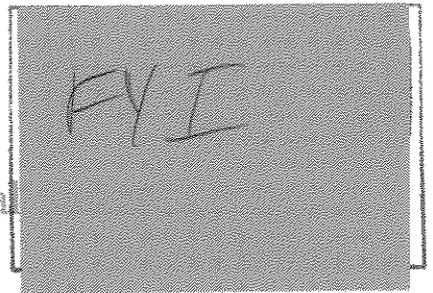


ACES  Acton Citizens for Environmental



Officers: Acton Conservation Commission
Town Hall
Acton, MA 01720

Mary Michelman
President
Charlotte Sagoff
Chairperson Emerita
Carol Holley
Clerk
George Johnston
Treasurer

Re: Quail Ridge Country Club (QRCC)
352 Great Road
DEP File No. 85-778

March 14, 2005

Board Members:
John Abernethy, MD
Jane Ceraso
Robert Eisengrein
Eric Hiller
Lee Ketelsen
Steven Lowe
Michael Murphy
Evelyn Olschewski
Senator Pamela Resor
Leonard Phillips
Chris Schaffner

Dear Conservation Commissioners:

I am writing on behalf of ACES, (Acton Citizens for Environmental Safety), regarding the Conservation Commission's Order of Conditions for the Quail Ridge Country Club (QRCC).

ACES has concerns regarding the potential adverse human and environmental health effects of the proposed Quail Ridge Country Club, given that the site is located between two public water supplies (the Conant wellfield, and Nagog Pond), and is also proximate to relatively dense residential areas in the form of apartments and single-family homes.

One of ACES primary concerns is the protection of Acton's public drinking water supply, and we have learned that prevention is a better approach to water quality problems, than remediation. The Conant public water supply wells are immediately downgradient from the proposed golf course. Treatment of drinking water to remove pesticides can be difficult and costly. Therefore, ACES asks that the Conservation Commission and other Acton town boards, do everything in their power to ensure that pesticide and herbicide use is minimized at the QRCC, and that ongoing third party oversight and other steps are taken, to lessen the chance of these chemicals contaminating an Acton water supply well in the future. Also,

We ask that the Acton Conservation Commission:

- Review and enforce your Order of Conditions for the QRCC, to ensure full compliance before the golf course opens. This is important not only to protect resource areas on the QRCC and surrounding properties, but also to avoid setting a precedent for an applicant to disregard Acton Conservation Commission site conditions.

ACES has reviewed the 2002 Acton Conservation Commission Order for Conditions, and offers the following specific comments:

1. General Special Condition #53 required Bronze Membership in Audubon International's Signature Cooperative Sanctuary Program.

ACES questions/comments: *Please require QRCC to meet standards equivalent to those in the AI Bronze membership program]*

2. General Special Condition #57 requires an independent, third party Environmental Monitor. Further, section "j" of this condition particularly refers to responsibilities of record review and reporting.

ACES questions/comments: *ACES respectfully requests that the third party Environmental Monitor be selected/approved by the Conservation Commission, report directly to the ConsCom, and be paid by the Town (with full reimbursement by QRCC). Using this approach to protect the Town's natural resources, is preferable to one in which the Environmental Manager is chosen and employed directly by QRCC, and reports directly to QRCC. This latter scenario introduces a conflict of interest, since the Environmental Manager would be asked to oversee his/her direct employer.*

3. General Special Condition #78 discusses groundwater quality monitoring.

ACES questions/comments: *Have the monitoring wells been constructed in accordance with this condition? Have testing results been submitted? Please follow up to ensure that all testing and reporting requirements are met.*

4. General Special Condition #79 discusses a Remedial Response Plan.

ACES questions/comments: *Is the Monitor the immediate recipient of all testing reports? No permit for operation should be granted until this condition has been met.*

5. General Special Condition #87 discusses the initial application of the Integrated Pest Management (IPM) system.

ACES questions/comments: *Has this initial application of chemicals application taken place? Have any additional chemical applications taken place? Is a comprehensive list of chemicals available that includes all chemicals on the initial list, as well as any additional chemicals that have been added and/or used on the site? Please follow up to ensure that this condition is met now and in future years.*

6. General Special Condition #88 discusses the requirement of an annual written management plan, as well as a list of the substances to be used in the IPM system.

ACES questions/comments: *Since it is after March 1st, has the management plan for 2005 been submitted? Information on half-life, soil mobility, solubility, and effects on flora and fauna can vary widely depending on the source of the information. Please require a copy of all sources of information provided on each chemical. No permit for operation should be granted until this condition has been met.*

7. General Special Condition #89 discusses monitoring well data, surface water testing, a complete listing of chemicals actually applied at the site, and irrigation water use data.

ACES questions/comments: *How does this relate to the quarterly monitoring reports for the first two years? Please follow up on this condition to ensure that it is met each fall.*

8. General Special Condition #96 discusses monthly reports of groundwater extraction and groundwater, surface water and precipitation measurements.

ACES questions/comments: *Were greens installed over the last 12 months? Has water withdrawal and/or irrigation taken place yet? Please follow up on this condition to ensure that it is met when applicable.*

9. General Special Condition #73 discusses appropriate areas for maintenance of equipment.

ACES questions/comments: *ACES believes that this condition ties in with the Audubon International standard 10 as described in "Ten General Ways to Fail to Achieve Audubon Signature Cooperative Sanctuary Certification". (See attached document.) Given the ConsCom's intention to require AI certification for QRCC, please consider requiring that this AI standard be met.*

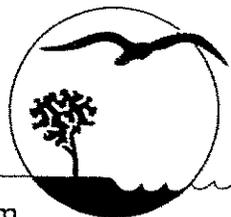
10. General Special Condition #67 describes discharge of drainage.

ACES questions/comments: *Has the drainage system been confirmed as constructed in accordance to this condition?*

Sincerely,


Carol Holley, Clerk

Cc: Board of Selectmen
Planning Board
Board of Health
Acton Water District



HOW TO FAIL TO ACHIEVE AUDUBON SIGNATURE COOPERATIVE SANCTUARY CERTIFICATION

[October 1, 2000]

Introduction

Background. Audubon International created the Audubon Signature Cooperative Sanctuary Program (Signature Program) in 1992 to help encourage, educate, and assist developers and landowners and managers to follow sustainable resource management principles in a comprehensive manner when developing and then managing properties. The program strives to add and integrate wildlife conservation, habitat restoration and enhancement, water conservation and water quality protection, and other areas of environmental protection and improvement with the other objectives for the development. The Signature Program's long-term goal is to foster a stewardship ethic that leads landowners and managers, consultants, and the community to internalize environmental, rather than just economic, costs and benefits in their decision making and to apply those environmental values routinely in land management.

The Signature Program now benefits from nearly a decade of Audubon International work in design, construction, and maintenance of properties with landowners, planners, architects and landscape architects, other consultants, and golf course superintendents and other land managers. Most of the properties that have registered in it have been golf courses. Over these years Audubon International has accumulated unique experience and expertise in environmental education, assistance, and oversight for golf course development and operation. The Signature Program takes an approach that is flexible and adaptable to almost any type of development, redevelopment, or restoration project, in any country, however.

Guidance on "Minimum Requirements." A number of people with properties registered in the Signature Program have requested more guidance on "minimum requirements" for certification as an Audubon Signature Cooperative Sanctuary for golf courses. They want greater certainty on how they can be sure to achieve that status. This list of ten general "ways to fail" to become a certified Audubon Signature Cooperative Sanctuary, accompanied by a specific list of details on what to do to avoid each general "way to fail," should help satisfy that wish. (While specifically keyed to golf courses, applicable portions should also provide guidance for other types of properties that register in the Signature Program.)

Context. People using this guidance should note that compliance with "minimum requirements" is only one element within the overall Signature Program, however.

Education. First and foremost, the program involves education in environmental stewardship. The educational component of the program includes Audubon International staff visits to the site to see it and discuss its potential and its practices with the property manager and other representatives. For purposes of environmental stewardship education, the golf course superintendent (or manager in charge of another type of property) must maintain frequent contact with the Signature Program Director. The superintendent, not a consultant, will be the key contact with the Signature Program Director during and after the design and construction phase. In cases where a consultant (rather than the Audubon International Institute) is developing the Natural Resource Management Plan (NRMP) for the property, it is still vitally important that the superintendent, or other property manager, be the primary, direct point of contact with the Program Director for issues involving the NRMP. Proper construction and subsequent operation of the property in a sustainable manner depend on a property manager well versed in environmental stewardship and well informed about the NRMP and the reasons for the requirements, procedures, and practices it contains. A consultant, who will write the NRMP and move on, is no substitute. Audubon International also recognizes, however, that golf course superintendents and other property managers change from time to time. When that occurs, the Signature Program Office may take steps to ensure that a new superintendent or other property manager is properly educated in environmental stewardship and the provisions of the NRMP for the property.

More Than the "Minimum." Second, the "minimum requirements" embodied in the guidance here are *only* that -- the minimum. Meeting the general minimum requirements applicable to all members is *necessary* to become a certified Audubon Signature Cooperative Sanctuary, *but does not guarantee* that designation. The Signature Program seeks more than the minimum. A member that will not do more than meet the minimum requirements lacks the commitment to environmental stewardship that certification as a Signature Sanctuary implies. To become certified as an Audubon Signature Cooperative Sanctuary, a property must meet whatever additional, site-specific conditions and requirements are reasonable in light of its particular resources, features, facilities, and other circumstances. These additional requirements are identified and negotiated with the property owner and manager during development of the NRMP and other environmental stewardship planning documents for the property. To become certified as an Audubon Signature Cooperative Sanctuary, a member must comply with all the generally applicable minimum requirements, plus all the site-specific requirements for the particular property.

On-Site Audits. (a) **For certification.** Finally, no property can become a certified Audubon Signature Cooperative Sanctuary without passing a final on-site audit. The audit by Audubon International staff provides an independent validation by this not-for-profit environmental organization that the property has been developed and is being maintained in compliance with the generally applicable minimum requirements described below and the site-specific requirements for that property. (b) **For re-certification.** A property that has already been certified as a Signature Sanctuary also must periodically pass an annual or biennial audit (depending on its level within the program) to ensure that it is continuing to comply with all generally applicable minimum requirements and additional, site-specific requirements. A property that does not correct deficiencies identified in the periodic audit in a timely manner will be dropped from the program and no longer certified as an Audubon Signature Cooperative Sanctuary.

In reviewing the "minimum requirements" that follow, please keep in mind the preceding discussion of the overall context of the Signature Program, in which they fit as just one element.¹

**Ten General Ways To Fail To Achieve
Audubon Signature Cooperative Sanctuary Certification**

1. Fail to pay the Audubon Signature Cooperative Sanctuary Program registration fee or annual membership fee.
2. Fail to hire a qualified golf course superintendent before site clearing and other construction activities begin and maintain such a person in charge of Signature Program compliance *throughout construction and operation* of the course.
3. Fail to prepare a Natural Resource Management Plan meeting Audubon International's requirements, within a time specified by the AI Signature Program Director.
4. Fail to identify and protect wildlife and habitats during and after construction.
5. Fail to protect water quality during and after construction, including failure to install a proper drainage system.
6. Fail to design and manage a course in a manner that minimizes intensive maintenance and non-renewable resource use in course management.
7. Fail to use turfgrass suitable for the ecological region in which the property is located.
8. Fail to prepare and use a proper Integrated Pest Management Plan.
9. Fail to install a proper irrigation system.
10. Fail to build and maintain a proper Natural Resource Management Center (*i.e.*, maintenance facility.)

Specific Ways to Avoid Failure To Achieve Certification

1. Pay registration and annual membership fees on a timely basis. As of October 1, 2000: the registration fee for the Bronze level is \$12,500 (includes the first year's \$500 annual membership fee); the registration fee for the Silver or the Gold level is \$9,500 (includes the first year's \$500 annual membership fee, but **does not** include separate charges for services of the Audubon International Institute for the Silver level or the Gold level, which are determined on a case-by-case basis); and the continuing annual membership fee is \$500.
2. Before site clearing or other construction work begins, the golf course must hire a person with responsibility and authority for compliance with Audubon Signature Program

¹ Audubon International reserves the right to change program structure, fees, or requirements from time to time.

requirements who is a Class A member of the Golf Course Superintendents Association of America (or, for a golf course located outside the U.S.A., a member of a similar non-U.S.A.-based association of golf course superintendents who has at least three years experience as a superintendent). That person must also have prior golf course construction experience. Preferably, he or she should have previous experience in the region where the course is being built; and previous experience with either the Audubon Signature or Audubon Cooperative Sanctuary programs. Throughout construction and operation, the course must maintain a person with Class A membership in the GCSAA (or comparable status in an outside-the- U. S. A. -based association of golf course superintendents) to have responsibility and authority for Signature Program compliance.

3. Join the Signature Program at the Silver or Gold level. In the alternative: maintain frequent contact with the Signature Program Director on progress toward and questions related to development of the initial draft and any redrafts of the NRMP; adhere strictly to the schedule for submission of the initial draft of the NRMP and any redrafts, as set by the Signature Program Director; make sure the initial draft of the NRMP covers in great detail all of the subject matter specified in materials provided by the Signature Program Director; make sure that any redraft of the NRMP fully addresses, to the satisfaction of the Signature Program Director, all matters raised by AI in comments on the prior draft.
4. Identify and protect all designated wetlands from adverse impact during construction and operation of the course. Identify and protect all threatened, endangered, or special concern species of wildlife and their habitats from adverse impact during construction and operation of the course. Identify and protect all core habitats, patch habitats, and wildlife corridors, as detailed in the *Landscape Restoration Handbook*, and protect them from adverse impact during construction and operation of the course. Identify habitat areas that can be restored, either during or after construction, to a condition that will again support wildlife; and restore the identified areas. Use native or naturalized plants in restoration and landscaping.
5. Install effective erosion control measures to protect environmentally sensitive areas and areas not under construction. Erosion control measures must be in place before clearing and construction begin and remain in place until vegetation is well established. After the initial construction period, install effective erosion controls before making any changes to the landscape. Any drains that emanate from areas that are treated with pesticides or fertilizers of any type must have at least a 25-foot buffer of vegetation between the drain exit and the receiving water body, including any that may be wet for only part of the year (e.g., intermittent or ephemeral streams, vernal pools, dry arroyos, washes). Wetlands may be included within the vegetated buffer zone only subject to the restrictions in Paragraph 4 above and as specifically justified to the satisfaction of the Signature Program Director. (If for good reason, as specifically justified to the satisfaction of the Signature Program Director, a 25-foot buffer of vegetation between such a drain exit and a receiving water body is not possible in a particular area, a "mechanical" filtration system designed to the satisfaction of the Signature Program Director may be installed.) Vegetation within a special management zone extending 25 feet out from a water body must not be treated with pesticides and may be treated only with organic fertilizers, to promote microbial growth and healthy soil and vegetation while minimizing runoff of nitrogen and phosphorus into the water [see Paragraph 8(e)(5)]

below]. Maintain the vegetated buffer zones in the same manner around all water bodies after the course is completed.

6. Do not use turfgrass in areas where the game is never played (e.g., backs of tees, between tees, beyond the reach of accepted guidelines for width of rough). Instead, use native and naturalized vegetation in those areas. Where shorelines of water bodies are in play, do not maintain closely manicured turfgrass all the way to those shorelines. Instead, within a 25-foot zone adjacent to any in-play portion of a shoreline, raise the mowing height to at least three inches, to allow the longer turfgrass to slow and filter runoff. (To the extent that a 25-foot-wide zone of three-inch or higher turfgrass cannot be maintained in a particular area, a narrower zone or lower minimum height of cut, as specifically justified to the satisfaction of the Signature Program Director, may be maintained.) [Note also the restrictions in Paragraph 5 above and Paragraph 8(e)(5) below on pesticide and fertilizer use within a 25-foot zone adjacent to water bodies.]
7. In areas where the game is played, use turfgrass that is consistent with accepted agronomic principles for the region of the country in which the property is located.
8. Prepare a written Integrated Pest Management Plan that includes and details:
 - (a) the specific pests for which the course will take management measures;
 - (b) the thresholds of tolerance prior to any management actions being taken;
 - (c)
 - (1) a list of cultural practices that will be used on the course when thresholds are exceeded;
 - (2) a list of all pesticide products (chemical, organic, etc.) to be used on the course, listed from least toxic to most toxic;
 - (3) a protocol that establishes the U. S. Environmental Protection Agency approved risk assessment procedure that was used to evaluate those pesticides;
 - (d) a description of scouting or other methods to be used to monitor pest activity;
 - (e) a signed agreement committing that the course management will:
 - (1) monitor pest activity on a regular basis,
 - (2) take corrective actions only if established thresholds are met, and then only the minimum actions necessary, and
 - (3) that the order in which these actions will take place is
 - (a) cultural,
 - (b) least toxic to most toxic, and
 - (c) most toxic only as a last resort;
 - (4) not use highly mobile and toxic materials within 50 feet of any water bodies;
 - (5) Establish special management zones around water bodies: the first (Special Management Zone A) runs landward 25 feet from the mean high water line; the second (Special Management Zone B) runs farther landward 25 feet from the outer edge of Special Management Zone A.
 - (a) Within Special Management Zone A, no pesticides may be used and only organic fertilizers may be used.
 - (b) Within Special Management Zone B, only a limited set of pesticides may be used, on the basis of the risk assessment mentioned in paragraph (c)(3) above; and only slow release or organic fertilizers may be used.

9. Any irrigation system must be a prescription system; in other words, a system that puts water only where it is needed, when it is needed, in the amount that is needed. The system must be equipped to monitor evapotranspiration.
10. An NRMC must:
 - (a) have a pesticide storage building with containment (*i.e.*, barriers or other system to prevent any spills from escaping), separate from the main maintenance building.
 - (b) have an enclosed pesticide mix/load area, with containment.
 - (c) have all concrete floors sealed with a more impermeable protective coating, such as paint or a clear sealant.
 - (d) have all floor drains routed through a filtration system.
 - (e) use natural lighting (*e.g.*, windows, skylights) to the extent practical, to minimize use of electric lights.
 - (f) have only above-ground fuel storage tanks, with containment, unless otherwise mandated by law, or specifically justified to the satisfaction of the Signature Program Director; and have a recessed or "lipped" fuel fill-up area, to contain any spills that may occur during fueling. Unless otherwise specifically justified to the satisfaction of the Signature Program Director, the entire fuel area must be under cover for protection from precipitation and from adverse impacts that can be caused by continuous exposure to the sun.
 - (g) have an equipment wash-down area, with containment, that either recycles rinse water for future wash-down or otherwise treats water before it is re-used either to irrigate turf or, as specifically justified and designed to the satisfaction of the Signature Program Director, to feed into a "created" wetland treatment system.
 - (h) have a used oil recycling system, with containment.
 - (I) present a clean, neat, and professional appearance at all times (*e.g.*, no junk/debris piled in or around the buildings).
 - (j) meet all applicable health, safety, environmental, zoning, code, or other regulations established by responsible local, state, or federal governmental agencies.