

THE IMPACT OF GOLF COURSES ON FARM PRACTICES:
AN OREGON CASE STUDY

by

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ABSTRACT

Oregon's agricultural land use goal, (Goal 3), was established to protect farm land. Land designated as Exclusive Farm Use is subject to various use provisions and permit review criteria. Golf courses are permitted in the EFU zone when they will not significantly change, or increase the cost of, accepted farming practices. A questionnaire sent to farmers who farm land within one mile of an existing golf course reveals three significant findings. First, existing golf courses can affect farming practices. Second, the impact on farming practices from future golf course developments can be reduced through the establishment of siting criteria. Third, the statutory requirement that a proposed golf course not significantly change or increase the cost of, accepted farming practices should be more clearly defined because the law does not provide a clear "yardstick" upon which a permit decision can be based.

INTRODUCTION

Oregon's statewide planning program is encompassed in 19 Goals designed to protect Oregon's "livability". The purpose of Goal 3 is to "preserve and maintain agricultural lands" (LCDC, 1990). Land identified as agricultural land is zoned Exclusive Farm Use (EFU). Chapter 215 of Oregon's Revised Statutes (ORS) provides the standards by which jurisdictions must manage their EFU land. ORS 215.213 and ORS 215.283 list uses that may be permitted in EFU zones subject to the approval standards of ORS 215.296. One of the permitted uses listed in ORS 215.313 and ORS 215.283 is a golf course.

As the popularity of golf increases so does the demand for new golf courses. Golf courses require a large number of acres and when, located in an agricultural area, can bring together two cultures with differing needs and interests: the farming community and the golfing community.

OBJECTIVES

This paper will first discuss the issues identified in a pilot study of golf courses in EFU zones. Next the paper will present the results of a questionnaire, based on issues identified in the pilot study, which was sent to individuals who own land within one mile of an existing golf course in an EFU zone. Lastly this paper will evaluate the responses of the questionnaire and provide recommendations based on the issues identified. The intent of this paper is not to evaluate the extent to which golf courses do or do not

attract development but rather the impact that they may have on activities associated with farming.

PILOT STUDY

A pilot study was initiated to identify the various concerns associated with golf development in EFU zones. The pilot study was performed in Washington County, Oregon. Washington County, because of its proximity to the Portland metropolitan area and its abundant farm land, has had several applications for golf courses in EFU zones within the last decade. The study revealed several issues, which are presented below.

Review Criteria: ORS 215.296(1) requires that uses permitted under ORS 215.213 and 215.283 not "(a) Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or (b) Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use." ORS 215.296 states "An applicant for a use under ORS 215.213(2) or 215.283(2) may demonstrate that the standards of approval set forth in subsection (1) of this section will be satisfied through the imposition of conditions. Any conditions so imposed shall be clear and objective."

The approval standards in ORS 215.296 do not require a complete absence of conflict but rather that any change in, or increase in the cost of, accepted farm practices not be

"significant". Nevertheless, this standard requires that the developer prove a negative, that the proposed golf course would never create a significant change.

How does a developer prove that these criteria will be met? In Loveladies Harbor, Inc. v. The United States, Cl. Ct. No. 243-83L it was found that when it is necessary to prove a negative, the party that has the burden of proof need only produce evidence to draw inferences in their favor. Furthermore, while the burden of proof does not shift to the opposing party, the burden to produce contrary evidence can. The developer cannot be required to produce evidence that a proposed golf course could never at any point in time violate the "significance requirements". The developer must only provide a jurisdiction with the evidence upon which it can infer that the requirements are satisfied.

Farm Practices: How might typical farm practices be affected by the siting of a golf course in an agricultural zone? Does the development of a golf course increase the potential for lawsuits stemming from "typical farming practices" such as spraying and, if so, what is the effect on liability insurance?

In Taber vs. Multnomah County, 11 Or LUBA 127 (1984), LUBA found that the right to farm law does not give the farmer the right to perform operations that allow spray drift to affect land other than their own. "Oregon has a "right to farm" law which provides a shield to protect farmers from

suits based on a nuisance theory. ORS 30.930. However, the law does not protect the farmer from claims based on other theories of wrongful conduct such as a negligence or trespass. In ORS 30.935(3)(a). ...there is no assertion that legitimate farming practices result in drifting sprays or other events which might cause annoyance or damage to the farmers neighbors. We do not believe that Oregon's land use laws furnish a shield against suits or legal action for wrongful or tortious farming practices."

Developers have shown a willingness to sign an agreement stating that they will not bring charges against farmers if drift of chemical applications or field burning smoke reaches the golf course. Developers have also offered to coordinate operating hours with burning and spraying operations.

Traffic: The increase in the amount of traffic is a concern to farmers. Because of the unwillingness of drivers to remain behind slow moving farm equipment, farmers are fearful that the potential for accidents will increase with the development of a golf course near where they farm.

In Taber vs. Multnomah County, 11 Or LUBA 127 (1984), LUBA addressed the petitioners concern regarding increased traffic produced by the golf course. Because the increased traffic flow was still under the maximum capacity for the road system, Luba found that "traffic to and from the golf course will not create a safety or congestion problem."

Trespassing: Trespassing is another issue. Many farmers are leery that golfers will wander onto their land in search of golf balls and damage crops in the process. Spectators who attend events at a course may cross over their fields to get to the site. There was also a fear that fields might be driven over by golfers who might be "joy riding".

Water Availability: Availability of water is also a concern. Golf courses have a reputation for using large quantities of water. Farmers are fearful that altering the land in order to construct a golf course may alter drainage patterns that currently provide their land with runoff. There is also a concern that aquifers may be depleted by the golf course management while attempting to keep the course healthy. Because of the site specific nature of this concern, regional well logs, water districts, and groundwater specialists are the best resources to address this issue.

Property Values: Increasing property values are a concern to farmers who farm near potential golf developments. Many farmers rent portions of the land they farm. How does the development of a golf course affect property values and thus the amount that farmers may have to pay to rent the land that they farm.

The real estate analysis firm of Palmer, Groth and Pietka conducted a study to compare the farm land values of parcels within one mile of an existing golf course with the values of parcels further than one mile from an existing golf

course. The study, performed in Washington County, evaluated the Forest Hills Golf Course as part of an application for development of the Pumpkin Ridge Golf Course. As part of the approval process, the developer of the Pumpkin Ridge Golf Course was required to prove that there would not be "...significant adverse impacts on property values in the area..." should the golf course be developed (Palmer, Groth and Pietka, 1989). The report analyzed eighteen land sales of which seven were within a one mile radius of the study site while eleven were outside of the one mile radius. The intent of the study was to determine whether or not properties close to the golf course possess property values similar to those not in proximity to the golf course.

The study included an analysis of the mean, median, and mode, of both property groups and a comparison of two sales that possessed similar size, soil, and site characteristics from each property group. The study found that there was no statistical basis on which to claim that the proposed golf development would cause property values to rise in proximity to the site. "...we found no difference in values between property under the influence of the golf course and those removed by greater than one mile." (Palmer, Groth and Pietka, 1989).

Loss of Farm Land: Some farmers have stated that once the golf course is in place other non-farm uses will want to locate in the area resulting in an increase in the loss of

agricultural land and new pressures on farm operations. Similarly some are concerned that the siting of a golf course will encourage the rezoning of the area from EFU to a less restrictive classification.

In Von Lubken vs. Hood River County, 104 Or. App. 683, the Court of Appeals of Oregon found that Hood River's development standards were not just a reflection of mandatory state requirements for the EFU zone but that they were in fact more stringent. The court stated that the county land use ordinance restricted the development of golf courses on EFU lands that were "...capable of sustaining accepted farming practices...", a requirement more stringent than the state approval criteria. Each county can, as shown above, create strict development standards that address the issue of golf development in agricultural zones.

While a golf course may require a large number of acres, so too might other uses indirectly related to the golf course. A housing development, for example, located adjacent to a golf course could remove farm land from production. Goal 3, however, is designed such that non-farm dwellings must satisfy certain approval criteria separate from that needed to approve a golf course. Based solely on the established review criteria, and not on the political climate or economic pressures, the development of a golf course has no bearing on the establishment of satellite development.

Should golf courses be placed on non-farm land within Urban Growth Boundaries (UGB's) in order to locate the use closer to the majority of individuals who use this form of recreation while at the same time avoiding the loss of farmland? While a seemingly simple solution, land within UGB's is under tremendous growth pressure. For example, Goal 10 requires that lands within the urban fringe be inventoried for residential use in order to provide a variety of housing options to the citizens of Oregon (LCDC, 1990). The development of golf courses on non-farm land within the UGB's does not provide a simple alternative.

Surrounding Land: As stated above, the local jurisdiction must evaluate the impact of the golf course on farm practices on "surrounding lands" (ORS 215.296). At what point does a farm fall out of the sphere of influence of a proposed golf course? Surrounding lands is not a predetermined area that can be applied to every application for development, but rather must be determined for each proposal. The area calculation used for notification purposes, for example, may not coincide with the area that a golf course may impact.

The spatial characteristics of the area in question are an important variable in determining what is considered "surrounding land". The transportation network and the physical features are both examples of the factors that must be considered when determining "surrounding lands".

Environmental Impact: "Fairways and greens are regularly doused with volumes of chemical turf-care products"

(Edmondson, 1987). Does an aesthetically pleasing golf course result in a threat to the soil and water quality of the immediate area? Farmers and environmental groups have raised concerns regarding the impact that chemicals may have on the environment.

Depending on the geographic location of the proposed development, the physical characteristics of the site and the regional climatic variables will dictate the amount of fertilizers, pesticides, and herbicides needed to maintain a healthy golf course. Dr. Thomas Cook, associate professor of horticulture at Oregon State University, has studied the use of chemicals on golf courses in the Pacific North West. Dr. Cook states that it is inappropriate to make general statements regarding the use of chemicals on golf courses. "The needs of golf courses in Florida compared to Portland, Oregon are quite different." (Cook, unpublished).

How much of the golf course receives treatments? The golf course is comprised of different physical characteristics. Tees, fairways, putting greens, ponds, and roughs each require different care and may receive varying amounts of chemical applications. For an average golf course within the state of Oregon, less than 20% of the site is treated annually with herbicides and less than 2% of the site receives routine fungicide or insecticide treatments (Cook,

unpublished). Dr. Cook states "...it is hard to conclude that golf courses pose a serious threat to people, wildlife, or our environment." (Cook, unpublished).

Accessory Uses: While ORS 215.213 and 215.283 list golf courses as a permitted use in EFU zones, they do not define the services a golf course can provide to its patrons. Are driving ranges, proshops, and restaurants part of a golf course or are they uses that should be excluded from the EFU zone?

The issue of a use accessory to a golf course, specifically a restaurant, was addressed by the Multnomah County Board of Commissioners in the review of an application for a golf course. The Multnomah County Zoning Ordinance allows the development of accessory uses associated with a use which is permitted within a given zone. The County Commissioners found that because golf courses were allowed in the EFU zone, and that because the proposed restaurant was designed to operate only as a service to golfers, the restaurant qualified as an accessory use. The decision to approve the proposal was appealed to LUBA.

In Taber vs. Multnomah County, 11 Or LUBA 127 (1984), the petitioners stated that the decision that the restaurant was "...a subordinate building truly incidental to the main use." was inappropriate. LUBA disagreed and affirmed the local decision. LUBA stated that "The county went to some length to ensure this eating facility was truly an accessory

incidental to the primary use and not an impermissible non-farm attraction not incidental to the golf course." and that "We believe the city was correct in concluding that a restaurant is an accessory use to a golf course." (Taber vs. Multnomah County, 11 Or LUBA 127 (1984)).

QUESTIONNAIRE

For purposes of this study, the census included properties within one mile of the selected golf courses. This distance was chosen in order to present the issues to those individuals that farm adjacent to existing golf courses as well as those that farm near to, but not adjacent to, existing golf courses.

The questionnaire (see appendix) was sent to 143 households within the state of Oregon. These households were initially identified as being within one mile of existing golf courses. Of the 143 questionnaires mailed, 92 were returned for a 64% response rate.

Six existing golf courses were utilized to generate the mailing list. The golf courses were located within the following counties: Washington, Yamhill, Polk and Umatilla. Initially the study was designed for a random sample. After further evaluation, however, it was found that there was not a sufficient number of golf courses that met the necessary criteria. As such, a census was performed utilizing golf courses that did satisfy the criteria.

While many of the issues identified in the pilot study warrant close study, it was necessary to limit the issues presented for comment in order to present the subjects with a manageable questionnaire. Following are the questions presented in the questionnaire and the responses to these questions.

Question #1: Do you own land that is next to or within one mile of a golf course? Seventy-eight of the ninety-two respondents indicated that they did own land within a one mile radius of an existing golf course. Those who indicated that they did own land next to or within one mile of a golf course were asked to continue with the questionnaire. Those who indicated that they did not own land next to or within one mile of a golf course were not included in further evaluation.

Question #2: Is this land used as farm land? Seventy of the seventy-eight respondents who own land next to or within a mile of an existing golf course indicated that this land was used as farm land. Those who indicated that their land was used as farm land were asked to continue with the questionnaire. Those who indicated that their land was not used as farm land were not included in further evaluation.

Question #3: Is this land farmed by you, leased to someone else to farm, or farmed by both you and someone else? Twenty-six respondents indicated that they farmed the land themselves. Thirty respondents indicated that they leased

the land to someone else to farm. Fourteen respondents indicated that the land was farmed by both themselves and someone else. In order to receive information from only those who engage in farming activities, for questions 4 through 11, only those who indicated that the land was farmed by themselves or, by themselves and someone else, were evaluated. There were 40 respondents within these two classifications. All percentages given below refer to this group of individuals.

Question #4: How many years have you owned this property?

The ownership ranged from 1.25 years to 45 years.

Question #5: About how many acres of your farm land is right next to the golf course, and how many of the farmed acres are within one mile of the course? The responses were varied for both options. Some respondents farmed land adjacent to the course and land that was within a mile of the course.

Question #6: Have any of your equipment, crops, or livestock been damaged or injured by golf related injuries? Of the 40 total respondents, 8 (20%) indicated that their equipment, crops, or livestock had been damaged or injured by golf related activities.

Question #6a: Please list the kinds of damage and the approximate dollar cost. Of the 8 (20%) respondents who indicated that they have had equipment, crops, or livestock damaged by golf related activities, 4 (10%) respondents indicated that their crops had been trampled or driven over

by a golf cart. Two (5%) responded that they have had broken windshields, 2 (5%) indicated that their fences had been cut or pushed over and 1 (2.5%) reported that they had their tires cut. The approximate cost for these incidents ranged from \$75-\$400.

Question #7: Since the creation of the golf course, have you had difficulty in maneuvering your equipment on public roads, or not? Ten (25%) of the respondents indicated that they have had difficulty in maneuvering their equipment.

Question #7a: Please describe the kinds of difficulty and how often it is a problem. Of the 10 (25%) respondents who indicated that they have had difficulty in maneuvering farm equipment on public roads since the creation of the golf course, 5 (12.5%) of the respondents indicated that impatient or speeding drivers was the source of their difficulty. Two (5%) of these 5 respondents indicated that the narrowness of the road was also a factor in the difficulty of maneuvering their equipment. Five (12.5%) respondents did not respond.

Of the 10 (25%) who indicated they have had difficulty maneuvering their farm equipment, 4 (10%) of the respondents indicated that it was a continuous problem while two (2.5%) of the respondents indicated that it was a problem during time of harvest. Four (10%) of the ten respondents did not respond.

Question #8: Do you have liability insurance to cover this property? Thirty-six (90%) respondents indicated that they

did have liability insurance for their property.

Question #8a: Taking inflation into account, have your liability premiums stayed the same, decreased, or increased over the last two or three years? Of the 36 (90%) respondents who indicated that they did have liability insurance for the property, 22 (55%) respondents indicated that their premiums had stayed the same. One (2.5%) respondent indicated that their premiums had decreased. Eleven (27.5%) respondents indicated that their premiums had increased. Two (5%) of the respondents did not respond.

Question #8b: How much of the increase, if any, do you feel is due to the presence of the golf course? Of the 11 (27.5%) who indicated that their increase in liability premiums had increased, 5 (12.5%) respondents indicated that none of the increase was due to the golf course. Three (7.5%) of the respondents indicated that they did not know how much of the increase was due to the presence of the golf course. One (2.5%) respondent indicated that the amount of the increase in premiums due to the presence of the golf was minimal. Four (10%) respondents did not respond.

Question #9: Have you had any insurance or legal claims filed against you by the owners of the golf course or an individual golfer? All 40 respondents indicated that they had not had any insurance or legal claims filed against them.

Question #10: Are any of your farming practices influenced by the nearness of the golf course? Eight (20%) of the 40

respondents indicated that their farming practices have been influenced by the location of the golf course.

Question #10a: Please describe what practices are influenced and what you do differently because of the golf course. Of the 8 (20%) respondents who indicated that their farming practices had been influenced by the nearness of the golf course, 3 (7.5%) respondents indicated that their field burning practices have been influenced. Four (10) of the respondents indicated that their use of chemicals had been influenced.

One (2.5%) respondent indicated that they had installed an electric fence to keep golfers, who look for lost golf balls, away from their crops. One (2.5%) respondent indicated that they graze their pasture less than they would otherwise because they are afraid that their livestock might find their way from their pasture to the golf course. One (2.5%) respondent indicated that they have stopped raising hogs in part because of complaints from golfers.

Question #10b: Do you feel these changes in farming practices increase the cost of farming, or not? Of the 8 (20%) respondents who indicated that the farming practices had been influenced, 7 (17.5%) indicated that the changes had increased the cost of farming. One respondent did not respond.

Question #10c: About how much is this increase? Of the 7 (17.5%) respondents who indicated that their changes in

farming practices increased their cost of farming, 1 (2.5%) indicated that the time they waste when waiting for the appropriate time to spray their crops costs \$200 a year. One (2.5%) respondent indicated that they need to rebuild a fence to insure that their livestock does not gain access to the golf course and that this will cost \$450-\$600. One (2.5%) respondent indicated that because they use weaker chemicals than they would otherwise use and because the application of these chemicals by air is influenced by the presence of the golf course, the increase in cost is \$4,000-\$5,000 per year. Four (10%) of the 7 respondents did not respond.

Question #11: Have you any other concerns about owning or farming near a golf course? There were 38 (95%) responses. Seventeen (42.5%) of the respondents indicated that they did not have any concerns about owning or farming near a golf course.

Twenty-one (52.5%) of the respondents indicated that they did have comments and concerns about owning or farming near a golf course. Many of the respondents expressed more than one concern. Nine (22.5%) of the respondents indicated that they were concerned about traffic generated by the golf course. Five (12.5%) of the respondents were concerned about golfers trespassing on their land. Five (12.5%) of the respondents were concerned that golfers would object to typical farm practices that occur on their pastures and crop land. One (2.5%) respondent was concerned about law suits

from golfers or golf course owners regarding the spraying of chemicals on crops.

Three (7.5%) of the respondents were concerned about the impact that the golf course would have on the water supply. Three (7.5%) of the respondents were concerned about the loss of farm land to the golf course while two respondents were concerned that land speculation would take farmland out of production. One (2.5%) respondent expressed concern that dwellings will be developed around the golf course. One (2.5%) respondent was concerned that the zoning would be changed around the golf course while another (2.5%) respondent stated that they hoped the presence of the golf course would encourage a rezoning of the surrounding property so that they could subdivide ten acres of their own property.

DISCUSSION

The results of the questionnaire indicate that golf courses can directly impact farm practices on surrounding lands. The results also indicate, however, that the perceived impacts may be greater than what actually occur. Following are steps that can be taken to minimize and possibly eliminate the impact on farming practices that can occur from the development of golf courses in EFU zones.

The approval criteria require that the golf course not "Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use;

or Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use." ORS 215.296(1). The single biggest weakness of the approval criteria is that the term "significant" is not defined within the Oregon Revised Statutes. What constitutes a significant increase in the cost of farming or a significant change in accepted farming practices?

"Significant" has been left to individual jurisdictions as well the court system for clarification. Relying on court decisions is inappropriate because the decisions that have been rendered have not provided the general guidance that is needed but rather address specific issues. The legislature should define "significant" or adopt alternative objective criteria.

Perhaps the most disturbing response was from one individual who indicated that their farming costs increased \$4000-\$5000 because of the presence of the golf course. The respondent indicated that because of the potential for a law suit from the golf course management or individual golfers who may come in contact with chemical drift, they now use chemicals that are less harmful but also less effective. Because these chemicals are less effective, they must be applied more often.

This stated increase in spraying costs must be weighed against the LUBA decision in Taber vs. Multnomah County, 11 Or LUBA 127 (1984), which found that there was no evidence to

conclude that farmers have a "right" to let their farm practices, such as chemical spraying, affect neighboring properties. As such, the farmer is accountable for his/her actions regarding the spraying of chemicals regardless of whether the neighboring use is a golf course or a farm operation.

Of the 36 respondents who have liability insurance for their farm land, only one respondent indicated that their premiums increased due to the presence of the golf course. The amount of the increase was listed as "minimal". The results indicate that the proximity of a golf course to farm land does not significantly increase the cost of liability insurance for the farmers.

The absence of insurance or legal claims filed by golf course management or individual golfers against the respondents indicates that while the fear of law suits against farmers may exist, there is no indication that this fear is warranted. Nevertheless, approval of a golf course can easily include the condition that the golf course management sign a legally binding document agreeing not to take legal action against individuals who engage in farming on surrounding lands.

The course management could also require all golfers to read and sign a similar waiver upon registering to play. This will ensure that golfers are aware that various farming practices may occur on surrounding farm land. The management

could also agree to coordinate with farmers and limit access to the course when activities such as chemical spraying and field burning occur.

Seven respondents indicated that they either had crops trampled or fences damaged by golfers. The approximate cost listed for these actions ranged from \$75-\$400 per incident. Certain measures can be taken to address these types of incidents.

The responses indicate that the biggest reason for trespassing is to retrieve golf balls. Course design should be such that errant shots are directed into the golf course rather than toward adjacent farmland. Sizable roughs should be located between the edge of the fairways and adjacent farmland. The roughs adjacent to farm land should also be designed with berms and trees in order to retain the golf balls that wander from the fairway toward private farm land. To limit access to adjacent farm land, fences should be installed along property lines and maintained by course management thus limiting trespassing and shifting the cost and responsibility of maintenance from the farmer to the course management. The course management should also establish and strongly enforce trespassing regulations.

An additional approach to limiting the damage to adjacent farmland from trespassing is the purchase of "trespassing rights". Similar to the concept of purchasing development rights from land owners, the golf course

management would offer to purchase from adjacent land owners the right to allow golfers to retrieve golf balls from their farm land. While damage would occur to the crops, the yearly fee that the farmer receives from the golf course could be structured to exceed the damages to the crops.

The results of the questionnaire indicate that, of the issues presented to the respondents, traffic safety is the dominant concern. Ten respondents provided specific incidents regarding the traffic associated with the golf course. Nine respondents indicated that they were concerned about traffic associated with the golf course.

The issue of increased traffic is one of extremes. While the likelihood of significant impact is small, should farm equipment be damaged or a fatality occur because of impatient golfers or farm equipment operators, the ramifications could very easily become "significant." In order to allow stacked traffic to pass slow moving farm vehicles on public roads, turnouts for farm equipment should be installed at strategic locations on roads leading from arterial level roadways to the golf course.

Associated with the concern of increased traffic is that of accessory uses. While the golf course will generate an increase in the level of traffic associated with the playing of golf, it could also attract individuals wishing to dine, swim, play tennis, or participate in other such functions should these activities occur on the premises. Because the

ORS do not have a definition of "'golf course", the question of golf related activities is left to the court decisions and affected jurisdiction. The legislature should define the uses that are accessory to a golf course and are permitted within the EFU zone.

The definition of golf course should intentionally limit peripheral uses often associated with golf courses to insure that they are subordinate to, and directly related to, the playing of golf. A club house should not be designed to function as an evening entertainment facility, but rather as a place for golfers to rest immediately before, during, and after play. Restaurants should be limited to the service of golfers and not operate at hours not associated with the play of golf. Driving ranges and putting greens should be restricted to those engaging in a golf lesson or to those registered to play a round of golf, thus serving as "warm up" facilities. Swimming pools, tennis courts and other athletic activities should not be permitted as they are not related to the play of golf. While these restrictions may seem prohibitive, it is important to recognize the difference between a golf related facility and the functions of a more broad based athletic club.

In order to limit the impact that a golf course may have on the farming community, site location guidelines should be created and included with the definition of golf course. While a developer would not be required to satisfy all of the

guidelines, a developer would be required to present evidence to the reviewing authority explaining why the guidelines are either not applicable or were unable to be satisfied for the proposal.

The guidelines should seek the following objectives. Golf course development should be encouraged to locate in proximity to existing population centers, thus reducing the level of traffic on remote rural roadways and potentially reducing the need to upgrade road conditions to account for increased traffic. Furthermore, siting a golf courses outside of, but adjacent to, an Urban Growth Boundary would provide permanent open space for the city or town.

The agricultural productivity of the land and the site characteristics should also be incorporated into the guidelines. A Land Evaluation and Site Assessment (LESA) model that weighs soil productivity qualities as well as the surrounding level of non-farm use would be a useful tool for identifying appropriate development sites. By siting a golf course on relatively poor agricultural soils and within an area of other non-farm uses, the cumulative impact on farming practices and the loss of "prime" farmland would be reduced. The LESA model should be based on local factors because a statewide LESA Model would not be sensitive to regional conditions.

Should the legislature adopt a program to identify and classify agricultural lands as primary or secondary, the

siting guidelines should incorporate these results. Depending on the criteria used to designate secondary lands, the LESA model may or may not be necessary for siting purposes. Therefore, the LESA model should be periodically evaluated for its appropriateness in the siting process.

CONCLUSION

The results of this study indicate that:

- Golf courses can affect farm practices as well as affect the cost of farm practices;
- These affects can be avoided or substantially reduced by the adoption of siting and design standards by the Legislature; and
- The adoption of a definition of "golf course" and the creation of clear and objective permit review criteria by the Legislature are the two most important steps in reducing the conflict between the golfing and farming communities.

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APPENDIX

GOLF COURSES IN THE EFU ZONE

1. First, do you own land that is next to or within one mile of a golf course? (Circle one number)
 - 1 NO (This survey does not apply to you, please return it in the enclosed envelope)
 - 2 YES
2. Is this land used as farm land? (Circle one number)
 - 1 NO (You have completed the survey, please return it in the enclosed envelope)
 - 2 YES
3. Is this land farmed by you, leased to someone else to farm, or farmed by both you and someone else? (Circle one number)
 - 1 FARMED BY YOU
 - 2 LEASED TO SOMEONE ELSE TO FARM
 - 3 BOTH
4. How many years have you owned the property?

Years owned _____
5. About how many acres of your farmed land is right next to the golf course, and how many of the farmed acres are within one mile of the course?

APPROX.
ACRES

- a. Farmed land next to the course . . . _____
- b. Farmed land within one mile _____

(PLEASE TURN PAGE)

APPENDIX

6. Have any of your equipment, crops, or livestock been damaged or injured by golf related activities? (Circle one number)

1 NO
2 YES

→ 6a. Please list the kinds of damage and if possible give an approximate dollar cost.

| | APPROX. <u>COST</u> |
|----------|------------------------|
| a. _____ | \$ _____ |
| b. _____ | \$ _____ |
| c. _____ | \$ _____ |
| d. _____ | \$ _____ |
| e. _____ | \$ _____ |

7. Since the creation of the golf course, have you had difficulty in maneuvering your equipment on public roads, or not? (Circle one number)

1 NO DIFFICULTY
2 YES, DIFFICULTY MANEUVERING

→ 7a. Please describe the kinds of difficulty and how often it is a problem.

APPENDIX

8. Do you have liability insurance to cover this property? (Circle one number)

1 NO
2 YES

→ 8a. Taking inflation into account, have your liability premiums stayed the same, decreased, or increased over the last two or three years? (Circle one number)

1 STAYED THE SAME
2 DECREASED
3 INCREASED

→ 8b. How much of this increase, if any, do you feel is due to the presence of the golf course?

\$ _____

9. Have you had any insurance or legal claims filed against you by the owners of the golf course or an individual golfer? (Circle one number)

1 NO
2 YES

→ 9a. Briefly describe the circumstances.

APPENDIX

10. Are any of your farming practices (including burning, use of chemicals, type of crop, etc.) influenced by the nearness of the golf course? (Circle one number)

1 NO, NOT INFLUENCED

2 YES, INFLUENCED

→ 10a. Please describe what practices are influenced and what you do differently because of the golf course.

10b. Do you feel these changes in farming practices increase the costs of farming, or not? (Circle one number)

1 NO, DO NOT INCREASE COSTS

2 YES, INCREASE COSTS

→ 10c. About how much is this increase?

\$ _____

11. Have you any other concerns about owning or farming near a golf course?

(THANK YOU FOR YOUR COOPERATION)