

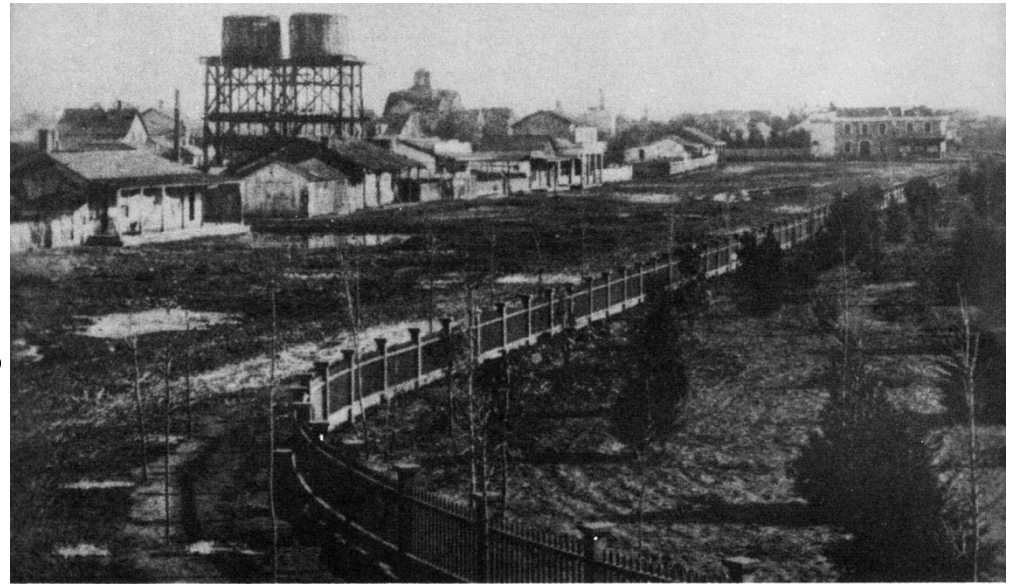
CARES – SJWC Emergency Response

SJWC: Emergency Management & Business Continuity; Insurance Policy or Great by Choice?

April 6, 2017

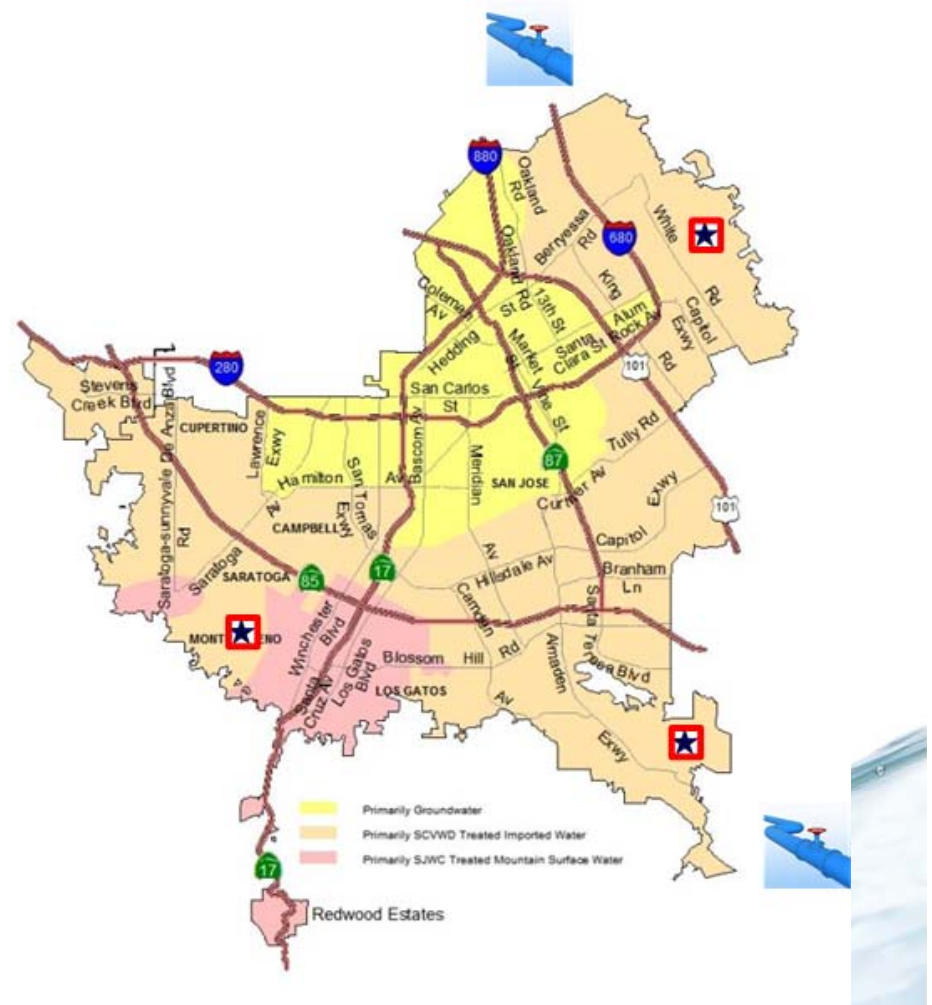
Company

- Incorporated 1866
- 230,000 connections
- 140 sq. mi.
- Diverse supply sources
- 2,400 mi. of pipelines
- 2 surface WTPs
- 100+ active wells



Business Continuity

- Key focus at SJWC
- Multiple Sources
 - Surface
 - SJWC - 2
 - SCVWD
 - Sources - 2
 - WTP - 3
 - Wells
 - 120+



How is EM & BCP Seen in the Business World?

- SOX Requirement
- Regulatory Requirement
- Customer/Client Requirement

An Insurance Policy!



The Business Case for Both!!

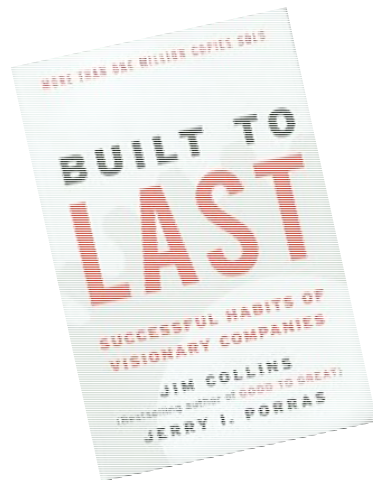
Best Selling Business Leadership Author: Jim Collins

Great by Choice: Uncertainty, Chaos, and Luck--Why Some Thrive Despite Them All



Built To Last

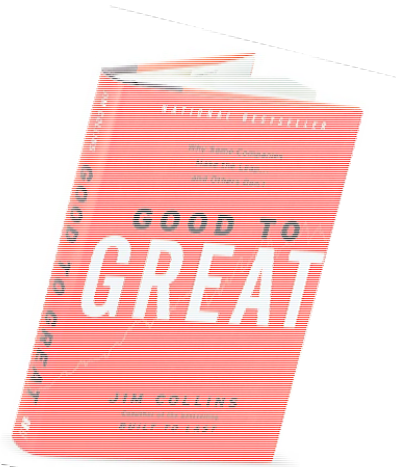
BHAG = Big Hairy Audacious Goals



**Try a Lot of Stuff and
Keep What Works**



Good to Great

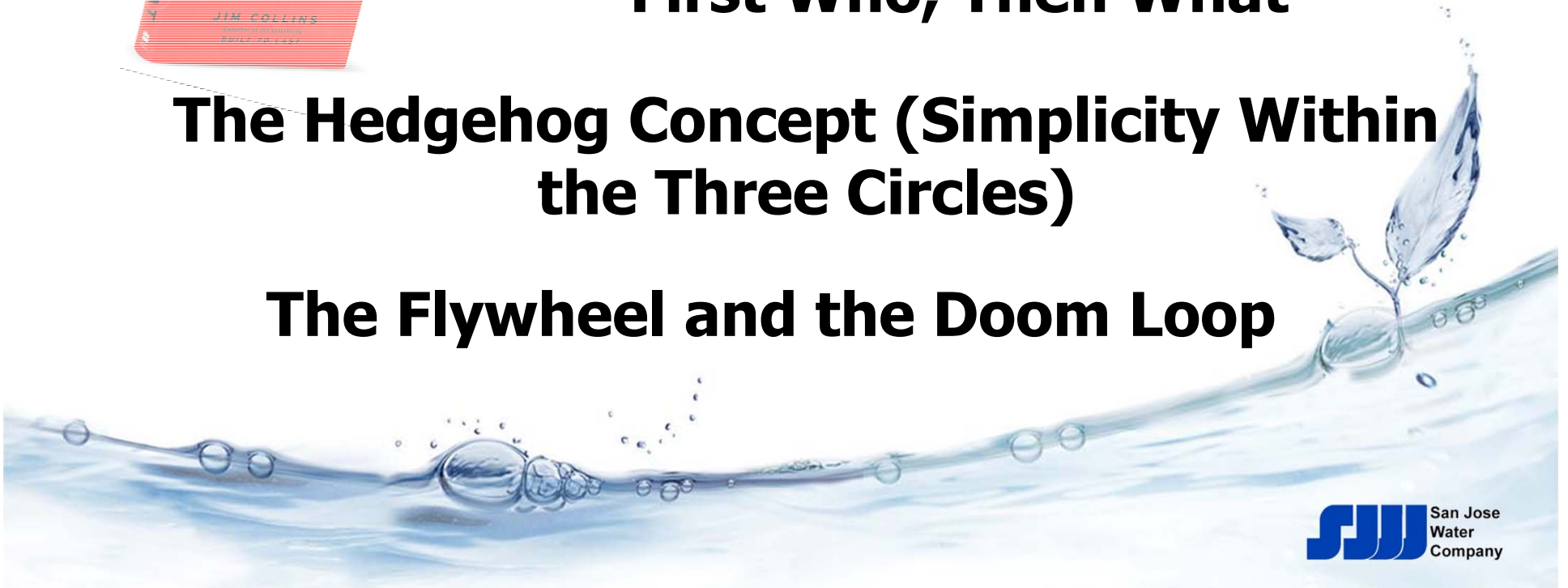


Good is the Enemy of Great

First Who, Then What

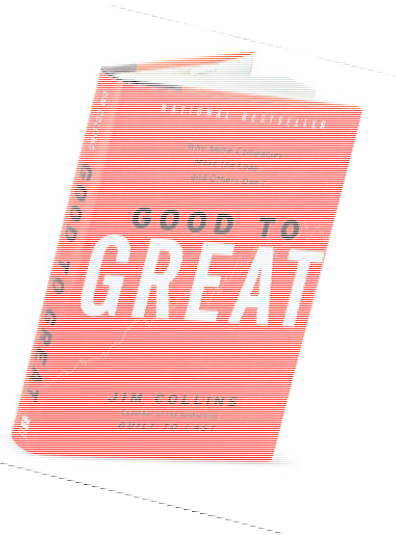
**The Hedgehog Concept (Simplicity Within
the Three Circles)**

The Flywheel and the Doom Loop



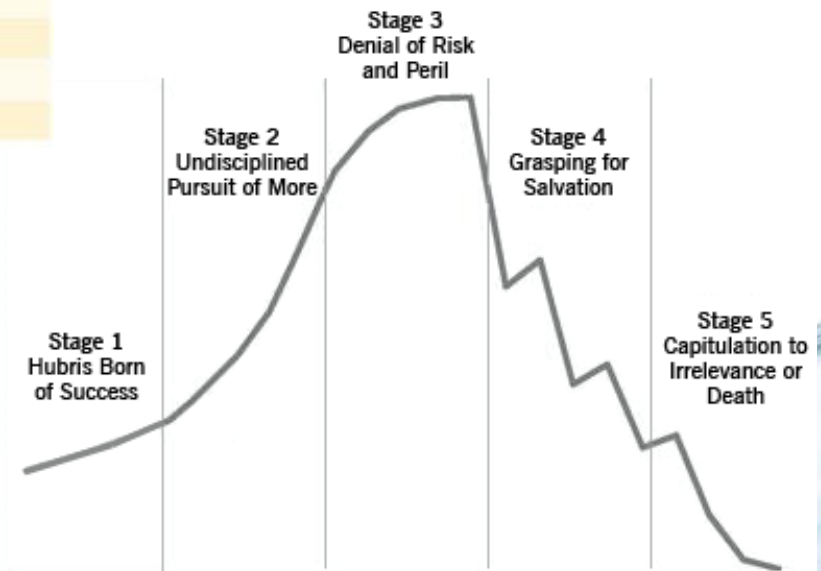
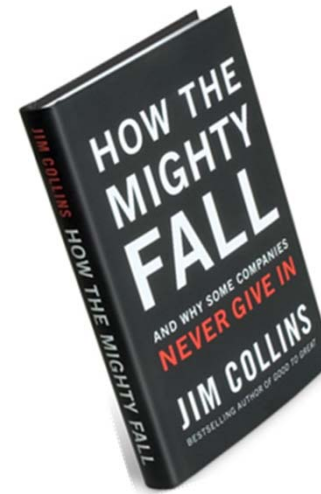
Good to Great

Level 5 Leadership



How the Mighty Fall

Fallen Company	Success Contrast
A&P	Kroger
Addressograph	Pitney Bowes
Ames	Wal-Mart
Bank of America	Wells Fargo
★ Circuit City	Best Buy
HP	IBM
Merck	Johnson & Johnson
★ Motorola	Texas Instruments
Rubbermaid	None qualified
Scott Paper	Kimberly-Clark
Zenith	Motorola



Great by Choice

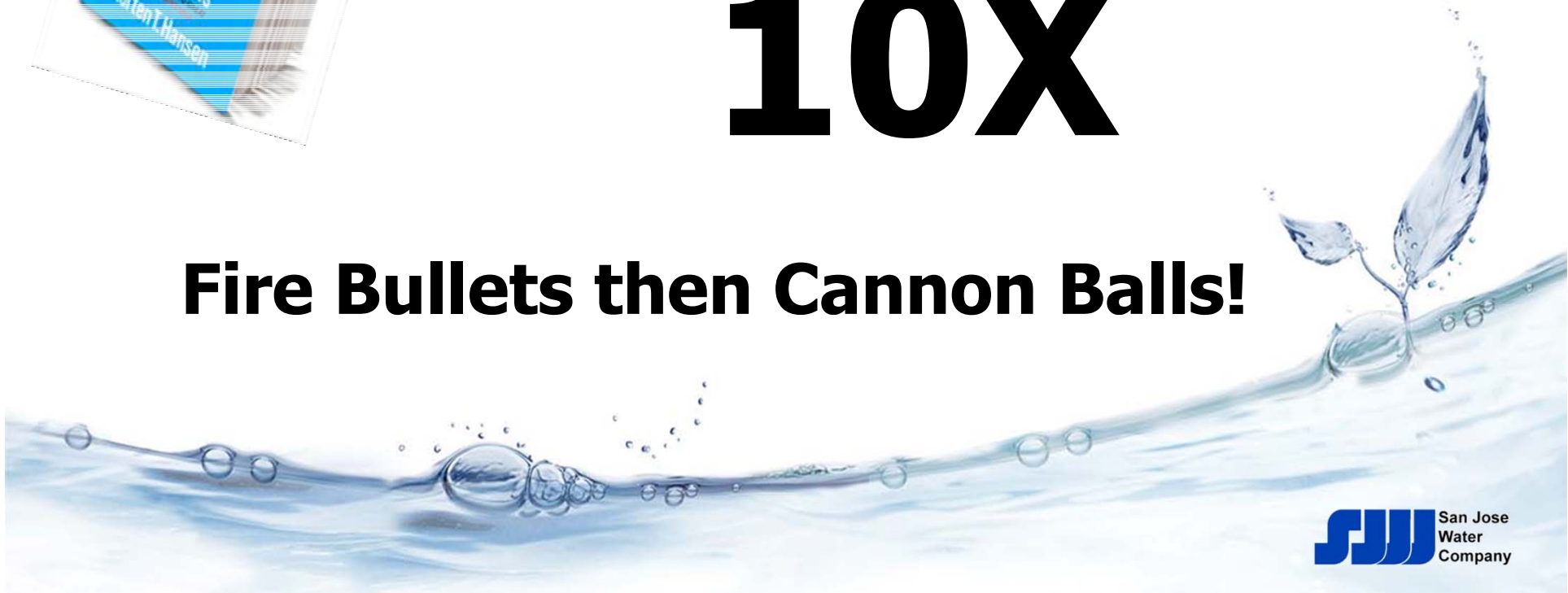


SMaC = Specific, Methodical, and Consistent

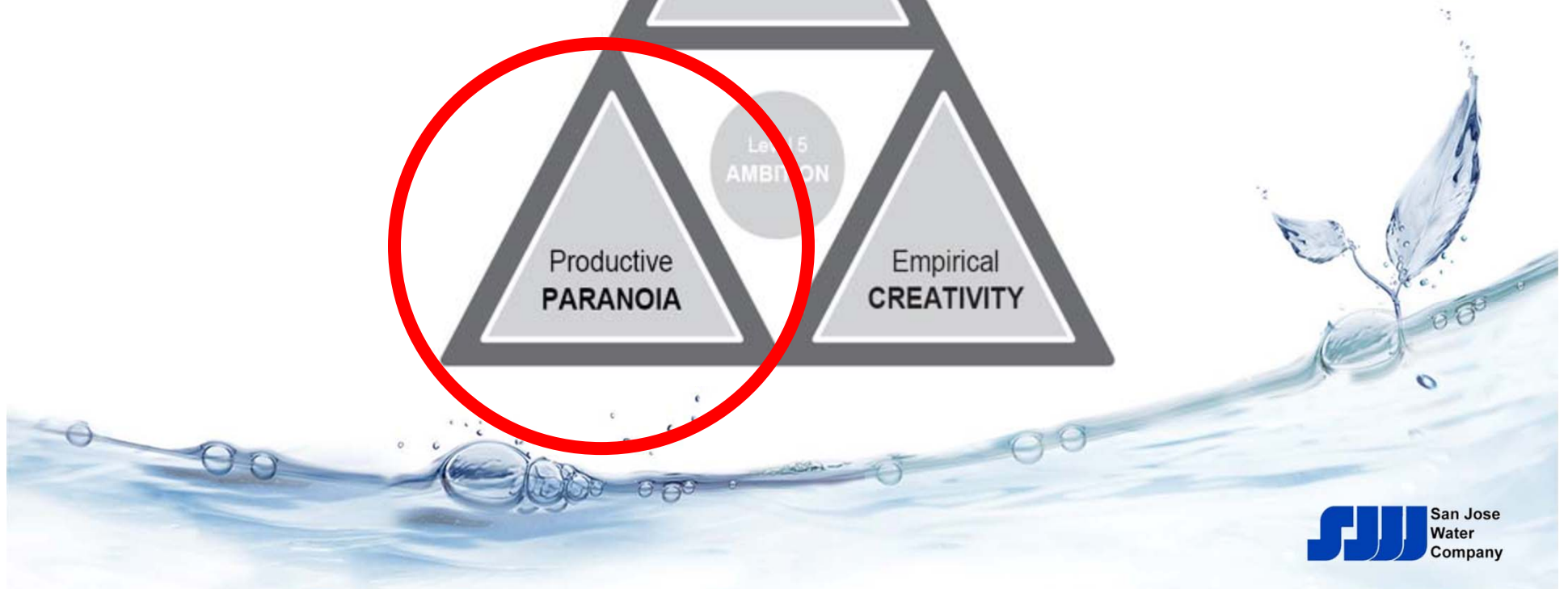
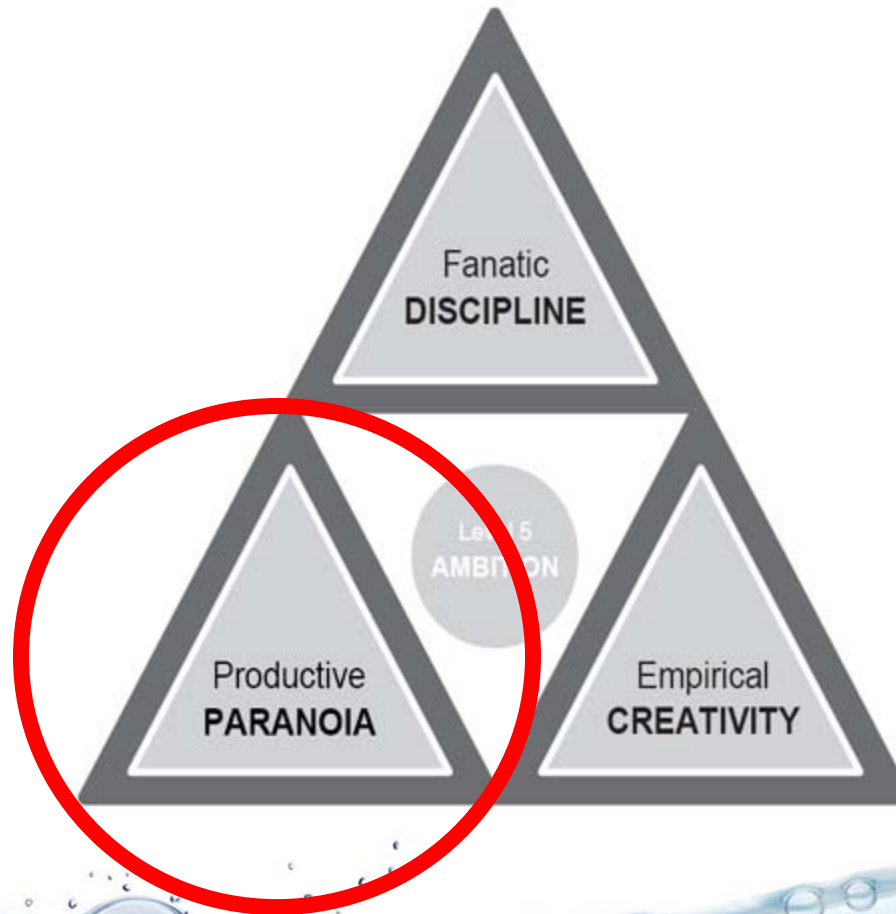
20 Mile March!

10X

Fire Bullets then Cannon Balls!



The Case for Risk Management



Race to the South Pole



Amundsen



Scott



What Started as THIS



Became THIS!



What Started as THIS

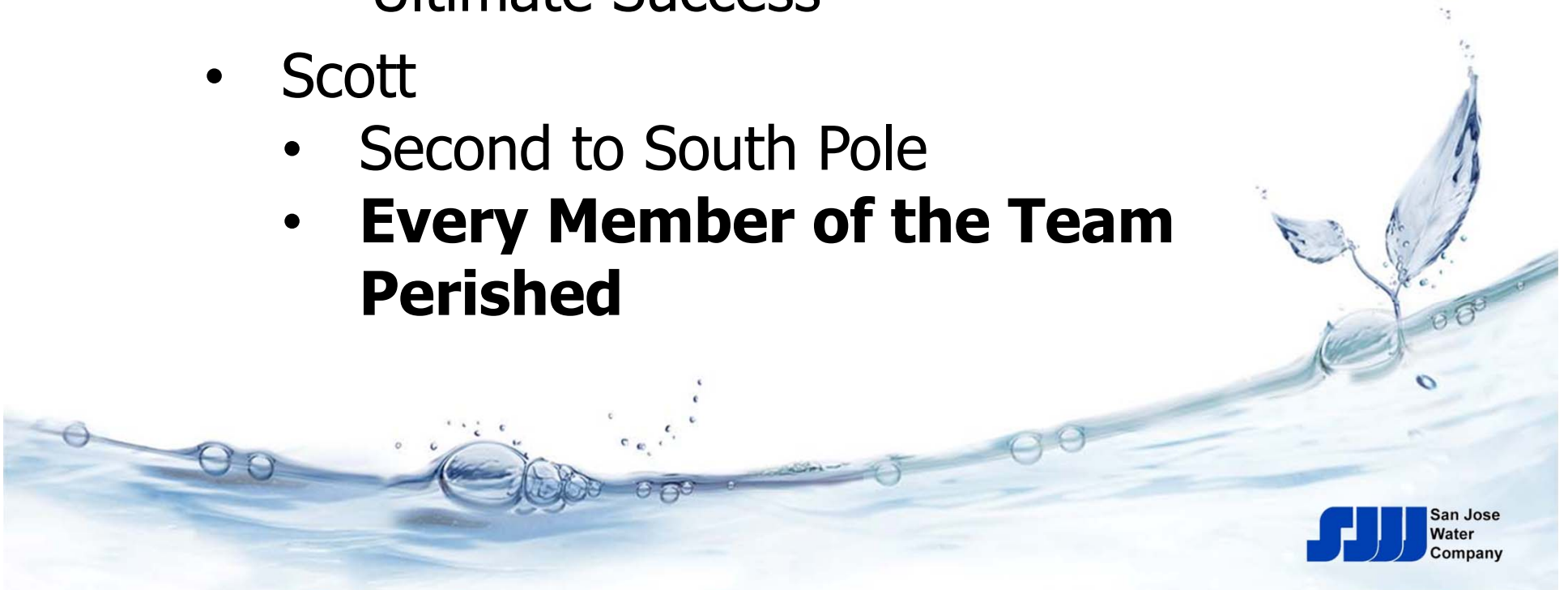


Became THIS!



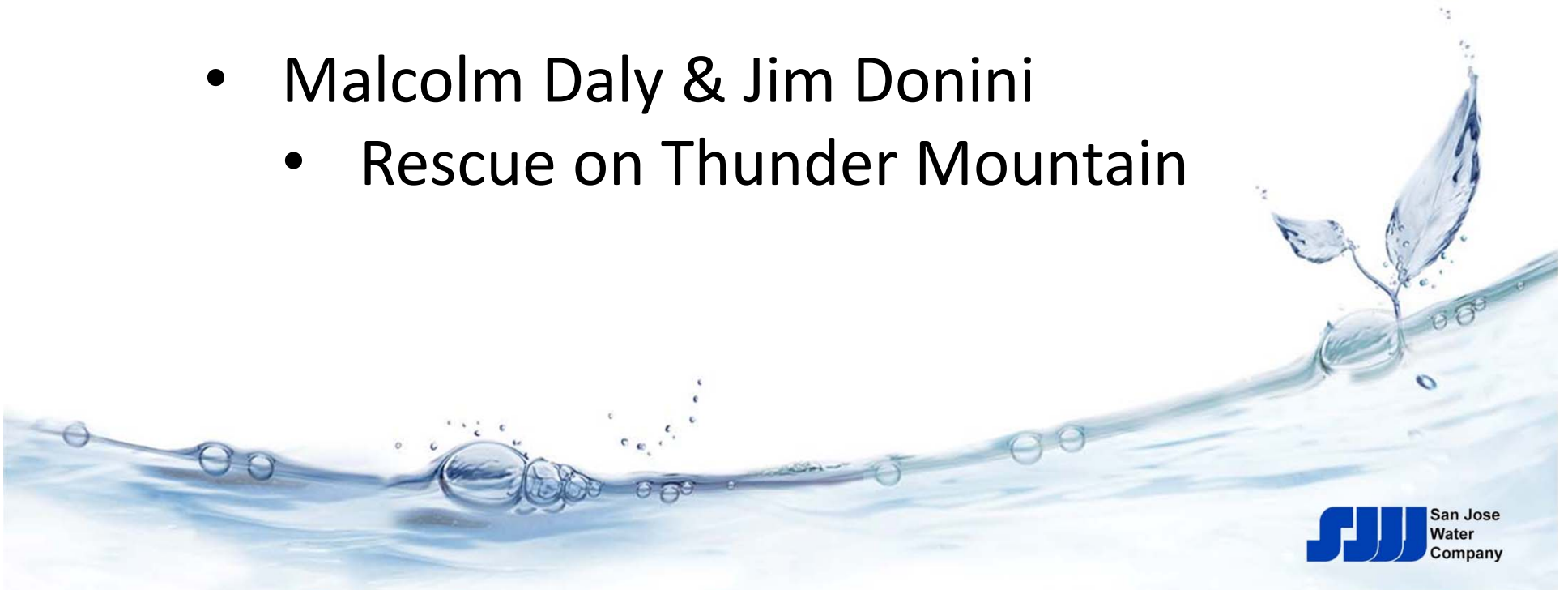
Ultimately The Difference!!

- Amundsen
 - First to Arrive at South Pole
 - Every Member Returned
 - Ultimate Success
- Scott
 - Second to South Pole
 - **Every Member of the Team Perished**



Luck...Skill...Preparation?

- David Breashears
 - Imax Filming from Mt. Everest
- Malcolm Daly & Jim Donini
 - Rescue on Thunder Mountain



Productive Paranoia

Productive Paranoia

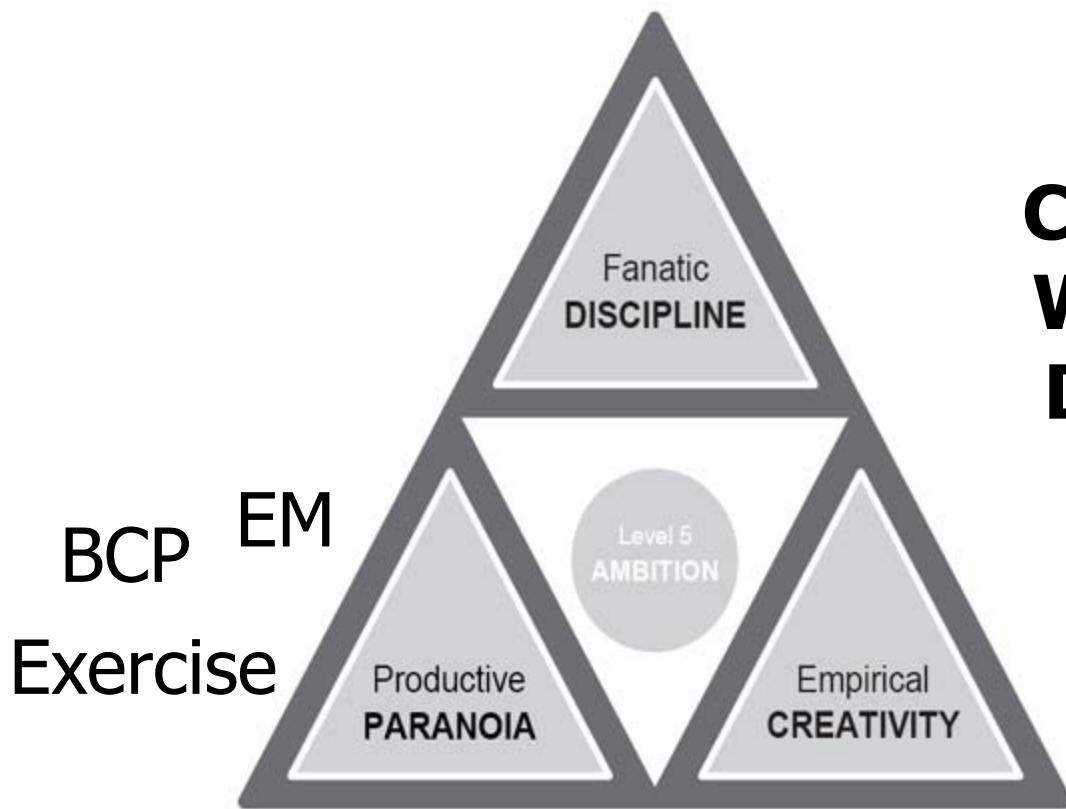
Paranoid behavior is enormously functional if fear is channeled into extensive **preparation** and **calm, clear headed action**. ~Jim Collins, Great by Choice

Productive Paranoia - Collins categorized successful leaders as "**paranoid, neurotic freaks.**" They are always **preparing** for **when, not if**, the next big disruption is going to happen. They may be preparing for the worst -- one company he studied prided itself on predicting the majority of the recessions in the past several decades -- but their pessimism pays off.

~ Kathleen Davis is an associate editor at Entrepreneur.com

We are a Cornerstone of GBC Companies!

**Uncertainty,
Chaos, and Luck—
Why Some Thrive
Despite Them All**



Critical Infrastructure Web



Challenge In Response and Recovery

- Fuel
- Parts
- Transportation
- Coordination



California Pipelines

- Kinder Morgan's Southern California system is not connected to its Northern California system.
- Fuel re-supply by pipeline from Northern California not possible
- Tanker trucks quickest, viable option to bring in additional fuel



Los Angeles Refinery

- Refines about 363,000 BPD of Crude to Gasoline, Jet Fuel, Diesel, and Petroleum Coke.
- About 90% of crude converted to gasoline, jet and diesel
- Personnel: ~1450 employees
- Site: 930 acres

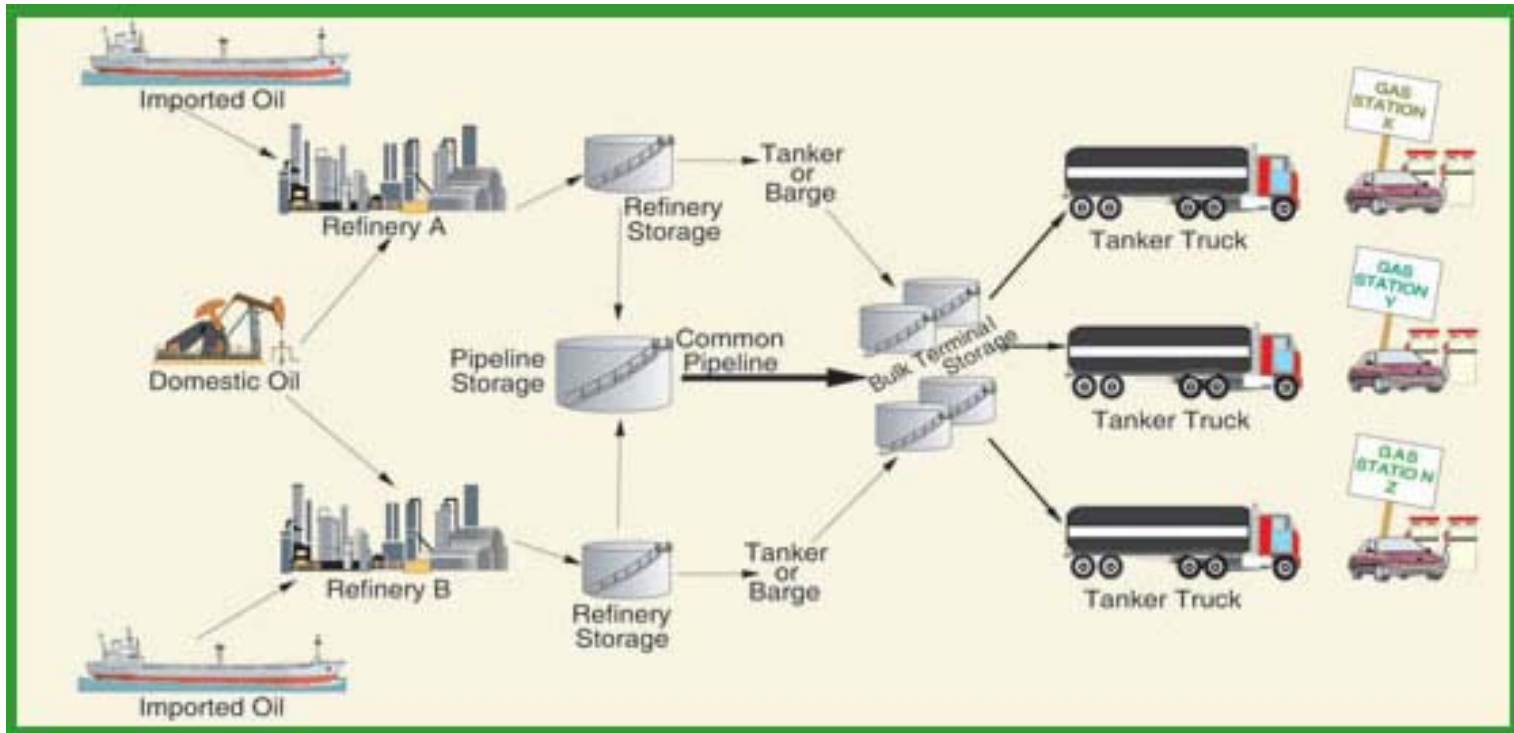
- **WATER**



Water and Fuel Nexus

- No Cal – Martinez refinery
- Total water consumption – a little more than **3 billion gallons a year (BGY)**. Only about 2% is from well water, the rest is purchased from Contra Costa.
- So Cal – Carson refinery
- Total Water – a little less than **4.8 BGY**. **1.3 BGY** is well water and a little less than **1.6 BGY** is reclaimed water from West Basin. **1.9 BGY** is purchased from the CA water service company.
- So Cal – Wilmington refinery
- Total Water – about **1.9 BGY** per year. Going forward we hope to get about **1.5 BGY** from well water and the balance purchased from LADWP.

Transportation Fuel Infrastructure



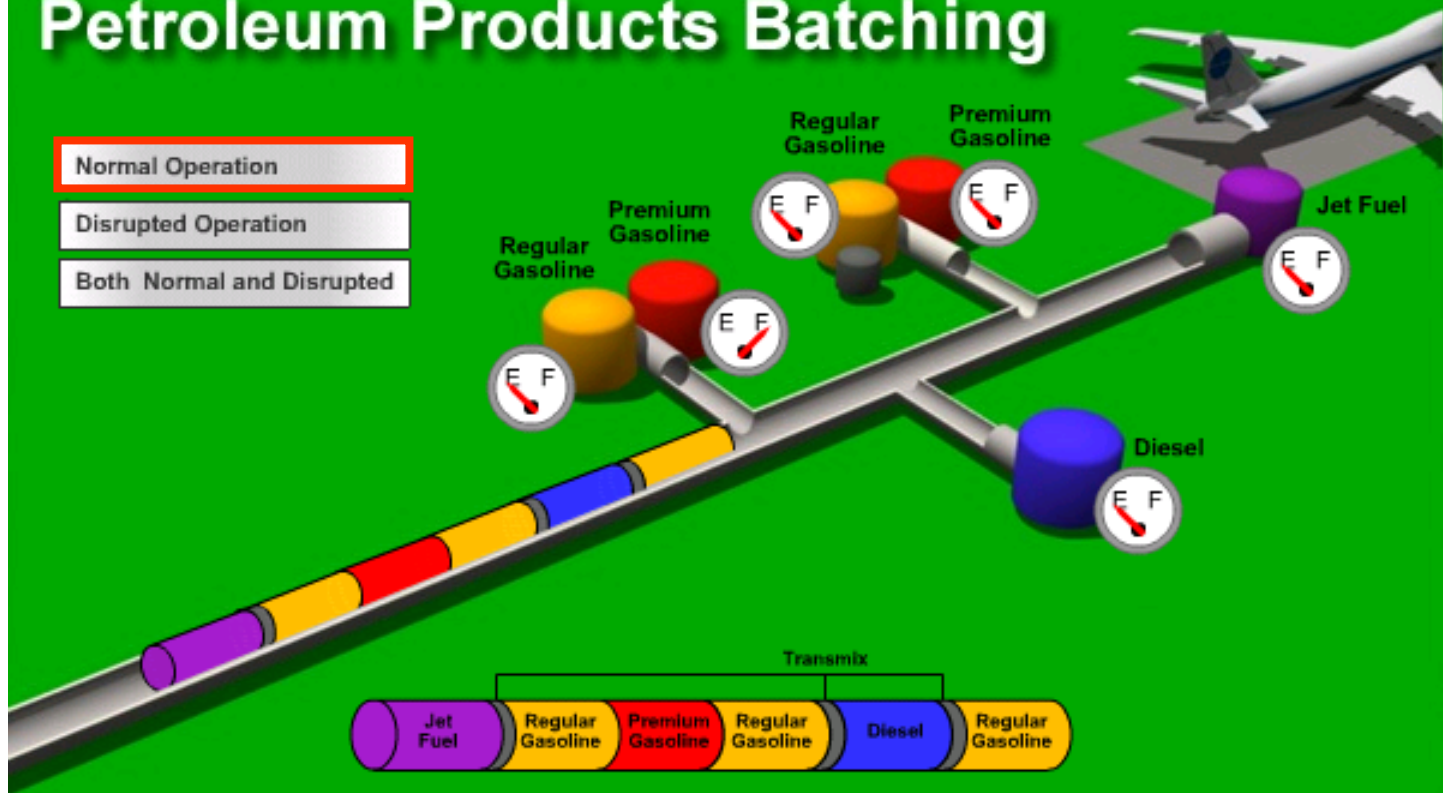
Source: Energy Information Administration

Petroleum Products Batching

Normal Operation

Disrupted Operation

Both Normal and Disrupted



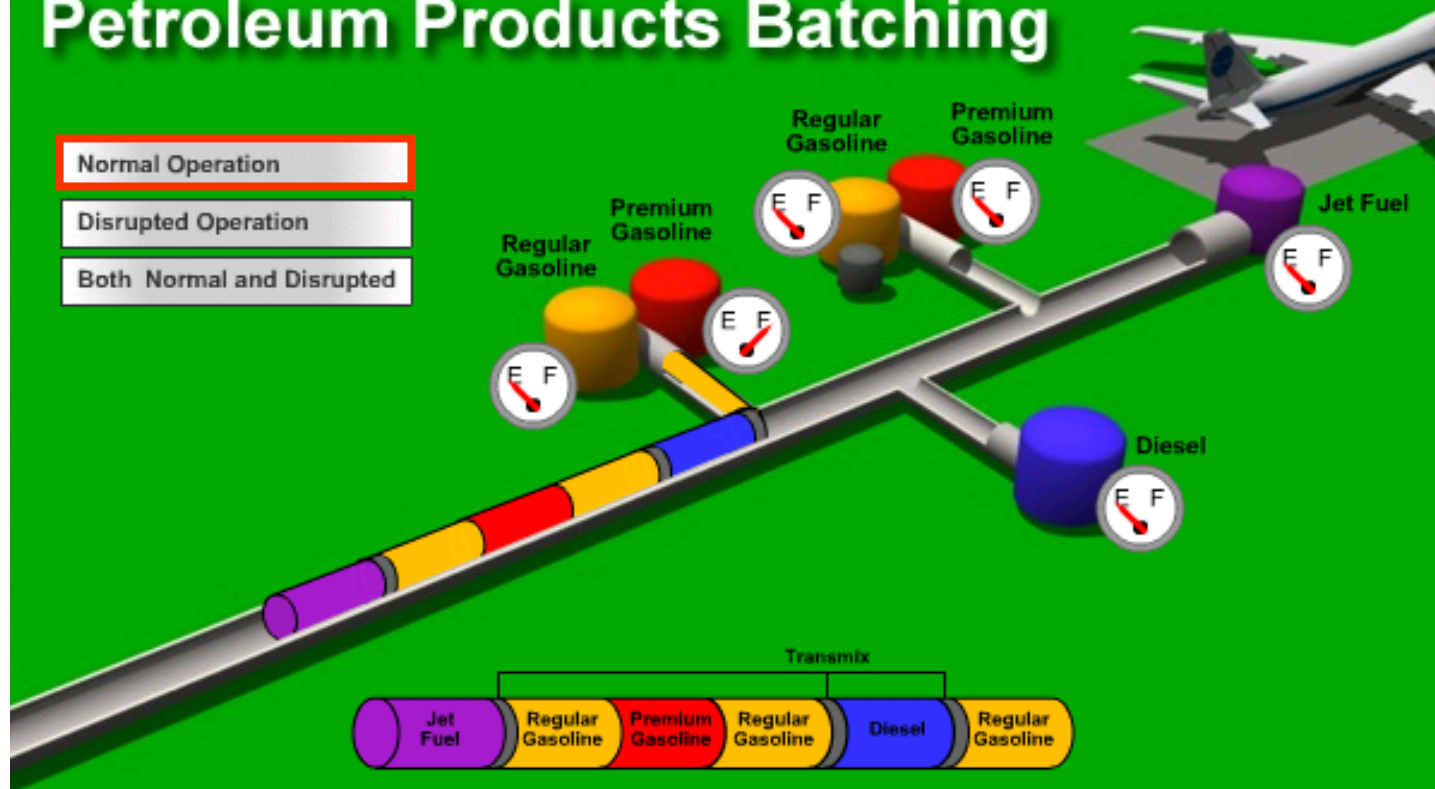
Through a single pipeline, we transport dozens of products and grades of gasoline at once through a process called "batching" This process makes it possible for pipeline operators to meet the diverse energy needs of the nation.

Petroleum Products Batching

Normal Operation

Disrupted Operation

Both Normal and Disrupted



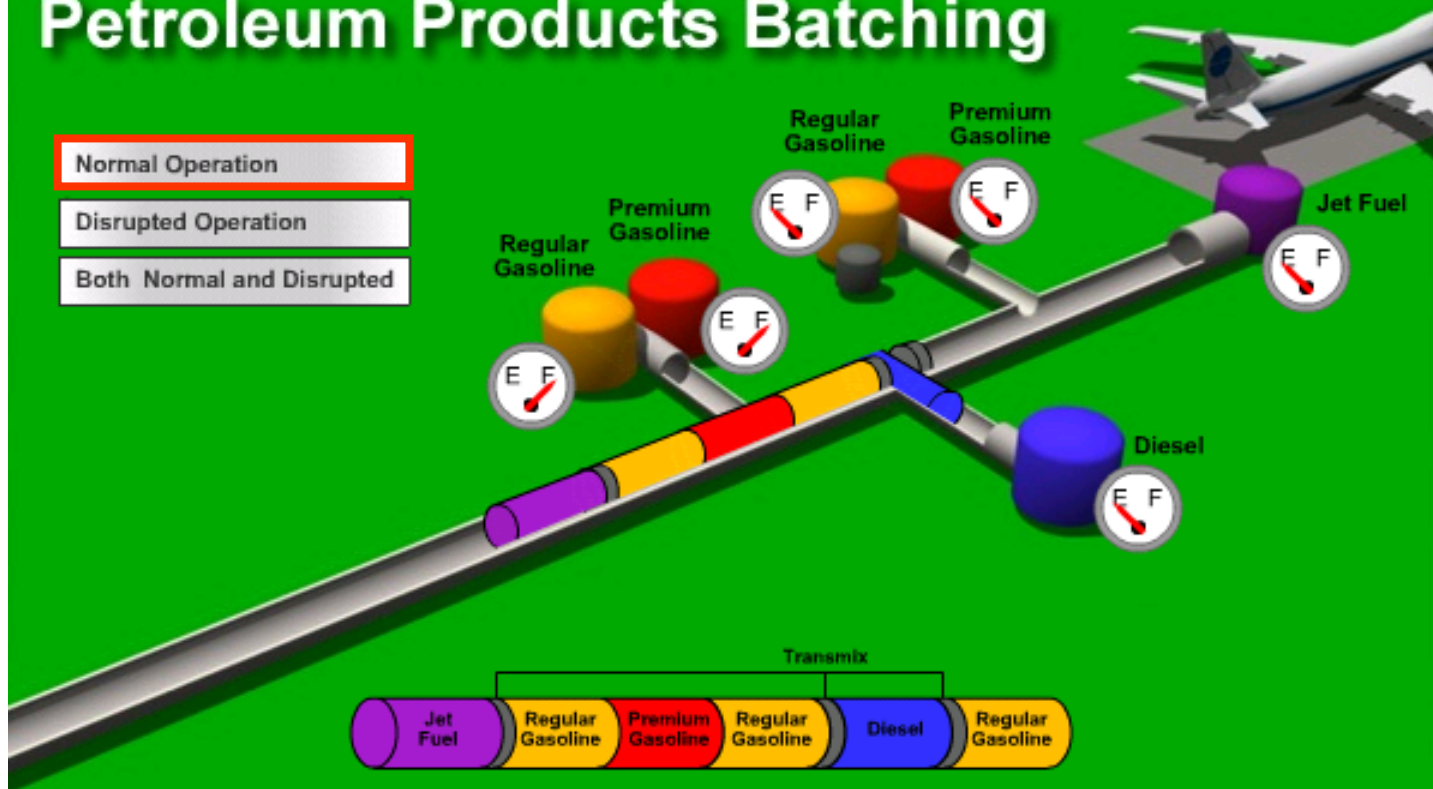
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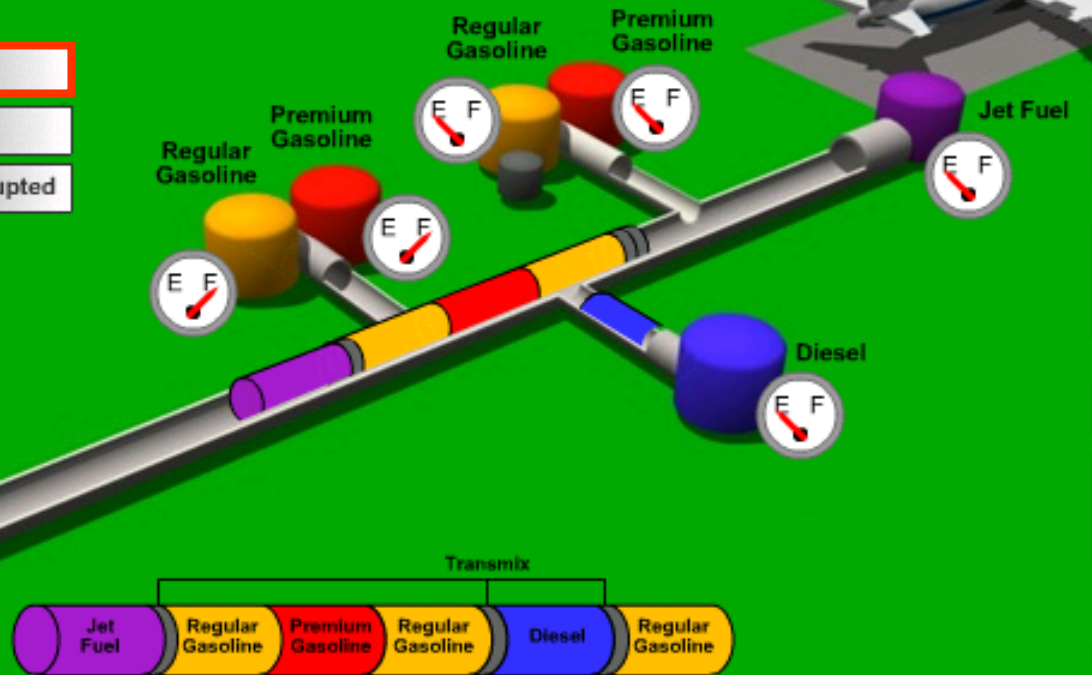
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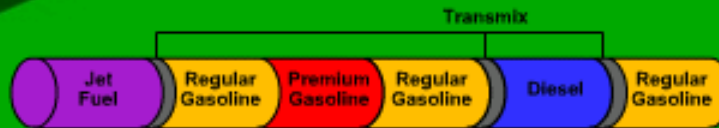
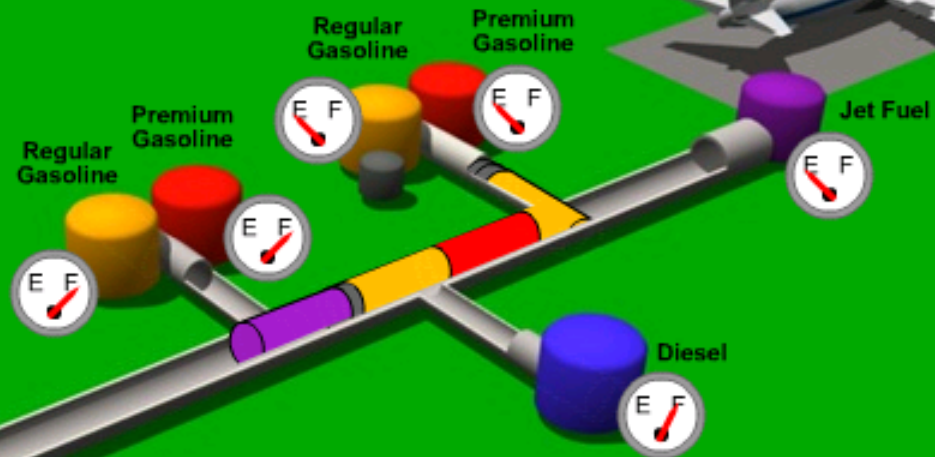
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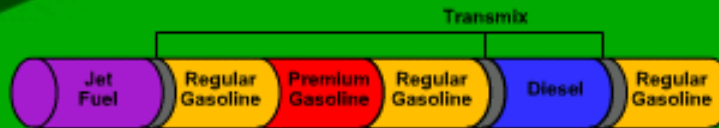
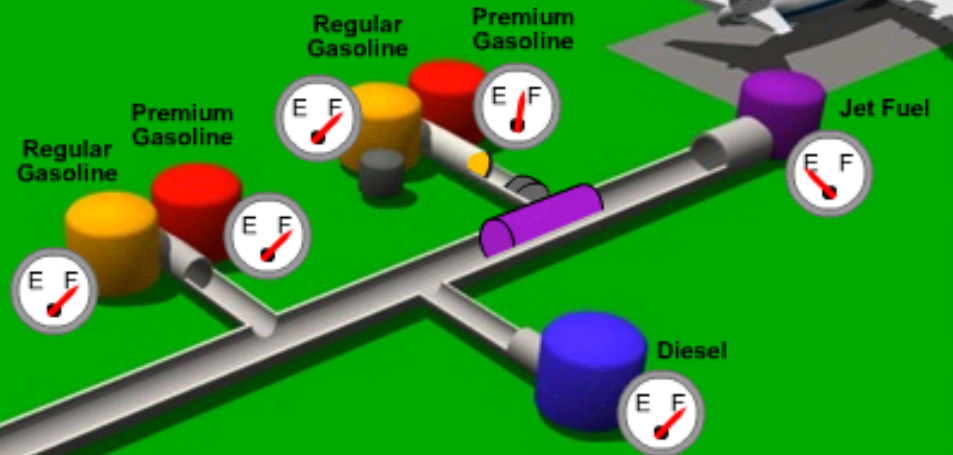
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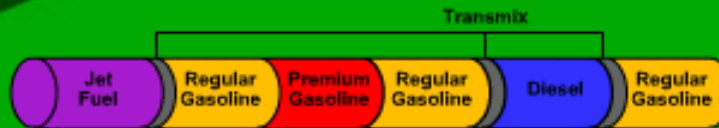
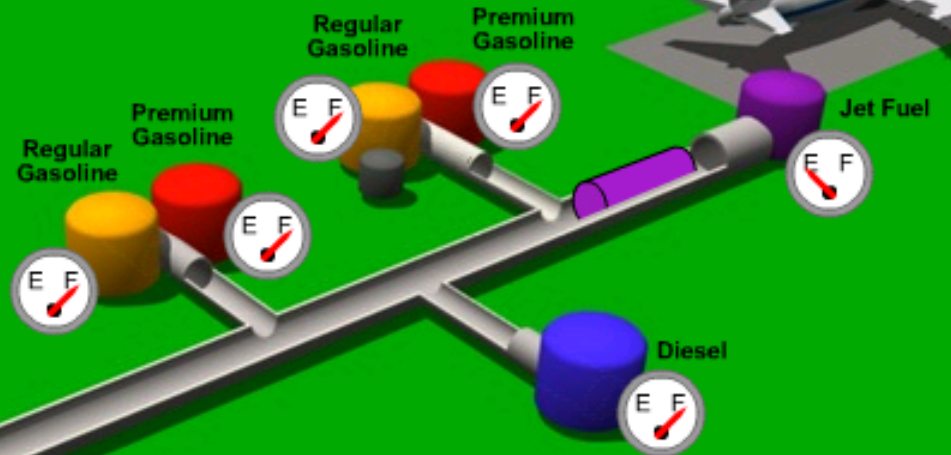
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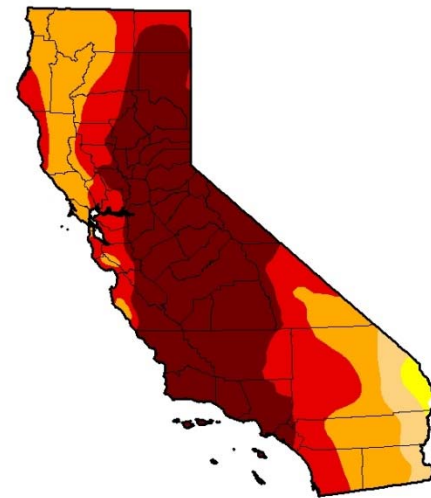


Through a single pipeline, we transport dozens of products and grades of gasoline at once through a process called "batching" This process makes it possible for pipeline operators to meet the diverse energy needs of the nation.

Drought

- Fourth year of historic drought
- Over 70% of California in extreme
- Governor orders 25% curtailment
- Utilities ordered to cut back 8%-36% based on gpcd

U.S. Drought Monitor
California



June 16, 2015
(Released Thursday, Jun. 18, 2015)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.14	99.86	98.71	94.59	71.08	46.73
Last Week 05/20/15	0.14	99.86	98.71	93.91	71.08	46.73
3 Months Ago 3/17/2015	0.16	99.84	98.11	93.44	67.46	39.92
Start of Calendar Year 12/31/2014	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year 09/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago 06/17/2014	0.00	100.00	100.00	100.00	76.69	32.98

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

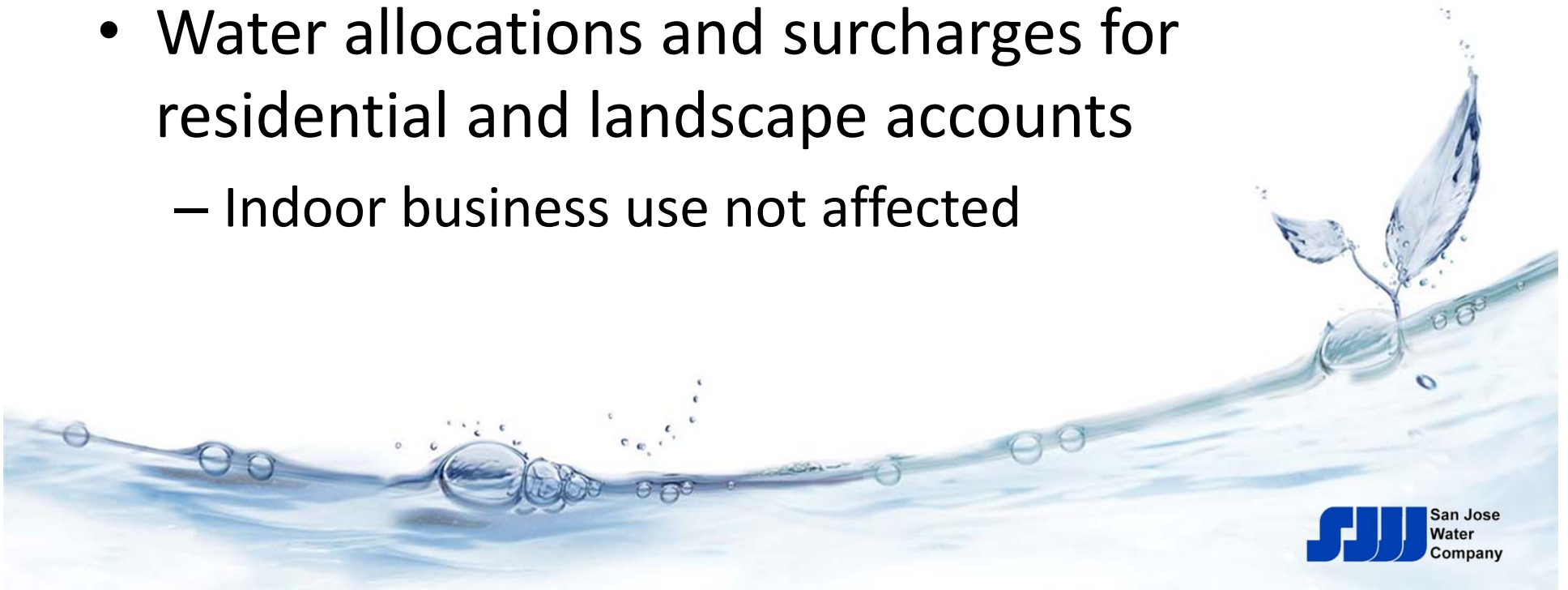


<http://droughtmonitor.unl.edu/>



SJWC

- 30% conservation target
- Mandatory rules mostly focused on outdoor watering
- Water allocations and surcharges for residential and landscape accounts
 - Indoor business use not affected

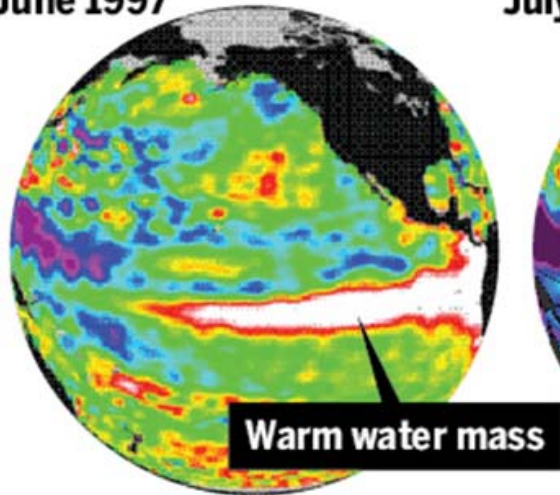


El Niño: Then and Now

El Niño growing

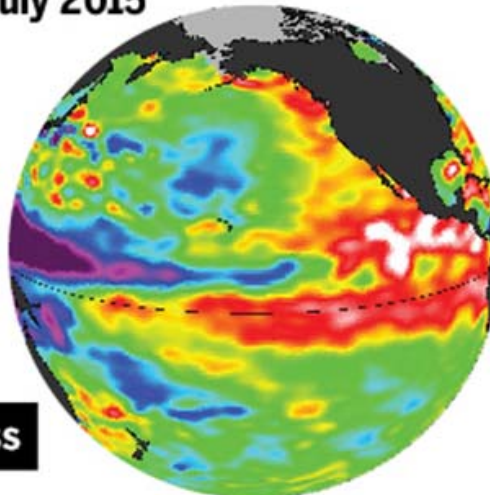
Although the trend could change in coming months, warming waters in the Pacific Ocean could bring soaking winter storms – as they did during the 1997-98 rainy season. Forecasters predict there is a greater than 90 percent chance that El Niño will continue in the Northern Hemisphere this winter.

June 1997



Source: NASA Jet Propulsion Laboratory

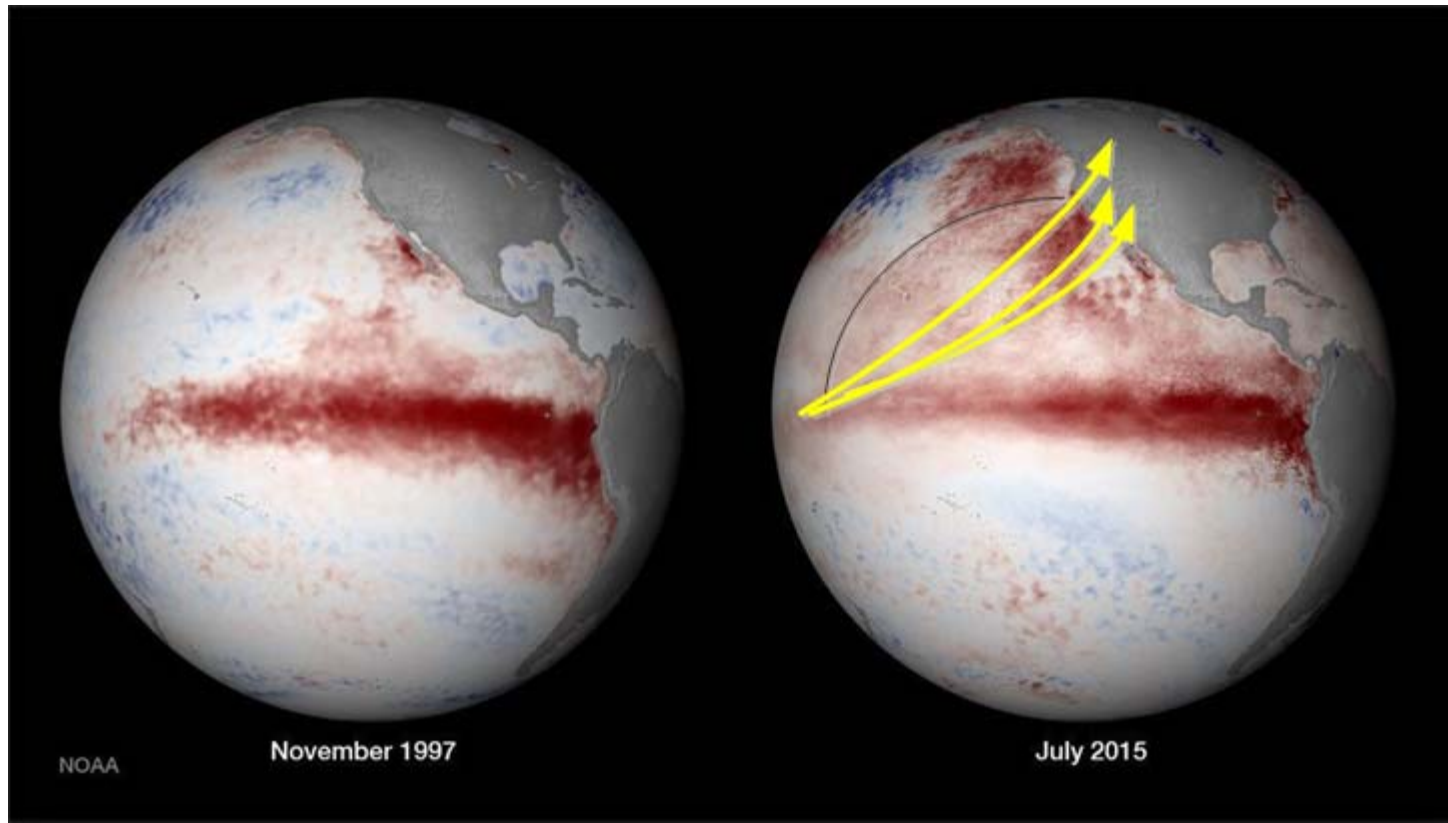
July 2015



BAY AREA NEWS GROUP



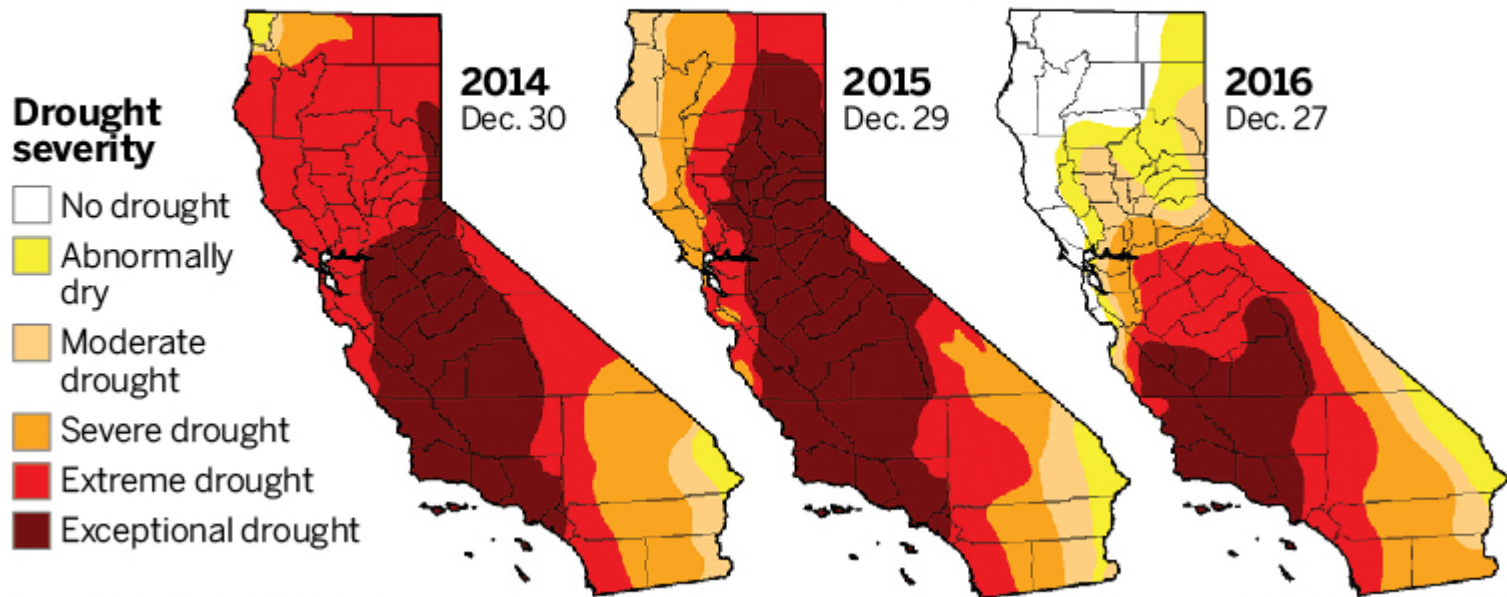
El Nino: Storm Path Options



California Drought

CALIFORNIA'S DROUGHT WEAKENS

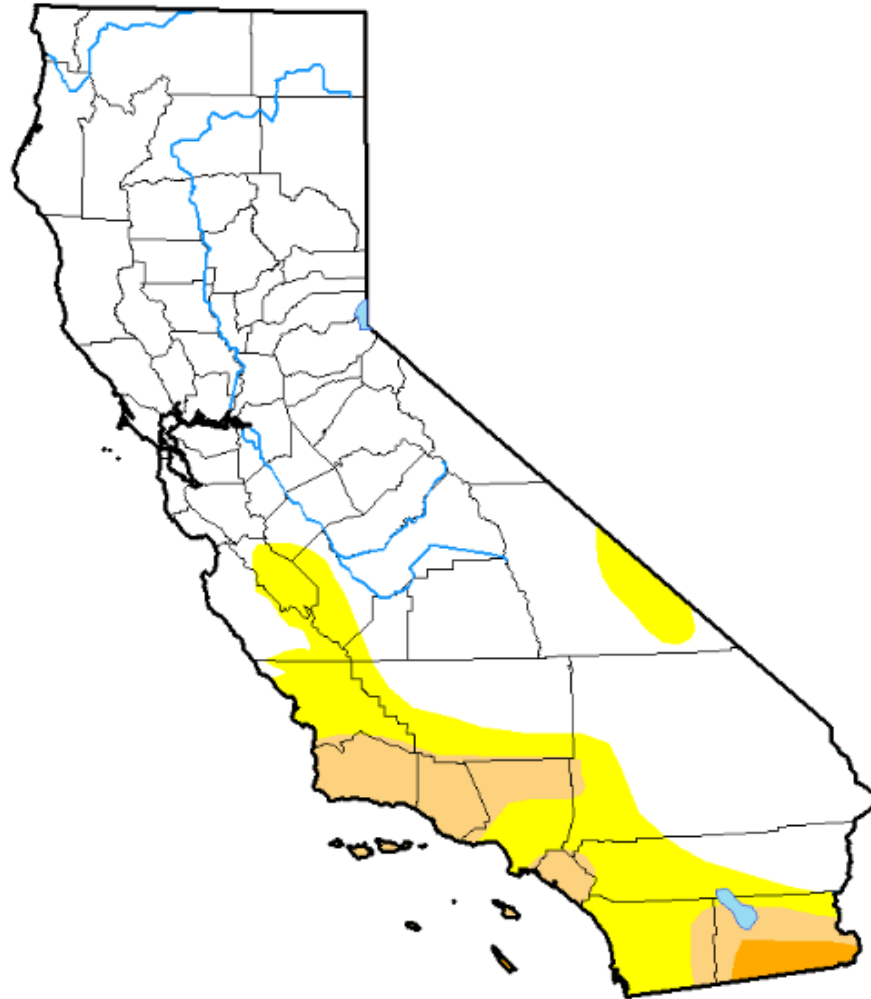
Steady rain since October and a near-normal winter last year have ended the drought in some northern counties, but Southern California and the San Joaquin Valley remain in more serious conditions.



Source: U.S. Drought Monitor

BAY AREA NEWS GROUP

California Drought





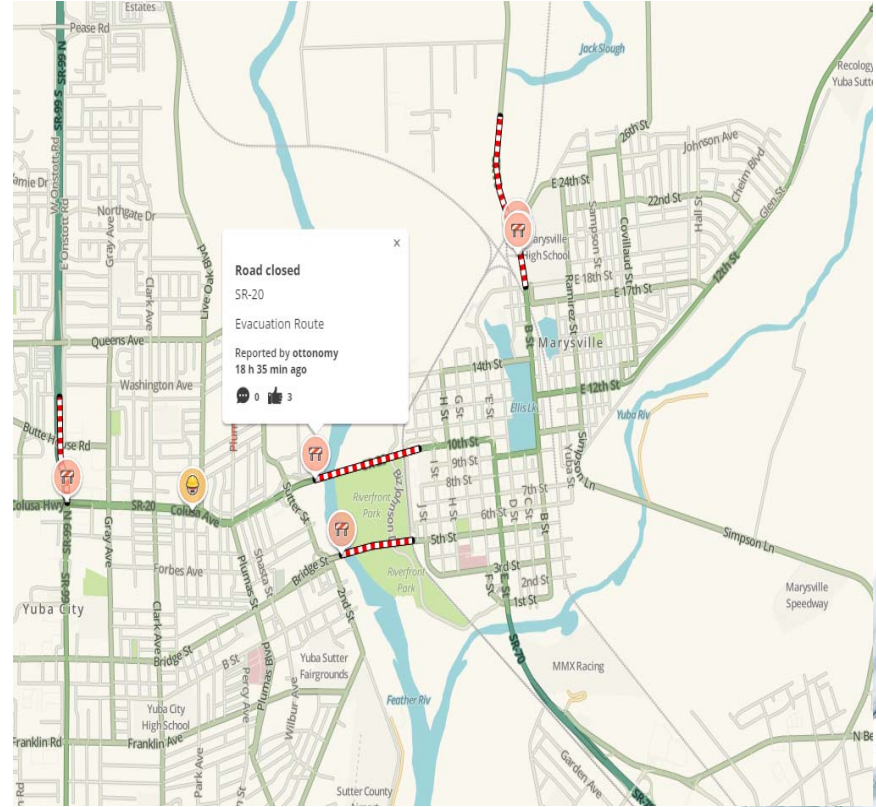
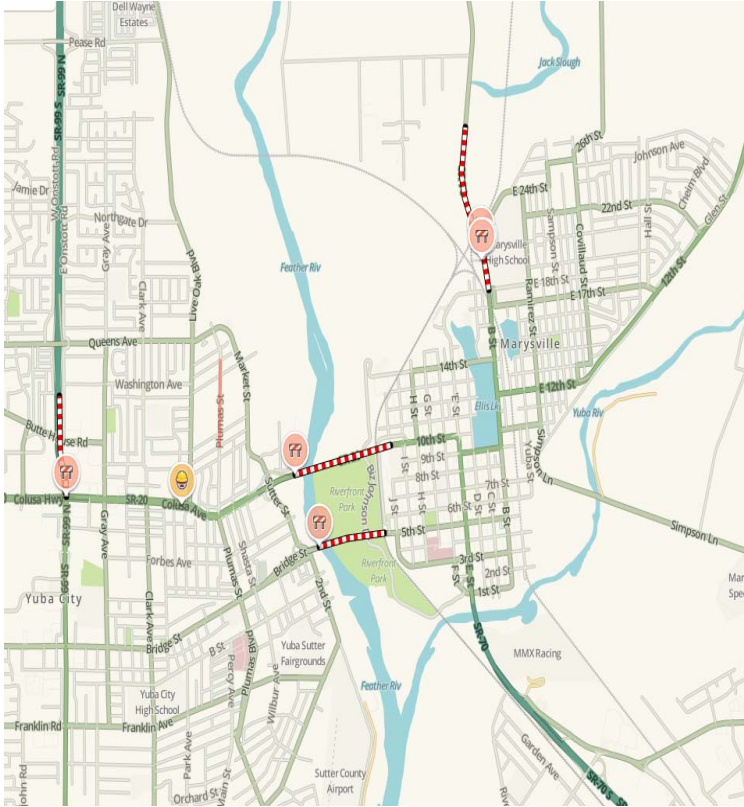
Lake Oroville Dam: e



Emergency spillway

Emergency spillway failure could send uncontrolled water here

App path of water







San Jose Water Company

1 hr · 🌐

A water main replacement is happening on Lenfest Rd from Mabury Rd to Nicora Ave from Tue, Feb 14, 2017 10:00 AM to Tue, Feb 14, 2017 4:00 PM

SJWC continually replaces our infrastructure as it reaches the end of its useful life to ensure we can continue to deliver safe, high quality, and reliable water. Water main replacements involve replacing existing water mains with new ones to improve water flow characteristics, enhance public health and safety, and deliver reliable water...

[See More](#)



Main Replacement map and details

A MAP SHOWING THE APPROXIMATE EXTENT OF THE IMPACT...



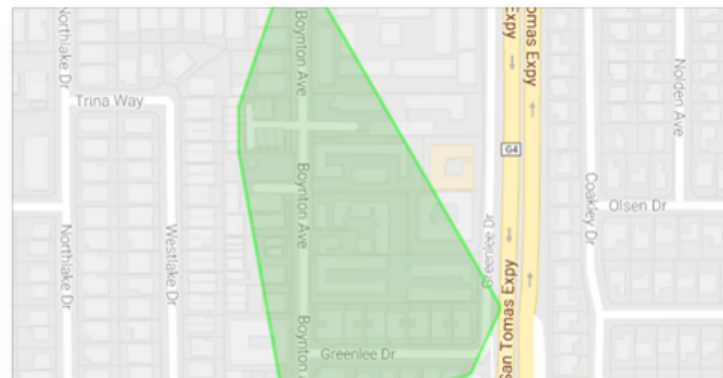
San Jose Water Company

3 hrs · 🌐

Emergency

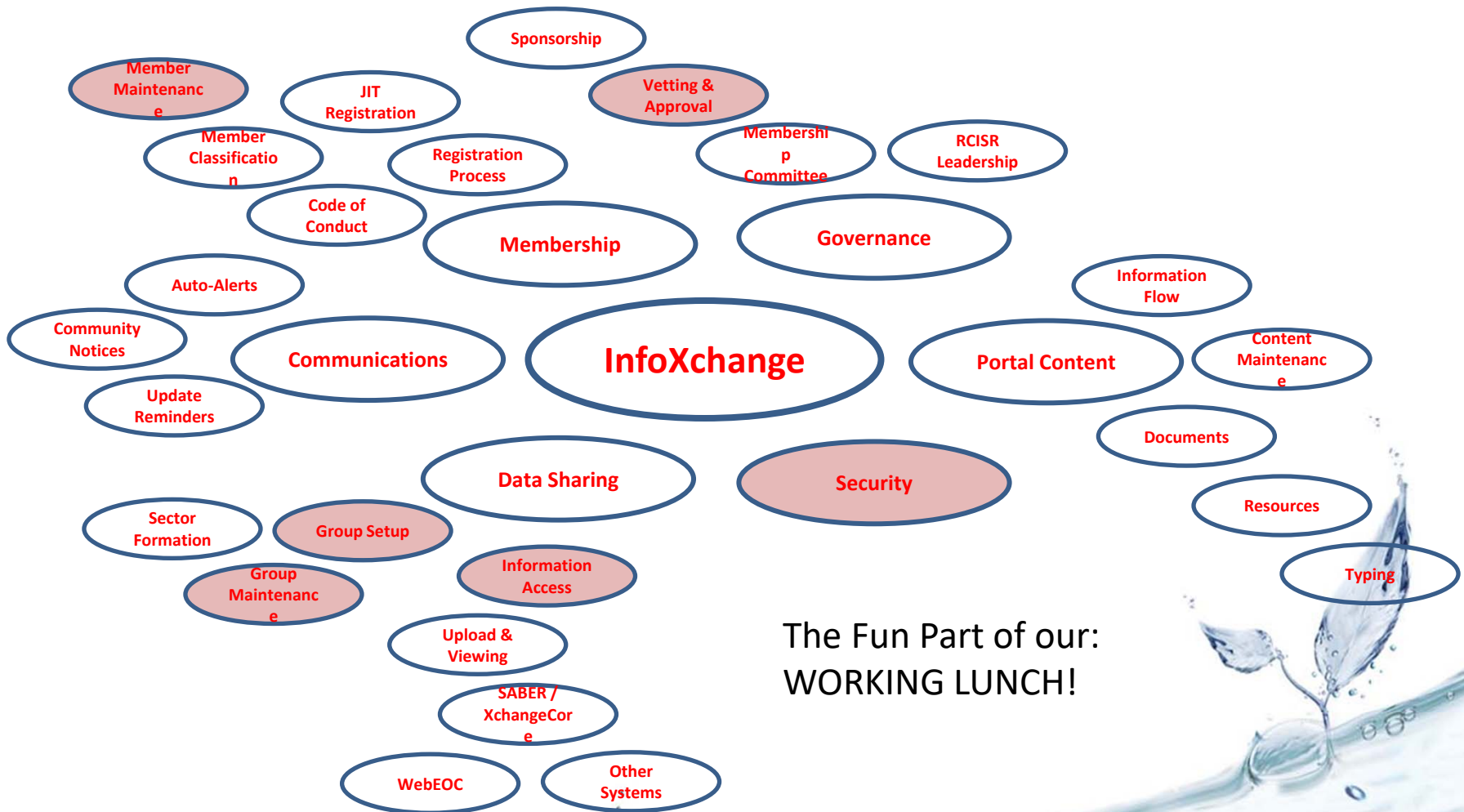
A leak repair is happening on Boynton Ave between Kiely Blvd & Akron from Mon, Feb 13, 2017 1:00 PM to Mon, Feb 13, 2017 4:00 PM

All water utilities experience leaks in their systems and according to a recent study, the average US water utility loses approximately 15% - 20% of its water to leaks. SJWC works very hard to minimize and quickly respond to leaks. Through very proactive water main replacement and leak repair programs, our water loss consistently ave... [See More](#)



Leak Repair map and details

A MAP SHOWING THE APPROXIMATE EXTENT OF THE IMPACT...



The Fun Part of our:
WORKING LUNCH!

Business Community

- Landscape accounts subject to allocations and surcharges
- Proactive engagement to offer comprehensive water conservation program
 - Water audits
 - Rebate programs
 - Conservation information

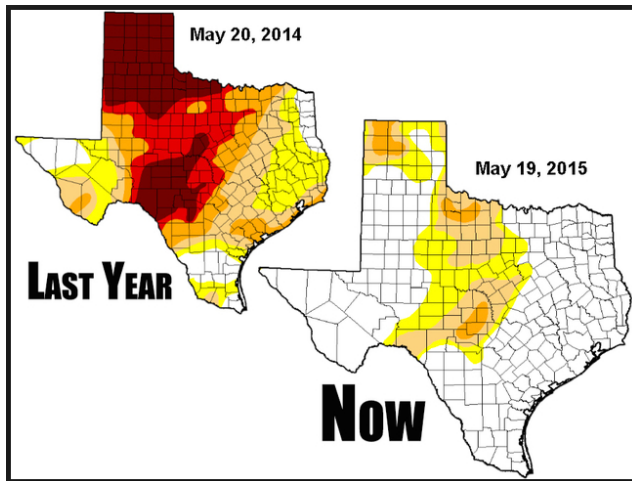


What can we do better?

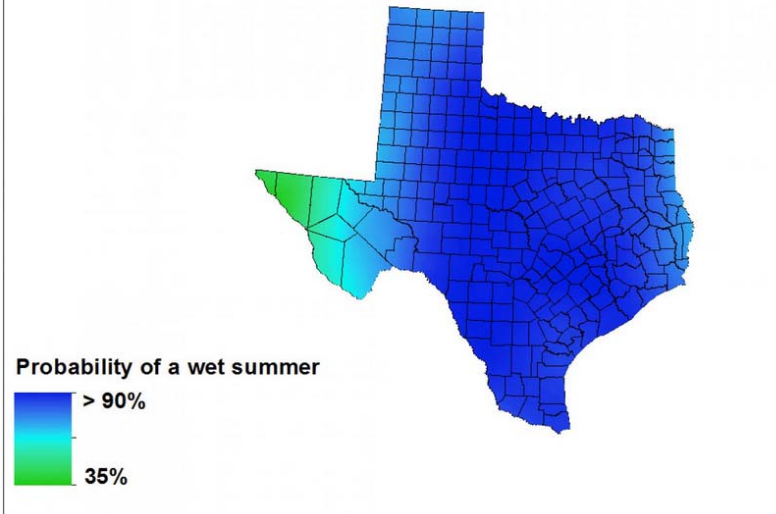
- Engage all stakeholders
- Fast-track development of alternative water supplies (recycled water)
- Leverage technology (AMI) to maximize conservation potential



From Fire to Flood



2015: May through July (MJJ) rainfall probability

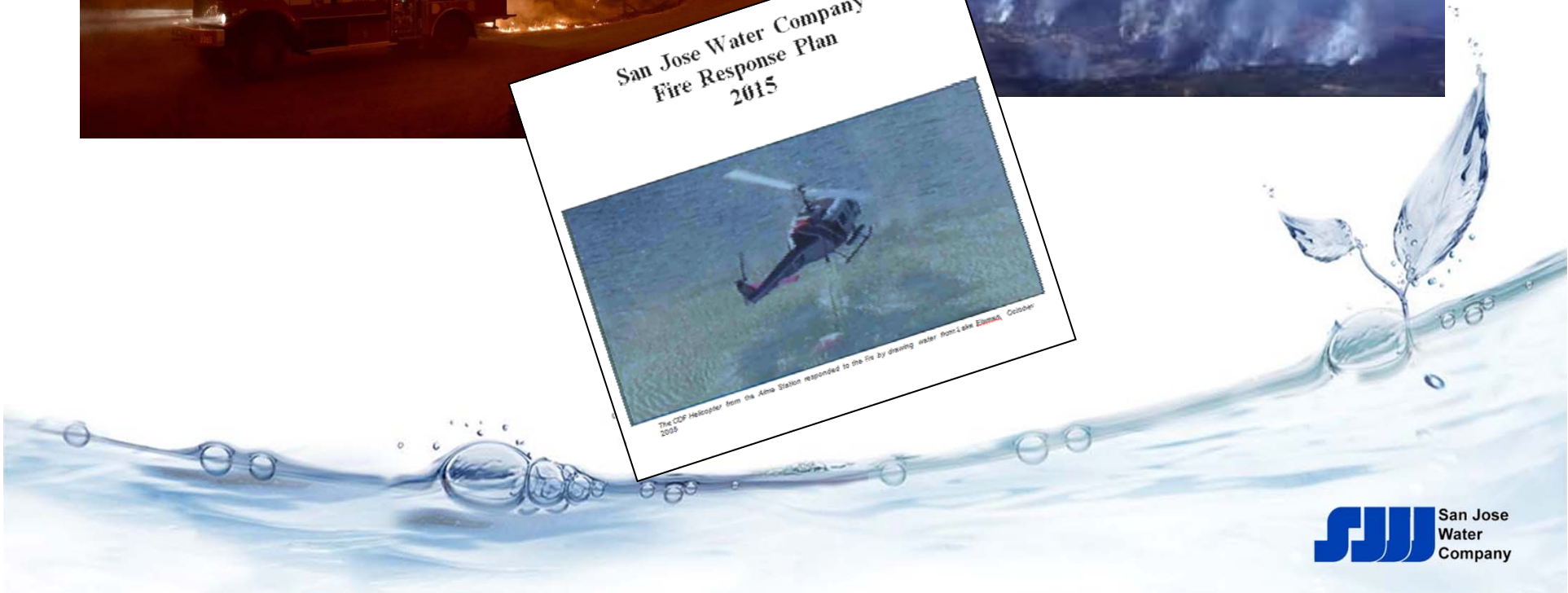
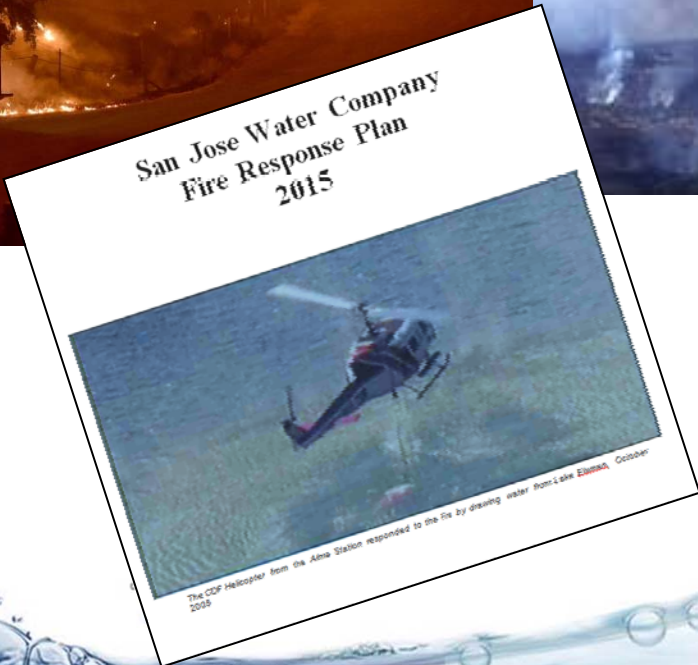


The Wildland Fire Threat

- Drought Scenario Planning
 - Wild Land Fire Planning
 - Table Top Exercises
 - Field Meetings
 - Response Review
 - Communications Plan



Fire Emergency Response Planning



What is a WARN?

- Water And Wastewater Utilities
 - Signed an agreement
 - Voluntarily share resources following disaster
- No cost to join
- Consistent with NIMS/ICS Principles
 - Mutual Aid and Assistance
 - Standardized Emergency Management System
- CalWARN
 - 325 plus signatory agencies
 - Model for a National WARN movement following Hurricane Katrina
 - Now 49 of 50 States have WARN organizations



UTILITIES HELPING UTILITIES:

AN ACTION PLAN FOR MUTUAL AID AND ASSISTANCE NETWORKS FOR WATER AND WASTEWATER UTILITIES

By Kevin Morley, American Water Works Association and Ray Riordan, California Utilities Emergency Association

An ounce of prevention is worth a pound of cure.
- Benjamin Franklin



Advisory
Communications
Conferences
Education and Training
Science and Technology
Sections



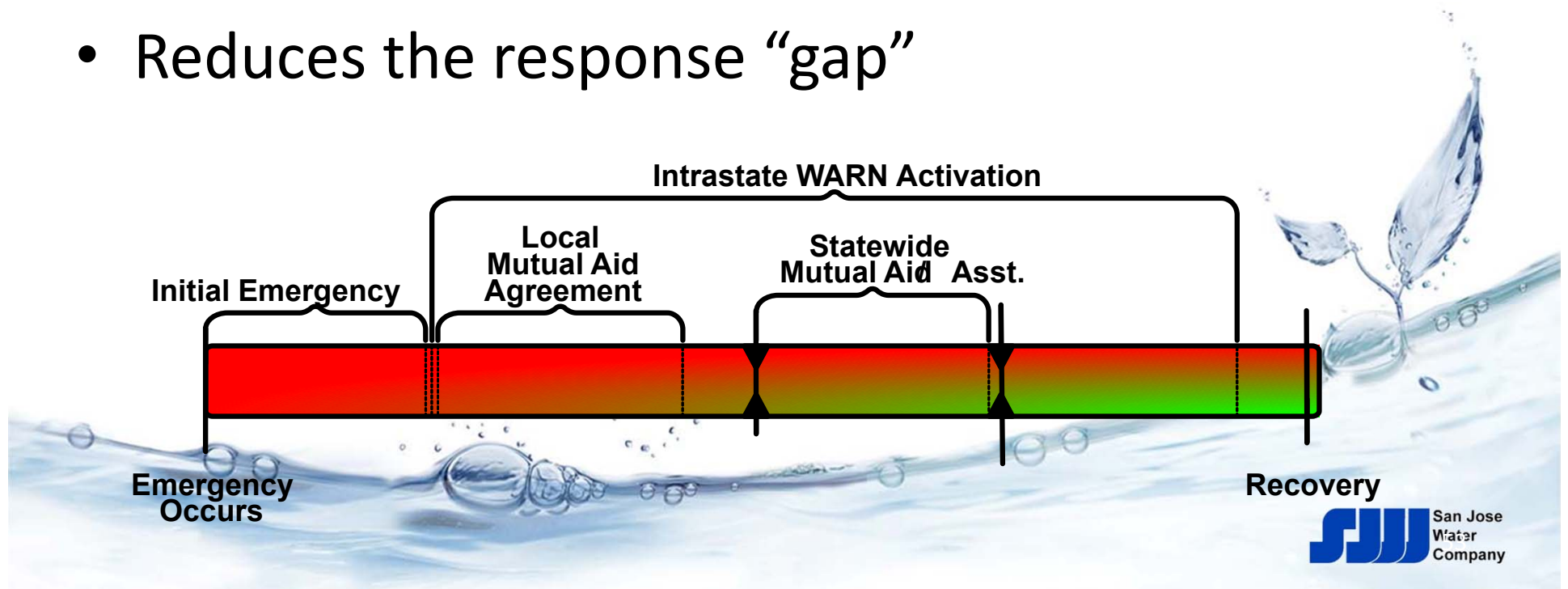
Mutual Aid and Assistance Mission

- Share Qualified Personnel and Equipment (Portable)
 - Operations
 - Maintenance
 - Treatment
 - Management
 - Customer Service
 - Laboratory
- Only ONE Limitation
 - Commodity
- Promote Preparedness and Readiness



WARN Bridge

- Includes public AND private utilities
- Operates utility to utility for small local events
- Large events coordinated with emergency management
- Reduces the response “gap”



CalWARN Regions

California Regions



Multi-Agency Emergency Drinking Water Guidance

- Post Earthquake Need
 - 1994 Northridge Earthquake
 - 2007 post BASIC exercise
- Collaboration of State, Local Agencies and Water Utilities
- Developed process
 - Identify water need
 - Identify process for requesting support
 - Identify need for Points of Distribution
 - Recognized the collaboration required



Multi-Agency Response Guidance For Emergency Drinking Water Procurement & Distribution

Arnold Schwarzenegger
Governor
State of California

Henry Renteria
Director
Governor's Office of Emergency Services



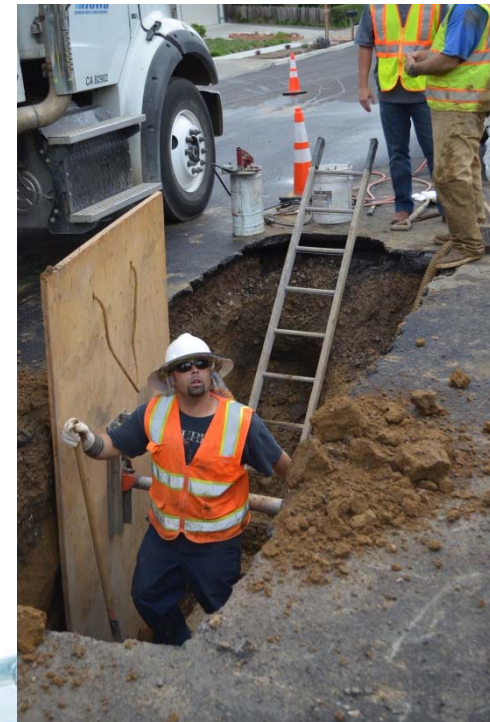
2nd Edition
June 2007



Successful Uses of WARN

- CalWARN
 - Northridge Earthquake, 1994
 - El Nino Storms, 1998
 - Sonora Fires, 2001
 - Southern California Fires, 2007
 - Baja California Earthquake, 2010
 - Napa Earthquake, 2014
- COWARN
 - City of Alamosa Salmonella outbreak, 2008
- FlaWARN
 - Hurricanes Katrina, Wilma and Rita, 2005
 - Tornadoes, 2007
- ORWARN
 - Detroit Blizzard 2008
- TNWARN, INWARN, KYWARN, AKWARN
 - Ice Storm February 2009
- TXWARN
 - Rain Storms and Hurricane Humberto, 2007
 - Hurricane Dolly and Ike, 2008

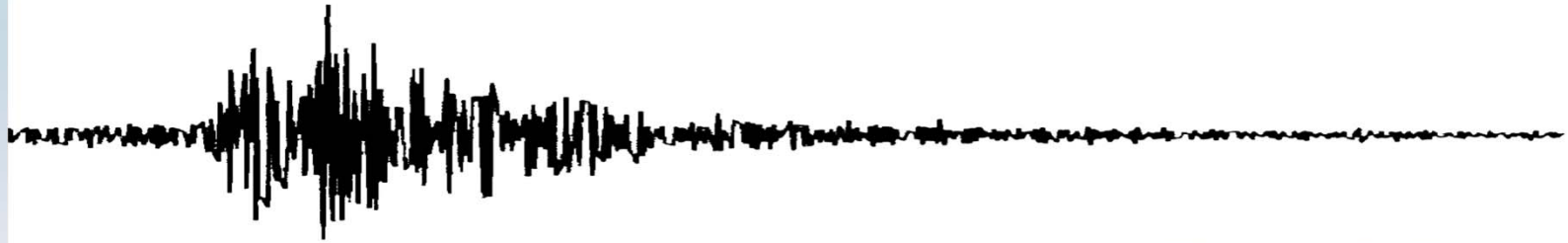
This list includes only the major documented cases of WARN activation



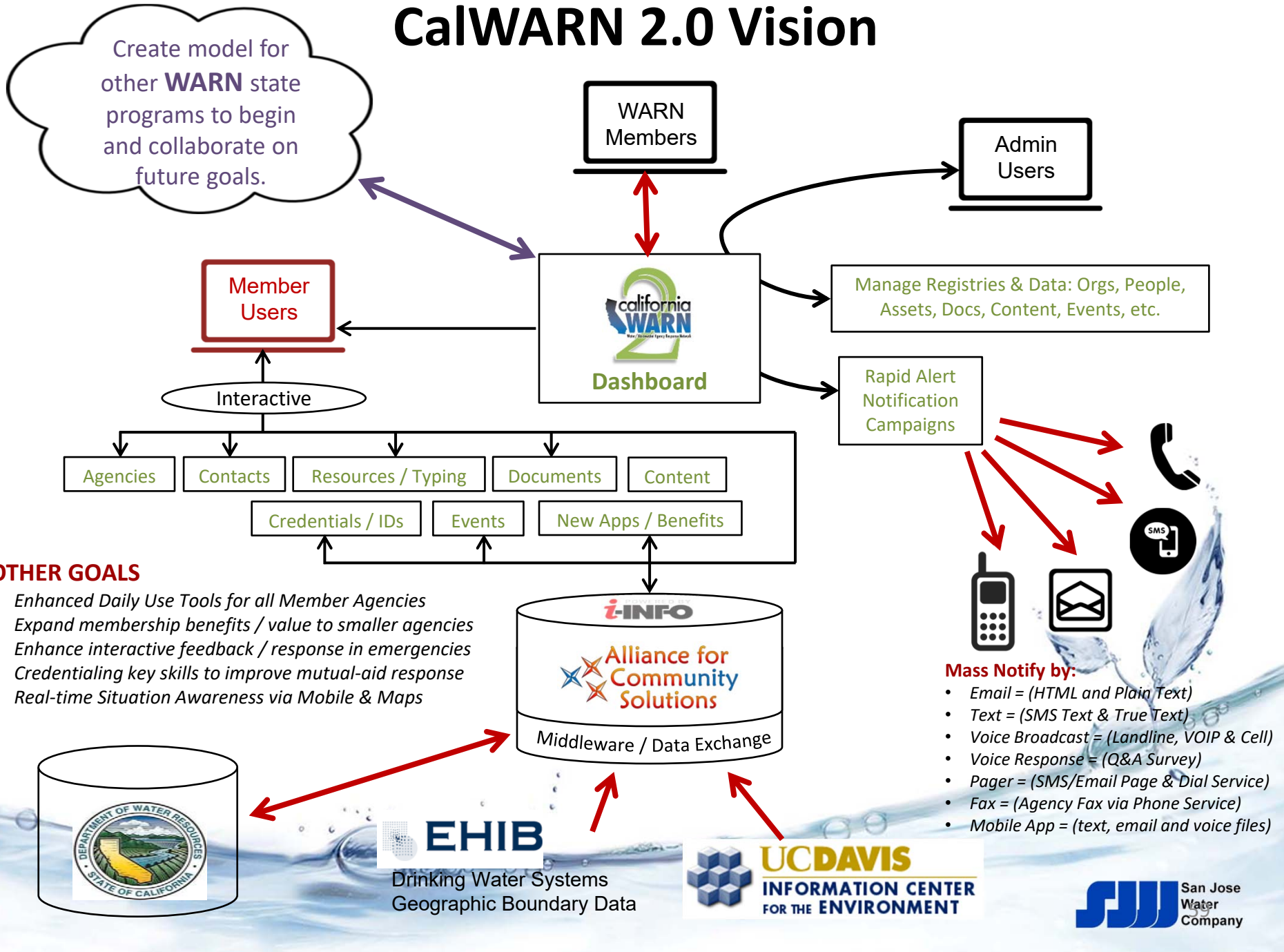


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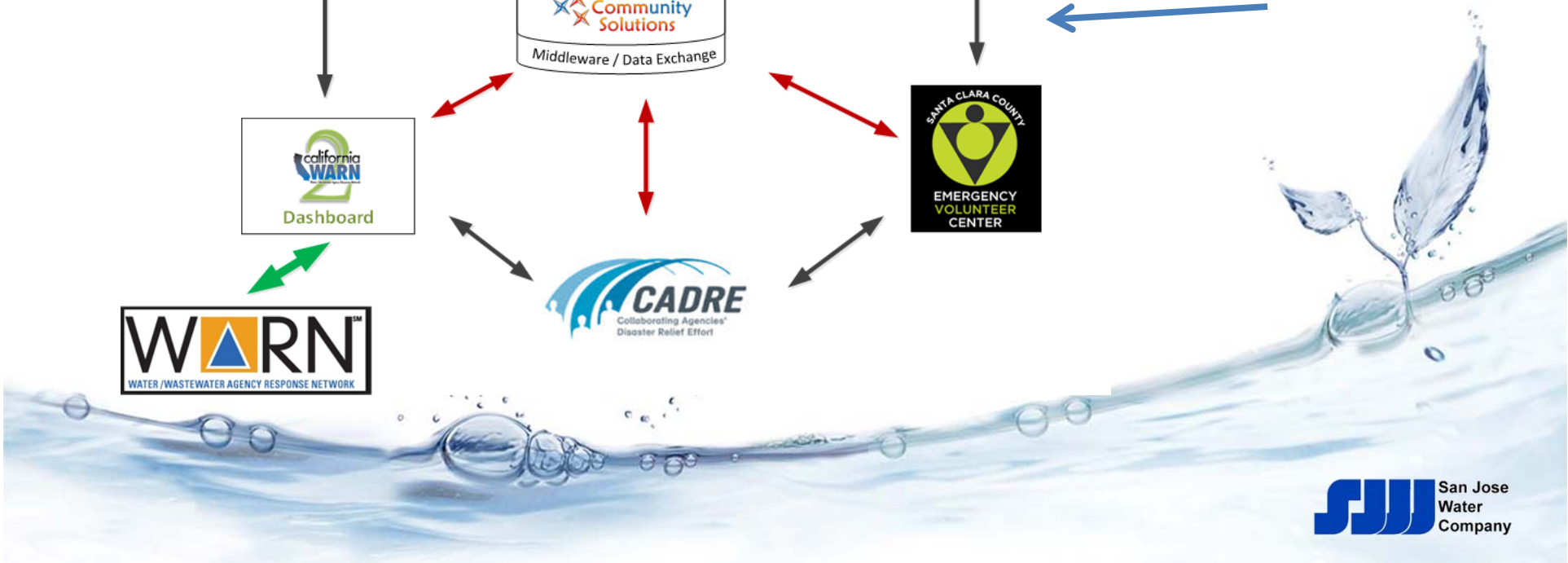
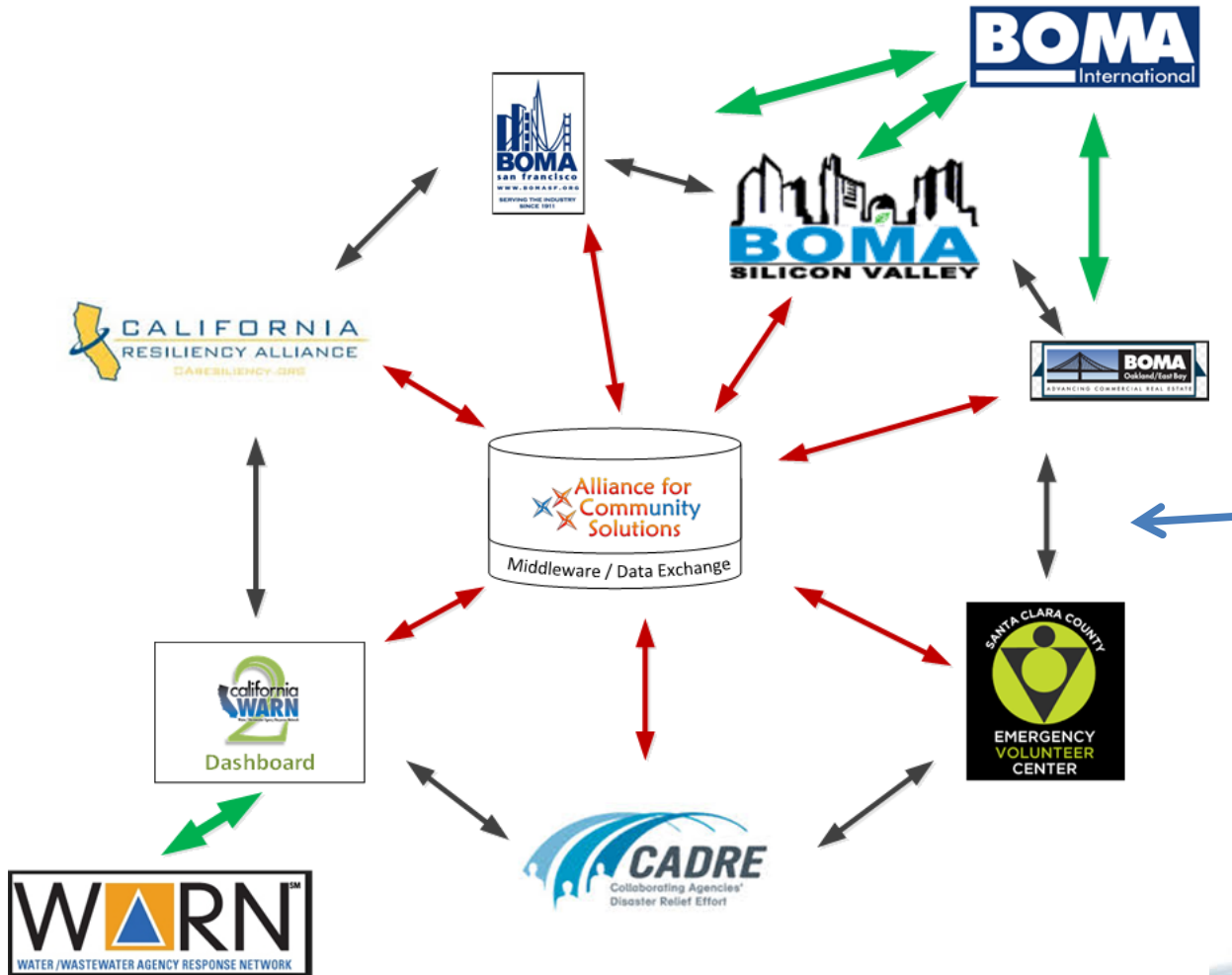




CalWARN 2.0 Vision



The Great Mutual Assistance Network



Contact

Jim Wollbrinck

Emergency Preparedness Manager

408-279-7804

jim.wollbrinck@sjwater.com

www.sjwater.com

