Risky Business – Adapting to a Drier West: Development Impacts and Mitigation Strategies

ULI Fall Conference San Francisco
October 7, 2015
Panelists

- **Charles E. Teal**, CEO, Saussy Burbank, LLC
- **Thomas Iseman**, Deputy Assistant Secretary for Water and Science, U.S. Department of the Interior
- **Matthew J. Diserio**, President and Co-Founder, Water Asset Management, LLC
- **Ryan Starck**, Senior Vice President Western Region Manager Homebuilder Bank Group, Wells Fargo
- **Thomas DiPrima**, President, Southern California Urban Operations, KB Home
The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

Established in 1936, ULI has more than 34,000 members worldwide, representing the entire spectrum of the land use and development disciplines.

It is through member involvement that ULI has been able to set standards of excellence in development practice.
• The Urban Resilience Program works to help communities prepare for increased climate risk in ways that allow a quicker, safer return to normalcy after an adverse event, but also the ability to thrive going forward.

• We can protect the value we have created in our cities and make them more robust when facing adversity.
World’s Water Usage Representation

Where is Earth’s Water?

- Total global water: 96.5%
- Oceans: 96.5%
- Freshwater: 3.5%
  - Surface/other freshwater: 1.2%
  - Groundwater: 30.1%
  - Glaciers and ice caps: 68.7%
- Atmosphere: 3.0%
  - Lakes: 20.9%
- Living things: 0.26%
  - Rivers: 0.49%
  - Swamps, marshes: 2.6%
  - Soil moisture: 3.8%

NOTE: Numbers are rounded, so percent summations may not add to 100.
A Changing Climate: NASA Projections

Your hometown: Wetter or drier?
A Changing Climate: NASA Animation
Drought Conditions as of Last Thursday

Intensities:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought
Water Supply: Lake Powell
Energy Supply: Folsom Dam
Impacts to Recreation
Increasing Wildfire Threats
Water Supply and Allocation
Infrastructure Investment

DON'T WORRY... WE'VE WORKED OUT A LEGISLATIVE SOLUTION!!!
Regional Resource Protection
The Rural-Urban Transect
The Rural-Urban Transect: Denver
The Rural-Urban Transect: LA
Impacts to the Natural Zone
Impacts to the Natural Zone
Impacts to the Rural Zone
Impacts to the Rural Zone
Impacts to the Rural Zone
Impacts the Suburban Zone
Impacts to the General Urban Zone

PARDON THE APPEARANCE OF OUR LAWNS
DUE TO THE DROUGHT AND CURRENT WATER RESTRICTIONS, CALPERS HAS STOPPED WATERING THE GRASS.
Impacts to the Urban Core
Alliance for Water Efficiency: 2013

Water-Efficiency and Conservation State Scorecard Grades

Urban Land Institute Center for Sustainability
Finding Usable Water

**New Water**

60% of non-potable water demand in *Tokyo* is met by recycled water

- Conservation
- Reuse
- Desalinization
- Rainwater
- Gray water
- Treated On-Site Sources of Water?
Increasing Efficiency of Use

One major Problem, Water waste?

One Solution that saves energy and water: Recycler by Nexus
Reverse Osmosis Center
Research Facility in Alamogordo, NM
Public Awareness

SERIOUS DROUGHT
HELP SAVE WATER
Public Awareness

I ONLY DRINK 2 DAYS A WEEK.

@Lawn_Dude

It's A Drought. Conserve Now.
socalwater.org

DON'T HOSE ME MAN!

@Lawn_Dude

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You could paint the lawn?
You could paint the lawn?
Resilient Lawns with Native Plants
Resilient Lawns with Native Plants
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Thank you!

Go to uli.org/resilience for more information about the resilience program and reports