

"WETLANDS AND CONSTRUCTION CONCERNS FOR GOLF COURSES"

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In December of 1979 the Michigan legislature ended over 10 years of debate by enacting into law the Goemaere-Anderson Wetland Protection Act, 1979 Public Act 203. The law took effect October 1, 1980.

I remember those days well because I was placed in charge of the implementation of the act as Chief of the Wetland Protection Unit. The formidable task ahead of us then was to integrate the wetland permit requirements in with the existing permit process. Now, over 10 years later, the most difficult issues and decisions we make usually involve wetlands.

To put it as simply as I can, the wetlands act requires that a person obtain a permit from the Department of Natural Resources to dredge, drain, fill, or make other use or development in a wetland. There are some exemptions and other special requirements in the law, but time doesn't allow us to get into the details now.

The next questions is: "what is a wetland"? Instead of quoting the legal definition from the act, let me just say that a wetland is an area that is flooded or saturated enough of the year to create special soil conditions where only certain species of plants can grow.

Golf course construction often involves some wetland dredging or filling and subsequently comes under the regulatory authority of the Department of Natural Resources. Golf courses did not seem to create any abnormal amount of controversy until The Homestead course near Glen Arbor was proposed. The Homestead project brought the golf course issue to the forefront in style.

Proposed golf courses are carefully reviewed to assess their impacts on wetlands, surface waters, groundwater, and fish and wildlife resources. If you are planning to construct a golf course, you should be prepared to address this wide range of environmental issues.

I am going to give you the best advice that I know to help any of you that may propose a golf course in the foreseeable future in Michigan. If you follow this advice, I am confident that you will substantially increase your chances for receiving favorable action on your application for permit.

1. MINIMIZE WETLAND IMPACTS.

- \* Have a 1-foot contour topographic map produced for the proposed golf course area PRIOR to design of the course;
- \* Have all wetlands and surface waters delineated on the topo map;
- \* Have the wetlands evaluated to identify the high-value or sensitive areas - areas that MUST be avoided in course construction;

- \* Identify areas that can be enhanced by golf course construction (e.g. shallow water ponds, planting, etc.);

- \* Identify low-value wetlands and wetlands not under legal jurisdiction that may be permitted to be altered.

2. ASSESS ALL FEASIBLE PRUDENT ALTERNATIVES.

- \* For any resource impact areas determine if a feasible prudent alternative exists, as required in various state and federal laws.

3. DESIGN THE COURSE WITH THE ENVIRONMENT IN MIND.

- \* Slope the fairways away from streams and use wetlands as nutrient sinks whenever possible;

- \* Use fairway drains to pipe runoff away from lakes and streams toward wetlands, when appropriate;

- \* Grind stumps instead of pulling them near watercourses to minimize potential erosion;

- \* Leave a natural vegetation buffer along lakes and streams to filter runoff;

- \* Don't clear-cut native vegetation along watercourses, provide "key-hole" views;

- \* Design for "hit-over" areas and narrower fairways where appropriate to minimize wetland fill.

4. PROVIDE DETAILED PROJECT PLANS.

- \* Have stationed centerlines of golf holes on 1-foot contour topographic maps showing all proposed grade changes, fill areas, pond excavations, clearing areas, etc.:

- \* Provide cross-section drawings for fill and excavation areas.

5. FACILITATE THE FIELD REVIEW.

- \* Stake the centerlines of all fairways with stakes marked with the stationing and hole number. Have a stake at the center of each tee, a stake at the angle turn, and a stake at the center of the green;

- \* Flag or stake any proposed fill or excavation areas;

- \* Coordinate a field review with agency personnel and have your golf course architect, surveyor/engineer, and resource consultant all present to address concerns or answer questions that will arise.

The suggestions that I have given you all cost money. As most of you know, time is money too. Vague, incomplete, or inaccurate project plans and design that is not sensitive to today's environmental issues is very poor business.

I really believe that most of you contemplating golf course construction will follow my suggestions. I would also leave you with this advice:

Be innovative.

Be willing to do it right.

Be willing to compromise.

The DNR's Land and Water Management Division field staff has an extremely heavy workload and are burdened with tremendous responsibilities in making decisions on projects involving wetlands, lakes, and streams. By starting with accurate and complete information, you can avoid many of the pitfalls that doom poorly-conceived proposals.

(NOTE: Charles Wolverton is now Vice-President of BKW Environmental, Inc., P. O. Box 487, Grand Haven, MI 49417 (616)847-1680).