# Drought Strategies Survey & Workshops Overview

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California
WATER COMMISSION

# Presentation Overview

- Review survey & workshops
- Present feedback on 4 drought strategies
- Share additional considerations
- Summarize general themes

# Process

## Research

- Expert Interviews

-Literature Review

## Outreach

-Tribal Listening Sessions

-Working Group

-Presentations

- Survey Dissemination

- Public Workshops

## Record

- Draft White Paper

- Final White Paper

# Survey Overview

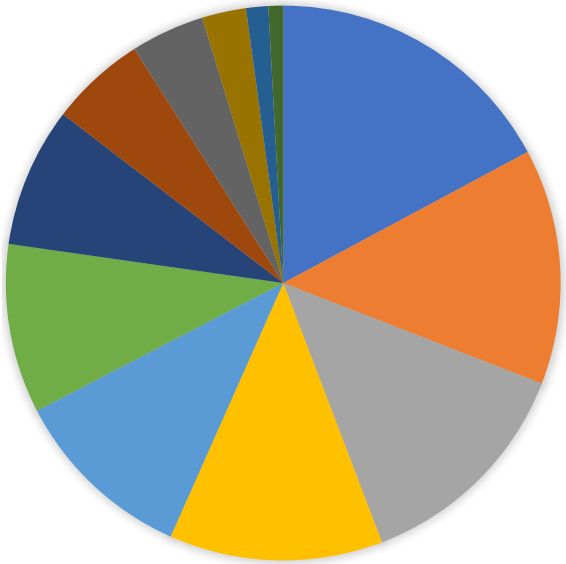
- Goals
  - Introduce the preliminary drought strategies
  - Understand participants' views of what State involvement should be
  - Learn participants' priorities for drought actions that protect species and communities

**Survey open: June 19 – July 12, 2023**

**Broadly distributed**

**233 Respondents**

# Survey Respondents (233)



| | |
|---|---|
| Sacramento Valley | 17% |
| South Coast | 14% |
| San Joaquin Valley | 13% |
| North Coast | 12% |
| Central Coast | 11% |
| Northern California - Inland | 10% |
| Southern California - Inland | 8% |
| Mountain Region | 6% |
| Statewide | 4% |
| San Francisco Bay | 3% |
| Out of State / International | 1% |
| Multiple Regions | 1% |

# Survey Respondents

| | |
|---|---|
| Just interested in subject | 27.0% |
| Environmental NGO | 23.6% |
| County/Regional Agency | 16.0% |
| Other (mixed) | 15.2% |
| State Agency | 14.4% |
| Community Based Organization | 14.4% |
| Water Association | 13.5% |
| Groundwater Sustainability Agency | 12.7% |
| Well water user | 11.4% |
| Academia | 10.6% |

| | |
|---|---|
| Utility | 10.6% |
| Small farm or midsize farm | 9.3% |
| Federal Agency | 8.9% |
| Consultant | 8.9% |
| Habitat / Species manager | 7.6% |
| Tribal | 6.8% |
| IRWM | 5.0% |
| Other Community Representative | 5.0% |
| Large farm | 3.0% |
| Elected official | 2.5% |
| Legal Counsel | 2.1% |
| Collaborative Specialist | 2.1% |

# Workshops Overview

- Shared preliminary strategies and the survey findings
- Workshops held July 19, 25, 27
- 3-hour virtual sessions
- Regional breakouts and large group discussions
- **269 total participants**

# 4 Strategies

1. Scale Up Groundwater Recharge
2. Conduct Watershed-level Planning to Reduce Ecosystem Impacts of Drought
3. Better Position Communities to Respond to Drought Emergencies
4. Increase Staff Capacity & Information Needed to Manage Drought

# 1. Scale Up Groundwater Recharge

1. Prepare for recharge by identifying where recharge provides the greatest benefit and where it is possible.
2. Promote recharge efforts through on-going education, outreach, and incentives.
3. Support efficient permitting to maximize groundwater recharge by clarifying flood triggers, considering impacts to drinking water, and completing timely, comprehensive environmental review.
4. Support infrastructure connected to groundwater recharge, including fish screens, conveyance, and surface storage projects that can store water for recharge.
5. Review recent actions to clarify lessons learned and identify on-going improvements and efficiencies.

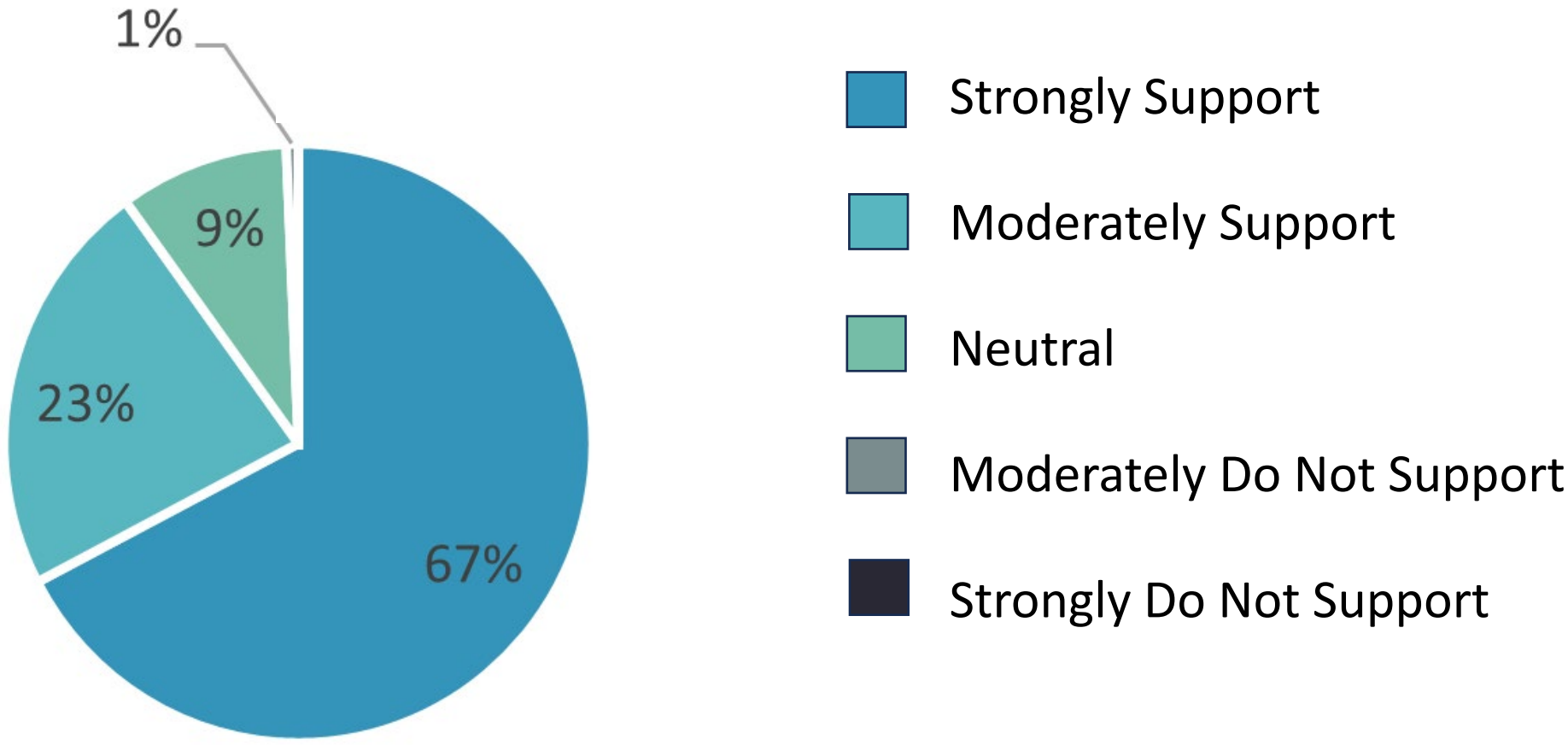
# Survey Results

| 1. Groundwater Recharge | High priority | Nice but not critical | No opinion | Not a state role |
|---|---|---|---|---|
| **Promote recharge efforts** through education, outreach, and incentives. | 68.3% | 23.2% | 5.5% | 3.0% |
| **Support efficient permitting** to maximize groundwater recharge by 1) clarifying flood triggers, 2) considering impacts to drinking water, and 3) completing timely, comprehensive environmental review. | 83.5% | 8.5% | 3.5% | 4.9% |
| **Support infrastructure investment** connected to groundwater recharge, including fish screens, conveyance, and surface storage projects that can store water for recharge. | 80.7% | 9.3% | 4.3% | 5.6% |
| **Review recent actions** to clarify lessons learned and identify on-going improvements and efficiencies. | 63.5% | 26.4% | 4.4% | 5.7% |

# Workshop Comments 1. **Scale Up Groundwater Recharge**

- Recognize that recharge looks different throughout the state
- Identify where and when to recharge
- Address nearby water quality impacts from recharge
- Integrate recharge into water management systems
- Improve recharge capacity with healthy soils
- Ensure groundwater dependent ecosystems are benefitting from recharge

# Workshop Poll
# 1. **Scale Up Groundwater Recharge**



# 2. Conduct Watershed-level Planning to Reduce Ecosystem Impacts of Drought

1. Develop environmental watering plans for California by working at the watershed-scale to identify and plan for ecosystem water needs.
2. Conduct watershed-scale habitat planning that inventories, prioritizes, and identifies funding mechanisms for habitat restoration and conservation projects.
3. Integrate fire/forest management into drought planning.

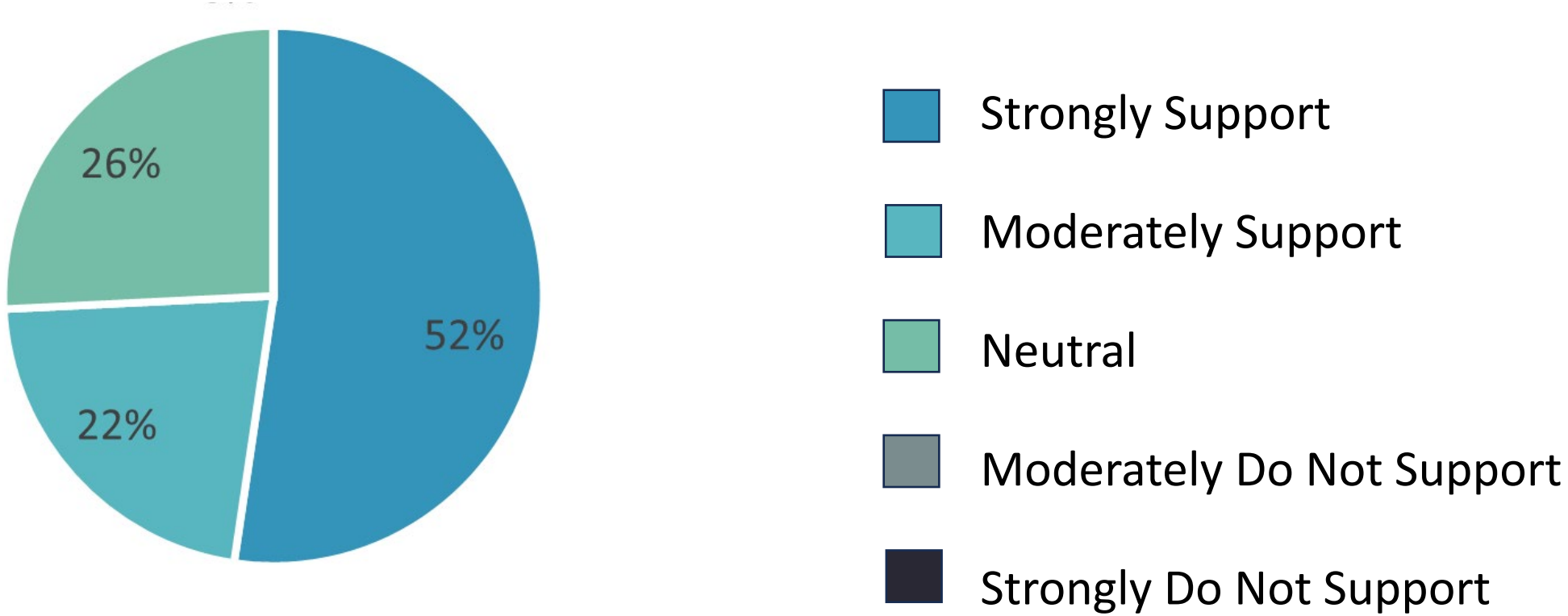
# Survey Results

| 2. Ecosystem | High priority | Nice but not critical | No opinion | Not a state role |
|---|---|---|---|---|
| Integrate fire/forest management into drought planning. | 74.2% | 17% | 5.7% | 3.1% |
| Develop environmental watering plans for California by working at the watershed-scale to identify and plan for ecosystem water needs. | 70.2% | 17.4% | 5.6% | 6.8% |
| Conduct watershed-scale habitat planning that inventories, prioritizes, and identifies funding gaps for habitat restoration and preservation projects. | 67.8% | 22.2.% | 5.1% | 5.1% |

# Workshop Comments
# 2: Conduct Watershed-level Planning to Reduce Ecosystem Impacts of Drought

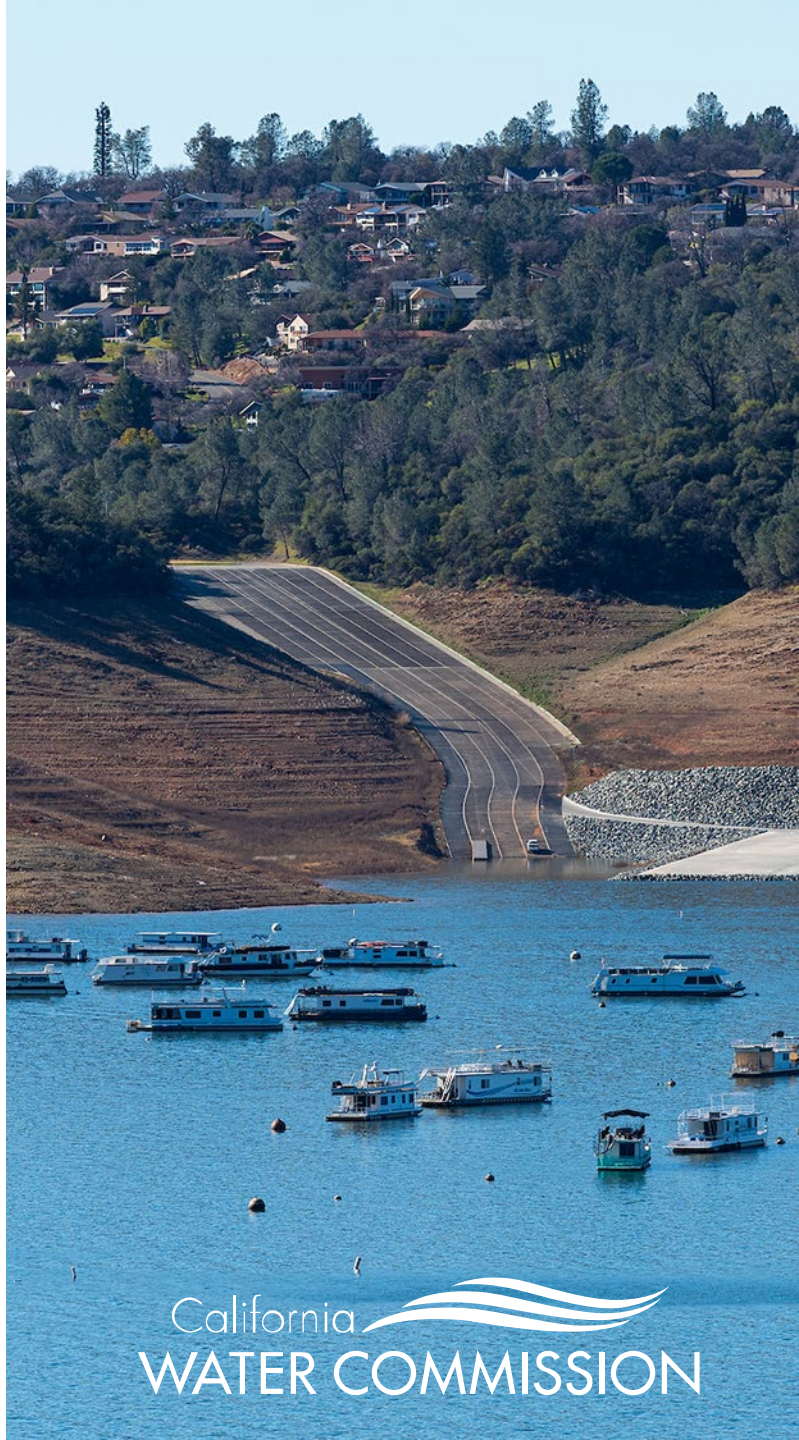
- Enforce regulations regarding illegal diversions
- Connect to similar efforts
  - CA Water Plan Watershed Resilience Planning program
  - CA Environmental Flows Framework
- Link land use decisions with watershed management
- Highlight the role of cultural burns
- Define ecosystem resilience
- Maintain soil health for ecosystem health

# Workshop Poll
# 2: Conduct Watershed-level Planning to Reduce Ecosystem Impacts of Drought



# 3. Better Position Communities to Respond to Drought Emergencies

1. For small and/or rural, disadvantaged communities, allow delegation of funding management to local assistance providers with expedited State sign-off for pre-approved categories of activities and dollar thresholds to nimbly address system needs.
2. Ramp up efforts to improve water system resiliency and actions to increase supply reliability for communities, and encourage regional approaches to water resource management.
3. Support integrated land and water planning, such as multi-benefit land repurposing.



# 3. Communities Survey Results

- Overall, general agreement
- Multiple approaches suggested:
  - Reduce demand/ increase supply
  - Long-term/ short-term approaches
  - Ensure accountability/ transparency
  - Work *with* the community
  - Establish priorities for action (schools, food, water quality)
- Concerns:
  - Viability
  - Governance/capacity
  - Costs/ accountability

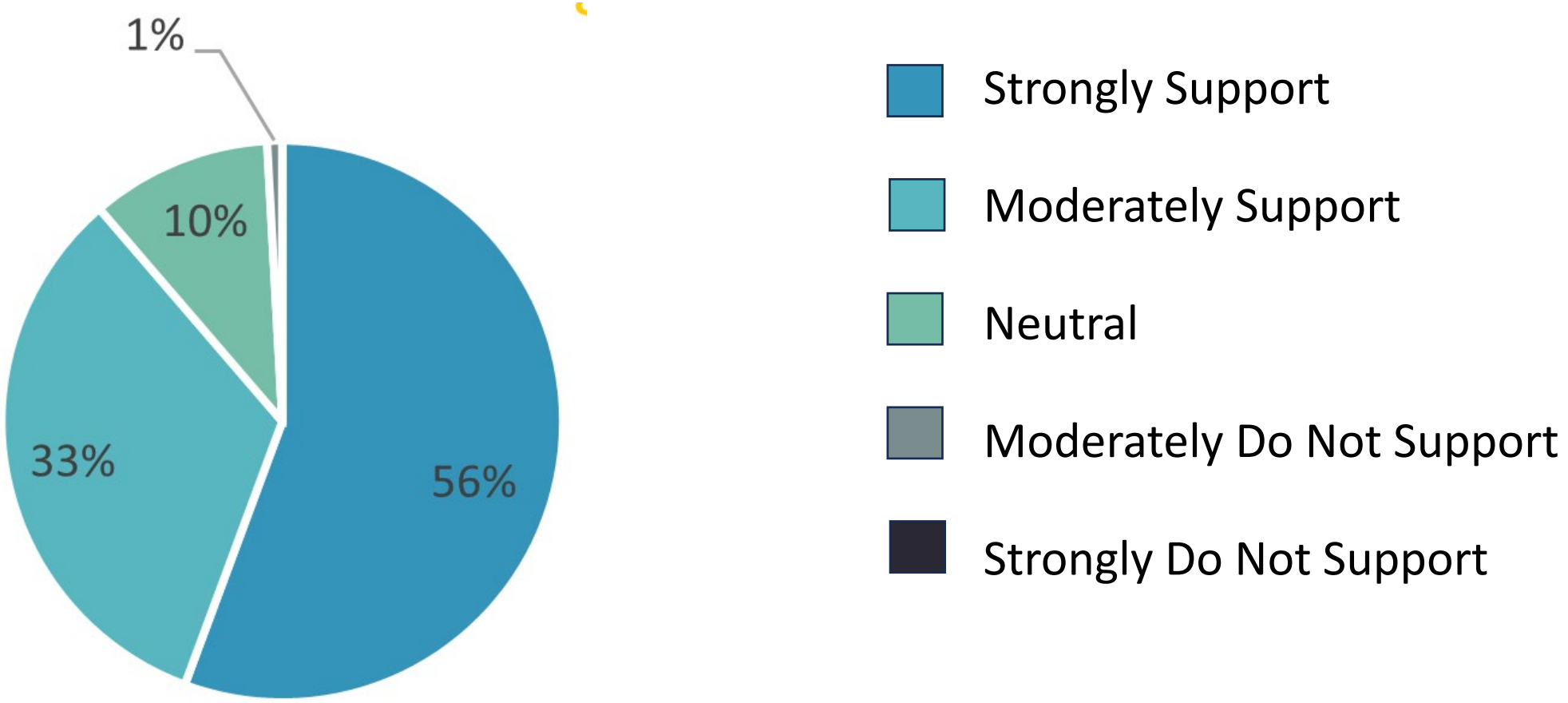
Porterville, CA
Courtesy of Washington Post

# Workshop Comments 3. Better Position Communities to Respond to Drought Emergencies

- Promote diverse approaches to address unique community needs
- Incentivize proactive actions
  - Provide options for pre-drought preparedness
- Support collaborative conversations and relationship building
  - Get agreements in place before emergency funding
  - Incentivize coordination between counties and organizations
- Integrate drought response with general emergency response

# Workshop Poll

# 3: Better Position Communities to Respond to Drought Emergencies



# 4. Increase Staff Capacity & Information Needed to Manage Drought

1. Develop dedicated drought capacity at State agencies to coordinate between agencies, across sectors, ID lessons learned and generate plan, collect/share consistent info on communities & species in crisis.
2. Support seasonal forecasting to anticipate drought.
3. Support Tribes, local government, NGOs to increase drought response capacity.
4. Develop consistent public information campaign by building on work already being done, creating indicators to signal drought status, engaging experts to change water behaviors in California.

# Survey Results

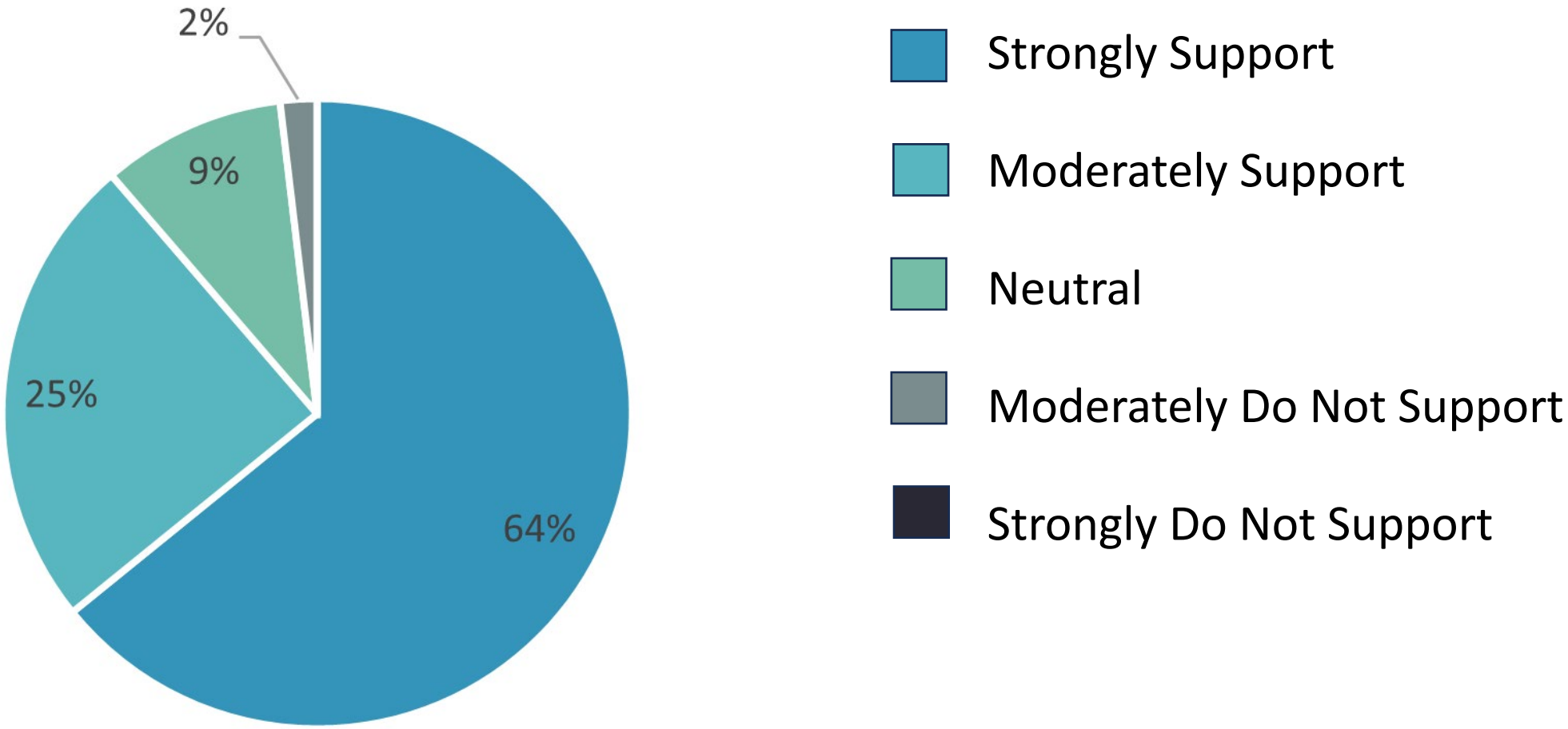
| 4: Increase Capacity & Information | High priority | Nice but not critical | No opinion | Not a state role |
|---|---|---|---|---|
| Develop dedicated drought capacity at State agencies to coordinate between agencies and across sectors. | 66.3% | 17.2% | 10.1% | 6.5% |
| Identify lessons learned from recent droughts and generate plans for future droughts. | 80.6% | 13.5% | 1.8% | 4.1% |
| Collect and share consistent information on communities & species in crisis. | 58.9% | 28.6% | 7.7% | 4.7% |
| Support Tribes, local government, NGOs to increase drought response capacity. | 67.1% | 17.4% | 8.4% | 7.2% |
| Develop a consistent public information campaign that builds on work already being done. | 49.4% | 35.7% | 10.1% | 4.7% |
| Support seasonal forecasting to anticipate drought. | 55.9% | 29.8% | 6.6% | 7.7% |

# Workshop Comments
# 4: Increase Staff Capacity & Information Needed to Manage Drought

- Leverage existing planning work and investments at the local scale
- Clarify role of seasonal forecasting
- Coordinate regionalized messaging across the state
- Move from crisis mindset to acknowledging drought as part of the cycle

# Workshop Poll

# 4: Increase Staff Capacity & Information Needed to Manage Drought



# Additional Considerations

- Increase storage
- Promote conservation (ag and urban)
- Address governance structures (including water rights)
- Manage the full system (forests, reservoirs, etc).
- Assess impacts from land development
- Consider drought impacts on domestic well owners
- Prioritize environmental education

# Common Themes

- Integrate water and land use decision-making
- Build drought resilience through our natural resources
- Communities (and solutions) are not one size fits all
- Build on what's already working
- Changes in mindset


Thank You
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WATER COMMISSION