



New Jersey Water Supply Authority River-Friendly Golf Course Certification Requirements



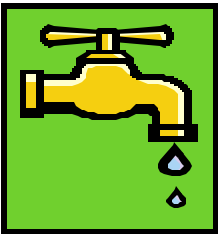
Achieving Certification

The New Jersey Water Supply Authority (NJWSA) and the Upper Raritan Watershed Association (URWA) appreciate your interest in becoming a leader in the effort to protect our local environment and reduce the amount of chemicals entering local water bodies. The certification process is meant to be a cooperative effort between your golf course and the NJWSA.

There are four categories in the certification program: Water Quality Management, Water Conservation Techniques, Wildlife and Habitat Enhancement, and Education and Outreach. In order to receive certification, golf courses must develop goals and complete actions for each of the four areas. The following goals, targets and actions are meant as examples. Specific recommendations will be tailored for each course.



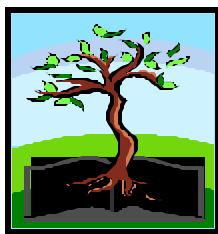
Water Quality Management: Practices that reduce nonpoint source pollution and improve the quality of local waterways are encouraged. Suggested practices include: implementing an Integrated Pest Management (IPM) program; ensuring that runoff does not go directly into local streams; managing ponds and streams to include buffers and “no-spray” and “no-mow” zones; proper handling and storage of equipment and chemicals; soil testing; and using the proper turfgrass so that less fertilizer and chemicals are needed.



Water Conservation Techniques: Water is used not only by golf courses for irrigation, but also by local residents as drinking water and by the local flora and fauna as habitat; therefore, this category focuses on conserving ground and surface water. Some suggested practices include: increasing irrigation efficiency; reducing irrigated acreage; recapturing and reusing water; implementing effluent irrigation systems; using native vegetation; and reviewing and updating stormwater management practices.



Wildlife and Habitat Enhancement: The focus of this goal is on providing and maintaining healthy habitat for local species while maintaining interest and challenges for your golfers. It encourages opportunities to provide habitat for beneficial species (bluebirds, bats, etc.) that control pests; and the use of no-play zones to provide additional habitat, as well as streambank restorations and creation of wetlands.



Education and Outreach: An essential part of this program is to provide recognition and support for the beneficial environmental practices that golf courses have implemented. The program increases community and golfer understanding of the benefits of the actions a golf course takes to improve the local environment. Education and outreach actions may include signage, workshops, educating personnel and local officials and relaying the program’s success to the community through a public relations effort.

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Water Quality Management

Goal: To reduce fertilizer and pesticide pollutants in local bodies of water.

Example Targets:

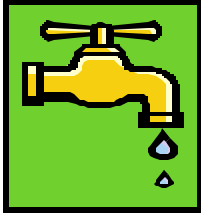
30% reduction of pesticides and fertilizers applied

Riparian buffer zones of 50-100 feet around all bodies of water.

Example Actions:

- ☛ Implement an Integrated Pest Management (IPM) Plan and documentation strategy to include the following:
 - ☛ A written IPM plan in place.
 - ☛ A map delineating high, medium, and low maintenance areas and the thresholds of pest damage that the course will accept for each area.
 - ☛ Descriptions of the turfgrass.
 - ☛ Records that detect trends relating to pest monitoring activities, control measures used on problem areas, and the results of these controls.
 - ☛ Identification of local disease, insect, and weed problems.
 - ☛ Identification of “hot spots,” problem areas requiring corrective action or spot treatments.
 - ☛ Identification of aesthetic and functional thresholds for pest and disease.
 - ☛ Listing of remedies used for pest and disease control.
- ☛ Conduct soil samples and modify practices accordingly. Choose nutrient products and time applications to meet, not exceed, the needs of the turfgrass.
- ☛ Devise ways to change conditions to prevent or discourage recurrence of pest problems. This may include using drought resistant or pest resistant turf, modifying microclimates, changing cultural practices, and using other non-chemical control methods. Also, it is important to select pesticides that have low toxicity, low solubility (<30 ppm), high sorption rates ($K > 300$), and short half lives (<21-50 days).
- ☛ Amend sandy solids with organic matter, develop no-spray zones in sensitive areas, and avoid application of chemicals to dormant turf.
- ☛ Reduce fertilizer runoff via slow-release fertilizers and through the selection of organic products.
- ☛ Make sure that your golf course stores, handles, and disposes of chemicals properly and follows State and OSHA regulations. Also ensure that maintenance employees are sufficiently trained about these procedures.
- ☛ Leave grass clippings on the ground. This practice will reduce the need for fertilizers.
- ☛ Plant pest-resistant species best suited to the course location.
- ☛ Minimize pavement on the course. When installing new cart paths, consider using porous materials such as wood chips and gravel as alternatives to asphalt and concrete.
- ☛ Develop “no-mow” and “no-spray” zones of at least 50 feet around all water bodies.
- ☛ Enhance and protect on-site wetlands.
- ☛ Establish an ongoing program to monitor water quality.
- ☛ Prevent stormwater from entering the streams during renovations/upgrades on the course.
- ☛ Reduce fertilizer usage by establishing a compost pile of organic waste in a discreet location on the course. Use compost to fertilize grass areas, flowerbeds, and naturalized areas on the course.

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Water Conservation Techniques

Goal: To decrease water usage.

*Example Target:
25% reduction of water used.*

Example Actions:

-  Develop a conservation strategy (i.e., set goals and watering priorities) and document progress.
-  Map water use, drainage, and water flow into and out of the property.
-  Work within limits of sustainable water yields.
-  Collect rainwater for irrigation, by using cisterns, roof collection methods, or detention basins.
-  Recapture and reuse local wastewater resources.
-  Use native plants that need less water.
-  Install low-flow or aerated faucet heads.
-  Repair leaks.
-  Do not water areas that are not in need of water – side walks, pathways, ponds, etc.
-  Water at appropriate times to reduce evaporation and reduce the potential for disease.
-  Use leaves, grass, and tree clippings as natural mulch or fertilizer. Mulch will allow for the retention of moisture around trees and shrubs, reducing the need to water.

















Wildlife and Habitat Enhancement

Goal: To preserve and/or enhance an additional percentage of the course as naturalized area.

*Example Target:
50% of golf course in a naturalized and/or enhanced naturalized condition.*

Example Actions:

-  Inventory the wildlife habitat on the property (woods, meadows, water bodies, wetlands, etc.)
-  Document species on the property. Local conservation groups can help you with this project.
-  Maintain buffer zones surrounding all bodies of water that are a minimum of 50 feet. Mowing and spraying in these areas should be limited.
-  Develop a plan for wildlife and habitat enhancement. Begin by constructing a map highlighting wildlife and habitat areas, then develop a wildlife list on the course and develop a plan for additional areas. Document your efforts.
-  Naturalize non-play areas and mark clearly.
-  Mark ground nesting areas during breeding season.
-  Confine golf carts to paths.
-  Naturalized areas should be designated as “no-mow” and “no spray” areas and should support native habitat.
-  Allow and support one streambank or pond bank restoration project, where appropriate.
-  Protect habitat for beneficial species (bats, bluebirds, purple martins, etc.) that control pests.
-  Create additional habitats for targeted species.
-  Manage the golf course for healthy populations of wildlife.
-  Use non-harmful controls for pests and invasive species.
-  Protect and/or enhance the wetland areas on your course.

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Education and Outreach

Goal: To communicate the achievements of the course to the public and golfers.

Example Target: Three (3) programs per year.

Example Actions:

-  Maintain continuing education to those responsible for pesticide application. Training for non-English speaking workers should be provided in their native language. It should be clear to the workers where the “no-spray” zones are located on the course.
-  Install signs around the course that explain the naturalized areas, turf selection, and habitat preservation goals on the course.
-  Post signs informing golfers of course chemical applications on the first and tenth tees and/or post notices in the golf shop and locker rooms.
-  Conduct educational tours of the environmentally preserved and/or enhanced areas on the golf course to interested golfers, homeowners, and members of the surrounding community.
-  Encourage volunteers to become involved with the environmental protection aspects of the course. For example, volunteers could help to physically maintain naturalized areas, monitor bird and bat houses, or help with the data collection for water quality monitoring.
-  Host a discussion forum or a lecture for the community about the importance of managing an environmentally friendly golf course.

For more information regarding the River-Friendly Golf Course Certification Program, other River-Friendly Programs or the New Jersey Water Supply Authority, please contact:

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The River-Friendly Certification Program and materials were developed by the Stony Brook- Millstone Watershed Association and adapted by the South Branch Watershed Association and the New Jersey Water Supply Authority. We appreciate the use of their materials and guidance.

