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Sharing One Vision: Building Wholesaler and Retailer Partnerships

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Outline

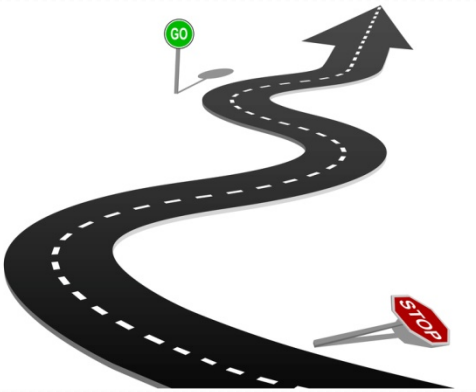
- Background and Stakeholders
- Project History
- Modeling
- Project Findings
- Lessons Learned

Background

- Previous Santa Clarita Valley Water Use Efficiency Strategic Plan (SCV WUE SP) adopted in 2009
- Previous SCV WUE SP outlined key programs:
  - Residential Landscape Program (WBICs)
  - Large Landscape Program
  - Commercial, Institutional, and Industrial Program
  - High-Efficiency Washing Machine Program
  - Cash for Grass
  - Social Marketing Campaign
- Previous SCV WUE SP relied heavily on development to meet 10% by 2030
- RFP issued for a consultant to write a plan and create an interactive (Excel-based) model for SCV WUE SP
  - Maddaus Water Management selected

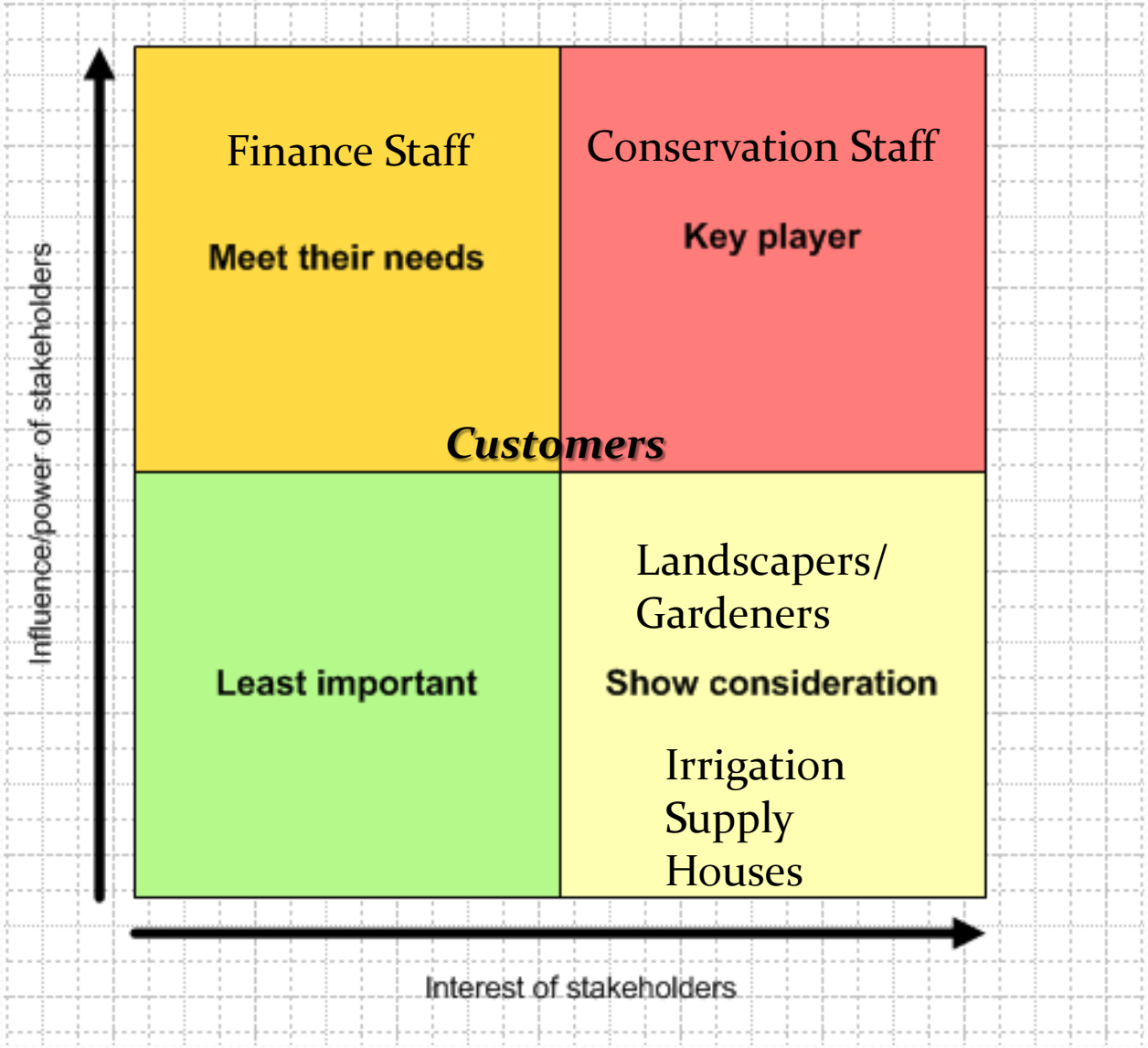
SCV WUE SP Update Project Goals

- Develop a roadmap to meet SB X7-7 Targets
- Create five Decision Support System (DSS) Models
  - Quantify future water savings
  - Quantify the cost to achieve estimated savings
  - Present “cost effectiveness” results
- Each retailer DSS model includes both CLWA and individual retailer measures
- Roll-up model allows all the retailers to be viewed together along with CLWA measures



Stakeholder Analysis

- Who are the relevant stakeholders?
  - External (customers, business owners, large users, City of Santa Clarita/County of Los Angeles planners, City Landscape Management Districts)
  - Internal (Retailers, elected board members, managers, customer service, finance, conservation staff)
- What are the interests of each stakeholder?
- What is the power of each stakeholder?
- How are coalitions likely to form?
  - by common interests
  - frequently dynamic


Finance Staff
Meet their needs
Conservation Staff
Key player
Customers
Least important
Landscapers/
Gardeners
Show consideration
Irrigation
Supply
Houses
Influence/power of stakeholders
Interest of stakeholders

SCV WUE SP Original Plan

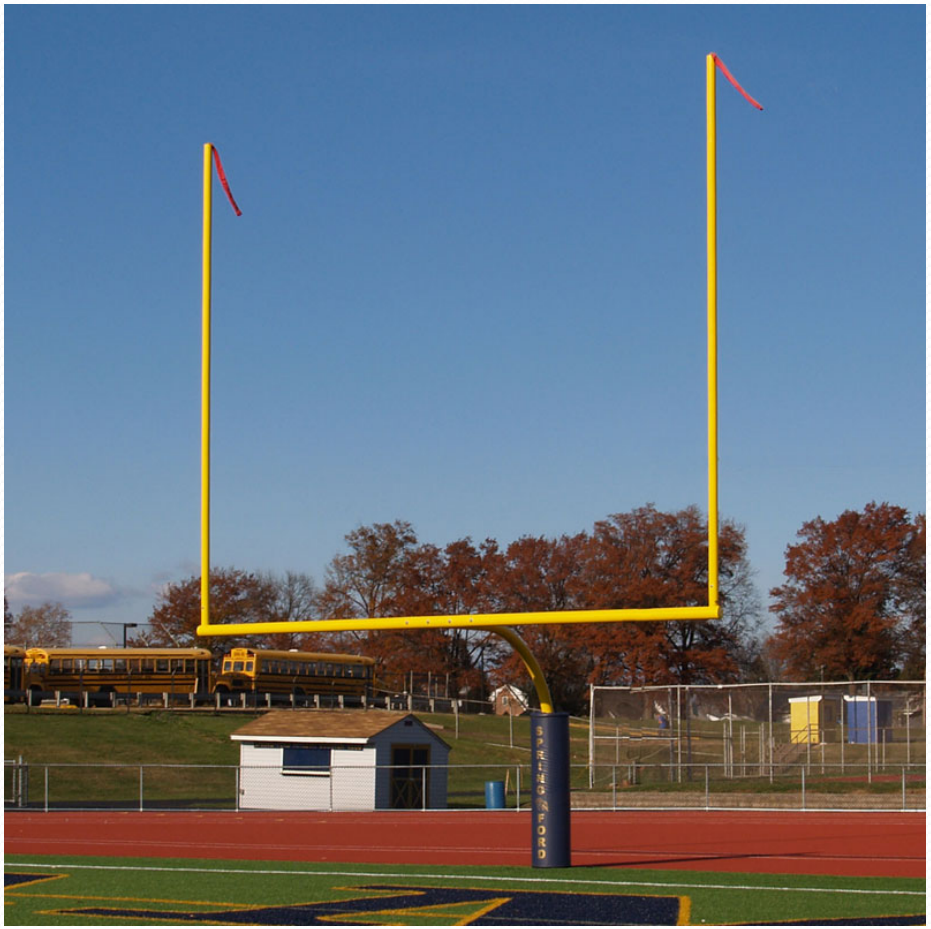
- WUE Strategic Plan Update Project (12 months)
  - Review demand forecasts and SB X7-7 GPCD Targets
  - Assess existing and new conservation measures
  - Analyze cost effectiveness using model
  - Release new plan

Population Questioned

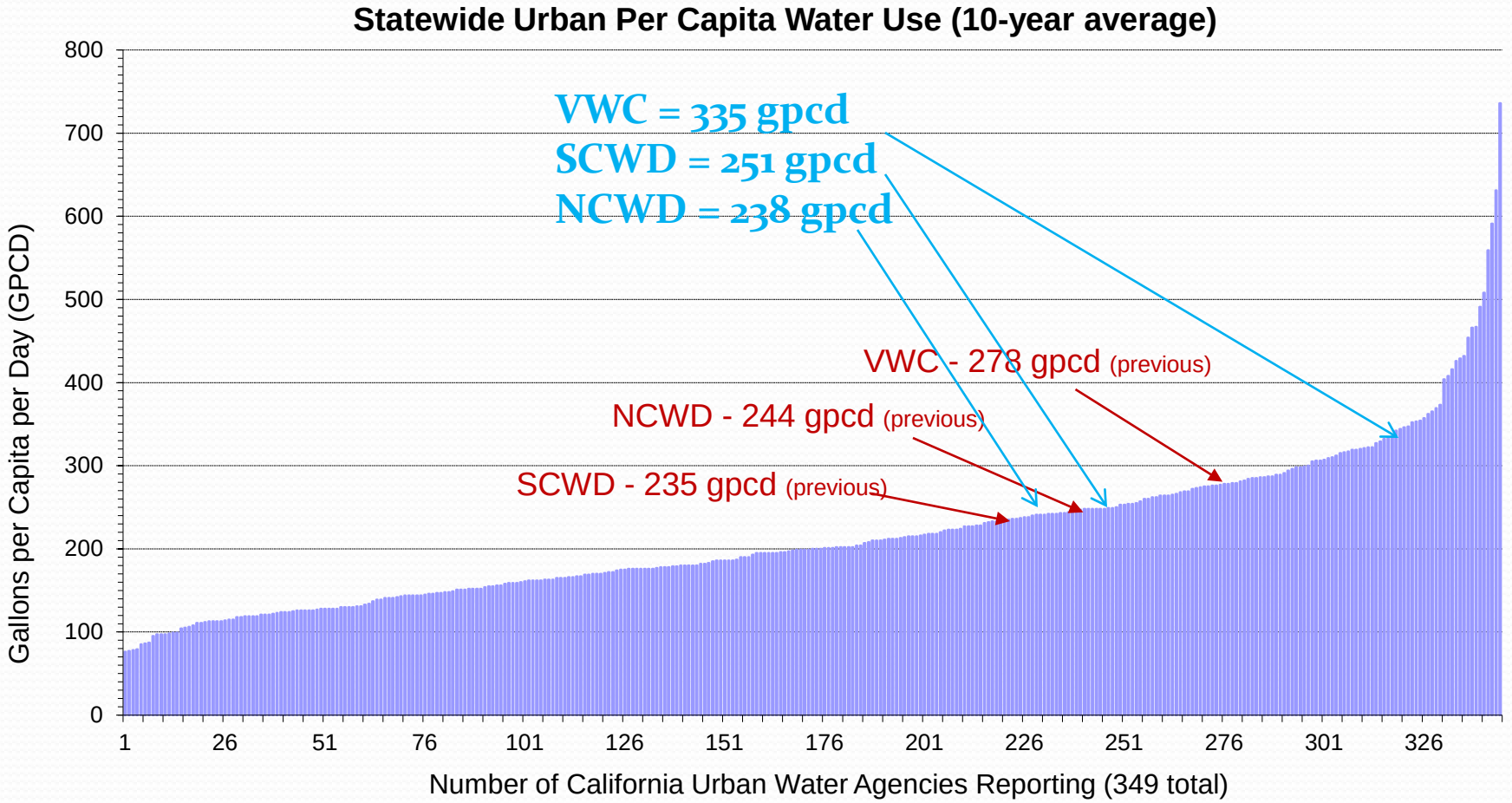
- ✓ Gallons per capita per day (gpcd) targets are based on historical population and production
  - Data for population, production and dwelling units changed

- ✓ Population was the basis for the demand forecasts
  - One Valley, One Vision Plan (transportation GIS model)
  - 2010 UWMP demand forecasts were high
  - Demand forecasts are basis for DSS Model water balance

Moving the Two Most Fundamental Assumptions on WUE Planning Effort



2010 UWMP & Updated Per Capita SB X7-7 Targets



Source: Department of Water Resources, 2012

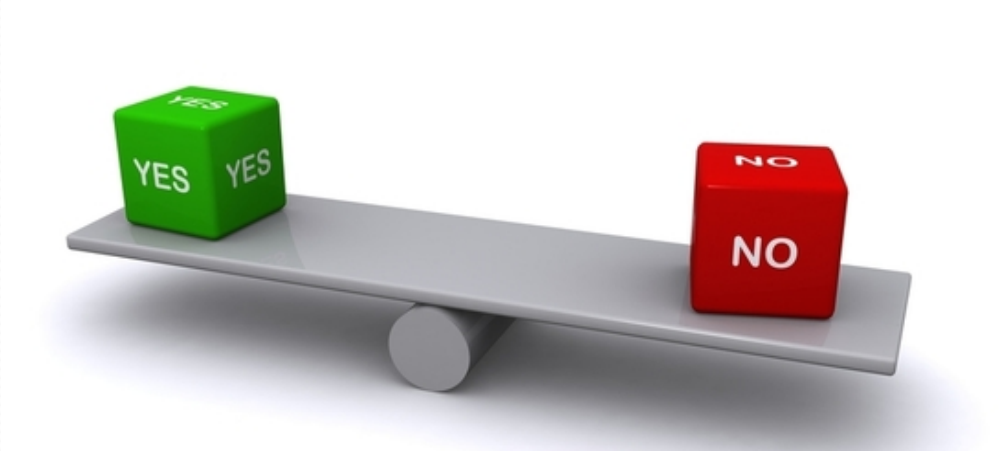
Actual GPCD Also Influenced by Dynamic Pressures

Down

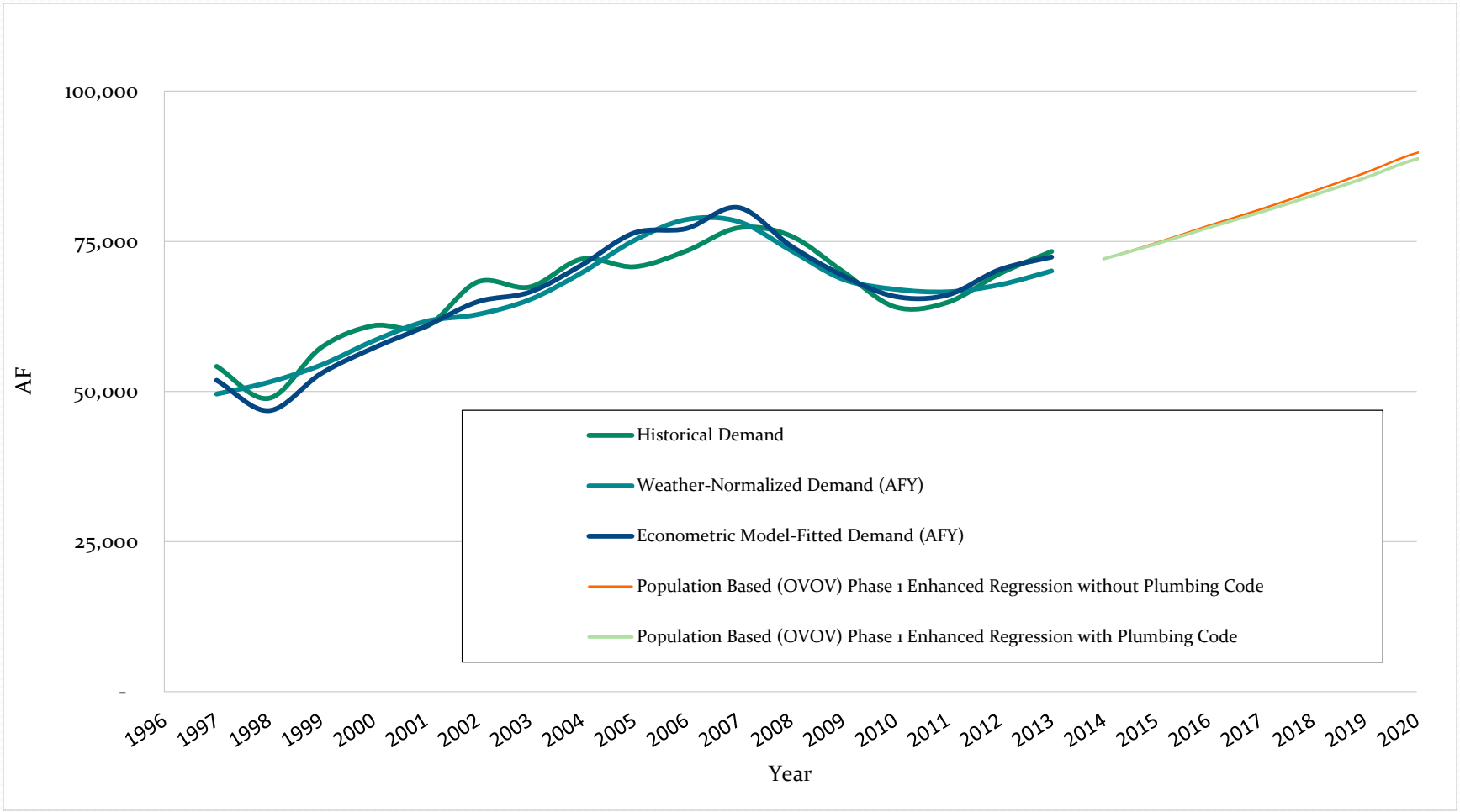
- **Wet Year**
- **Bad Economy**
- **Price**
- **Drought**
- **Conservation**

Up

- **Dry Year**
- **Good Economy**
- **Tourism**
- **New Employment without residents**



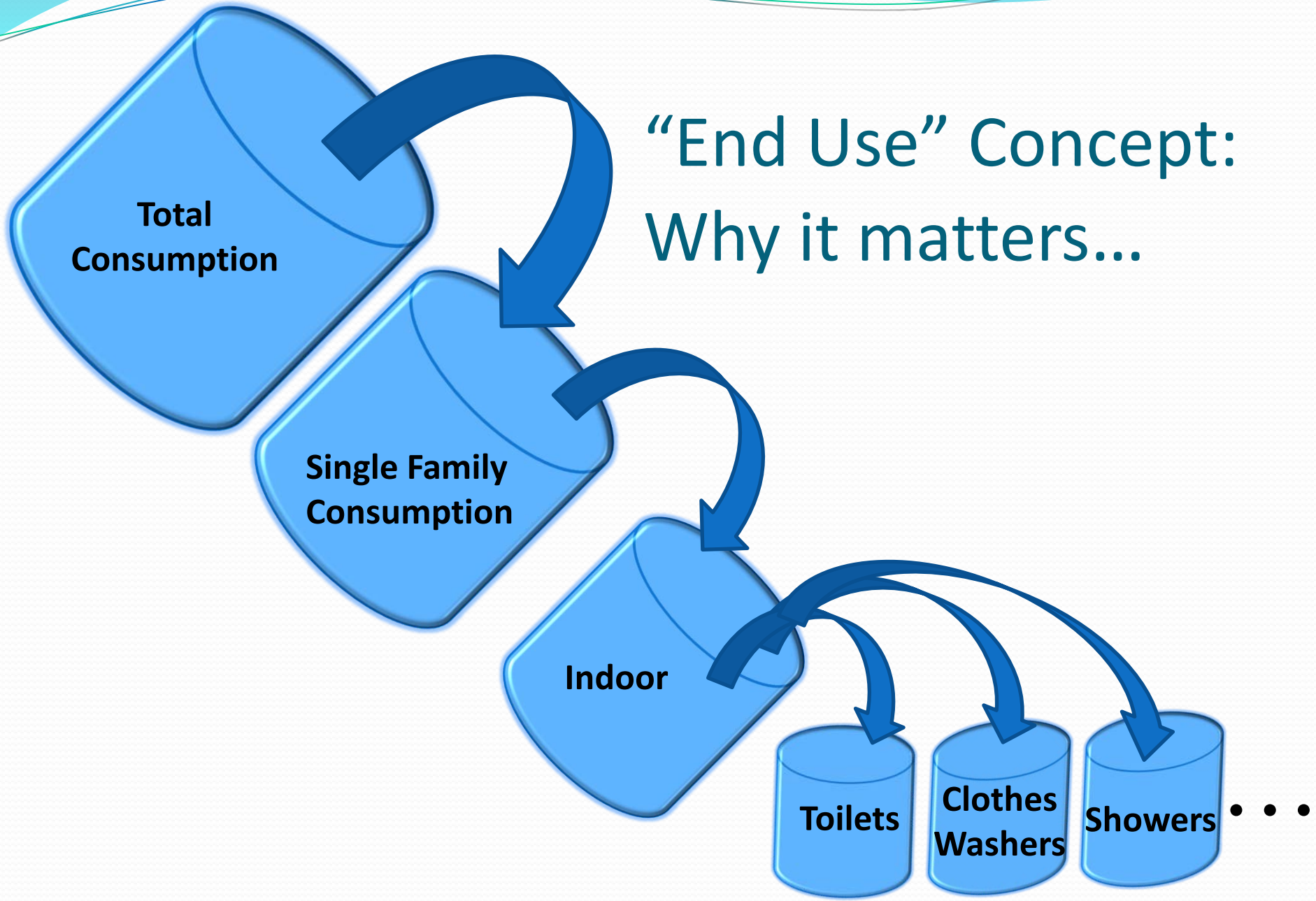
Valley-wide Proposed Demand Forecast (AFY)



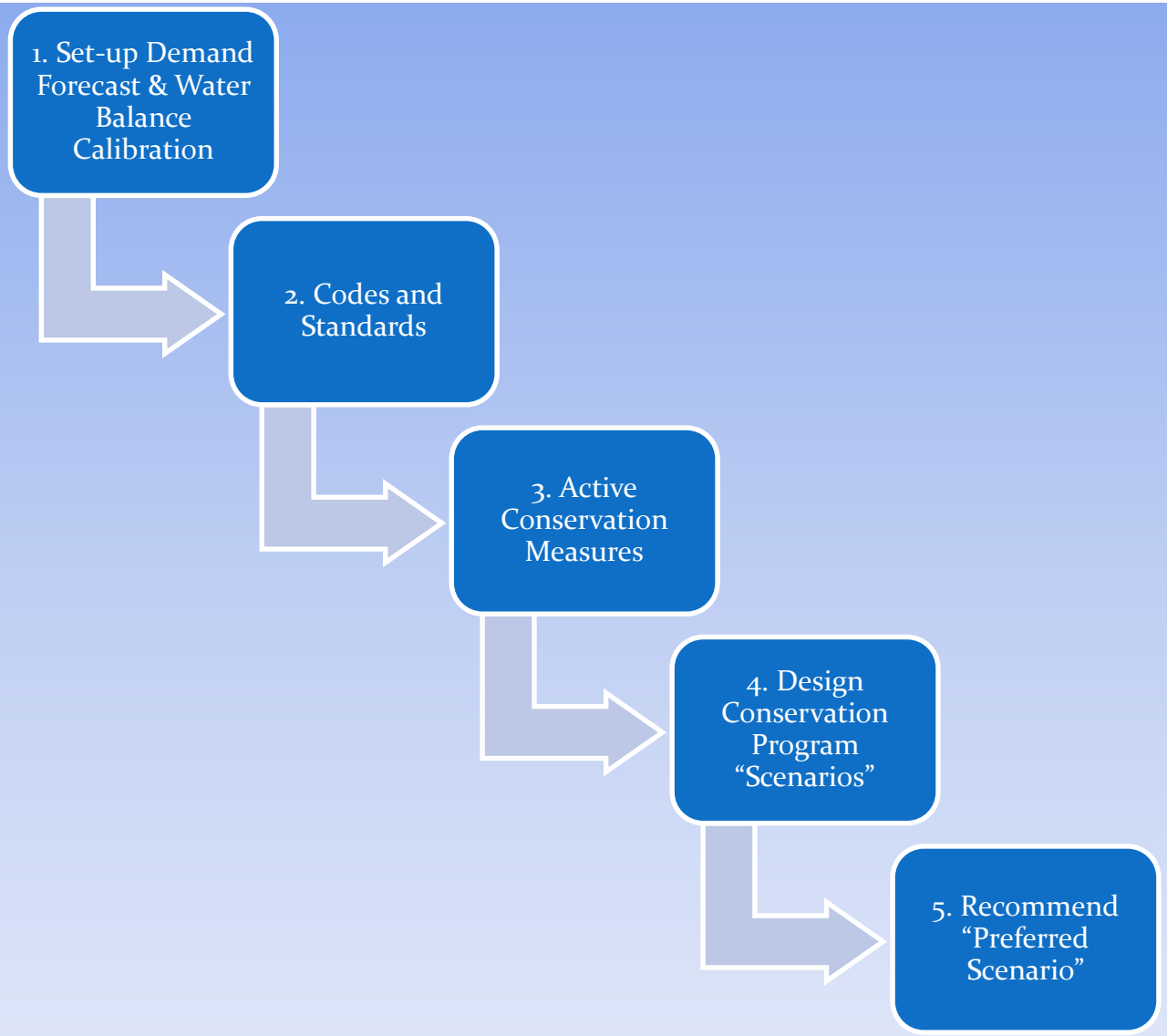
General Themes in SCV WUE SP

- Santa Clarita Valley presents unique challenges in conservation due to:
  - Relatively low retail water rates
  - Relatively affluent population (that receives a weak price signal to conserve)
  - Prevalence of turf grass in existing landscape
  - Diversified water supply portfolio that provides relative protection in a drought
- Majority of savings potential resides in the residential and outdoor water use sectors

“End Use” Concept: Why it matters…



Outline for Overall Modeling Steps



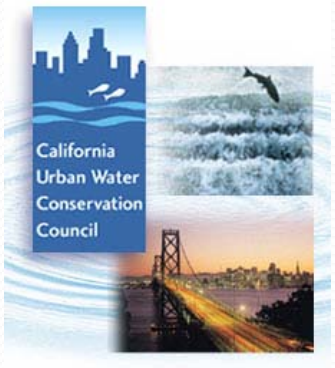
Key Model Assumptions

- Sources of estimates: contains both “literature based” and “professional judgment”
- Measure time period
- Unit savings (per account basis)
- Costs (fixture and administrative)
- Participation (target)
- Use figure of $5,800/mil gallons (or $1,900/AF) as the “avoided cost of new supply”
- Program scenario design based on goal for savings program: “most cost effective” and “most water savings”

CLWA and Retailers Partnership Current Conservation Efforts

Five categories:

- Utility operations programs
- Public information and education programs
- Residential
- Commercial, industrial, institutional (CII)
- Landscape



Savings by Program

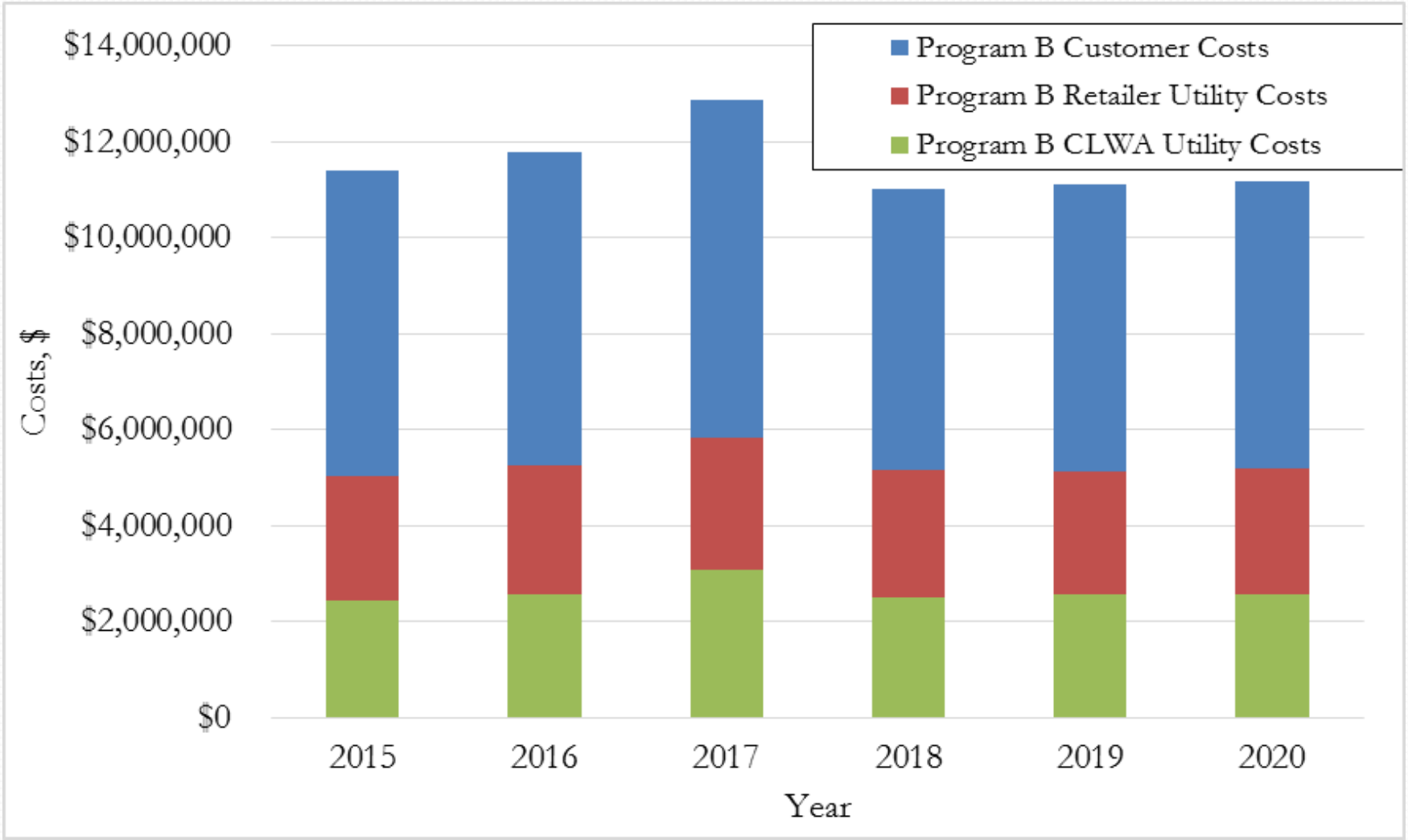
Conservation Measure	SB X7-7 2020 Target [a]	2020 GPCD With plumbing codes	Program A 2020 GPCD	Program B 2020 GPCD	Program C 2020 GPCD
LACWD[b]	188	245	240	229	229
NCWD	190	211	201	190	190
SCWD	201	218	204	196	195
VWC	268	303	277	267	267
Valley-Wide[c]	**225**	249	232	**222**	222

- LACWD does not need to make GPCD Target

Measure	Benefit-to-Cost Ratio	Savings-per-Unit Volume ($/AF)
Water Loss (Retailer)	8.96	124
AMI (Retailer)	0.9	1082
Conservation Pricing (Retailer)	2.94	21
Public & School Education (Valleywide)	0.88	1255
Home Water Use Reports (Retailer)	48.7	22
SF Turf Replacement Program (Valleywide)	0.5	1899
MF CII Turf Replacement Program (Valleywide)	3.79	251
SF Drip Irrigation Incentives (Retailer)	2.76	394
MF CII Drip Irrigation Incentives (Retailer)	7.64	142
SF WBIC Free Controller Prg (Valleywide)	1.56	691
MF CII WBIC Free Controller Prg (Valleywide)	3.73	288
School Building Retrofit (Valleywide)	9.26	117
HECW Rebates (Valleywide)	3.45	333
UHET Rebates (Retailer)	6.45	178
UHET Targeted Incentive (Retailer)	2.12	514
Top User Indoor Surveys and Incentives (Retailer)	2.45	429
CII Replace Equip and Performance Pgm (Retailer)	1.56	612
CII UHET Rebates (Valleywide)	4.44	248
HE Urinal Rebates (Valleywide)	5.93	185
Pre-Rinse Spray Nozzle (Valleywide)	11.96	92
SF MF Outdoor Surveys (Retailer)	1.27	857
SF MF Survey Leak & Pressure (Retailer)	1.15	948
HE Faucet & HE Showerhead Giveaway (Retailer)	7.34	153
Low-Income HE Fixture Installation (Valleywide)	3.91	295
Sprinkler Nozzle Rebate (Retailer)	25.12	40
Irrigation Surveys and Landscape Budgets (Retailer)	5.03	282
Submetering (Retailer)	0.91	1230
Soil Moisture Sensor Rebates (Valleywide)	1.36	1004
SF Hot Water on Demand (Retailer)	3.04	342
Pool Cover Rebates (Valleywide)	1.95	811
Landscape Ordinance (Retailer)	145.55	6.97
Education and Water Waste Enforcement (Retailer)	1.55	697
Conservation Pricing MF (Retailer)	0.27	256
Conservation Pricing IRR (Retailer)	5.32	10

Community benefit-to-cost ratio is found in the Appendices.

Annual Estimated Costs



The Traditional View

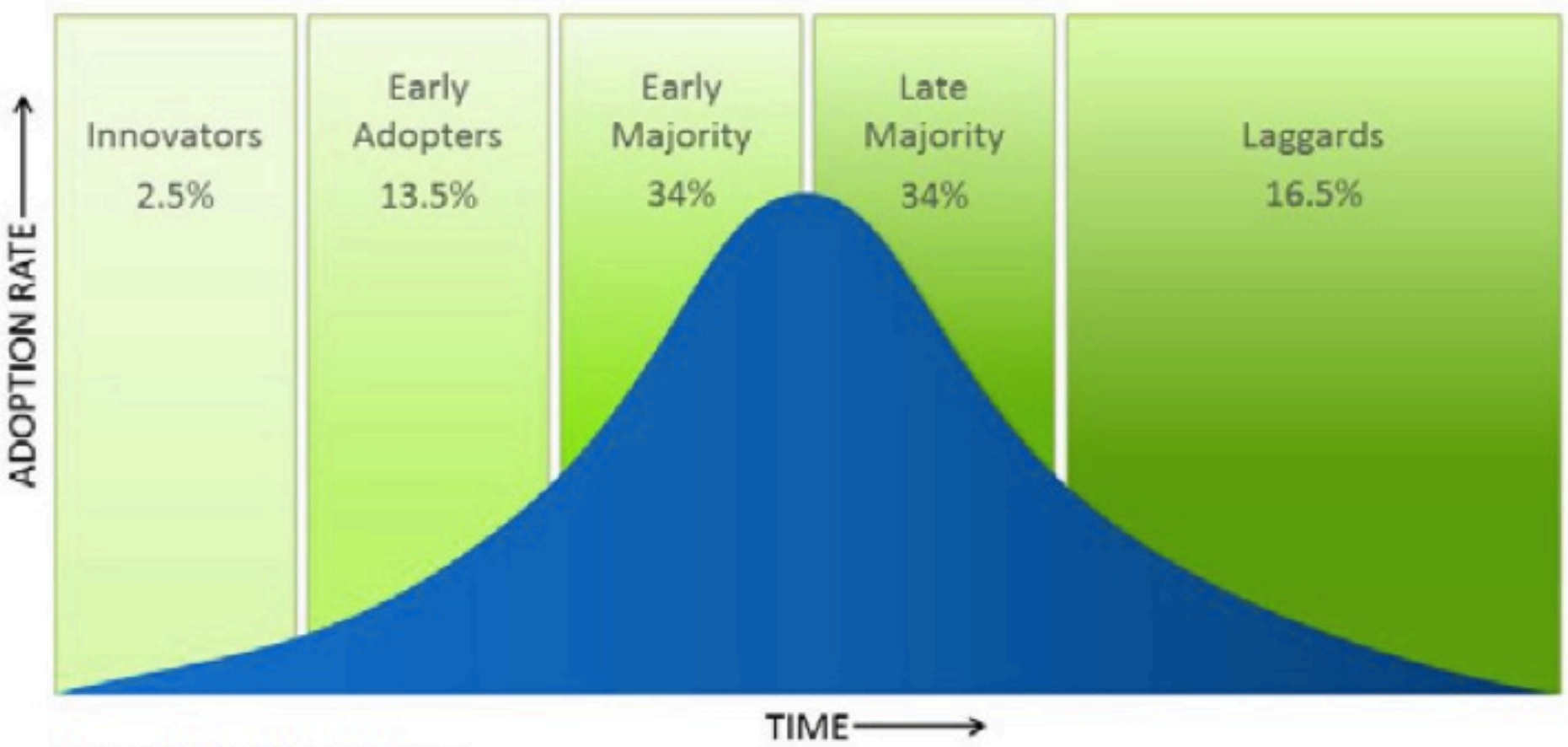
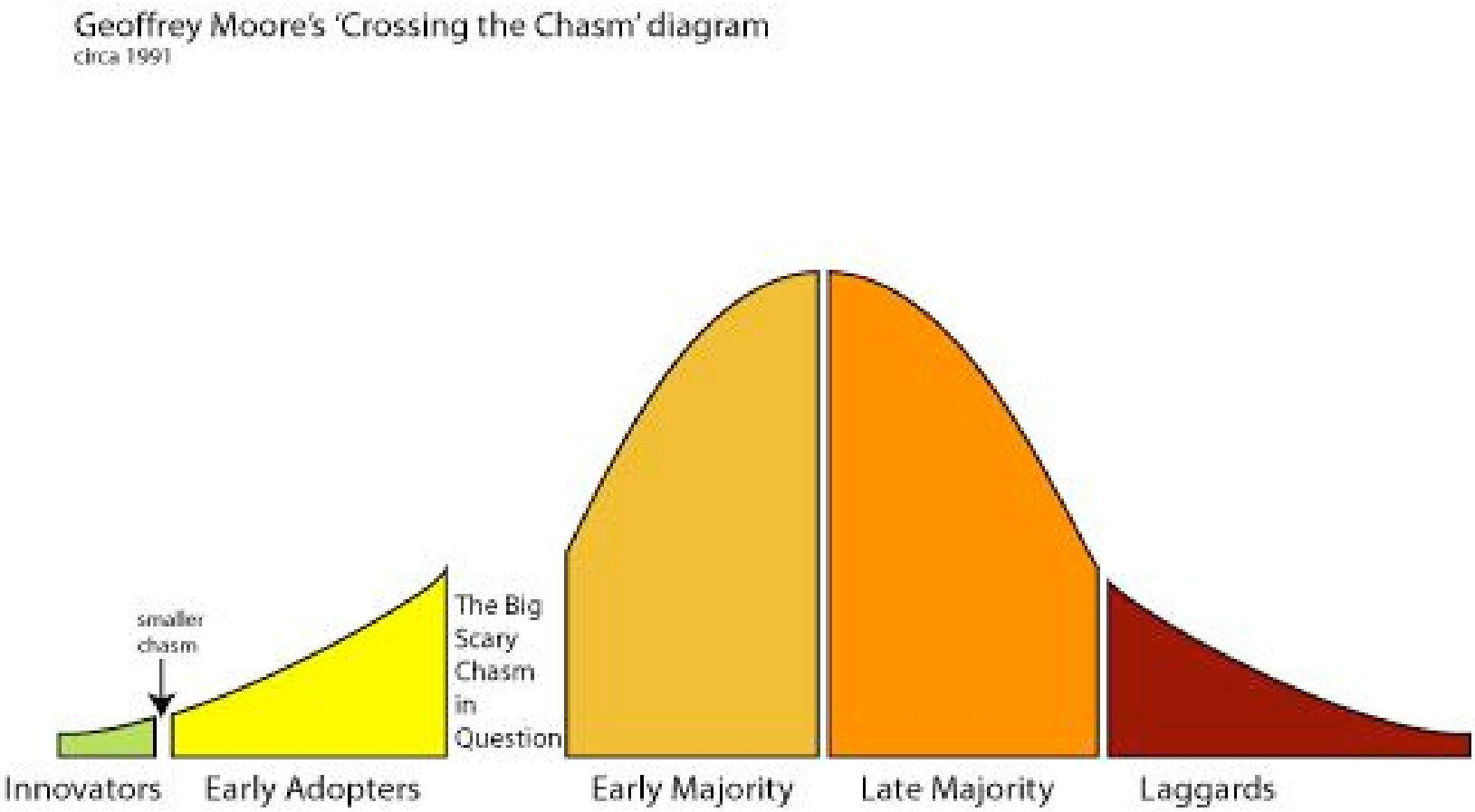
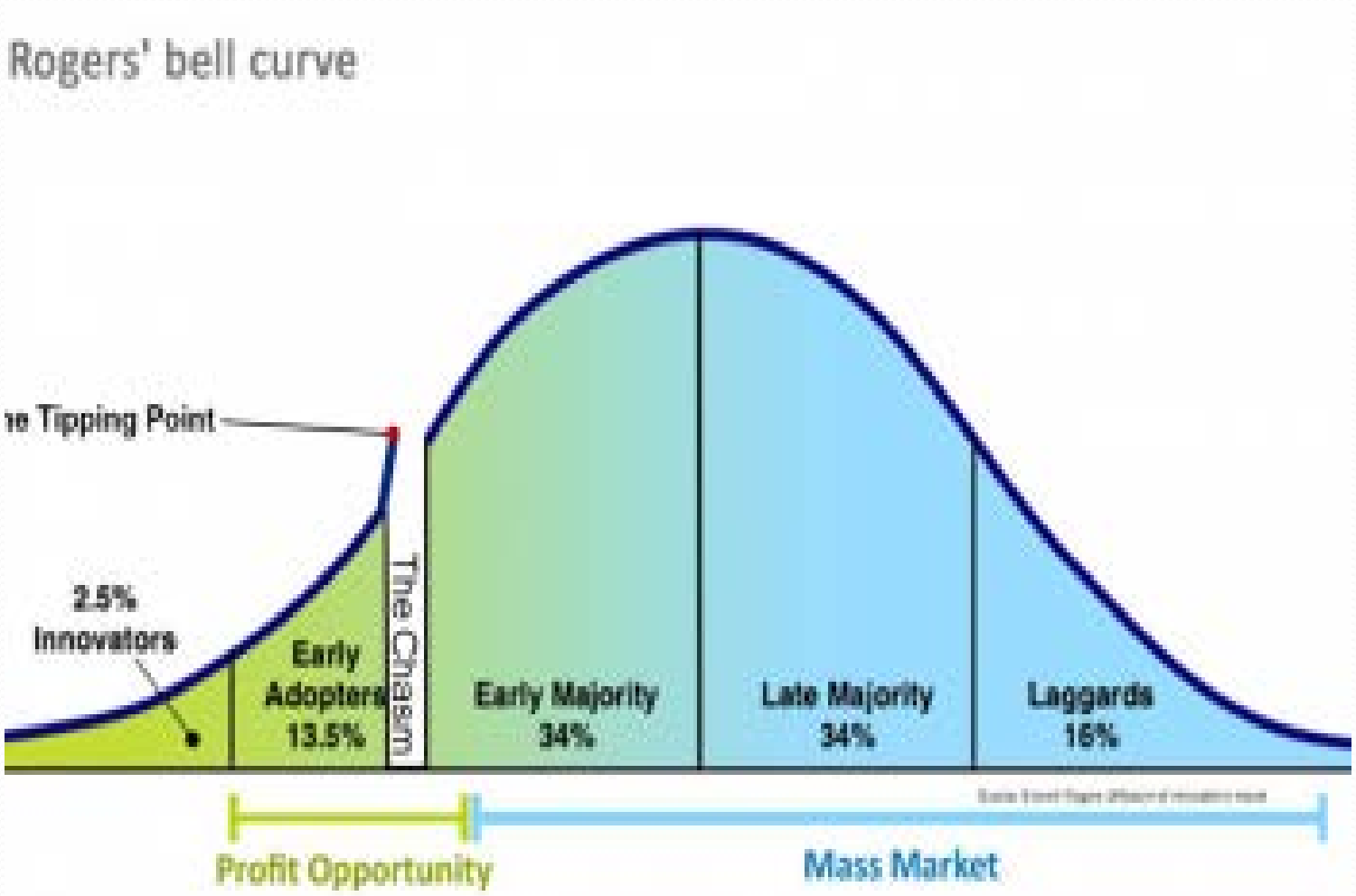


Figure 3: Roger's Bell curve

The Refined View: The Chasm



The Tipping Point



Lessons Learned

- Shared vision with planners on needed outcomes
- Make sure you have a good starting point for data
- Enroll all stakeholders in the process
- Re-enroll all stakeholders at different junctures
- Keep on moving to get a finished product in an adopted Plan


KEEP
CALM
AND
SET NEW
GOALS

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Supplemental Slides for Discussion

SB X7-7 20% by 2020 Target

Water Supplier	SB X7-7 2020 Target
LACWD	188
NCWD	190
SCWD	201
VWC	268
Valley-Wide	225

Savings (AF) by CLWA Program

Measure	2015	2016	2017	2018	2019	2020
Public and School Education	101	104	108	111	115	119
SF Turf Replacement Program	21	33	45	57	70	84
MF CII Turf Replacement Program	96	148	203	261	323	388
SF WBIC Free Controller Program	30	45	62	78	96	114
MF CII WBIC Free Controller Program	13	20	27	35	43	52
School Building Retrofit	0	0	24	50	76	104
HECW Rebates	72	110	150	152	153	155
CII UHET Rebates	0	0	2	4	5	6
HE Urinal Rebates	0	0	2	5	8	8
Pre-Rinse Spray Nozzle	0	0	6	13	20	21
Low-Income HE Fixture Installation	28	43	59	59	60	61
Soil Moisture Sensor Rebates	0	0	20	41	64	87
Pool Cover Rebates	0	9	18	28	38	48

Projected GPCD in 2020