

# **Coachella Valley Integrated Regional Water Management Planning Partners**

**Thursday December 13, 2012  
1:00 – 3:00 p.m.**

**Coachella Valley Association of Governments  
Conference Room #115  
73-710 Fred Waring Drive  
Palm Desert, CA 92260**

## **AGENDA**

### **Meeting Objectives:**

- A. Keep Planning Partners Up-to-Date on the Coachella Valley IRWM Program, including Salt and Nutrient, Groundwater Quality, and Flood Management Activities
- B. Update on Disadvantaged Community (DAC) Outreach Efforts
- C. Review Recommended Project Package for Proposition 84-Round 2 Grant Cycle
- D. Review Climate Change Vulnerability Analysis for Coachella Valley

### **Agenda:**

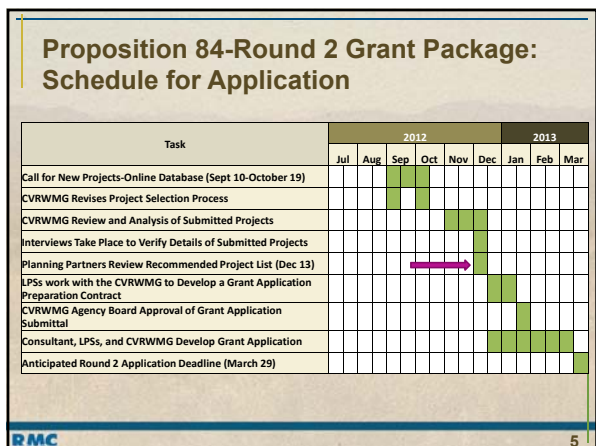
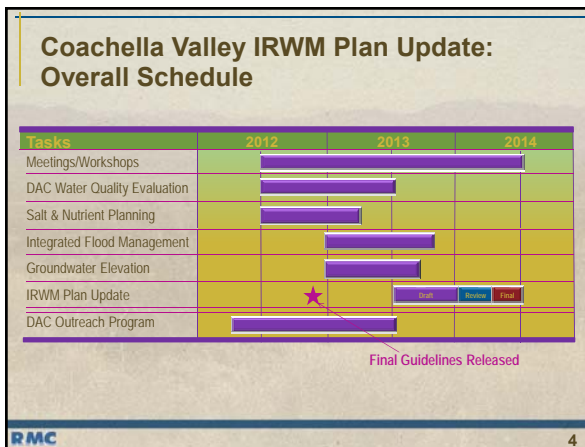
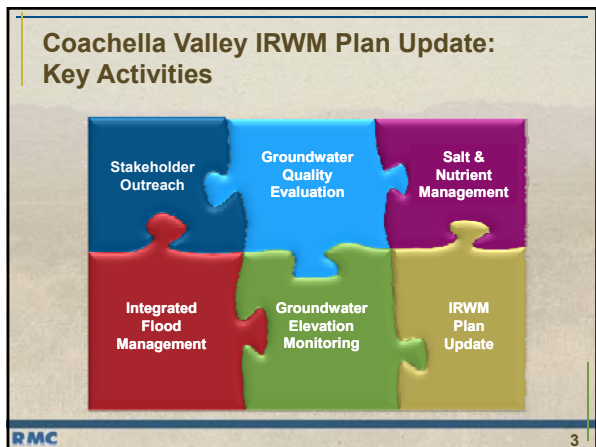
- 1. Welcome and Introductions
- 2. Status of IRWM Planning Activities and Schedule
- 3. Update on Coachella Valley IRWM Technical Evaluations
  - a. Salt and Nutrient Management
  - b. Groundwater Quality Evaluation
  - c. Integrated Flood Management
- 4. Update on DAC Outreach and Assistance
- 5. Recommended Proposition 84-Round 2 Grant Package
  - a. Review and Approve Proposed Grant Package
  - b. Schedule for Application Development and Submittal
- 6. Climate Change Vulnerability Analysis
- 7. Next Steps
  - a. Items for Future Planning Partners Meetings
  - b. Next Meeting – March 14, 2013





### Agenda

- Welcome and Introductions
- Status of IRWM Planning Activities and Schedule
- Recommended Proposition 84-Round 2 Grant Package
- Climate Change Vulnerability Analysis
- Update on DAC Outreach and Assistance
- Update on Coachella Valley IRWM Planning Studies
- Next Steps



- ### Prop 84-Round 2 Selection Process
- CVRWGM completed scoring and ranking of projects in accordance with the adopted IRWM Plan:
    - Addresses Multiple IRWM Plan Objectives
    - Integrates Multiple Resource Management Strategies
    - Addresses a Statewide Priority
    - Linked to Other Projects
    - Involves More than One Partner
    - Optimizes Water Supply Reliability
    - Protects or Improves water Quality
    - Manages Flood Risks
    - Optimizes Conjunctive Use of Surface and Groundwater Supplies
    - Directly Benefits Disadvantaged Communities
    - Identified in Existing Plan

### Prop 84-Round 2 Selection Process

- Top 21 projects in "Tier 1" were considered further
- CVRWMG reviewed top 21 projects in detail, narrowing down to a "short list" of 9 projects
  - Septic-to-sewer projects were compared and assessed as a group

### Prop 84-Round 2 Selection Process

- CVRWMG conducted interviews with top 9 project applicants on December 6, 2012
- Following project interviews, CVRWMG compiled a recommendation based on secondary criteria
- Planning Partners are being asked to review, provide feedback on, and potentially approve the proposed grant package
- Next Step: Work with project sponsors on contracting and developing grant application to State

### Prop 84-Round 2 Selection Process

- Secondary Project Selection Criteria:
  - Are the proposed scope and budget reasonable? Is the project technically feasible / constructable?
  - Is the project cost effective (e.g., grant \$\$/connection)?
  - What value does the project provide to the Coachella Valley? Are those benefits aligned with DWR's scoring criteria?
  - Is the project ready to proceed? Would the project be able to proceed if there were substantial funding delays?
  - Are there any potential hurdles to completing the project on-time?
  - Is the funding match secure?
  - Does the project serve a disadvantaged community (DAC)?
  - Has need been documented (e.g., history of septic failures for septic-to-sewer project)?

### Recommended Proposition 84-Round 2 Grant Package

**Tier 1 Projects Interviewed by CVRWMG**

- 243 Coachella Valley Salt and Nutrient Management Plan
- 265 Groundwater Quality Protection Project - Sub-Area D2
- 269 Little Tuscany Sewer Improvements
- 256 Mid-Valley Pipeline, Phase 2
- 261 Non-potable Water Use Expansion
- 271 San Antonio del Desierto - Sewer Sanitary Collection System Extension
- 254 Sunbird Mobile Home Park Septic to Sewer Conversion
- 264 Torres-Martinez Sewer Extension Project Avenue 64
- 263 Torres-Martinez Water Line Extension

**Tier 1 Projects Not Considered Further for Round 2 Grant Cycle**

- 197 Achieve 14 percent reduction in Agricultural Water Use
- 214 BDCP and DHCP
- 272 Cathedral City South City Improvement District (SCID) Groundwater Protection Project
- 223 DMMS for CVRWMG Partners
- 259 Drinking Water Hexavalent Chromium Removal Demonstration Facilities
- 266 Groundwater Quality Protection Project
- 255 Irrigation Pipeline Replacements
- 226 IWA Recycled Water Program
- 268 Little Morongo Regional Wastewater Treatment Plant
- 270 Pierce Community Infrastructure - Sewer Sanitary Collection System (North)
- 191 Posse Park Surface Water Treatment Plant
- 257 Shady Lane Sewer Improvement Project

### Recommended Proposition 84-Round 2 Grant Package

Total Grant Request: \$5,240,000

**Tier 1 Projects Interviewed by CVRWMG**

243 Coachella Valley Salt and Nutrient Management Plan	\$500,000
265 Groundwater Quality Protection Project - Sub-Area D2	\$1,845,000
269 Little Tuscany Sewer Improvements	
256 Mid-Valley Pipeline, Phase 2	
261 Non-potable Water Use Expansion	\$2,000,000
271 San Antonio del Desierto - Sewer Sanitary Collection System Extension	\$740,000
254 Sunbird Mobile Home Park Septic to Sewer Conversion	
264 Torres-Martinez Sewer Extension Project Avenue 64	
263 Torres-Martinez Water Line Extension Project Avenue 64	\$155,000

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
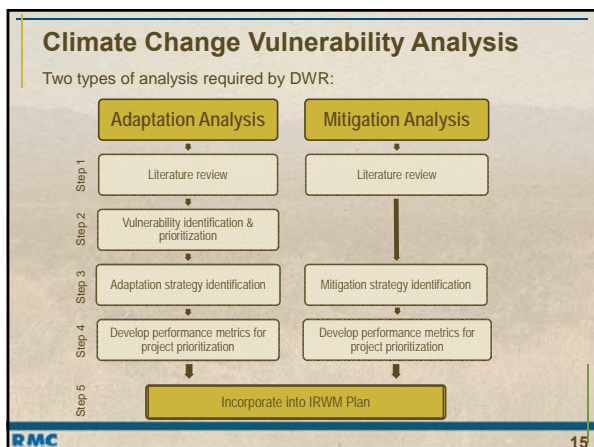


## Planning Partners Discussion of Recommended Project List




### Climate Change Vulnerability Analysis

- Objectives of the Analysis:
  - Summarize available information on climate change for Region
  - Prioritize water-related vulnerabilities to climate change
  - Identify strategies to mitigate/adapt given climate change impacts
  - Clarify climate change in project evaluation/prioritization process

### Relevant Climate Change Information


Document	Relevant Information
Preparing California for a Changing Climate (DWR, 2008)	• Statewide impacts to temperature, precipitation and water resources
Reconciling Projections of Colorado River Streamflow (Hoerling, et al., 2009)	• Colorado River flows
Response of Vegetation Distribution, Ecosystem Productivity, and Fire to Climate Change Scenarios for California (Lenihan, et al., 2008)	• Impacts of climate change to vegetation, ecosystems and fire
California Climate Change Adaptation Policy Guide (CA Emergency Management Agency & CA Natural Resources Agency, 2012)	• Desert Region impacts • Covers water, infrastructure, health, economics, wildfire
Climate Action Plans (Palm Springs, Rancho Mirage, Palm Desert, Coachella, Desert Hot Springs, La Quinta)	• GHG inventory • GHG reduction strategies



### Literature Review: Reported Effects of Climate Change on Desert Region

Effect	Ranges
Temperature Change	• Winter: Projected increases of 5°F to 9°F • Summer: Projected increases of 6°F to 10°F
Precipitation	• Little to no change in annual average rainfall
Wildfire Risk	• Same or slightly increased likelihood of wildfire
Demand	• Increases expected, but not quantified
Supply	• Colorado River delivery decrease of 5% to 20% by 2050 • Changes to local groundwater supply not quantified


Note: Projections show the changes between now and 2100 unless otherwise noted



### Vulnerability Analysis

- DWR requires vulnerabilities identified and prioritized
- RMC completed a “strawman” of questions used to determine where Region is vulnerable
- For questions answered affirmatively, vulnerability issues were prioritized

**TO THE SPREADSHEET!**



### Summary and Action Items

- Planning Partners: Questions? Comments?
- RMC will compile and email vulnerability comments to the CVIRWM stakeholders
- RMC will provide updated materials at next Planning Partners meeting (March 2013)

RMC 19

### DAC Outreach Program

Program goals include:

- Expand upon previous DAC outreach to target individuals and groups representing DAC issues
- Engage members of DAC community in order to frame and articulate water management issues facing DACs



RMC 20

### DAC Outreach Program: Current Efforts

- Continuing outreach to stakeholders and interested organizations, all information compiled in a database
- Continuing work on DAC-focused mapping and characterization
- Contracting with non-profit organizations to assist in the process
- Second (of five) DAC Workshop held today!
- Beginning flood mapping process
- Continuing to coordinate the DAC Outreach Program with the IRWM Plan Update efforts

RMC 21

### DAC Outreach Program: Timeline 2012-2013

Tasks	2012	2013
Outreach Plan	Start of 2012	
Meetings/Workshops	Mid 2012 to Mid 2013	
DAC Mapping	Mid 2012 to End 2012	
Project Development	Mid 2012 to Mid 2013	
Prj Planning/Engineering		Start of 2013 to Mid 2013
DAC IRWM Plan Element		Draft Element (Start of 2013), Public Review (Mid 2013), Final Element (End 2013)
Model Program Preparation		Basin Draft (Start of 2013), Draft Final Model (Mid 2013), Final (End 2013)

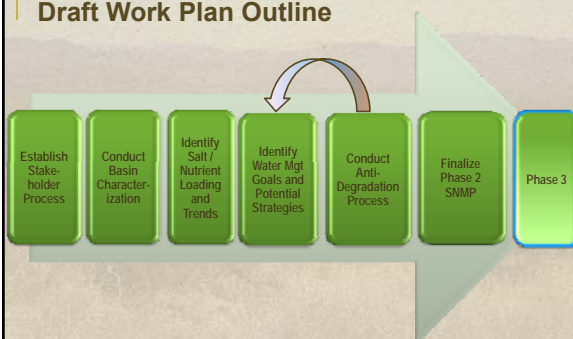
RMC 22

### Salt and Nutrient Management: Progress to Date

- Initial discussions on approach held with CVRWMG
  - Layout of SNMP work plan
  - Initial questions and key considerations discussed
- Initial meeting with RWOCB staff to gain their perspectives
  - Scale and process for SNMP planning effort
- Conducted three Stakeholder Workshops (8/22, 9/26, 11/28)
  - Reviewed background, purpose, and key elements of SNMP
  - Discussed local water setting and key concerns
  - Reviewed/discussed SNMP plan elements and approach
  - Reviewed draft SNMP work plan and schedule

RMC

### Salt and Nutrient Management: Draft Work Plan Outline



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    graph LR
      A[Establish Stakeholder Process] --> B[Conduct Basin Characterization]
      B --> C[Identify Salt/Nutrient Loading and Trends]
      C --> D[Identify Water Mgt Goals and Potential Strategies]
      D --> E[Conduct Anti-Degradation Process]
      E --> F[Finalize Phase 2 SNMP]
      F --> G[Phase 3]
      D -.-> E
    
```

RMC

### Salt and Nutrient Management: Next Steps

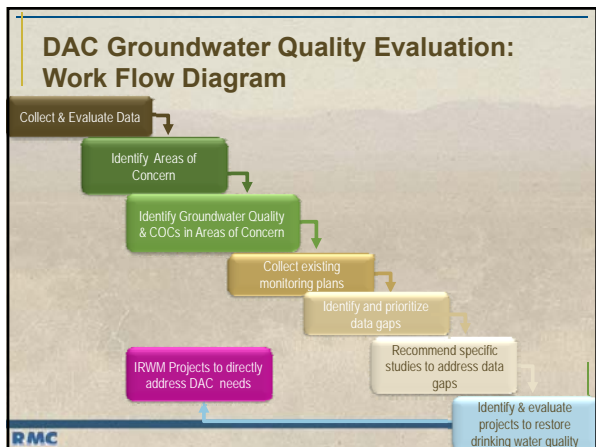
- Receive final comments by December 7th
- Incorporate changes to Draft Work Plan
- Review by CVRWMMG
- Briefing with RWQCB Staff
- Final Review and Approval by CVRWMMG
- Present at the January 17<sup>th</sup> RWQCB Board Meeting

RMC

### DAC Groundwater Quality Evaluation: Overview

- Conducted to assess groundwater quality issues in and around disadvantaged communities (DACs)
- Addresses stakeholder concerns regarding the quality of drinking water supplies
- Goals include:
  - Identify Areas of Concern (AOCs)
  - Identify Constituents of Concern (COCs)
  - Consider methods for addressing AOCs in areas where COCs are above primary drinking water standards
  - Identify projects to address the COCs found in AOCs
  - Develop monitoring plan to fill identified data gaps.

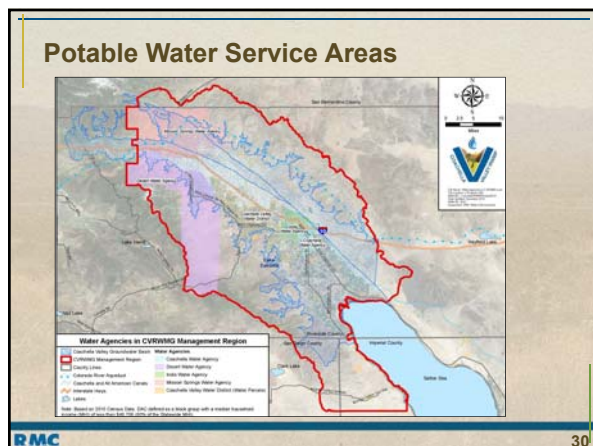
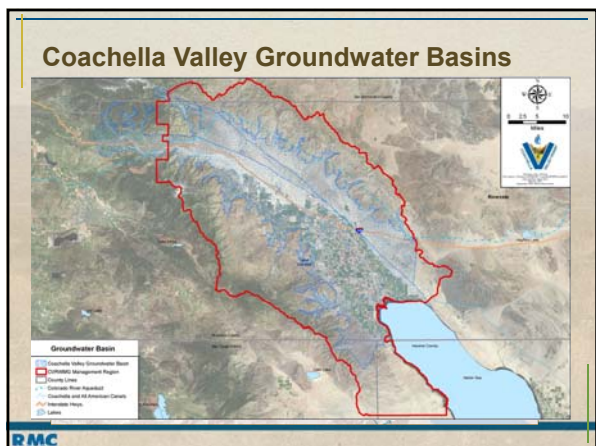
RMC 26



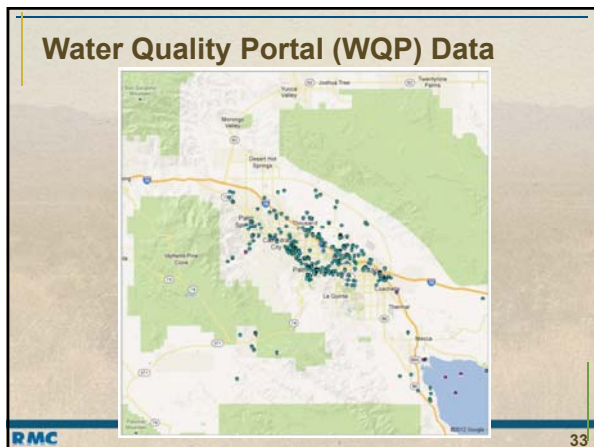
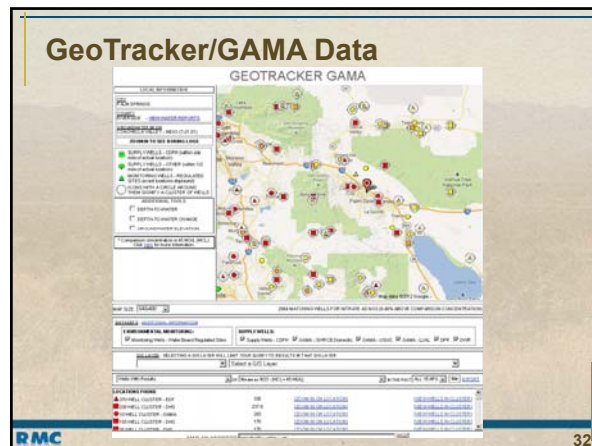
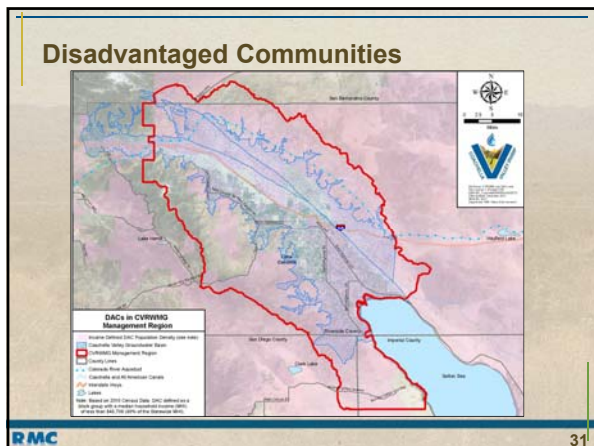
### Steps 1&2 – Data Collection and Analysis Data Used

- Groundwater Basins – DWR
- Geology/Hydrogeology – DWR, USGS
- Potable Water Service Areas – Water Agencies
- DACs – 2010 Census
- Well Construction Information - DWR
- Water Quality Data
  - GeoTracker/GAMA
  - Water Quality Portal

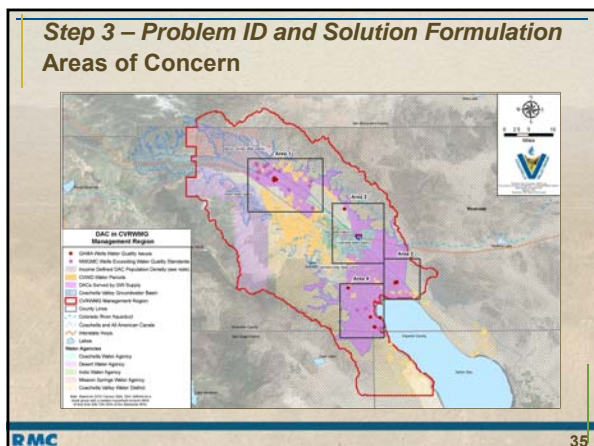
RMC 28







- ### SWRCB Communities that Rely on Contaminated Groundwater (Feb 2012)
- 22 of 36 identified community water systems in Riverside County are 100% reliant on groundwater
  - 10 identified principal contaminants – arsenic, nitrate, gross alpha radioactivity, perchlorate, PCE, TCE, uranium, DBCP, fluoride and carbon tetrachloride
  - 8 communities with MCL violations; all communities 50% to 100% reliant on groundwater
- RMC 34



### Identified Constituents of Concern

Constituent of Concern	Primary MCL	Average Concentration	No. of Sampling Points
Arsenic	10 mg/L	237 mg/L	8
Fluoride	2 mg/L	6.6 mg/L	200
Nitrate - N	10 mg/L	30.2 mg/L	302
Uranium	30 mg/L/20 pCi/L	28.6 pCi/L	52

RMC 36



### Treatment Alternatives

	Adsorptive Media	Aeration/Stripping	Biological Filtration	Chemical Treatment	Chloramine	Chlorine	Chlorine Dioxide	Conventional Treatment	Direct Filtration	Electrodialysis	Granulated Activated Carbon	Ion Exchange	Membrane Filtration	Membrane Separation	Ozone	Permanganate	Powdered Activated Carbon	Precipitative Softening	Slow Sand Filtration	Ultraviolet Irradiation
Arsenic	++	+						++												
Fluoride	++		+	+																
Uranium	++							++			++	++								
Nitrate				+					++		++	++								

### Treatment Alternatives

	Adsorptive Media	Aeration/Stripping	Biological Filtration	Chemical Treatment	Chloramine	Chlorine	Chlorine Dioxide	Conventional Treatment	Direct Filtration	Electrodialysis	Granulated Activated Carbon	Ion Exchange	Membrane Filtration	Membrane Separation	Ozone	Permanganate	Powdered Activated Carbon	Precipitative Softening	Slow Sand Filtration	Ultraviolet Irradiation
Arsenic	++	+						++						++						
Fluoride	++		+	+										++						
Uranium	++							++			++	++		++						
Nitrate				+					++		++	++		++						

++ - Best Available Technology

- ### Step 4 – Data Gap Analysis
- #### Identified Data Gaps
- Exact location of wells (longitude/latitude or street address)
  - Volume of water being pumped and used
  - Water quality confirmation
  - System selection

- ### Step 5 – Monitoring Plan
- #### Outline of Monitoring Program
- Program development in progress
  - Using existing programs as basis:
    - CASGEM
    - Local agency monitoring programs
    - Other?
  - Combine existing water level monitoring with water quality monitoring
  - Ensure upload of water quality data to State database (GAMA-GeoTracker)

QUESTIONS??

- ### Integrated Flood Management
- *Purpose:* To develop multi-benefit flood control projects that also enhance water quality, habitat, and recharge
  - State's Flood Futures Report recently released
  - First workgroup meeting scheduled for Tuesday January 15th 1:-00-3:30 pm
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### Next Steps

- Begin preparing the Round 2-Proposition 84 Implementation Grant application
- Continue completing technical evaluations that will be included in the IRWM Plan Update
- Next Planning Partners Meeting – March 14<sup>th</sup>, 2013

*Thank you for participating!*

**[www.cvrwmg.org](http://www.cvrwmg.org)**