



Innovative Solutions for Stormwater Capture

White Paper

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Stormwater Workshop Format

- **2019 SCWC White Paper –**
Innovations in Stormwater Capture:
 - Alternative Delivery
 - O&M Scenarios and Best Management Practices
 - Multi-agency Collaboration
 - Workforce Development
- **Agency Collaboration –** Tapping into Available Capacity in Existing Infrastructure to Create Water Supply and Water Quality Benefits
- **Regional Panel on Stormwater**



Stormwater - A Resource to Tap



When it rains, Los Angeles sends billions of gallons of 'free liquid gold' down the drain

<http://www.latimes.com/local/lanow/la-me-ln-stormwater-20170308-story.html>

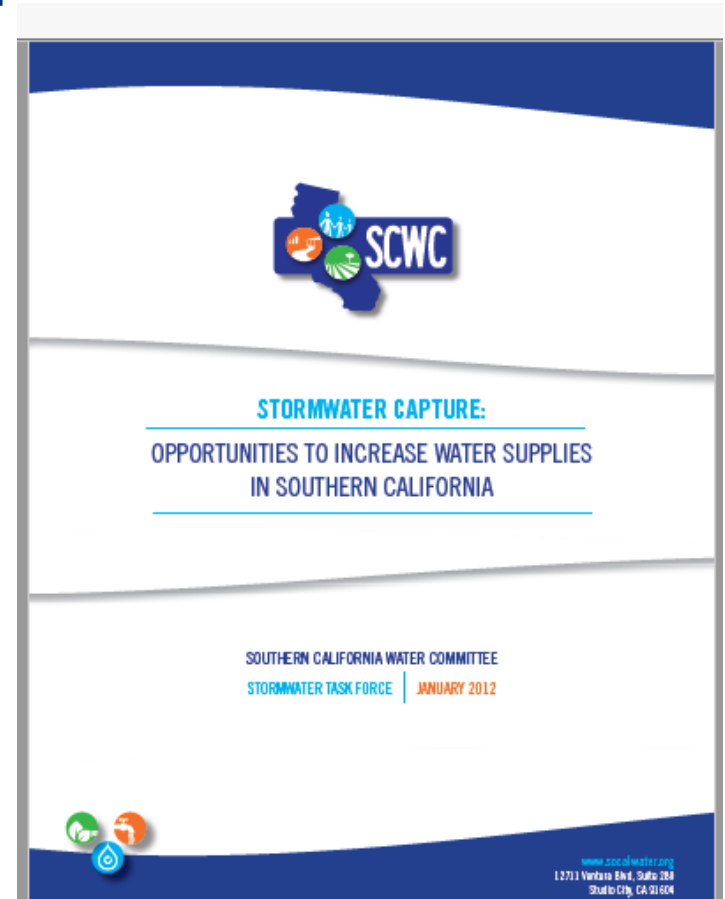
Activities of SCWC

- Developed a regional consensus-based strategy and recommendation for utilizing stormwater as a new local water supply, while reducing urban runoff water pollution
- Formed Stormwater Task Force
- Developed a series of White Papers (2012, 2018, 2019)



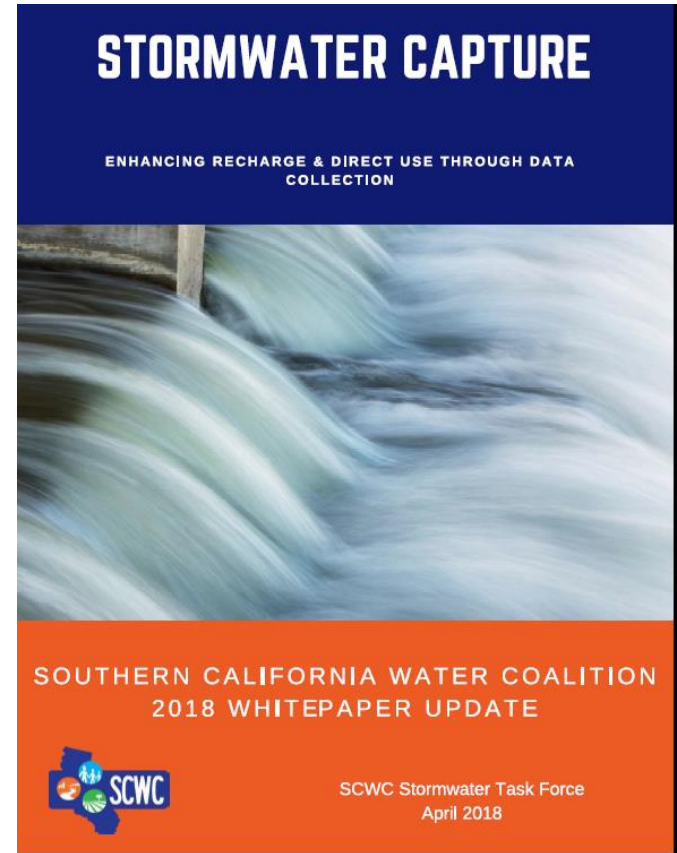
2012 White Paper: Stormwater Capture Opportunities to increase water supplies in Southern California

- Stormwater Cost per AF
- Consisted mainly of conceptual stormwater projects
- Findings presented to water and regulatory agencies



2018 Stormwater Capture White Paper: Enhancing Recharge & Direct Use Through Data Collection

- White Paper Completed in April 2018
 - Available on SCWC website
<https://www.socalwater.org/stormwater>
- Recommendations
 - Study the relationship between stormwater capture and water supply yield
 - Explore opportunities for multiple agencies to partner on stormwater projects
 - Continue regional collaboration on stormwater data and monitoring



INNOVATIONS IN STORMWATER CAPTURE

ALTERNATIVE DELIVERY, O&M SCENARIOS & BEST MANAGEMENT PRACTICES,
MULTI-AGENCY COLLABORATION AND WORKFORCE DEVELOPMENT



**SOUTHERN CALIFORNIA WATER COALITION
2019 WHITEPAPER**



SCWC STORMWATER TASK FORCE
SEPTEMBER 2019

2019 SCWC White Paper: Innovations in Stormwater Capture

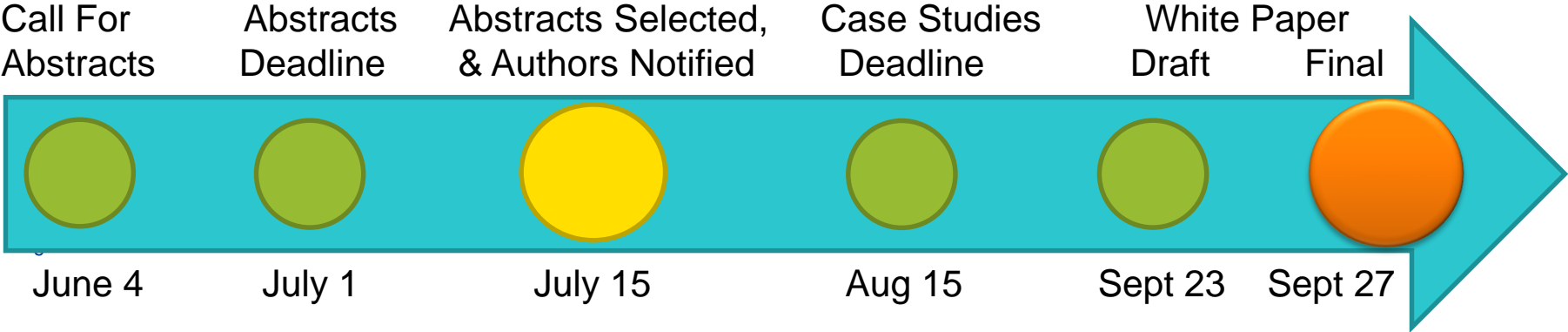
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Purpose of the 2019 White Paper

- Gather information and lessons learned from local, regional, and national projects on innovations in implementation of stormwater projects related to:
 - enhanced O&M strategies and BMPs,
 - alternative delivery options
 - multi-agency collaboration
 - workforce development



Approach and Timeline for the White Paper



Case Studies Received/Selected

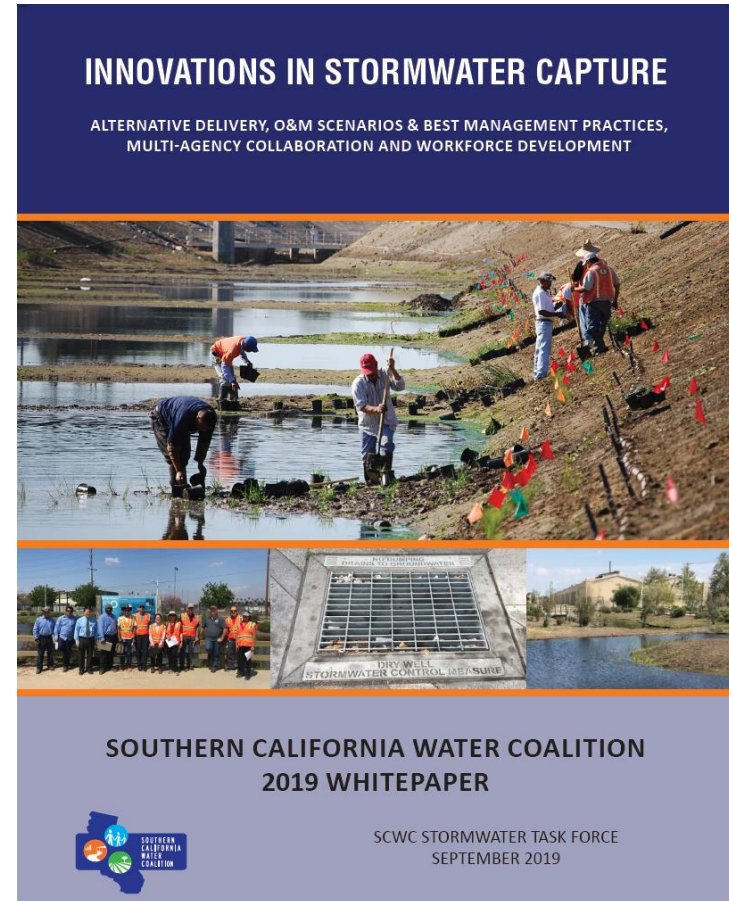
- 1. Bolivar Park Stormwater and Urban Runoff Capture Project** – by *Fussel J. and Watson R.*
- 2. Case Studies on the Intersection of Green Stormwater Infrastructure and Workforce Development** – by *Johnson V., Atchison D., Kaur J., Williams J., Tam W., and Simson C.*
- 3. Financing Resilience in Atlanta using an Environmental Impact Bond** – by *Hallauer A., Behrend G., Bell D., Tyagi A., and Cohen, B.*
- 4. Innovative Design Turning Parks into Green Stormwater Infrastructure Community Attractions** – by *Bryant R., and Stein J.*
- 5. Multi-agency Collaboration: Carriage Crest Park** – by *Passanisi M., Moon T.J., and Gonzalez J.*
- 6. O&M Scenarios and Best Management Practices** – by *Beck S. and Williams J.*
- 7. Stormwater Biofiltration System Promotes O&M Efficiencies, Innovative BMP Design, and Environmental Stewardship of San Diego Bay** – by *Yescas A., and Braun C.*
- 8. Stormwater Capture Parks Program** – by *Pettijohn D.*
- 9. Tujunga Spreading Grounds Enhancement Project** – by *Pettijohn D.*

Panel Discussion Today: Related to the 2019 White Paper

- **Panel 1:** Multi-Agency Collaboration to Achieve Co-Benefits and Cost-Sharing
 - Moderator: Rich Atwater, MWD/Foothill Municipal Water District
- **Panel 2:** Programmatic Innovations to Enhance Communities and Delivery Efficiency: Alternative Delivery and Financing
 - Moderator: Dustin Atchison/Jacobs
- **Panel 3:** Assuring Sustainable Operations and Maintenance of Stormwater
 - Moderator: Susan Moisio/Jacobs

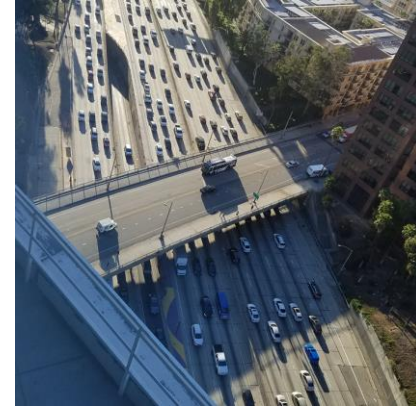
What is in this 2019 White Paper?

- Results from 9 case studies
 - Cover a range of local, regional, and national projects that include the following areas:
 - O&M scenarios and BMPs
 - Alternative delivery methods, including financing, programmatic innovations
 - Multi-agency collaboration, incorporating multiple benefits and cost-sharing strategies
 - Workforce development to deliver and maintain stormwater infrastructure
- Challenges and Lessons Learned
- Recommendations and Next Steps



Recommendations

1. Expand stormwater implementation in the context of constrained space in urbanized areas and budgets
2. Integrate resilient stormwater strategies to address vulnerable communities and deliver an equitable water future
3. Continue implementing stormwater projects to deliver co-benefits
4. Leverage existing infrastructure for improved performance and reduced costs
5. Develop programmatic approaches for O&M to assure performance in perpetuity



Other Workshop Topics Today

- Las Virgenes MWD – White Paper: Tapping into Available Capacity in Existing Infrastructure to Create Water Supply and Water Quality Benefits
- Regional Panel: Stormwater Innovations
 - Moderator: Josh Svensson/Los Angeles County Public Works

Phase 2 White Paper: Tapping into Available
Capacity in Existing Infrastructure to Create Water
Supply and Water Quality Solutions

Proposal for Future Supply Actions Funding Program

August 31, 2018



Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 90266

Acknowledgments



LA County Public Works

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LVMWD

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Jacobs 2019 SCWC White Paper Team

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- Rajat Chakraborti, PhD
- Andy Vollmar
- Maria Sheridan

HDR, Inc.

- Alex Yescas, PE

SCWC Stormwater Task Force

Authors of Case Studies

Session Moderators and Panelists



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**Thank You –
LA County Public Works for Hosting
this Workshop Today!**

Thank You!

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