

November 30, 1999

City of Duluth
c/o Mr. Jim Mohn
Planning Department
409 City Hall
Duluth MN 55802

RE: Proposed Spirit Ridge Golf Course and Lodge Environmental Assessment Worksheet

Dear Mr. Mohn:

The Duluth Tree Commission has reviewed the Environmental Assessment Worksheet for the proposed Spirit Ridge Golf Course and Lodge, and we have found the document to be incomplete in its discussion of the potential impacts to the existing mature northern hardwood forest and forested wetlands. Because of the significance and irreversibility of the environmental impacts of this project, we recommend that a full Environmental Impact Statement should be prepared.

The following statements summarize the Tree Commission's major comments:

- 1) The EAW includes **no discussion of the environmental impacts** that the golf course will have on the existing mature hardwood forest ecosystem.
- 2) The EAW includes **no discussion of the environmental impacts** that the golf course will have on the existing forested wetland communities.
- 3) The EAW includes **no discussion of the environmental impacts** that the golf course will have on existing populations of plants that are listed by the state as species of special concern.
- 4) The EAW includes **no assessment of the visual impacts** of clearcutting and thinning portions of 432 acres of existing hardwood forest.

Our detailed comments concerning these inadequacies are as follows:

1) The EAW includes no discussion of the environmental impacts that the golf course will have on the existing mature hardwood forest ecosystem.

In Item 11, "Fish, Wildlife, and Ecologically Sensitive Resources," the EAW acknowledges that the golf course will be located within a mature stand of northern hardwood forest, but it does not include any discussion of the impacts that clearcutting and thinning will have on the fragments of forest that will be left standing.

The EAW states that the golf course design will "minimize cutting of mature trees and preserve all valuable trees in the areas between the holes" and that "large or exceptionally old trees will be avoided whenever possible to reduce the impact on the forest and habitat resource on the site." But simply minimizing cutting of mature trees and preserving "valuable" trees in the areas between the holes does not adequately address the impacts that the construction of the golf course will have on the entire forest ecosystem. **Even if all best management recommendations and harvesting guidelines are followed, it is very likely that the remaining forest fragments will die off soon after construction as a result of changes in environmental conditions.**

Each tree in this forest has grown and matured in close proximity to many other trees. They are all sensitive to the amount of sunlight they receive, the strength of the wind, and changes in temperature. Removing all trees around one old tree will leave that one tree very vulnerable to

blowdown as a result of the more open conditions. Individual trees that are “preserved” are likely to die soon after construction as a result of environmental stress. This is exactly what happened at the Woodland Community Club in 1998 when portions of a mature hardwood forest were cut down to build a hockey rink. The isolated trees left standing around the perimeter of the construction area blew down during the first wind storm.

These impacts are irreversible.

In addition, several incorrect statements are included in Item 11b. Under statement #2, following an excerpt from a report by Jim Larson, the EAW states “Note: Most of the red oak and black ash categorized as age class 3 are not in areas to be used for golf course development.” But according to Map #4, “Timber Cover Type Map,” golf course holes #7, 8, 11, 12, 13, 14, 16, and 17 are located either partially or completely within cover types NH5 and BASH 5, which are both categorized as age class 3.

And under statement #3, following a quotation from Forest Ecologist, Kurt A. Rusterholz, note 3 states that “A majority of the mature yellow birch and other large hardwoods are on the periphery of the proposed golf course.” But this statement is contradicted by the maps included with the Turf Management Plan, which actually indicate that nearly half of the golf course holes are located in areas mapped as NH5 and BASH5—a forest cover type that is over 100 years old and includes sugar maple, red maple, paper birch, basswood, red oak, and a larger component of yellow birch than other cover types.

2) The EAW includes no discussion of the environmental impacts that the golf course will have on the existing forested wetland communities.

In Item 10, “Cover Types,” the EAW states that “Trees will be cut from 7.2 acres of wetlands for lines of play...” In Item 12, “Physical Impacts on Water Resources,” the EAW indicates that “The forest vegetation will be removed from 16.3 acres of the original wetlands during construction of the golf course.” In addition to inconsistencies such as these, there is no discussion of the impacts of removing the trees from the forested wetland communities.

Many of the wetlands on the site are black ash swamps, which means they are dominated by mature black ash trees. The EAW includes no discussion of the impacts of removing the major vegetative component of these wetlands. How will the remaining vegetation change? What new species will dominate the wetlands after the black ash is removed? How will the water table change as a result? A thorough analysis of these impacts is needed.

The EAW also states that “cut wetlands on the golf course site will be mowed periodically to maintain forbs, sedges, and grasses compatible with wetland conditions,” but there is no discussion of the impact of “mowing” a forested wetland. Will the native grasses and sedges survive mowing?

3) The EAW includes no discussion of the environmental impacts that the golf course will have on existing populations of plants that are listed by the state as species of special concern.

In Item 11, “Fish, Wildlife, and Ecologically Sensitive Resources,” the EAW states that several plants of special concern (*Claytonia caroliniana* and *Adoxa moschatellina*) do exist on the site. But there is no discussion of the potential impacts to these species as a result of golf course construction. Where are the populations located? Will they be eliminated by golf course construction? If not eliminated, how will the populations be impacted? A thorough analysis of these impacts is needed.

4) The EAW includes no assessment of the visual impact of clearcutting portions of the 432 acres of existing forest.

In Item 27, "Visual Impacts," the EAW states that "The project will not create any adverse visual impacts." This is simply a statement of opinion. Current technology makes it possible to model visual impacts using computer graphics. Such simulations are becoming standard practice for projects that involve major disruptions of existing landscapes.

We request that an independent company be hired to do a "Single Vantage Point Visual Impact Simulation" from a variety of key vantage points. For example, a visual impact simulation should be completed from Skyline Parkway, from West Duluth looking toward the hillside, from within the old-growth forest, and from the cross-country ski trails. This will provide a more realistic visualization of the impacts of clearcutting and fragmenting the existing forest.

Conclusion:

The EAW is incomplete and inadequate, and the Duluth Tree Commission recommends that a full Environmental Impact Statement should be prepared.

Sincerely,

Nancy S. Nelson
Chair, Duluth Tree Commission