This presentation premiered at WaterSmart Innovations
Taking the Temperature on Drought Response Effectiveness

WATER SMART INNOVATIONS 2017
4 OCTOBER 2017

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PRESENTATION OVERVIEW

- BAWSCA
- Drought Severity and Timeline
- Drought Response Action Survey
- Agency Response to Drought
- Lessons Learned & Preparation for Next Drought
BAY AREA WATER SUPPLY & CONSERVATION AGENCY (BAWSCA)

- Special District representing the interests of:
  - 26 cities and water districts in San Mateo, Santa Clara and Alameda Counties
  - 1.8 million residents
- All rely on San Francisco Regional Water System
- Regional water supply planning and conservation program services
PURPOSE OF DROUGHT REPORT

- BAWSCA Drought Report documents
  - Drought response actions during 2014 – 2017 drought
  - Critical knowledge gained through these actions
- Report serves as reference document for future drought response and planning efforts
DROUGHT RESPONSE ACTION SURVEY

- Want to understand:
  - What drought response actions member agencies utilized (regional and local)
  - How effective were the regional & local actions
  - What feedback agencies received from their management and public

- Use info to inform what regional actions should be prioritized in the event of a future drought
SURVEY DESIGN PRINCIPLES

- Keep it short and easy to understand
- Consistent framework for similar questions
- Make the most important questions easiest to respond to
- Leave ample option for comments and narratives, but don’t require them
- Provide option to consult with others
- Anticipate the range of responses and how they’ll be interpreted - work backwards
SURVEY IMPLEMENTATION

- Online survey tool (Survey Monkey)
- PDF of complete survey with references
- Gave 2 weeks to respond – most agencies (~70%) responded by deadline
- Within 5 weeks, we got a 100% response rate
Which of BAWSCA’s drought support programs was most valued by the agencies?

- Asked 3 slightly different ways
  1) Open ended
APPROACH

- Which of BAWSCA’s drought support programs was most valued by the agencies?
- Asked 3 slightly different ways

2) Value of each specific action alone
Which of BAWSCA’s drought support programs was most valued by the agencies?

Asked 3 slightly different ways

3) Value of each action relative to each other

### BAWSCA Drought Response Support Actions

#### Future BAWSCA Programming

*In the event of a future drought, how do you think BAWSCA should prioritize the drought response programs provided? Please rank each program as "low," "medium," or "high" priority.*

<table>
<thead>
<tr>
<th>Program</th>
<th>Low Priority</th>
<th>Medium Priority</th>
<th>High Priority</th>
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<tbody>
<tr>
<td>Regional Media Campaign</td>
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<td>Regional Outdoor Watering Schedule</td>
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<td>Electronic Drought Messaging Materials</td>
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<td>Drought Messaging Bulk Purchase Program</td>
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<td>BAWSCA Website Drought Updates</td>
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<td>WaterWise Gardening Website Update</td>
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<td>Increased Public Outreach</td>
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<tr>
<td>Water Conservation Rebate Program Outreach</td>
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<td>&quot;Water Conservation 101&quot; Public Education</td>
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<td>Workshops</td>
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<td>SFPUC Voluntary Reduction Support</td>
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<td>SWRCB Drought Regulation Support</td>
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Agencies valued most highly the programs that:
- Coordinated consistent messaging across the region
- Supported agencies with understanding and complying with the evolving regulations
**LOCALLY IMPLEMENTED ACTIONS**

- Wide variety of local actions
- Some agencies also:
  - increased or adjusted their water rates,
  - intensified their existing conservation program efforts,
  - utilized AMI leak detection function
  - adjusted/enforced large landscape water budgets
### EFFECTIVENESS OF LOCAL ACTIONS

**Most effective programs:**
- Direct change in system/city use of water
- Involved direct engagement or interaction with customers

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#### Relative Perceived Effectiveness of Actions Implemented by ≥ 50% of Member Agencies

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<thead>
<tr>
<th>Action</th>
<th>Not Effective</th>
<th>Moderately Effective</th>
<th>Very Effective</th>
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<tr>
<td>Water Shortage Contingency Plan enactment</td>
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<td>Reduced irrigation of city-owned landscape or parks</td>
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<td>Promotion of drought messaging on social media</td>
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<td>Water bill inserts</td>
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<td>Excessive water use warnings, fines, and/or penalties</td>
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<td>Platform for reporting water wasters</td>
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<td>Increased water loss prevention programs</td>
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<td>Limited fire system flushing</td>
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<td>Water use surveys or audits</td>
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**Eki**

Bay Area Water Supply & Conservation Agency
Cumulative savings across all member agencies
**CUMULATIVE WATER SAVINGS**

- All member agencies met their SWRCB conservation standard
- Degrees of savings varied significantly

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**SWRCB Conservation Standard and Cumulative Water Savings through May 2016**

- Within 1.5x SWRCB Conservation Standard
- Saved More than 1.5x SWRCB Conservation Standard
In general, agencies with the higher pre-drought water use saved more water.
In general, agencies with highest summer water use saved more water.
LESSONS LEARNED FOR THE NEXT TIME

1. Anticipate response to state drought actions.
2. Focus of regional drought messaging.
3. Coordinate with others for consistent messaging.
5. Water quality impacts.
QUESTIONS

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Download the Report: http://www.bawsca.org/droughtreport