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## FINAL SCOPING DOCUMENT

Generic Environmental Impact Statement on  
Urban Development in Minnesota

Developed by the Urban Development GEIS Steering Committee

Submitted to and Approved by the Minnesota Environmental Quality Board  
December 21, 2000

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Art. 1 Sec. 108 -

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**Generic Environmental Impact Statement on Urban Development**

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## Background

The Generic Environmental Impact Statement (GEIS) on Urban Development is a statewide study mandated by the 1999 Minnesota Legislature and ordered by the Minnesota Environmental Quality Board (EQB). The legislation directs the EQB to ... "examine the long-term effects of urban development, past, present, and future, upon the economy, environment, and way of life of the residents of this state."

The study was ordered because of growing controversy surrounding urban growth and development in Minnesota. This statewide study is intended to provide Minnesotans with objective information and analysis, give them the opportunity to express their opinions and weigh future policy options, provide a full public examination of key environmental, economic, and social factors surrounding urban development and make recommendations based on this analysis.

As required by law, the EQB established an Urban Development GEIS Steering Committee to advise the EQB on the appropriate scope and content of this GEIS. Over 120 Minnesota citizens submitted applications for committee membership; 18 were appointed by the Chair of the EQB to serve in this advisory capacity. As required by law, the committee is comprised of representatives from environmental, development and agricultural interests, as well as local government officials and concerned citizens.

During the period December 1999 – July 2000, the Steering Committee met monthly to obtain and discuss recommendations from a large number of stakeholder organizations, topic experts, and citizens on what the appropriate scope and content of the GEIS should be. Appendix A in this document provides a complete list of individuals and organizations that participated in this process.

The steering committee, using these recommendations as a foundation, developed draft recommendations in August/September 2000 on what topics to include in a draft urban development GEIS scoping document. The EQB approved the Steering Committee's recommendations as a draft scoping document on September 21, 2000. The draft scoping document was made available for public review and comment during the period October 1 – November 15, 2000.

Minnesotans were invited to comment on the adequacy of the draft scoping document at a series of six public meetings in Duluth, Brainerd, St. Cloud, Rochester, St. Paul, and Mankato. Approximately 160 individuals attended these meetings. Approximately 50 stakeholder organizations, agencies, and concerned citizens submitted oral and written comments on the draft scoping document.

EQB staff, working with the Steering Committee, reviewed the public, organization, and state agency input. The Steering Committee, at its meeting on December 4, 2000, agreed to forward its recommendations on the final GEIS scoping document to the EQB. This final scoping document contains the proposed objectives and content for a Minnesota Generic Environmental Impact Statement on Urban Development.

## **URBAN DEVELOPMENT GEIS STEERING COMMITTEE MEMBERS**

<u>Member</u>	<u>Organization/Affiliation</u>	<u>Residence</u>
<b>Thomas Delaney</b>	Chisago County Commissioner	Shafer
<b>Scott Elkins</b>	Sierra Club	St. Paul
<b>Jeff Ewing</b>	Farmland Industries, Inc.	Prior Lake
<b>Michael Fischer</b>	LHB Engineers & Architects	Edina
<b>Nelson French **</b>	Friends of the Minnesota River Valley	Bloomington
<b>Daniel Hunt</b>	HuntGregory Development	Minneapolis
<b>Karen Linner</b>	Center for Energy and Environment	Minneapolis
<b>Joan Marshman</b>	Florence Township Board	Frontenac
<b>Kim McCarty *</b>	Phillips Neighborhood Housing Advocate	Minneapolis
<b>Dorothy Muffett **</b>	Entrepreneur / Management Consultant	Plymouth
<b>Thomas Owens</b>	Owens and Associates	Minneapolis
<b>Rick Packer</b>	Arcon Development	Coon Rapids
<b>Terence Quigley</b>	Shoreview City Planning Commission	Shoreview
<b>Rod Sando *</b>	U.S. Fish & Wildlife Service	Chisago City
<b>Merle Schwartz</b>	Dairy farmer; Planning Commissioner	Red Wing
<b>Russell Susag</b>	Richfield City Council	Richfield
<b>Betsy Wergin</b>	Sherburne County Commissioner	Princeton
<b>Phil Wheeler</b>	Rochester-Olmsted Planning Department	Rochester
<b>Carole Yoho</b>	University of Minnesota	Stillwater

\* Resigned – moved out of state

\*\* Resigned due to time conflicts

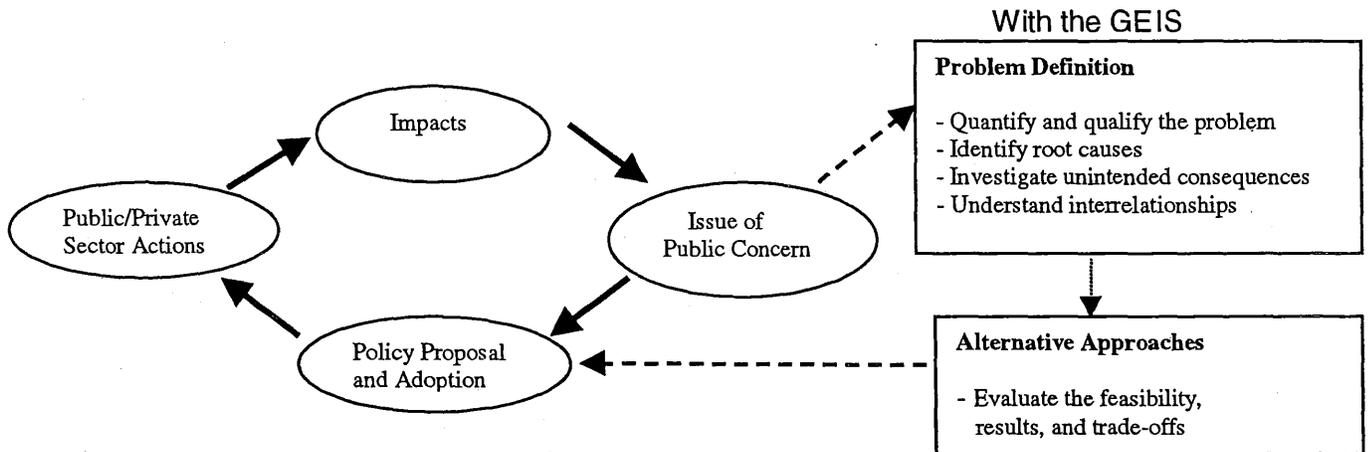
## **Introduction to the Generic Environmental Impact Statement**

### **Purpose and Value of a GEIS**

The Generic Environmental Impact Statement is an alternative form of environmental review under the Minnesota Environmental Review Program. The purpose of the GEIS as defined in Minnesota Rules, part 4410.3800 is to assess a number of separate but related activities whose aggregate impacts cannot be adequately addressed through site-specific environmental review. Moreover, the GEIS is intended to provide a more comprehensive understanding by investigating economic and social impacts as well as environmental outcomes.

The accompanying diagram illustrates the potential contribution and value of a GEIS to public policy. Government policies combined with private sector actions routinely create impacts that become issues of public concern. Subsequently, new policies are adopted to reduce or eliminate the undesirable impact. This, in turn, triggers new actions and behaviors in the public and private sectors.

### Contribution of the GEIS in Public Policy Development



In this public policy cycle, several problems can arise. New policies may be based on an incomplete understanding of the complex cause and effect relationships creating the impact. Policies may be directed at correcting the symptoms of the problem while the root causes remain unaddressed. Finally, new policies may create unintended consequences that result in new types of impacts.

The GEIS is a unique opportunity to address these potential pitfalls and improve the quality of policy-making and decision-making. The GEIS strives to define the problems and relationships accurately and completely through high quality and objective information-gathering and analysis. The GEIS also evaluates alternative ways to mitigate impacts, identifies potential consequences from pursuing these alternatives, and documents the trade-offs that would likely result.

### Explanation of GEIS Scoping

The purpose of scoping a GEIS is to reduce the size of the study in order to focus attention on those core issues and impacts that are most critical and significant. Scoping also recognizes the limits of being able to make sense out of vast amounts of information and the inevitable financial constraints that preclude the ability to study everything. It serves to focus GEIS resources on areas where a greater level of understanding and analysis is most important.

This scoping document identifies the proposed GEIS goals and objectives and the type of research necessary to achieve them.

## **Overview of the Generic Environmental Impact Statement on Urban Development**

### **Goals and Objectives of the Urban Development GEIS**

The overall goal of the GEIS is to help Minnesotans understand the issues and controversies surrounding urban development. To address this goal, the study has the following six objectives:

1. Generate an understanding of the current status of urban development in the state and the demographic and economic trends shaping future urban development.
2. Develop an understanding of the dynamics of urban development -- how market forces, regulatory and fiscal policies, and governance issues combine to create the type of urban development form and impacts recognized by Minnesota citizens.
3. Document the degree and significance of critical environmental, economic, and social impacts associated with urban development with a special attention toward the cumulative effects of impacts and causes of impacts.
4. Evaluate the strategies and alternatives being used to address impacts in order to generate an understanding of the strengths, weaknesses, inherent trade-offs, and unintended consequences of different development policies and practices.
5. Generate recommendations on actions that can increase the benefits and reduce the detrimental effects of urban development.
6. Identify ways to measure the economic, social, and environmental health of urban areas on an ongoing basis and monitor progress.

### **Relationship to Site-Specific Environmental Review and Uses of the Urban Development GEIS**

The preparation of a generic environmental impact statement on urban development does not exempt development activities from project-specific environmental review (Minnesota Environmental Review Rules, part 4410.3800 , subpart 8). Project-specific environmental review and alternative urban area wide review processes are best able to examine and evaluate the site-specific and areawide impacts stemming from development activity. A GEIS cannot replace this level of detailed analysis and investigation, nor is it intended to. However, the final GEIS will contain recommendations that prescribe the conditions and circumstances under which the GEIS will, in part or in whole, be considered as adequate for purposes of local environmental review and the conditions under which the GEIS should be updated.

The GEIS may help development planning and review processes in a number of ways. By exposing hidden cause and effect relationships in urban development, the GEIS can help make project and areawide review processes more robust. By examining aggregate impacts which occur over time, the GEIS can provide information to support local land use and fiscal planning. And by examining the influences of government policy on development form and impacts, the GEIS can provide information to support better policy decision-making at both the state and local levels.

### **Definition of Urban Development**

In this scoping document, “urban development” is not a specific activity or set of activities but rather a complex and interrelated set of policies and practices influencing how, when, and where urban growth occurs. Policies and land use regulations which guide and control development also have a potentially large influence on the type, amount, and severity of impacts which result. Thus, this scoping document uses a definition of urban development that captures both development actions and the policies and regulations that influence it.

For purposes of this GEIS, “urban development” is defined as:

the collection of forces, policies, and practices affecting the conversion of land use in and around urbanized areas<sup>1</sup> and the economic, social, and environmental conditions which result.

<sup>1</sup> Defined as incorporated areas with more than 15,000 in population and areas with population densities of 200 people per square mile in proximity to these cities (city and density criteria are taken from Laws of Minnesota, 1999, Section 108 which established the Urban Development GEIS)

### **Key Decision Criteria and Assumptions Used to Determine the Appropriate Scope and Content of the Urban Development GEIS**

The following criteria and accompanying rationale were used to prioritize topics and select questions for inclusion in the GEIS.

1. The GEIS Should Concentrate on Impacts and Topics of Significant Interest to Minnesota Citizens

To be responsive to the interests of the funders of this study – the taxpayers of Minnesota – this GEIS scoping document assumes priority should be given to those topics and issues that have been documented in public opinion surveys as urban development issues of major concern.

2. The GEIS Should Concentrate on Impacts and Topics that are Researchable and Quantifiable

Many urban development concerns are highly qualitative and subjective in nature, reflecting individual beliefs, preferences, and values. While realizing the significance of these

qualitative dimensions of urban development, the GEIS is intended to be an impartial, factually-based investigation providing the necessary information to generate a greater understanding of the nature, degree, causes, and consequences of urban development impacts. Therefore, this scoping document assumes that priority should be given to topics and issues providing reasonable certainty that an empirical investigation can be conducted and that an investigation would produce objective, high quality information and analysis.

3. The GEIS Should Concentrate on Impacts that are Cumulative in Nature and Have Regional or Statewide Significance

Many urban development impacts are local in nature and addressed by site-specific forms of environmental review (such as environmental assessment worksheets, environmental impact statements, or alternative urban area review). The GEIS is specifically designed to investigate cumulative impacts that are of regional or statewide significance. Therefore, this scoping document assumes that priority should be given to impacts demonstrating these characteristics or qualities.

4. The GEIS Should Concentrate on Impacts That are Caused by Urban Development and Can Be Influenced by Changes in Policies and Practices

Although related to urban development, some impacts are primarily the result of broad economic, social, demographic, and market forces largely beyond individual or government control. Examples would include the changing structure of agriculture and regional transfers of population growth and wealth. While these complex relationships may merit closer investigation, this scoping document assumes that the best use of GEIS resources would be to concentrate attention on those impacts that are most directly caused by and influenced by urban development policy and practice.

5. The GEIS Should Concentrate on Gathering Information That Can Be Used to Guide Future Decisions on Development Practices and Policies

Research on urban development topics and relationships can yield an abundance of new data, information and understanding. Some information would be of more value to decision-makers than other information. This scoping document assumes that priority should be given to research topics in which the information generated can be used by decision-makers and has clear and significant policy implications.

This scoping document also is based on the recognition that urban growth and development is a certainty when viewed from a state perspective. Although localities can limit or prevent new development, households will continue to form and be mobile, new housing will be created, and new employment centers will arise in the state. By acknowledging this reality, the GEIS can be a pragmatic investigation of topics of concern to Minnesota citizens rather than a body of theoretical studies.

## **Study Framework and Topics of Concern**

The proposed framework for the Urban Development GEIS research is divided into two major areas of study. Each study area contains topics of concern and accompanying questions. Questions listed under each topic more clearly define the significant aspects of each issue and, if addressed, will provide an understanding as to the impact urban development policies and practices have on the issue.

It is recognized that an abundance of local and national research already exists on many of these topics. Inclusion in this GEIS scoping document does not necessarily imply new studies are required. In many circumstances, the principal value of the GEIS will be to collect existing information and synthesize the findings into a unified understanding of urban development in Minnesota.

As a whole, the GEIS will consider a minimum urban development timeframe of 20 years in its investigations. However, the EQB recognizes that the timeframes used in GEIS research investigations may necessarily need to vary due to the nature of the topic or the type of impact. Likewise, the geographic scale of investigation used in studying certain topics or impacts may necessarily vary for scientific reasons. The EQB and the Steering Committee will work with researchers to ensure that the appropriate time and spatial dimensions for specific GEIS study investigations are used.

### **GEIS Study Area #1**

### **Characterizing Urban Development in Minnesota**

The purpose of this study area is to document the nature and dynamics of urban development in Minnesota and understand why urban development occurs the way it does. The outcome of this study area will be a better understanding of what future urban development may be in light of the demographic trends, market forces, regulatory and fiscal policies, and governance issues currently shaping it.

This study area is comprised of three topics of concern and accompanying scoping questions.

#### **A. Current Status of Urban Development Activity and Patterns in Minnesota**

1. What are the trends in new residential housing in Minnesota with respect to the following development features?
  - a. Sewered vs. non-sewered residences
  - b. Multi-unit dwellings vs. single family dwellings
  - c. Lot sizes
  - d. Ownership forms

2. What are the trends concerning the amount, rates of conversion, and productivity of the following types of land for urban development?
  - a. Land used for agriculture
  - b. Land used for forestry
  - c. Undisturbed lands / wildlands
3. What are the trends concerning the amounts and rates of property redevelopment of urban lots and parcels?

**B. Trends Shaping Future Urban Development in Minnesota**

1. What are the primary factors influencing consumer decisions on housing location and type?
2. What are the primary factors influencing commercial/office location decisions and industrial siting decisions?
3. By combining current market trends regarding development types and features with projected demographic trends regarding population, income, and household growth, what are the projections for future urban land consumption and development patterns (presuming no change in policies and practices)?
4. To what extent do urban property redevelopment rates and trends materially influence future urban land conversion projections?
5. How does the supply of land available for development (meaning vacant and properly zoned) in Minnesota urban areas compare to the demand for land in these areas?

**C. Influence of Various Policies on Land Conversion and Development Form**

1. How and to what extent does transportation infrastructure planning, financing, and development influence land conversion and development patterns?
2. How and to what extent do tax-related subsidies and development incentives influence land conversion and development patterns?
3. How and to what extent does the creation of urban service areas influence land conversion and development patterns?
4. How and to what extent do agricultural land preservation and protection policies influence land conversion and development patterns?

## **GEIS Study Area #2**

## **Understanding Urban Development Impacts and Their Causes**

The purpose of this study area is to gain an understanding of the root causes of urban development impacts. This study area will focus on quantifying and qualifying a number of different urban development impacts, explore the causes and consequences of the impacts, and investigate whether current attempts to mitigate impacts have unintended consequences creating new impacts or exacerbate existing ones.

This study area is comprised of seven primary impacts of concern and accompanying scoping questions.

### **A. Cost, Availability, and Geographic Distribution of Affordable Housing**

Many Minnesotans are concerned with the affordability and availability of housing in growing urban areas and the public costs created by constrained housing options in areas of employment growth. How severe are these impacts? Can anything be done to improve the efficiency of housing markets in urban areas? Are housing affordability and availability problems inevitable and chronic issues for growing urban areas? If so, why? If not, what are the key leverage points where changes may offer opportunities for lasting improvement?

The following scoping questions were selected to gain a fundamental understanding of the issues and dynamics affecting housing issues and urban development in Minnesota.

1. How do trends in each of the following cost components of housing compare to Minnesota wage trends?
  - a. Cost of raw land
  - b. Cost of finished lots
  - c. Cost of building labor and materials
  - d. Cost of development financing
  
2. To what extent do the following affect the affordability and availability of housing in growing urban areas?
  - a. Land use controls limiting developable land supply
  - b. Zoning regulations limiting density (effective land supply) and type of property development permitted
  - c. Local and state development regulations affecting costs of finished lots
  - d. Local and state building codes affecting cost of construction
  - e. Property tax classification and structure creating economic incentives and disincentives in housing supply
  - f. Private covenants and ordinances setting minimum floor area
  - g. Development approval process

3. To what extent does introducing lower value (subsidized or unsubsidized) housing or higher density housing in a neighborhood impact the property values of housing? How large is the zone of influence on property values created by these types of housing?
4. To what extent do the following state/ local relationships create incentives for local governments to increase minimum lot size, reduce densities, and exclude certain types of housing?
  - a. the current division of responsibilities between state and local governments for funding urban-related services (including schools)
  - b. the design and structure of local government aid programs
5. Does a geographical mismatch between affordable housing and employment opportunities impose greater public costs in the following areas? If so, to what extent?
  - a. transportation cost
  - b. workforce shortages
  - c. need for housing subsidies
  - d. drag on welfare caseload reduction

#### **B. Distribution of Growth Costs and Benefits Among Citizens**

The question of whether the beneficiaries of growth pay for the cost of growth is increasingly being debated in communities around the state. Likewise, there is growing concern that local land use and development controls can effectively “export” undesirable development impacts and their associated costs onto other communities or the region as a whole. How well does current development match costs incurred with benefits received? Is there a need for greater regional accountability in local land use planning and zoning? Can the potential tension between the fiscal interests of a community and the broader welfare of a region be reconciled?

The following scoping questions were selected to gain a fundamental understanding of economic fairness, equity, and accountability issues in urban development.

1. In development scenarios representing a range of communities in Minnesota, how are the following costs paid?
  - a. Local and/or regional sewerage systems
  - b. Collector roads and higher level streets
  - c. Local and regional water systems
  - d. Community amenities (parks, open spaces)
  - e. Schools
  - f. Stormwater management
2. To what extent does new residential and commercial development in Minnesota “pay for itself?”

- a. Does new development pay for the incremental capital cost of extending infrastructure services?
  - b. Does new development pay for the incremental operating costs of infrastructure?
  - c. Does new development “overpay” by being taxed for debt service on past development, or by paying for new amenities enjoyed by the community as a whole?
  - d. To what extent does the structure of the Minnesota property tax system influence the ability of new residential development to pay for itself? How is this ability affected by the price and the density of development?
  - e. Where deficits occur, who makes up the difference?
3. Does new population growth from development increase per capita spending levels in a community? If so, are the tax revenues from new residents sufficient to cover the higher per capita spending levels associated with that growth? To what extent does this change over time?
  4. What is the impact of restrictive zoning ordinances on relative rates of property value appreciation?
  5. Which costs of growth can be reduced for a community through restrictive zoning ordinances for housing? To what extent can they be reduced?
  6. To what extent do state aid systems adequately compensate neighboring cities and areas that are accommodating larger populations and/or higher densities for the greater amounts of public spending needed to cover these higher costs?

### **C. Cost of Urban Infrastructure**

Related to the issue of who pays for growth, the actual cost of roads, sewers and other urban infrastructure and its relationship to land use is also under greater scrutiny. Is there a relationship between patterns of development and costs of infrastructure? Are there long term fiscal impacts for communities and for the state with regard to how we develop?

The following scoping questions were selected to gain a fundamental understanding of the economic impacts of development patterns and related infrastructure investments.

1. How do the following infrastructure costs and associated maintenance costs vary with development patterns and densities?
  - a. roads and highways
  - b. sewerage
  - c. open space, parks and purchase of development rights
  - d. stormwater management
  - e. transit
  - f. utility

2. How and to what extent do multiple local land use authorities influence the cost of providing urban infrastructure?
3. How large is the existing maintenance deficit for urban infrastructure in Minnesota and how will this deficit change in the future given current infrastructure development patterns and trends?
4. What are current trends in the marginal (incremental) cost of road capacity expansion? How does the marginal cost compare to the average cost of new construction?
5. To what extent do state aids or state managed funding systems for infrastructure distort the true cost of urban development or enable less economically efficient forms of development?
6. How do the direct and indirect costs of on-site sewage treatment vs. sewer development compare? What are the trends and costs of retrofitting on-site septic to urban services and to what extent are retrofitting costs influenced by land use planning and controls?
7. To what extent are potential savings in infrastructure-related costs resulting from greater land use density offset by higher urban development costs associated with higher densities?

#### **D. Urban Mobility**

Urban mobility covers a number of urban development concerns such as congestion and commuting times, economic health and growth, urban air quality (including such issues as carbon monoxide, air toxins, carbon dioxide, particulate matter), the ability of those who do not own cars to have access to life necessities, and general quality of life issues for citizens. What are the critical cause and effect relationships between transportation form and these areas of concern? How significant are the current impacts? To what extent are land use and development forms potential avenues for improvement in these areas?

The following scoping questions were selected to gain a fundamental understanding of the relationship between urban development and urban mobility issues and impacts.

1. How do current trends in urban commuting times compare to historical trends?
2. What is the relationship between urban mobility and air quality? How and to what degree do each of the following contribute to urban air quality issues?
  - a. Vehicle miles traveled
  - b. Length and frequency of vehicle trips
  - c. Type and maintenance of vehicle
  - d. Mode choice

3. What kind of change in travel modes or new road capacity is needed to maintain or improve congestion levels?
4. To what extent do different urban development forms materially alter driving behavior and vehicle miles traveled?
5. To what extent do different urban development forms affect the amount of energy used in transporting people, goods, and services?
6. To what extent are road capacity issues adversely affected by deficiencies in transportation pricing?
7. To what extent would increased transit capacity affect the following transportation-related impacts?
  - a. Urban congestion
  - b. Economic development
  - c. Enabling welfare to work

#### **E. Groundwater and Surface Water Quality, Quantity and Availability**

Historically, the quality of state water resources and access to them played an influential role in settlement. Today, the amenities, economic benefits and quality of life they provide continue to attract development interest and attention. Ensuring their continued health in light of development pressures is an issue of interest to all Minnesotans. How influential is urban development on state water quality? What aspects or dimensions of urban development demonstrate the greatest potential threats?

The following scoping questions were selected to gain a fundamental understanding of the relationship between urban development and water quality and availability issues.

1. What are the trends in river and stream water quality in and flowing from Minnesota urban areas? Is river and stream water quality improving, declining, or remaining constant?
2. What are lake water quality trends in Minnesota urban areas? Is lake water quality improving, declining, or remaining constant?
3. To what extent are declines in surface water quality a function of urban development activity as opposed to other activities (such as agriculture)? What types of biological or chemical degradation are most prevalent in urban surface waters? To what specific aspects of urban development can this degradation be linked?
4. To what extent is urban development in Minnesota occurring in areas of potentially high susceptibility for groundwater contamination?

5. What is the influence of urban development on groundwater recharge and depletion rates? Given the interrelationship between groundwater recharge and surface waters, to what extent does urban development affect hydrological systems in the state?
6. How does the influence of urban development compare with other activities with respect to declines in groundwater quality and availability?
7. How do the water quality impacts of on-site sewage treatment based development and sewer development compare? How do the water quality impacts change in the transition from on-site septic to urban services?
8. What water-related impacts stem from lack of stormwater management in rapidly growing areas adjacent to municipalities? If they exist, how severe are these impacts?

#### **F. Ecosystem Integrity**

Minnesota's natural ecosystems offer a rich diversity of plant and animal species as well as a number of critical services necessary for human health and welfare. To what extent does current development affect the function and biological integrity of Minnesota ecosystems? Can development be pursued in a way that contributes to ecosystem function and health rather than detracts from it?

The following scoping questions were selected to gain a fundamental understanding of the relationship between urban development and ecosystem integrity.

1. What are the impacts of urban development on native plant communities and associated fish and wildlife? How many and which threatened or endangered species in the state are categorized as such specifically due to urban development pressures? How does the severity of these impacts compare with those arising out of other land uses?
2. To what specific urban development-related activities can these negative impacts be linked (for example hydrological changes from development, introduction of non-native species, etc.)?
3. How much land having distinctive biological or ecological qualities is subject to land conversion and development activity?
4. How and to what extent does urban development influence the following ecosystem services?
  - a. Soil stabilization and waste assimilation
  - b. Climate modification / climate stabilization
  - c. Natural water treatment and storage by lakes, rivers, and wetlands

5. What is the economic value of ecosystems disrupted by development? How much public and private sector spending occurs to replicate these services in areas where they have been materially altered?
6. To what extent can different development densities and forms have a material influence on the provision of these services?

### **G. Agricultural Land Conversion**

Land conversion from agricultural uses to urban related uses is a controversial topic generating attention among many Minnesota citizens. What implications does the conversion of agricultural land in the state have for agricultural production and for viability of agricultural practice near urban areas?

The following scoping questions were selected to gain a fundamental understanding of the relationship between urban development and agricultural activity.

1. What is the agricultural production capacity of land being converted to urban development uses in Minnesota?
2. What are the dynamics of agricultural land conversion in Minnesota? Does the existence of non-farm development in a fringe area create a “zone of influence” which triggers higher amounts and rates of agricultural land conversion over time?
3. What are the effects of land conversion on the fringe with regards to the continuing viability of agricultural operations? What are the thresholds of non-farm development that may make agriculture use no longer economically viable?

### **Evaluation of Urban Development Alternatives**

Following the completion of the research and analysis, the EQB, with input from the Steering Committee, will identify and evaluate alternative approaches for urban development. These alternatives will be comprised of different combinations of urban development policies and programs. The approaches might include alternative strategies regarding land use control, different pricing strategies, different forms and strategies for government aid and assistance programs, different tax policies, different urban infrastructure investment strategies, and different strategies for development incentives.

Specific urban development alternatives will be developed only after the GEIS research phase has identified to what extent and why desirable urban development outcomes are not being realized to a greater degree in current urban development practice.

Urban development alternatives will be evaluated on the basis of how well they achieve the urban development outcomes listed below. Alternatives will also be evaluated for their economic and technical feasibility, and for the urban development trade-offs and consequences likely to occur from their implementation.

### Framework for Evaluating Urban Development Alternatives

Desirable Urban Development Outcome	Key Ideas
Future urban development features improved housing opportunities for all urban area residents	Improved affordability, greater choice, and more locational options
Future urban development features fair distribution of growth costs and benefits among citizens	Benefits realized are proportional to costs incurred  Greater accountability for costs and impacts imposed onto other communities or region because of local land use and development regulations
Future urban development features the preservation and enhancement of ecosystem functions in urban areas and the preservation and restoration of native ecosystems	Type and amount of development is compatible with the environmental conditions and capabilities of the area  Critical habitat and unique biological qualities are preserved in urban development activity and enhanced where possible
Future urban development features energy efficient communities with ready access to jobs, goods, and services.	Better urban mobility, reduced congestion
Future urban development maintains and/or improves the quality and quantity of surface water and groundwater	Water quality and quantity not adversely affected by development  Water-related recreation and aesthetics not adversely affected by development.  Water quality enhanced or improved through land conversion / development process
Future urban development features vital and strong central cities	Core cities are economically competitive and attractive places to live and work

## **Preliminary Budget for the Urban Development GEIS**

Based on previous experience with the Timber Harvesting and Animal Agriculture GEIS investigations which featured a similar depth and breadth of investigation and number of questions, it is estimated that the completion of the Urban Development GEIS would require between \$2.5 - \$4 million. Currently project staff is working to develop estimations of various elements of the study, and more detail will be available in early February. The following estimates, however, have been gathered on critical interim pieces of the GEIS.

### **Literature Synthesis**

**Estimated Budget: \$300,000**

An extensive research base already exists on many of the questions included in the GEIS. As in previous GEIS investigations, the necessary first step is to collect the information and analysis which already exist within various agencies and organizations on topics and questions identified in the study. This literature synthesis adds additional value by connecting individual, unrelated studies in ways that provide new understanding of urban development impacts and relationships.

Similar literature syntheses were an essential first building block for both the timber harvesting and the animal agriculture GEIS investigations.

The estimated budget is based on previous GEIS expenditures and on the fact that the Urban Development GEIS features a roughly equivalent breadth of investigation and number of questions.

### **Investigation into the Fiscal Accountability of Urban Development in Minnesota**

**Estimated budget: \$400,000**

This interim piece would focus on economic impacts of urban development -- specifically the combined effects of local land use controls and state finance and spending programs on the costs of growth. The focus of this investigation would be on those areas in Sections B & C of Study Area #2 relating to how the state currently influences the economics of urban development and the degree to which local land use controls and subsidies effectively "export" costs of growth onto other state taxpayers.

The nature of the investigation would require the creation of urban development cost functions and an examination of how urban infrastructure costs vary with land use and density patterns. Studies have been done by non-profit organizations in the state using similar types of methodologies. Based on these studies, the estimated cost of completing this element of the GEIS is \$400,000.

**Investigation into Cumulative Environmental Impacts of Urban Development in Minnesota**  
**Estimated budget: \$350,000**

This interim piece would focus on the aggregate environmental impacts of urban development in light of current and future development trends. The focus of this investigation would be on those areas in Sections D, E & F of Study Area #2 relating to environmental impacts which extend beyond the reach of site-specific environmental review and alternative urban area-wide review. Based on historical experience with the timber harvesting GEIS on assessing impacts of this nature, the estimated cost of completing this element of the study is \$350,000.

**Tentative Outline for the Urban Development GEIS**

**I. Background**

**II. Description of Urban Development in Minnesota**

Information and conclusions in this section will be based on the research findings of Study Area #1

**III. Analysis of Urban Development Impacts and Their Causes**

Information and conclusions in this section will be based on the research findings of Study Area #2

**IV. Evaluation of Urban Development Alternatives**

Urban development alternatives will be developed based on GEIS research findings. Evaluations will examine how well the alternatives achieve the list of 6 desirable urban development outcomes, their respective economic and technical feasibility, and the development trade-offs and consequences stemming from their implementation.

**V. Recommendations**

The study will generate recommendations on actions that can increase the benefits and reduce the detrimental effects of urban development.

**VI. Future Research Needs**

**VII. Appendices**

## APPENDIX A

### List of Agencies, Organizations, and Independent Experts Presenting Oral or Written Scoping Recommendations to the Urban GEIS Steering Committee January – June, 2000

#### State Agencies (recommendations were not identified as official agency positions)

Department of Agriculture	Department of Transportation
Department of Health	Housing Finance Agency
Department of Human Services	Minnesota Pollution Control Agency
Department of Natural Resources	Minnesota Office of Environmental Assistance
Department of Trade and Economic Development	Department of Commerce / Public Service

#### Stakeholder Organizations

Alliance for Metropolitan Stability	Minnesotans for an Energy Efficient Economy
Builders Association of the Twin Cities	Minnesota Transportation Alliance
Citizens League	Minnesota Trust for Public Land
Institute for Local Self Reliance	Transit for Livable Communities
National Association of Industrial and Office Properties	American Farmland Trust
Minnesota Farm Bureau	Minnesota Farmers Union
Minnesota Fish and Wildlife Legislative Alliance	Preservation Alliance of Minnesota
Sierra Club	

#### Local / Regional Government

Metropolitan Council  
Association of Metropolitan Municipalities  
Association of Minnesota Counties  
Minnesota Association of Townships

#### Academic/Other Experts

Dr. John Adams	University of Minnesota
John Herman	Faegre & Benson (recommended by MN Chamber of Commerce)
Dr. Hal Lofgreen	Minnesota Economic Development Center
Dr. Gerald McCollough	Center for Transportation Studies
Dr. Steven Taff	University of Minnesota
Wendell Cox	Wendell Cox and Associates

Also received were comments from 16 applicants to UD GEIS Steering Committee who were not chosen to serve as members and from 58 citizens responding to surveys.

## APPENDIX B

### Memo to the EQB Regarding Steering Committee Member Responses to Public Comment on the Draft Scoping Document

To: Members of the Minnesota Environmental Quality Board

From: Mark Haveman, Urban Development GEIS Project Manager

Date: December 21, 2000

Re: Committee Responses to Public Comment on the Draft Scoping Document

From October 1 to November 15, Minnesotans were invited to comment on the adequacy of the Urban Development GEIS draft scoping document. Approximately 160 individuals attended a series of six public meetings held in Duluth, Brainerd, St. Cloud, Rochester, St. Paul and Mankato. The draft scoping document was also made available for public review online via the EQB website. Hardcopies were sent to interested individuals and distributed at various events. Overall, the Steering Committee received oral and written comments from approximately 50 organizations, agencies, and concerned citizens regarding the content and adequacy of the draft scoping document.

This memo describes the response of the Steering Committee to topics and issues which generated the greatest amount of public and organizational comment. Modifications made to the scoping document by the committee in response to these concerns are also discussed.

A number of other changes were incorporated into the final draft based on the public review process. However, these changes were primarily editorial in nature to sharpen the focus and intent of a question, were relatively minor, and are therefore not described in this memo.

#### GENERAL COMMENTS

**General Tone and Tenor of the Document:** A significant number of comments criticized the scoping document for being too passive and/or recommended questions which explicitly or implicitly advocated a particular urban development agenda. The committee believes that the GEIS needs to be a dispassionate, objective analysis of urban development issues, impacts, and relationships. When possible, questions and issues were rephrased in ways to make them amenable to factual investigation but in many circumstances such "advocacy" questions were excluded from the scoping document.

**Overemphasis on Policy:** Some reviewers criticized the scoping document for paying too much attention to urban development policy issues. These reviewers noted that the GEIS is intended to be concerned about effects and suggested that urban development policies should not be subject of the GEIS process.

It is important to note that the enabling legislation creating the Urban Development GEIS (Laws of Minnesota 1999, Section 108) says that the study may address "the roles of various units of government in regulating various aspects of land use decisions."

In addition, the committee believes that it is fundamentally impossible to separate effects from policies and it would greatly reduce the potential value of the GEIS if this were attempted. Urban development impacts are largely policy impacts because how, when and where development occurs is profoundly influenced by a complex web of state and local policies – land use regulations and zoning, infrastructure expansion, development codes, development incentives and tax policy, to name a few. The nature and form of urban development today is, in large part, a direct function of the complex policy context surrounding it. To examine impacts without attempting to understand the causes or reasons for their existence would provide information of little value and may further exacerbate problems by triggering policy “solutions” which miss their intended targets.

**GEIS Rule Requirements Regarding Identification of Urban Development Alternatives:** Reviewers noted that EQB rules state that the scoping document “shall contain the alternatives that will be addressed” and criticized the scoping document for putting off the selection of alternatives. The committee response is that there is both precedent for delaying the selection of alternatives (animal agriculture GEIS) and a logical reason for doing so. By undertaking the research and exploring the systemic relationships in urban development, the key leverage points in urban development practice will be better understood and a much more robust set of alternatives can be constructed. The committee did make some modifications to improve the clarity of this section and provide readers with a better understanding of the types of elements likely to comprise future “urban development alternatives.”

**Approach to Developing Urban Development Alternatives:** A related set of comments expressed concern with the proposed strategy to evaluate urban development alternatives. These reviewers typically advocated defining urban development alternatives based on specific urban development forms and features (for example high density, transit-oriented development versus traditional low density, auto-oriented development).

While fully appreciating the appeal of such a comparison, the committee chose not to recommend this strategy for two reasons. First, committee members who had been involved in these types of investigations identified significant limitations to this approach. In particular, only highly simplified and very generalized analyses can be carried out. More importantly, it was seen as a largely theoretical exercise because a single urban development form is unlikely to encompass all new development. Finally, it would be difficult to gain any understanding of how Minnesotans would achieve or create this new reality even if it were possible.

The committee continues to recommend that alternatives be based on alternative combinations of policies and programs which influence development activity. By doing so, the GEIS would add greater value to policy debates and would be a much more practical form of investigation.

**Definition of Urban Development:** The most frequent criticism of the scoping document was the definition of urban development imposed by the Legislature on the GEIS. Many individuals and organizations criticized this definition noting it excludes future urban growth areas in Minnesota and undermines the ability to examine impacts of regional and statewide significance, such as environmental protection.

The committee does recognize that some GEIS questions dealing with land use features, conversions, and natural resource inventories may be constrained by this legislative definition to the potential detriment of the study. However, the committee also concludes that the population/density criteria is not a significant issue in many circumstances within the GEIS. Most of the topics, issues and relationships included in the scoping document are ubiquitous in urban development and exist in any urban development context regardless of population size or density.

The committee recommends that the EQB encourage the Legislature to allow more flexibility in the definition for data gathering investigations into natural resource, land conversion and environmental protection issues.

**Urban Development Timeframe Examined in the GEIS:** Several commenters expressed concern over the lack of an explicit time horizon to serve as the basis for GEIS research. As described on page 7, the committee now recommends a minimum urban development timeframe of 20 years in the investigations but that flexibility be allowed to expand this if the issue or impact warrants it.

### NOTABLE TOPICS

**Agricultural Impacts:** Many reviewers expressed concern over the omission of agricultural impacts from the initial draft scoping document. In response, the committee added a new section in Study Area #2 devoted to agricultural impacts and added a question in Study Area #1 concerning the impact of agricultural protection policies on urban form and development.

However, the committee recommends limiting the scope of this section to questions that provide a factual understanding of the dynamics and production implications of agricultural land conversion around urban areas. While recognizing and respecting the opinions many commenters expressed in “near-urban” agricultural preservation, the committee members were reluctant to treat agriculture as a special class of economic activity within the GEIS. Moreover, the committee believed that separating the urban development influences from the impacts arising from transformations taking place in the agricultural industry would be an exceptionally difficult task.

The committee recommends that the GEIS investigations on agriculture be limited to fact-gathering on agriculture land conversion dynamics, amounts, and production implications and let political processes use this information to debate whether these impacts are in fact “problems” needing attention.

**Commercial/Industrial Development:** Several commenters expressed concern with the relative absence of commercial/industrial development issues. In response, the committee added a question to help understand major trends and factors influencing commercial and industrial siting decisions to complement existing questions on whether commercial/industrial development “pays for itself.”

**Urban Redevelopment:** In response to public comment, the committee added a question to attempt to quantify how much influence urban redevelopment rates and trends have in materially influencing rates of ex-urban land conversion. However, the committee believes that contrary to the perceptions of some reviewers, urban redevelopment is included throughout the scoping document. The impacts and issues contained in the scoping apply generally to property being developed whether it be the first, second, or third time.

**Public Health / Safety Issues and Services:** Several commenters expressed concern that direct public health impacts stemming from issues like air pollution and related impacts such as access to health care and emergency services were not included. With regard to direct health impacts, the committee saw the GEIS playing a critical role in examining the relationship between urban development and amounts/exposure to human health threats but the actual human health implications stemming from this exposure being outside the scope of the GEIS.

While recognizing that urban development form is linked to access to health and emergency services, this committee refrained from including these on the basis that different preferences for levels of services

exist in different communities and individuals can choose to live in places featuring the type and level of services they desire.

Similar committee concerns arose in response to reviewer comments on other public health consequences such as obesity due to auto dependence, mental health issues, and stress from urban living. In issues like these, the committee concluded that impacts are not a function of "urban development" but rather a function of the response of individuals in an urban context. The committee recommends refraining from addressing impacts that are significantly influenced by personal behavior and choices.

**Fragmentation of Land Use Authority:** The committee added two questions concerning the economic and environmental implications of multiple land use authorities.

**Concentration of Poverty:** The committee appreciates the concern expressed over concentration of poverty issues and acknowledges it as an important urban affairs issue worthy of more investigation. The committee split evenly on including "integration of neighborhoods and schools" as a desirable urban development outcome for evaluating future urban development alternatives.

However, the consensus decision under the committee's ground rules was that this phenomenon is more the result of complex and often uncontrollable social and market forces rather than "caused" by urban development and settlement. Therefore, for purposes of this GEIS, the recommendation of the committee is to address the issue in terms of geographic distribution of affordable housing and improved access to higher quality urban amenities.

## SUMMARY

Exclusion of a topic or question from the scoping document does not mean that the committee considered it unimportant. In many circumstances, the committee believed questions and issues raised in review may indeed deserve further investigation but felt that the GEIS was not the appropriate vehicle to collect this information.

Expanding further on the criteria and assumptions used to make scoping decisions for the Urban Development GEIS, the committee recommendations are based on two primary ideas:

- Be true to the concept of a *generic* environmental impact statement by focusing on issues that are common to all urban areas of Minnesota and which have a strong state dimension to them (either state actions affecting local development or state interests affected by local development). Refrain from topics having a strong location or site-specific orientation to them or non-cumulative impacts which are primarily addressed by local mitigation and management efforts.
- Be conscious of the usefulness of information generated and refrain from including topics and questions which could not be seen to have direct usefulness for decision-making on urban development policy or practice.