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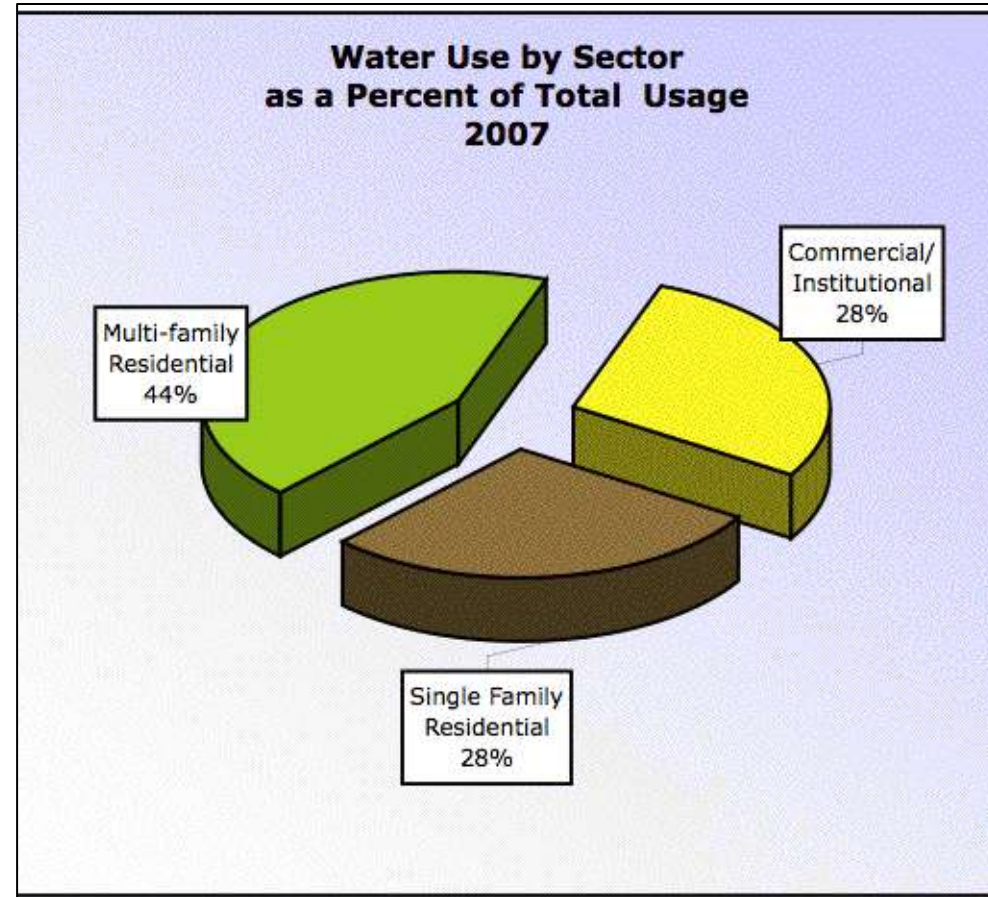
City of Santa Monica

Strategies on the Ground: Water Independence

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Sustainable City Plan

- Water Goals for 2010
 - Use: 20% below 2000 baseline (10.5 MGD)
 - Source: 70% local supply
- 1995: 8.5 MGD local supply
- How to get the rest?



Demand

- Indoor
 - Fixtures (end of the pipe)
 - Leak detection (middle of the pipe)
 - Plumbing design (who needs pipe?)
- How?
 - Rebates / Education
 - Retrofit upon sale
 - Code mandates for new construction
 - Smart Meters

Demand

- Outdoor
 - Plants
 - Irrigation
 - Design
- How
 - Rebates / Education
 - Code mandates for new construction



Supply

- SM Wells
 - MtBE cleanup
- SMURRF
 - 1% → 5%
- Graywater
 - Legal
- Rainwater
 - BMP



Challenges

- Pricing
- Public Awareness / Political Will
 - Water's free.
 - Hotel / Motel
- Building Codes
 - What time horizon?
 - Do the least harm? OR Do the most good?

LEED

- Site protection
 - Construction measures **SSp1**
 - Wetlands **SSc1**
- Stormwater mitigation **SSc6**
- Water use reduction
 - Indoor **WEc3**
 - Landscaping **WEc1**
 - Reclaimed Water **WEc1** and **WEc3**
- Wastewater treatment **WEc2**



Other Thoughts

- Watergy
- Process uses
 - Pools / Spas
- Cradle-to-cradle

Power Generation Technologies	Efficiency (L/1000 KWh)
Hydroelectric	260
Geothermal	1680
Solar thermal	2970–3500
Fossil fuel thermoelectric	14 200–28 400
Nuclear	31 000–74 900

