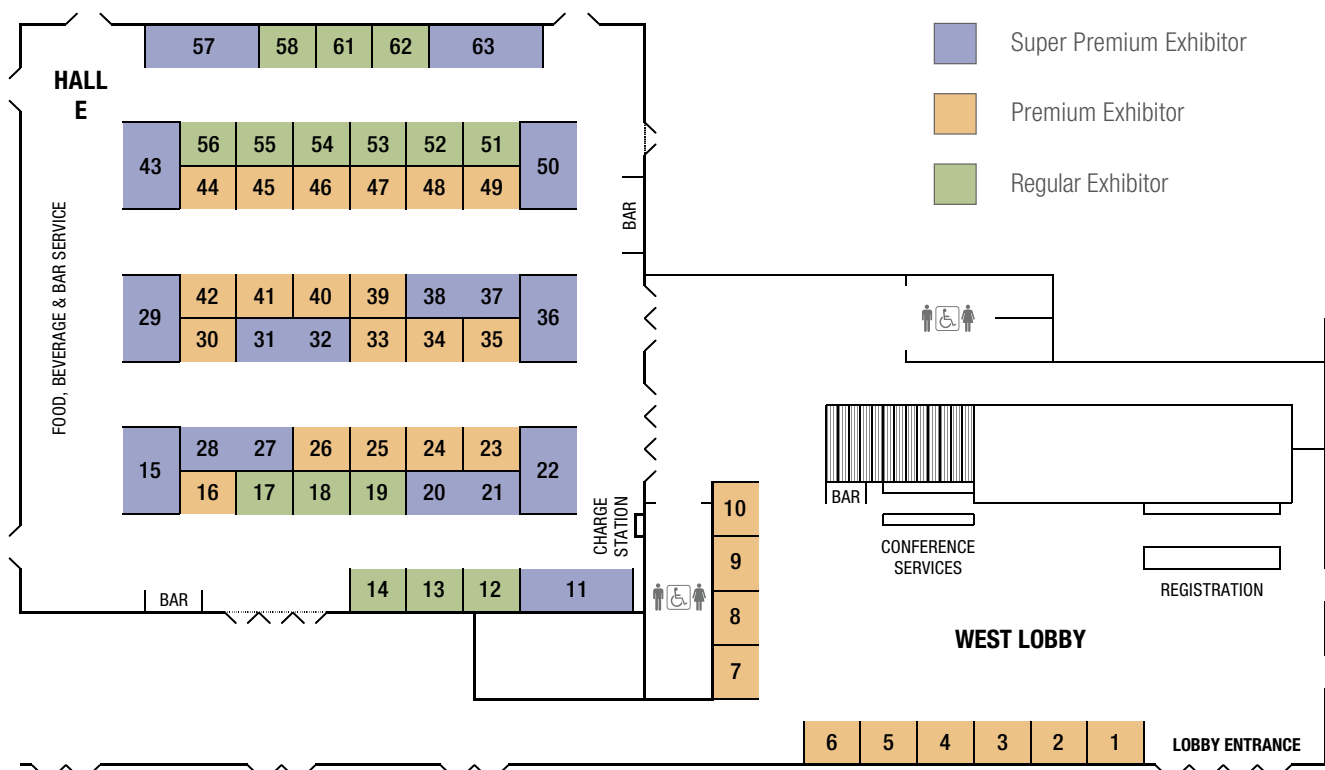
Exhibit Hall Open	12:00 pm – 6:00 pm
Lunch and Exhibitor Focus	12:00 pm – 1:30 pm
Break and Exhibitor Focus	3:00 pm – 3:30 pm
Exhibitor Focus	5:00 pm – 6:00 pm
Networking Event (offsite)	5:30 pm – 10:00 pm

Tuesday, September 26

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, September 27

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



BOOTH

1	G2 Construction, Inc. John Alvarado 1352 East Borchard Avenue Santa Ana, CA 92705 (714) 748-4242 www.g2construction.com	3	Sunmark Environmental Ryan Holman 12775 NE Marx Road Portland, OR 97230 (503) 241-7333 www.earth-life.com/rain	5	HYDRA TMDL Denis Frieznar 1605 Adelante Street Irwindale, CA 91702 (818) 516-4946 www.hydratmdl.com
2	XERXES Corporation Kim Klufas 7901 Xerxes Avenue South Minneapolis, MN 55431 (780) 784-0706 www.xerxes.com	4	Soil Retention Niklas Jansson 2501 State Street Carlsbad, CA 92008 (760) 966-6090 www.soilretention.com	6	Pure Filter Solutions, LLC Nicole Wilson 2961 Pauls Way Marietta, GA 30062 (404) 245-5727 www.pfilters.com

CONFERENCE EXHIBITORS (continued)

BOOTH #

7	Sacramento Stormwater Quality Partnership (SSQP)	Dana Booth 827 7th Street, Room 301 Sacramento, CA 95822 (916) 874-4389 www.beriverfriendly.net
8	Filtrexx International	Craig Kolodge 61 N. Cleveland Massillion Rd., Suite E Akron, OH 44333 (760) 429-4041 www.filtrexx.com
9	FODS, LLC	Bryce Clingerman 999 Jasmine St. #150 Denver, CO 80220 (303) 395-1069 www.getfods.com
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14	Source Molecular Corporation	James Herrin 4985 SW 74th Court Miami, FL 33155 (786) 220-0379 www.sourcemolecular.com
15	United Storm Water	Lydia Perry 14000 E. Valley Boulevard Industry, CA 91746 (626) 961-9326 www.unitedstormwater.com
16	EnviroCert International, Inc.	Melissa McKinney 6 E. Medical Court Drive Marion, NC 28752 (828) 655-1600 www.envirocertintl.org
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33	StormTrap Jeremy Sherwood 1287 Windham Parkway Romeoville, IL 60446 (815) 941-4549 www.stormtrap.com	37	Oldcastle Precast - Stormwater Michelle Dunlop 5885 Pruitt Avenue Windsor, CA 95492 (707) 540-9752 www.oldcastlestormwater.com	41	Porous Technologies, LLC Gregg Novick 8 Blue Moon Drive North Yarmouth, Maine 04097 (888) 357-1161 www.stormcrete.com
34	Coanda, Inc. Steve Esmond 3943 Irvine Blvd. #327 Irvine, CA 92602 (714) 389-2113 www.coanda.com	38	Belgard Commerical David Harper 4202 Gibraltar Rd. Stockton, CA 95206 (925) 459-4972 www.belgardcommercial.com	42	Pre-Con Products Dan Zarraonandia 240 W Los Angeles Ave. Simi Valley, CA 93065 (805) 527-0841 ext. 481 www.preconproducts.com

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46	Rotondo Environmental Solutions	Terry Siviter 4950-C Eisenhower Ave. Alexandria, VA 22304 (703) 212-4830 www.rotondo-es.com	53	LaMotte	Ernie Rector 802 Washington Ave. Chestertown, MD 21620 (800) 344-3100 www.lamotte.com	62	Earth-Savers	Howard Schau P.O. Box 2083 Woodland, CA 95776-2083 (866) 928-8637 www.earth-savers.com
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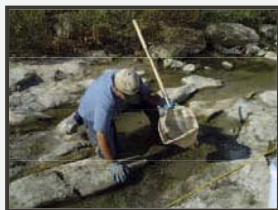
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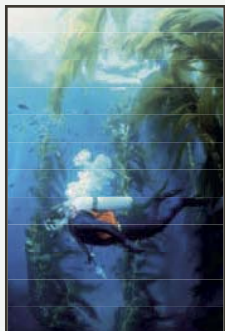


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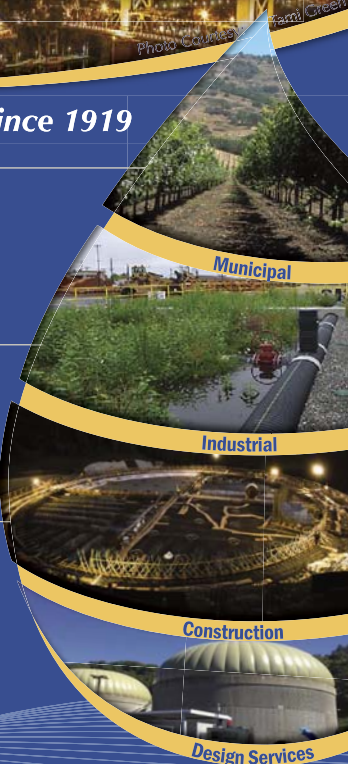
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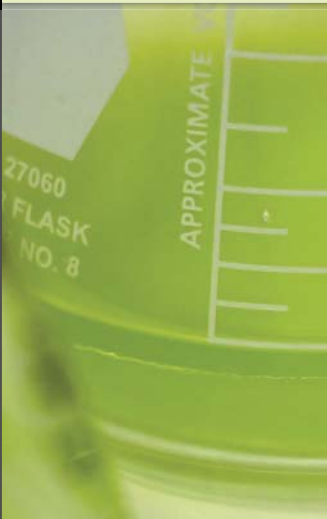
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