

# GOLF'S ENVIRONMENTAL IMPACT FACT SHEET

















# GOLF'S ENVIRONMENTAL IMPACT



For many years, the golf industry has been extremely attentive to environmental issues. Led by the Golf Courses Superintendents Association of America and its Environmental Institute, the industry is constantly seeking ways to better manage its use of water, to reduce the amount of maintained acreage, and to create new habitats for wildlife. The industry's success in doing so has been remarkable.

### WATER USE AND CONSERVATION

### Water use on golf courses is a low percentage of total water use nationally.

- Golf course irrigation accounts for 0.5% of the 408 billion gallons of water used per day in the U.S., as estimated by the United States Geologic Survey.
- The GCSAA Environmental Profile Survey estimates the total irrigation water use in 2006 on U.S. golf courses at 2.1 billion gallons of water per day.
- Golf course water use and cost vary significantly across geographic regions. Water use and cost is lowest in the Northeast, North Central and Transition regions and highest in the Southwest and Southeast US.

### Golf course superintendents proactively conserve water.

- Water conservation techniques include the use of specialized weather stations and forecasting equipment, wetting agents, hand watering, adjusting fertilizer practices and simply keeping the turf drier for the golfing public.
- Approximately 65% of golf course facilities have completed upgrades to their irrigation systems over the past ten years.

### Golf courses are proficient users of recycled water.

- Less than fifteen percent of golf courses utilize municipal water supplies as a source for irrigation water. Other golf courses utilize non-drinking water supplies such as wells, stormwater, on-site ponds and lakes and recycled water.
- Approximately 12% of golf courses in the U.S. currently use recycled water for irrigation. Using recycled water is a win/win situation
  for communities and the golf course because communities benefit from the sale of recycled water and golf courses have learned
  how to effectively utilize this water to irrigate turfgrass.
- More courses would use recycled water if it was readily available. Wastewater treatment facilities in many communities do not make recycled water available for irrigation purposes or do not have the infrastructure to deliver it to golf courses.

## LAND USE

### Golf courses are composed of much more than maintained turfgrass.

- On the average, only 100 acres of a typical 18-hole golf courses is maintained turfgrass. On most golf courses, the intensively
  maintained turfgrass is dedicated to three acres of greens and three acres of tees.
- Fifty-eight acres, the rough and driving range, are low maintenance turfgrass areas.
- The turfgrass species grown on each component of a golf course varies depending on the agronomic region of the country, supporting the principle of growing the best adapted turfgrass species for the particular geographic location.

### Golf courses can provide diverse habitats.

- The golf industry has been very proactive in this area, as exemplified by the fact that nearly half of all golf courses increased their acreage of native/natural/unmowed areas by an average of ten acres between 1996 and 2005.
- The acreage of non-turfgrass landscapes on golf courses are substantial and can make an important contribution to green space and wildlife habitats for communities.
- Non-turfgrass landscapes on 18-hole golf courses include an average of 35 acres dedicated to forests, wetlands, ponds, streams or
  other specialized habitats.
- Golf courses have an average of 11 acres of water bodies (lakes, ponds, wetlands, streams), nearly double the amount of the acreage of greens and tees.

# **ENVIRONMENTAL STEWARDSHIP**

Golf course facilities are engaged in pro-active, voluntary efforts to advance the compatibility of golf with the environment.

- Golf courses in the United States averaged five environmental improvements from 1996 to 2005. Among them:
  - · Irrigation system upgrades
  - Installing native plantings
  - · Creating wildlife habitat areas
  - · Erosion control measures
  - Enhancing wetlands
  - Installing buffer strips
  - · Improvements to fuel storage, equipment washing pads and chemical storage and handling facilities
- Approximately 29 percent of 18-hole golf courses are involved in a formal, voluntary environmental stewardship programs with the highest percentage enrolled in Audubon International programs.
- Facilities involved in voluntary environmental stewardship programs made an average of seven environmental improvements from 1996 to 2005.