

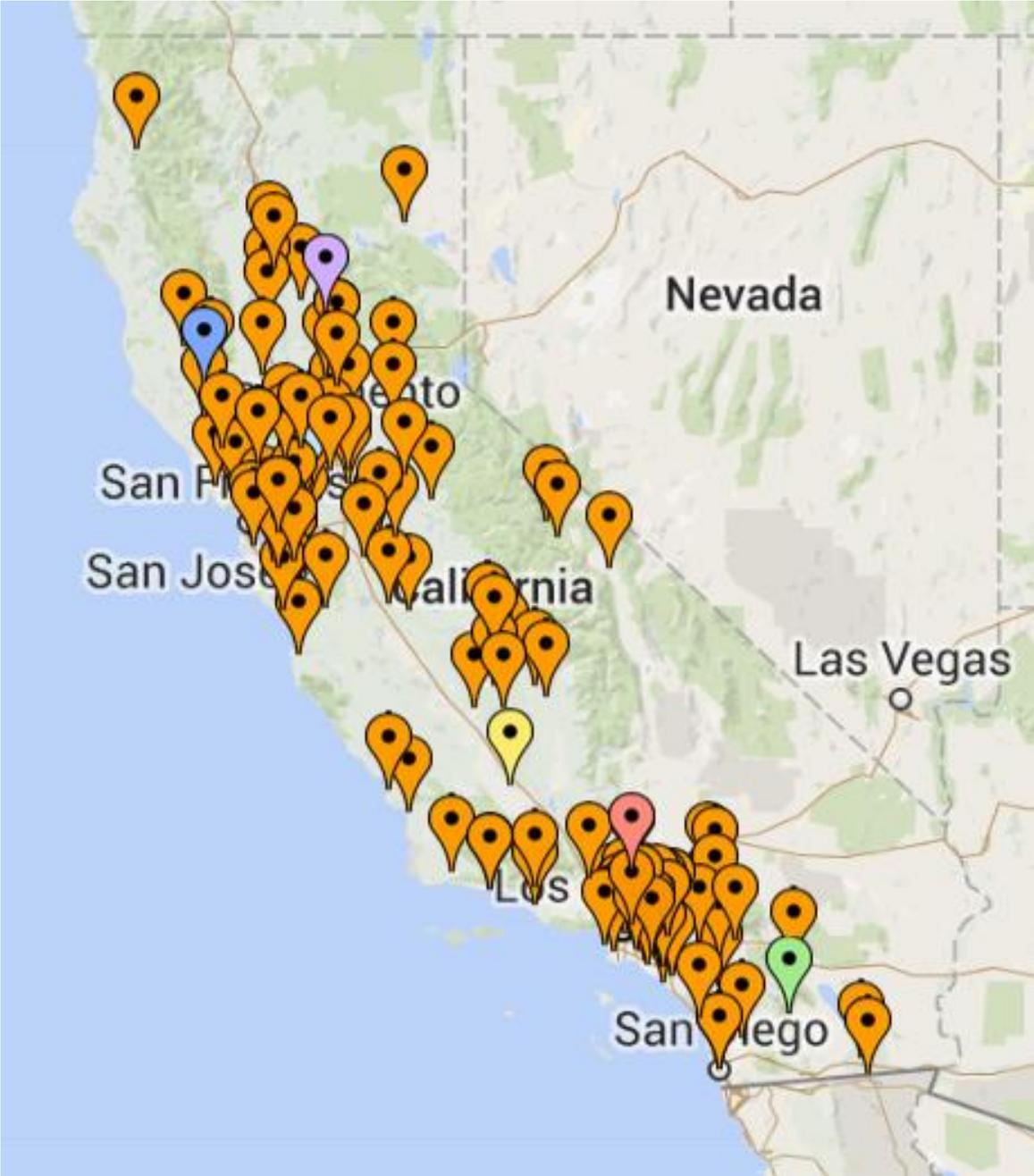
Data And Analysis Survey Results

Summer 2014

- Identify how DWR can better support water agencies and IRWM regions and provide needed technical assistance to facilitate efficient data sharing, data management, and analysis;
- Identify commonalities among agencies in terms of collection of information and use of tools/models, and processes, including long-term data management trends and synergies;
- Share information with stakeholders as they help formulate long-term statewide strategic goals and actions for data collection, management and analysis to minimize costs and advance local water management and IRWM.

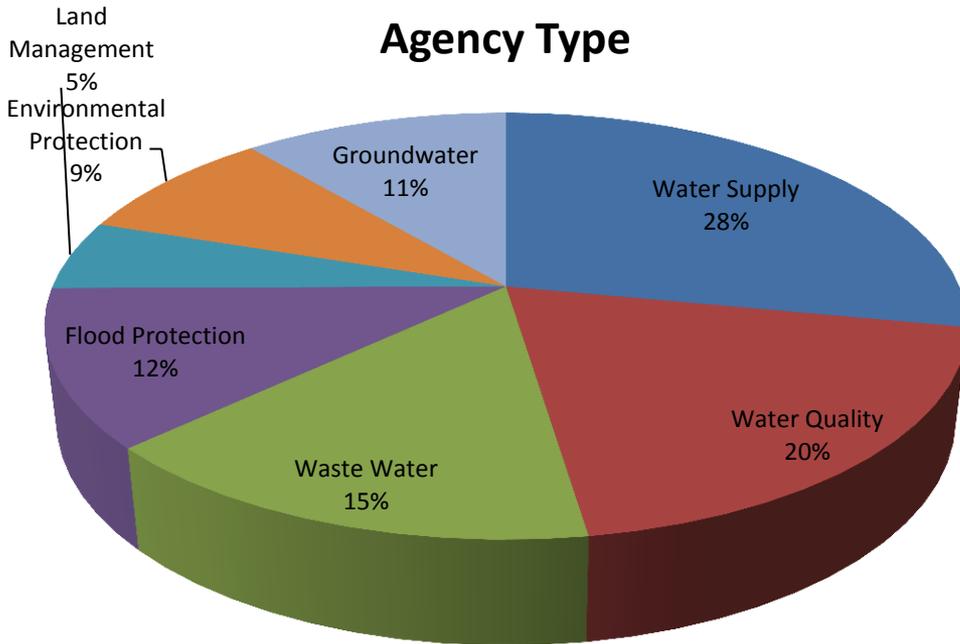
Who Took The Survey?

Geographic Distribution of 144 Respondents

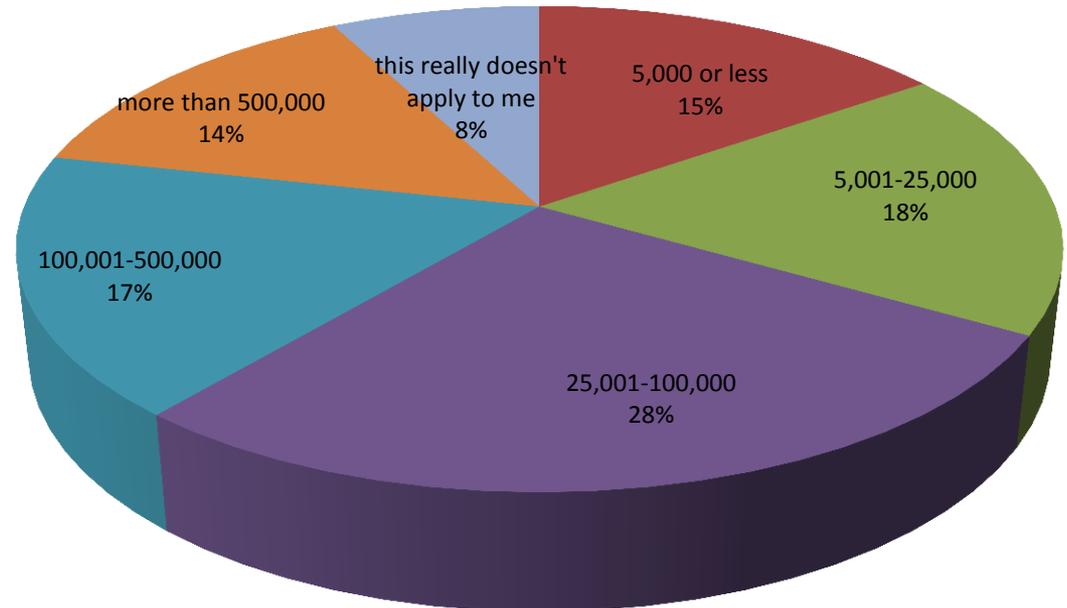


Who Took The Survey?

Agency Type



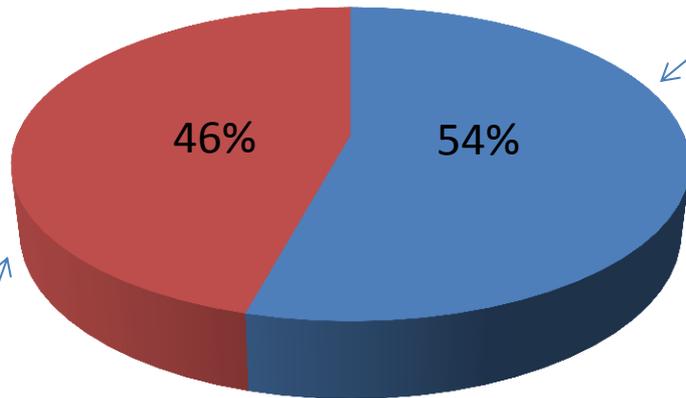
Agency Size (customers)



Data And Models Used By Survey Takers

Is the agency using a data management system to report, store or manage water resources data in your region?

- Have or Use a Data Management System
- Don't Have or Use a Data management System

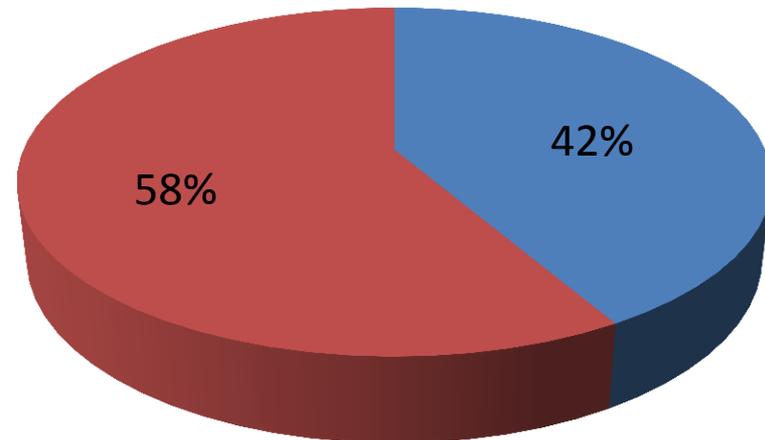


88% of these respondents participate in an IRWM

66% of these respondents participate in an IRWM

Is the agency using any model(s) for conduct water resources management/analysis?

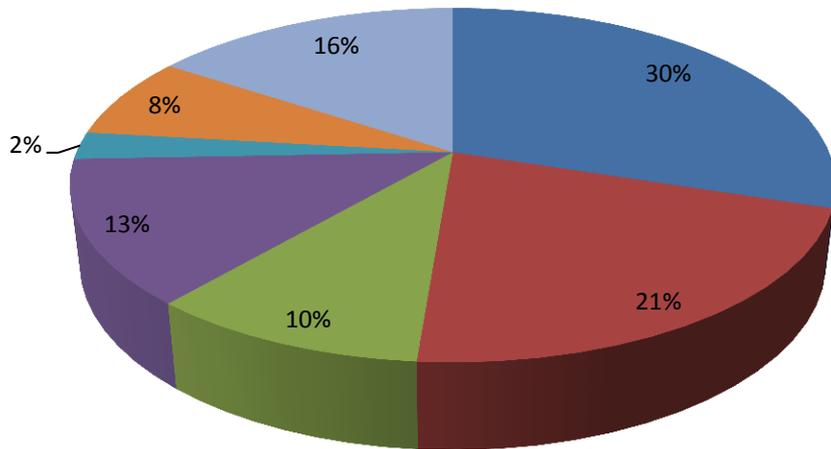
- Using a Model for Management or Analysis
- Not using a Model for Management or Analysis



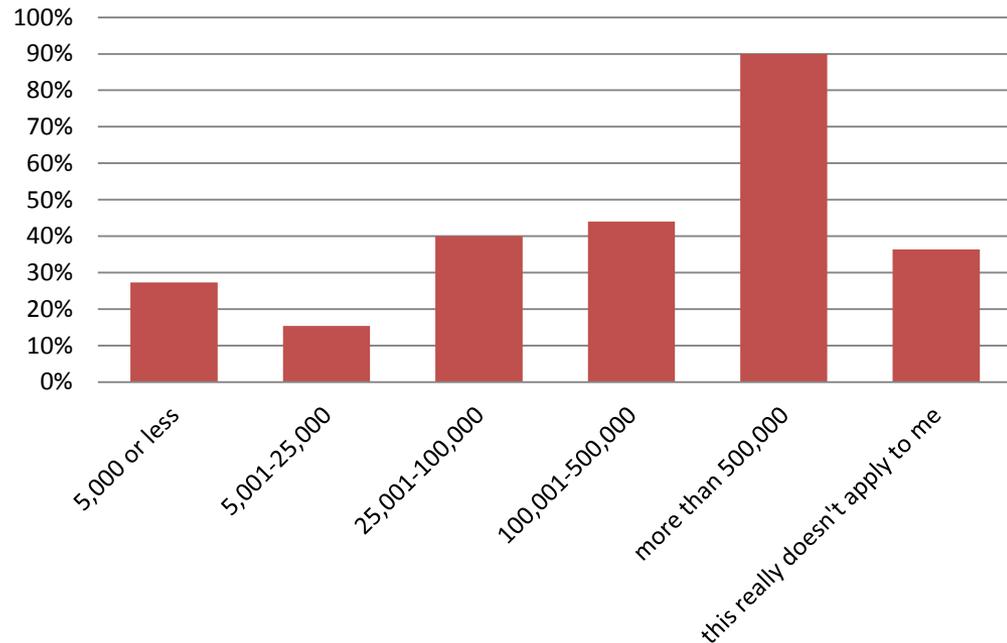
Data And Models Used By Survey Takers

Using Models: Agency Type

- Water Supply
- Water Quality
- Waste Water
- Flood Protection
- Land Management
- Environmental Protection
- Groundwater



Percent Using Models by Agency Size



Capacity, Interest, and Need

Current Capacity for Performing Climate Change Analysis(110 responses)

No Capacity	65	59%
Not Much Capacity	28	25%
Some Capacity	14	13%
High Capacity	3	3%

Interest/Need for additional Technical Assistance: Climate change analysis (109 responses)

High need	24	22%
some need	43	39%
not much need	20	18%
no need	22	20%

What types of models or decision tools would be most useful for your planning and management decision making but for which you have not yet been able to undertake? (108 responses)

Water budget	46	43%
Sea level rise analysis	19	18%
Climate change impact assessment	61	56%
Groundwater analysis	68	63%
Updates to existing tools listed above	26	24%

What Models Are Water Agencies Using?

Models Used					
1	An agency developed model	19	HEC-RAS	37	RMA2
2	BASINS	20	IDC	38	RMP Nutrients modeling
3	Brently WaterCAD	21	IGSM	39	Groundwater Model
4	C2VSim	22	infosewer	40	seawater intrusion modeling
5	CalLite	23	infowater	41	Spreadsheet WR Model
6	CALSIM-II	24	Innowyze H2OMAP	42	SSTEMP
7	CVHM	25	IWFM	43	Supply/cost management
8	DSM2	26	Load Simulation Program in C++	44	SWAP
9	EFDC	27	Local Groundwater Modeling	45	SWAT
10	EPA Stmwater calc	28	MIKE	46	SWMM
11	F-CO	29	MODFLOW	47	Water balance
12	Flo-2D	30	MT3D	48	water distribution system model
13	Flow2D	31	Petrel & STELLA	49	WEAP
14	GeoRAS	32	PHABSIM	50	WMMS
15	GSFLOW	33	PRMS	51	WQX
16	H2O Net	34	Regression analysis	52	XPStorm
17	HEC_ResSim	35	RiskSolver		
18	HEC-HMS	36	RiverWare (hydrologic modeling)		

Conclusions

- Many water agencies have a basic need for assistance just to be able to manage data and model current conditions
- Water agencies are concerned about climate change and see it as a high priority area of interest (2nd only to Groundwater)
- 84% of water agencies have little or no capacity to perform climate change analysis
- There are a very wide range of technical tools being used by agencies, developing the right information at the right scale and scope will be a challenge