Control of land use is a controversial subject in many locations. It involves a tradeoff between the rights of an individual landowner and the need to avoid adverse consequences of inappropriate land use on the population as a whole. There are a wide variety of programs used in those particular states that address this issue. Programs range from a passive approach, where land use impacts are documented in environmental impact statements, to extensive programs of growth management and land use control.

**Land Use as a Topic in Environmental Impact Statements**

The National Environmental Policy Act of 1969, Section 102, requires all federal agencies to prepare specific documentation on any action likely to impact the human environment. This documentation takes the form of an environmental impact statement. An EIS includes:

- The environmental impact of the proposed action;
- Any adverse environmental effects which cannot be avoided should the proposal be implemented; and
Alternatives to the proposed action.¹

For all major proposals, an EIS must be prepared portraying all the relevant environmental impacts. The proposing agency is required to identify possible alternatives, which are also discussed and analyzed in the EIS. The EIS is then circulated to all interested parties and the public for their review. The input from these agencies and the public is also incorporated in the final document.

Environmental impact statements are documents that can deal with the interaction between land use and transportation. They can be instrumental in defining how transportation facilities affect land use. States have adopted different approaches in dealing with land use impacts related to transportation in their EIS requirements.

The Wisconsin Department of Transportation (WisDOT) has developed seven basic “environmental screening worksheets” and several “factor sheets” that evaluate the significance of various impacts. Some of the topics covered in these worksheets are:

- **Stimulation of secondary environmental effects.**
- **Creation of new environmental effects.**
- **Impacts on geographically scarce resources.**
- **Precedent-setting nature of the proposed action.**
- **Degree of controversy associated with the proposed action.**
- **Conflicts with official agency plans or local, state, or national policies, including conflicts resulting from potential effects of transportation on land use and land use on transportation demand.**
- **Cumulative environmental impacts of repeated actions of the type proposed.**
- **Foreclosure of future options.**
- **Direct or indirect impacts on ethnic or cultural groups.**²

Basic Worksheet 7 used by WisDOT relates directly to land use and covers the following topics:

- **General Economic Impact Evaluation:** This section examines the economic characteristics of the area in which the project is proposed and evaluates the economic advantages and disadvantages of the proposed project.

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♦ **Commercial and Industrial Impact Evaluation:** In this section the commercial or industrial area affected by the proposed project is identified. The possible degree of impact is evaluated through a series of detailed questions in this regard.

♦ **Agricultural Impact Evaluation:** The land acquired for the given project is classified as crop land or pasture, woodland, wetland, yard, road, etc. This section also identifies the effects on farm operations often caused by a change in access.

♦ **Wetland Impact Evaluation:** This section identifies the extent of work proposed in the wetland under consideration, in the form of excavation, fill, marsh disposal, etc. At this stage it is also important to identify any endangered or threatened species, which either permanently or seasonally inhabit these wetlands and would likely be affected by the proposed course of action. This section further lists the various options for wetland mitigation in terms of avoidance or compensation for unavoidable loss.

♦ **Streams and Floodplains Impact Evaluation:** All streams (and in turn, all endangered or threatened species) and wetlands or other land areas likely to be affected by the proposed action are identified here.

♦ **Lake or Waterbody Evaluation:** This section identifies the waterbody affected by the proposed project. The steps to be implemented for erosion control and storm water management are also evaluated.

♦ **Upland Habitat Impact Evaluation:** This section studies the possible effects of the proposed work in the upland habitat area being evaluated and measures the extent of impact on the plant and animal life in that area.

♦ **Air Quality Impact Evaluation:** The project may often require that an air quality analysis be performed and may require a construction permit prior to actual construction.

♦ **General Sound Quality Impact Evaluation:** There may be a need for noise analysis. This section also identifies the noise abatement measures to be implemented for the action.

♦ **Unique Area Impact Evaluation:** Unique areas include public parks and recreation areas, wildlife and waterfowl refuges, historic properties, archeological sites, special coastal areas, etc. This section evaluates the degree of impact on these specified areas.

♦ **Hazardous Substances or Underground Storage Tanks:** This section identifies the parcels affected by the proposed project and possible contamination in the affected sites.

♦ **Aesthetics:** The principal objective of this section is to study the effect that this project would have on viewer groups and to avoid adverse visual effects.

The sections listed above not only identify the different effects of the proposed project on the environment, but also identify the various mitigation measures to be adopted for each of these effects.
Environmental impact statements are required for all federal actions with significant environmental impact and for similar state actions requiring federal funds or permits. In addition, many states have state environmental policy acts (SEPAst), which mimic NEPA for all state actions. For example, Wisconsin’s WEPA aims at *improving agency procedures through public involvement and participation*.

Courts have held that EISs are not binding on decision makers, but a good faith effort must always be made to document important impacts. Impacts can be either physical or social, but purely economic impacts or psychological impacts need not be included. Historically, the wide dissemination of information on the environmental impacts of transportation projects has had a profound effect on the design and implementation of these projects.

**Secondary Impact Analysis - Wisconsin**

Wisconsin provides an example of an extended environmental review of the land use impacts of transportation projects. WisDOT developed a technical reference guidance document for its districts, whereby a project’s potential to change land development patterns can be determined. The document provides general information on land use planning, development regulation, and the relationship between transportation investments and land development patterns. The document was presented to district managers in June 1997 as a guide for conducting current practices in the NEPA/WEPA process; however, none of the steps in the evaluation process is considered mandatory by WisDOT.

The framework provides analysis for assessing impacts for potentially significant actions. In defining the project study area, the size of the area can be found in several ways.

- **Traffic shed** – the entire area served by the transportation project to reach a major destination.
- **Commuter shed** – the area served by the transportation project for commuting to a major destination.

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20-Year Growth Boundary – the area expected to develop in the next twenty years.\(^1\)

Interview – ask “experts” what land area may be affected by the project.

Analysis of the indirect and cumulative effects on land development at the project level is different from local land use planning. Local land use planning merely studies and develops local goals and community vision, while project level analysis focuses on how the project alternatives affect local land use and land use plans. The guidelines provided in the reference guide are followed by local jurisdictions and consultants in the transportation planning process.

**Eminent Domain and Relocation**

Another major issue of concern with all state governments is eminent domain and relocation, that is when people are displaced from their homes, farms or businesses. Eminent domain is used to acquire private property for state or federal projects, such as construction of highways, airports and mass transit facilities.\(^2\) The agency acquiring the land is required to compensate for relocation by providing moving costs and covering the cost of renting or purchasing comparable replacement housing following several statutes.\(^3\) One such statute is the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.\(^4\) Title VI of the Civil Rights Act of 1964 relates to this topic by stating, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance.”\(^5\) This act thus protects individuals from displacement, isolation, increased or decreased accessibility during the planning and implementation of a federal project.\(^6\) At the state level, some states, such as Wisconsin, have implemented Rights of Landowners under Eminent Domain Law, which gives the affected public the right to be compensated justly for their loss. Another law that is applicable in that state is the Wisconsin Relocation Law, which requires relocation assistance and compensation to persons displaced by a public project.\(^7\)

\(^{1}\) Ibid., p. 1-4.
\(^{4}\) *Loc. cit.*
\(^{6}\) *Loc. cit.*
Scenic Easements, etc.

Scenic easements provide another way in which state agencies have control over land use that has unique characteristics. “A scenic, conservation, or historic easement is the acquisition of certain limited rights to, or interests in, real property; essentially it is an agreement between the owner of the property and the holder of the easement that the land will be restricted from certain specified uses that might compromise its scenic, historic, or other designated qualities.”¹ The agency pays the land owner for the right to control the scenic characteristics of property, keeping in mind the larger good of the community. The reasons for which a scenic easement is issued could be natural resource protection, scenic view protection, historic preservation, etc. Scenic easements are popular ways to retain the environment in its natural state or try to retain the unique character of a neighborhood. One of the outstanding examples is the Big Sur Land Trust in California where easements were issued in order to protect Highway 1 and thereby preserve the scenic beauty of the drive along California’s Pacific Coast. Generally, local agencies take the initiative in designating a road or highway as a scenic byway. A state DOT usually works in conjunction with the local agency in deciding which roads or highways should be protected.²

Open Space Preservation

State and local agencies can protect agricultural or other desirable open spaces from future development by means of protective easements or by incorporating it in the comprehensive plan for the community. For example, a desirable open space can be protected in its natural state by designating it as a park or parkway. “A parkway, which is a special unit of the National Park System, is a highway for recreational passenger car traffic with a wide right-of-way that insulates the roadway from abutting private property, minimized intersections and access points, and protects natural scenic values.”³

¹ Scenic or Conservation Easements; Final Case Study for the National Scenic Byways Study, U.S Department of Transportation, Federal Highway Administration, September 1990. p. 10.
² Adapted from Final Case Study for the National Scenic Byways Study; U.S. Department of Transportation, FHWA. September 1990.
³ Ibid., p. 16.
An example of this approach can be found in Wisconsin, where an agreement to expand Highway 12 north of Madison included provisions to purchase development rights in the corridor to protect rural areas from increased urban sprawl related to the expanded highway. A total of $15 million for land use planning and conservation land acquisition costs will be available for the 18 mile road widening project. The state will work with the Nature Conservancy to protect open space and specific natural areas as part of the agreement and will also provide staff assistance for local land use planning efforts.¹

Open space preservation programs depend on the type of land to be preserved. The following flow chart represents the hierarchy of open spaces usually protected by federal and state agencies as part of various open space preservation programs. Highest priority is given to the lands at the top of the chart, with lesser priority to lower levels. In general the trend has been to move down the list with additional programs to preserve additional land use types.

¹ Murphy, Kevin, “Agreement finally reached on widening Highway 12”, Milwaukee Journal Sentinel, March 5, 1999.