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Atmospheric Water Generation for Aquatics Facilities

Everyday brilliance for disaster resilience

Oakland, CA, USA

16 September 2015

Prepared for UC Berkeley Aquatics

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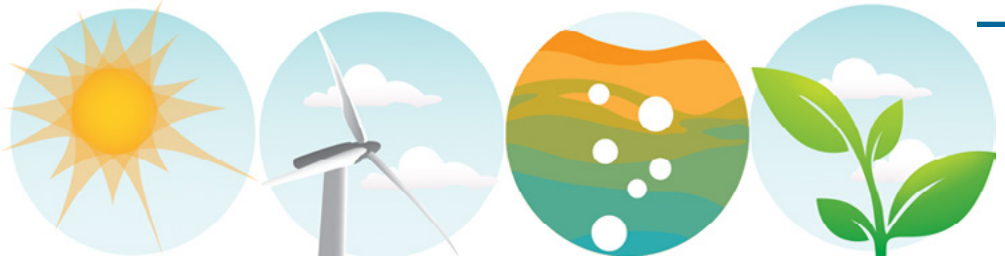

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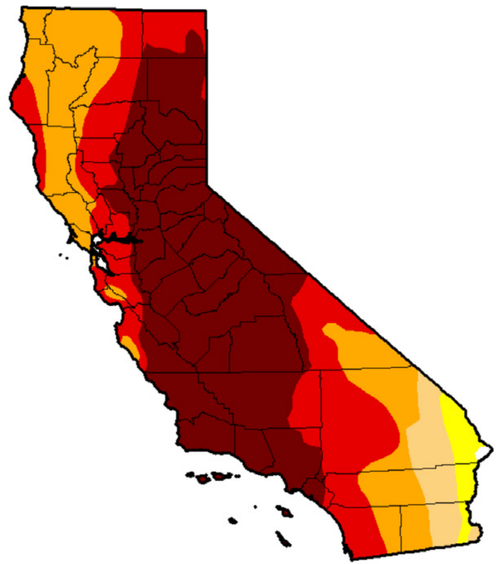
the problem

U.S. Drought Monitor

California



September 8, 2015

(Released Thursday, Sep. 10, 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	97.35	92.36	71.08	46.00
Last Week 9/1/2015	0.14	99.86	97.35	92.36	71.08	46.00
3 Months Ago 6/9/2015	0.14	99.86	98.71	93.91	71.08	46.73
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 9/9/2014	0.00	100.00	100.00	95.42	81.92	58.41

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.

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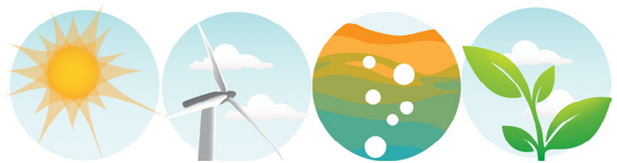
http://droughtmonitor.unl.edu/

the opportunity

Implement an innovative, state of the art hybrid renewable energy system technology to offset water usage:

- Showers
- Toilets
- Drinking fountains
- Replenish pool tank (??)



project aims

- ↑ Redundancy
- ↑ Resilience
- ↑ Energy independence
- ↑ Greener image
- ↓ Reliance on EBMUD
- ↓ Energy and water costs
- ↓ Carbon footprint

the technologies

Atmospheric water generator

- Solar-powered water production
- 20' container
- Autonomous or grid-tie
- 24 hours/day production
- Combined Heat & Power (CHP) opportunity ???

PV array

- Energy generation
- Shading/Shelter opportunities

a parting thought

Out think the box.
Prepare. Respond. Adapt.

We need to develop agile everyday brilliance schemas for disaster resilience.