



**San Diego IRWMP
Joint Public Workshop &
Regional Advisory Committee Meeting #41**



February 6, 2013

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

RAC Reorganization Process

- RAC agreed on a reorganization process during the October and December RAC meetings.
- RAC completed Step 1 of the reorganization process by selecting 11 existing RAC members at random to continue on the RAC for the next 2 years.
- All SDIRWM stakeholders were invited to apply for the remaining open seats on the RAC.
- In total, 17 applications were received for 14 open RAC seats.

RAC Reorganization Process

- RAC Workgroup met and reviewed all 17 applications, ultimately selecting and inviting 13 new RAC members to serve four-year terms.
 - One opening is still available: Tribal
- RAC members were selected based on pre-determined criteria that was approved by the RAC on December 5th.
- A new member orientation was held earlier this morning for all new RAC members.

RAC Reorganization Workgroup

- RAC Workgroup convened on January 15th and included:
 - RWMG:
 - Mark Stadler, San Diego County Water Authority
 - Cathy Pieroni, City of San Diego
 - Stephanie Gaines, County of San Diego
 - Water Supply:
 - Mark Umphres, Helix Water District
 - Water Quality:
 - Travis Pritchard, San Diego CoastKeeper
 - Natural Resources and Watersheds:
 - Rob Hutsel, San Diego River Park Foundation
 - DACs/EJ:
 - Dave Harvey, Rural Community Assistance Corporation (absent)
 - Other:
 - Linda Flounoy, SDSU Center for Regional Sustainability

7



- Water Supply:
 - Jennifer Sabine, Sweetwater Authority
 - Kim Thorne, Olivenhain Municipal Water District
- Water Quality:
 - Bob Kennedy, Otay Water District
 - Crystal Najera, City of Encinitas
 - Leigh Johnson, UC Cooperative Extension
- Natural Resources & Watersheds:
 - Albert Lau, Padre Dam Municipal Water District
 - Kimberly O'Connell, UCSD Clean Water Utility
- Patrick Crais, California Landscape Contractors Association
- Ronald Woolton, Buena Vista Lagoon Foundation
- DAC/EJ:
 - Leslie Reynolds, Groundwork – San Diego Chollas Creek
- Other:
 - Eric Larson, San Diego County Farm Bureau
 - Katie Levy, San Diego Association of Governments
 - Robyn Badger, San Diego Zoological Society

8

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

9

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

10

Prop 84 Planning Grant

- Financials:
 - Total grant costs billed to DWR through December 2012: \$224,107.69, or 22% of available grant funding
 - Remaining grant budget: \$775,892.31
 - Total local match submitted through December 2012: \$263,868.62, or 57% of total local match obligations
 - Local match remaining: \$183,854.13
 - Project is progressing as scheduled
 - Grant is undergoing a California State Audit

11

Prop 84 (Round 1) Implementation

- Contract Status:
 - Prop 84 Round 1 Implementation Grant was executed on 12/12/12.
 - LPS agreements are being released as insurance requirements are finalized.
 - Grant Kick-off Meeting will be scheduled in March 2013.

12

Prop 50 Implementation

Contract Status:

- Contract Amendment No. 4 was executed on 12/12/12 for the following project amendments:
 - City of San Diego Irrigation Hardware Giveaway & Cash for Plants
 - Padre Dam Reclamation Facility Expansion Project
- Contract amendment No. 5 in Water Authority processing:
 - Establishment of Grant Administration Project
- Contract Amendment No. 6 in DWR processing:
 - Integrated Landscape & Agricultural Efficiency Program
- Contract Amendment No. 7 in DWR processing:
 - Redistribution of Project 14's Funding
- Contract Amendment No. 8 in Water Authority processing:
 - Carlsbad Desalination Project

13

Prop 50 Implementation

- Financials:
 - \$10M in costs submitted to DWR, or 38% of available grant
 - \$8M paid by DWR to date
 - \$15M in remaining grant funding
- Other Prop 50 Grant Administration items:
 - Grant undergoing a California State Audit
 - Auditors to ensure grant is bond compliant
 - Auditors to issue findings/report by June
 - Auditors to visit 5 project sites

14

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

15

Background on San Diego's RWMG Involvement in the California Council for Environmental and Economic Balance (CCEEB) Water Quality Task Force

Toby Roy – San Diego County Water Authority
Peter Martin – City of San Diego

16

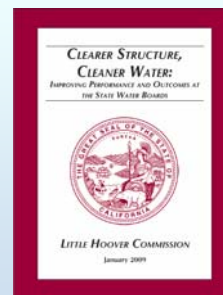


California Council for Environmental and Economic Balance
100 Spear Street, Suite 805, San Francisco, California 94105
415-512-7890 phone, 415-512-7897 fax, www.cceeb.org

"CCEEB's mission is to create a California where balancing economic growth and environmental protection is not only a vision, but also a reality."

17

Little Hoover Commission Report



"The Current system for ensuring water quality does not rank the biggest threats to water quality and systematically match its finite resources to address the most serious of them using the tools of scientific and economic analysis."

Source:
<http://www.lhc.ca.gov/studies/195/report195.html>

18

Innovative Solutions for Clean Water

- The SWRCB has done a good job regulating point-source pollution to date
- In the future, the regulation of stormwater and nonpoint source pollution, will take more innovative solutions.



Phase II Project site before construction Phase I Project—Completed 2007
Tujunga Wash Ecosystem Restoration Project

19

RWMG Comments

- Needs more focus on stakeholder driven collaborative efforts
- Would benefit from SDIRWM Regulatory Workgroup recommendations
- Need for a realistic approach based on current Regional and State Water Board processes
- IRWM supports multi-purpose water quality improvement projects



Dominguez Gap Wetlands Multiple Project: Before (left) and After (right).

Sun Valley Park Drain and Infiltration System Project - LACFD

20

LHC & CCEEB Report Recommendation #1

The state must **improve and increase its use of data, scientific research and planning to better inform the public**, respond to current and future water quality problems and focus more on accountability.

CCEEB

- Support improvements to the state's data management practices
- Support regional efforts to gather data, in order to better understand and solve local or regional water quality problems

Regulatory Workgroup

- identify objectives that may need updating based on limited datasets
- Support/secure funding for research, data collection to support scientific update of Basin Plan objectives.

21

LHC & CCEEB Report Recommendation #2

The state must **increase focus on clean water outcomes and emphasize collaboration, creativity and problem-solving** to address current water quality problems.

CCEEB

- Facilitate stakeholder task forces or other stakeholder-driven processes
- "maximum benefit" concepts
- embrace sustainability planning

Regulatory Workgroup

- Improve communication & collaboration between the IRWM Program and RWQCB
- Restoration and Mitigation Prioritization and Support

22

LHC & CCEEB Report Recommendation #3

The water boards must develop **standardized economic analysis procedures to help set priorities** and determine the most effective and efficient means to improve water quality.

CCEEB

- Economic analysis methodology to identify and direct resources to the highest priority water quality issues.
- Framework for assessment based on current statutes.

Regulatory Workgroup

- no equivalent recommendations

23

CCEEB Proposed Framework for Addressing These Recommendations

- Define the process
- Assess water quality standards
- Incorporate the concept of "maximum benefit" into Basin Planning
- Develop and execute a program of implementation

24

CCEEB's Next Steps

- Meeting(s) with California Environmental Dialogue for input
- Will address the State Water Board on February 19th
- Draft Report will be released to the public shortly for more dialog

CCEEB: <http://www.cceeb.org/>

25

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

26

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- CCEEB Report
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

27

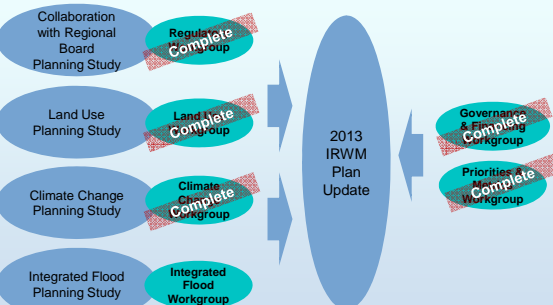
2013 San Diego IRWM Plan Update

- Update 2007 IRWM Plan with existing plans, planning studies, and stakeholder input
- Integrate new program objectives
- Meet 2010 and 2012 DWR IRWM Plan Requirements



28

IRWM Plan Update Workgroups



29

Draft Regulatory Workgroup Report

30

Regulatory Workgroup Report

• Workgroup Objective:

- Identify potential means for the IRWM Program to collaborate with and support the San Diego Regional Water Quality Control Board in regional efforts to maintain and the water resources, water quality, and beneficial uses of the San Diego Region.

31

IRWM Regulatory Work Group: Contributing Participants

Organization	RWMG	Retail Water	Wastewater & Recycled Water	Stormwater Mgt	Flood Mgt	Non-Gov't	Regulatory
County of San Diego	X	X	X	X	X		
San Diego County Water Authority	X	X	X				
City of San Diego	X	X	X	X	X		
Helix Water District		X	X				
Sweetwater Authority		X					
City of Oceanside		X	X	X			
Padre Dam Municipal Water District		X	X				
U.S. Marine Corps Base Camp Pendleton		X	X	X			
City of Encinitas				X			
University of California, San Diego				X			
Floodplain Management Association					X	X	
Coastal Environmental Rights Foundation						X	
San Diego Coastkeeper						X	
San Diego County Farm Bureau						X	
Regional Water Quality Control Board							X

32

Focus of Workgroup Meetings

- | | |
|-------|---|
| No. 1 | <ul style="list-style-type: none"> Review Work Group objectives Establish Work Group ground rules and select Work Group chair and co-chair Review IRWM and RWQCB issues and needs |
| No. 2 | <ul style="list-style-type: none"> Review RWQCB priority themes Identify issues of common interest between the IRWM Program and RWQCB |
| No. 3 | <ul style="list-style-type: none"> Organize and prioritize issues of common IRWM/RWQCB interest Solicit ideas on potential strategies for addressing the issues of interest |
| No. 4 | <ul style="list-style-type: none"> Identify desired outcomes to be achieved by IRWM/RWQCB collaboration Discuss strategies and action plans for achieving the desired outcomes Provide directional input on the preparation of the Work Group report |
| No. 5 | <ul style="list-style-type: none"> Review desired outcomes and recommended implementation actions Review and comment on the draft Work Group Report |

33

Regulatory Workgroup Report

• Focus on IRWM Collaboration with the RWQCB

- Wide-ranging powers of RWQCB to establish water quality objectives, identify water quality impairments, and mandate water quality improvements to attain the objectives
- RWQCB has increasing scope of responsibilities but has to prioritize effort due to limited budget
- IRWM Program provides regional mechanism for evaluating, prioritizing, and allocating resources to optimize regional water resources goals

34

Regulatory Workgroup Report

• Workgroup Approach

- Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
- Identify desired outcomes for IRWM/RWQCB collaboration
- Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes
- Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented if and when funding is available
- Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration

35

Regulatory Workgroup Report

• Workgroup Approach

- Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
- Identify desired outcomes for IRWM/RWQCB collaboration
- Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes
- Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented
- Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration

36

Regulatory Workgroup Report

- **RWQCB Practical Vision Priority Themes**
 - Support recovery of wetlands and riparian areas
 - Ensure the health of ground and surface waters
 - Support sustainable local water supplies
 - Effective monitoring and assessment
 - Effective public communication and stakeholder input

37

Regulatory Workgroup Report

- **2007 IRWM Plan Objectives**
 - Maximize stakeholder/community involvement and stewardship
 - Effectively obtain, manage, and assess water resource data and information
 - Further the scientific and technical foundation of water management
 - Develop and maintain a diverse mix of water resources
 - Construct, operate, and maintain a reliable infrastructure system
 - Reduce the negative effects on waterways and watershed health caused by hydromodification and flooding
 - Effectively reduce sources of pollutants and environmental stressors
 - Protect, restore and maintain habitat and open space
 - Optimize water-based recreational opportunities

38

Potential Issues of Common IRWM/RWQCB Interest

Category	Number of Issues of Interest Identified by the Work Group
I. Enhance communication and stakeholder input	7
II. Basin Plan Support	7
III. 303(d) Impaired Water and TMDL Support	4
IV. Effective data management and assessment	4
V. Restoration and Mitigation Support	6

39

Regulatory Workgroup Report

- **Workgroup Approach**
 1. Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
 2. **Identify desired outcomes for IRWM/RWQCB collaboration**
 3. Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes
 4. Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented
 5. Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration

40

Regulatory Workgroup Report

- **Desired Outcome No. 1: Support Science-Based Basin Plan Objectives**
 - Support the RWQCB triennial review process and RWQCB programs and efforts to update scientific assessments of relations between Basin Plan objectives and protect beneficial uses

41

Regulatory Workgroup Report

- **Objectives to Facilitate Desired Outcome No. 1: Support Science-Based Basin Plan Objectives**
 - Identify science-based Basin Plan modifications that may warrant higher priority than provided in the 2011 RWQCB triennial review
 - Identify research needs, data collection and assessment needs, and resources required to support the RWQCB's process for science-based evaluation of the prioritized Basin Plan objectives
 - Support and secure funding required for research, data collection and assessment, and resources required to support the RWQCB's process for science-based evaluation of the prioritized Basin Plan objectives

42

Regulatory Workgroup Report

- **Desired Outcome No. 2: Support Science-Based Impaired Water Listings and Compliance**
 - Support RWQCB programs and efforts to update impaired water listings that (1) are based on science and robust data and (2) achieve water quality compliance and protect beneficial uses

43

Regulatory Workgroup Report

- **Objectives to Facilitate Desired Outcome No. 2: Support Science-Based Impaired Water Listings and Compliance**
 - Identify existing 303(d) listings that may warrant re-evaluation or re-classification
 - Identify projects or actions that could improve water quality of 303(d) listed waters and attain water quality objectives
 - Identify data collection and/or resources required to support 303(d) re-evaluation or re-classification
 - Secure funding required for data collection and assessment required to support science-based 303(d) evaluations

44

Regulatory Workgroup Report

- **Desired Outcome No. 3: Support Prioritization of Restoration Needs and Opportunities**
 - Support the RWQCB in implementing a process for prioritizing wetlands and riparian habitat restoration needs and opportunities, and coordinate with resource agencies to address regional restoration needs and issues

45

Regulatory Workgroup Report

- **Objectives to Facilitate Desired Outcome No. 3: Support Prioritization of Restoration Needs and Opportunities**
 - Develop and maintain a list of wetlands and riparian habitat restoration needs and opportunities
 - Evaluate potential opportunities for coordinating with the RWQCB Supplemental Environmental Projects process and/or other compensatory mitigation programs to fund prioritized wetlands and riparian habitat restoration and recovery efforts
 - Support and secure funding for wetlands and riparian habitat restoration and recovery efforts

46

Regulatory Workgroup Report

- **Overarching Objectives to Facilitate Outcome Nos. 1, 2, and 3**
 - Improve communication between the IRWM Program and RWQCB
 - Seek opportunities for consistency between IRWM Plan and RWQCB Practical Vision

47

Regulatory Workgroup Report

- **Workgroup Approach**
 1. Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
 2. Identify desired outcomes for IRWM/RWQCB collaboration
 3. **Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes**
 4. Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented
 5. Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration

48

Regulatory Workgroup Report

- **Assets the IRWM Program Can Provide to Address IRWM/RWQCB Goals:**
 - Vision and Advocacy
 - Stakeholder Coordination
 - Technical Expertise
 - Project Funding

49

Regulatory Workgroup Report

- **Workgroup Approach**
 1. Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
 2. Identify desired outcomes for IRWM/RWQCB collaboration
 3. Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes
 4. **Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented**
 5. Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration

50

Regulatory Workgroup Report

- **Recommended Overarching Early Action Items:**
 - Assign an IRWM liaison to the RWQCB
 - Provide RWQCB with periodic IRWM progress reports for inclusion in Executive Officer reports to the RWQCB
 - Monitor development of RWQCB Practical Vision
 - Coordinate with RWQCB to ensure consistency between IRWM Plan and RWQCB Practical Vision

51

Regulatory Workgroup Report

- **Recommended Early Action Items Desired Outcome No. 1: Support Science-Based Basin Plan Objectives**
 - Convene caucus of IRWM stakeholders to:
 - Review existing RWQCB Basin Plan triennial review priorities, allocated RWQCB resources, and schedules
 - Identify additional Basin Plan review priorities of interest to IRWM stakeholders
 - Determine IRWM stakeholder interest in supporting and coordinating with the RWQCB to address additional Basin Plan review priorities
 - Convene workshop between RWQCB and IRWM stakeholders to discuss:
 - Basin Plan modification priorities identified by IRWM stakeholders
 - Research, data collection, data management, data assessment and resources required to support scientific evaluation of the additional Basin Plan priorities

52

Regulatory Workgroup Report

- **Recommended Early Action Items Desired Outcome No. 2: Support Science-Based Impaired Water Listings and Compliance**
 - Convene caucus of IRWM stakeholders to:
 - Review existing RWQCB 303(d) listings
 - Identify 303(d) listings that may warrant reevaluation or reclassification
 - Determine IRWM stakeholder interest in supporting RWQCB reevaluation or reclassification of the identified 303(d) listings of concern
 - Convene workshop between RWQCB and IRWM stakeholders to discuss:
 - 303(d) receiving waters that may warrant reevaluation or reclassification
 - Potential IRWM projects or actions that could improve water quality and attain water quality objectives
 - Potential alternative means to traditional TMDLs to achieve water quality objectives
 - Research, data collection, data management, data assessment, and resources required to reevaluate or reclassify the 303(d) listings of concern

53

Regulatory Workgroup Report

- **Recommended Early Action Items for Desired Outcome No. 3: Support Prioritization of Restoration Needs and Opportunities**
 - Convene workshop with RWQCB and IRWM stakeholders to discuss:
 - Means of identifying, coordinating, and prioritizing regional restoration needs and opportunities
 - A potential action plan for the development and maintenance of a habitat restoration needs and opportunities priority list
 - Means for coordinating IRWM Program support with the RWQCB SEP process and other compensatory mitigation programs
 - Convene meeting with resource agencies to discuss needs and opportunities for improving coordination of ecosystem restoration, channel maintenance and invasive species removal

54

Regulatory Workgroup Report

• Workgroup Approach

1. Identify and prioritize issues of mutual interest to IRWM Program and RWQCB
2. Identify desired outcomes for IRWM/RWQCB collaboration
3. Identify IRWM Program assets and potential collaborative measures that could help achieve the desired outcomes
4. Identify a recommended "early action plan" of collaborative measures that appear to offer strong benefits and can readily be implemented
5. **Identify IRWM Plan updates recommended to support the desired outcomes of IRWM/RWQCB collaboration**

55

Regulatory Workgroup Report

• Recommended IRWM Plan Update Action Items:

- Acknowledge priority themes from the RWQCB Practical Vision in the updated IRWM Plan
- Update the IRWM Plan and modify project funding screening and scoring criteria to encourage projects that target Desired Outcome Nos. 1, 2, or 3

56

Regulatory Workgroup Report

• Status: Workgroup Report

- All five scheduled workshops have been completed
- Three prior drafts of work group report have been distributed for comment
- Final draft version issued in January 2013
- Work Group Report to be finalized in February 2013 upon receipt of final Work Group and RAC comments

57

Regulatory Workgroup Report

Questions?

58

Draft Land Use Planning Study

59

Land Use and Water Management Study

Purpose of Study:

- Examine the extent to which integrated planning and water resources management currently occur in the San Diego IRWM region;
- Identify methods to increase collaboration and coordination regarding land use and water resources planning and decision-making; and
- Identify methods to better align water and land use planning processes.

Overview:

- Process
- Conclusion and Outcomes

60

Overview of Process

- Prepare gap analysis, review general plans
- Distribute surveys
- Workshop #1
- Identify preliminary strengths, opportunities and challenges; prepare Key Issues Matrix
- Prepare Draft Model Water Element
- Prepare preliminary recommendations
- Workshop #2
- Public Draft Report

61

Gap Analysis

- General Plans
- Complexity of Water Resources Management in Region
- Water Resources Plans



62

Findings/Outcomes of Gap Analysis

- Considerable variation in General Plan water policy in region
- Water policy targeted to new development in some communities and redevelopment in others
- Natural features vary among local cities
- Some local land use control over water-related issues limited by State and Federal responsible agencies
- General Plans vary in "strength" of long-range water policy
- Departments responsible for water management tasks vary between cities

63

Surveys

- Designed to examine relationships between water managers and land use planners:
 - Characterize nature of existing relationships
 - Identify opportunities for increased collaboration, coordination, and communication

64

Surveys – Key Topic Areas

- Degree of awareness of IRWM program
- Effectiveness – regional, local or both
- Impediments
- Description of current type of degree of coordination
- Examples
- Suggestions for potential opportunities

65

Workshop #1

- Attended by land use planners, water managers and other interested stakeholders
 - Reviewed data collected to date
 - Discussed results of survey
 - Breakout sessions to discuss:
 - "disconnects" between land use planning and water management planning;
 - water management policy guidance for planners – what and when; and
 - how can communication and collaboration be improved



66

Key Issues

- Relationships between Land Use Planners and Water Managers:
 - Strengths
 - Opportunities
 - Challenges



67

Draft Model Water Resources General Plan Policy Guide

- Organized around the four IRWM goals
- Watershed-based approach
- Used the Ahwahnee Water Principles as a guide
- Used local examples to the extent possible

68

Draft Recommendations for Improved Collaboration & Coordination

- List developed from input derived from surveys and suggestions received at Workshop #1
- Organized into two general categories:
 - Collaborative work products
 - Opportunities for information sharing, regular communication, and meaningful collaboration

69

Workshop #2

- Purpose:
 - Review the draft Model Water Resources General Plan Policy Guide and provide feedback
 - Receive input on and prioritize the draft recommendations



70

Model Water Resources General Plan Policy Guide

Based on the 4 IRWM goals:

1. Optimize Water Supply Reliability
 - Water supply planning
 - Water-use efficiency
 - Groundwater supplies
 - Recycling and reuse of water supplies
 - Stormwater supplies

71

Model Water Resources General Plan Policy Guide (cont.)

2. Protect and Enhance Water Quality
 - Stormwater Management
 - Groundwater Quality
3. Provide Stewardship of our Natural Resources
 - Compact Development
 - Natural Resource Protection and Watershed Management
 - Vegetation Protection and Management
 - Sustainable Site Preparation Practices

72

Model Water Resources General Plan Policy Guide (cont.)

4. Coordinate and integrate water resource management
 - Integrated water resource management
 - Partnerships and coordination
 - Stakeholder and community involvement and education

Recommendations for Improved Collaboration & Coordination

- **Category 1:** Collaborative Work Products
- **Category 2:** Opportunities for information sharing, regular communication, and meaningful collaboration

Recommendations for Improved Collaboration & Coordination

Category 1: Collaborative Work Products

1. Prepare and distribute model water resources policies, ordinances, and guidelines for topics such as graywater, sustainable landscapes, and stormwater management.
2. Prepare information sheets for land use planners regarding potential water resource-related impacts of certain land uses, such as landfills and pharmaceutical industries.
3. Prepare conservation or resource management plans/guidelines for community gardens and backyard gardening.

Recommendations for Improved Collaboration & Coordination (cont.)

Category 2: Opportunities for Information Sharing, Regular Communication, and Meaningful Collaboration

1. Create a GIS-based Resource Guide
2. Work with SANDAG to include water resources in its smart growth planning
3. Workshops, webinars, lunch sessions, forums, social media, etc. (list of suggested topics)
4. Expand the IRWM website and use the websites of existing agencies to disseminate key information

Key Issues Matrix

Shows how the recommendations developed through the Land Use Study process will help to overcome the issues through implementation of the IRWM Program

KEY ISSUES	RECOMMENDATIONS		
	IRWM Program	Municipalities / Land Use Planners	Water Agencies / Managers
There needs to be further dialogue between water and land use disciplines and agencies and relationships need to be built or strengthened.	<ul style="list-style-type: none"> • Provide an annual forum for staff from water resource and land use agencies based on topics of mutual interest and importance. • Develop a template that municipalities can use to convene meetings that include all the entities involved in land use planning and water resource planning and management for that jurisdiction. 	<ul style="list-style-type: none"> • Attend forum • Share case studies, best practices • Volunteer to be a co-moderator 	<ul style="list-style-type: none"> • Attend forum • Share case studies, best practices • Participate in the meetings with the various member jurisdictions.
Water resources and land use plans, policies, and implementing projects and programs need to be better integrated.	<ul style="list-style-type: none"> • Both water resources and share information through workshops, webinars, lunch sessions, etc., and on by both organizations such as SWP, ARWA, CWA, and the American Water Resources Association (AWRA). • Develop a guide for how to engage third parties in the collaborative coordination and communication regarding land use planning and water management. • Work with SANDAG to expand its emphasis on smart growth (sustainable land use and transportation practices) to encompass strategies that improve the reliability and quality of water resources. • Place a priority on partnerships between land use and 	<ul style="list-style-type: none"> • Attend workshops, webinars, etc. • Share case studies, best practices • Utilize the guide • Pursue projects in partnership 	<ul style="list-style-type: none"> • Attend workshops, webinars, etc. • Share case studies, best practices • Utilize the guide • Participate • Pursue projects in partnership

Land Use Planning Study

Recommended IRWM Plan Update Action Items:

- Support or facilitate collaborative preparation of various joint water resources and land use planning efforts and work in the Region
- Provide opportunities for information sharing, regular communication, and meaningful collaboration for water resources and land use managers
- Seek funding to provide grant program that allows municipalities to fund updates to their general plans to incorporate water resource policies or develop water resources elements

Next Steps

Remaining Question: *Who should take the lead?*

- Suggestions include: IRWM RAC or RWMG, SANDAG, CWA, SDRWQCB; or
- New agency such as a Water Resources Coordinating Council; or
- Some combination?



79

Land Use Planning Study

Questions?

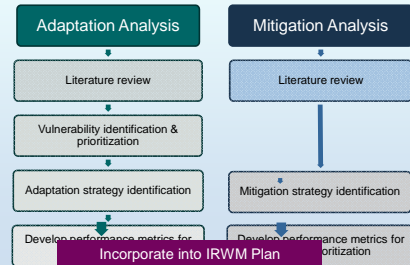
80

Draft Climate Change Planning Study

81

Climate Change Study

- Identified as a need by the Region
- DWR Requirements:



82

Study Development Process

- Review of local, regional, statewide and federal climate change related documents
- Meetings of Climate Change Workgroup
 - Effects and impacts review
 - Vulnerability assessment and prioritization
 - Strategy assessment
 - Objective and targets development
 - Project prioritization incorporation
- Incorporation of information gathered into Study

83

Study Organization

- Climate Change in Water Resources
- Climate Change in IRWM Planning
- Effects of Climate Change on Region
- Vulnerability Analysis
- Climate Change Management Strategies
- Recommendations

84

Effects of Climate Change on Region (by 2050)

Impact	Effect
Temperature	<ul style="list-style-type: none"> 1.5°F to 4.5°F average temperature increase
Rainfall	<ul style="list-style-type: none"> Variable projections predict between 35% drier and 17% wetter Increase in variability between years
Supply	<ul style="list-style-type: none"> Up to 25% decrease in SWP supply Up to 20% decrease in Colorado River supply 164,000 acy average shortfall in imported supply
Demand	<ul style="list-style-type: none"> Potential 0.6% to 1.8% increase in demand by 2035
Sea level rise	<ul style="list-style-type: none"> 12 to 18 inch rise in mean sea level rise
Wildfires	<ul style="list-style-type: none"> 40% increase in California Coastal Shrub acreage burned in Southwestern U.S. 54% increase in overall acreage burned in Western U.S.

85

Study Organization

- Climate Change in Water Resources
- Climate Change in IRWM Planning
- Effects of Climate Change on Region
- Vulnerability Analysis**
- Climate Change Management Strategies
- Recommendations

86

Vulnerability Analysis

- Box 4-1 in *Climate Change Handbook for Regional Water Planning* provided questions that help to identify key indicators of potential vulnerability
- Workgroup analyzed potential vulnerabilities to refine Box 4-1 questions
- Workgroup prioritized vulnerabilities to determine areas of highest concern

87

Vulnerability Prioritization (sample)

Priority Level	Category and Vulnerability Issue (partial list)
Very High	<ul style="list-style-type: none"> Water Supply: Decrease in imported supply
High	<ul style="list-style-type: none"> Water Supply: Sensitivity due to higher drought potential Water Quality: Increased constituent concentrations Flooding: Increases in flash flooding and inundation (extreme weather) Sea Level Rise: Inundation of storm drains and sewer systems Ecosystem/Habitat: Decrease in available necessary habitat Ecosystem/Habitat: Decrease in ecosystem services
Medium	<ul style="list-style-type: none"> Water Demand: Increase in crop demand Water Demand: Increase in Industrial demand Water Supply: Decrease in groundwater supply Water Quality: Increase in treatment cost Sea Level Rise: Damage to coastal recreation / tourism due to inundation

88

Study Organization

- Climate Change in Water Resources
- Climate Change in IRWM Planning
- Effects of Climate Change on Region
- Vulnerability Analysis
- Climate Change Management Strategies**
- Recommendations

89

Sample Strategies

Tier 1 Strategies (partial list)

Water Demand Reduction: Urban Efficiency, Education, Crop Idling, Greywater, Rain-fed Ag*, Increased Infiltration/Soil Health/Urban Forest*

Operational Efficiency/Transfers Improvement: Conveyance-Delta, Conveyance- Regional/local, System Reoperation

Water Supply Increase: Conjunctive Management & Groundwater Storage, Recycled Municipal Water, Water Transfers, Increased Capture*

Water Quality Improvement: Drinking Water Treatment and Distribution, Groundwater/Aquifer Remediation*, Pollution Prevention, Salt and Salinity Management*, Urban Runoff Management*

Flood Management Improvement: Flood Risk Management*

Sea Level Rise: Water facility planning in coordination with land use/SLR planning

*Note, asterisks show example Strategy grouping to decrease Strategy costs, increase Benefits.

90

Study Organization

- Climate Change in Water Resources
- Climate Change in IRWM Planning
- Effects of Climate Change on Region
- Vulnerability Analysis
- Climate Change Management Strategies
- **Recommendations**

91

Recommendations

- Adaptive management
- Climate Change related objectives and targets
- Climate Change in project selection considerations

92

Adaptive Management

- Climate Change (CC) science is ever advancing
- CC impact intensity likely to continue to increase
- Uncertainty associated with climate change
- Adaptive management consists of:
 - Ongoing Identification, Monitoring and Updating of the most important Impacts and Uncertainties
 - Translating Impacts and Uncertainties into Indicators, Timely Risk Triggers, or Early-Benefit Scenarios
 - Creating Flexible Paths of Action to take as Triggers occur
 - Monitoring and Feedback Mechanisms for Short/Med/Long Term Effectiveness

93

Climate Change Related Objectives and Targets

- **Objective: Effectively address climate change through adaptation and mitigation in water resource management.**
- Target 1: Encourage development of cost-effective, carbon-efficient strategies for water management projects.
- Target 2: Incorporate adaptation strategies to respond to sea-level rise, rainfall variability, and temperature variability in planning for water and wastewater management.
- Target 3: Reduce or neutralize GHG emissions in all areas of water resource management.

94

Climate Change Planning Study

- **Recommended IRWM Plan Update Action Items:**
 - Develop an adaptive management plan to identify and monitor the most important climate change-related uncertainties. This plan should also include risk triggers or early warning indicators for the climate change uncertainties.
 - Include a climate change-related objective and associated targets in the IRWM Plan Update.
 - Include climate change-related concerns in the IRWM project selection process.

95

Climate Change Planning Study

Questions?

96

Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- CCEEB Report
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

97

Next RAC Meeting

- April 3, 2013– Joint Public Workshop and RAC meeting on the Plan Update

2013 Meeting Schedule

- June 5, 2013
- August 7, 2013
- October 2, 2013
- December 4, 2013

- First Wednesday of every other month -

98

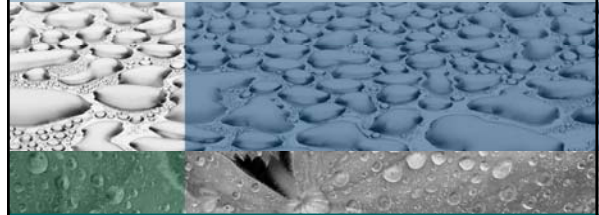
Agenda

- Welcome and Introductions
- RAC Reorganization
- DWR Update
- Grant Administration
- City of San Diego Recycled Water Study
- San Diego IRWM Plan Update
- CCEEB Report
- Next Joint Public Workshop & RAC Meeting
- Summary and Thanks

99



San Diego IRWMP Joint Public Workshop & Regional Advisory Committee Meeting #41



February 6, 2013