



National Association of Clean Water Agencies (NACWA) Winter Conference
"The Vernacular of Water and its Implications for the Future"

A large, faint, light blue outline of a water drop is positioned to the left of the main title text.

The Impact of Words and Context on Acceptance and Experience of Water

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Water, energy and fertilizer translate into life-sustaining benefits

- ▶ Wastewater goes into a resource recovery plant (formerly known as a wastewater treatment plant)
- ▶ Water, energy and fertilizer come out
- ▶ The plant manufactures things we need to survive



Wastewater is a source of water, energy and food (fertilizer).




**Wastewater is a
Recoverable,
Reusable,
Resource.**



Reused or Reuseable?
Sludge or Biosolids?
Wastewater Plants or Resource Recovery Facilities?
Effluent for disposal or a source of water for various
purposes?



A photograph showing several hands of different skin tones holding a large, flat, circular wooden object. The hands are positioned around the perimeter of the circle, with some fingers gripping the edge. The background is a neutral, slightly textured grey. The text is overlaid in the center of the image.

**Stigmatized perceptions and
negative associations limit our
capacity to tap into these
valuable resources**

If You Vote YES Look At The PURIFIED
WATER You WILL BE Drinking from

• Treated Wastewater



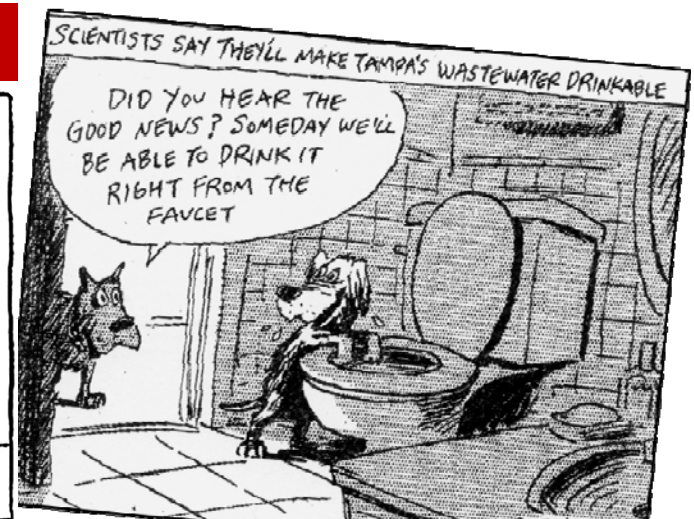
Our current perception of water reuse is stigmatized

- When we start with stigmatizing words and images it is hard to 'get over it'

• Toilet to Tap



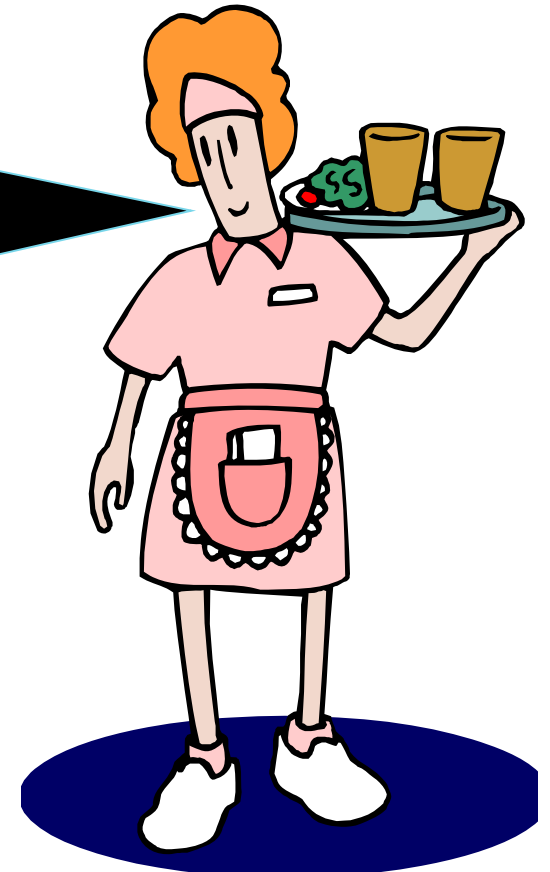
• Crappy
Solution



Does the language we use to
relate water to its history as
wastewater
flush reuse projects
down the toilet?

Hey, Sugar, how
about a couple of
glasses of "treated
wastewater?"

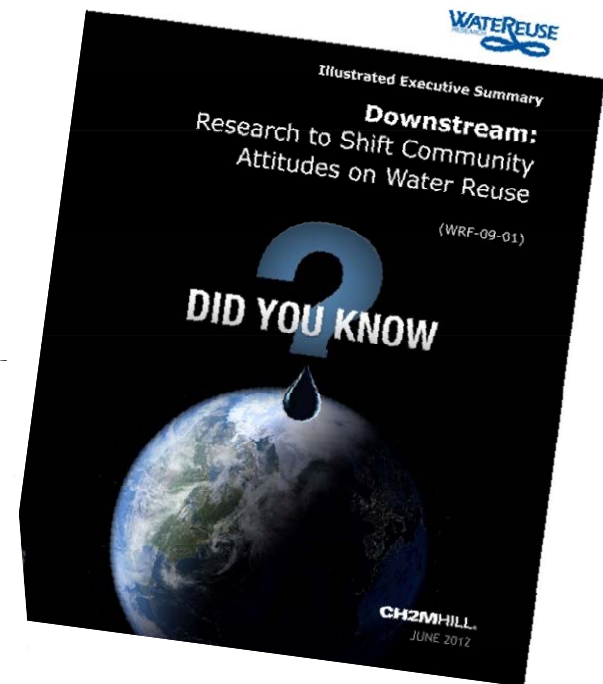
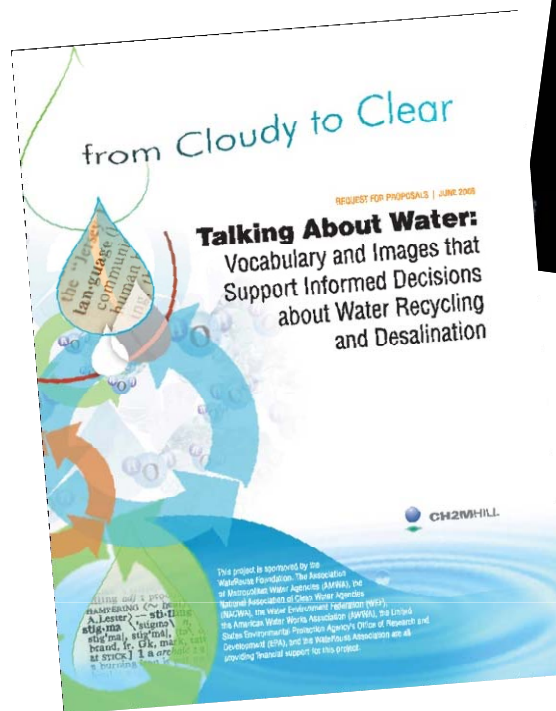
*Might there be a
different way
we can do things?*



Let's look to the research



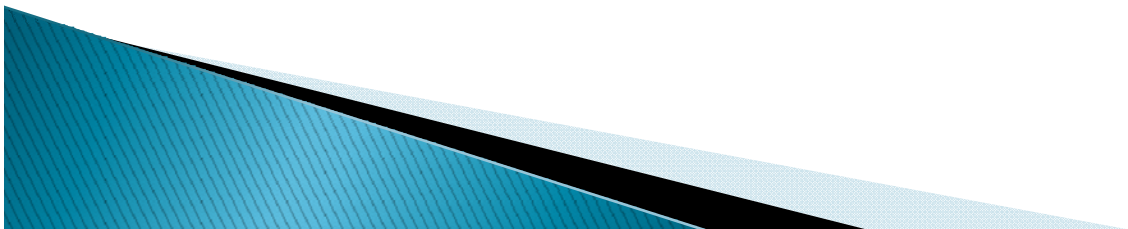
WRF 07-03
Co-Principal Investigators
Linda Macpherson
and
Dr. Paul Slovic



WRF 09-01
Co-Principal Investigators
Linda Macpherson
and
Dr. Shane Snyder

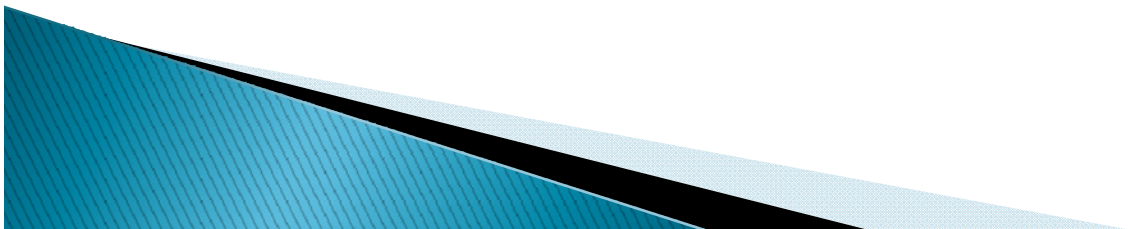
A note about methodology

- ▶ Both studies followed similar investigation processes
 - Literature review
 - Focus group research
 - Internet-based survey
- ▶ Focus groups and surveys conducted in both United States and Australia (various locations)
- ▶ Survey participants selected by professional panel selection companies to provide representative samples

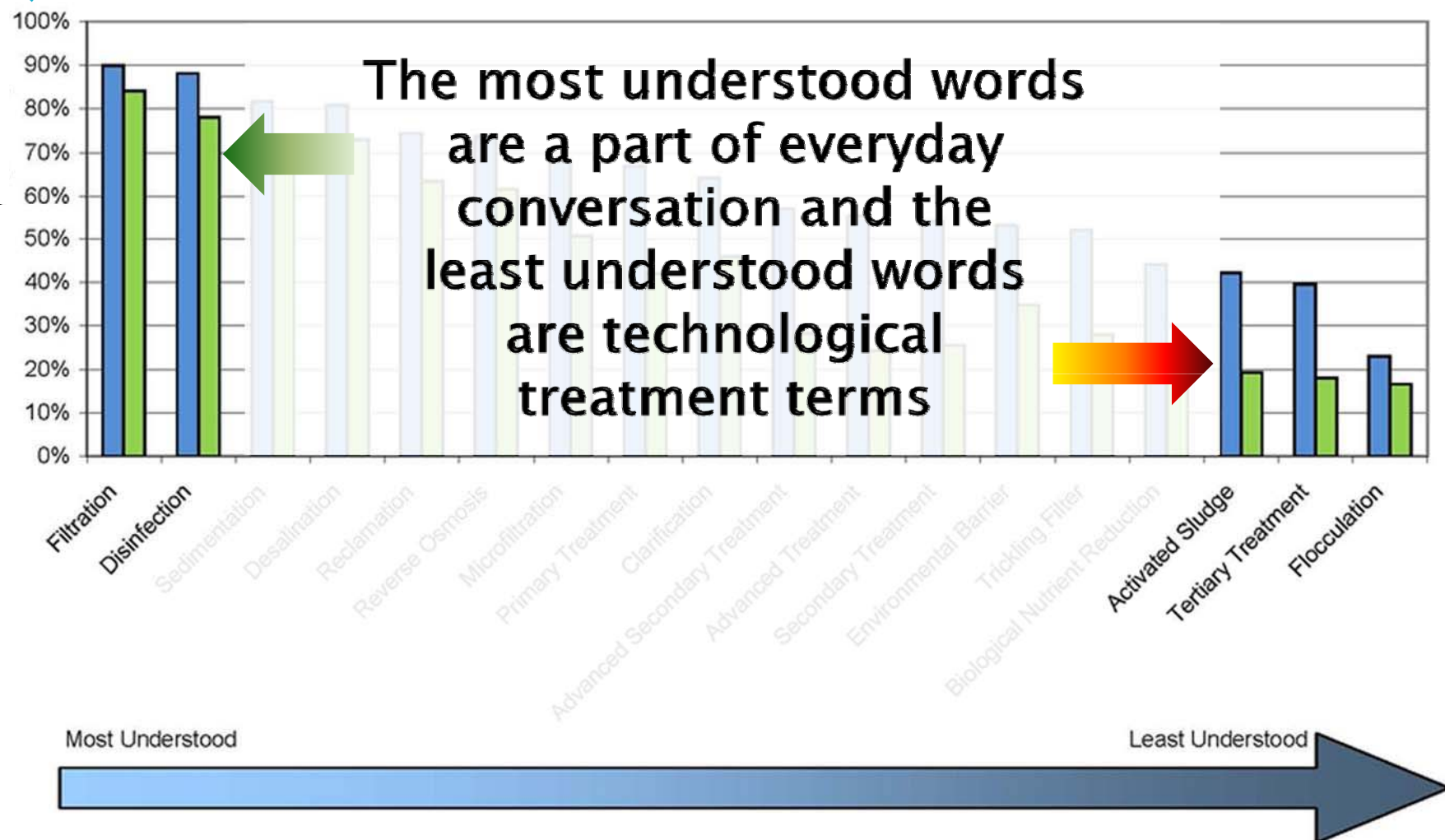


The WRF 07–03 research question

- Reused Wastewater • Indirect Potable Reuse
 - Unplanned Indirect Potable Reuse
 - Inadvertent Indirect Potable Reuse
 - Recycled Wastewater • Influenced Waters
- ▶ Could it be that the vocabulary used to explain technology and the concept of reuse actually inhibits public understanding and results in lack of acceptance?

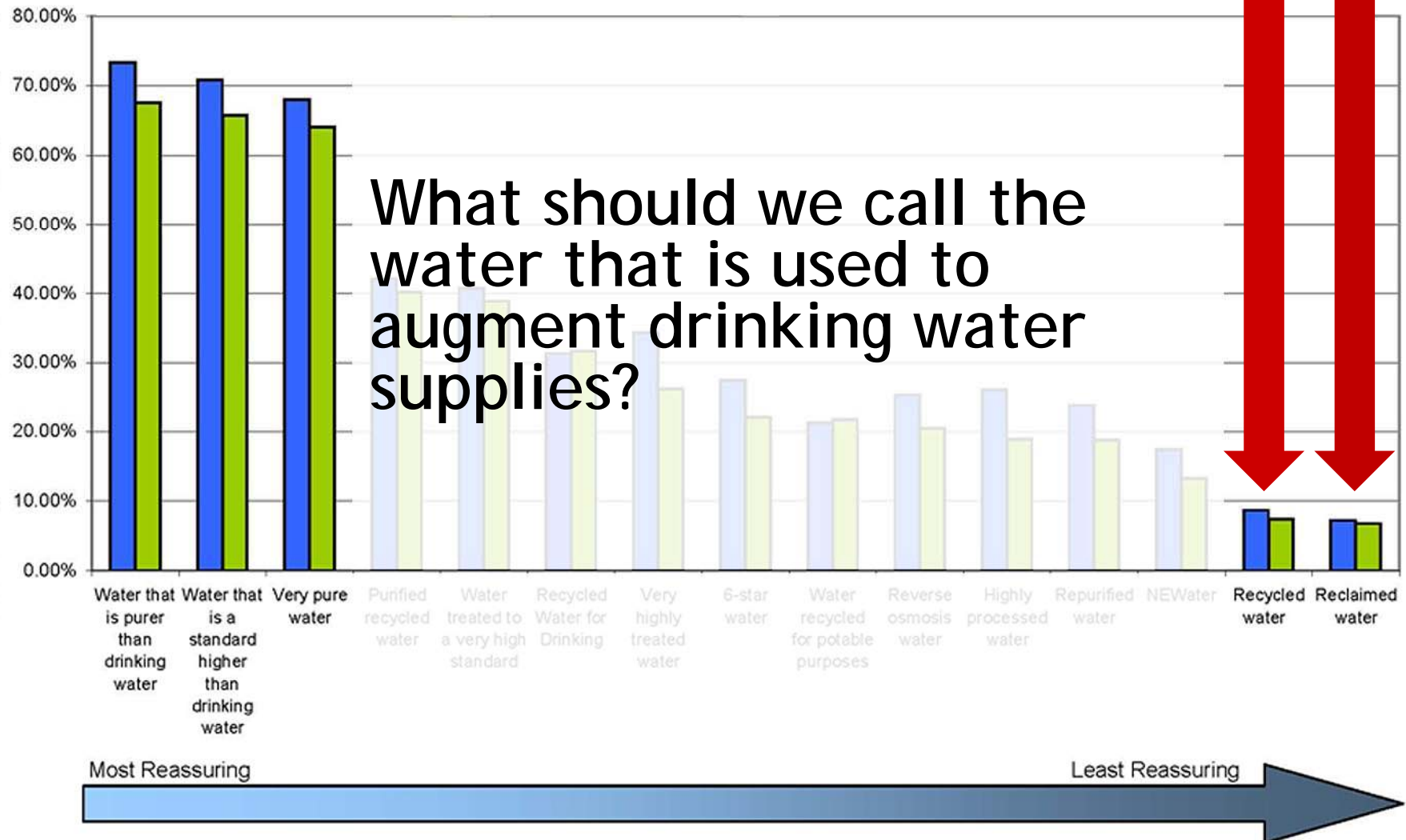


Percent respondents who indicated they have some understanding of the term, or understood it well enough to explain it



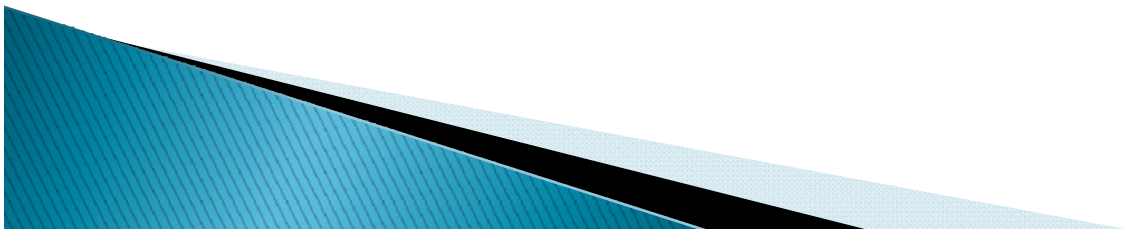
Percent respondents who feel the term is reassuring or very reassuring

The least reassuring terms are the ones we use the most

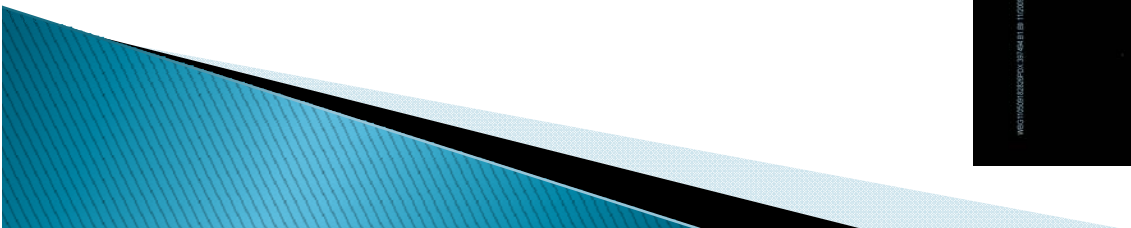


Key findings from the WRF 07–03 focus group meetings

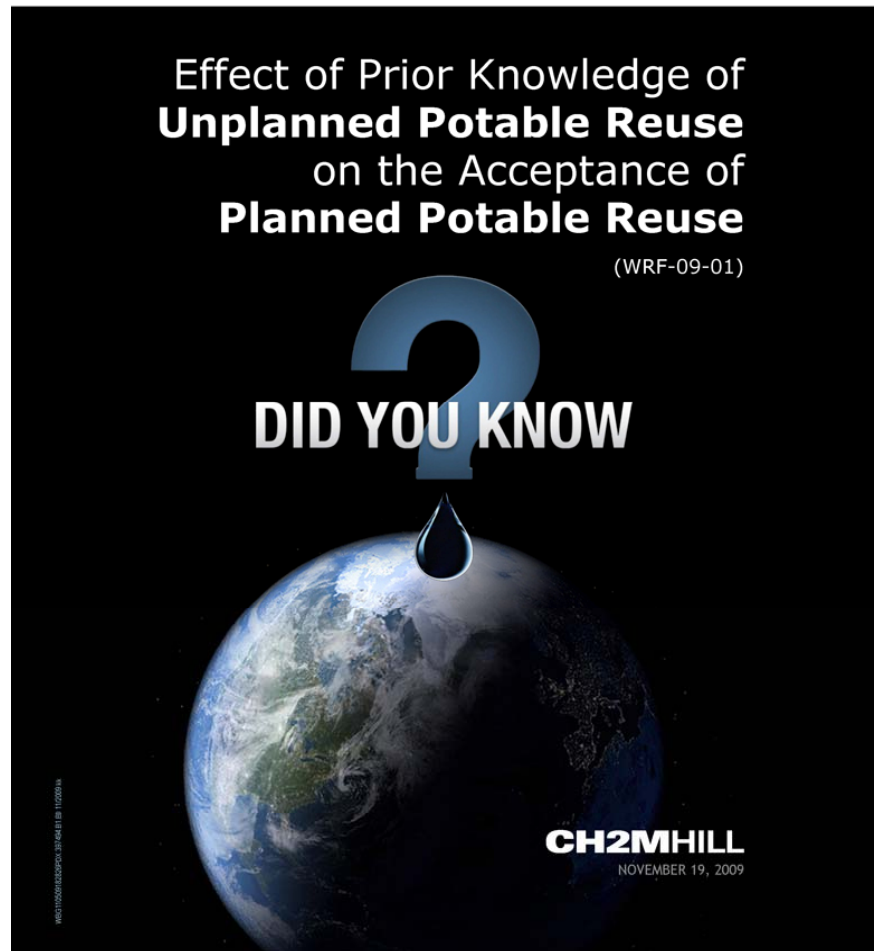
- ▶ Most people just want to be assured that the water they are drinking is safe – but –
- ▶ If information is not available and easy to understand it gives rise to misgivings and mistrust
- ▶ Information should be simple enough to understand but technical enough to trust



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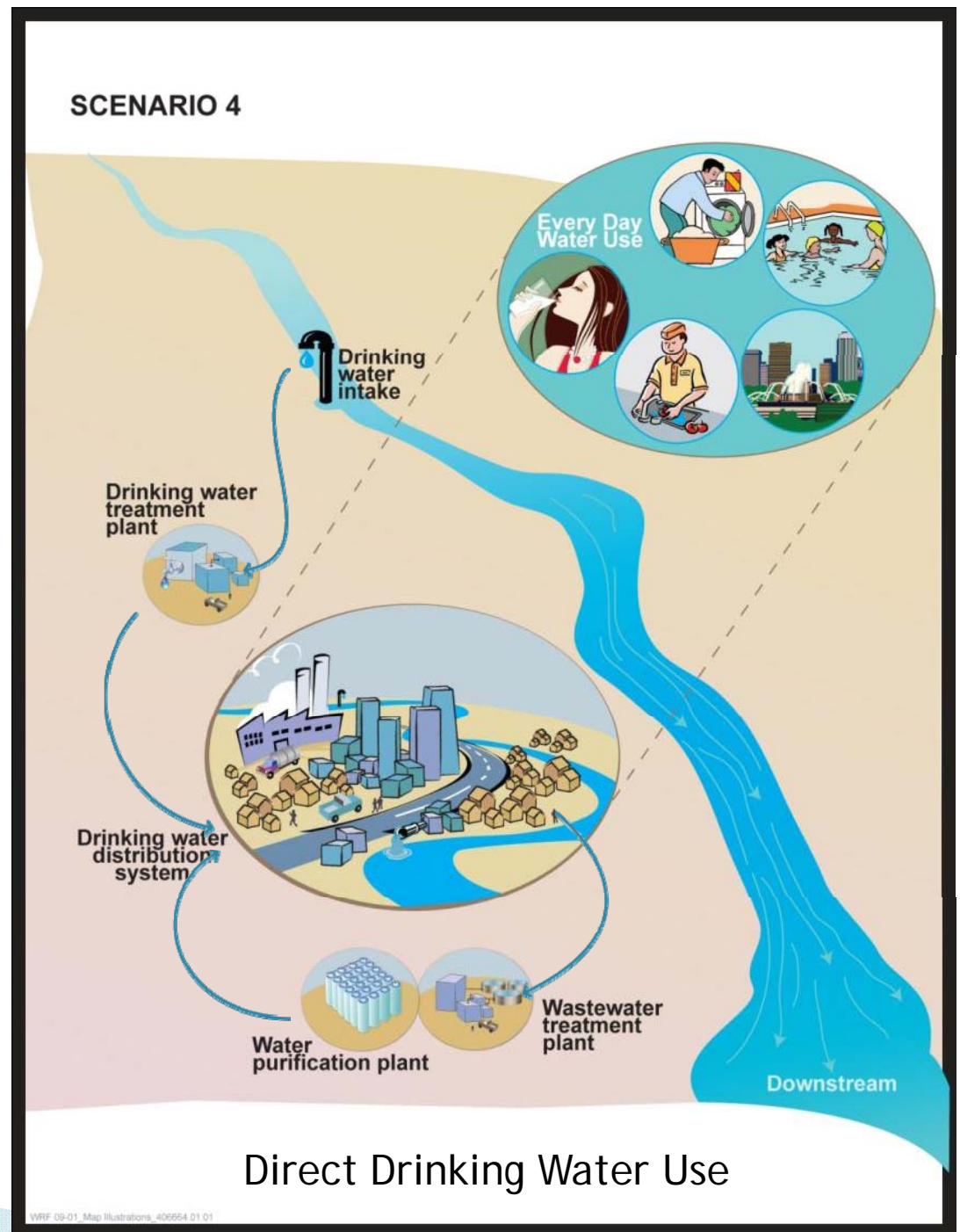


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Focus Group Results – Safest Drinking Water

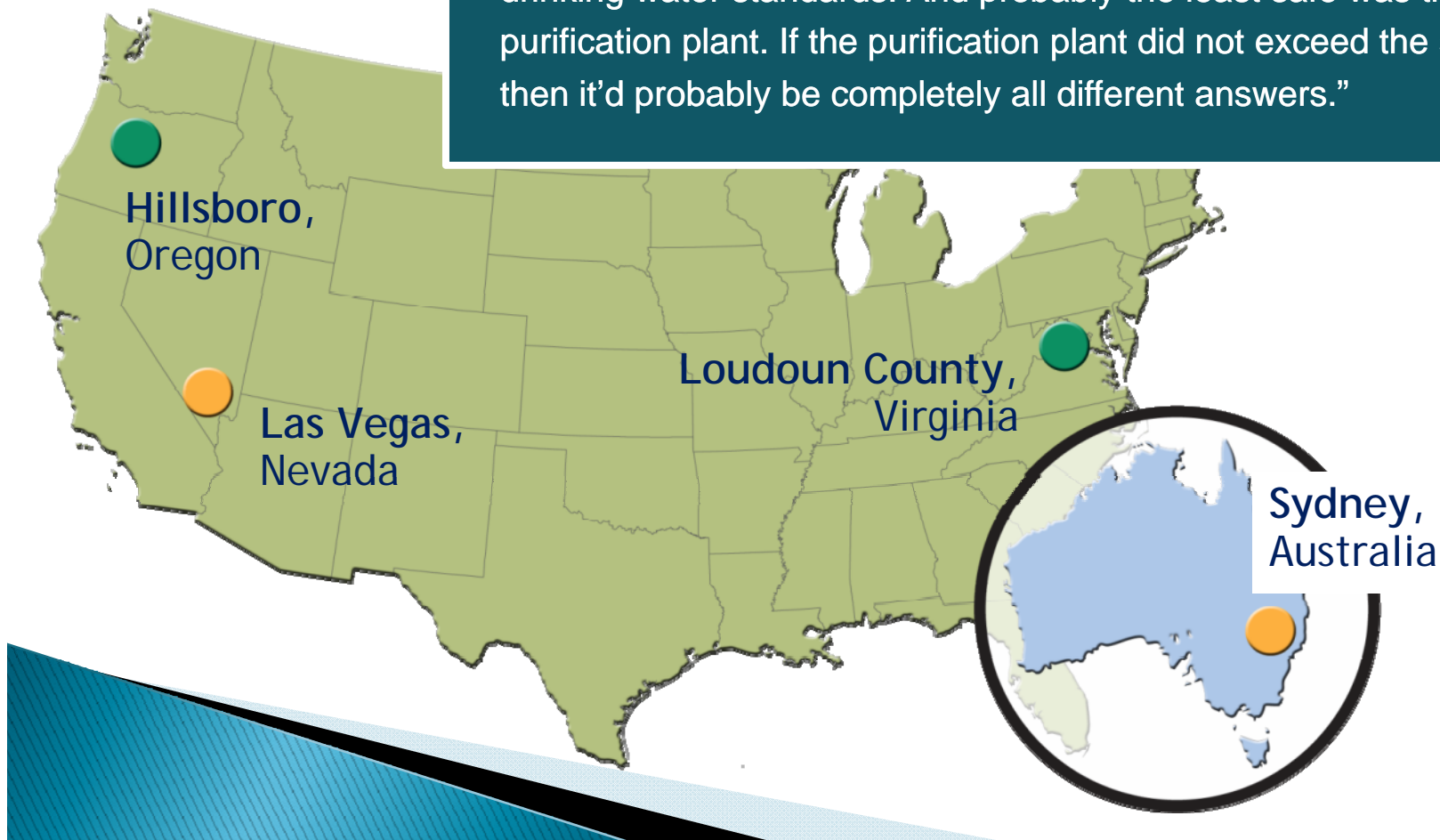
- Of four hypothetical reuse scenarios, the Direct Use scenario was considered to produce the safest drinking water
- People were not worried about where the drinking water came from, as long as it met standards



Quotes from the Focus Groups indicate the influence of terminology

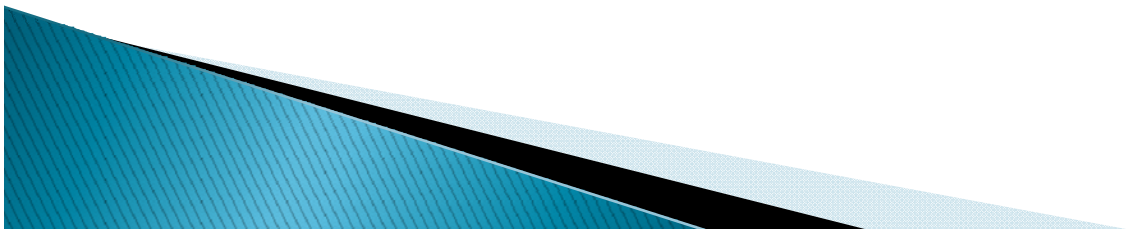
- Mr. M said (paraphrased):

“My decision [for safest water] was solely based on the terminology, you saying that water from a purification plant produces water that meets or exceeds drinking water standards. So based on that I said that scenario because you have potentially water going into the city that exceeds drinking water standards. And probably the least safe was the one with no purification plant. If the purification plant did not exceed the standards then it'd probably be completely all different answers.”



WRF 09–01 survey research reinforces the focus group finding that people were comfortable with direct drinking water use

- Survey respondents were asked the same questions as asked of the Focus Groups, but were also asked which water they prefer to drink
- Direct drinking water use was the first or second most preferred water by about 45% of the total survey population.
- Hypothetical reuse scenarios including a water purification plant was preferred (first or second choice) over the current practice scenario by a margin of about 2 to 1



Conclusions, Implications,
and Recommendations
What Does all this Mean?