



# DWR CCTAG Scenarios Subgroup Meeting



August 15, 2014

**California Department of Water Resources  
Climate Change Technical Advisory Subgroup Meeting**

**August 15, 2014**

**9:30 am-12:00 pm**

**DWR Creekside Conf Room, 2<sup>nd</sup> floor, Bonderson**

<https://resources.webex.com/resources/j.php?ED=229264172&UID=491358787&RT=MiM0>

Provide your phone number when you join the meeting to receive  
a call back. Alternatively, you can call:

Call-in toll-free number (Verizon): 1-877-923-1522 (US)

Host access code: 679 474 0

Attendee access code: 295 056 7

**AGENDA:**

**Recommendations Report, due end of 2014**

**Review Draft Recommendations Report Outline (dates/ teams/ process) (EL)**

**Discuss/Review list of DWR programs that use climate projections (AS)**

**Discuss progress on Chapter 2- Model Selection (DC)**

**Continue discussions on extreme scenarios/stress test content**

**Continue downscaling discussions (Mike and Lev)**

**Begin discussions on emissions scenarios (RCP) recommendations (AS)**

**Follow up on Decision Scaling presentation and approach (AS)**

<b>Quick Glance Topic Teams CCTAG Recommendations to DWR</b>	<b>Workteam</b>
Section	
<b>1) Background, Purpose, and Need</b>	Schwarz, Young, Kosta, Holly, Guido, Dan, Mike D., Mike A.
<b>2) Model Selection</b>	Dan C, Jamie A, Schwarz, Kosta, Wang, Correa, Gautam, Gyakum
<b>3) Extreme Scenarios (Drought and Flood)</b>	Co-Leads: D Curtis & M Anderson. R Langridge, J Gyakum, K Redmond, M Dettinger (and Schwarz and Juricich for DWR)
<b>4) Downscaling</b>	Dettinger, Kavvas, Guido, Schwarz, Jamie A.
<b>5) Guidance for Applications</b>	CCTAG Lead - Kosta, Sarah, Mike D., Ruth
<b>6) Recommendations for future investigations and improvements</b>	CCTAG Lead - Kosta, Sarah, Mike D. Lev, Holly. <i>Probably all CCTAG members should edit/review.</i>

# DWR Lead Programs Using Climate Change Projections

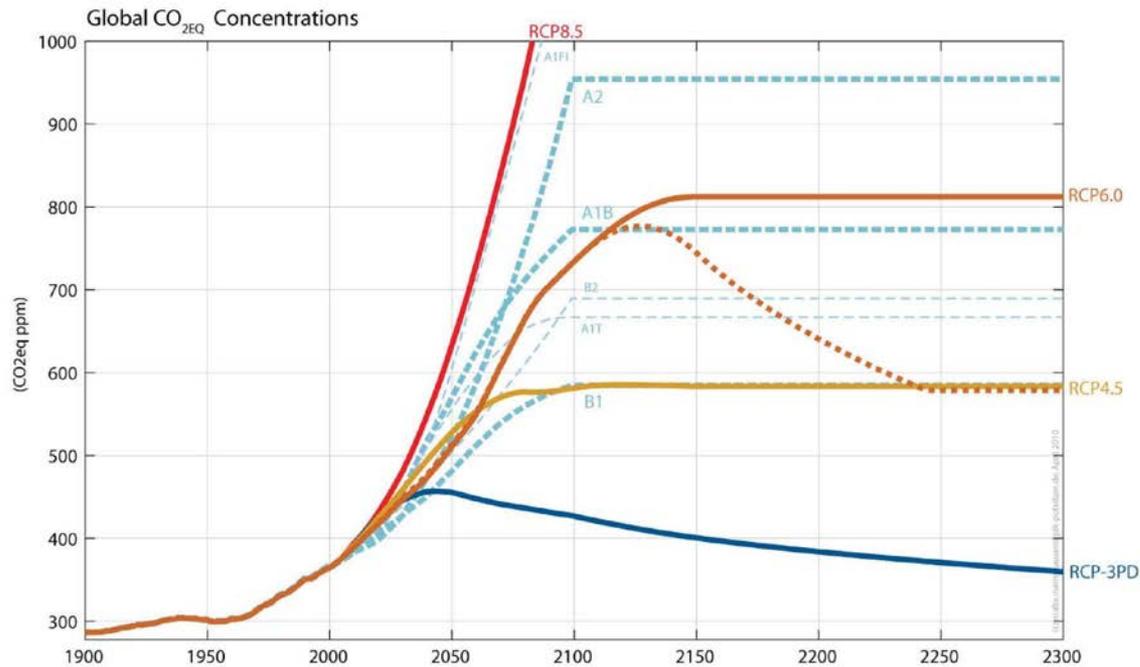
Program	Periodicity	Capability/Applicability of Conducting General Climate Change Impacts Analysis
California Water Plan Update	5-years	Wide capability and applicability, but results must be communicated on a statewide and regional basis
Periodic Climate Change specific studies	Varies	Wide capability and applicability
Environmental Impacts Analysis under CEQA*	None	Limited capability, large projects may evaluate reasonably expected future condtions.
SWP Delivery Reliability Report	2-years	Wide capability and applicability
Environmental Impacts Analysis under FERC Relicensing	50-years	Limited, this type of analysis is not explicitly required by FERC
Environmental Impacts Analysis for Project Operations (SWP and CVP)	None	Moderate capability, past analysis have explored a limited selection of scenarios

## Programs With Strong DWR Influence but no Direct Control

Program	Periodicity	Capability/Applicability of Conducting General Climate Change Impacts Analysis
Central Valley Flood Protection Planning	5-years	Limited applicability, flood protection vulnerabilities and impacts are predominantly driven by extreme events
Urban Water Management Planning	5-years	Limited, this type of analysis is not explicitly required of UWMP
Agricultural Water Management Planning	5-years	Required to “include an analysis, based upon available information, of the effect of climate change on future water supplies” ([Water Code §10826 (c)]). Interpretation of this requirement left to DWR and AWMP groups. Capacity to conduct analysis varies between AWMPs.
Integrated Regional Water Management Planning	Varies- Depends on Funding cycles	Required to evaluate "the adaptability to climate change of water management systems in the region". Interpretation of this requirement left to DWR and RWMGs. Capacity to conduct analysis varies between RWMGs.
Regional Flood Management Planning	No requirement	Limited, this type of analysis is not a focus of the funding
Groundwater Management Planning	No requirement	Limited, this type of analysis is required in legislation and not a focus of the funding

# CCTAG Recommendations on *Emissions Scenarios*

## CO<sub>2</sub>-eq Concentrations for the RCPs



From Malte Meinshausen

# Decision Scaling Approach

presented by Dr. Casey Brown (UMass)

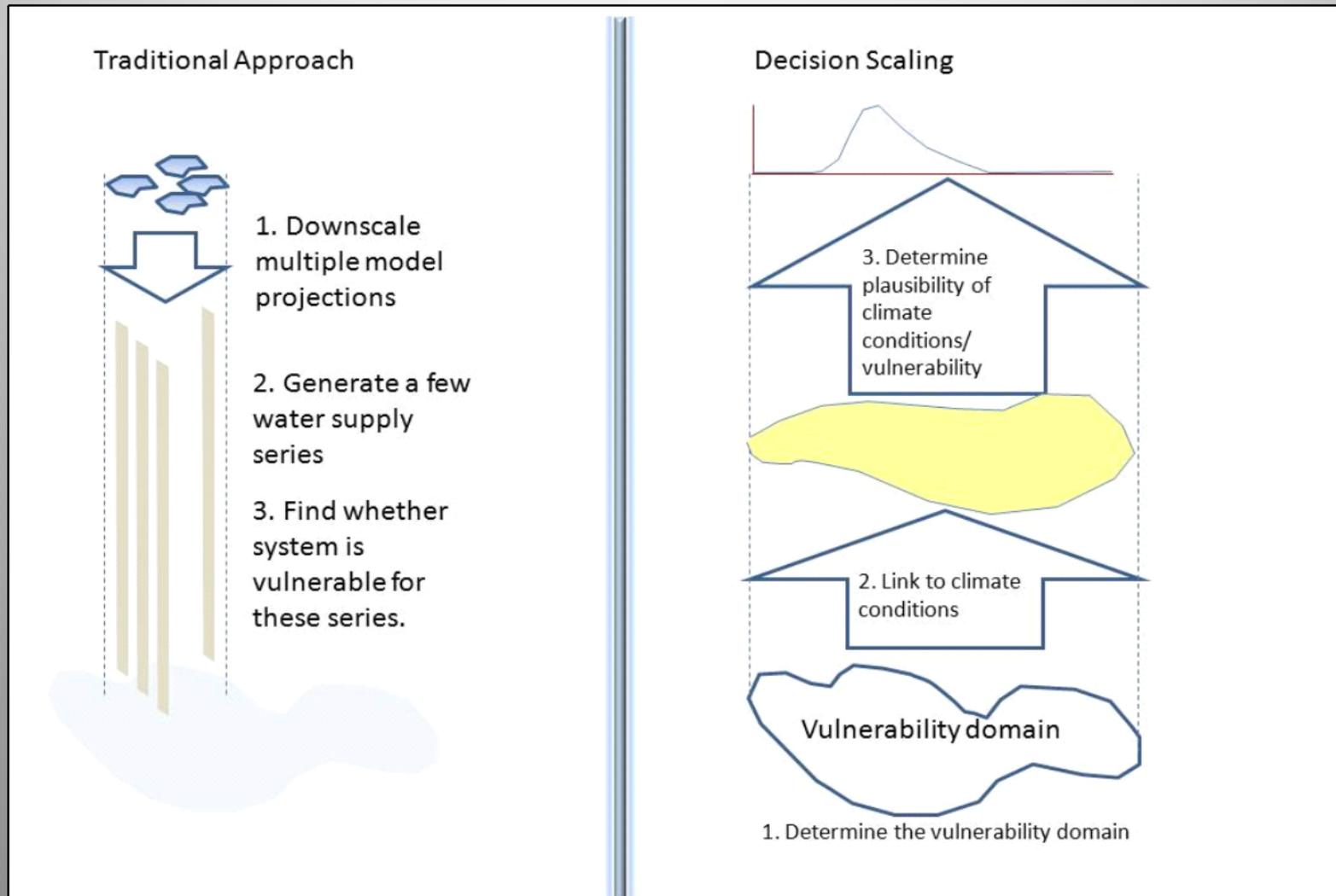


Figure 1 Steps in decision scaling vs. traditional approach

# Decision-Scaling

GCM Projections

3. Evaluate climate informed risk scenarios



2. Identify Climate Hazards  
"Stress Test"



1. Stakeholder defined Risks



*Do projections indicate these conditions are likely?*

*Are projections credible in simulating these conditions?*

*How robust is the system?*

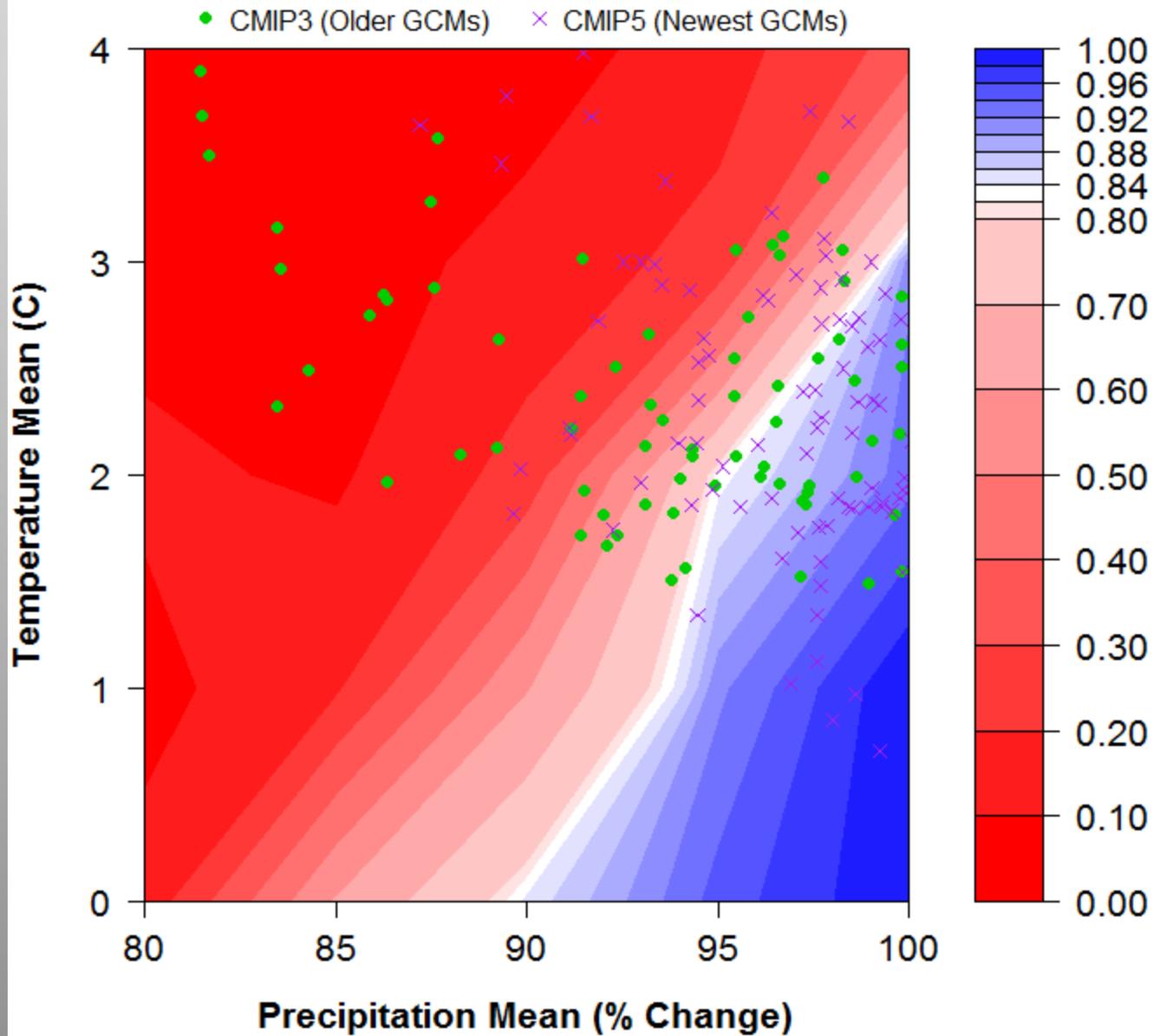
*What are the relative effects of climate and non-climate factors?*

*What level of performance is needed?*

*What are non-climate factors that are also important?*

*What are current climate/weather effects?*

# Colorado Springs (USAFA) Water Assessment



# THANK YOU!

Next Subgroup **September 19<sup>th</sup>**

Next Full CCTAG **November (TBD)**

