This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
ROAD MAP TO

NET ZERO / POSITIVE WATER BUILDINGS
THE WHY’S

The average global population increase is 82 million people per year.

Growth Rate:
(2018-2019) 1.07% per year
2018 1.09%
2017 1.12%
2016 1.14%

68% by 2050
BIG WATER TRANSPORT PROJECTS

Colorado River

Northern California
BIG – INDEPENDENT WATER ISLANDS

Net zero water building
• Self sustainable (potable water) buildings
• Resilient buildings a.k.a. resilient cities
• Can supply emergency water supplies if the water supply is damaged (natural or man made)

The commercial building path to NZW..
PLANNING FOR TOMORROW

Net Positive Water Buildings

Sustainable Healthy Urban Cities
## ECONOMICS

### COMMERCIAL OFFICE TOWER (CONDENSATION COLLECTION)

<table>
<thead>
<tr>
<th></th>
<th>5 story – 100 ton AHU per floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water PRODUCED</td>
<td>3.1 million gallons per year / 11,071 per day</td>
</tr>
<tr>
<td>Value</td>
<td>$ 38,405</td>
</tr>
<tr>
<td>Estimated building needs</td>
<td>8,745 gallons a day</td>
</tr>
<tr>
<td>Excess water produced could</td>
<td>88,500 sq. feet (football field)</td>
</tr>
<tr>
<td>irrigate</td>
<td></td>
</tr>
</tbody>
</table>
COMMERCIAL BUILDING & AIR CONDITIONER CONDENSATION
ATMOSPHERIC WATER GENERATION

THE PATH

Stage 1 (today): Landscaping
Stage 2 (2 years): Toilet Flushing
Stage 3 (5 years): Drinking water (currently at .07 cents a gallon)
STEP 2

Reuse / upcycle / 2nd use of water
WATER FOOTPRINT – LANDSCAPE

<table>
<thead>
<tr>
<th>City</th>
<th>Turf</th>
<th>Managed</th>
<th>Drought Tolerant</th>
<th>1000 sq. feet</th>
<th>Greywater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>46</td>
<td>31</td>
<td>14</td>
<td>14,000</td>
<td>0</td>
</tr>
<tr>
<td>Riverside</td>
<td>53</td>
<td>35</td>
<td>16</td>
<td>16,000</td>
<td>0</td>
</tr>
<tr>
<td>Palmdale</td>
<td>72</td>
<td>41</td>
<td>18</td>
<td>18,000</td>
<td>0</td>
</tr>
</tbody>
</table>

All numbers in gallons per square foot
DRINKABLE WATER
1,000 SQ. FT – LANDSCAPE

10 PARKING SPACES
HAVING WATER IS AN ENABLER

Enables GREEN buildings
• Reduces heat islands
• Sequesters carbon and pollution
• Naturally cools buildings
ACTIONS TODAY FOR A BETTER TOMORROW

• SHADED BUILDING
WHAT WE ARE SEEING

Awareness of water usage
- End users desire to monitor, conserve and reuse outside
- Active discussions on retrofits for greywater inside (toilet flushing)
- Discussions on residential Atmospheric Water Generators
POSITIVE POLICY CHANGES

FORWARD THINKERS KNOW WE ARE IN THIS CLIMATE CRISIS TOGETHER
THE LANDSCAPE =
NEW GREYWATER TREATMENT PLANT

A) Yuck factor
B) Local district transfers – San Francisco is a positive model
C) Legal liability – keeping the systems operationally perfect
D) Optics: Green verse Dry
BRINGING IT ALL TOGETHER
BRINGING IT ALL TOGETHER

Condensation – to Landscape $$
Sink water – to landscape $$

Condensation – to toilet flushing $$
Sink water to toilet flushing $$$

Condensation – for drinking water $$$$$
IDEAL BUILDINGS
FAST FOOD - IDEAL BUILDINGS

El Pollo Loco

In & Out

Del Taco

Starbucks
TOOLS – BUSINESS/ENVIRONMENT CASE

Grey4Green.Com/Commercial

More Information on the topic
- Slide Deck in PDF format
- Water Condensation Calculator
- Green Building Water Calculation
- AWG sources

Joseph@Grey4Green.Com
Grey4Green.Com
o: 213-985-4122 / c: 562-301-5598