Development of Climate Change Mitigation and Adaptation Strategy

Lahontan Water Board

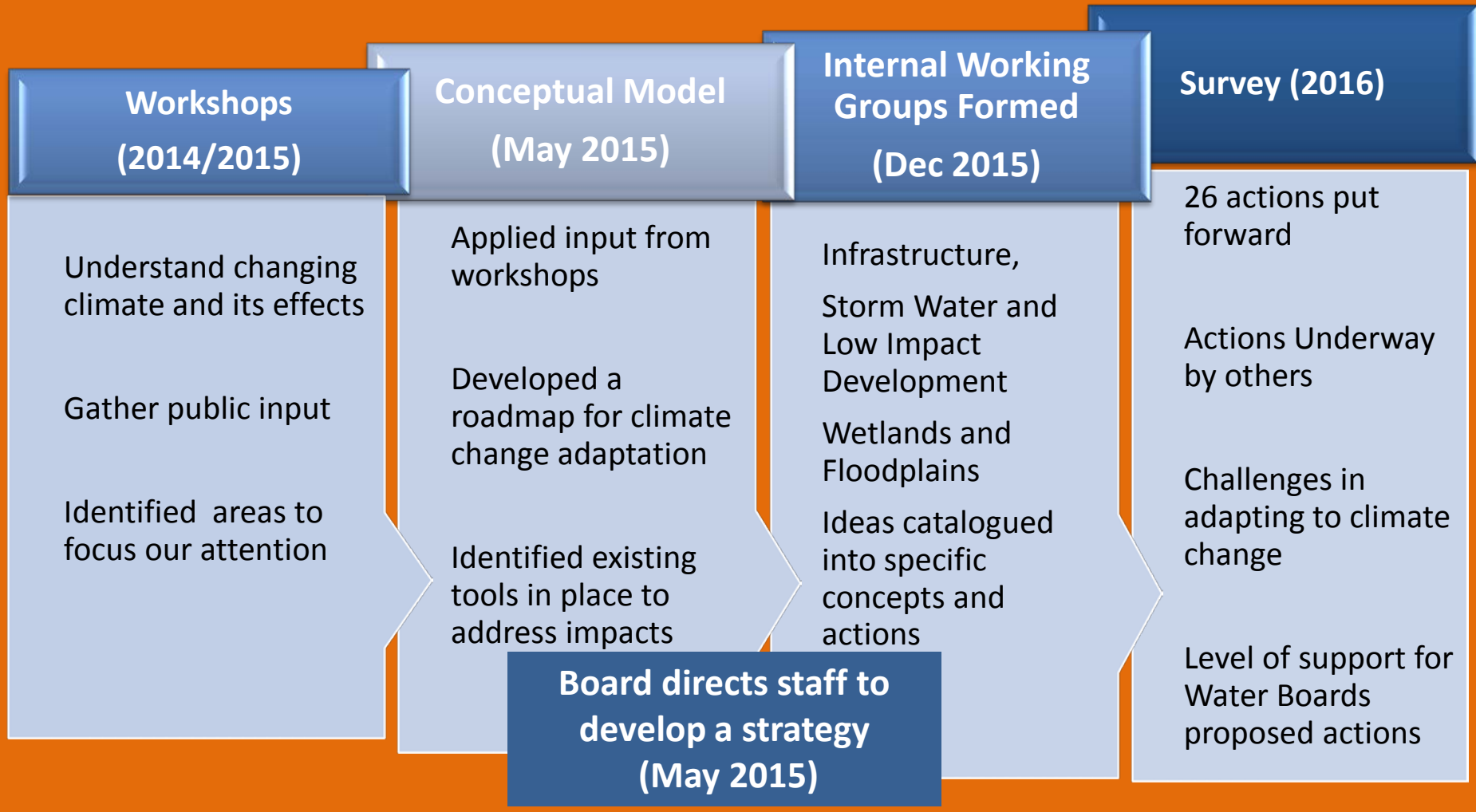
October 5, 2017

Why Are We Here?

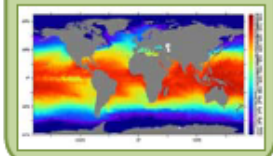
Productive partnerships will help optimize our efforts.

Only by working together can we improve and sustain
the state's water future for generations to come.

Process and Development



LAHONTAN CLIMATE CHANGE ADAPTATION - CONCEPTUAL MODEL

CHANGES	NEGATIVE EFFECTS	EXISTING POLICIES, REGULATIONS, ASSESSMENTS, ETC.		
Bigger Floods	Structures threatened/ damaged Wetlands/Floodplains	Ch. 4.9 Wetland & Floodplain Protection	401 Water Quality Cert Compensatory Mitigation	Flood Prohibitions - 1.5:1 Mitigation in Tahoe/Truckee
		2015 Presidential Executive Order increased Flood Hazard Definition to 2-3 feet > 100 year, or 500 year, or best available technology		State General Permit Sanitary Sewer Overflow
Warmer Waters 	Harmful Algal Blooms Invasive species Stressed aquatic systems	Ch. 4.9 Resources Management & Restoration	Self Monitoring Report Data	Pesticide Prohibition with Exceptions
		Surface Water Ambient Monitoring Program	Lakebed Mats/Dredging	Tahoe General Permit Maintenance Dredging
		Lake Tahoe Nearshore Monitoring Program	State General Permit Invasive Species Control	
Less Snow	Supply wells impacted or going dry Aquifer compaction/ subsidence Unhealthy Forests Less recharge/dilution	Ch. 4.4 Wastewater Recycling	Ch. 4.6 Ground Water Protection & Management	State General Permit Aquifer Storage & Recovery 2012
		State Recycled Water Policy 2009	Groundwater Ambient Monitoring Assessment Program	Timber Waiver
		Sustainable Ground Water Management Act 2014	State General Permit Landscape Use of Recycled Water	Cleanup & Replacement Water Orders
		State Board Financial Assistance Program	Low Impact Development & Infiltration Requirements in Tahoe	State General Permit Recycled Water & Regional Board Permits Wastewater Reuse/Recycling
		Lahontan Environmental Justice Report 2015		

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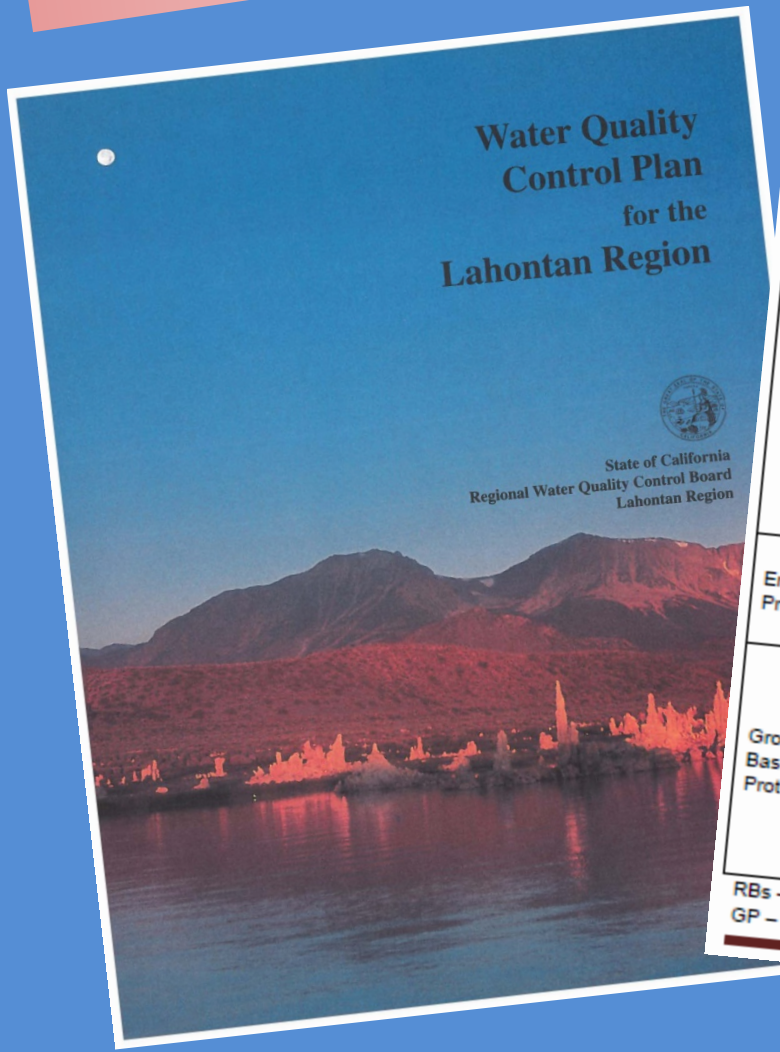
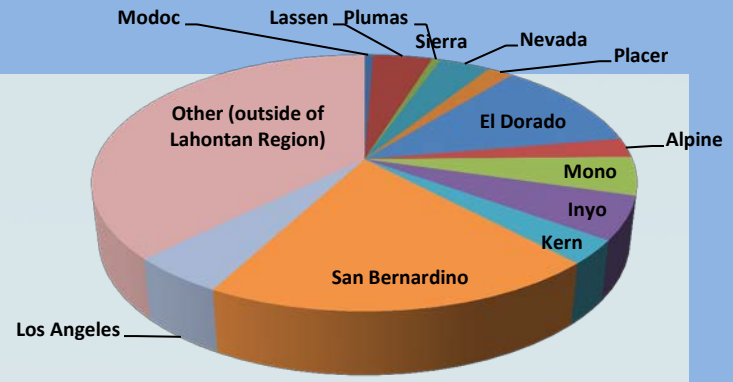
Lahontan Water Board
Actions underway or completed.



Program/ Activity	Law	State Water Board	Lahontan Water Board Pre-Existing Action
Permitting and Basin Planning	Global Warming Solutions Act of 2006	• Coordination through CAT and CAT Working Groups • Recycled Water Policy • Recycle Water General Permit (GPs)	• Revised permitting process for renewable energy projects (completed) • Revised Basin Plan Truckee prohibitions to facilitate water quality improvement projects (completed) • Lahontan Supplemental Environmental Project Program (completed and ongoing updates) • Federal Agency GP (Federal Non-Point Source GP) (2020) • LADWP Owens Valley Operations GP (2019)
	Short-Lived Climate Pollutant Act	• Compost Facilities GP	• Dairy GP (2018) • Timber Waiver (completed) • Federal Agency GP (2020)
Monitoring		• Surface Water Ambient Monitoring Program (SWAMP) • Groundwater Ambient Monitoring and Assessment • California Environmental Data Exchange Network	• Surface water sample collection across the region (ongoing and needs increased resources) • Lake Tahoe Nearshore Study (ongoing) • Bishop Creek Bacteria Study (completed)
Emergency Preparedness			• Waiver for Debris Disposal due to Emergencies (completed) • Aquatic Pesticide Exemption for Emergency Situations (completed)
Groundwater Basin Protection	California Water Code	• Recycled Water Policy • Anti-Degradation Policy	• Salt and Nutrient Management Plans (2 completed; 4-5 in progress) • Mojave water quality objectives (2021) • Monitored Natural Attenuation Report and Guidance (completed)
	Sustainable Groundwater Management Act	• Intervention	

RBs – Regional Boards
GP – General Permit
LADWP – Los Angeles Department of Water and Power
LID – Low Impact Development



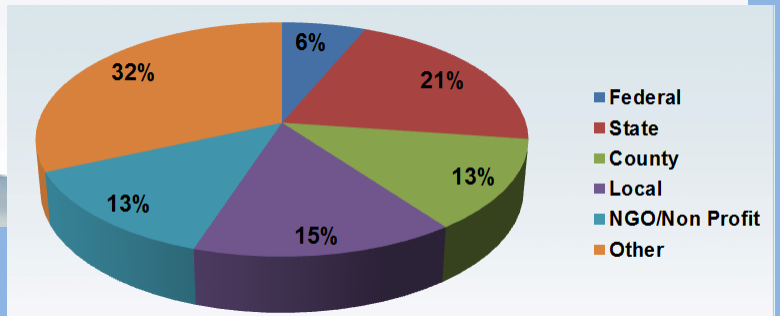
Survey

Who are you and what are you doing to plan for climate change?

What challenges do you face?

What is your opinion about the potential adaptation actions the Water Board is considering?

26 actions/concepts were presented.



Survey Results - Top Five Options

- Adopt Policies to Protect Critical Groundwater Recharge Areas
- Improve and Protect Water/Wastewater Infrastructure from Failure
- Provide Incentives to Improve Protections for Aging or Vulnerable Water/Wastewater Infrastructure
- Increase Water Recycling
- Provide Incentives to Conserve Water and Capture/Use Storm Water

Our Goals

Goal 1: Increase Storm Water Treatment and Infiltration

Goal 2: Protect Recharge Areas and Floodplains

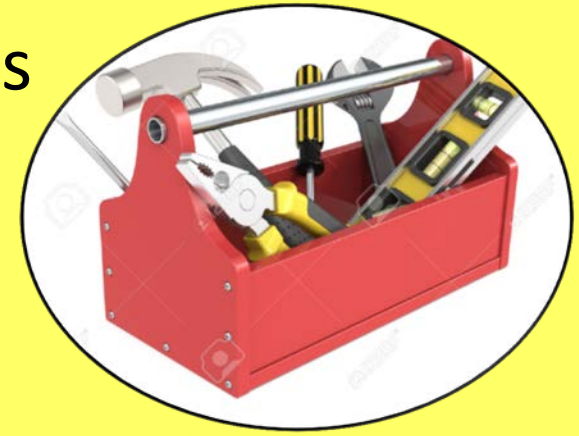
Goal 3: Increase Protection and Restoration of Headwaters

Goal 4: Increase Monitoring of Climate Change Indicators

Goal 5: Reduce Nitrogen Loading to Surface & Groundwater

Goal 6: Protect Infrastructure

Existing Tools



- Groundwater Sustainability Plans
- Envisions
- Fire suppression infrastructure
- ARkStorm
- SNARL's Climate Change Monitoring network of sentinel streams in the Sierra Nevada
- General Plans (local level and state level) Climate Adaptation (SB379)
- Key Collaborative Efforts: ARCCA, Sierra Meadows Partnership, Sierra Water Workgroup

Objective of Today –

Provide Your Input.

Help Prioritize & Refine Our Actions.

"What if we don't change at all ...
and something magical just happens?"

Goal of Climate Change Mitigation and Adaptation Outreach/Stakeholder Meetings.

1

- Consider proposed Options to support Goals.

2

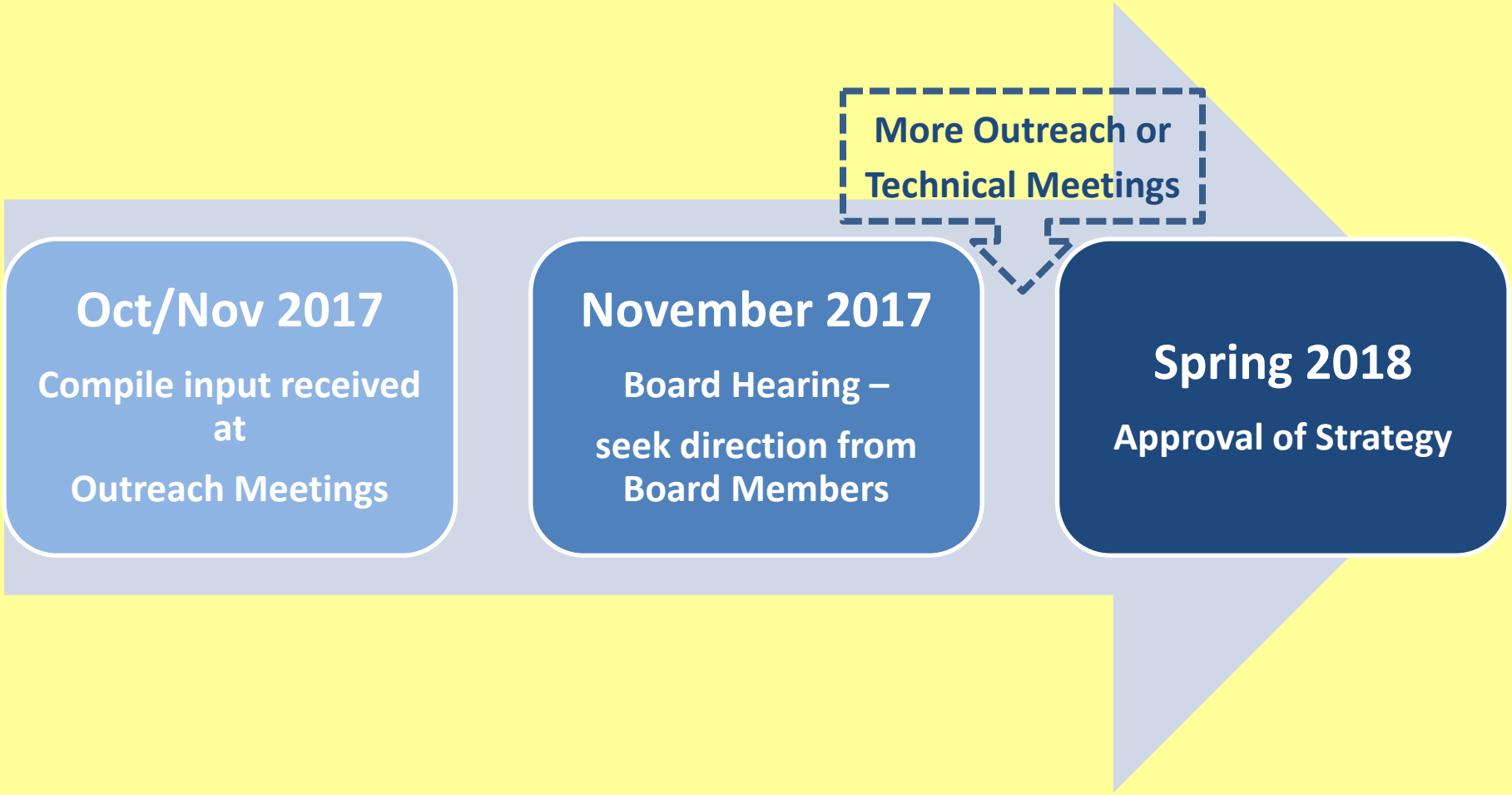
- Provide input on Options.
- Present new Options.
- Identify existing or planned actions by others.

3

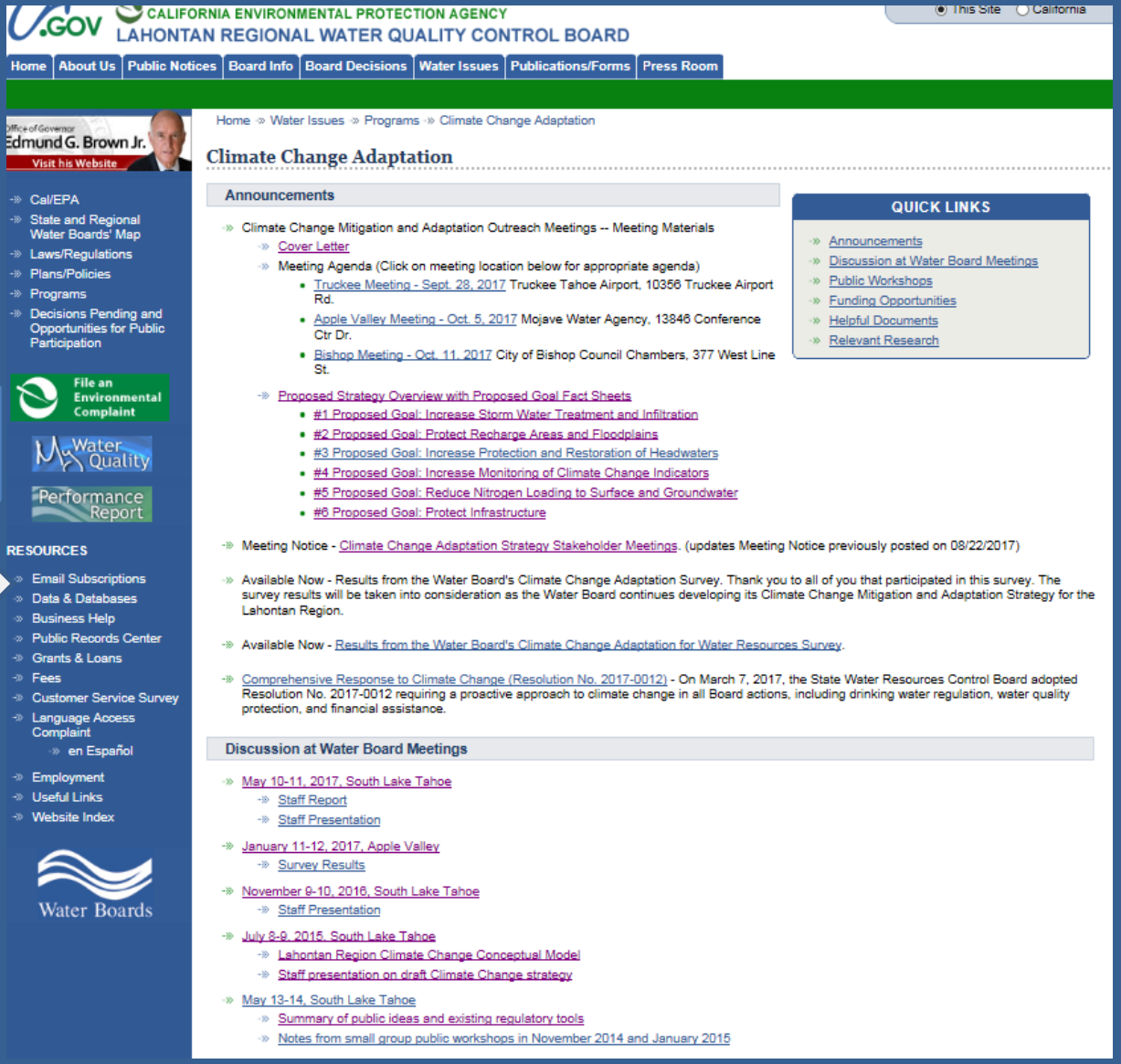
- Prioritize Options to include in Water Board's Strategy.

If you want to go fast, go alone.
If you want to go far, go together.

Next Steps


More Outreach or
Technical Meetings
Oct/Nov 2017
Compile input received at
Outreach Meetings
November 2017
Board Hearing –
seek direction from Board Members
Spring 2018
Approval of Strategy

Stay Engaged and Informed

Subscribe to Email List

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