



September 18, 2009

WaterSense  
Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Washington, DC 20460-0001

The Golf Course Superintendents Association of America (GCSAA) and The Environmental Institute for Golf (EIFG) submit these comments in response to the white paper *Water Efficiency in the Commercial and Institutional Sector: Considerations for a WaterSense Program* issued on August 20, 2009 by WaterSense at the U.S. EPA.

GCSAA is a leading golf organization, which has as its focus golf course management. Since 1926, GCSAA has been the top professional association for the men and women who manage golf courses in the United States and worldwide. From its headquarters in Lawrence, Kan., the association provides education, information and representation to more than 20,000 members in more than 72 countries. GCSAA's mission is to serve its members, advance their profession and enhance the enjoyment, growth and vitality of the game of golf. The association's philanthropic organization, The Environmental Institute for Golf, works to strengthen the compatibility of golf with the natural environment through research grants, support for education programs and outreach efforts.

GCSAA and the EIFG, along with the rest of the golf industry, recognizes that the availability of water, in sufficient quantities and of quality adequate to sustain turfgrass, is a major issue facing the game and business of golf. In the last 25 years, non-profit organizations, universities, and private industry have funded research, provided education programs, and introduced new products and technologies to the golf industry to advance water use efficiency on golf courses. GCSAA and the EIFG acknowledge the need to use water resources efficiently and supports efforts aligned with this goal.

### **Data Gaps and Research Needs**

GCSAA and the EIFG have conducted a series of five surveys to determine the property features, inputs, and management practices associated with golf courses in the U.S. The water use and conservation survey results were published in the peer-reviewed journal, *Applied Turfgrass Science*. The article is titled "Golf Course Environmental Profile Measures Water Use, Source, Cost, Quality, and Management and Conservation Strategies" and was published in January 2009. The results will help to satisfy the request for data in the white paper and should form the basis to explain the complexity and challenges associated with water use across the golf course industry. The article in *Applied Turfgrass Science* can be found at: <http://www.plantmanagementnetwork.org/sub/ats/research/2009/profile/> and a popular report of the results for the public can be found at: [http://www.eifg.org/programs/EIFG\\_GCEP\\_Vol\\_2.pdf](http://www.eifg.org/programs/EIFG_GCEP_Vol_2.pdf)

GCSAA and the EIFG appreciate the opportunity to comment on the white paper, the content of which raises several concerns and questions which are outlined below:

- **Golf Course Management as a Segment of Agriculture**



EPA has included golf courses as a subsector of the commercial and institutional sector in the white paper. However, golf turfgrass management is based on agricultural science and golf courses provide a product similar to other agricultural industries. Like other agricultural industries, golf courses rely upon ecosystems to provide a product to the marketplace. We would appreciate the justification of why golf courses have been placed in the commercial and institutional sector.

- **Scope of the Proposed Program**

It is not clear if a proposed program for golf courses would target indoor water use, swimming pools, or irrigation for the golf course and grounds. It is also not clear whether a golf course program would target all golf facilities or just those with publicly supplied water. Clarification of the scope of a proposed program is necessary. Our comments below are based on the assumption that a program would include irrigation of the golf course and grounds.

- **Goals**

One of the stated goals of the WaterSense program is to reduce consumption to relieve the strain of expanding water infrastructure. The white paper reports that “By transforming the market for water-efficient products, services and practices, WaterSense is helping to relieve the strain of expanding water supply and wastewater infrastructure.” This goal may be a direct conflict with golf course irrigation. In cases where golf courses are part of the potable water system, many are a reliable source of income for the water provider. According to our survey data (referenced below), 14% of golf facilities nationally use potable water as one of their irrigation sources. In addition, 12% utilize recycled water as an irrigation source. The majority of golf courses nationally utilize water from other sources such as wells or surface water. The infrastructure to deliver water to golf courses is likely in the best interest of both parties. GCSAA and the EIFG promotes the use of recycled water, but one of the major reasons it is not used more often is because recycled water is not available or the infrastructure to deliver recycled water does not exist. The WaterSense program should take a position on the use of recycled water for irrigation purposes. The absence of a position conceivably puts the golf industry at odds with the purpose of the WaterSense program. GCSAA and the EIFG consider the use of recycled water for irrigation a significant value to community water treatment facilities. For this use to increase, it will require more infrastructures to deliver recycled water to golf facilities. Ultimately, golf courses provide a final “treatment” of the recycled water, and in many cases, a reliable revenue stream for the treatment facility.

There are several areas of the white paper that identify a percentage reduction approach to ensure water conservation by the commercial and institutional sector. Setting an arbitrary water use percentage reduction is not appropriate or effective for the golf industry. Golf courses are located in diverse settings across the nation. In the southwest U.S., water conservation is of utmost concern and the golf industry has been active in conserving water used to irrigate golf courses. The golf industry is best served by maximizing the efficient use of water – effective delivery devices, uniform application of water, and technology to guide irrigation decisions. Requiring a standard percentage



reduction in water use at golf courses that have already invested considerable resources to use water efficiently is not equitable and could severely impact those businesses.

- **Program Development Process**

GCSAA and the EIFG are concerned with the process that will be used to develop a WaterSense program which targets the commercial and institutional sector and possibly golf courses. We have been involved in the development of the WaterSense for New Homes guidelines and have been extremely disappointed in the process used to create them for this area. In our judgment, sound scientific data presented by recognized experts has been routinely dismissed in the creation of the outdoor landscape provisions. The process used for the development of any program that includes golf courses must be collaborative and committed to using sound science as the basis for guidelines. Negative consequences of a poorly structured program could have severe impacts on individual golf businesses. The decision making process must be clearly outlined and follow accepted industry practices for GCSAA to consider future involvement.

- **The Value of Golf**

Golf facilities contribute to communities by providing economic, environmental, and social benefits. These benefits must be acknowledged and used as a reference point when developing guidelines for a golf course program. Guidelines must be weighed against any possible diminishment of benefits provided by golf facilities.

The intent of our comments is to express our initial concerns with the development of a golf course WaterSense program and ask EPA to provide additional insight. We intentionally did not address the specific questions related to potential program options that were posed in the white paper. With the limited time given to respond, it would be premature to offer detailed answers to the questions without consulting with golf course superintendents, golf facility owners, other golf industry professionals, allied golf associations, university and industry turfgrass scientists, and those that provide irrigation products and services to the golf industry.

We are committed to the efficient use of water at golf courses and are hopeful we can collaborate with the EPA WaterSense Program. We would like to continue discussions with the EPA regarding this project and look forward to exploring options to partner with the WaterSense program that will encourage, promote and recognize progressive water conservation on golf courses.

Thank you for the opportunity to submit these comments. Please forward any questions or comments to me by phone at (406) 656-1986, or by email at [cthrossell@gcsaa.org](mailto:cthrossell@gcsaa.org), or direct mail at GCSAA, 1421 Research Park Drive, Lawrence, KS, 66049.

Sincerely,

A handwritten signature in black ink, appearing to read "Clark Throssell". The signature is fluid and cursive.

Clark Throssell, Ph.D.  
Director of Research  
GCSAA