



GE Water Reuse Survey Executive Summary of US Findings

Survey methodology

StrategyOne conducted an online survey among a total of 3,000 adults, 18 years or older, 1,000 each in the US, Singapore, and China. Interviewing took place from June 1–11, 2012.

The margin of sampling error at the 95% confidence level is as follows:

- US (n=1,000): MOE = +/- 3.1%
- Singapore (n=1,000): MOE = +/- 3.1%
- China (n=1,000): MOE = +/- 3.1%

The data set for each country is nationally representative of the population of that country.

Contrary to Beliefs about “Ick Factor,” Americans Strongly Support Reusing Water to Combat Water Scarcity

Despite a lack of understanding of water, Americans are clearly concerned about water scarcity and the availability and quality of water for the future. The survey shows Americans will support using recycled water for many non-drinking uses, which currently use a large volume of freshwater—and believe we should do so to maintain economic growth. In fact, many are willing to pay a bit more now to ensure clean water down the line. Support for reuse and willingness to pay is clearly linked to awareness of water issues—demonstrating an opportunity to grow support through education.

Water supply largest concern; efficient water reuse seen as solution, means to economic growth

- Eight out of ten Americans (**83%**) are concerned about the availability of clean water for the future, as well as quality (**83%**).
 - These two factors were far more important than the price of water (**67%**), where their water comes from (**72%**) or how it is cleaned (**76%**).
- Two-thirds of Americans (**66%**) feel positive about water reuse.
 - Three-quarters (**75%**) agree that “reusing water combats water scarcity” and **87%** feel that recycled water helps protect the environment.
 - Municipal wastewater reuse offers the potential to significantly increase the nation’s total available water resources – up to 27% of public supply, according to one study¹.
- Seven out of ten (**70%**) Americans feel the US would have a competitive advantage over other countries if we increase the amount of water we reuse in a safe and efficient manner.
 - Americans in Southern and Western states more strongly believe this compared to other regions (**73% for South and West, 67% for Northeast, 63% for Midwest**).

Americans support “toilet to turf,” if not “toilet to tap”

- Eight out of ten Americans strongly support using recycled water for most non-drinking uses. **80% or more** were in favor of using it for Power Generation; Landscaping; Industrial Processing and Manufacturing; Toilet Flushing; Car Washing; and Agricultural Irrigation.
- Over half (**51%**) were in favor of swimming in recycled water. Nearly one-third (**30%**) support drinking it—and half of Americans agree that it is drinkable (**51%**).

Many are willing to pay more now to help protect future generations

- Nearly half of Americans (**44%**) would immediately pay more to ensure that future generations would be less vulnerable from water shortages. They would pay **12.4% more on average**.
 - Younger generations (under the age of 30) are willing to pay a little more than older generations (nearly \$17 vs. approximately \$10 for Baby Boomers)
- Only one-quarter of Americans (**27%**) would be unwilling to pay more on their current water bill to ensure that their communities were less vulnerable to water shortages.

¹ Reusing 12 billion gallons of municipal wastewater effluent discharged each day to an ocean or estuary would directly augment available water resources (equivalent to 6 percent of the estimated total US water use or 27 percent of public supply). (National Research Council)

Americans' understanding of water lifecycle and solutions falls behind those in other water challenged countries, but unique opportunity exists to achieve greater support through education

More than half of US states face impending water shortages in the coming years and Americans have said water is their most important service. However, Americans are significantly uninformed about their water supply - where their water comes from, how it is cleaned or disposed of and the major solutions for water scarcity—when compared to peers such as China and Singapore, who also face shortages. However, those who had greater understanding of the water lifecycle were more supportive of solutions such as reuse, demonstrating that greater engagement and support for addressing future water shortages is achievable through education.

Lower familiarity with water cycle and solutions; significant distance behind major industrial nations

- Studies have shown (*ITT Value of Water Survey*) that Americans feel water is the single most important service they receive—beating electricity and heat—yet three out of ten **(31%)** don't know where their water comes from, compared with about one out of ten in China and Singapore. Less than half know how water is cleaned for community use **(47%)** and how their water is disposed after it's been used **(49%)**.
- Consumers in both China and Singapore demonstrated far greater understanding of water cycles and terminology than Americans—by nearly 20% on most topics.
- When asked about a series of terms relating to water, Americans had the least familiarity with the terms “recycled water” **(60%)** and “water reuse” **(51%)**, demonstrating a lack of familiarity with solutions to water scarcity. Conversely, more than eight of ten respondents in China were familiar with these terms, and feel more positive about them.

Water education increases support; regional differences demonstrate room for growth

- Americans who are more knowledgeable about water usage, water scarcity issues and water terms are much more likely to be supportive of water reuse, to support groups that recycle and are more willing to pay. Americans exhibited a high degree of uncertain responses, indicating that there is a large population who could benefit from education programs.
 - Of those that are knowledgeable about where water comes from (sourced), three out of four **(74%)** feel positive about water reuse, compared to one in four of those who are not knowledgeable.
 - Of those Americans who are knowledgeable about where water comes from, 81% believe it is important for communities to use recycled water.
- Americans who have a higher understanding of their water supply are more likely to believe recycled water is drinkable and support it for drinking use.
 - Of those that are knowledgeable about where water comes from, eight out of ten **(81%)** support using recycled water for drinking.
- Respondents in the Southern and Western states are typically more concerned with water issues, and more familiar with water reuse.
 - In the Western states, **62%** are familiar with “water reuse” while only four out of ten are familiar in the Northeast **(44%)** and Midwest **(42%)**.

Concerned about sufficient water supplies, Americans call on national government to step up and lead on water issues to protect economic competitiveness

Americans overwhelmingly view water scarcity as a national issue rather than a local issue, and look to national government to lead in protecting water resources; though government at all levels are expected to take action. Americans feel that wiser water management will give the US a competitive advantage on the global stage, and believe that safe and efficient reuse of water is an effective tool to achieve this goal. And although Americans expect government to drive this effort, they are willing to do their part and chip in financially to combat water scarcity.

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- More than three quarters of Americans (**77%**) feel water scarcity is a national issue (**59%** believe it is a local issue)
- Eight in ten (**84%**) feel that protection of water resources should be a national priority.
- More than seven in ten Americans feel that decisions to protect water resources are the responsibility of both national (**73%**) and local (**77%**) governments.

Americans are very concerned about water supplies, and expect industry, government and communities to do the most to combat water scarcity

- Eight out of ten Americans (**83%**) are concerned about the availability of clean water for the future and 7 out of ten (**73%**) are concerned about water scarcity.
 - Those in the South are consistently more concerned than other regions of the US.
- Americans feel it's important that all groups protect water resources, with Agriculture, and Local Municipalities/Government Structures and Communities most expected to take action.

Americans feel that wiser water management will give the US a competitive advantage on the global stage, and believe that safe and efficient reuse of water is an effective tool to achieve this goal

- Three quarters (**75%**) agree that reusing water combats water scarcity.
- Seven out of ten (**70%**) Americans felt the US would have a competitive advantage over other countries if we increase the amount of water we reuse in a safe and efficient manner.

Although Americans expect government to drive this effort, they are willing to do their part and chip in financially to combat water scarcity

- Nearly half (**44%**) of Americans would immediately pay more on their current water bill to ensure that future generations would be less vulnerable from water shortages.
- Those who are willing will pay **12.4% more on average** to ensure future generations are less vulnerable to water shortages.
 - Those in the South are most willing to pay more (**47% vs. 40%** in the Northeast). But of all respondents willing to pay more, those in the Northeast are willing to pay the most—**14.89% more** compared to those in the South who are willing to pay **10.93% more**.
 - Willingness to pay also increased with education level; **47%** for those with undergraduate schooling as opposed to **42%** for high school.
- Only one-quarter of Americans (**27%**) would be unwilling to pay more on their current water bill to ensure that their communities were less vulnerable to water shortages.

Americans understand intimate connection between energy and water; expect energy industry leaders to demonstrate water stewardship

Americans are generally clear in their understanding that energy and water resources are closely connected and must be treated as such in a resource-constrained world. They overwhelmingly believe it is important for those involved in power generation and delivery to protect water resources, which can also positively impact cost and efficiency. Water reuse is seen as a key practice for the industry to combat scarcity, and in fact, utilities and power companies should be the biggest users of recycled water—more so than any other group.

Americans well-educated on energy/water nexus

- More than eight in ten (**86%**) Americans understand that you need energy to deliver water, and more than seven in ten (**74%**) are aware that you need water to create energy.
- **84%** said smart water management can help the US more efficiently create and use energy.
- **82%** felt that if water is managed wisely, it can lower energy costs.

Respondents see significant role for utilities and power companies to reuse water

- Nine out of ten Americans (**90%**) believe it's important that utilities and power companies protect water resources.
- Nearly nine out of ten (**87%**) Americans are in favor of using recycled water for power generation, more than any other application.
- Three-quarters (**76%**) have a favorable impression of Utilities and Power companies that reuse water.

As drought impacts the US, industrial water users have unique opportunity to protect water supplies and gain public favor through water reuse

As drought spreads across the US, large water users have a unique opportunity to put in place measures to insulate themselves from economic challenges, safeguard natural resources, and boost reputation among the public. Americans believe it's important for the largest water users—industries, agricultural entities and utilities/power companies—to recycle water, and have a favorable impression of those that do. More than half would prefer to purchase from a company that recycles water, and nearly half of Americans would pay more for a product or service from a company that recycles water. By using recycled water, and reusing their own water to fuel operations, companies have an opportunity to gain favor in the eyes of consumers and even boost their bottom lines.

Americans feel that the largest water users are most responsible for contributing to water scarcity, and therefore must take the lead in using recycled water to protect dwindling resources

- Large Industries (**74%**), Agriculture (**69%**), and Utilities and Power Companies (**67%**) were seen as most responsible for contributing an “extreme amount” or “quite a bit” to water scarcity.
- Nearly nine out of ten Americans felt that it was important that those same users do their part to protect water resources, alongside government and communities.

Americans expect large industry, agriculture and power generation companies to be leaders in reusing water

- More than eight in ten Americans believe it's important for Utilities and Power Companies (**85%**), Large Industries (**85%**), and Agriculture (**83%**) to use recycled water—more than any other entity.
- More than eight in ten are in favor of using water that has been recycled for power generation (**87%**), industrial processing/manufacturing (**83%**), and agricultural irrigation (**80%**).

And when they do, Americans will support them

- Three-quarters of Americans have a favorable impression of Agriculture (**77%**), Industrial Users (**75%**) and Utilities/Power Companies (**75%**) who reuse water. This was the highest rating for any of the groups in question.
- More than half of Americans (**57%**) said they would prefer to purchase from a company that recycles water.
- Nearly half (**42%**) said they would pay more for a product or service from these companies.