

Ozaukee Country Club's Audubon Stepping Stone to a Better Environment

by PHIL BAILEY

Environmental Coordinator, Ozaukee Country Club, Mequon, Wisconsin

THE OZAUKEE COUNTRY CLUB golf course, designed by Langford and Moreau in 1921, is an 18-hole layout spread across 151 rolling acres, including 1,300 feet of Milwaukee River shoreline. For many years, the surrounding area consisted of farmland, but recent growth has changed the landscape to include a low-density residential area and 1,400-student high school. An intermittent stream crosses the property, emptying into the Milwaukee River. It now carries much more runoff water than ever before due to rooftops, streets, and other impermeable surfaces associated with the development of the adjacent property.

Negative articles in all types of the media prompted our staff, led by Ozaukee Country

Club superintendent Wayne D. Otto, CGCS, to evaluate the impact of our maintenance operations on the environment and our neighborhood. He elected to utilize the Audubon Cooperative Sanctuary Program for Golf Courses as a source of information and guidelines to formulate environmentally friendly maintenance procedures. His goal was to assure the residents of Mequon that our club would continue to be a positive influence on the environment and not pose a risk to our neighbors or the area wildlife.

We followed the procedures outlined by the Audubon Society of New York State, beginning with the formation of a Resource Committee. Our Resource Committee con-

sisted of club members and golf course staff, which helped ensure strong lines of communication within the organization. This committee contributes a wide range of ideas on health, safety, and environmental stewardship. A function of the committee was to develop a strong Statement of Purpose for the Board of Directors, outlining the club's responsibilities as a member of the community, and providing the Board oversight on committee activities.

Public Involvement

After being fully accepted as an Ozaukee Country Club advisory committee, the Resource Committee's first objective was to create stronger public involvement both



Naturalist Jean Hack introduces the children at Ozaukee CC to a screech owl during a session on native birdlife.



Alex Wagner, a Homestead High School student, samples Milwaukee River water as a part of the "Test the Waters" program.

within the club and the community. Special programs were presented to members and their families by locally known environmental authorities. Community organizations were invited to the Resource Committee meetings to present their ideas for sound environmental practices. Some of the programs offered included:

1. A five-member panel discussion by the Milwaukee Audubon Society. The panel members included: Mark Fieder, a Milwaukee high school environmental science teacher; Lorrie Otto, an authority on native flowers; Fred Sweet, President of the Milwaukee Audubon; Dan Boelke, an experienced woodland native plant nursery operator; and Carol Bangs, a local landscape designer with an interest in waterway enhancement.

2. A children's presentation on native owls. Jean Hack, a naturalist at the Ledge View Nature Center in Chilton, introduced the children of Ozaukee Country Club to Cinnamon, a live screech owl, during a talk on area native owls.

3. Environmental planning plans of the City of Mequon. Jon Censky, of the Mequon Planning Department, presented the environmental plans for the City of Mequon to the Resource Committee.

4. Wildlife food and cover enhancement projects. Dan Panetti, a local store operator representing Wild Birds Unlimited, intro-

duced us to correct feeding and housing practices for wild birds.

5. Water quality testing program. Dave Savage, a Homestead High School teacher, designed a program for students to test the waterways at Ozaukee Country Club.

Wildlife Food Enhancement

To help increase the number of wildlife sightings at Ozaukee Country Club, the Resource Committee introduced several bird feeding stations. With the guidance of Wayne Otto, several flower gardens were developed using native plant materials. The objective of the native plant gardens is to attract more hummingbirds and butterflies to the course, as well as introduce native plants to golfing members.

We encouraged the involvement of golfing members at Ozaukee by inviting them to fill out wildlife surveys. These surveys included reports of any wildlife sightings during their round of golf. The inventories are returned to any of three locations within the club facility.

Wildlife Cover Enhancement

In a continuing effort to be good stewards of our environment, the staff at Ozaukee Country Club sought to assure adequate shelter for the wildlife attracted to our area. We developed natural areas, installed birdhouses, and created brush piles, all in an

Native Prairie Landscape Plant List

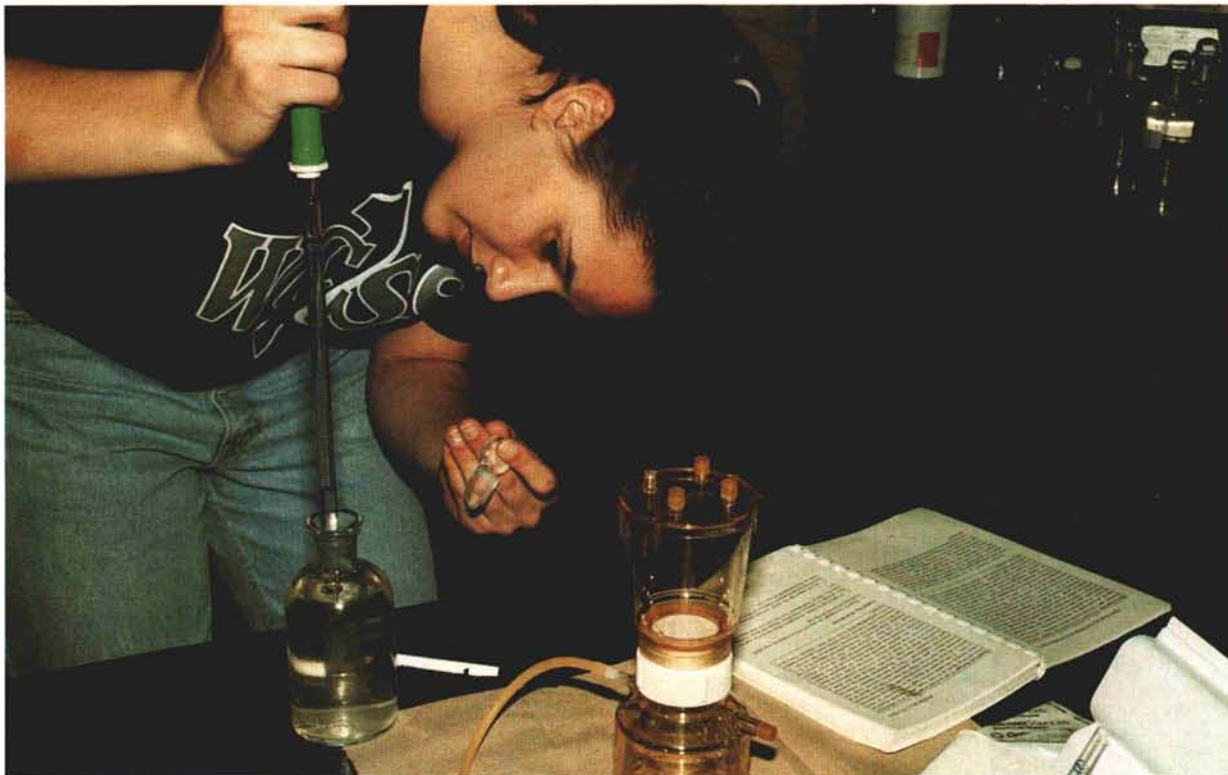
- 100 Columbine
 - 51 Butterflyweed (for clay soil)
 - 51 Sky Blue Aster
 - 51 Smooth Aster
 - 100 Purple Coneflower
 - 40 Queen of the Prairie
 - 150 Prairie Blazingstar
 - 30 Cardinal Flower
 - 26 Yellow Coneflower
 - 40 Sweet Black-Eyed Susan
 - 30 Stiff Golden Rod
 - 51 Culvers Root
 - 100 Golden Alexanders
 - 150 Little Bluestem
 - 150 Prairie Dropseed
- Plant Source: Prairie Nursery,
Westfield, Wisconsin
Planting Date: May 15, 1993

effort to increase wildlife cover. Large areas of out-of-play roughs were left unmowed and have reverted to naturally occurring vegetation. Our members maintain and monitor more than 25 nest boxes, including bluebird, flicker, bat, wood duck, and purple martin houses.

Water Conservation

Along with habitat enhancement projects, Ozaukee Country Club also strives to con-

Julie Hahm is testing for fecal and total coliform bacteria in the Homestead High School biology laboratory, under the direction of Dave Savage, biology teacher.



serve our local natural resources. To conserve water and to replace an outdated irrigation system, the club contacted T. J. Emmerich Associates, irrigation consultants, to help us meet our goals. The new system, installed in the fall of 1992, combines the use of low-pressure irrigation heads, a pump station with variable frequency drive motor controls, a Toro 8000 central/satellite control system, and a central weather station.

The installation of the low-pressure (65 psi) sprinkler heads and the use of the variable frequency drive motor controls not only saves on water consumption, but also allows the irrigation system to operate more economically, using only the electricity needed to keep the system fully charged to the required pressure. In conjunction with the sophisticated pump station, the new computer-driven irrigation system is connected to a central weather station. The superintendent develops the water programs, based on the weather station data, to provide only the amount of moisture needed by the turf.

Water Enhancement

We have been fortunate in gaining the help of Homestead, our local high school. *Testing The Waters*, a state-funded program, allows students to practice water quality testing while providing our club beneficial information on the water quality entering and exiting the property. The students perform tests for dissolved oxygen, biochemical oxygen demand, fecal and total coliform,

pH, temperature, phosphate and nitrate levels, turbidity, and they check for aquatic organisms that depend on good water quality. After the tests are completed, the students report their results and recommendations to the Resource Committee. To date, they have found Ozaukee Country Club to be an asset to our community. The golf course acts as a buffering zone, filtering water from the surrounding community before the water enters the Milwaukee River.

Integrated Pest Management

To meet the integrated pest management (IPM) certification requirements, a detailed IPM program, already in place at Ozaukee Country Club, was presented to the Resource Committee. Our IPM program is titled **A Rational Approach to Integrated Pest Management**. This IPM approach uses the acronym **RATIONAL** as a key word. It includes our **R**ole in the program, the **A**pproach to be used, **T**hreshold limits to be determined, **I**nspections to determine the proper threshold, **O**ther appropriate methods, only **N**ecessary pesticide applications, **A**nalyses of the results, and **L**ogging all pertinent information. In our Rational Approach to IPM, we file daily scouting reports to determine how the turf stands with regard to the threshold limits.

To further protect the groundwater and the environment, the Board of Directors approved the installation of a self-contained chemical facility. The facility includes a chemical storage room, a pesticide loading

pad, and a washwater recycling tank. We also are testing biological control methods on the golf course, such as diatomaceous earth for insect control, along with the use of Bt (*Bacillus thuringiensis*) for caterpillar control.

Recycling

As a further commitment to the Audubon Cooperative Sanctuary Program, the Resource Committee goals include a well-developed recycling program for both the grounds and clubhouse facilities. At this time, we are in the process of putting together a detailed recycling program. A major goal is to have a recycling program in place before 1995 to meet the Wisconsin State Waste Reduction and Recycling Law. Paper and cardboard, along with aluminum recycling, have already been established at the clubhouse and grounds department. This program will soon be followed by a comingling recycling program.

Wayne Otto stated it best: "With today's environmental concerns, it is very important for golf courses to get involved with programs such as the Audubon Cooperative Sanctuary System. There is no better way to show our golfers and the whole community that by caring for the environment and providing needed greenspace, we are truly *stewards of the land*." The Resource Committee agrees with this philosophy and is proud of the accomplishments that Ozaukee Country Club has made to enhance the environment in our community.