

Sanctuary Program for Golf Courses to Improve Water Quality: Experience by Audubon International and other States

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Golf courses do not have to be and generally are not environmental wastelands. Some environmental activists envision only chemical poisons, extensive nutrient runoff, and acres upon acres of near-sterile turfgrass when they think of golf courses. However, well-managed golf courses typically cause less polluted runoff than the well-manicured and heavily fertilized lawns in residential areas with lawns managed to look like the fairways. Most golf courses have superintendents who have extensive training in the proper use of fertilizers and chemicals for turfgrass management or consultants with similar credentials and experience. Also, excessive use of fertilizer and chemicals is expensive and thus limited by the limited budgets of many smaller golf clubs and courses for golf course management.

Increasingly resources are available to provide golf course operators and managers with information and strategies for making their operations more environmentally friendly. Audubon International (<http://www.audubonintl.org/>) has created a Golf Course Program within its wildlife sanctuary program. For about a decade Audubon International has operated a sanctuary program for golf courses. This voluntary program recognizes that in some urban and urbanizing areas that golf courses represent a significant portion of the available open space for wildlife. It also recognizes that leaving or returning unused or unneeded space on the golf course to viable wildlife habitat will often substantially reduce the cost of golf course operations. The average golf course in the U.S. has 150 acres of which 70 percent is rough, woods, water and other habitats.

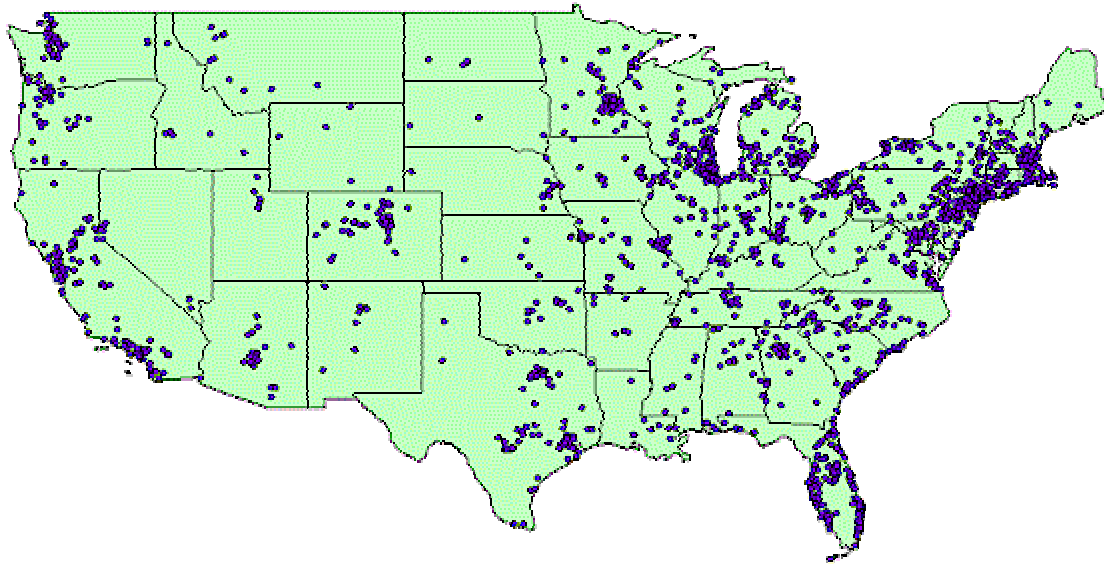


Figure 1: United States ACSS Property Member Locations
(Source: <http://www.audubonintl.org/programs/acss/index.htm>)

The Audubon International Sanctuary Program for Golf Courses seeks to create or improve wildlife habitat on golf courses as well as educate surrounding landowners and communities about the need to protect, enhance and restore wildlife habitats within and near urban and urbanizing areas. The program provides excellent materials in the form of a reference book “*A Guide to Environmental Stewardship on the Golf Course*” which is in its second edition. It also provides a certification handbook “*Certification Handbook for the Audubon Cooperative Sanctuary Program for Golf Courses*” and a staff that can provide assistance and direction for golf clubs and course managers who are interested in preparing and certifying their courses as Audubon Cooperative Golf Course Sanctuaries.

The key components of the Audubon Sanctuary Program for Golf Courses are:

- Environmental Planning
- Wildlife and Habitat Management
- Chemical Use Reduction and Safety
- Water Conservation
- Water Quality Management
- Outreach and Education

These key components are addressed in both the reference book and the certification handbook available from Audubon International. The guide references many other resources for those who need or want information beyond that in the materials available from Audubon International.

Experience by other States

Alabama

Another excellent resource available for golf club and golf course managers is the BMP Manual for Golf Courses developed by the Alabama Cooperative Extension System and the Alabama Department of Environmental Management. The BMP manual is a much more detailed information resource than the Audubon International materials. The manual was created as a tool for reducing polluted runoff from golf courses through funding from Section 319 of the Clean Water Act. The BMP manual contents include:

- BMPs for Routine Golf Course Management
- Pesticide Safety and Handling
- Pest Control
- Water Quality and Protection
- Wildlife and Recreation Management
- Native Plants and Ornamentals
- BMPs for Golf Course Construction and Renovation

Please refer to the following for complete reference:

Guertal, E. A., and D. Y. Han (Scientific Editors), C. L. Smith, L. A. Stribling and C. Whatley (Editors) and T.R. Rodriguez (Art Designer). Best Management Practices Handbook for Golf Courses, Alabama Dept. of Environmental Management, Environmental Protection Agency Section 319, Alabama Cooperative Extension System, Alabama Agricultural Experiment Station and Department of Agronomy & Soils, Auburn University

Florida

Based on the Florida Everglades experience (<http://www.evergladesplan.org/>), several recommendations to the program were submitted. One of the recommendations was to enhance the discussions on fertilizers use and proper irrigation practices. The Florida Everglades currently suffers from an excess of phosphorous. To enhance water quality, South Florida has established BMPs that include using low or zero phosphorous fertilizers. The following website is an excellent source for turf and landscape BMPs: (<http://www.sfwmd.gov/org/exo/broward/c11bmp/gnlmgt.html>). Specific info on fertilizer management can be found at:

<http://www.sfwmd.gov/org/exo/broward/c11bmp/fertmgt.html>

Florida Department of Environmental Protection (DEP) has issued a document in 1995 on “*Best Management Practices for Golf Course Maintenance Department*”. Furthermore, a comprehensive guidance entitled “*Best Management Practices for South Florida Urban Stormwater Management Systems*” is available from South Florida Water Management District. It lists using reclaimed water for landscape irrigation for parks and golf courses as one of the conservation measures.

http://www.sfwmd.gov/org/reg/evg/bmp_manual.pdf

Who to Contact

To contact Audubon International about its Sanctuary Program for Golf Courses, please call, write or e-mail:

Audubon Cooperative Sanctuary System
Audubon International
46 Rarick Road
Selkirk, NY 12158
Phone: 518-767-9051 extension 12
E-mail: acss@audubonintl.org

A limited number of copies of the Alabama Golf Course BMP manual may still be available. To check availability and pricing for “Best Management Practices for Golf Courses” developed by the Alabama Cooperative Extension System and the Alabama Department of Environmental Management contact:

Dr. Beth Guertal
Phone: 334-844-3999
E-mail: egueratal@acesag.auburn.edu

The contact info for South Florida Water Management District is:

3301 Gun Club Road
West Palm Beach, Florida 33406
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Internet: <http://www.sfwmd.gov/>