ECOFAUCET

ETM 562/662 NEW VENTURE MANAGEMENT

SEMA KIRKEWOOG

SPRING 2017

INSTRUCTOR: DR. MARK J. AHN





PROBLEM

Americans waste I trillion gallons of water each year. Approximately 33% of US is experiencing drought.



SOLUTION

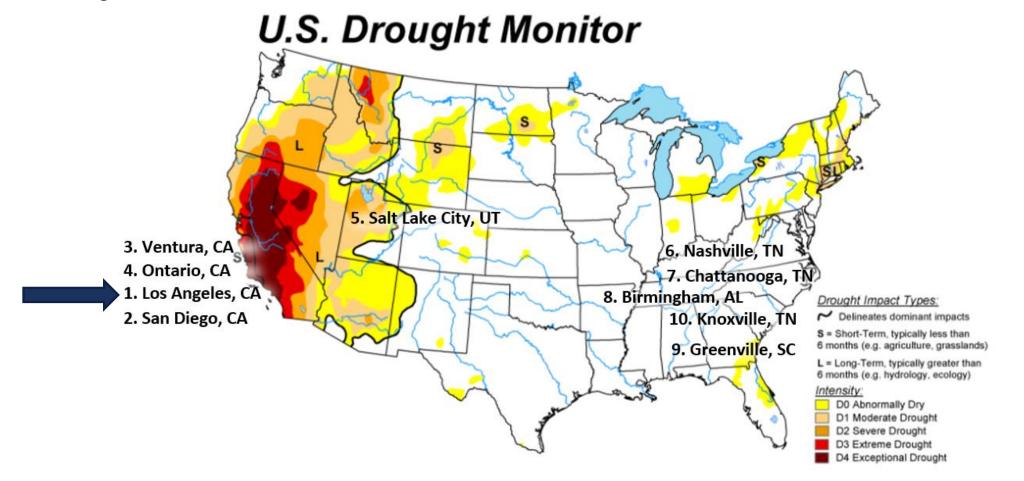
Reduce Water Waste

Save Money \$\$\$\$

Actively Participate in Conserving Stressed Water Resources

MARKET VALIDATION

Top ten drought-riskiest metro areas:





- Initial Target Market: Los Angeles, CA
- Population of Los Angeles County: 9.8 million
- Number of occupied homes in Los Angeles County: 3.2 million

TOTAL ADDRESSABLE MARKET

Los Angeles: 3,200,000 Occupied Homes

San Diego, Ventura, Ontario: 800,000 Occupied Homes

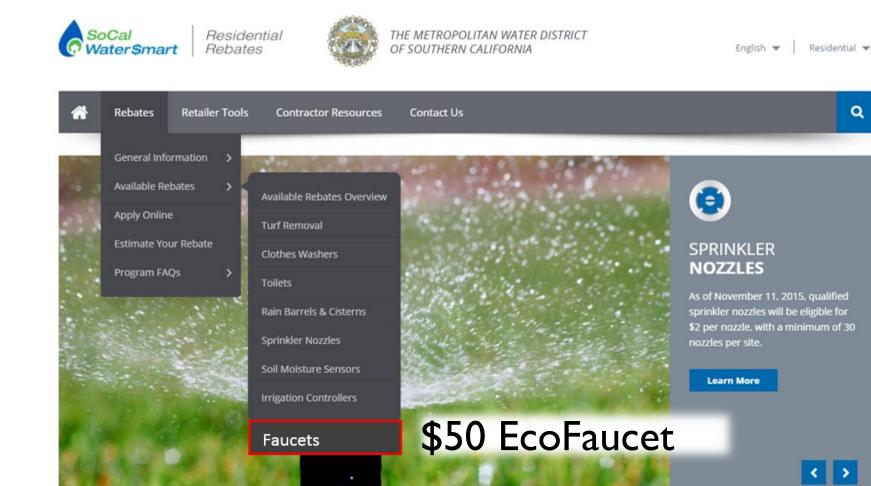
Salt Lake City, Nashville, Chattanooga, Birmingham, Greenville, Knoxville: 590,000 Occupied Homes

> 4,513,000 Occupied Homes in Top Ten Drought Risk Metro Areas

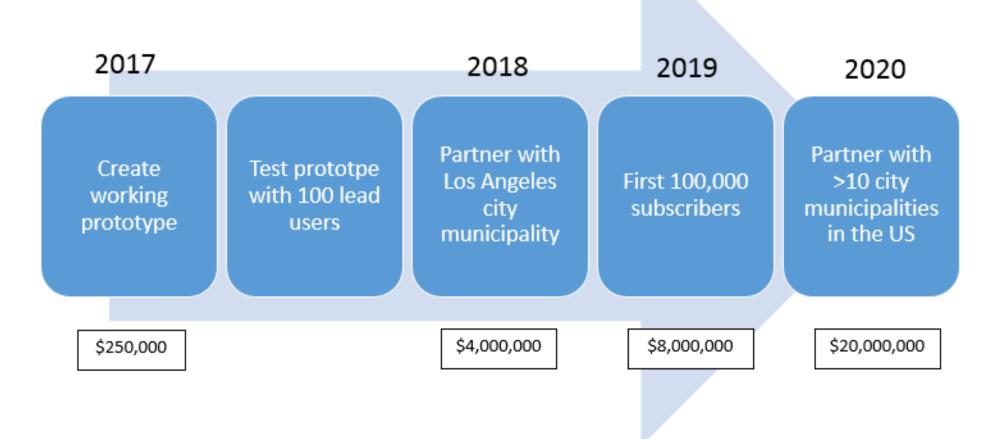
PRODUCT



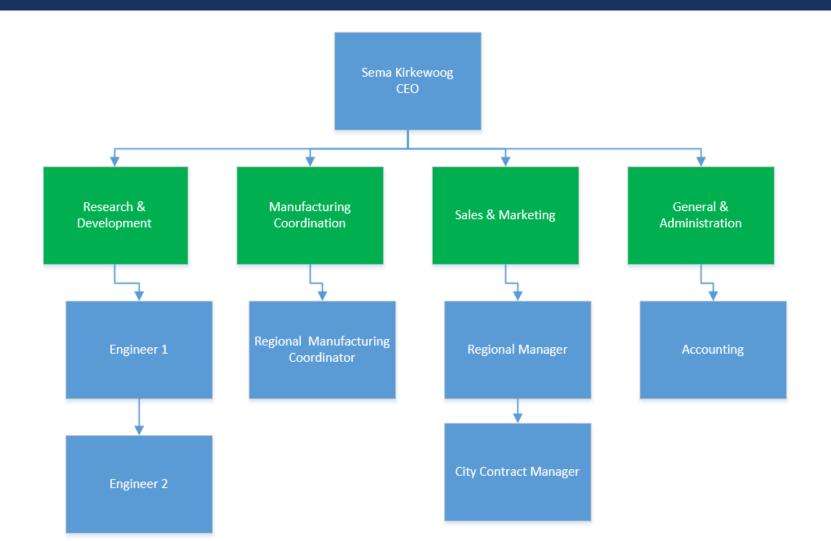
BUSINESS MODEL



MARKET APPROACH



TEAM



11

FINANCIALS

			100,000+ Subcribers								
	Prototype & Test	Los Angeles Contract	16% Adoption in LA	>10 City Contracts >	11 City Contracts >	12 City Contracts	>13 City Contracts	>14 City Contracts >	15 City Contracts >	16 City Contracts	
Year	1	2	3	4	5	6	7	8	9	10	
_	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	% of Sales
Revenues	<u>0.0</u>	<u>0.0</u>	25,000,000.0	<u>50,000,000.0</u>	<u>150,000,000.0</u>	<u>150,000,000.0</u>	<u>150,000,000.0</u>	200,000,000.0	200,000,000.0	200,000,000.0	75.0%
Total Revenues	0.0	0.0	25,000,000.0	50,000,000.0	150,000,000.0	150,000,000.0	150,000,000.0	200,000,000.0	200,000,000.0	200,000,000.0	75.0%
Costs and Expenses											
Cost of Sales	<u>0.0</u>	<u>0.0</u>	<u>7,000,000.0</u>	<u>14,000,000.0</u>	<u>42,000,000.0</u>	42,000,000.0	<u>42,000,000.0</u>	<u>56,000,000.0</u>	<u>56,000,000.0</u>	<u>56,000,000.0</u>	21.0%
Gross Margin	0.0%	0.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	72.0%	
Research & Development	200,000.0	500,000.0	1,000,000.0	2,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	0.5%
Manufacturing (Stock)	0.0	1,400,000.0	7,000,000.0	14,000,000.0	28,000,000.0	42,000,000.0	42,000,000.0	56,000,000.0	56,000,000.0	56,000,000.0	0.50/
Sales & Mktg	0.0	75,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	0.5%
General & Admin.	<u>10,000.0</u>	<u>25,000.0</u>	<u>1,200,000.0</u>	3,000,000.0	3,000,000.0	3,000,000.0	3,000,000.0	3,000,000.0	3,000,000.0	3,000,000.0	1.5%
Total Costs and Expenses	210,000.0	2,000,000.0	17,200,000.0	34,000,000.0	75,000,000.0	89,000,000.0	89,000,000.0	117,000,000.0	117,000,000.0	117,000,000.0	44.5%
Gross Profit	-210,000.0	-2,000,000.0	7,800,000.0	16,000,000.0	75,000,000.0	61,000,000.0	61,000,000.0	83,000,000.0	83,000,000.0	83,000,000.0	30.5%
Gross Profit	-210,000.0	-2,000,000.0	31.2%	32.0%	50.0%	40.7%	40.7%	41.5%	41.5%	41.5%	30.0%
Gross From	0.070	0.0%	31.270	32.070	30.0%	40.770	40.170	41.370	41.570	41.370	
Income Tax	0.0	0.0	2,340,000.0	4,800,000.0	22,500,000.0	18,300,000.0	18,300,000.0	24,900,000.0	24,900,000.0	24,900,000.0	9.2%
				.,,			,,.				
Net Income (Loss)	-210,000.0	- 2,000,000 .0	5,460,000.0	11,200,000.0	<u>52,500,000.0</u>	42,700,000.0	42,700,000.0	58,100,000.0	58,100,000.0	58,100,000.0	21.4%
. ,	-210,000.0	-2,000,000.0	5,460,000.0	<u>11,200,000.0</u>	<u>52,500,000.0</u>	42,700,000.0	42,700,000.0	<u>58,100,000.0</u>	<u>58,100,000.0</u>	<u>58,100,000.0</u>	21.4%
Cash Flow			<u>· · · · · · · · · · · · · · · · · · · </u>								21.4%
Cash Flow Beginning Cash	0.0	30,000.0	2,030,000.0	15,490,000.0	46,690,000.0	99,190,000.0	141,890,000.0	184,590,000.0	242,690,000.0	300,790,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants	0.0 250,000.0	30,000.0 4,000,000.0	2,030,000.0 8,000,000.0	15,490,000.0 20,000,000.0	46,690,000.0	99,190,000.0 0.0	141,890,000.0	184,590,000.0	242,690,000.0	300,790,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex	0.0 250,000.0 -10,000.0	30,000.0 4,000,000.0 0.0	2,030,000.0 8,000,000.0 0.0	15,490,000.0 20,000,000.0 0.0	46,690,000.0 0.0 0.0	99,190,000.0 0.0 0.0	141,890,000.0 0.0 0.0	184,590,000.0 0.0 0.0	242,690,000.0 0.0 0.0	300,790,000.0 0.0 0.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss)	0.0 250,000.0 -10,000.0 -210,000.0	30,000.0 4,000,000.0 0.0 -2,000,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0	15,490,000.0 20,000,000.0 0.0 11,200,000.0	46,690,000.0 0.0 52,500,000.0	99,190,000.0 0.0 42,700,000.0	141,890,000.0 0.0 0.0 42,700,000.0	184,590,000.0 0.0 0.0 58,100,000.0	242,690,000.0 0.0 58,100,000.0	300,790,000.0 0.0 0.0 58,100,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex	0.0 250,000.0 -10,000.0	30,000.0 4,000,000.0 0.0	2,030,000.0 8,000,000.0 0.0	15,490,000.0 20,000,000.0 0.0	46,690,000.0 0.0 0.0	99,190,000.0 0.0 0.0	141,890,000.0 0.0 0.0	184,590,000.0 0.0 0.0	242,690,000.0 0.0 0.0	300,790,000.0 0.0 0.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss)	0.0 250,000.0 -10,000.0 -210,000.0	30,000.0 4,000,000.0 0.0 -2,000,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0	15,490,000.0 20,000,000.0 0.0 11,200,000.0	46,690,000.0 0.0 52,500,000.0	99,190,000.0 0.0 42,700,000.0	141,890,000.0 0.0 0.0 42,700,000.0	184,590,000.0 0.0 0.0 58,100,000.0	242,690,000.0 0.0 58,100,000.0	300,790,000.0 0.0 0.0 58,100,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss)	0.0 250,000.0 -10,000.0 -210,000.0	30,000.0 4,000,000.0 0.0 -2,000,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0	15,490,000.0 20,000,000.0 0.0 11,200,000.0	46,690,000.0 0.0 52,500,000.0	99,190,000.0 0.0 42,700,000.0	141,890,000.0 0.0 0.0 42,700,000.0	184,590,000.0 0.0 0.0 58,100,000.0	242,690,000.0 0.0 58,100,000.0	300,790,000.0 0.0 0.0 58,100,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0	46,690,000.0 0.0 52,500,000.0 99,190,000.0	99,190,000.0 0.0 42,700,000.0 141,890,000.0	141,890,000.0 0.0 42,700,000.0 184,590,000.0	184,590,000.0 0.0 0.0 58,100,000.0 242,690,000.0	242,690,000.0 0.0 58,100,000.0 300,790,000.0	300,790,000.0 0.0 58,100,000.0 358,890,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development	0.0 250,000.0 -10,000.0 -210,000.0	30,000.0 4,000,000.0 0.0 -2,000,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0	15,490,000.0 20,000,000.0 0.0 11,200,000.0	46,690,000.0 0.0 52,500,000.0	99,190,000.0 0.0 42,700,000.0	141,890,000.0 0.0 0.0 42,700,000.0	184,590,000.0 0.0 0.0 58,100,000.0	242,690,000.0 0.0 58,100,000.0	300,790,000.0 0.0 0.0 58,100,000.0	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2,030,000.0 2	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2	99,190,000.0 0.0 42,700,000.0 141,890,000.0	141,890,000.0 0.0 42,700,000.0 184,590,000.0	184,590,000.0 0.0 58,100,000.0 242,690,000.0 2	242,690,000.0 0.0 58,100,000.0 300,790,000.0	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 2 5	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2 2 0 0 0	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2,030,000.0	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5	184,590,000.0 0.0 58,100,000.0 242,690,000.0 2 2 5 5 5	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg General & Administartion	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2 2 0 0 0 0 0	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2 1 2 1 2 1	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1 2 1 2 1	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4 4 4 2	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5 5 5 2	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5 2	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5 2	184,590,000.0 0.0 58,100,000.0 242,690,000.0 2 2 5 5 5 2	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5 5 5 2	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5 2	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2 0 0 0 0 2 2	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2 1 2 1 2 1 6	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1 2 1 2 1 6	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4 4 4 2 4 2 12	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5 5 5 2 14	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5 5 2 14	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5 5 2 14	184,590,000.0 0.0 58,100,000.0 242,690,000.0 242,690,000.0 2 5 5 2 14	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5 5 5 2 14	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5 2 14	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg General & Administartion Total Costs and Expenses	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2 0 0 0 0 2 No Salary	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2 1 2 1 2 1	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1 2 1 2 1	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4 4 4 2	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5 5 5 2	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5 2	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5 2	184,590,000.0 0.0 58,100,000.0 242,690,000.0 2 2 5 5 5 2	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5 5 5 2	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5 2	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg General & Administartion Total Costs and Expenses	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 30,000.0 2 0 0 0 0 2 No Salary 51,668,531.8	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2 1 2 1 2 1 6	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1 2 1 2 1 6	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4 4 4 2 4 2 12	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5 5 5 2 14	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5 5 2 14	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5 5 2 14	184,590,000.0 0.0 58,100,000.0 242,690,000.0 242,690,000.0 2 5 5 2 14	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5 5 5 2 14	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5 2 14	21.4%
Cash Flow Beginning Cash Add: Financings/Grants Capex Net Income (Loss) Ending Cash Headcount Research & Development Manufacturing Coordinator Sales & Mktg General & Administartion Total Costs and Expenses	0.0 250,000.0 -10,000.0 -210,000.0 30,000.0 2 0 0 0 0 2 No Salary	30,000.0 4,000,000.0 0.0 -2,000,000.0 2,030,000.0 2 1 2 1 2 1 6	2,030,000.0 8,000,000.0 0.0 5,460,000.0 15,490,000.0 2 1 2 1 2 1 6	15,490,000.0 20,000,000.0 0.0 11,200,000.0 46,690,000.0 2 4 4 4 2 4 2 12	46,690,000.0 0.0 52,500,000.0 99,190,000.0 2 5 5 5 2 14	99,190,000.0 0.0 42,700,000.0 141,890,000.0 2 5 5 5 2 14	141,890,000.0 0.0 42,700,000.0 184,590,000.0 2 5 5 5 2 14	184,590,000.0 0.0 58,100,000.0 242,690,000.0 242,690,000.0 2 5 5 2 14	242,690,000.0 0.0 58,100,000.0 300,790,000.0 2 5 5 5 2 14	300,790,000.0 0.0 58,100,000.0 358,890,000.0 2 5 5 5 2 14	21.4%

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COMPETITION

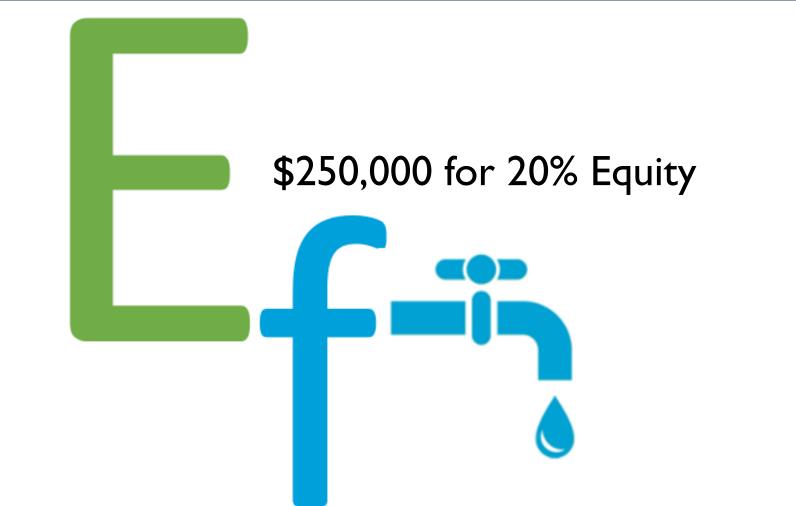


COMPETITIVE ADVANTAGE

90% water savings on utilized EcoFaucet's

\$40 / month water utility bill reduction per household

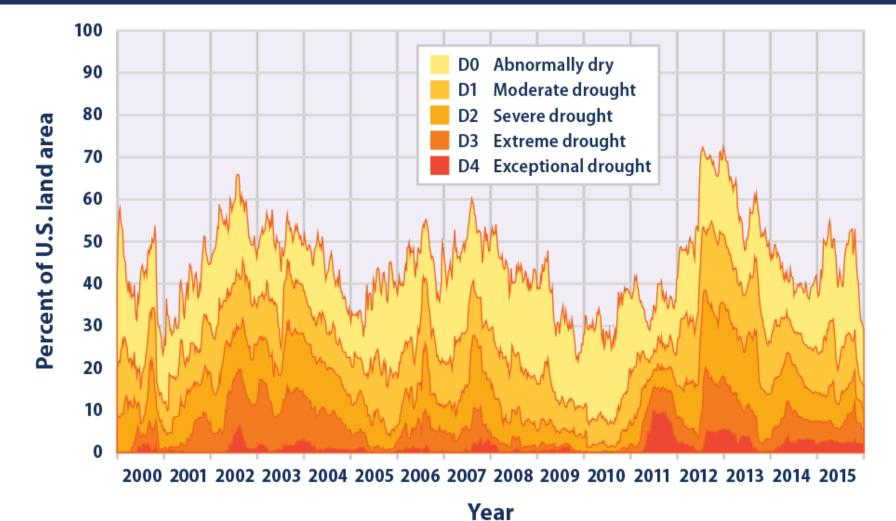
INVESTMENT



BACKUP



PERCENT OF US LAND AREA (EPA INDICATOR)



GLOBAL INCREASE OF RECORD BREAKING HEAT

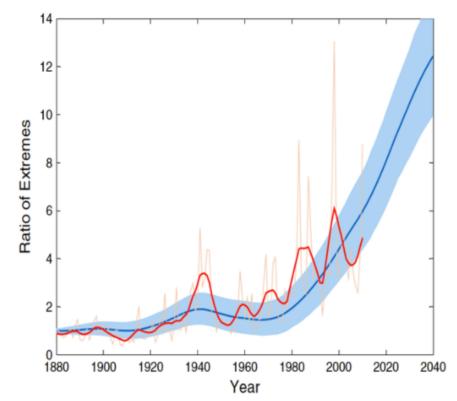
Global increase in record breaking heat

D. Coumou, A. Robinson, S. Rahmstorf June 2013

Local record-breaking monthly temperature extremes is now five times larger than expected in a climate with no long-term warming.

Summertime records, which are associated with prolonged heat waves, increased by more than a factor of ten in some continental regions including parts of Europe, Africa, southern Asia and Amazonia.

By the 2040s we predict the number of monthly heat records globally to be more than 12 times as high as in a climate with no long-term warming.



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WATER STRESS IN 2040

