

re power `em

# Atmospheric Water Generation for Aquatics Facilities

*Everyday brilliance for disaster resilience*

Oakland, CA, USA

16 September 2015

Prepared for UC Berkeley Aquatics

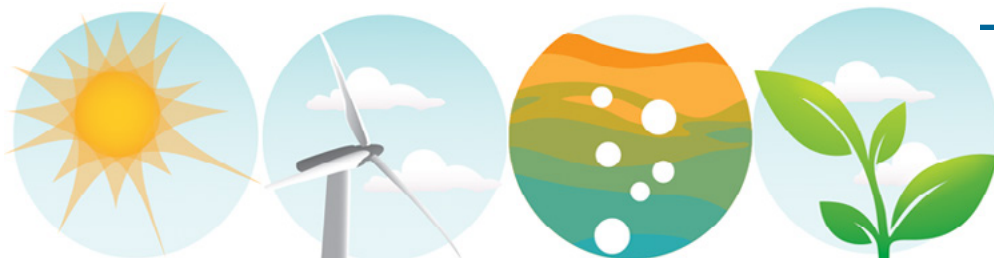
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Recommended Citation

Kimberly King,

“Atmospheric Water Generation Offsets for Aquatics” (2015).  
[http://www.kimgerly.com/projects/AWG\\_aquatics.pdf](http://www.kimgerly.com/projects/AWG_aquatics.pdf)

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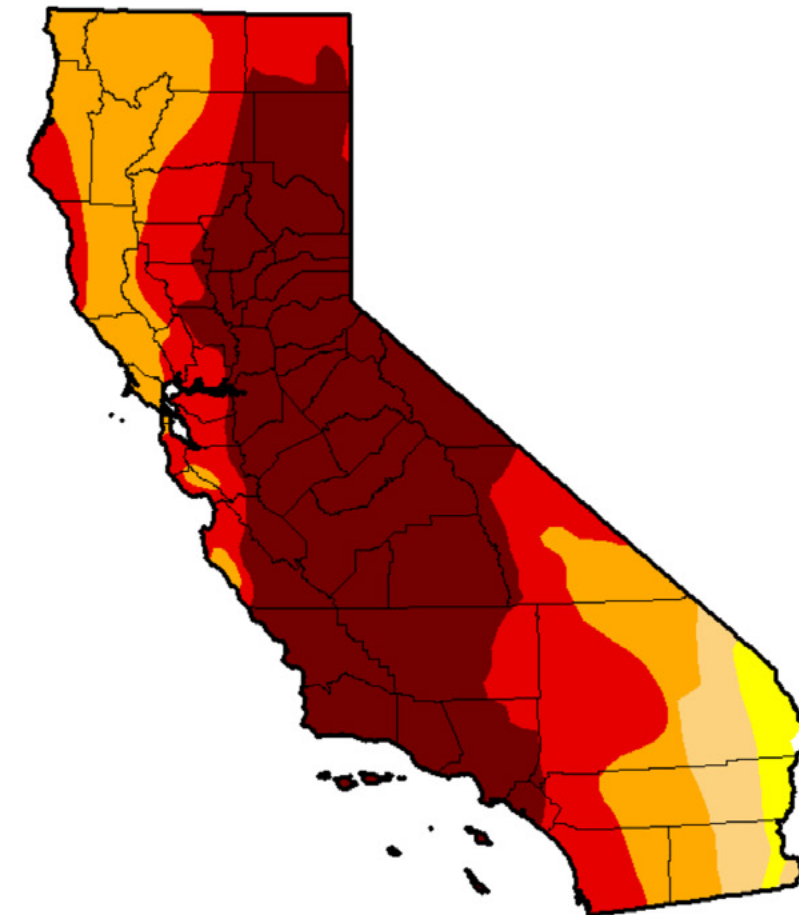
Presentation number 07-2015, Oakland, CA, 16 Sept 2015

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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
<b>Current</b>	0.14	99.86	97.35	92.36	71.08	46.00
<b>Last Week</b> 9/1/2015	0.14	99.86	97.35	92.36	71.08	46.00
<b>3 Months Ago</b> 6/9/2015	0.14	99.86	98.71	93.91	71.08	46.73
<b>Start of Calendar Year</b> 12/30/2014	0.00	100.00	98.12	94.34	77.94	32.21
<b>Start of Water Year</b> 9/30/2014	0.00	100.00	100.00	95.04	81.92	58.41
<b>One Year Ago</b> 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.*

**Author:**

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 CPC/NOAA/NWS/NCEP



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

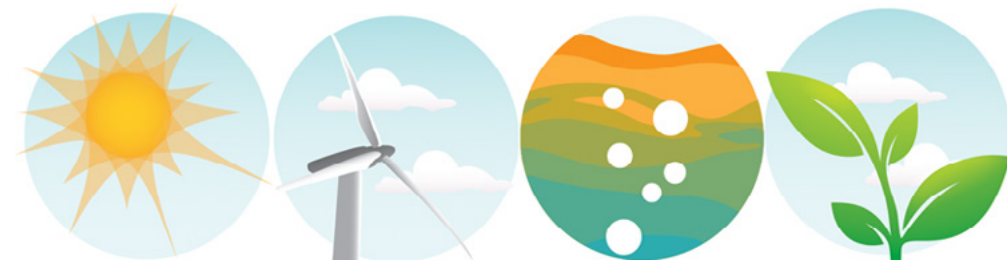
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# the opportunity

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

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



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# project aims

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↑ Redundancy

↑ Resilience

↑ Energy

independence

↑ Greener image

↓ Reliance on  
EBMUD

↓ Energy and water  
costs

↓ Carbon footprint

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# the technologies

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## 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

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# a parting thought

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Out think the box.  
Prepare. Respond. Adapt.

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

