



Pedestrian and vehicular flow around clubhouse facilities is a critical component in golf course design.

BRINGING IN THE HIRED GUNS

How to Choose an Environmental Consultant

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AT ONE TIME or another, everyone needs a sharpshooter for help with a technical problem. As golf course construction and management become more specialized, and regulations increase in complexity, superintendents, managers, and developers may need the professional services of an environmental consultant. In the past few years, a consulting community has developed in response to various regulatory programs and to a growing environmental awareness in the general population. There are many services that consultants can offer, and it is important to understand how the selection process should be carried out.

Types of Environmental Consultants

Landscape architects are licensed professionals trained to provide comprehensive

land analysis, planning, and design services. Uniquely qualified to review the *fit* of a new development or renovation into its proposed setting, landscape architects can give a project that "picture postcard" image. Working with a golf course architect, a landscape architect can provide a detailed layout of site components, including grading and drainage, planting, lighting, parking area, roads, walkways, stormwater runoff, and the location and design of enhancement plantings.

Engineers also are licensed professionals, and are trained to design utility systems such as water distribution and sewage collection, as well as oversee plans for grading, parking lots, roads, bridges, and walkway construction included in a site design plan. An engineer's stamp is often required on plans submitted to county or state regulatory agencies.

Community planners work with municipalities on the development of land use plans and enabling legislation such as zoning ordinances. Their input can be useful during the development of golf courses through the interpretation of zoning regulations and by providing demographic and economic information for feasibility analysis. For municipal golf courses, planners can obtain grants for renovation, conduct recreational analyses to examine the need for additional golf courses, and determine how to integrate the golf course into other community recreational programs.

Environmental specialists, including wetland scientists, terrestrial ecologists, hydrogeologists, aquatic scientists, archeologists, and soil scientists, are professionals with specialized training in the environmental field. Defining a site's existing con-



Design and installation of irrigation systems require special expertise.

ditions, analyzing a particular proposal to determine what, if any, impacts will or have occurred, and suggesting measures to alleviate those problems and/or make the proposal feasible are the usual services provided by these professionals. Specialists have a thorough knowledge of the local, state, and federal environmental regulations in their particular area of expertise, and have established working relationships with the regulators through direct project experience. Representative environmental services for golf course projects include examining water quality or reviewing the best way to control aquatic weeds in an irrigation pond, analyzing the feasibility of a groundwater source for irrigation, and resolving wetland issues.

Different professionals are sometimes combined under one roof in a multi-disciplinary firm. These companies may also

provide other services such as Geographic Information System (GIS) analysis and mapping, computer-assisted design (CAD), and construction monitoring and inspection services, and may have specialists unique to a particular region.

Multi-disciplinary firms typically are organized around a primary profession, usually engineering or landscape architecture. This focus will shape the pathway chosen to design a project and prioritize issues. For example, a landscape architecture or land planning firm may develop a site plan for a new clubhouse facility by focusing on the aesthetic features and the use of the site by members, while, simultaneously, the staff engineers work on the water and sewer systems. An engineering firm might design the same clubhouse facility by focusing on the curb cut from the adjacent

highway, the foundation construction, location of wells and leachfields, the construction of the parking lots and walkways, and have the landscape architect staff dress up the design with a planting plan.

It is important to consider these differences when selecting the consulting firm that best fits the project. A new irrigation pump-house system might be better handled by an engineering firm, due to the engineering issues involved, whereas a redesign of a clubhouse facility layout might be better handled by a landscape architecture firm, due to the aesthetic concerns of such a project. As the project scope is defined and different firms are interviewed, it will become evident which one or two firms best fit the project.

Determining the Need for a Consultant

Certainly, an environmental consulting firm should be part of any new golf course development due to the multiple environmental issues that will arise. Environmental consultants can be very helpful in the assessment phase of the project, by identifying issues that will need to be addressed both in permitting and in construction design. Consultants can assist in the permitting phase by preparing applications and serving as an intermediary between the developer and the regulators, to assure that both sides get the information and agreements that they need. During construction, consulting firms can monitor the work to check that it is being done in accordance with the permits and construction drawings.

Smaller *threshold projects* also typically require the services of a consultant due to their regulatory and technical issues. These projects involve specific expertise and require significant amounts of time, which the superintendent or course officials may not be able to supply.

For smaller projects, or anytime it is uncertain whether professional expertise is needed, a consultant can be asked to provide a preliminary assessment of project issues.

The process of hiring an environmental professional should begin as early as possible in the project, as soon as it becomes evident that assistance is required.

Consultant Selection Process

Many times, a local consultant who is a member of the club is hired to assist the superintendent in resolving these types of problems. While this method can and often does work, it has drawbacks. There may be political difficulties with monitoring the member's work, or the member hired may not have all the expertise or resources necessary to resolve the problem. A fresh perspective might be useful.

The first step in the selection process is to define the project scope. The superintendent,

green committee, course manager, and/or special standing committee can identify the problem or issue for which help is sought, its extent on the course, and the range of financial resources the group is willing to spend. This group should take these findings and prepare a written description of the project scope, which then is incorporated into the Request for Proposal (RFP). The RFP is a document used to solicit proposals from consultants. If a golf course architect is part of the project, he or she should be closely involved or might even direct this process. There may also be a member at the club — for example, someone on a town planning board — with knowledge about RFPs.

The RFP should contain the written description of the project scope and the particular deadline for submittal of the following information.

- Consultant's staff and expertise
- Experience with similar projects
- References for similar projects
- Consultant's approach to solving the problem
- Consultant's scope of services and proposed work tasks
- Project schedule
- Cost (fees)
- Contact name for questions

Consultants may wish to view the course or area of concern prior to writing the proposal, and times/dates and procedures for these visits should be described in the RFP as well.

After it is developed, the RFP is sent out to the consulting community. A notice of its availability may be advertised in local or larger newspapers. The mailing list of consultants can be compiled from a variety of sources. The accompanying table of sources of consultants provides ideas for obtaining or developing a list of consultants in your area. This includes looking up names and addresses in the telephone book, asking local planning boards for lists, and contacting professional societies for members in the area.

A screening committee, usually the standing committee that wrote the RFP, should evaluate the proposals received. References should be checked to verify the consultant's track record with similar projects, and whether sound solutions were provided in a timely manner. A short list of the most qualified firms then is created, and these firms are asked to present their qualifications at an interview.

While cost is an important consideration in the final selection process, it is not the only area of concern. Equally important is having confidence that the consultant can complete the work, and that the personality of the consultant will work well with the club. After all, hired guns are expected to hit their targets.

Table 1
POTENTIAL ISSUES THAT MAY REQUIRE HIRING A CONSULTANT

Regulatory Issues

- Meeting with regulatory personnel, especially for potential violation.
- Activities in wetland areas, streams, or other water bodies.
- Building ponds for irrigation supplies.
- Pesticide/herbicide use concerns.
- Habitat preservation or development — endangered species.
- Potential impact on archeological/historic resources.
- New road entries.
- Activities requiring more than routine building permits.

Technical Issues

- Drainage project with a collection system or point of discharge (need for pipe sizing and outlet structures).
- New pond construction (spillway sizing and design, stormwater modeling).
- Major renovation of the irrigation system.
- Retaining-wall design.
- Repair of major soil erosion problem areas.

Land Use Design

- Placement of residential development adjacent to the golf course or resort.
- Design of exterior clubhouse area, including circulation patterns and plantings.
- Aesthetic changes to ponds, swales, streams, fountains.
- Cart path design or renovations.
- Major tree plantings or removals.
- Overhaul of amenities such as signage, tee markers, benches.
- Design of new buildings on the course.
- Screening of undesirable views.
- Scoreboard design and placement for tournaments.

Table 2
SOURCES OF CONSULTANTS

- Telephone Book Yellow Pages — look under "Landscape Architect," "Environmental Consultants," "Engineers"
- Local or regional planning boards may have list of qualified consultants
- USGA and PGA professionals may know of a golf course with similar problems
- Regional golf course superintendents' association — consultants may be members

Professional Societies (request regional listing of members)

American Society of Landscape Architects
4401 Connecticut Avenue NW, Fifth Floor, Washington, DC 20008-3202
(202) 686-ASLA / Fax (202) 686-1001

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017
(212) 705-7496

American Planning Association
1313 East 60th Street, Chicago, IL 60637
(312) 955-9100

Society of Wetland Scientists
P.O. Box 1897, Lawrence, KS 66044
(913) 843-1221

American Institute of Professional Geologists
7828 Vance Drive, Suite 103, Arvada, CO 80003-2125
(303) 431-0831

Ecological Society of America
Arizona State University, Box 873211, Tempe, AZ 85287-3211

American Registry of Certified Professionals in Agronomy, Crops, and Soils
Office of the Registry, 677 South Segoe Road, Madison, WI 53711
(608) 273-8080