

Climate Change Analysis in IRWM Plans

- A Brief History of Climate Change Legislation Requirements in IRWM Plans
- IRWM Plan Standards and the Climate Change Handbook for Regional Planning
- Overview of IRWM Project Types Addressing Climate Change
- Example Projects



Background of IRWM Plan

- IRWM Planning Act of 2002 (SB1672 Costa)
 - Encouraged the formation of regions and the preparation of IRWM plans
 - Identified IRWM Plan Standards, but required DWR to fully develop
 - No funding or incentives provided
- IRWM Plans not mandated, but required to receive Implementation Grant Funds



History of IRWM Climate Change Legislation

- Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002
 - Authorized \$500M for IRWM Program
 - Program Guidelines established 15 IRWM Plan Standards
 - IRWM Plans were evaluated and scored as part of Implementation grant application reviews
 - “Plan” refers to an IRWM Plan or the collection of individual planning documents that function as an IRWM Plan or an Integrated Coastal Watershed (ICWM) Plan.
 - No specific mention of climate change requirements – but water supply, water quality, infrastructure and DAC goals address climate change



History of IRWM Climate Change Legislation

- Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 – ***climate change requirements specified***
 - Authorized \$1B for IRWM Program
 - \$30M for IRWM Plan development
 - SB 2x-1 (Perata), 2008
 - Repealed and replaced IRWM Planning Act of 2002
 - Revised existing and added IRWM Plan Standard (16 Total)
 - DWR updated IRWM Guidelines in 2010 and 2012
 - 2010 Guidelines required IRWM plans to include a preliminary analysis of the effects on the region due to climate change
 - 2012 Guidelines required Climate Change Vulnerability Assessment



History of IRWM Climate Change Legislation

- Proposition 1, The Water Quality, Supply, and Infrastructure Improvement Act of 2014
 - Authorized \$510M for IRWM Program
 - IRWM 2016 Plan Standards: Updates to 2012 IRWM Plan Standards
 - Requires IRWM plans to address climate change adaption and mitigation
 - Affects eight of 16 Plan Standards
- Region Description
- Plan Objectives
- Resource Management Strategies (RMS)
- Project Review Process
- Plan Performance and Monitoring
- Local Water Planning
- Local Land Use Planning
- Stakeholder Involvement
- Climate Change



IRWM Plan Standards Addressing Climate Change Handbook Requirements

- Climate Change
 - At a minimum, the vulnerability evaluation must be equivalent to the vulnerability assessment contained in the Climate Change Handbook for Regional Water Planning, Section 4 and Appendix B (Vulnerability Assessment Checklist)
 - A list of prioritized vulnerabilities, based on the vulnerability assessment and the IRWM's decision making process, which includes a determination regarding the feasibility for the RWMG to address the priority vulnerabilities
- Region Description
 - Describe likely climate change impacts as determined by the Vulnerability Assessment in the Region Description
- Resource Management Strategies
 - Demonstrate how the effects of climate change on its region are factored into your region's RMS



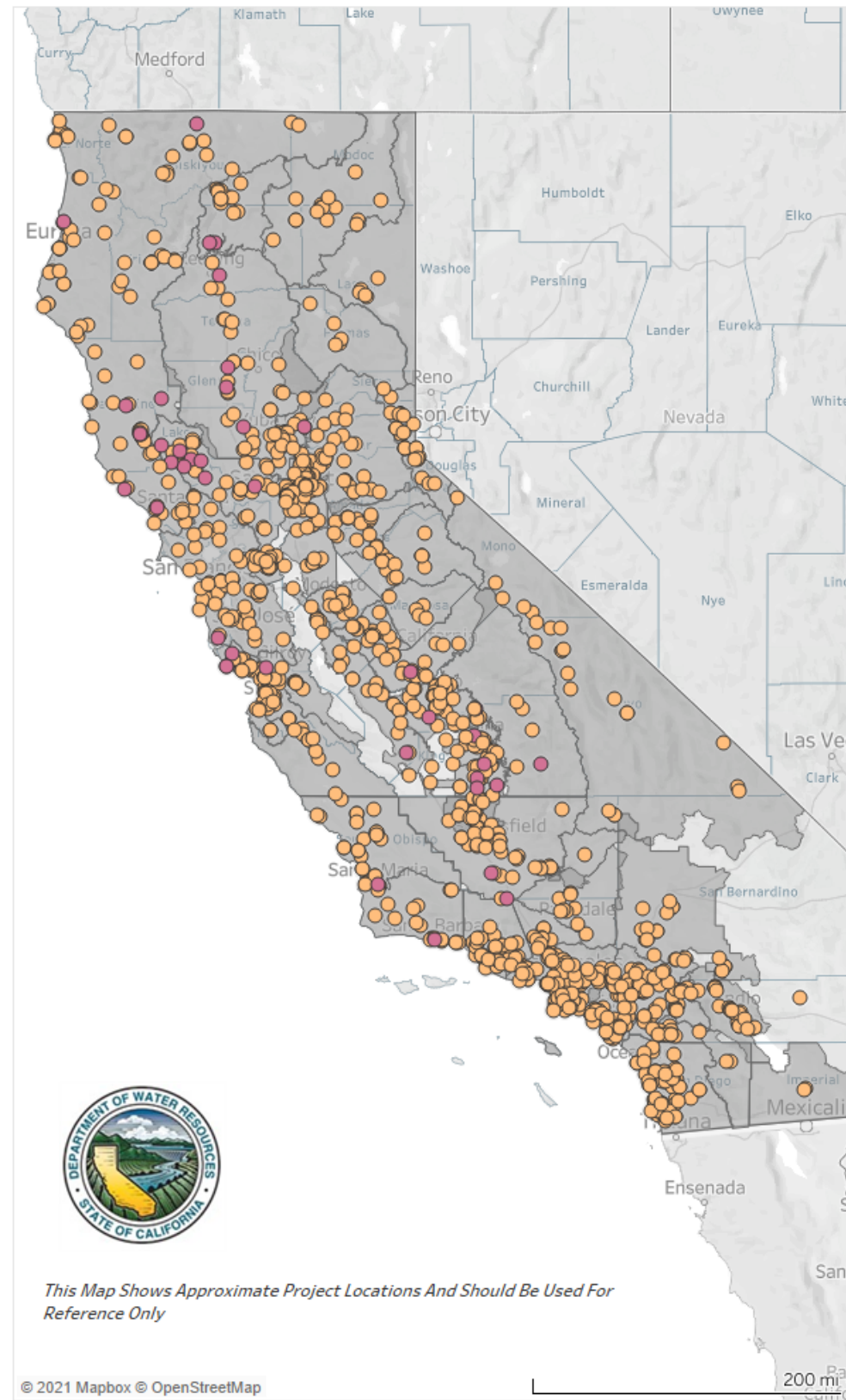
Overview of IRWM Project Types and Relation to Climate Change

- Groundwater or Surface Water Projects that Reduce Demand or Increase Supply
- Reducing Water Demand to Increase Supply
- Flood Projects - Address Flashy Floods and Provide Other Benefits
- Stormwater Capture Projects to Increase Water Supply and/or Reduce Flooding
- Habitat Restoration
- DAC and Tribal Outreach



Tableau Presentation for Project Types – I will do this interactively

Funded Project Locations



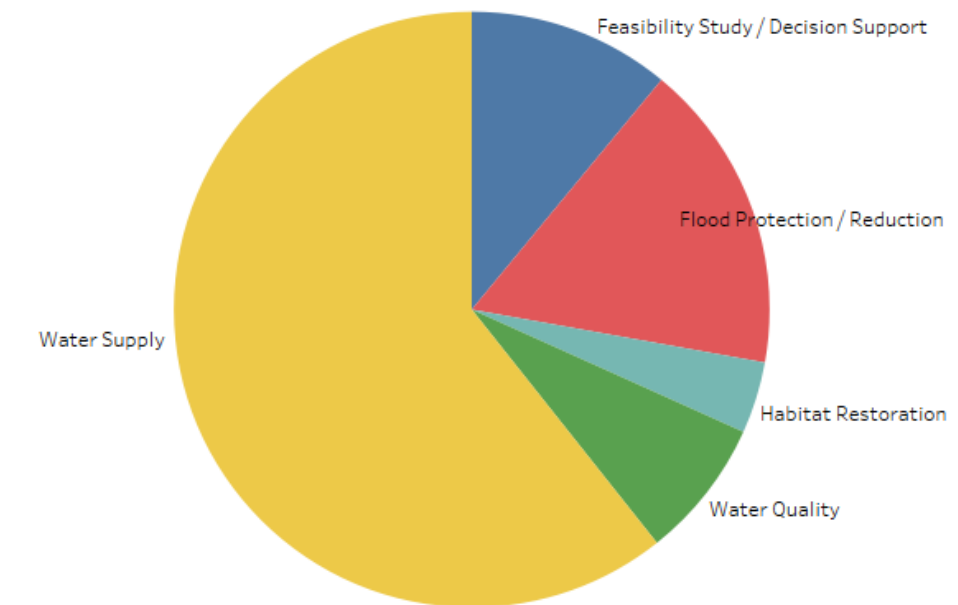
Project Information

IRWM Region	Program	P1 Funding Area	IRWM Region	Project	Project Type	Primary Benef..	Implementing ..	CA SD	CA AD	Funding Amou..	Total Project C..		
(All)	Prop 84 Impl R1	Tulare Lake	Kings Basin Water Authority	South and Highland..	Infrastructure -..	Water Supply	Consolidated I..	12	31	\$3,804,300	\$3,995,300		
(All)	(All)	(All)	(All)	Surface Water Trea..	Infrastructure -..	Water Supply	Clovis, City of	08	23	\$3,000,000	\$4,337,950		
(All)	(All)	(All)	(All)	Upper Kings Basin: ..	Conservation -..	Water Supply	Fresno, Count..	14	31	\$1,435,610	\$6,815,000		
(All)	(All)	(All)	(All)	Upper Kings Basin: ..	Feasibility Stu..	Water Quality	Fresno, Count..	14	31	\$119,090	\$119,090		
(All)	(All)	(All)	(All)	Upper Kings Basin: ..	Infrastructure -..	Water Supply	East Orosi Co..	14	23	\$137,000	\$137,000		
(All)	(All)	(All)	(All)	Poso Creek: Consoli..	Infrastructure -..	Water Supply	Shafter, City of	14	32	\$431,344	\$461,344		
(All)	(All)	(All)	(All)	Poso Creek: DAC Fu..	Feasibility Stu..	Water Quality	Allensworth C..	14	32	\$50,000	\$50,000		
(All)	(All)	(All)	(All)	Poso Creek: DAC Fu..	Planning	Water Quality	Self Help Ente..	14	32	\$75,000	\$75,000		
(All)	(All)	(All)	(All)	Poso Creek: Habitat..	Watershed	Habitat Resto..	Semitropic WS..	14	32	\$37,300	\$75,000		
(All)	(All)	(All)	(All)	Poso Creek: Meter I..	Conservation -..	Water Supply	Shafter, City of	14	32	\$174,856	\$224,956		
(All)	(All)	(All)	(All)	Poso Creek: North S..	Infrastructure -..	Water Quality	North Kern Wa..	14	32	\$481,900	\$504,900		
(All)	(All)	(All)	(All)	Poso Creek: On-Far..	Conservation -..	Water Supply	North West Ke..	14	32	\$82,400	\$236,400		
(All)	Prop 84 Impl R2	Central Coast	Pajaro River Watershed	Pajaro River Water..	Infrastructure -..	Water Supply	Pajaro Sunny ..	12	30	\$1,770,000	\$1,770,000		
(All)	(All)	(All)	(All)	Pajaro River Water..	Infrastructure -..	Water Supply	San Benito Co..	12	30	\$4,102,000	\$31,701,984		
(All)	(All)	(All)	(All)	Pajaro River Water..	Infrastructure -..	Water Supply	Pajaro Valley ..	12	30	\$903,000	\$5,618,018		
(All)	(All)	(All)	(All)	Pajaro River Water..	Watershed	Water Supply	Resource Cons..	04	03	\$425,000	\$495,000		
(All)	(All)	(All)	(All)	Colorado River	Coachella Valley	Coachella Valley: Gr..	Infrastructure -..	Water Quality	Mission Sprin..	28	56	\$1,845,000	\$3,825,952
(All)	(All)	(All)	(All)	Coachella Valley: N..	Infrastructure -..	Water Supply	Coachella Vall..	28	42	\$1,950,000	\$3,030,478		
(All)	(All)	(All)	(All)	Coachella Valley: S..	Infrastructure -..	Water Quality	Pueblo Unido ..	28	56	\$740,000	\$3,550,612		
(All)	(All)	(All)	(All)	Coachella Valley: T..	Infrastructure -..	Water Supply	Torres-Martin..	28	56	\$155,000	\$238,269		
(All)	(All)	(All)	(All)	Mojave	Mojave: Victor Vall..	Infrastructure -..	Water Supply	Victor Valley ..	21	33	\$3,000,000	\$72,886,702	
(All)	(All)	(All)	(All)	Los Angeles	Greater Los Angeles County	Greater Los Angele..	Stormwater M..	Water Quality	Calabasa, City ..	27	45	\$1,180,725	\$1,505,500
(All)	(All)	(All)	(All)	Greater Los Angele..	Stormwater M..	Water Quality	Carson, City of	35	64	\$877,323	\$1,932,500		
(All)	(All)	(All)	(All)	Greater Los Angele..	Infrastructure -..	Water Supply	Los Angeles Co..	33	70	\$2,000,000	\$2,851,009		
(All)	(All)	(All)	(All)	Greater Los Angele..	Watershed	Habitat Resto..	Mountains Re..	24	51	\$1,309,077	\$5,243,857		
(All)	(All)	(All)	(All)	Greater Los Angele..	Stormwater M..	Flood Protecti..	Los Angeles Co..	26	62	\$1,500,000	\$10,864,739		

Drought Program Funding Dashboard: https://tableau.ca.gov/#/site/DWR_IntegratedD..

Feasibility Study / Decision Support	\$251,115,575	280
Flood Protection / Reduction	\$385,770,477	92
Habitat Restoration	\$88,932,226	106
Water Quality	\$173,819,859	160
Water Supply	\$1,387,292,675	825

Funding Amounts by Primary Benefit



Example Projects

- To Be Determined – as time allows



Comments or Questions?

**Ted Daum, Division of Regional Assistance Financial Assistance Branch:
Theodore.Daum@water.ca.gov**

