



## Best Management Practices for New York State Golf Courses

### Strategies to Protect Priority Areas

Using BMPs and management zones, turfgrass management can coexist in harmony with nature. The quantity and quality of water generated within the property boundaries can be protected by appropriate watershed controls and management practices. Because water is the primary movement mechanism for contaminants, protection of water resources also provides protection for sensitive areas and species.

The thoughtful design and operation of the golf course and maintenance facilities minimizes the potential for point and nonpoint source pollutant input to sensitive areas. At any golf course, preventive strategies should include combinations of land use controls and source prevention practices. An integrated water quality protection system is based on a tiered concept as follows:

- prevention – prevent problems from occurring
- control – have safeguards in place to control any problems
- detection – consider a monitoring program to detect changes in environmental quality

For the purposes of this project, preventive measures have been categorized into two categories: landscape BMPs and source prevention BMPs. Landscape BMPs includes both vegetative practices (such as vegetative buffers) and structural controls that are engineered and incorporated into the course during golf course design and construction. Both vegetative practices and structural controls detain water and thereby reduce runoff quantity and nutrient and pesticide discharge. Examples of landscape BMPs include the following:

- settling and filtering processes for removing sediment and pollutants that are bound to sediment particles associated with surface runoff
- subsurface drainage, infiltration, and use of land absorption areas (vegetated filter strips) to detain water, allow it to be filtered prior to groundwater recharge
- grassed waterways or outlets
- critical area planting to stabilize highly erodible areas

Source prevention BMPs are nonstructural practices that minimize or prevent the generation of runoff and the contamination of runoff by pollutants. These measures include the use of management zones around environmentally sensitive areas and source prevention BMPs. Source prevention BMPs are implemented during golf course operation to prevent or preclude the possibility of movement of sediment, nutrients, or pesticides from the property or from toxic materials being introduced into ecologically sensitive areas. Source prevention BMPs include the use of management zones and IPM strategies. such as careful selection of pesticides and fertilizers.