L.A. Story:
From Gray to Green in a Semi-Arid Megalopolis

L.A. Story, 1991

Border Green Infrastructure Forum
Tucson, AZ
May 20, 2015

Presented by Edith de Guzman
Director of Research, TreePeople

TreePeople

HERRING

SECRET
SECRET
SECRET

talk

ERR
ERR

THODEEPUGHT

TreePeople Founded in 1973

April 28, 1973

Andy vs. the Bureaucratic Deadwood

BY MICHAEL SEILER
Times Staff Writer

Andy Lipkis, a 19-year-old college freshman very much into ecology, had this idea a couple of years ago: The trees in the San Bernardino National Forest are dying from the smog that drifts east out of Los Angeles, so find some smog-resistant trees and replant them there.

After all, Lipkis thought, the experts say the forest in the Big Bear-Lake Arrowhead-Barton Flats area could be dead in as little as 20 years if nothing is done.

A pure case for a bit of individual initiative, right? One young man could get the ecological bandwagon rolling.

It wasn't quite that easy. There were some complications along the way. Like the bureaucracy of the California Division of Forestry.

Lipkis discovered a few months ago that the division had 20,000 smog-resistant Sierra redwoods and sugar pines, all under a year old, growing in its tree nursery up near Davis.

Andy told the forestry people his plan. They said that it was a nice idea, but rules are rules, and the division does not give its baby trees away. If they're not sold, they're plowed under.

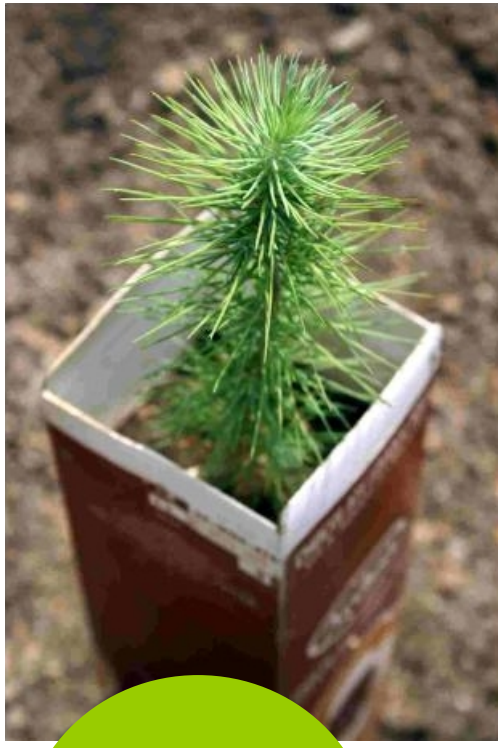
They cost two and one-half cents per tree and Andy wanted all 20,000 trees.

Tight Student Budget

TreePeople's Mission

To inspire, engage and support the people of Los Angeles to take personal responsibility for the urban environment, making it healthy, fun, safe and sustainable – and share the process as a model for the world.

TreePeople Today



Forestry

Education

Policy and Research

TreePeople's Vision

=

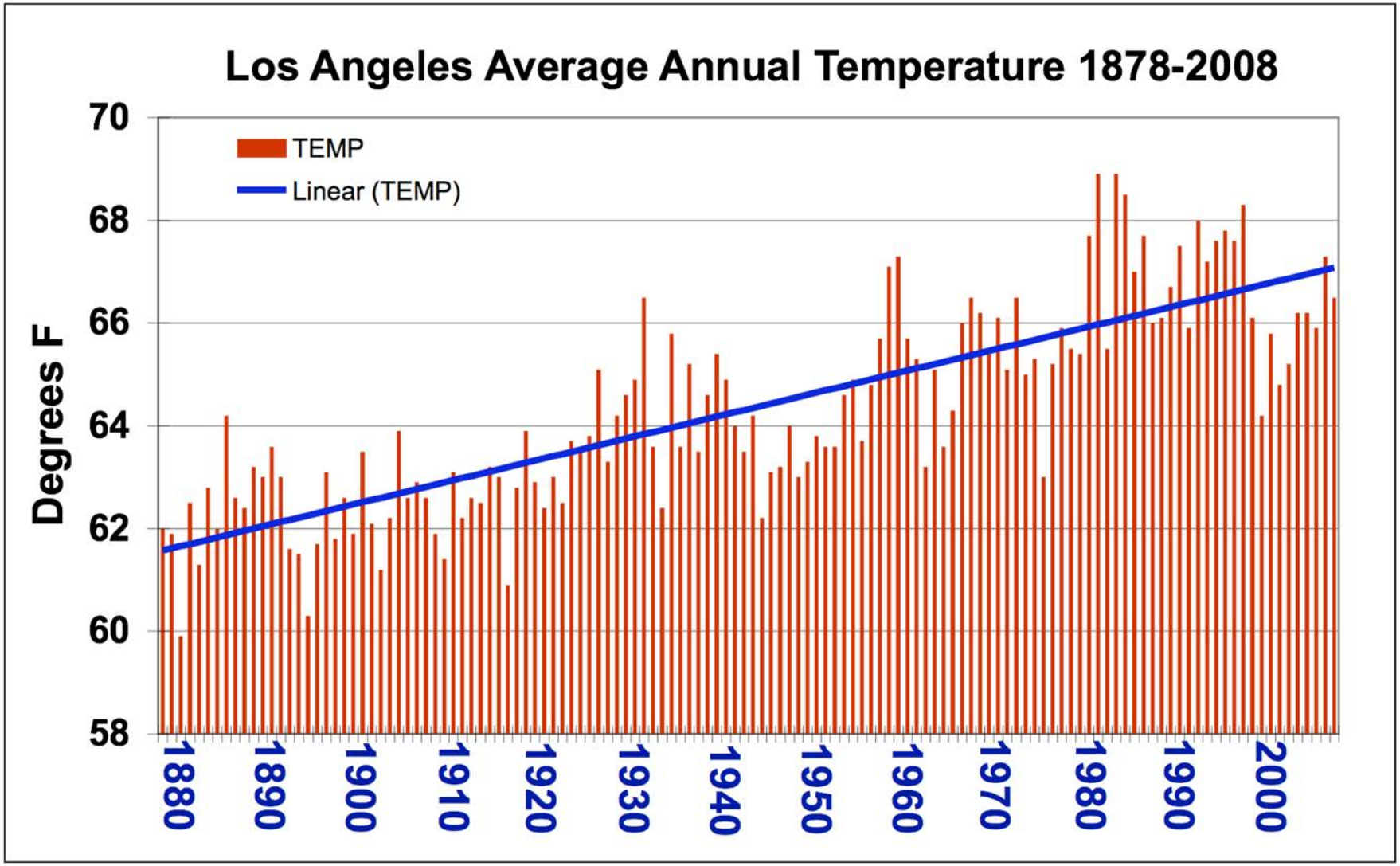
A Climate-Resilient Los Angeles

Urban Forest?

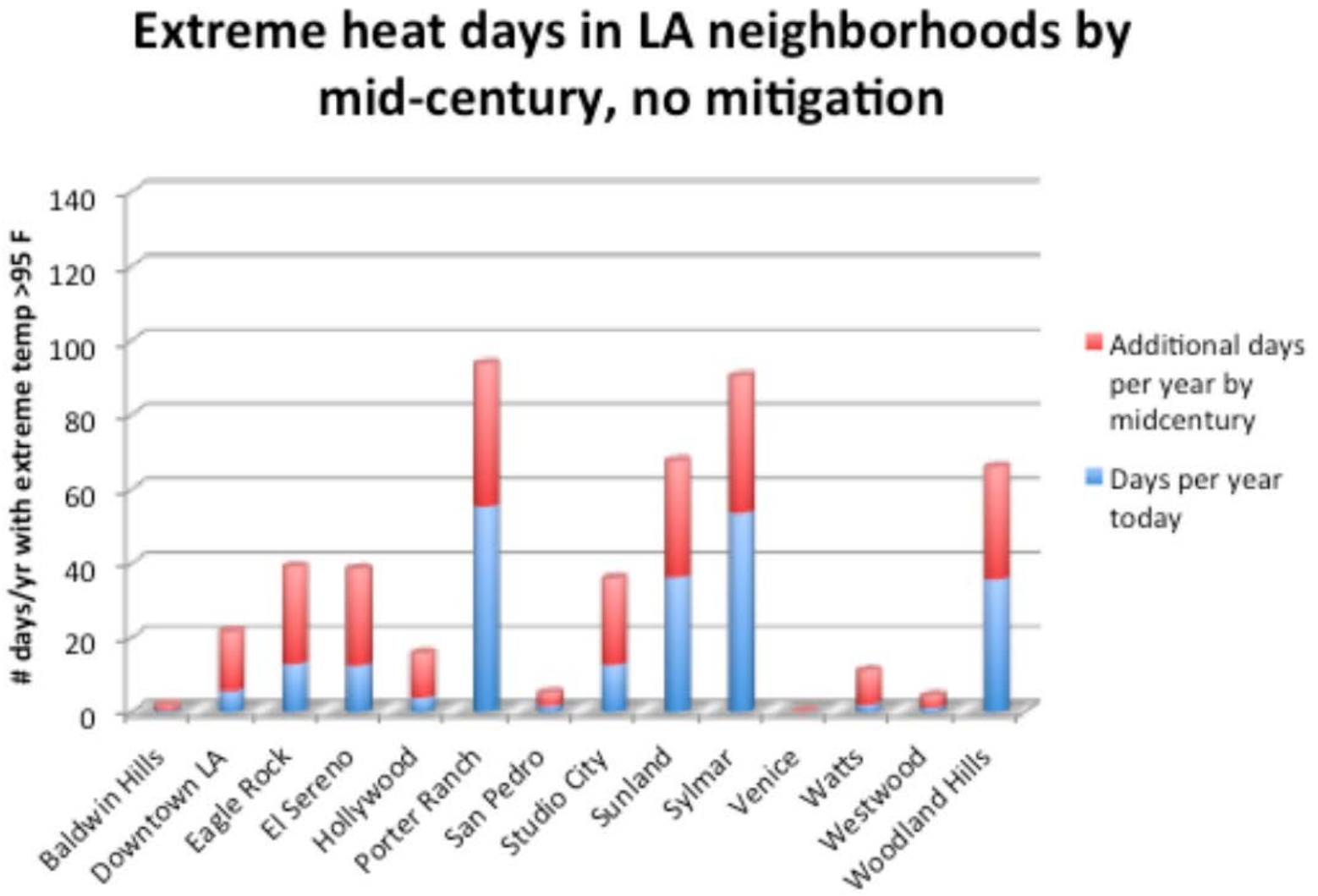
Street with no tree canopy, Los Angeles

TreePeople

Urban Heat



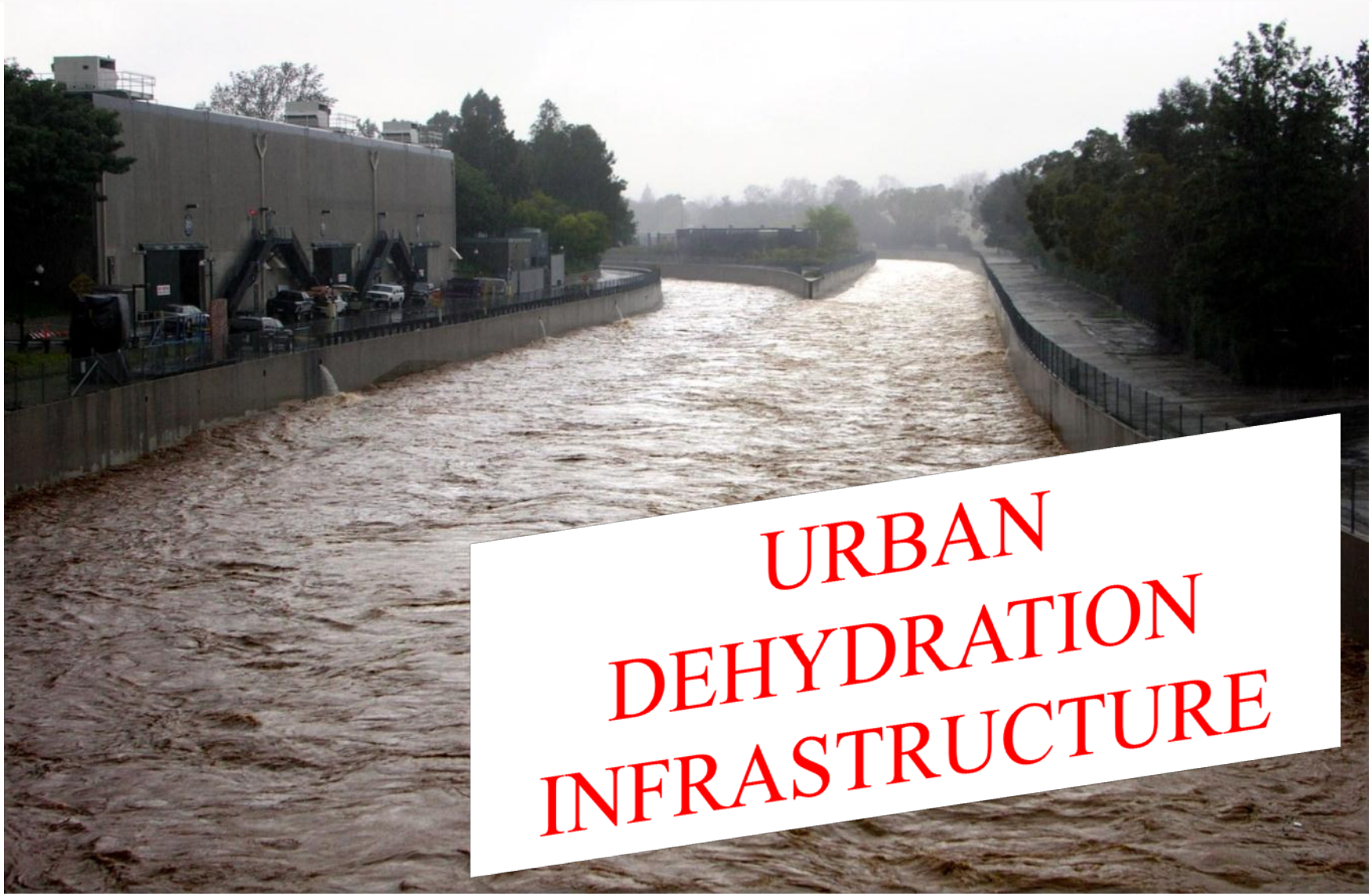
Urban Heat



Dr. Alex Hall, UCLA, "Mid-Century Warming in the Los Angeles Region," c-change.la/temperature

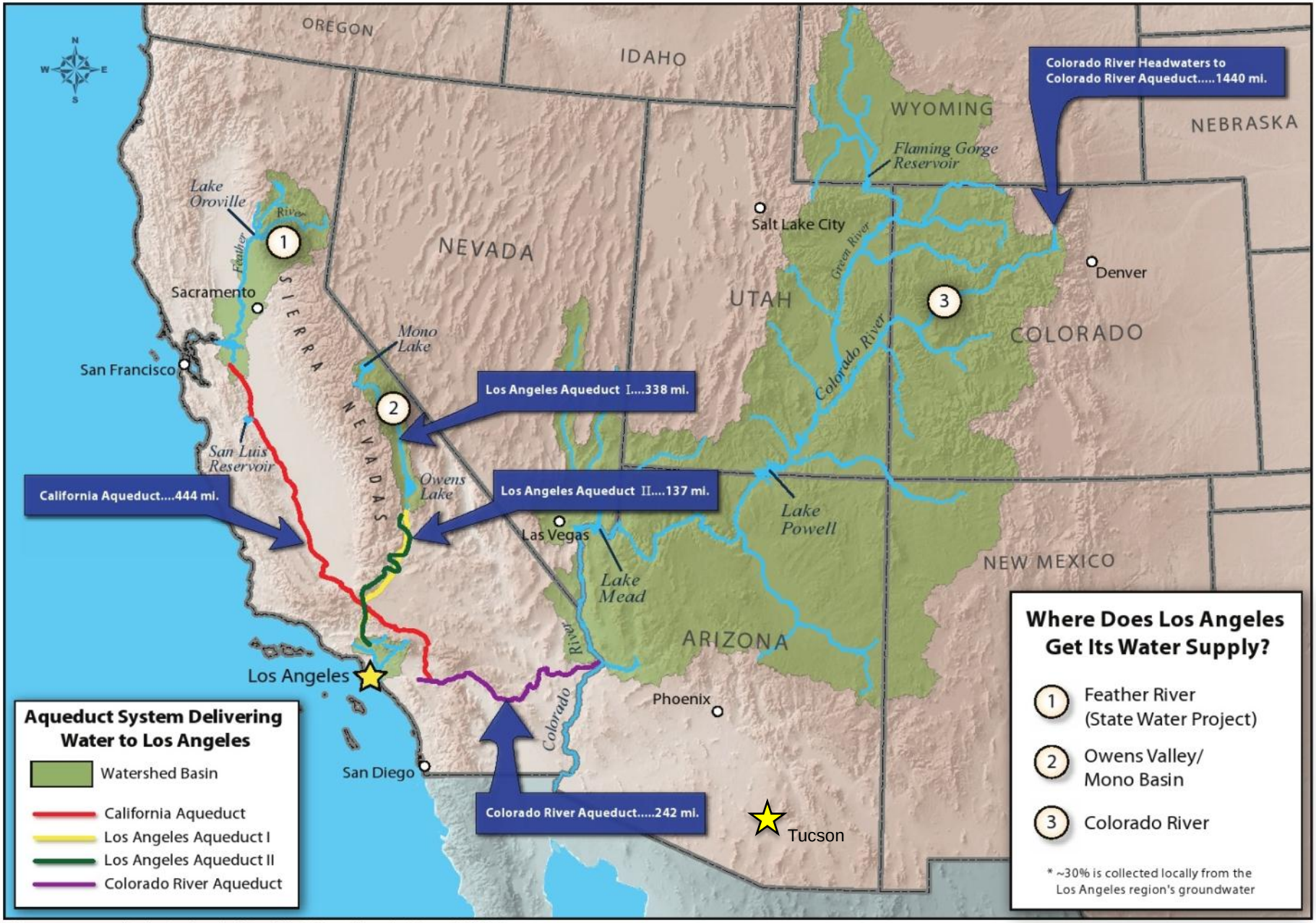
TreePeople

Water Management?



Headwaters of the Los Angeles River

TreePeople

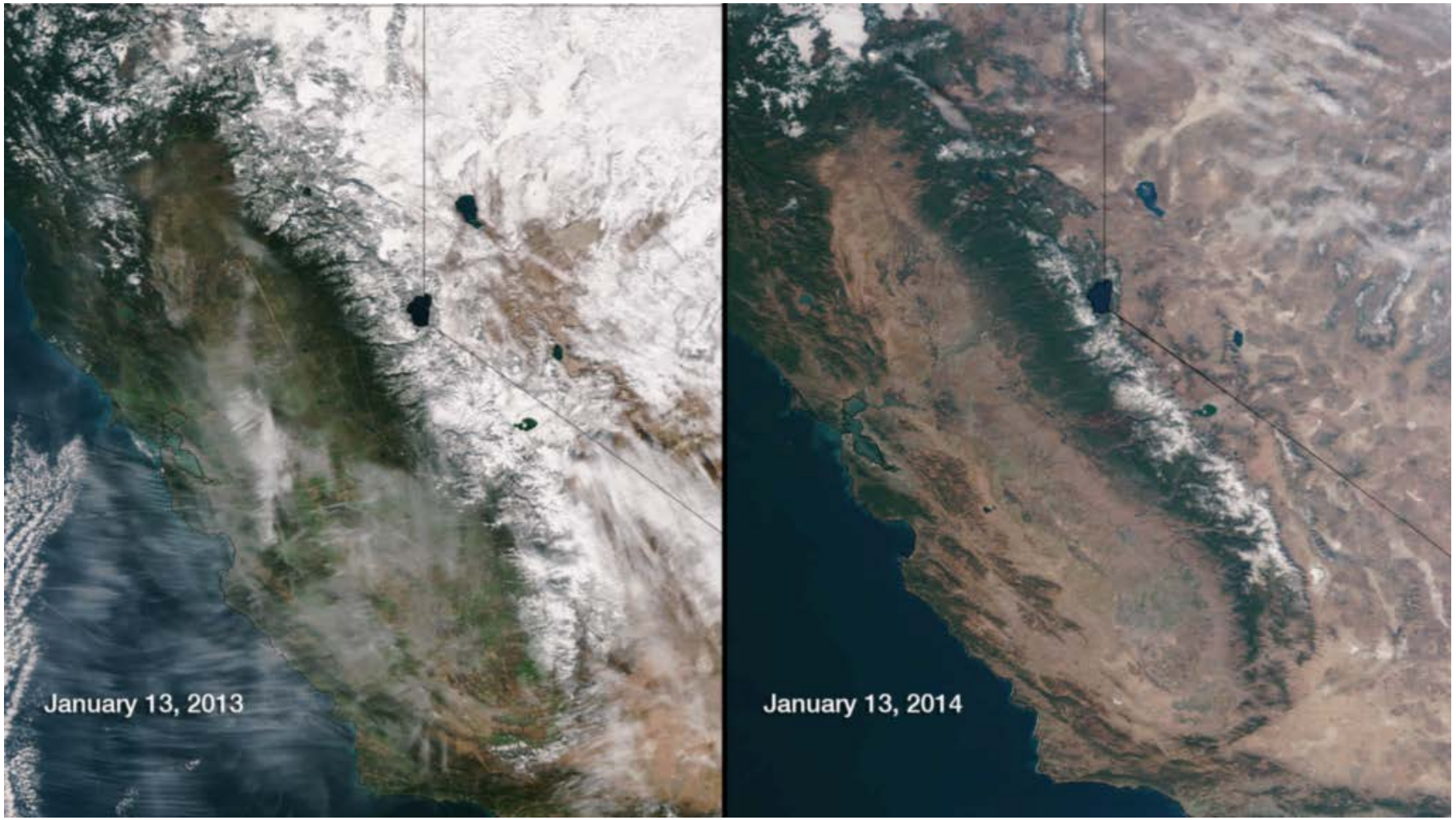


Map courtesy of Council for Watershed Health

Less water available for import

Photos: www.aquafornia.com

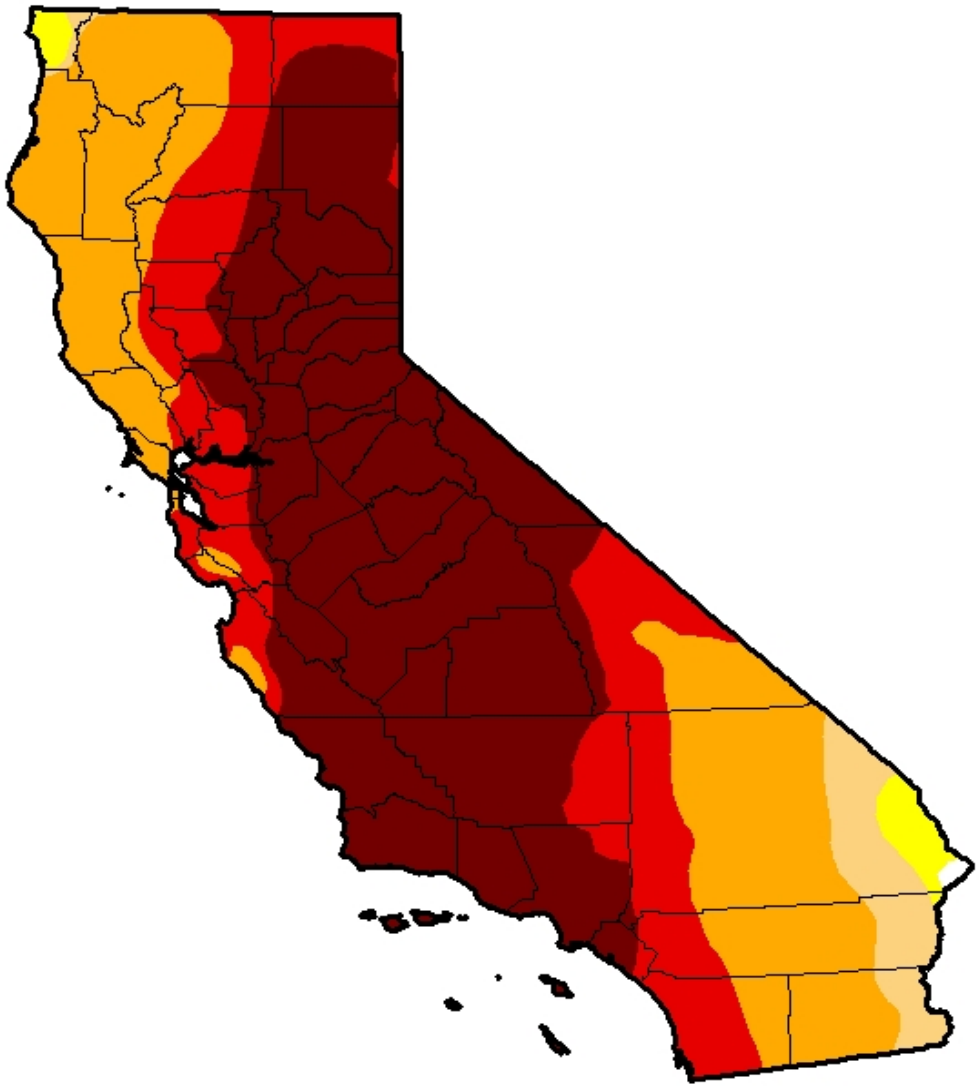
The drought



http://www.nnvl.noaa.gov/MediaDetail2.php?MediaID=1483&MediaTypeID=1

TreePeople

U.S. Drought Monitor
California



May 5, 2015

(Released Thursday, May. 7, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.14	99.86	98.28	93.91	66.60	46.77
Last Week 4/28/2015	0.14	99.86	98.11	93.44	66.60	46.77
3 Months Ago 2/3/2015	0.16	99.84	98.13	93.57	77.46	39.99
Start of Calendar Year 12/30/2014	0.00	100.00	98.12	94.34	77.94	32.21
Start of Water Year 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
One Year Ago 5/6/2014	0.00	100.00	100.00	95.93	76.68	24.77

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

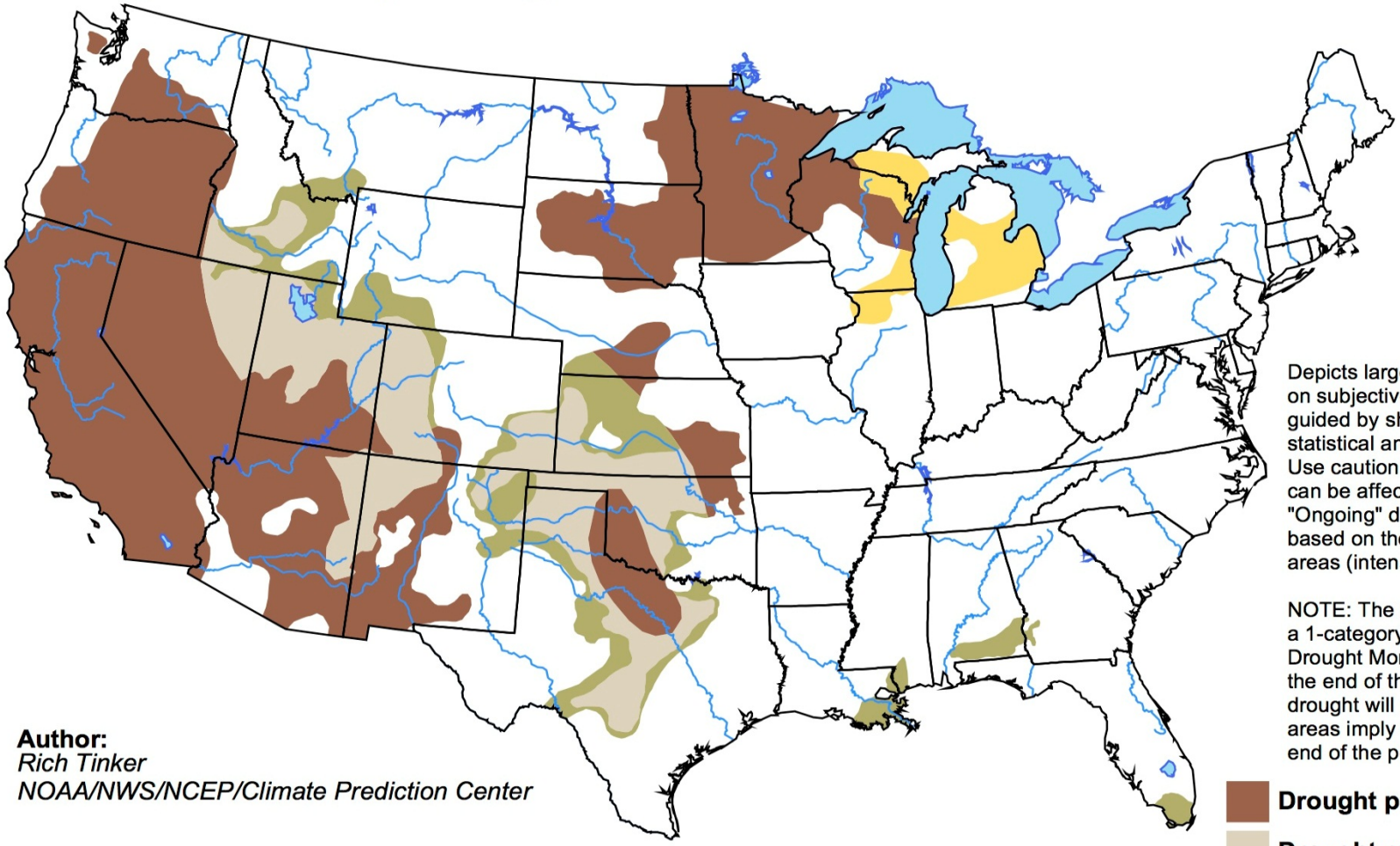
Author:
Mark Svoboda
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for April 16 - July 31, 2015
Released April 16, 2015

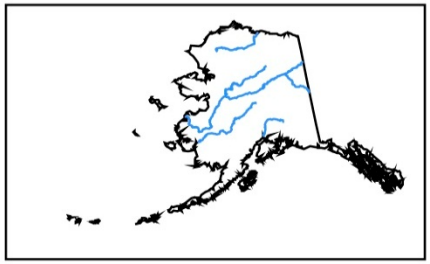


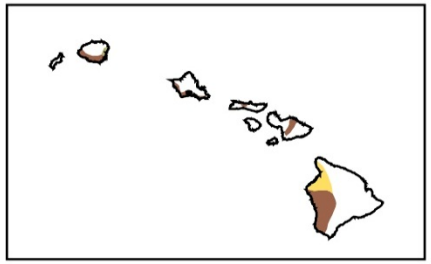
Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

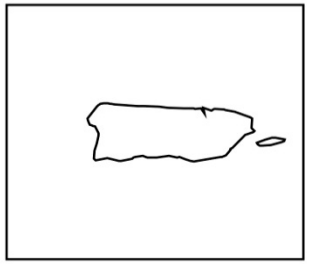
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- **Drought persists/intensifies**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**







http://go.usa.gov/hHTe

Water Management?

Headwaters of the Los Angeles River

TreePeople

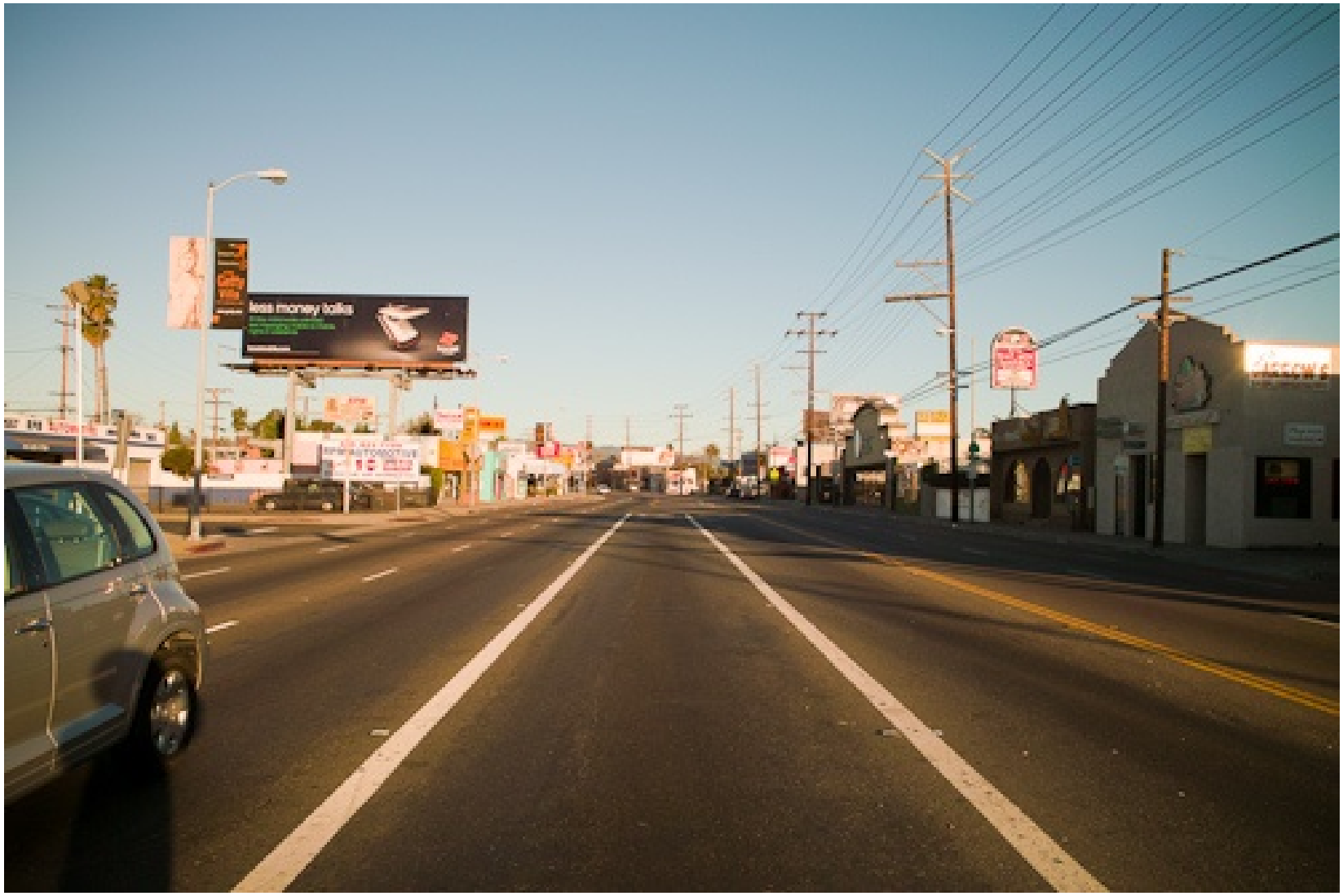
Watershed Management

Residential rain garden in Los Angeles

Stormwater infiltration infrastructure beneath Elmer Avenue Project

TreePeople

Urban Heat Island



Urban Forest

TreePeople

How can we shift from gray to green?

To change the way the city looks and *functions*, we must change the way government agencies and communities *manage* the city.

Nature is the model

Green Infrastructure

Ecosystem Management

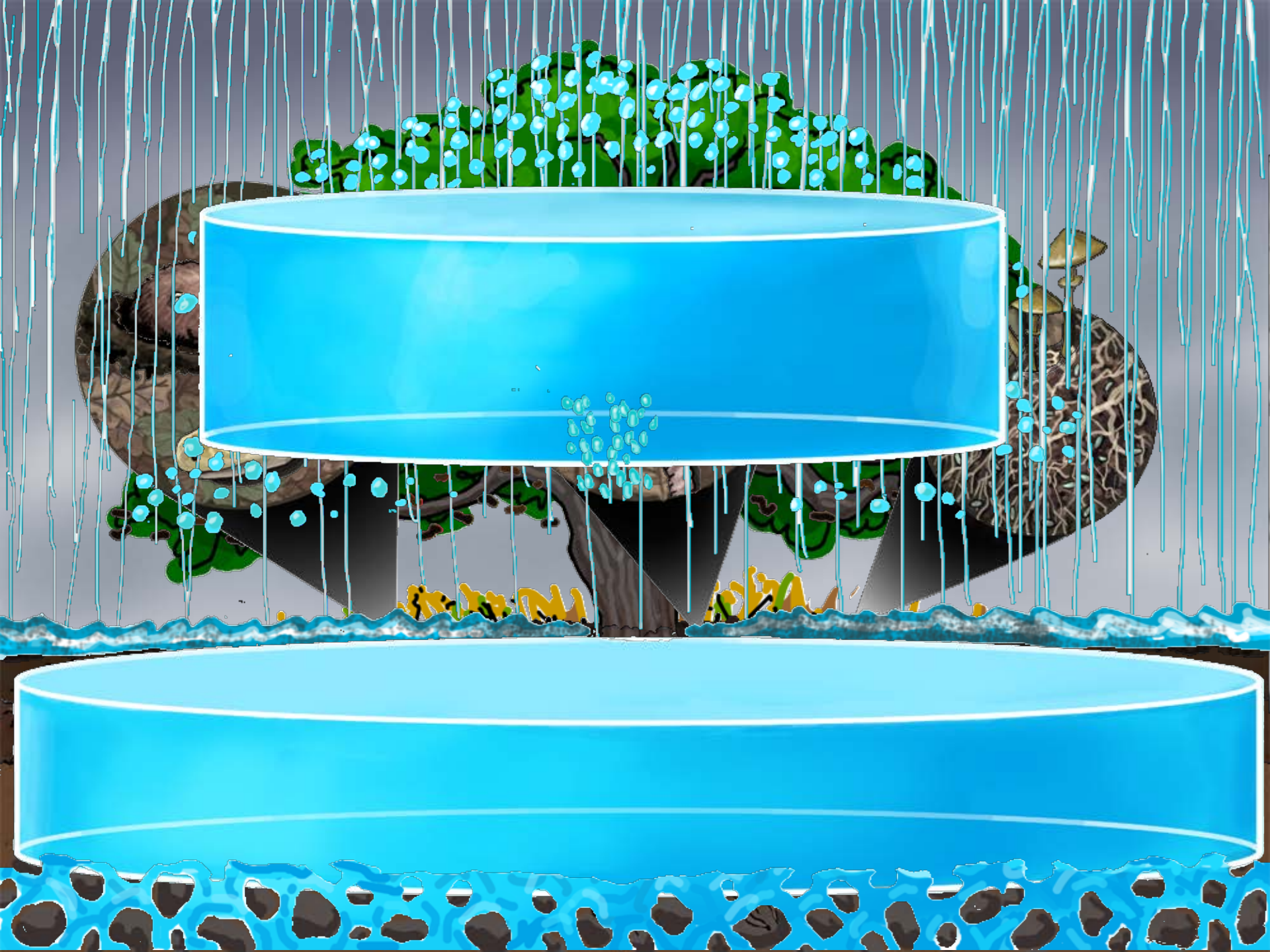
Low Impact Development

Biomimicry

Collaborative Governance

Multiple-Benefit Projects

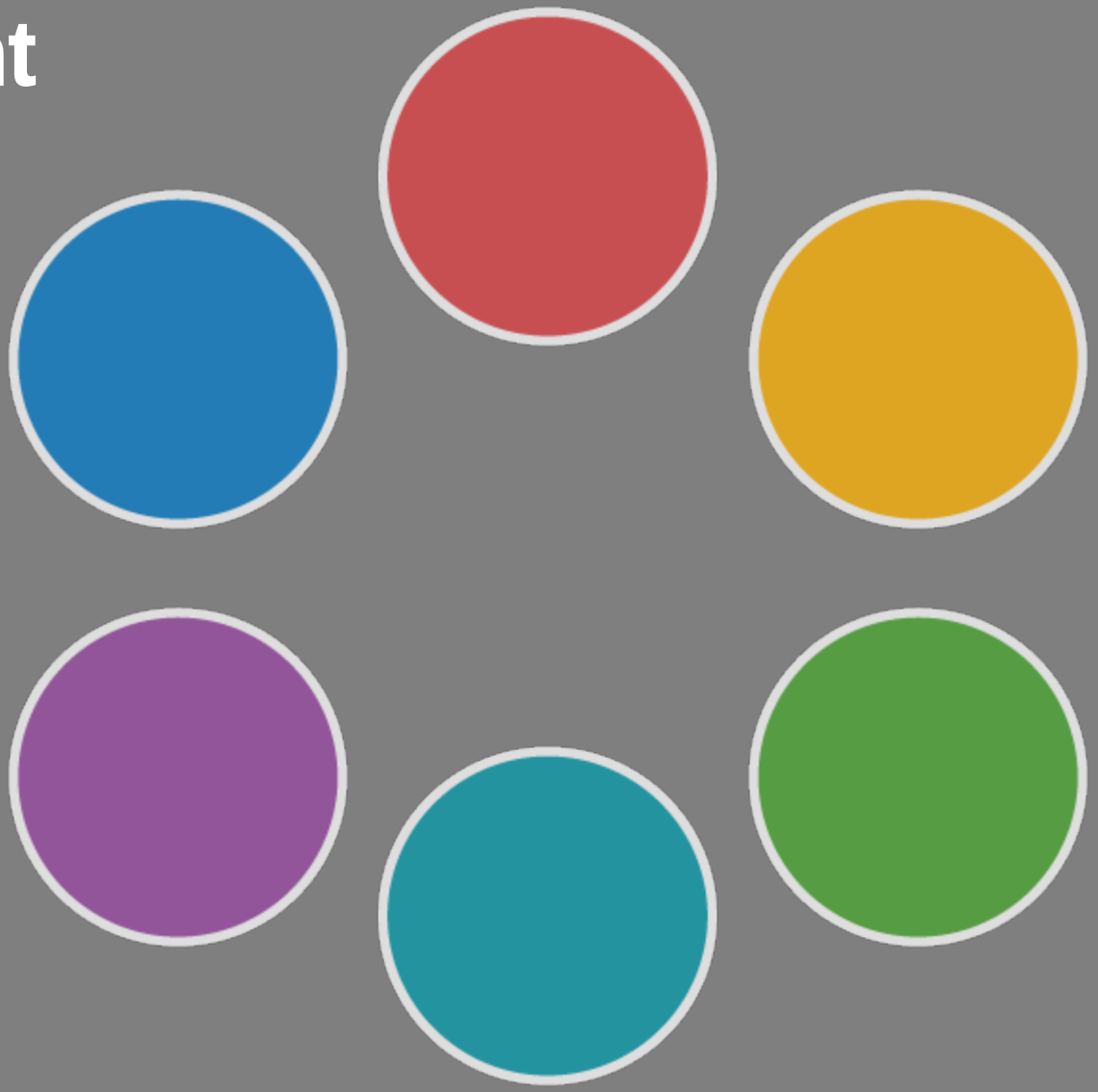
TreePeople



Disintegrated Management

Where Los Angeles Started

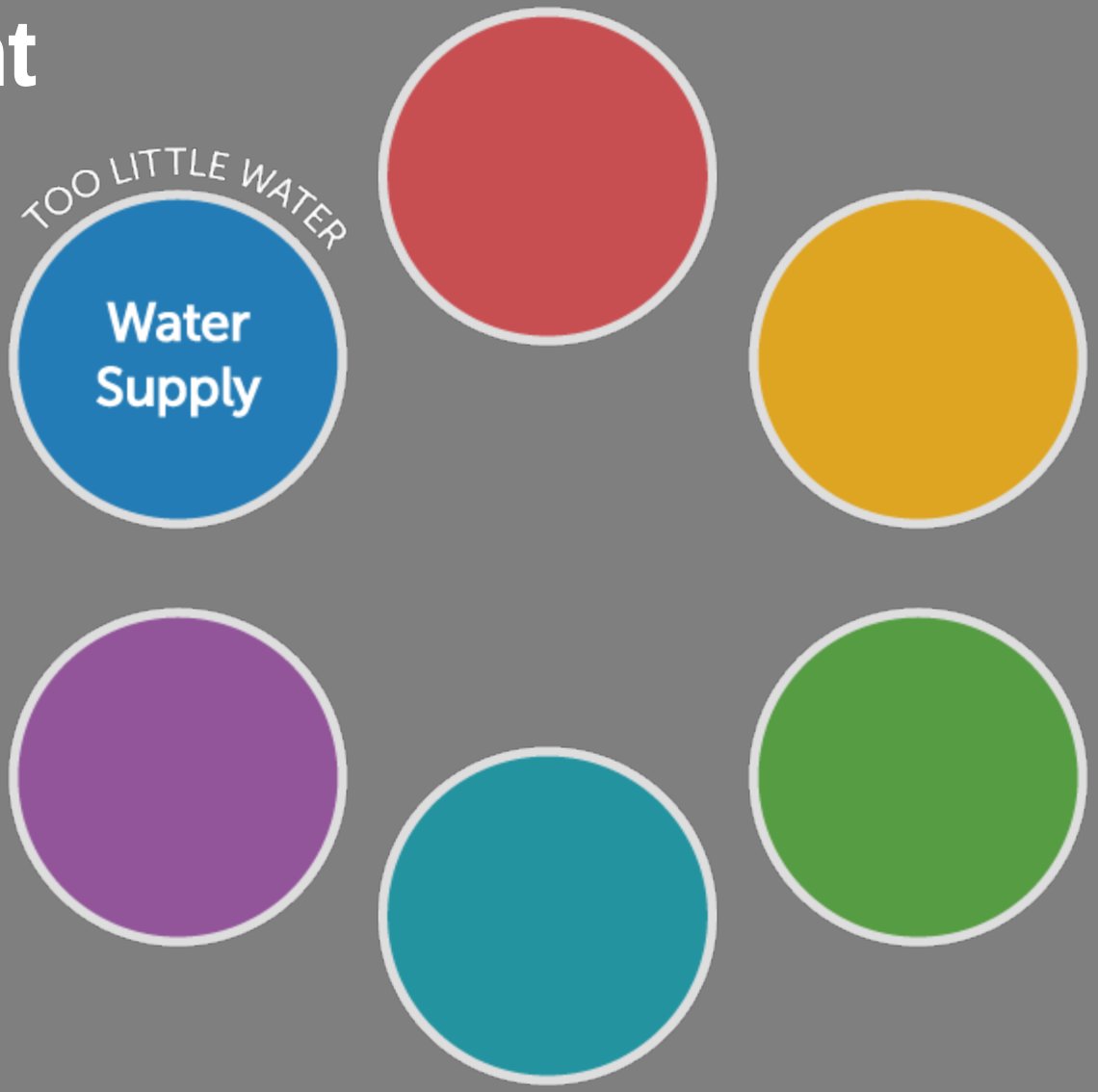
Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

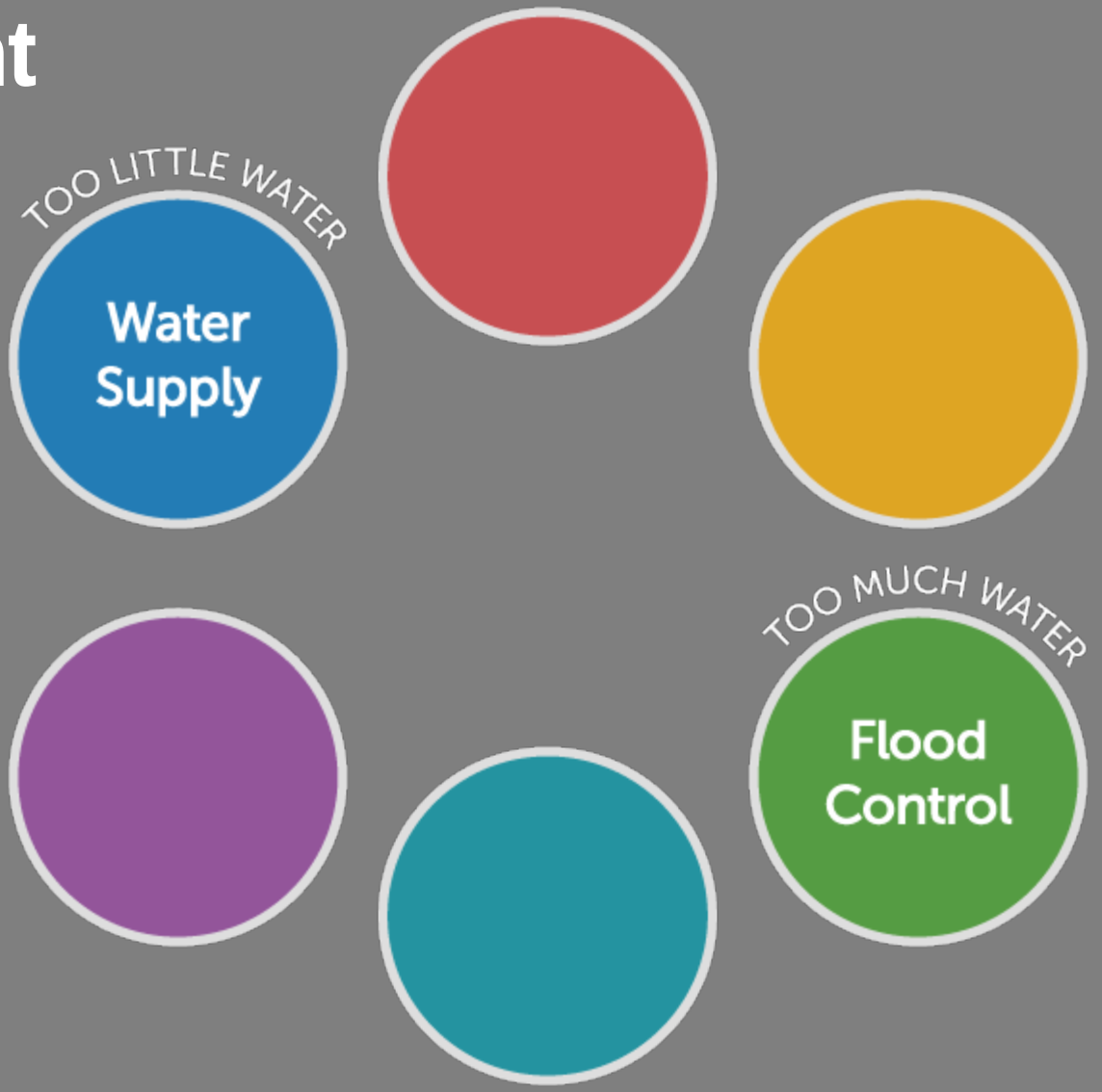
Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

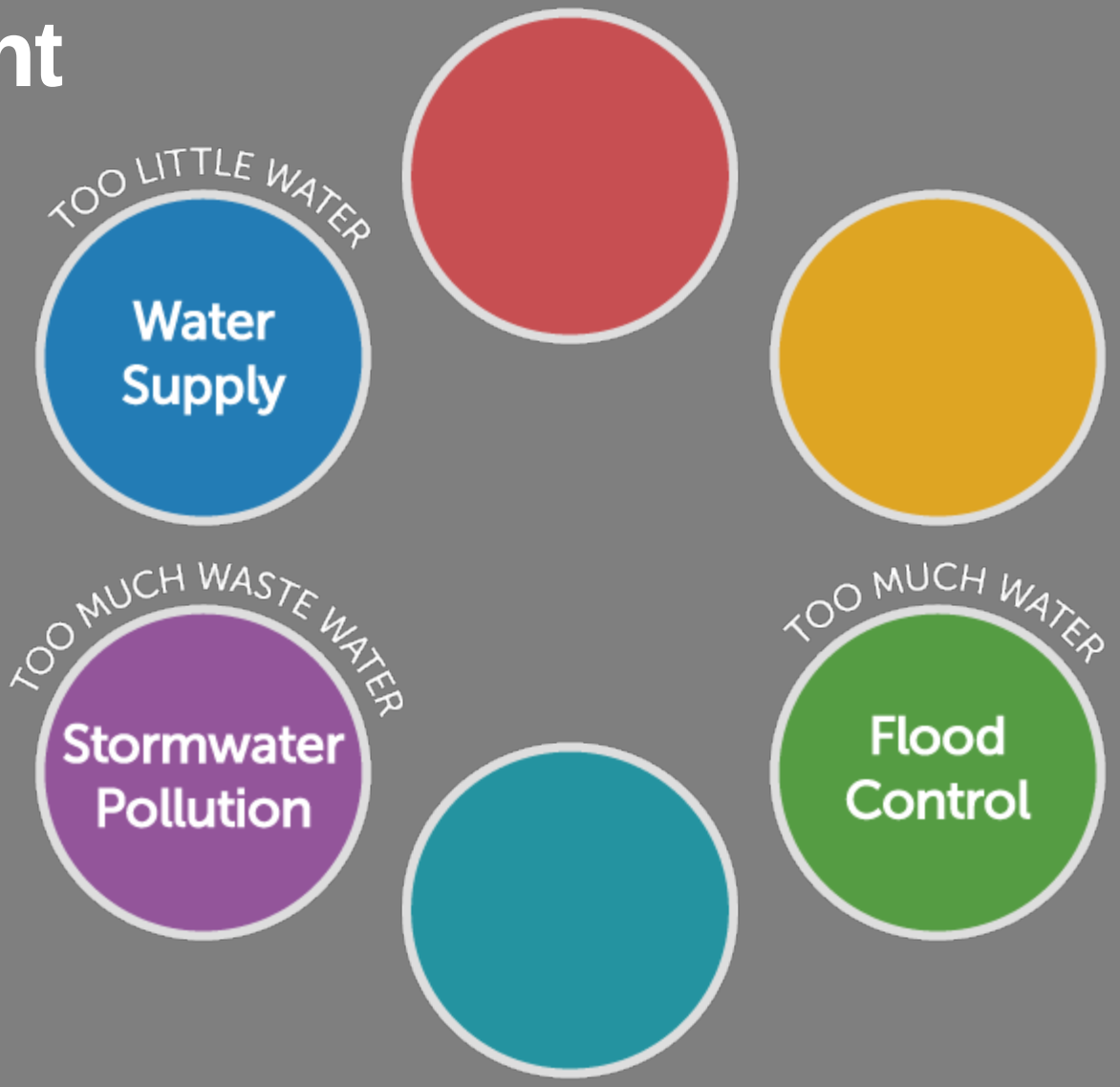
Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

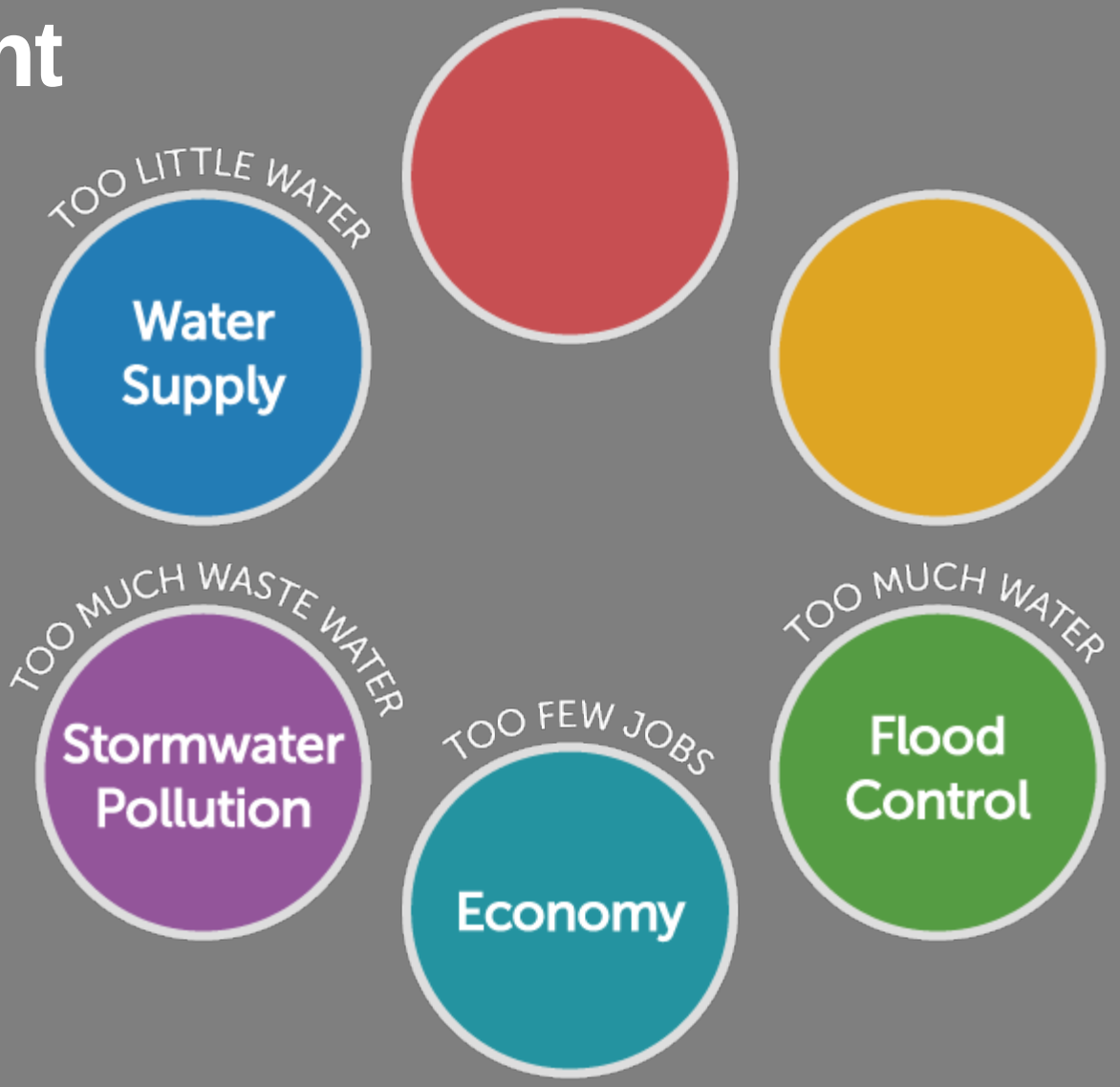
Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

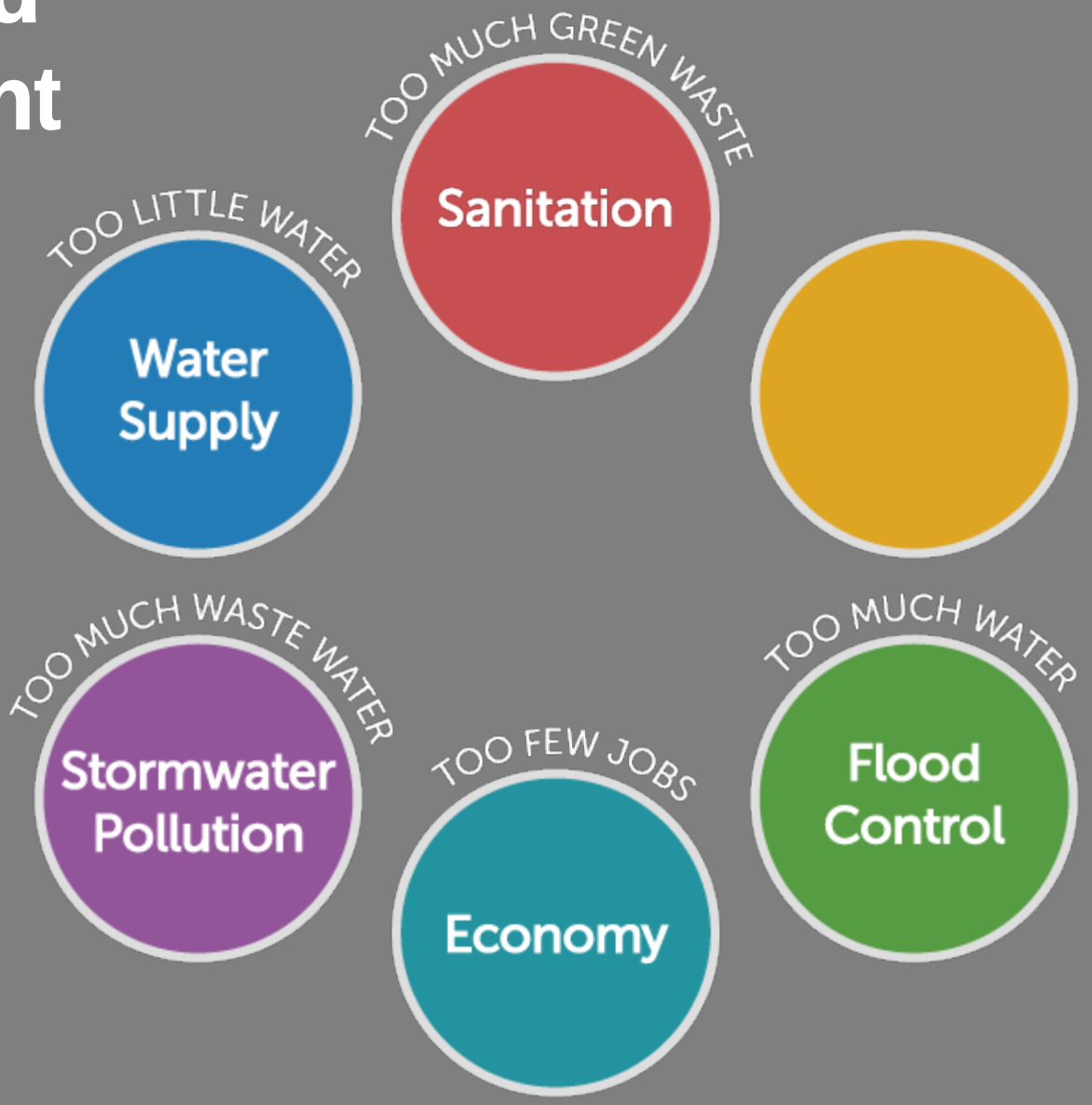
Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.



Disintegrated Management

Where Los Angeles Started

Disintegrated approach wastes resources, duplicates efforts and imposes unsustainable practices.

Shifting to Integrated Management

Where Los Angeles Needs to Be

Integrated approach also creates jobs and liberates funds for emerging green technologies.

Partners – Local, State, Federal and NGO

LA DWP Los Angeles Department of Water & Power

County of Los Angeles California

Council for Watershed Health

Water LA

capture • conserve • reuse

Watershed Protection City of Los Angeles

U.S. Department of the Interior Bureau of Reclamation

Friends of the Los Angeles River

Heal the Bay

California Strategic Growth Council

TreePeople

The shift began in Los Angeles in the 1990s

CRISIS

- Environmental, social and economic unrest – Rodney King riots, raising the walls of the L.A. River

OPPORTUNITY

- **Design charrette** to redesign Los Angeles
- **Demonstration project** to prove technical, economic, social feasibility of green infrastructure
- **Cost-benefit/co-investment model** to show benefits

TreePeople

Impacts and Changes

- Los Angeles Flood Control Division creates *Watershed Management Division*
- L.A. City Stormwater Management becomes *Watershed Protection Division*
- Sun Valley Watershed: first large-scale demo
- Integrated Resources Plan for Water
- $500 Million Bond Passed in 2004 (Proposition O)
- Integrated Regional Water Management law

Current Efforts

- One Water
- Enhanced Water Management Plans
- L.A. City Stormwater Capture Master Plan
- L.A. Basin Stormwater Conservation Study
- L.A. River revitalization
- Multi-Agency Collaborative (LA City & County)

Federal Agency Support for the
Green Infrastructure Collaborative

TreePeople

The shift continues today

CRISIS

- Climate change impacts and forecasts – water/heat
- Drought
- Cost of imported water
- Water quality non-compliance

OPPORTUNITY

- Public awareness/pressure
- Political will to collaborate
- Ramp up to the tipping point – *status quo*, not "demonstration"

Lessons Learned

1. Collaboration/integration is essential, though it is not always easy to achieve
2. Co-investment/integration makes the impossible possible
3. The multi-benefit approach opens up multiple partnerships and leads to no-regrets, future-proof projects and programs
4. Priorities might change, but co-equal environmental, social and economic goals do not – and they provide the best guiding principles
5. Public engagement – not just outreach or education – is part of the solution

The Next Phase of Integration

1. Full-time integrated planning, construction, operations
2. Integrated funding for capital projects, maintenance and operations
3. Regulatory timelines aligned & authority shared
4. Partner/hosts have liability protection
5. Federal>State>Local program integration

Thank you!

Edith de Guzman
Director of Research, TreePeople
edeguzman@treepeople.org

TREEPEOPLE