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WATER – ELIXIR OF LIFE

For the past several years there has been a major focus on the topic of climate change. It is difficult to separate the facts from the rhetoric, and the politics from the science. One thing is undisputable, however, and that is that the climate has always changed and it always will.

While the subject of our ability to adapt to climate change is a very important one, I am concerned that all the climate rhetoric is overshadowing a topic that is even more important. This topic would be the dwindling supplies of available water. And by “available” I mean accessible and usable by humans.

According to the United States Geological Survey, of all the water on Earth, only 1 percent is presently usable by humans. Of that 1 percent, 99 percent is ground water, .86 percent is lakes and 0.02 percent is rivers. In addition, that 1 percent is not evenly distributed across the globe, or for that matter even in the United States.

While water use on golf courses is a small percentage of the water used for overall irrigation purposes, the fact of the matter is that golf courses tend to stick out like a sore thumb.

In addition, using too much water for irrigation not only causes agronomic problems, but it also costs money. This economic point is not only directly connected with the actual cost of the water, but relates to the electricity used to move the water.

Consider these other tidbits about water:

- Three-fourths of the Earth’s surface is covered with water. Water regenerates and is redistributed through evaporation, making it seem endlessly renewable. So why worry?
- About 97 percent of all water is salt water and 2 percent is frozen in glaciers and polar ice caps. Thus the remaining 1 percent of the world’s available water supply is an extremely precious commodity necessary for our survival.
- A simple example of how easy it is to contaminate water is to consider that one drop of oil can make up to 6.6 gallons of water undrinkable.

Now, do I have your attention? How about pondering these water facts, which were recently reported in Sustainability News, a publication of Audubon Lifestyles and the International Sustainability Council:

- Around 70 percent of the world’s water is used for agriculture, 22 percent for industry and 8 percent for domestic use. Low- and middle-income countries use

82 percent of their water for agriculture, 10 percent for industry and 8 percent for domestic use. In comparison, high-income countries use 30 percent of their water for agriculture, 59 percent for industry and 11 percent for domestic use.

- A person is able to survive one month without food but only five to seven days without water.
- A water “footprint” is the amount of water used in the entire production and/or growth of a specific product. For example, 2.2 pounds of beef has a water footprint of 4,226.8 gallons; one sheet of paper has a water footprint of 2.6 gallons; a single cup of tea has a water footprint of 9.2 gallons; and one microchip has a water footprint of 8.5 gallons.
- It takes 25 to 50 gallons to take a five-minute shower; 2 to 7 gallons to flush a toilet; 2 gallons to brush one’s teeth; and 20 gallons to hand wash dishes.
- 6,000 children around the world die each day from preventable water-related diseases.
- The population of the United States is approximately 304 million; the population of Europe is approximately 732.7 million; 1.1 billion people lack adequate drinking water access; and 2.6 billion people lack basic water sanitation.

- The average American uses about 151.9 gallons of water per day, with about 60 percent of that being used outdoors – watering lawns, washing cars and other water-related activities. The average European uses 66 gallons of water per day. The 1.1 billion people who lack adequate water access, use the least – less than 5 gallons per day.
- The average American uses 30.3 times more water than a person who lacks adequate water access; while the average European uses 13.2 times more water than a person who lacks adequate water access.

Here’s another kicker: climate change may make matters worse as arid areas get drier and wet areas get wetter. No matter how we slice it, water is necessary for human life, economic life...all life.

Every golf course should undertake a water assessment, including conducting a water-footprint analysis. Course designs can help courses facilitate water efficiency or force water overuse. Likewise, rectifying incorrect turfgrass selections or heavily irrigated vegetation can reduce water and financial waste.

The question is...will golf become a true water conservation leader, or dry up and blow away with the dust? **GCI**