TEXAS TRANSPORTATION INSTITUTE

TEXAS HIGHWAY DEPARTMENT

COOPERATIVE RESEARCH

EFFECT OF CONTROLLED ACCESS HIGHWAYS ON FARMS AND RANCHES 2-8-54-1

in cooperation with the Department of Commerce Bureau of Public Roads

BIBLIOGRAPHY (63-11)
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EFFECT OF CONTROLLED ACCESS HIGHWAYS ON FARMS AND RANCHES

Compiled by Texas Transportation Institute November 1963

- Road program hits all land-owners.
 Nation's Bus 45: p 62-4+, Aug 1957.
 Buying ROW will affect competition and land values and will also cause dislocations.
- 2. Lands underlying state owned highway ROW.
 <u>Texas Legislature, Legislative Council Report</u> 56-4, 1960, 33p.
 Considers whether state should lease lands acquired for highway and road construction for the development of oil, gas, and other minerals.
- 3. The relocation of residents of submarginal land to reduce cost of government services.
 Midwest J Pol Science 7: p 28-41, Feb 1963.
 Land purchase and relocation to decrease highway costs in St. Louis Co., Minn.
- 4. Right of way acquisition practices in Massachusetts.

 <u>U. S. Cong. House Comm. on Public Works</u>, 88th Congress 1st session, House Report 617, 1963, 140p.
- 5. Economic and social impact of highways.

 Pennsylvania Agricultural Experiment Progress Report
 p 1-36, 1960.
- 6. Equitable obligation when assessed irrigation district lands are taken for highway use.

 Washington Agricultural Experiment Circular 350: p 1-48, 1958.
- 7. Impacts of interstate 70 on farmers in Trego Co.

 <u>Kansas Agricultural Experiment Ag Econ Report</u> 100: p 1-42, 1961.
- 8. The economic and social effects of the Connecticut Turnpike on Eastern Connecticut.

 Storrs Agricultural Experiment Station, University of Connecticut Progress Report 28, January 1959.

This report endeavors to measure the impact that the sale of farm land for the Connecticut Turnpike has had on agricultural operations in Eastern Connecticut. Appraisals, negotiations and purchases of farm land took place in 1955 and 1956, construction followed for two years, and the highway opened to traffic in January, 1958. During the two and one half years intervening since the purchase of farmland, the owners who sold land have had an opportunity to make any necessary adjustments in their farming operations. The kind, extent, and importance of the adjustments made by these owners are analyzed in this report.

Highway development: community attitudes and organizations, H. Kirk Dansereau, John C. Frey, Robert D. Pashek.
 <u>Nat'l Research Council--Highway Research Board Preprint</u> 1963, 32p.

This paper is but one of a number completed and projected, based on data gathered and analyzed by members of the highway impact research staff of The Pennsylvania State University. The research effort, initiated by a land economist in 1958, is under his leadership and that of a transportation economist and a sociologist. The major objectives of the research, as set forth in the original proposal, included:

- 1. The measurement of economic and social changes in selected areas of the Commonwealth where highways are being constructed or improved. Included were changes in the following: (a) value of real property and capital worth of business establishments, (b) land use and tenure, (c) volume of production and retail sales, (d) farm enterprise organization and farm income, (e) commercial employment and wages of hired labor, (f) real estate taxes, (g) population, (h) levels of living and community values, (i) community organization.
- 2. The determination of which changes are attributable, wholly or in part, to highway improvement.
- 3. The correlation of changes with distance from the highway, traffic volume, and other selected measures of road service.
- 4. The determination of principles and standards for objective economic evaluation of new highway improvement projects.

To date, these research objectives have been partially fulfilled relative to three research sites, Monroeville, Blairsville, and four interchanges in the vicinity of York, Pennsylvania. Each of these sites contributed to the variety found in the overall research task. See Figures 1, 2, and 3 respectively.

This report deals almost exclusively with selected aspects of population, community attitudes toward highway development, and changes in community organization. The items are those listed above as objectives 1, g, h, and i.

10. Area redevelopment and highway transportation, David A. Grossman and Melvin R. Levin.

Nat'l Research Council--Highway Research Board Preprint January 1963, 42nd Annual Meeting, 16p,

High quality highways are one of the most important elements in economic development in modern American communities. Although good highways alone are not sufficient to ensure economic improvement in competition with other areas, they are a necessity to any area seeking to ensure its attractiveness to new industry, its ability to retain existing industry, and its overall efficiency as a place to live and work.

Highway transportation has become more important to the local and regional economy as construction of the Interstate Highway System and the extension of the ABC System has progressed. At the same time another significant phenomenon of American life has gained greater recognition; the fact that many parts of the nation have not shared fully in the general prosperity that has characterized the nation as a whole in the post World War II period. Despite periodic recessions that have resulted in temporary declines in the Gross National Product, and despite the fact that in recent years the national economy has suffered from higher rates of unemployment than are consistent with our growth-rate objectives, the past decade and a half have been years of significant gains in the American economy. During this same period a number of areas have experienced unemployment rates well above the national average and have seentheir traditional economic bases eroded.

These areas, which have frequently been referred to as depressed or distressed areas became the subject of special concern by the states and the Congress in the late 1950's. Federal legislation, the Area Redevelopment Act of 1961, provides special assistance in the form of loans, grants and other aid to help such areas in improving their economies. The Area Redevelopment Act, which reflected an increasing degree of concern for such areas by the states as well as the Federal Government, established official criteria for "redevelopment areas" and clearly stated a Federal responsibility for assistance to such areas.

It is not the purpose of this paper to examine the specific nature of the Federal Area Redevelopment program and the potential effectiveness of the wide variety of means that have been marshalled by the Area Redevelopment Administration and other Federal, State, and local agencies to help localities and regions in the transition to a sounder economy. Rather, the aim is to consider the extent to which higway transportation, and particularly the Federally-aided highway system, can be an effective instrument in assisting the kinds of economic development efforts. Toward this end, the bulk of the paper is devoted to an analysis of the major varieties of distressed areas that exist in the United States and the role that highway transportation can play in solving the problems faced by each.

For the most part, the analysis is based on previous work done by the authors as consultants to State, regional and local

agencies. Footnotes are provided in the text referring to the Bibliography which lists these previous studies and reports. The interested reader is invited to refer to these studies for a more detailed analysis of how the statements of the paper are based on specific situations.

This analysis is intended more as a first than as a last word on the subject. The precise ways in which new highways can assist in area redevelopment will undoubtedly centinue to be a subject of interest to persons concerned with the theory and practice of economic development for many years to come. In addition, the Federal and State programs in this field are still in the developmental stage, and the degree of utility of any specific form of aid is still largely a matter of conjecture, rather than of precise measurement.

11. Motorways and land use, Sir O. Williams.

<u>Chart Surveyor</u> 90: n 8, 1958, p 431-3.

<u>Contract J</u> 168: n 4103, 1958, p 769-70.

<u>Rds & Rd Constr</u> 36: n 422, p 36-8, 1958.

<u>Surveyor, Lond</u> 117: n 3432, p 101-2, 1958.

Motorway design and land requirements are outlined. land acquisition problem is discussed with reference to severance of properties, drainage and access rights, the comparative cost of retaining walls and embankments, and severance of flood plains. It is pointed out that minimizing dislocation to industries, agriculture, traffic and drainage is an intricate and lengthy process, particularly in a built-up country like Great Britain. Time of building is considered in two phases: (a) up to the date at which the route and land requirements are finally defined for the acquisition of land and property and (b) the actual construction. It is suggested that some procedure is required whereby the first phase may be carried out years ahead of actual construction without involving the Government in the immediate purchase of the property and with compensation for tenants for loss of unfettered tenure.

12. A program of highway research at the University of Wisconsin, J. H. Beuscher, Donald Heaney, Ray Vlasin and Frank M. Covey, Jr. Nat'l Research Council--Highway Research Board Bulletin 205, 1958, p 11.

Professor Beuscher: This is a description of highway research in progress and an outline of some future research hopes. We are not here reporting research findings; rather, we are focussing on research goals and methods. I have fortified myself, in this presentation, with Messrs. Heaney, Vlasin and Covey, who are all researching on highway problems, at Madison, working closely with each other, benefiting from each other's suggestions. Mr. Heaney and Mr. Covey are lawyers and their research is being financed by the Automotive Safety Foundation. Mr. Vlasin is an agricultural aconomist in the employ of the U. 3. Department of Agriculture. He is working under Professor Raymond J. Rann of our Agricultural Economics faculty.

As each of these men gives a description of the research he is attempting, note the case with which we have crossed the departmental lines between law and economics. Notice, also, that the research of each man gives emphasis to empirical findings. In the Law School we call this "law-in-action" research.

How are appraisers actually applying the black letter rules of eminent domain evaluation law? What, in detail, is the process by which highways are planned and right-of-way acquired? What voice do local people and local governments have in the process? How can some of the adverse effects of highway development upon the farming business be reduced? How can we more effectively protect both public highways and private business investment by regulating land uses on land abutting our highways? These are some of the important questions Messrs. Heaney, Vlasin and Covey are attempting to answer. After each has briefly described his work and his goals, I shall try to outline briefly some of our future plans for highway research.

13. Highways and economic development. Nat'l Research Council--Highway Research Board Bulletin 227, 1959, 88p.

This bulletin contains the six papers on the subject presented at the 38th Annual Meeting of the Highway Research Board under the sponsorship of the Committee on Economic Analysis and the Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, as follows: "Changes in Land Use and Value Along Atlanta's Expressways," "Massachusetts Route 128 Impact Study," "Land Value Impacts of Expressways in Dallas, Houston and San Antonio, Texas," "Approaches to Three Highway Impact Problems," "Some Effects of Limited Access Highways on Adjacent Land Use," and "The Land Use Map Versus the Land Value Map: A Dichotomy?"

14. Land Acquisition and economic impact studies.

Nat'l Research Council Stighway Research Board Bulletin 189,
1958, 125p.

This bulletin contains the five papers on the subject presented at the 37th Argual Meeting of the Highway Research Beased under the sponsorship of the Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, as follows: "Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas," Industrial Development Survey on Massachusetts Route 128," "Economic and Social Impact of the Connecticut Turnpike," "Methods Used to Study Effects of the Lexington, Virginia, Bypass on Business Volumes and Composition," "Tenant Relocation for Public Improvement."

15. Land acquisition--1959.

Nat'l Research Council--Highway Research Board Bulletin 232, 1959, 123p.

This bulletin contains the reports and papers pertaining to land acquisition matters as presented at the 38th Annual Meeting of the Highway Research Board. Included are the following:

"Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, " "A Review and Some New Thinking on Control of Highway Access," "A Method of Measuring Changes in the Value of Residential Properties," "Highway Planning and Protection Measures in Wisconsin: A Panel Discussion".

16. Developing concepts of land acquisition, 1957.

Nat'l Research Council -- Highway Research Board Bulletin 169, 1957, 84p.

This bulletin contains the reports and papers pertaining to land acquisition matters as presented at the 36th Annual Meeting of the Highway Research Board. Included are the following: "Report of Committee on Land Acquisition and Control of Highway Access and Adjacent Areas," "Dallas Expressway Economic Impact Studies," "Some Sociological Considerations in Highway Development," "Washing ton Highway Economic Impact Studies," "The New Land Acquisition Law of Maryland."

17. Right-of-way, 1956.

Nat'l Research Council--Highway Research Board Bulletin 140, 1956, 83p.

As in previous years, the Committee on Land Acquisition and Control of Highway Access and Adjacent Areas has summarized developments in the field of the Committee's interests during the year 1955 in bulletin form. Papers presented at the open session of the Committee during the Annual Meeting of the Board in January 1956 also are included.

Various phases of the expressway problem formed the subject of three of the papers presented. "Limiting Access to Existing Highways," by William E. Duhaime, explores the legal aspects of converting a conventional-type highway to one of expressway design. In "Regulation of Access Versus Control of Access in Oklahoma," LeRoy A. Powers relates how his state has successfully utilized the police power to control access to expressway projects. Finally, Joseph L. Intermaggio discusses the importance of relating highway planning to over-all urban planning in "Expressways and Urban Planning."

Protection of the roadside is the theme of two other papers, including "Administration of Highway Protection Laws," by Adolf Feifarek, and "The Problem of Highway Encroachments in New Jersey," by Alexander W. Muir. Feifarek discusses some new ideas in roadside protection being developed in Wisconsin; Muir outlines techniques and methods utilized by New Jersey in a recent effort to rid the roadside of undesirable encroachments.

- 18. Relations with adjacent property owners on water conservation and erosion control, S. L. Taylor. "Thirteenth Short Course on Roadside Development." Ohio State University, Columbus, 1953, pp 17-25.

 Discusses the functions and projects of the Ohio Roadside Council and its work in roadside improvement, legislation, and education.
- Effect of freeway development on adjacent land values in California, Frank C. Balfour.

Convention Group Meetings, Proc Am. Ass'n of State Highway Officials, 1947, pp 55-76.

Contains sections dealing with acquisition, limited-access and damages.

21. Consequences of highway improvement.

Nat'l Research Council--Highway Research Board Record No. 16, 59p.

The five reports contained in this book were presented at the
42nd Annual Meeting of the Highway Research Board, as follows:

"Economic Impact of Secondary Road Improvements," by Robert H. Stroup and Louis A. Vargha.

"Relation of Highway Accessibility to Urban Real Estate Values," by William C. Pendleton.

"Area Development and Highway Transportation," by David A Grossman and Melvin R. Levin.

"Parkways, Values and Development in the Washington Metro-politan Region," by J. Tait Davis.

"Highway Development: Community Attitudes and Organization," by H. Kirk Dansereau, John C. Frey, and Robert D. Pashek.

22. Highway Law Revision Developments--1962 and Reservation and Acquistion of Highway Right-of-Way.

Nat'l Research Council -- Highway Research Board Record No. 8, 106p.

Contained in this book are 5 reports on the first field and
8 reports on the second, presented at the 42nd Annual Meeting
of the Highway Research Board, as follows:

"The Federal-Aid Highway Act of 1962," by David S. Black.
"A Perspective for State Highway Law Revision Studies: New Mexico," by H. S. Wiley.

"Procedure for West Virginia Highway Laws Revision," by Marlyn E. Lugar.

"A Perspective for State Highway Law Revision Studies: Wyoming." by Mason Mahin.

"A Perspective for Law Revisors," by Charles B. Nutting.

"Jurisdiction to Regulate Utilities on Highway Right-of-Way," by James E. Thomson.

"Impact of the Highway Program on Railroad Property Right," by Walter L. Young.

"Tenant Relocation and the Highway Program," by J. Allyn Preston.

"Effect in Florida of Requiring Condemnor to Pay Condemnee's Entire Litigation Expenses," by Thomas C. Britton.

"Highway Reservations and Land-Use Controls Under the Police Power," by Daniel R. Mandelker.

"Techniques of Land Acquisition for Future Highway Needs," by G. Graham Waite.

"Use of Official Map Procedure to Reserve Land for Future Highways," by K. W. Bauer.

'Research into the Value of Landlocked Right-of-Way Parcels, by Karl S. Albrink and Joseph F. Cobbs.

- 3. Economic factors involved in proposed highway construction, W. L. Anderson.
 - Roads and Streets 85: March 1942, pp 38-44.

General economic and social benefits are gained through welldesigned, permanent highways in the stabilizing effect they have on both business and the people.

24. Economic impact of expressways, Frank C. Balfour.

American Association of State Highway Officials Proc 36th, 1950, pp 119-123.

Author reports that empirical studies have persuaded land owners and businessmen of beneficial effects of a by-pass.

- 25. How freeways increase property values, Frank C. Balfour.

 <u>Engineering News-Record</u> 145: n 15, Oct. 12, 1950, pp 44-47.

 Discussion of land values, land use, and business composition.
- Protect investment in arterial highways with control ofaccess,
 W. F. Childs, Jr.

Better Roads July 1956, p25.

Although these roads have not been opened to traffic for a sufficient length of time to make economic studies to determine their effect on property values, it is only reasonable to expect that properties will be very materially enhanced in value and there will be a tremendous increase in business.

- 27. What are the benefits of controlled access?, A. C. Clark.

 Better Roads 25: n 4, April 1955, pp 52-54.

 Stabilizes and enhances the value of abutting and other property.
- 28. Their roads buy themselves, Henry K. Evans.

 Nation's Business, Nov 1954, 6pp.

 General description of economic effects of highway construction in several areas in the U. S., especially changes in land values.
- 29. The benefits of rural roads to rural property, W. L. Garrison.

 Allocation of Road and Street Costs, Part IV, Washington State

 Council for Highway Research, University of Washington, Seattle,
 107pp, June 1956.

 Relates road type, trip purpose, and lengthof trip to land
 value by multiple regression analysis.
- 30. Increase in land values following construction of expressways, D. C. Greer. <u>Technical Bulletin No. 202, American Road Builders Association</u>, Washington, D. C., pp 1-6, 1953.
- 31. Land values before and after freeway development, Rudolf Hess.

 American City 57: n 10, Oct 1952, p 117.

 Pro and con views of change in land value and use, some undesirable aspects.

32. Economic factors affecting real estate values, Jeffrey Holbrook.

American Association of State Highway Officials Proc 40th, 1954, pp 53-59.

An independent appraiser and real estate consultant discusses these factors affecting real estate values - (1) influence of government, (2) fixed supply of real estate, (3) dependence of real estate upon personal income, (4) availability of financing, and (5) real estate is always a local market not affected by national trends.

- 33. Limited access for modern roads.
 - Better Roads, adopted from Ohio Dept of Highways booklet Limited Access for Modern Highways, p 34 (Sept 1956).

Lists ten advantages of Limited Access Highways.

34. Controlled access stabilizing influence on economic growth, Harold L. Plummer.

Better Roads, June 1956, p 25.

Benefits of access control became evident to land owners, many of whom had opposed it, after road was constructed.

- 35. Estimating damage caused by loss of access rights, Frank K.
 - Nat'l Research Council--Highway Research Board Bulletin 10, 1948, pp 36-42.

Emphasizes the following factors: (1) When accessibility is destroyed, it is seldom that it cannot be reestablished, (2) it is not conclusive that an existing access always lends value to a property, (3) damages caused by loss of access are dependent on the utility of the property, and (4) the proper formula for estimating damages is a "before and after" approach to value.

- 36. Freeways values, W. S. Young.

 <u>California Highways and Public Works</u> 30: n 9-10, Sept, Oct 1951.

 Concludes that the freeway was the principal reason for increases in property values.
- 37. Interstate Right-of-Way Acquisition and Road Closures in South Mississippi--Some Early Findings.

The University of Mississippi, School of Engineering, 1963, 89p.

This report is the third of a series resulting from the study of the effects of the controlled-access Interstate Highways on land value and land use in selected areas of Mississippi.

These studies were provided for in the agraement between the University of Mississippi, through its Engineering Experiment

Station and the Highway Department, and are being conducted by the Bureau of Economic and Business Research of the University.

The present report is an analysis of data developed in the Lamar-Forrest-Jones counties area of study along Interstate Highway 59. The analysis deals with the effects of right-of-way acquisition and road closures resulting from right-of-way requirements on land value in a period after acquisition but before completion of the Highway. Because of the phase of construction of the Highway at the date of investigation, these results can only serve as indications of trends. The final effects can only be determined after completion and after the area has experienced the Highway in use.

38. Condemnation of property for highway purposes.

Nat'l Research Council--Highway Research Board Special Report 59,
1960, 91p.

Compilation and analysis of various laws and elements of procedure to properly determine amount of money due land-owner; discussion of duties of board of viewers, commissioners, jury and judge without jury; qualifications of board of viewers, effect of its report and power of court to amend, accept or reject report are considered.

- 39. Land use and expressway, F. W. Tuemmler.

 ASCE--Proc 87: n CPl, Sept 1961, paper 2938, p 29-39.

 Both adverse and beneficial effects of expressways on adjacent areas are discussed and examples are cited; new suggestions deal with establishment of service areas for use by highway oriented services and land uses and with necessary legislative measures.
- 40. Studies of highway impact in Indiana, Progress report No. 1, Development of the studies, J. A. Fletcher and H. L. Michael.

 Joint Highway Research Project, Purdue University, June 1961, n 17, 11p.

This report discusses the development of the research project, its scope and purpose, and the procedures to be used in the long-term study. The specific facilities included in the project are listed and a brief discussion of previous studies is included.

41. Studies of highway impact in Indiana, Progress report No. 2
Early effects of a portion of Interstate 65, J. A. Fletcher.

Joint Highway Research Project, Purdue University, June 1961, n 18, 57p.

This report discusses the early effects of that portion of Interstate 65 between Lebanon and Indianapolis on travel characteristics, land use and land value. The report basically establishes a base of information from which future changes and effects can be evaluated. Few changes except to travel characteristics have as yet occurred because of the highway improvement.

42. Studies of highway impact in Indiana, Progress report No. 3, A Study of partial takings for a portion of Interstate 65, J. A. Fletcher.

Joint Highway Research Project, Purdue University, June 1961, n 19, 36p.

This report presents an analysis of the right-of-way costs including damages for that portion of Interstate 65 between Lebanon and Indianapolis. The large number of condemnations are noted and the tremendous differences between appraisals made by State and Court appraisers are evaluated and discussed. Although no solutions are offered to this problem, the seriousness of the difficulties is emphasized and further study is planned.

43. Land economic studies in Indiana.

Joint Highway Research Project, Purdue University Case Study n 15,
June 1962.

One of the most difficult and controversial problems associated with the location and construction of a highway is the appraisal of properties directly affected by the highway. Severance damages, proximity damages, and land appreciation or depreciation resulting from highway location and construction are subjects which at the present time are not possible of satisfactory and agreeable evaluation. This situation exists because of the absence of documented data as to what does occur to property which is directly affected by a new highway.

The Joint Highway Research Project at Purdue University in cooperation with the Indiana State Highway Commission and the Bureau of Public Roads, therefore, has established a research project which will document what happens in the market place to property directly affected by highway location and construction or reconstruction in Indiana. Case studies of individual properties directly affected by highway location will be reported as actual transfers occur or as land use changes. This will provide a base of historical data from which a set

of principles may be evolved which will permit accurate forecasting of affects for similar cases, that may arise in the future and which should permit more satisfactory and agreeable appraisals.

The study which is here reported is one of these case histories of actual affects which did occur to a property directly affected by an Indiana highway project.

- 44. Land economic studies in Indiana.
 - Joint Highway Research Project, Purdue University Case Study n 24, June 1962.

The purpose of this study is in exact accordance with Case Study n 15 which was prepared in June 1962 also. The property studied was different.

45. Land economic studies in Indiana, V. J. Stover and H. L. Michael.

Joint Righway Research Project, Public University September 1963,
n 28, 12p+.

The paper presents examples of the land economic studies which have been made during the past eighteen months of parcels of land involved in a right-of-way taking for a new highway location and also summarizes the findings which have been obtained from the studies to date.

- 46. Land use changes linked to highways: our highways will have greater expansion in the next five years than ever before; what this means for land users (urban and suburban pressures on farm land) Frank W. Suggitt.

 bibl Bus Topics (Mich) p 13-18, Narch 1957.
- 47. Land use in the rural-urban fringe, a case study of New Castle County, Delaware, W. M. Crosswhite and G. F. Vaughn.

 <u>University of Delaware Bulletin</u> 340, Agricultural Experiment Station and Division of Urban Affairs, July 1962, 28p.

Land use in northern New Castle County is becoming increasingly urban. Careful planning for the future becomes mandatory as urban demand for land increases and the availability of open land decreases. This study was initiated to provide information for the regional planning program of northern New Castle County.

Using a land use classification system designed specifically for the "rural-urban fringe," an inventory was conducted of existing land use and related factors. Information was obtained on all ownership units of 10 or more acres lying outside subdivisions and incorporated municipalities. An ownership unit is defined as all contiguous acreage to which an owner holds title.

There were 1,260 separate ownership units of 10 or more agrees lying outside subdivisions and incorporated municipalities in mrothern New Castle County, in 1960. They contained 109,969 agree of land or 68 percent of all land in New Castle County north of the Chesapeake and Delaware Canal.

48. Land use in Delaware, Gerald F. Vaughn.

University of Delaware Circular No. 33, Division of Urban Affairs and Agricultural Experiment Station, February 1962, 12p.

Delaware's land has been used primarily for production of food and timber since the State's original settlement in the 17th Century. Since World War II however, use of land in the State has changed rapidly. Technological advances have made possible a substantial reduction in land used for agriculture and forestry. During the 15 years from 1945 to 2009, cropland decreased by approximately 68,000 acres. Woodland (farm and nonfarm) declinedby nearly 50,000 acres.

At the same time, tremendous population and industrial growth increased the demand for housing, shopping centers and recreational areas. Many acres of land have now been converted to these uses, particularly in the vicinities of Wilmington, Newark, Dover and Seaford. Among the important effects of this activity have been rising land values and higher property taxes.

Because Delaware's land resource is limited, interest in comprehensive planning for its future use is keen throughout the three counties--New Castle, Kent and Sussex. An initial step in planning for future land requirements in Delaware involves the study of present land use. This publication is intended to help Delaware's citizens better understand existing land use conditions in the State.