

Environmental Compatibility Quotient Checklists

PLANNING & COMPLIANCE				
#	Environmental Compatibility Indicator	Yes	Partial	No
1	Has management demonstrated that environmental stewardship is an important part of their responsibilities by initiating the Comprehensive Golf course Environmental Management (GEM) Planning process?			
2	Is the GEM Plan complete, updated regularly, and readily available to employees and customers?			
3	Has the golf course adopted and posted an environmental policy?			
4	Is a map of the property highlighting environmental challenges posted for employees and customers?			
5	Are environmental challenges and their approved and implemented management practices, objectives, and targets evaluated at least annually and are they regularly communicated to employees, customers, management, and the local community?			
6	Are there signs appropriately located to warn golfers of hazards of drinking reclaimed or otherwise non-potable water?			
7	Are there signs posted to highlight key habitats or have appropriate areas been designated "Environmentally Sensitive Zones" per The Rules of Golf?			
8	Is there a general understanding by the entire course management staff of how their practices may potentially adversely impact the environment?			
9	Are the environmental impacts of pest control measures considered as part of the comprehensive GEM planning process?			
10	Are projects planned and funded for the next year that would increase the compatibility of the course's management program with comprehensive GEM planning goals and objectives?			

U.S. Air Force Golf course Environmental Management (GEM) Program

FY08 Environmental Compatibility Quotient (ECQ) Checklists

Planning & Compliance Checklist (continued).

#	Environmental Compatibility Indicator	Yes	Partial	No
11	Have all employees been familiarized with the GEM Plan and are they trained regularly on the importance of environmental performance and compliance with its goals and objectives?			
12	Are environmental management issues regularly discussed during staff meetings?			
13	Does the superintendent document the actual amount of each pesticide or fertilizer annually used on each major golf course feature (greens, tees, fairways, roughs, water features, and natural areas)?			
14	Has the course attained full certification in the Audubon Cooperative Sanctuary Program or similar industry-recognized environmental management program?			
15	Are employees trained in their native language on the benefits of minimizing potential negative impacts?			
16	Are comprehensive written records maintained to measure and document the environmental compatibility of the entire facility's management practices?			
17	Are there documented functional and aesthetic thresholds integrated into pest control decisions?			
18	Is there a written and regularly updated Integrated Pest Management Plan for the entire golf course property?			
19	Are employees trained on what to do in case of a spill and have spill containment kits been provided at all appropriate locations?			
20	Has course management comprehensively examined the course to determine the activities that have a potential to negatively impact an identified environmental challenge?			
Totals				

U.S. Air Force Golf course Environmental Management (GEM) Program

FY08 Environmental Compatibility Quotient (ECQ) Checklists

OPERATIONS & MAINTENANCE				
#	Environmental Compatibility Indicator	Yes	Partial	No
1	Is contour mowing used to conserve fuel and/or to increase playability and aesthetics?			
2	Are there designated non-maintained or minimally-maintained buffers around core wildlife habitats?			
3	Are green, tee, and fairway mowing heights maintained at levels that do not excessively stress important playing surfaces?			
4	Are aeration, topdressing, and drainage improvements regularly implemented to improve soil health and minimize or eliminate use of pesticides or fertilizers?			
5	Have all playing surfaces been inventoried and mapped for soil types including soil structure, nutrient levels, organic content, compaction, and water infiltration?			
6	Are soil tests or plant tissue analysis used to determine turfgrass nutritional requirements?			
7	Are there projects planned and funded for the next year that would increase the compatibility of the course's management methods with protection of the environment?			
8	Are all appropriate employees trained to be familiar with (national, federal, state, and OSHA) regulations that apply to storage and handling of potentially hazardous materials used on the property?			
9	Has there been a complete examination of all aspects of the operation other than the golf course (snack bar/restaurant, clubhouse, pro shop, pesticide mixing and storage facilities, fuel storage and delivery areas, and maintenance complex) for potential negative environmental impacts?			
10	Are all employees encouraged to apply for education and training opportunities that may increase their awareness of the GEM Plan goals?			

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FY08 Environmental Compatibility Quotient (ECQ) Checklists

Operations & Maintenance Checklist (continued).

#	Environmental Compatibility Indicator	Yes	Partial	No
11	Are containers used to store used oil for equipment maintenance in good condition, not leaking, and clearly labeled?			
12	Are oil/water separators and/or golf course wash racks operating properly and correctly maintained?			
13	Are all golf course vehicles and equipment maintained and cleaned in a manner that eliminates the potential for spreading of contamination?			
14	Are recycling containers located throughout the facility for use by customers and employees?			
15	Are grass clippings left in place (other than greens) collected, composted, and/or recycled?			
16	Are products that minimize unnecessary packaging purchased for use throughout the facility?			
17	Are energy efficiency ratings factored into equipment purchases for use throughout the facility?			
18	Has the entire facility been studied to quantify solid waste streams to identify functions that produce the greatest quantities?			
19	Does the restaurant/snack bar facility utilize at least 90% plates, cups, and utensils that are reusable rather than disposable?			
20	Is the food storage and prep area regularly cleaned to reduce the likelihood of pest infestations and required pesticide applications?			
Totals				

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FY08 Environmental Compatibility Quotient (ECQ) Checklists

WATER RESOURCE MANAGEMENT				
#	Environmental Compatibility Indicator	Yes	Partial	No
1	Are written records of water quality monitoring activities, results, and pollution control measures readily available?			
2	Where appropriate, are slow-release fertilizers and/or spoon-feeding techniques used to reduce the potential for runoff impacts and nutrient loading to water quality?			
3	Has the irrigation system been completely checked for proper water distribution in all irrigated areas and are water leaks fixed in a timely manner?			
4	Are outdoor irrigation of non-golf course areas and indoor plumbing regularly monitored and maintained for leaks?			
5	Have low-flow water saving devices been installed wherever possible?			
6	Are recycled or other non-potable water supplies being used to irrigate at least 65% of the golf course property?			
7	Are there projects planned that should eliminate or minimize a potential water quality or erosion problem?			
8	Are water features regularly monitored for algae, erosion, excessive aquatic plant growth, eutrophication, and sedimentation?			
9	Is runoff from parking lots cleansed by control measures such as vegetative or drainage filters prior to leaving the golf course property?			
10	Are there procedures for reporting water quality problems to supervisors (as required) for appropriate action?			

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FY08 Environmental Compatibility Quotient (ECQ) Checklists

Water Resource Management Checklist (continued).

#	Environmental Compatibility Indicator	Yes	Partial	No
11	Is the irrigation pumping station and associated equipment regularly checked for proper operation and leaks?			
12	Has the irrigation system or its components recently been upgraded to reduce inefficiency, malfunction, and overall water use and are flow meters used to monitor water use and detect potential waste?			
13	Is there a map of the watershed in which the golf course property resides and location(s) of floodplains and stormwater drainage that exist on the property?			
14	Is the quality of the water entering and leaving the property tested regularly for contaminants, pH, dissolved oxygen, and nutrients?			
15	Is water quality data collected to establish baseline conditions for all water features on the property?			
16	Are settling ponds and/or detention ponds used to effectively remove sediments and pollutants from water features?			
17	Are biological processes such as the addition of grass carp or white amur used to control unwanted aquatic vegetation in water features?			
18	Is there a written Water Resources Management Plan that delineates the care of the course's water features?			
19	Has the property been examined for potentially significant wetlands or associated sensitive water-based habitats?			
20	Has the property's water features been studied to determine the aquatic and amphibious species population?			
Totals				

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FY08 Environmental Compatibility Quotient (ECQ) Checklists

CONSERVATION				
#	Environmental Compatibility Indicator	Yes	Partial	No
1	Is all motorized golf course equipment checked regularly for excessive air polluting emissions?			
2	Has the entire golf course property been examined for critical habitats, state species of concern, and threatened or endangered species?			
3	Have all potentially significant wildlife habitats and their maintenance practices been coordinated with local natural resource manager, the Fish & Wildlife Service, or other appropriate local or regional regulatory agency?			
4	Are employees encouraged to minimize their trips around the course to conserve on the use of fossil fuels?			
5	Have efforts been made to connect natural areas to facilitate wildlife movement through the course property?			
6	If applicable, have all necessary permits been updated and their requirements satisfied in a timely manner?			
7	Are recycling containers conveniently provided for customer and employee use throughout the golf course facility?			
8	Has there been a study to determine the presence of invasive exotic species on or near the course?			
9	Is there a readily available Drought Management Plan for the entire golf course facility?			
10	Are there projects planned and funded that may minimize or eliminate the course's potential negative environmental impacts?			

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FY08 Environmental Compatibility Quotient (ECQ) Checklists

Conservation Checklist (continued).

#	Environmental Compatibility Indicator	Yes	Partial	No
11	Is stormwater collected for supplementing irrigation water supplies for use on the course or golf course facility grounds?			
12	Are at least 85% of plants used in landscaped areas drought-tolerant native trees, shrubs, groundcovers, or their cultivars?			
13	Have local wildlife species and their habitats been documented and mapped?			
14	Does the course have a Tree Management Plan complete with planting plan and maintenance schedule?			
15	Are all employees trained to understand that poor management practices may adversely impact worker and environmental health and welfare?			
16	Is there an inventory of bird and mammal species documented, maintained, and readily available?			
17	Are food, shelter, and nesting attributes of plant species for landscape development considered during the design/selection process?			
18	Have all degraded habitats due to construction or maintenance of the course been fully restored or improved?			
19	Has the entire property been examined for archaeological, cultural, or historical resources?			
20	Are customers and employees regularly informed/trained on the golf course's conservation practices?			
Totals				

PESTICIDES & POLLUTION PREVENTION				
#	Environmental Compatibility Indicator	Yes	Partial	No
1	Are there minimally maintained, natural areas, no spray zones, and buffer areas around water features or sensitive landscapes and have they been communicated to equipment operators and pesticide applicators?			
2	A spill containment kit is readily available and spill containment procedures are in place?			
3	Does the chemical storage area have a sealed metal or concrete floor and are all pesticides handled over an impermeable surface?			
4	Does the chemical storage area have a lip along the edges to contain spills?			
5	Are liquid products stored below dry products and are dry materials stored on pallets or shelves to keep them off the floor?			
6	Are equipment or vehicle wash and wastewater kept from making direct contact with surface water?			
7	Is equipment cleaned with compressed air on part of the course instead of or prior to washing at a designated wash rack where pollution prevention measures are employed?			
8	Are gasoline, motor oil, brake and transmission fluid, solvents, and other chemicals used to operate or maintain equipment and vehicles prevented from directly or indirectly entering water bodies?			
9	Does the fuel storage/delivery area comply with local, state, federal, or other applicable regulations?			
10	Are written records maintained of all applications of pesticides to include: - the pest and treatment type (preventative/curative); - the location (specific area) of each pesticide used; - the area and quantity of each pesticide used; - the chemical or common name of the active ingredient(s); - the date, location, or purpose of the application?			

Pesticides & Pollution Prevention Checklist (continued).

#	Environmental Compatibility Indicator	Yes	Partial	No
11	Is there a map of the course's "hot spots" that may require regular or special care or attention?			
12	Are there trained scouts on staff other than the superintendent to monitor turf and plant health and pest problems?			
13	Are there scouting forms utilized and are they collected and organized into a report or guide for use in future pest control decisions?			
14	Is there an established aesthetic or functional threshold for insects, fungal diseases, and weeds for all managed areas that may possibly reduce pesticide and fertilizer inputs?			
15	Are current copies of all Material Safety Data Sheets (MSDS) for all chemicals used anywhere on the golf course property maintained and readily available?			
16	Are chemical applicator(s) encouraged to apply for regular training to maintain currency?			
17	Is the chemical storage structure/area locked, well-ventilated, fire resistant and is access limited to appropriate personnel?			
18	Are records of pest treatments and their effectiveness maintained and used to guide future pest control decisions?			
19	Are golfers adequately notified in the pro shop and on the first and tenth tees about the day's planned or recently completed spraying of any chemical or fertilizer?			
20	Are there written pest profiles for common regional pests along with alternative potential control measures readily available?			
	Totals			

Environmental Compatibility Quotient Summary & Scoring Scale

Environmental Compatibility Quotient Summary			
Environmental Compatibility Category	Yes	Partial	No
Planning & Compliance			
Operations & Maintenance			
Water Resource Management			
Conservation			
Pesticides & Pollution Prevention			
Totals			

- Key to checklist responses

- **Yes** = Practice is complete or ongoing and can be verified
- **Partial** = Practice has been initiated but needs improvement or completion
- **No** = Practice is not in place

Environmental Compatibility Quotient Scoring Scale	
Total Yes or Partial Responses	Environmental Compatibility Level
86-100%	Advanced (Green)
70-85%	Showing progress (Yellow)
69% or less	Just started (Red)