

Research Proposal  
for project entitled

A Comparison Between The LESA Model  
and the Marginal Lands Criteria  
of Senate Bill 237: Linn County, Oregon

Presented by

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## ABSTRACT

Marginal agricultural and forest lands are currently a focus of concern for public land use agencies in Oregon. Two alternatives for evaluating marginal agricultural lands are the Land Evaluation and Site Assessment (LESA) model of the U.S. Soil Conservation Service, and the marginal lands criteria of the 1983 Oregon Legislature's Senate Bill 237. Each of these management tools have had limited application in Oregon, but have not been compared to each other to determine their relative effects.

This study proposes to compare LESA and SB 237 by applying their criteria to the 23 case study tracts of the 1983-84 Linn County LESA study, and to a larger contiguous tract of agricultural land near Scio in northern Linn County. The study's determination of the comparative strengths and weaknesses of the two methods can be used by the Linn County Planning Department, by the Land Resource Management Program of the OSU Extension Service, and by state agencies and legislators to help evaluate the 2-year performance of SB 237, and the feasibility of using LESA as an alternative to SB 237.

## INTRODUCTION AND PROBLEM STATEMENT

Linn County, Oregon is a 2310 square mile area of the central Willamette Valley bounded on the east by the Cascade Mountains and on the west by the Willamette River. Though primarily rural, the county has urban centers at Albany, Lebanon, and Sweet Home. The 1983 estimated county population was 89,350.

Agricultural land is confined to the western one-third of the county. Most agricultural areas are characterized by fertile bottomlands and rolling uplands within the Willamette, Santiam, and Calapooia River drainages. Scattered areas of "marginal" lands have adverse conditions for agricultural use, including steep slopes, dry or unproductive soils, small properties, and conflicts with adjacent non-agricultural operations.

Oregon's comprehensive land-use planning process has four main channels to guide Linn County's efforts to preserve agricultural land, while giving special consideration to marginal lands. These channels are: 1) the agricultural goal requirements (Goal 3) of the state Land Conservation and Development Commission (LCDC); 2) the legislative mandates of the Oregon House and Senate legislative assemblies; 3) the state's judicial review of land use litigation; and 4) the subsequent policy decisions of the LCDC and its DLCD professional staff, the Department of Land Conservation and Development (Pease 1982).

Within the scope of state and national concern over protection of productive farmlands (Pease and Jackson 1979, Furuseth 1981, CAST 1981, Crosson 1982), the management of marginal farmland has become a major land planning issue in Oregon (Benner 1983). Many possible approaches for identifying marginal lands, and for assisting planners with decisions on marginal land disposition, are available to Oregon land planners. The Land Evaluation and Site Assessment (LESA) model of the U.S. Soil Conservation Service (Wright et al 1983) has been tested on 23 case studies in Linn County and found to be useful for tailoring agricultural land planning objectives to local conditions (Pease

and Huddleston 1984). The LESA process consists of two parts: land evaluation (soil quality, relative value of soils in an area, and soil suitability for agriculture) and site assessment (identification of influences other than soils contributing to an area's suitability for retention in agricultural use).

In contrast to a LESA approach to marginal lands, the 1983 Oregon Legislature adopted a marginal lands bill (Senate Bill 237) in response to a 1982 Governor's Task Force On Land Use recommendation:

"Allow rural housing as an appropriate use of marginal agricultural lands if such housing does not conflict with adjacent agricultural land use and if public services and future public costs have been considered."

(Governor's Task Force 1982)

SB 237 provides flexibility for small farm development on marginal lands. These lands are defined in the bill by their gross farm income, land capability classes, and parcel size (Benner 1983, OSU Extension Service 1983, Sixty-second Oregon Legislative Assembly 1983). These criteria attempted to satisfy a perceived need to accurately define commercial agriculture on marginal lands.

As of January 1984 at least two Oregon counties have included SB 237 criteria into their land planning process. Washington County has applied SB 237 criteria to county agricultural lands to produce a planning map showing the general areas of county land having marginal land potential (Washington County 1983). Douglas County is scheduled to issue administrative guidelines for marginal lands management by mid-February 1984. These guidelines are based on incorporation of SB 237 criteria into a quasi-judicial treatment of areas having marginal land potential.

As an alternative to SB 237, another bill of the 1983 legislature, HB 2965, directed the 1985 legislature to consider the LESA model as an alternative to SB 237 (Pease and Huddleston 1984). The experience of LESA and SB 237 applications in 1984 and 1985 will provide the basis for legislative reconsideration of these two land use tools in 1985.

This proposed study will investigate the comparative effects of applying LESA and SB 237 criteria to the LESA study areas in Linn County. Additional insight on the feasibility of county adoption of SB 237 criteria will be provided by applying SB 237 to a larger region of the county having marginal land potential.

The study, to be conducted from December 1983 to March 1984, will provide valuable information to the O.S.U. Resource Geography program, to the Linn County Planning Department, and to the state Land Conservation and Development Commission for each of their respective land resource interests in marginal lands management. Information on the relative proportions of land found to be marginal by the two management tools, on the accuracy of the results of the two methods, and on the relative workload required to apply SB 237 to the test site tract will clarify some of the strengths and weaknesses of each method. These conclusions may prove valuable to the 1985 legislature during their review of the effectiveness of SB 237, and during their consideration of LESA as an alternative.

#### OBJECTIVE

The objective of the proposed study is to provide the Linn County Planning Department, the O.S.U. Resource Geography program, and the LCDC/DLCD with information on the relative merits and difficulties of applying SB 237 criteria to the 23 LESA case studies and to a larger agricultural tract of Linn County. At the study's conclusion, this information can be used by Linn County planners to determine whether LESA or SB 237 is more appropriate for their staffing and planning resources; by the Resource Geography program to determine the feasibility of further LESA/SB 237 studies; and by state legislative and administrative agencies to assess SB 237's 2-year performance and LESA's feasibility as an alternative to SB 237.

## METHODS AND SCOPE

The first part of the proposed study, applying SB 237 criteria to the Linn County LESA case studies, will categorize each of the LESA tracts by the requirements of section 2 of SB 237. These requirements are that counties may designate land as marginal if the land meets the following criteria:

**"SECTION 2. (1) In accordance with ORS 197.240 and 197.245, the commission shall amend the goals to authorize counties to designate land as marginal land if the land meets the following criteria and the criteria set out in subsections (2) to (4) of this section:**

**"(a) The proposed marginal land was not managed during three of the five calendar years preceding January 1, 1983, as part of a farm operation that produced \$20,000 or more in annual gross income or a forest operation capable of producing an average, over the growth cycle, of \$10,000 in annual gross income; and**

**"(b) The proposed marginal land also meets at least one of the following tests:**

**"(A) At least 50 percent of the proposed marginal land plus the lots or parcels at least partially located within one-quarter mile of the perimeter of the proposed marginal land consists of lots or parcels 20 acres or less in size on July 1, 1983;**

**"(B) The proposed marginal land is located within an area of not less than 240 acres of which at least 60 percent is composed of lots or parcels that are 20 acres or less in size on July 1, 1983; or**

**"(C) The proposed marginal land is composed predominantly of soils in capability classes V through VIII in the Agricultural Capability Classification System in use by the United States Department of Agriculture Soil Conservation Service on the effective date of this 1983 Act, and is not capable of producing fifty cubic feet of merchantable timber per acre per year in those counties east of the summit of the Cascade Range and eighty-five cubic feet of merchantable timber per acre per year in those counties west of the summit of the Cascade Range, as that term is defined in ORS 477.001 (2). (62<sup>nd</sup> Assembly 1983)**

SB 237 further states that " A county may use statistical information compiled by the Oregon State University Extension Service or other objective criteria to calculate income for the purposes of paragraph (a) of subsection (1) of section 2." The 1978 Census of Agriculture for Linn County will initially be used to determine income for (2)(1)(a), and other means of determining income will be investigated.

Each LESA parcel will be categorized by one of three landforms common to Linn County agriculture: bottomlands, terraces, or foothills. Within these three classes, the 3 or 4 most common types of agriculture for each class will be located within the census tables, and average income information for designated acreage ranges will be determined.

LESA case studies satisfying the income criterion will be subjected to the remaining three marginal lands tests for soil capability/timber production and adjacent parcelization of 20 acres or less. The information for the last three criteria will be obtained through the Linn County land and soil records.

The 23 case studies will be ranked as good or marginal agriculture lands, according to their satisfaction of SB 237 criteria. This ranking will be compared to the ranking produced by the Linn County LESA model. Differences in relative rankings by the two methods will be noted, and possible reasons offered for these differences.

The second part of the proposed study will apply SB 237 to a region of Linn County near Scio (see appendix A). This area is likely to contain marginal lands (as determined by the county planning staff), and will be analyzed by a rating of the tax lots within the region according to their satisfaction of SB 237 criteria.

Both parts of the study will note the time and investigation required to categorize the lands under consideration.

The scope of this study will not include consideration of remaining clauses of SB 237 pertaining to allowable uses in exclusive farm use zones, to handling of lots of record, or to reforms of exclusive farm use zone criteria. The study area size for the second part of this investigation will be confined to a representative and manageable sample of tax lots having marginal land potential, and will reflect the need to illustrate the actual research time a county planning staff would need to invest for a similar effort.

Because of the objective nature of this study, and of land-use factors not conducive to empirical determination, extensive quantitative methods will not be used to analyze project conclusions.

#### BUDGETING

The costs required for the proposed study will be paid by the investigator, requiring no outside funding.



SCHEDULE - REPORTING

The groundwork for the proposed study was begun in December 1983, and the project will be completed by March 16, 1984. Weekly progress reports will be verbally presented to Dr. James Pease of the OSU Department of Geography. Marv Gloege, Linn County Planning Director, will be periodically informed of the study's progress. Written results of the project will be presented to the Linn County Planning Department, to the OSU Department of Geography, and to interested state and county agencies.

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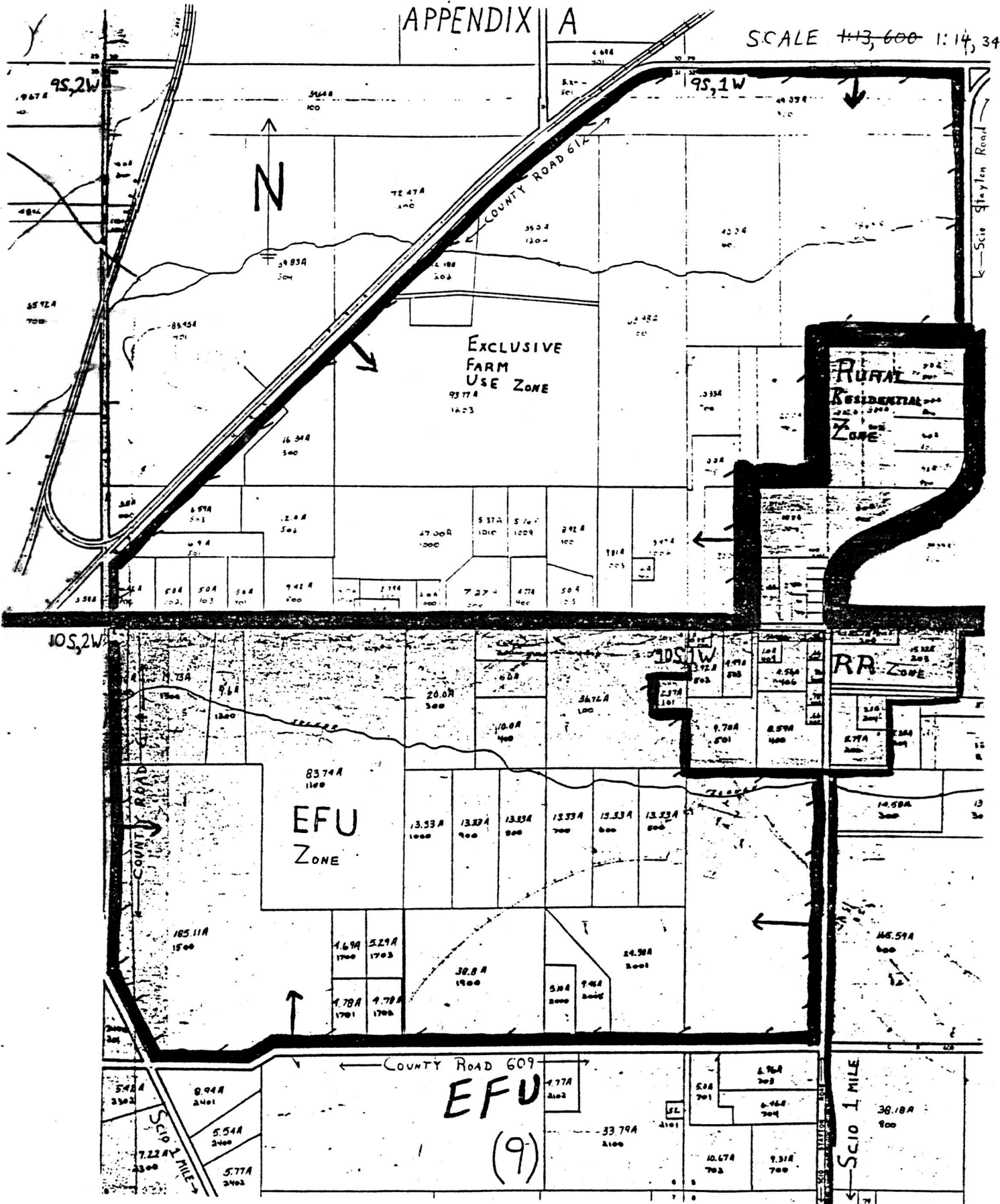
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APPENDIX A

SCALE ~~1:13,600~~ 1:14,340



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