

## RCGA ENVIRONMENTAL GUIDELINES – January 2007

- ▶ Guidelines for Golfers
- ▶ Guidelines for Design, Construction and Renovation
- ▶ Guidelines for Owners, Directors, Managers and Superintendents

Interest in the game of golf in Canada remains high and the golf industry is faced with the challenge of providing facilities suitable to all participants while safeguarding our natural resources. The Royal Canadian Golf Association recognizes the need for a partnership among golfers, the general public, designers and developers, general managers, golf professionals and superintendents of golf courses, all of whom share a responsibility to conserve and protect the environment.

### Statement of Intent

The Royal Canadian Golf Association is committed to taking every practical precaution towards ensuring that products and techniques used in the development and maintenance of golf courses present the lowest possible risk to their employees, golfers, the public and the environment.

### Strategy

It is the goal of the Royal Canadian Golf Association to develop programs to communicate and promote practices that sustain an equilibrium between quality playing conditions and a healthy environment. The Association acknowledges the need to blend a certain level of government regulation with self-initiated action plans to achieve and maintain this balance. We also believe that all regulations and plans should be based on scientifically supported data and, to this end, the RCGA will continue to support turfgrass research.

We realize that everyone using, constructing or maintaining a golf course has a responsibility to ensure this balance is kept. Discussions with national, provincial and regional stakeholders have resulted in a set of recommended guidelines for golfers, golf course managers, superintendents, and golf course designers and developers, based upon the following principles:

### Guiding Principles

The Royal Canadian Golf Association and its member golf courses subscribe to the following principles:

- ▶ Ensure that all operations present the lowest possible risk to employees, golfers, the public and the environment.
- ▶ Comply with all legal requirements affecting operations and products.
- ▶ Develop and implement environmental stewardship activities that conserve and enhance natural resources.
- ▶ Communicate with both the golfing and non-golfing public on issues concerning golf development or maintenance and the environment.
- ▶ Be responsive and sensitive to community concerns.
- ▶ Communicate with and assist governments to encourage fair and attainable standards based on scientifically supported data.
- ▶ Communicate with the golf course management and golfers concerning the need to support management practices that are environmentally responsive

## GUIDELINES FOR GOLFERS

The game of golf is enhanced by, and indeed, is dependent upon the natural surroundings. The quality of golf and life is enhanced by the preservation and conservation of our natural resources. The Royal Canadian Golf Association and the Canadian golf industry have developed a code of practice to ensure that the golf course continues to afford us the same natural experience for future generations. You can help to continue providing the highest quality golfing experience by considering the following guidelines.

- ▶ Enjoy the natural environment and help to enhance and protect it by respecting all local regulations.
- ▶ Avoid activities which endanger plant, fish and wildlife populations or can potentially threaten their habitat.
- ▶ Assist in our conservation efforts by the efficient use of all water and energy resources.
- ▶ Work with the management and directorship of your golf course to develop and implement environmental enhancement programs.
- ▶ Golf was meant to be played in a natural environment. Support your golf course's efforts to balance course conditioning with environmental enhancement and conservation strategies.

## GUIDELINES FOR DESIGN, CONSTRUCTION AND RENOVATION

Golf course development employing effective principles of environmental design can complement our natural environment. A golf course can enhance urban development, rehabilitate previously disturbed landscapes and provide an effective barrier between agricultural, native, and urban lands.

The Royal Canadian Golf Association and the Canadian golf industry recognize that vigilance is required to develop and maintain the highest possible level of environmentally sensitive golf. To help achieve the goals of preserving our natural heritage and conserving our natural resources we encourage you to adhere to the following guidelines:

### 1. Site Selection

- ▶ Assess the physical and economic viability of a golf course on a particular site.
- ▶ Endeavour to select sites outside of agricultural land use zones, where possible. Should agricultural land be the only option, follow local and provincial agricultural guidelines when selecting development sites.
- ▶ Respect the unique natural features and sensitive natural areas of a property. Avoid the disturbance of these areas and incorporate these features into the design.
- ▶ Consider present and potential natural resources when determining location.
- ▶ Ensure conformity with all provincial and local regulatory requirements.
- ▶ Ensure that an adequate water supply is available for both the potable and irrigation needs of the golf facility and neighbouring properties on a long-term basis.
- ▶ Be open, transparent and accountable with and to the community with respect to all aspects of the project.

## 2. Design Considerations

- ▶ Select plant species that are best suited to the local climate and require the minimum of inputs.
- ▶ Design the irrigation to efficiently use water only where and when needed.
- ▶ Investigate the feasibility of using alternative or supplemental sources of irrigation water.
- ▶ Maintain a vegetative buffer zone of at least ten metres adjacent to all water courses to assist in filtering any nutrients or pesticides from storm water run-off, and to moderate water temperatures.
- ▶ Retain as much natural cover as possible and enhance vegetation through supplementary planting of trees, shrubs and grasses, especially along fairways, to provide wildlife habitat and along water courses supporting a fish habitat.
- ▶ Incorporate as many natural features and areas in the golf course design as possible to minimize disturbance of the existing ecology.
- ▶ Consider future maintenance requirements of all golf course design features. Low-maintenance features that require less intensive management are preferred.

## 3. Construction

- ▶ Protect and/or re-establish native groundcover, trees and understorey species during and after construction.
- ▶ Schedule construction to protect soils by minimizing the time ground is left without cover. Protect soils during construction through the use of mulching materials, hydro-seeding or sod.
- ▶ Monitor groundwater quality before, during and after construction.
- ▶ Avoid construction near water courses. If construction is necessary, ensure adequate measures are in place to protect water quality, fisheries and stream-side habitats. Contact the local regulatory agencies for guidance.
- ▶ Monitor streams at their entrance and exit from the property both before and after construction. The same monitoring should be applied to natural onsite lakes.

## GUIDELINES FOR OWNERS, DIRECTORS, MANAGERS AND SUPERINTENDENTS

A properly maintained golf course with established turfgrass cover and mature tree stands provides much-needed greenspace relief from urban development. The filtering ability of dense, healthy turf and its thatch layer can be utilized to filter pollutants before they reach groundwater or enter rivers and streams. A golf course can be an attractive and effective transition between agricultural, native, and urban landscapes and provides for the preservation or creation of areas useful to wildlife. When managed in an environmentally conscious manner, golf courses can enhance the quality of life within a neighbourhood. Resources such as the Canadian Golf Superintendents Association's Environmental Management Resource Manual can assist golf courses with their environmental stewardship programs.

The Royal Canadian Golf Association and the Canadian golf industry are striving to preserve and enhance the natural resources with which we are entrusted. To help us achieve these goals we encourage you to adopt the principles outlined in the following guidelines.

## 1. Planning and Policies

- ▶ Commit to the enhancement of your golf course by incorporating Environmentally Responsible Golf principles in all aspects of planning and policy-making.
- ▶ Prepare an environmental policy statement and action plan for your golf course. Establish an environmental committee to develop programs and foster staff, member, and public support.
- ▶ Establish a monitoring and evaluation process to assess the golf course's progress.
- ▶ Commit to the use of environmental best management practices applicable to your site

## 2. Wildlife and Wildlife Habitats

- ▶ Whenever possible, allow native vegetation to grow to provide natural/native habitat..
- ▶ In non-golf areas of the property, replace native groundcover or shrubs that may have been removed during any construction or renovation projects.
- ▶ Avoid the disturbance of riverbanks whenever possible. If bank impacts cannot be avoided, employ mitigating measures against erosion and siltation. Check with provincial and local regulatory agencies for permit requirements.
- ▶ Participate in programs such as the Audubon Co-operative Sanctuary Program for Golf Courses which provide information and environmental expertise to conserve and enhance fish and wildlife habitats on your property.

## 3. Clubhouse Operations

- ▶ Develop and implement a waste management program to reduce, re-use and recycle waste where possible.
- ▶ Develop and implement a program of water and energy conservation.
- ▶ Ensure where possible drainage from asphalt or concrete areas around buildings filters through vegetation before reaching water rivers, lakes, and streams to avoid disruption to aquatic habitat.

## 4. Integrated Pest Management (IPM)

### Pest Controls

- ▶ Reliable and accurate pest identification
- ▶ Monitoring pest populations and environmental conditions to ensure treatments will only be applied when necessary and when the treatment will be most effective.
- ▶ Establishment of the environmental and playability impacts that can be tolerated before control measures are implemented.
- ▶ Use a combination of biological, cultural, physical, mechanical and chemical treatments to control pests in a manner that achieves a high level of effectiveness while minimizing environmental impact.
- ▶ Evaluate the effectiveness of turf management practices and pest treatment methods through the monitoring of IPM program success and determine if program changes are necessary.

## Pesticide Use

- ▶ Use only products registered for use in Canada and only those specified and approved for use on golf courses.
- ▶ Store all pesticides in an area conforming to all provincial regulations.
- ▶ All mixing and loading of pesticides should be performed in accordance with all provincial regulations.
- ▶ Dispose of all pesticide containers and pesticide wastes in accordance with provincial regulations.
- ▶ All handling and spraying of pesticides to be performed by licensed pesticide applicators.
- ▶ Pesticides should only be applied when wind conditions ensure a minimum of drift.
- ▶ Protect water quality by maintaining a buffer zone between all water bodies and areas of pesticide application.
- ▶ When applying pesticides near water, use low-pressure spray nozzles to further reduce the chance of drift.
- ▶ Use appropriate methods to communicate with members of the golfing and non-golfing community the nature of your application.
- ▶ Apply the correct amount of product necessary to control the target pest and do so in conformity with the specifications noted on the product label.
- ▶ Only apply when the pest population and/or history warrants treatment, as determined by pest monitoring.
- ▶ Participate in a provincial pest management accreditation, when available.

## Fertilizer Use

- ▶ Use only products registered for use in Canada for only their specified and approved function.
- ▶ Store all fertilizers in an area conforming to all provincial regulations.
- ▶ Apply fertilizer only in quantities that can be utilized by the plant to minimize leaching potential.
- ▶ Protect water quality by maintaining a buffer zone between all water bodies and areas of fertilizer application.
- ▶ Use appropriate methods to communicate with members of the golfing and non-golfing community the nature of your application.
- ▶ Participate in a provincial pest management accreditation, when available.

## Water Use

- ▶ Irrigate only the areas requiring water and limit the amount applied to the current requirements of the plant. Monitor daily.
- ▶ Utilize water auditing to evaluate system performance to allow for efficient delivery of water through the irrigation system.
- ▶ Investigate the feasibility of alternative or supplemental irrigation water sources such as effluent or on-site storage reservoirs for storm water run-off collection.
- ▶ Conduct water quality tests of ground water and surface water at entry and exit points of the property on a regular basis.