# **Equitable Integrated Planning for Watershed-Wise Resilient Recovery**

Water Program Director
Local Government Commission

SCAG Energy & Environment Committee
Thursday, November 4, 2021; 10:30 AM













# Local Government Commission Leaders for Livable Communities

# **Outline**

#### 1. CA's Natural Drought-Fire-Flood Cycle

- a. Exacerbated by climate change
- b. Current conditions
- c. Inequity: Most severely impacted, least capacity to respond

#### 2. Collision With Traditional Governance Models & Planning Processes

- a. Lack of alignment, integration
- b. Single-issue, reactionary, Ill-prepared to respond
- c. Exacerbated by Covid-19

#### 3. What We Need Instead

- a. Coordinated planning
- b. Long-term preparedness

#### 4. How We Get There

- a. Regional Implementation
- b. Supporting Resources



# **Drought-Fire-Flood Cycle**



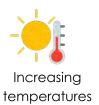
# Not "natural disasters;" part of California's natural system.



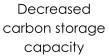


### **Reinforcing Feedback Loop**

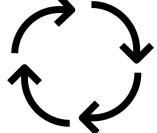
- Drought and fire intensification are intrinsically linked
- COVID financial impacts were only exacerbated by fires
- 3 of the past 4 years have cost
   \$10 billion annually in damages













Drying vegetation & eroded landscapes



Burning of dry vegetation and further erosion Increased fire Intensity





#### California

# **Current Conditions: Drought**



# Map released: Thurs. November 4, 2021

Data valid: November 2, 2021 at 8 a.m. EDT

#### Intensity









#### No Data

#### **Authors**

United States and Puerto Rico Author(s):

Adam Hartman, NOAA/NWS/NCEP/CPC

Pacific Islands and Virgin Islands Author(s):

Curtis Riganti, National Drought Mitigation Center

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

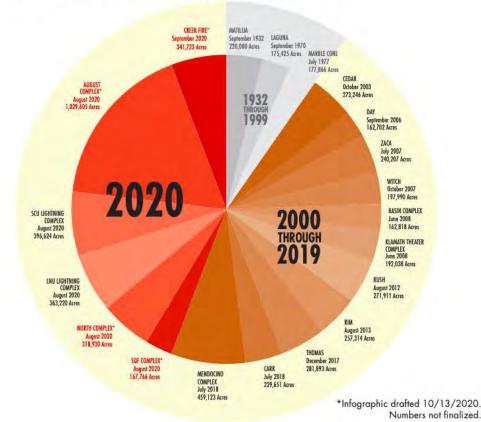






#### **Current Conditions:** *Fire*

#### **TOP 20 LARGEST CALIFORNIA WILDFIRES**



#### **Current Conditions:** *Fire*



Photo: Scar from Bear Fire at the entrance of the Grapevine (I5); July 2021





# Current Conditions: Flood



SAN FRANCISCO (AP) — A powerful atmospheric river storm that swept through California set rainfall records and helped douse wildfires. But it remained to be seen how much of a dent it made in the state's drought.



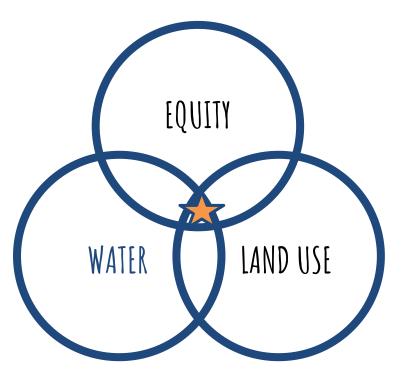


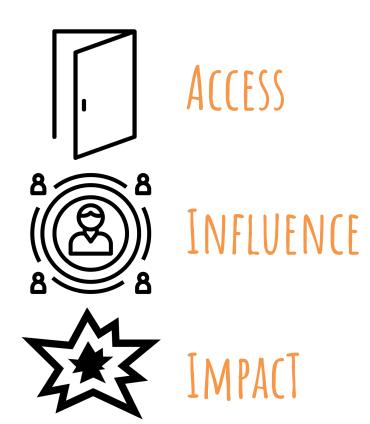


# **Inequity**



## How equity intersects water & planning...

















Leaders for Livable Communities

# **Governance & Planning**



# Predominant Culture of Water Management & Planning







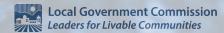
# Institutionalized Isolation = Lack of Alignment & Integration

Local Water Planning

Local Land-Use Planning

Regional Water Planning

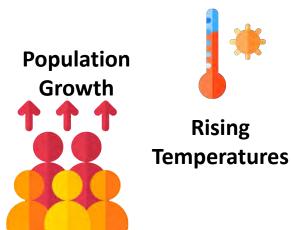
Regional Land-Use Planning



# Single-Issue Planning Despite Interdependent Impacts...



# ... Leads to Inability to Respond to Compounding Challenges...



Housing Competition























## ... Unintended Consequences, and Reactionary "solutions."

















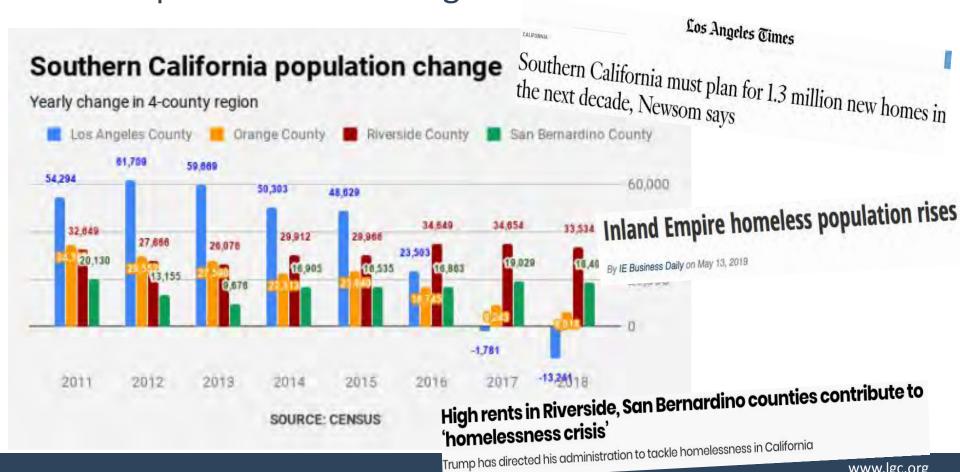








# We must plan for continued growth...



# What We Need: Coordinated, Regional, Preparedness

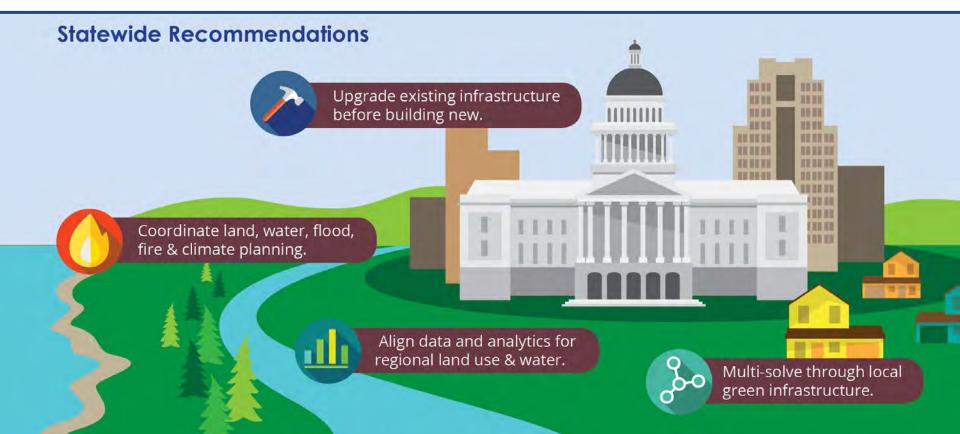


Integrated planning and management on the watershed scale.





# Achieving long-term preparedness requires systemic integration, coordination, and leadership.



1. Promote cross-sector coordinated planning and management of land use, water management, flood mitigation, and climate adaptation.



Image source: Local Government Commission, CAF Focus Group



2. Ensure state, regional, and local investments are directed toward multisolving green infrastructure projects developed at local scales with robust community engagement.



Image source: Los Angeles County Public Works

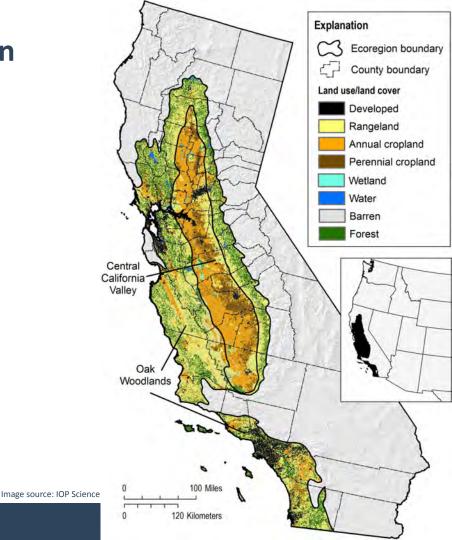


3. Prioritize infrastructure investments that support existing communities, especially those experiencing disadvantages, before new development.





4. Require additional sophistication in growth projections and coordinated planning for both land use planning and water management agencies.





# **How We Get There**



Integration strategies applied at the regional or local scale.



## Regional Recommendations



Advocate for water access & affordability for underserved communities



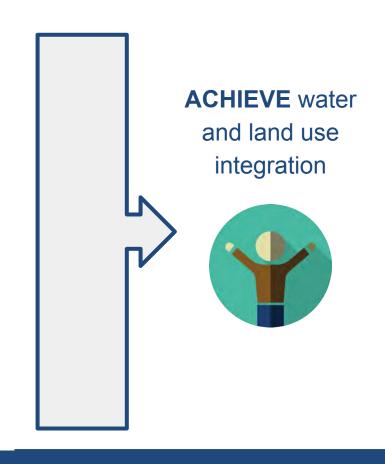
**Develop local leadership** in the water and land use sectors



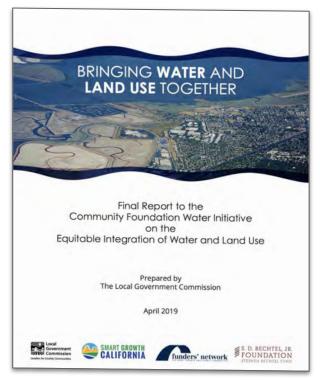
**Provide venues** for regional leaders to collaborate on water & land use projects

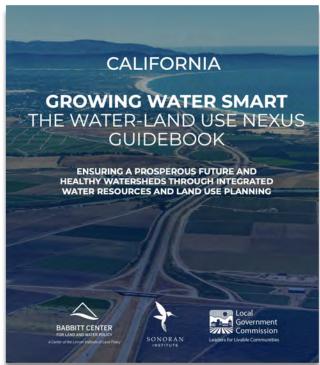


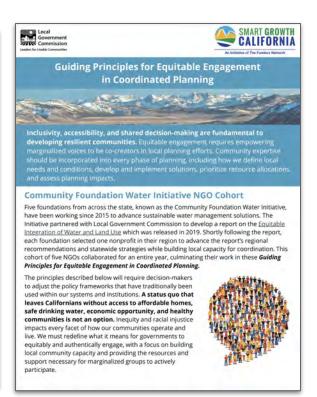
**Build political will** for alignment between equity, water, and land use



# **Additional Resources**









# Pilot Program: Bringing Growing Water Smart to CA





SONORAN

# **Growing Water Smart**







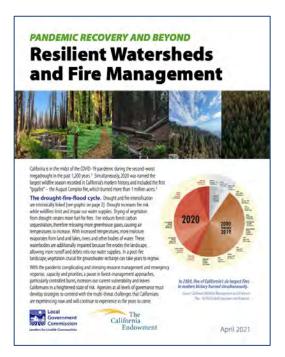
# CivicSpark



- CivicSpark is Governor's Initiative AmeriCorps program addressing environmental & social equity challenges through public sector capacity building
- 2021-22 CivicSpark Partner Application Now Open



# **Pandemic Recovery** and Beyond Series





induce your custom forgular than by reducing commune travel

and of 2021.

at least some

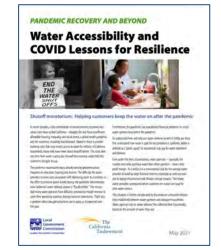
June 2021

of the time.

PANDEMIC RECOVERY AND BEYOND

for Stronger Communities

**Building Broadband Access** 







## Fundingresource.org

#### I want funding for...

















Stormwater



Street Repair



Wastewater Management

#### Clean Water State Revolving Fund - California State Water Resources Control Board Who is Eligible What it Funds When to Apply Available Funds Award Size Level of Effort to

Cities, towns, districts, or other public bodies. nonprofits, federally recognized tribes or state tribes (must have urisdiction over disposal of sewage, industrial wastes, or other waste)

Construction of publiclyowned treatment facilities such as wastewater treatment, Inral sewers sewer interceptors, water reclamation and distribution, stormwater treatment, combined sewers, or landfill. leachate treatment. Implementation of

nonpoint source pollution in agriculture, forestry, urban areas, hydromodfication, and

wetlands.

Applications are continuous basis. Average \$570 million/year, Grant maximum of \$100million.

Small, Medium, and Large





More Information





# To help advance equitable, integrated planning & resilient recovery...



## **Thank You**

"While the pandemic has tested our resilience at all scales and in countless ways, California can use its proven adaptability to achieve true and long term resilience through integrated wildfire and watershed management across the state."

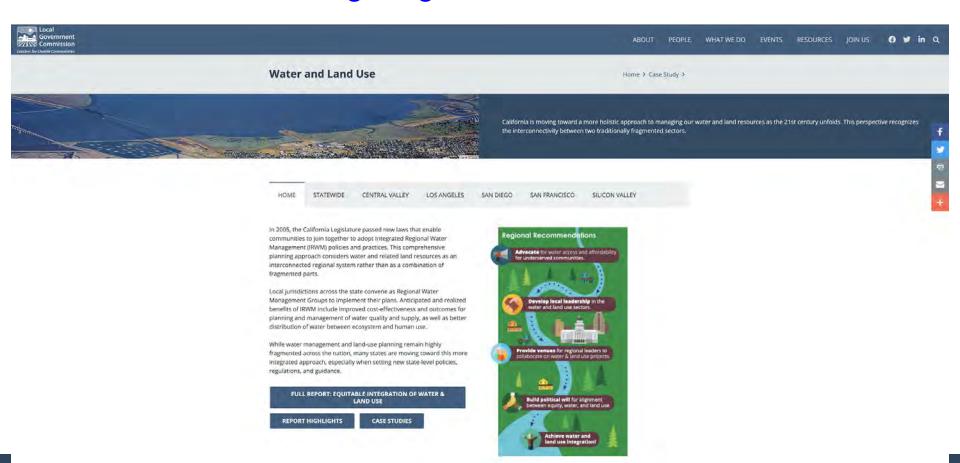
Danielle V. Dolan
Water Program Director
ddolan@lgc.org



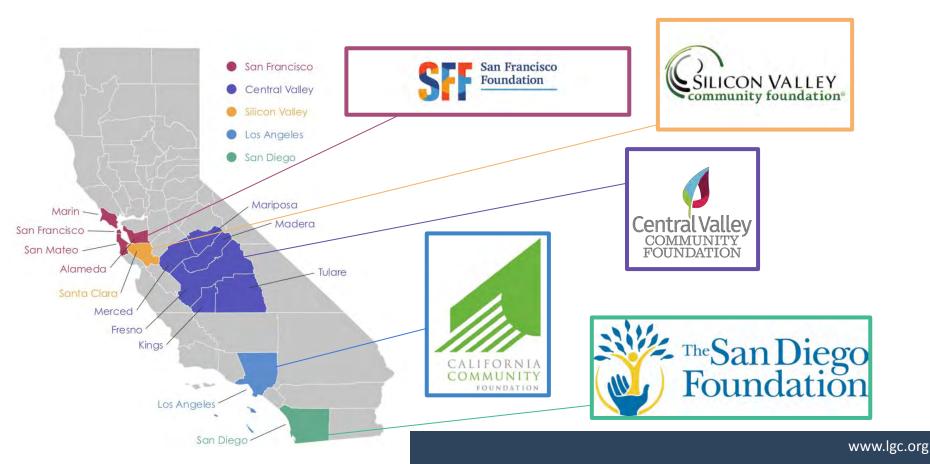
## **EXTRA SLIDES**



#### www.lgc.org/water-and-land-use



### **Community Foundation Water Initiative**



#### **Research Stats**

EXPERT INTERVIEWS				
	Local / Regional	Statewide	Totals	
CFWI Members	5	3	8	
Water Expert	8	4	12	
Land Use Expert	7	4	11	
Water & Land Use Expert	5	3	8	
Totals	25	14	39	





## California Water-Land Use Guidebook



INTERVENTION POINT	MECHANISMS	PURPOSE	
Planning & Policy Making	Water Plans General Plans Capital Improvement Plans	Establishes goals and objectives for managing the intersection of natural resources and the built environment.	
Pre-Development	Water Adequacy Laws Water Supply Assessments Written Verifications	Links new development to water supply planning.	
At Development Review	Zoning and Subdivision Regulations Annexation Policies Planned Development Policies Development Agreements	Determines what water resource management, conservation and efficiency requirements are applied to development.	
At Building & Construction	Building, Plumbing and Landscaping Codes	Links new development to water supply planning.	
Post-Occupancy Education	Conservation & Efficiency Incentives Outdoor Watering Restrictions Water Budgets & Auditing	Empowers and incentivizes homeowners and renters to reduce water consumption.	

*lgc.org/gws* 

### **Example:**



#### **Fuel Load Reductions**

Proactive steps can be taken now to reduce the amount of combustible materials that would carry and exacerbate fire.

- Thinning
- Biomass Removal
- Controlled Burns
  - Tribal Ecological
     Knowledge (TEK)





#### **Case Studies**

#### **Cultural Burns as Fuel Reduction**

- Kuruk Tribe's Study on Barriers to the Expansion of Cultural Burning
- Yurok Cultural Fire Management Council
  - Fuel reduction through cultural burns

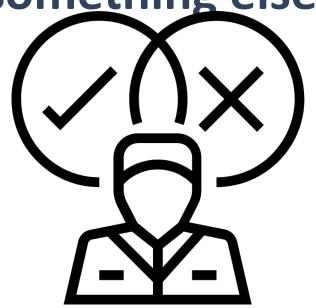
#### Santa Ana Watershed Forest First Program

- Collaborative partnership
- Valuation of Economic Benefits
- Funded tree thinning





something, you're saying "no" to something else.





## A Different Approach





**Elected** Officials





Community Planners



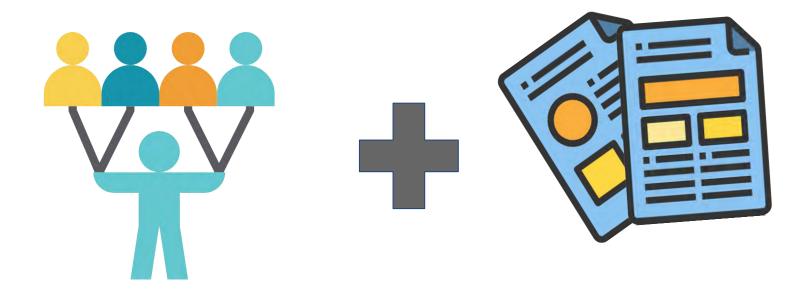
Water Resource Managers



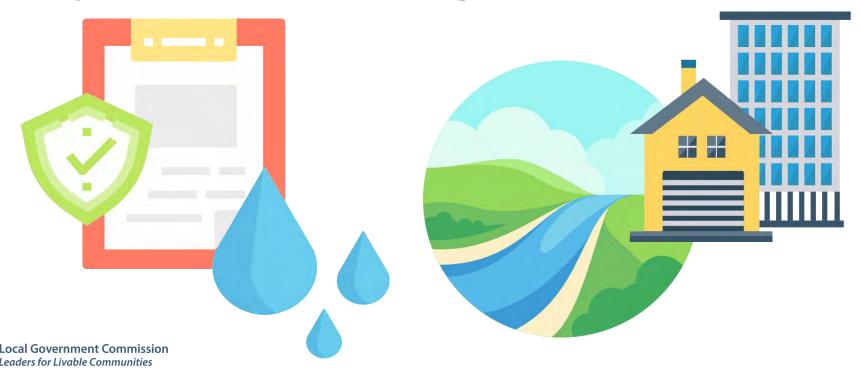
**Environmental Planners** 

**Cross Sector Collaboration** 

# It all comes down to agencies and plans.



# What are the integration leverage points for a local government?

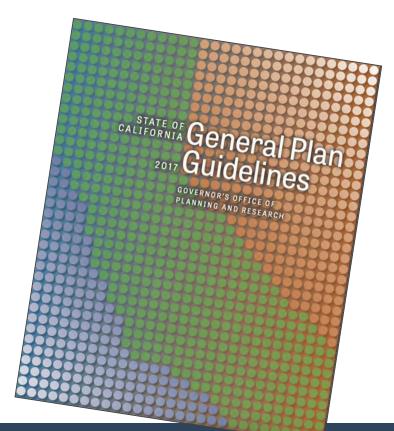


### **Water in General Plans**

#### Mandated elements:

- Land Use
- Open Space
- Conservation
- Housing
- Circulation
- Noise
- Safety





# Land Use Planners & Watershed Management



Department of Water Resources map of IRWM regions

# Streamlined Processes & Integrated Projects



- Projects that "Multi-solve"
  - Equity
  - Public Health
  - Habitat
  - Water Quality
  - Water Quantity
  - Housing
  - Transportation

## **Integrating Green Infrastructure**







## **Climate Action Planning**

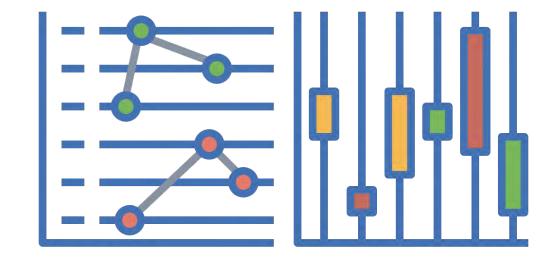


Climate Action Resource Guide from California Air Resources Board



## **Coordinated Data**

- Population Growth
- Water Supply
- Development
- Land Use Patterns



## **Holy Fire Flooding Video**

https://www.youtube.com/watch?v=zTwsdAvQCDg



## **A New Way of Thinking**







## **Our Collective Water Use**



In Practice:
Integrated Regiona
Water Managemen
the planning & funding









North Coast

San Francisco Bay Area Central Coast

Los Angeles Sub-Region





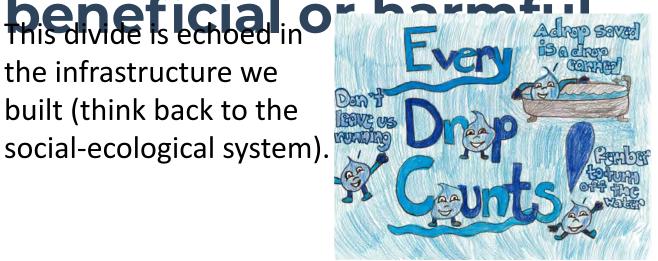






## Traditionally, we thought of water as "good" or "bad"

beneficial.o the infrastructure we built (think back to the









LGC Report: Equitable Water & Land-Use





#### What's the Best Type of Virtual Event for You?

To select the best type of engagement event for your situation, consider the most appropriate format and mechanism(s) for achieving your objectives.

■ MEETING: An occasion when people come to gather to discuss or decide something. Virtual meetings can be a basic conference call or video conference, with a simple agenda.

□ FORUM: An assembly for discussion, with opportunities for all participants to share information. Virtual forums require a more carefully structured agenda, and likely the use of breakout groups.

□ SUMMIT: An official meeting or series of meetings between key officials, decision-makers and/or leaders in their field to discuss important issues, policy decisions and aspirational goals.

A virtual summit will likely be invite-only, include video-conferencing, and have a structured (rather than free-form) discussion format.

■ SYMPOSIUM: A formal meeting of specialists, delivering short addresses on a topic or on related topics. The emphasis is on knowledge-sharing and increasing understanding, rather than dialogue or decision-making.

A traditional webinar structure, in which only the presenters are on video but attendees have the opportunity to ask questions (via chat or verbally), is appropriate.

□ CONFERENCE: A large official meeting, usually over multiple days, at which people with shared work or interests come together to learn from one another and discuss their views. This is the most difficult type of event to replicate in a virtual setting, because of the wide audience and broad subject matter covered.

Some combination of video-conferencing, including large and small breakout groups, with a series of presentations or weblinars over an extended time frame, is the closest approximation to an in-person event. Including breaks and interactive activities is especially important for virtual conferences.

■ WORKSHOP: A brief (1/2-2 day) intensive educational program for a relatively small group of people that focuses especially on techniques and skills in a particular field.

Small-group discussions and interactive activities in which participants can practice the skills they are learning are critical for virtual workshops. A robustvideo-conferencing platform paired with other interactive apps is the best fit.

□ TRAINING: A very brief (1-3 hours) course to assist in learning new skills needed to complete a job or task. More narrow in scope than a workshop, a virtual training can be conducted via a traditional webinar format, or with greater



#### for effective virtual engagement

#### 1 Embrace the Virtual World, Embrace Humanity

**Resist the urge to simply convert an in-person event to a virtual one.** It's almost apples and oranges; you will need to completely re-evaluate the engagement – the structure, interactions and results – as a whole.

What would you normally do in an in-person setting, and how can you provide a similar experience or value in the virtual environment?

- Flip charts and stickies vs. virtual white-board, comment box.
- Small-group discussions in physical space vs. virtual breakout rooms.
- Informal networking and talking with one another during breaks vs. providing prompts for individuals to connect one-on-one via chat:

"Find someone whom you don't know, and private-chat







#### City of Richmond Environmental Initiatives

North Bay Area Region, 2015-2016





#### L.A. County Water-Energy Nexus

Los Angeles County Office of Sustainability — Environmental Initiatives Division



#### Project Overview



located in the nine-county San Francisco Bay Area in West Contra Costa County. The City is committed to addressing issues impacting environmental and public health. The project focused on two of the City's primary climate action initiatives: improving energy efficiency of City facilities: and

implementing the City's zero

waste programs.



**Energy Efficiency & Clean Energy** 



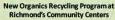


Zero Waste

Richmond High School 3 Stream Recycling Program



New Recycling Facilities Along Public Right-of-Ways & High-Use Parks





New Recycling Program at the 144 Unit
Affordable Housing Nevin Apartment Complex

#### **Outcomes & Achievements**

- Benchmarked energy and resource consumption to reduce costs and improve energy efficiency at 10 Community Centers, 3 libraries, and 7 Fire Stations.
- Led outreach, developed promotional materials, and organized two community sign-up workshops for free home solar systems. A total of 62 households attended and 35 applications were submitted.
- Implemented organics recycling in 3 Community Centers
- Coordinated informational recycling presentations for 2 Community Center Summer Youth Camps.
- . Implemented recycling program at the 144 Unit Affordable Housing Nevin Apartment Complex.

#### Highlights

- The Governor's Office of Planning and Research selected the City of Richmond for a Best Practices Pilot Project- Phase 1.
- Led City Council approval of \$415,000 recycling enhancement & public art project of 210 City trash bins starting October 2016.
- Designed and procured 7,700 multilingual reusable bags to promote recycling and foster civic pride
- The CDP selected the City of Richmond to be included as a case study in the CDP cities global report on financing/incentives for urban sustainability projects.

#### Project Overview

About L.A.
County COS

The L.A. County Office of Sustainability (COS), part of the Internal Services Department, coordinates sustainability programs for County facilities, including energy efficiency, renewable energy, water efficiency, and other green building services programs. With approximately 1,200 facilities in the County's portfolio, there are <u>significant opportunities for water savings</u> in County operations.

CivicSpark Member Project CivicSpark member Erin Brewster was tasked with supporting COS's new water conservation program through the development of a comprehensive water conservation cost-benefit analysis tool to identify and prioritize potential water savings from plumbing County facilities. The tool uses basic information provided by facility managers to estimate potential water savings from plumbing fixture upgrades, advanced water treatment for cooling towers, and replacing ornamental turf with drought-tolerant landscaping. In addition to estimating water savings, the analysis tool quantifies the co-benefits associated with water conservation projects, including cost savings and GHG emissions reductions. After the Governor's April 1<sup>st</sup> Executive Order on the drought, Erin also used this tool to help analyze the financial impact of the emergency water use regulations on the County's building portfolio and identify new priorities for water conservation projects.

#### More than just a drop in the bucket ...

The water conservation cost-benefit analysis tool was used to estimate the potential water savings at all County-owned facilities. The results suggest a total potential savings of 10-15% from proposed upgrades, or 195-280 million gallons annually. This represents \$1.7M in avoided costs and more than 300 MTCO<sub>2</sub> of GHG emissions reductions annually.



#### Creating lasting change

The County water use analysis led to the following recommendations:

- Prohibit the installation of new ornamental turf at all County facilities unless non-patable water is used far irrigation and encourage drought tolerant landscaping.
- Replace all noncompliant plumbing fixtures in Countyawned buildings by 1/1/2019.
   Upgrade water treatment systems to conserve water in
- Upgrade water treatment systems to conserve water in cooling towers, if applicable.
- Implement a Countywide behavioral water conservation outreach program.





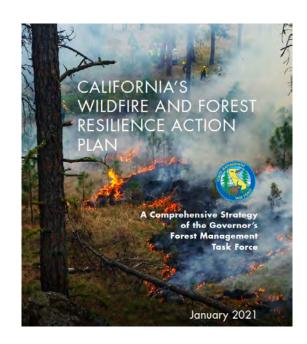




#### **State Action**

#### Our forest techniques are not cutting it!

- AB 78 Climate Catalyst Revolving Loan Fund
- Wildfire and Forest Resilience Action Plan
- Governor's 2021-2022 budget





## **Engaging a Multi-Disciplinary Audience**



Air Quality



Equity and Justice



Planning and Urban Design



Agriculture



Emergency Management



Public Health



Biodiversity and Habitat Conservation



Energy



Transportation



Forestry



Ocean and Coastal Management



Water

## Agencies

#### Local

## Water

- Water agencies
  - Cities/Counties
  - Special Districts

#### Regional

## Water

- Regional Water Management Groups
- Groundwater
   Sustainability Agencies

#### Local

# Land-Use

- Local Government
  - City
  - County
- Local Area Formation Commissions

#### Regional

# -and-Use

- Local Area Formation Commission
- Metropolitan Planning Organizations
- Council of Governments

## **Planning Documents**

#### Local

- Urban Water Management Plan
- Stormwater Management Plan
- Groundwater Management Plan (Non-SGMA)

#### Regional

- Integrated Regional Water Management Plans
- Groundwater Sustainability Plans
- Stormwater Resource Plan

#### Local

# Land-Use

- General Plan
- Community Plan
- Specific Plan
- Local Hazard Mitigation Plans

#### Regional

# Land-Use

- Regional Blueprints/Greenprints
- Sustainable Community Strategies

Water