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ENVIRONMENTAL QUALITY

THE STATE'S ROLE
IN
LAND USE PLANNING

A report by
The Citizens Advisory Committee for the
Environmental Quality Council

December 1974

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ERRATA SHEET

THE STATE'S ROLE IN LAND USE PLANNING
A report by the Citizens Advisory Committee

page iii - recommendation three should read as follows:
"The State should consider creation of a different structure for an environmental quality council to perform the functions now handled by the EQC except for the coordination of State agencies. Such a council should consist of a citizen board appointed by the Governor which could oversee the State-sponsored land use planning programs (shoreland, floodplain, critical areas, power plant siting, wild and scenic rivers) and the environmental impact statement process."

page iii - recommendation five should read "The State should consider centralization of its land use planning process in a single agency, such as the proposed structure of EQC."

page 5, paragraph 2 should read: An EIS should be required for all actions where there is a potential for significant environmental effect, since such actions will be, by definition, "major governmental actions" or "major private actions of more than local significance."

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INTRODUCTION

The Citizens Advisory Committee (CAC) for the Environmental Quality Council (EQC) is composed of eleven citizens from throughout the State of Minnesota appointed by the Governor, one from each of the eight congressional districts and three at large. The CAC is charged by the Legislature:

a. to review and appraise the various programs and activities of the state government in light of environmental quality concerns for the purpose of determining the extent to which such programs and activities are contributing to state environmental policies and goals;
b. to hold meetings throughout the state as it deems necessary for the purpose of gathering information on public and private opinions concerning the adequacy of the state's environmental quality policies in the extent to which these policies are being implemented;
c. to give advice and counsel to the council; and
d. to make recommendations to the governor, legislature, and the public on or before December 31 of each year regarding any needed state policy or program changes to foster and promote the improvement of environmental quality.

(Minn. Stat. Sec. 116C.05, Subd. 2)

The CAC thus fulfills functions not otherwise carried out by EQC, particularly conducting of meetings throughout the state and review of issues which do not come before the EQC under specific EQC programs. This report is the CAC's first effort to provide recommendations to the State on necessary program or policy changes to improve the quality of the environment in Minnesota.

The Committee has narrowed the focus of this report to environmental decision-making, particularly as it affects land use planning, the area which the Committee feels is currently most controversial and deserving of attention. The Committee met on one day each week for five successive weeks with numerous experts both inside and outside state government and considered the following topics:

1. The environmental decision-making process and the Environmental Impact Statement Program;

2. Data collecting and dissemination systems currently operated or being planned by the State;

3. The land use planning needs and activities of local units of government;

4. Existing land use planning programs of the State including power plant siting, critical areas, shoreland management and wild and scenic rivers;

5. Long range land use planning activities of the State, including programs of the State Planning Agency and the Coastal Zone Management Work Group.

All Committee members were invited to attend these work sessions and each Committee member received copies of the minutes. After each work session, the participants drafted preliminary conclusions and recommendations to be included in the final report. The final report was drafted by the primary attendees at the work sessions: David Clark, Shirley Hunt, Alice Keller and Charles Dayton, and approved by the full Committee on January 7.

The narrative portion of each section of the report represents an attempt to convey information presented at the work sessions about state programs presently underway. Subjective material has been limited to the Conclusions and Recommendations of each section.

In making recommendations, the Committee has dealt with concepts, and has not included specific detailed proposals for the implementation of these concepts. Recommendations which have been included were approved by a majority of those present at the January 7 meeting. Where a different opinion was expressed, a minority report is given. Major recommendations are summarized below.

MAJOR RECOMMENDATIONS

- The Environmental Impact Statement Process, now the sole responsibility of the Environmental Quality Council, should be decentralized to appropriate state agencies and local units of government.

- An Environmental Hearings Board should be established to hear appeals relating to the Environmental Impact Statement Process.

- The EQC structure should be changed from an interagency and citizen body to a citizen board appointed by the Governor.

- The State should greatly accelerate its efforts to collect, index and standardize natural resources data.

- The State should consider centralization of its land use planning process in a single agency, such as the citizen board structure of EQC.

- The State Legislature should provide land use policy and direction to state agencies and local units of government.

- More funding and expertise should be provided by the State to local units of government for the land use planning responsibilities delegated to them.

- The State should provide guidelines to aid local units of government in making land use related decisions.

- The State should prepare a land suitability plan to aid local governments in making decisions. Such a plan would not dictate the uses to which land could be put, but would inform local governments of the uses for which land areas of the State are best suited, based upon their natural resource characteristics.

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The Citizens Advisory Committee gratefully acknowledges the time and information which these people shared with those working on the report.

Special thanks are due to Laurie Perry for her work in coordinating and drafting the report.

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Section I

ENVIRONMENTAL IMPACT STATEMENT PROCESS AND ENVIRONMENTAL DECISION-MAKING

The Environmental Impact Statement Process

Under the Minnesota EIS Process, established in the 1973 Environmental Policy Act, 82 actions have come before the EQC; 54 environmental assessments and 15 environmental impact statements have been required to date. The subjects of the EIS's include Inland Steel (taconite plant), Cedar-Riverside (urban renewal project), INCO (site-specific copper-nickel), Copper-Nickel (region-wide and industry-wide), two transmission lines (MP&L-Warroad to Hibbing, NSP - Manitoba to Sherburne) NSP Henderson Power Plant Proposal (may be replaced by Sherburne County Plant Proposal), North Park Golf Course in Fridley (proposal defeated in recent referendum), Opus II (residential/ commercial/industrial development), St. Croix Riverway Management Plan, Cedar Avenue Bridge (across the Minnesota River), Minnesota State Zoo (including periphery), Kamper's Resort (tentative order pending approval of plans by DNR and PCA), Saganaga Lodge (condominium development on private land within the BWCA), Milepost 7 Tailings Facility (Reserve Mining Co.). Two of these relate to mining, three to power plants and three to residential developments. Six of these impact statements would have been required under federal regulations.

Requests for EIS's are brought to the EQC in 4 ways:

1) Petition signed by 500 citizens

2) Mandatory assessment category (MEQC 25 (b)(2))

3) Request from a proposer for determination of need for an EIS

4) EQC itself requests (e.g. matters which are brought to attention of an EQC agency in its permit process)

All parties concerned and the EQC Technical Representatives are notified, and usually an environmental assessment is ordered, except in the instance of a request from a developer for determination on a project which does not fall in the mandatory category and does not warrant special EQC consideration. Mandatory assessment actions are usually brought to the Council's attention through local units of government or through state agency permit processes. An educational process for local units of government is growing; sessions have been held with the Association of Counties and the League of Municipalities, and rules and regulations have been sent out. Concerned citizens have also brought mandatory assessment actions to the Council's attention.

Once an action is to be considered by the Technical Committee, notices are sent to all interested persons and to local units of government. Whenever a petition has been received, an assessment has been ordered. While regulations say a petition must be accompanied by material evidence that an action is a major governmental action or a major private action of more than local significance and that the action has the potential for significant environmental effects, the petition itself has usually been regarded as material evidence. When an action which is not in the mandatory category and which is not the subject of a petition appears to have potential for significant environmental effects, EQC staff checks with technical staff of appropriate member agencies and would then bring the matter to the Technical Committee and EQC, if that seems necessary.

Usually the decision to require an environmental assessment is quite straightforward. The preparer of an assessment is provided with guidelines. The difficult decision comes after the assessment is received, when the Council must decide whether an impact statement should be required. Included in that determination is consideration of the adequacy of the assessment. One assessment so far has been returned to the preparer as inadequate, with an expanded assessment to be prepared by the County. (International Realty Environmental Assessment, Aitkin County). Staff and Technical Committee make recommendations to EQC, but have no decision-making power. The Technical Committee deliberates and usually makes a recommendation. If a consensus is not reached, sometimes the staff will make a recommendation, or no recommendation will be made.

The role of local governments is somewhat unclear. Environmental impact statements are still not an integral part of their planning process. Local autonomy must be considered, and there has been resentment of a state body's, EQC's, involvement in local decisions. The EQC's workload is increasing; the last two meetings have lasted all day, and involvement in many local issues seems infeasible in the long run.

Minnesota's EIS Process Related to Those of Other States

Haworth and Anderson, a Spokane consulting firm, has been contracted to study implementation of Minnesota's Environmental Policy Act. The firm has studied other states' Environmental Policy Acts, including Washington's and California's. In conjunction with the Washington study, programs in several other states were examined. The main problem in implementing the State of Washington's Environmental Policy Act was that locals were mandated to operate an impact statement process. There was no central state body to provide guidance or control.

The main recommendation for the Minnesota process is that it needs to be decentralized, that project-by-project decisions should not

be made by EQC, or probably on the state level at all. Many of the issues which have come before EQC have been dismissed because they are of only local significance. Decentralization will require major changes to a system which locals can implement. Washington's original program, for example, placed the burden on locals without providing funding and expertise. Regional Development Commissions may be useful in such a program in Minnesota.

Tools for this process would be a list of exemptions, information on a project and its environmental effects (obtained on a form filled out by the proposer), and criteria for determination of environmental significance. If an action is found to be significant, an EIS would be required. The recommendation will include a mechanism for shifting matters of more than local significance to the state level.

In a decentralized process, a hearings board could hear challenges to decisions by local or state governmental agencies.

Environmental Decision-Making

A project on environmental decision-making was undertaken by the State Planning Agency in 1972-73.

To guarantee citizens administrative access, an environmental hearings board was suggested. Five states were visited and studied during preparation of the report: Maine, Vermont, New York, Washington and Oregon. Washington's Pollution Control Hearings Board is a quasi-judicial body which provides citizen access in three ways: 1) informational meeting in presence of hearings board to talk about a complaint or lack of information; 2) informal hearing - for complaints which can be ameliorated by getting the involved parties together; 3) formal hearing. The only difference between the latter two is the direct transferability of documents in court. About 70% were informal hearings. Of the 25% which were formal hearings, most were not appealed (only 5 were). The system provides faster access than the courts, with time constraints of 30 days for a hearing and 60 days for an appeal imposed.

In Oregon an ombudsman system was established, and this does not seem to be working out as well. New York began with a centralized system, then decentralized to the regional level. This system is working very well. Overall state policy is visible at the top. Access for interest groups is provided, and communications are channeled through these groups. California had an entirely decentralized system and felt the need for state guidelines.

SECTION I

ENVIRONMENTAL IMPACT STATEMENT PROCESS

CONCLUSIONS

1. The broad language of the Environmental Policy Act requiring an Environmental Impact Statement (EIS) "where there is potential for significant environmental effects resulting from any major governmental action or from any major private action of more than local significance," has been very narrowly construed by the Environmental Quality Council through its regulations.

2. The Environmental Quality Council (EQC), in order to gain experience and familiarity with the EIS process during the first year of operation has centralized the process, so that no Environmental Impact Statements are required to be prepared except when ordered by the EQC.

3. Because of the structure of the EQC (consisting of State Agency heads and four citizens) and because it meets only monthly, only 15 Environmental Impact Statements have been required by the EQC in 1974. Of those, only nine would not have required an extensive environmental review under other national or state laws.

4. By contrast, California law, with similar statutory language, has been interpreted in a fashion which results in the production of about 5,000 Environmental Impact Statements per year.

5. The Environmental Impact Statement process can be an effective tool for creating an environmental awareness on the part of decision-makers, providing information about available alternatives and involving the public in governmental decisions. However, under the Minnesota process at present, since an Environmental Assessment is required before an Environmental Impact Statement can be ordered, and since only the EQC can order the Environmental Impact Statement, the statement tends to be an after-the-fact rationalization of a prior decision, rather than an extensive review of pre-decision alternatives and their environmental effects.

6. The centralization of the EIS process, forcing the EQC to consider each potential environmental impact statement, has resulted in unnecessary log jams that have seriously affected the ability of the EQC to deal with basic policy issues of a multi-agency nature.

7. The provision of the Environmental Policy Act, requiring the EQC to order an Environmental Impact Statement upon the petition of 500 citizens and a showing of the need for environmental review has demonstrated the absence of any viable means of appeal available to citizens to challenge controversial land use decisions of local units of government, outside of the judicial system.

8. A strong motivation in the drafting of the regulations by the EQC appeared to be a fear that the state agencies would be overburdened by an unrealistic work load in preparation of Environmental Impact Statements.

9. The EQC structure is not fully capable of making decisions on the many issues brought before it on the Environmental Impact Statement process because a) members do not have time to prepare b) members have conflicts in some areas c) attention given to matters appears to vary with the number of angry parties d) undue amount of time has been spent on testimony relating to minor issues which should not come before the full EQC.

10. The EQC has regarded the requirement of preparation of an Environmental Impact Statement by a local unit of government as "interference" in the affairs of the local unit of government. However, the Environmental Impact Statement requirement does not affect the substance of the final decision, but only the process by which the decision is made. Hopefully, if the process is adequate, better substantive decisions will result.

RECOMMENDATIONS

A. The decision on when to require Environmental Impact Statements

1. The present system, under which an environmental impact statement is required only when ordered by the Environmental Quality Council, is a burdensome and unworkable system. The EQC should require that environmental impact statements be prepared when ordered by the EQC directly or through its rules.

2. An EIS should be required for all actions where there is a potential for environmental effect, since such actions will be, by definition, "major governmental actions" or "major private actions of more than local significance."

3. The element of controversy as demonstrated by a petition for an EIS is a factor to be considered in determining whether an environmental impact statement should be required.

B. Review of Negative Declarations and Adequacy of Environmental Impact Statements by an Environmental Hearings Board

1. The State should establish an environmental hearings board con-

sisting of at least three persons, to hear appeals relating to the Environmental Impact Statement Process. Such a hearings board would provide a method superior to the petition process for citizen input to environmental decision-making.

2. Environmental Hearings Board should have jurisdiction, through the appeals process, in the following matters:

   a. review of decisions of local units of government and state agencies whether to prepare an environmental imapct statement.
   b. review of the adequacy of environmental impact statements, once prepared.
   c. review of decisions of local units of government granting variances or conditional use permits from ordinances required by State law (shoreland management, floodplains, critical areas, wild and scenic rivers). See Section III.*

3. Hearings Board functions:

   a. Informal meetings - an ombudsman or mediator function should be performed by the Board, meeting with parties concerned about an action and the governmental officials involved to explain the law and procedures and hopefully resolve differences informally.
   b. Informal hearing - both sides could present their case, but no formal record would be kept and a hearing board member would issue an informal non-binding opinion. Most disputes could be resolved at this level.
   c. Formal hearing - while still requiring a transcript, this procedure would have an advantage over lawsuits since the Board would have expertise and consistency and attorneys would not necessarily be required.

4. If such an Environmental Hearings Board is established, the citizens' petition for an EIS will become unnecessary.

C. EQC Structure**

1. While there is a strong need for coordination of decision-making among state agencies in the environmental area, many of the functions ascribed to the EQC do not require the council of agency heads. For example, the power plant siting and critical areas programs are basically land use planning processes which could be more efficiently handled by another body.

2. The State should consider creation of a different structure for an environmental quality council to perform the functions now handled

*Minority report: A minority felt that this provision would place an unmanageable burden on the hearings board.

**See Minority reports, end of Section I

by the EQC except for the coordination of State agencies. Such a council should consist of a citizen board appointed by the Governor which could oversee the State-sponsored land use planning programs (shoreland, floodplain, critical areas, power plant siting, wild and scenic rivers) and the environmental impact statement process. Coordination among agencies could be provided by the present technical representatives committee, responsible to the citizen board. In addition, an environmental hearings board could be responsible to such a citizens' environmental board.

3. Such a structure would eliminate the conflict of interest and time problems created by an EQC made up of State agency heads. It should be adequately funded in order to have its own staff.

4. Whatever the EQC structure, citizen members of the EQC should be provided with staff particularly responsible to them to assist them in their EQC duties.

D. Citizens Advisory Committee and Citizen Task Forces

1. If the present EQC structure is retained, the Citizens Advisory Committee for the EQC should be continued, and should concentrate its efforts on identifying and reviewing those issues which should be studied in light of environmental quality concerns.

2. Such programs of the State as relate to forestry management, the use of pesticides, wetlands and drainage, economic development, and other programs of those State agencies which may have statutory directives which conflict to some extent with the goals of environmental quality should particularly be the subject of review by the CAC or citizen task forces.

3. Citizen task forces which have been recommended by the CAC concerning energy policy, critical areas and highway planning, would not have been created absent the CAC recommendation. The mechanism of citizen task forces has served a valuable purpose for developing an independent and informed viewpoint on important environmental issues. It should continue to be utilized.

4. If the CAC is effectively to perform its statutory functions, it must achieve a certain degree of independence from the EQC and the State Planning Agency. The CAC should be provided with additional funding, additional staff responsible to it, and the ability to form citizen task forces.

E. The Technical Committee

1. The Technical Committee, consisting of representatives of the EQC member agencies, provides a valuable informational review and recommendation function to the EQC, and should be continued regardless of the structure of the EQC.

2. The citizen representatives of the EQC are not able effectively to participate in technical committee decisions and recommendations, because of limitations of time and finances. If the present EQC structure is continued, citizen representatives to the EQC should be requested to appoint technical committee representatives, who would receive per diem.

**Minority reports:

1. A minority of the Committee believes that, if the EQC as presently structured is relieved of some of the detailed decisions which it must now make, particularly under the EIS process, it could adequately deal with the other functions assigned to it.

2. Following are recommended amendments to Chapter 342, Minnesota Statutes: New language is capitalized.

> "Section 3, subdivision 2. The Council shall include as permanent members the Director of the State Planning Agency, the Director of the Pollution Control Agency, the Commissioner of Natural Resources, the Commissioner of Agriculture, the Executive Officer of the Department of Health, the Commissioner of Highways, a representative of the Governor's Office designated by the Governor AND ONE CITIZEN MEMBER FROM EACH CONGRESSIONAL DISTRICT APPOINTED BY THE GOVERNOR. THE CITIZEN MEMBERS FROM CONGRESSIONAL DISTRICTS SHALL BE APPOINTED TO SERVE FOUR YEAR TERMS COTERMINOUS WITH THE GOVERNOR. EACH CITIZEN MEMBER MAY RECEIVE AS COMPENSATION FOR HIS SERVICES THE SUM OF THIRTY-FIVE ($35.00) PER DAY OR FRACTION THEREOF SPENT IN ATTENDING MEETINGS OF THE COUNCIL OR IN PERFORMING OTHER DUTIES REQUIRED BY LAW AND EACH CITIZEN MEMBER OF THE COUNCIL SHALL BE REIMBURSED FOR ACTUAL AND NECESSARY EXPENSES INCURRED IN THE PERFORMANCE OF HIS DUTIES IN THE SAME MANNER AND AMOUNT AS STATE EMPLOYEES."

Strike subdivisions 8 and 9 of Section 4.

Strike all of Section 5 and renumber subsequent Sections accordingly.

These amendments will:

1. Abolish the Citizens Advisory Committee and remove all references to CAC from the statute.

2. Increase the number of citizen members on the EQC to eight - one from each Congressional District.

SECTION II
LAND USE DATA

The "decentralization" of the environmental impact statement process will place a heavy burden on local units of government to undertake sophisticated environmental analyses. Today most local units of government do not have adequate facilities to accomplish this and will be forced to turn over much of this work to consultants. This will increase costs and will have the negative effect of loss of understanding of the environmental impacts of projects. Preparation of impact statements is highly educational and results in improved future environmental analysis.

The CAC believes that it is important that local units of government be able to prepare impact statements for projects under their jurisdiction. A substantial assistance effort by the state will be necessary. Training seminars and in-service training will be needed.

Another important service the state must perform is the development of information systems that can be used by local units of government. Land use information systems are essential.

The land and its use, surface and sub-surface resources, the capabilities of land to support various activities, are frequently at the base of environmental controversies. Most of the issues that have come before the EQC for EIS consideration are basically problems that relate to land use decisions. Most land use decisions are made by private persons and local units of government and it is clear that no uniform land use policy exists. It is also clear that local units of government do not have adequate information and/or tools to implement a rational land use planning process. In this section, we will describe some land use information systems and analysis tools that are under development and make recommendations concerning the need for future development.

The essential components of a land use information system are: (a) data, (b) analysis tools, and (c) criteria for decisions (policies). The first is basically value-free, scientific/technical data. The second is methods of evaluating and manipulating data to get it into a form useful for guiding decisions. The third, policies, constitute the subjective values that must be applied when reaching decisions, the overall guidance that places specific cases in context of statewide activity. The combination of data and analysis yields inventories of natural, social, and economic resources and information on land capabilities. Such information is a prerequisite for policy development since many policy determinations require some consideration and analysis of these inventories and capabilities.

For example, a policy of protecting a plentiful natural resource at the expenses of a rare one, or the rapid development of resources that are scarce, makes no sense, but one must first know what is plentiful and what is scarce.

The Minnesota Land Management Information System (MLMIS) is in the initial steps of developing the necessary land use tools. The MLMIS is a subdivision of the Center for Urban and Regional Affairs (CURA) at the University of Minnesota. The MLMIS is an inter-disciplinary effort by the faculty of the University of Minnesota and is partially funded by grants from the State Planning Agency. The work program of the MLMIS consists of three parts:

(a) the development of automated computer systems to store and analyze land use information,

(b) assessment of available land use information and analysis of new data sources. This includes efforts to standardize and code for computer analysis such data,

(c) development of methodologies for simulating land use decisions.

The second part of the work program is the most difficult, most expensive and most time consuming. Most available data was collected for a specific purpose often unrelated to land use planning (e.g. tax records) and required substantial analysis and manipulation before it is useful. Much of the data available in public records is difficult or impossible to use because subjective values are recorded or locations are difficult to determine. Standardization of public records would greatly facilitate their use in providing land use data. The MLMIS and the Intergovernmental Information Services Advisory Council (IISAC), are working on standardized geographic location codes and standardized land use and land cover codes. Standardized codes for other characteristics of land are also needed so that all state and local government records become useful land use data collection tools. Once such standards are developed, records maintained by all levels of government should be required to adopt the standards.

A substantial continuing effort is required to evaluate existing data. The MLMIS is designed to handle data using a 40-acre cell, a standard data input unit. The 40-acre cell may not provide the fine detail required for some local decisions concerning, for example, siting of small manufacturing facilities. However, most facilities that require careful environmental review require dedication of land areas that are large enough so that the 40-acre tract or larger are sufficiently small data cells.

The CURA has also developed the Environmental Planning and Programming Language (EPPL). This computer analysis program was developed by Paul Sand and Professor Al Robinette of the University of Minnesota. It is a highly sophisticated and flexible land use analysis tool. Although

the use of the program requires some training and familiarization, it is well within the means of state agencies and local units of government. We have been advised that it should be possible that even citizens concerned about specific projects or plans should be able to learn how to use the program with very little training. We believe the State should have this program made available to all local units of government that are involved in land use decisions. Training sessions and seminars should be conducted to make regional development council, county and municipal planners familiar with the use and value of EPPL in this planning effort.

The EPPL is, of course, worthless without adequate data. Not all areas of the state have adequate data available to make such a tool useful, and consequently, proper land use decisions are difficult or impossible. The MLMIS has underway the collection and analysis for the Arrowhead Region. This area will provide a proving ground for the system. This is no small undertaking. The Arrowhead region is 1/3 of the area of the state and exceeds the size of many states. Data of the soils of the area have been collected and are being coded for analysis. It will soon be possible to generate a soil atlas and agricultural productivity. Potential productivity for forestry is another component of the study. This data is being developed using smaller 5-acre cells. Data is also being collected on building site capabilities, flood potential, septic tank problems, etc.

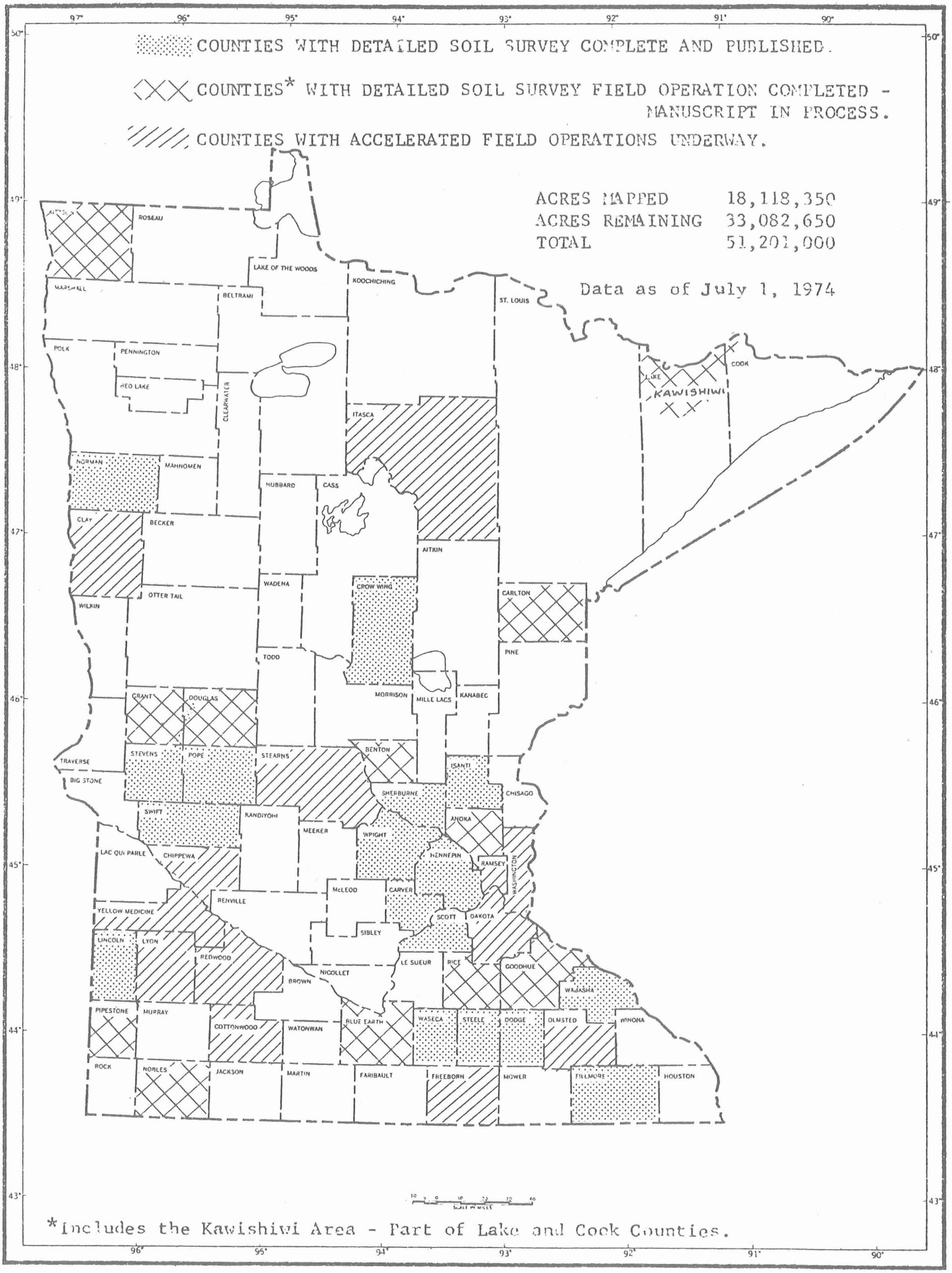
The geology in the area is being collected and is presently being used in the copper-nickel mine site study being conducted by DNR.

Once such a system is operational, it is relatively simple to upgrade the data when such new technological techniques as NASA's Earth Resources Technology Satellite (ERTS) provide data. Data is presently available from this satellite on a 1.1 acre cell and the next satellite will provide data for a 0.1 acre cell.

The MLMIS study has also emphasized watersheds and data cells that contain or border water.

Although some programs are now underway to collect data on the characteristics of the land, the status of available data is poor. For example, at the present rate of accumulation it will be 2010 before the soils of the state are completely surveyed. Figure 1 shows the status now. It is obvious that most areas of the state have little or no useful data. Data of this type is essential and its accumulation must be accelerated. The State Planning Agency is preparing a proposed Resource Exploration and Analysis Program (REAP). Our preliminary review of this indicates it is the minimum acceptable program and we recommend that a more ambitious program be considered. Land use decisions will be made with or without that needed information. It is important that the data be made available as soon as possible.

The usefulness of such land use planning tools has been demonstrated several times. One particularly interesting and enlightening example



*Includes the Kawishivi Area - Part of Lake and Cook Counties.

USDA-SCS-LINCOLN, NEBR. 1966

3-L-4098I

FIGURE 1

of this is the current study for selecting a site for a new sanitary landfill in Washington County. The additional sanitary landfill site is being sought in fulfillment of Washington County's portion of the metropolitan plan for solid waste disposal, which was adopted by the Metropolitan Council in 1970. As part of the Metropolitan Development Guide - Solid Waste Disposal, it was decided that for the 10-year period, 1968 to 1978, solid waste disposal would be handled primarily by disposal in sanitary landfills. Since the volume of material to be generated had been estimated, it was possible to assign landfill capacities to the counties of the Metropolitan Area. The counties were then obligated to develop that capacity. Washington County was assigned 2,900 acre-feet of capacity. In order to meet this need, Washington County is currently seeking a second landfill site which could provide 2,000 acre-feet of capacity. The existing landfill, which has a capacity of approximately 900 acre-feet, is nearly filled. A landfill site offering 2,000 acre-feet was selected by the county and a permit application was submitted to the MPCA. The Metropolitan Council, under the review process of the Solid Waste Disposal Act (MSA 473 D), found the application not in accord with the Metropolitan Development Guide, and subsequently the MPCA denied the permit request. The denial was based on the site location being in an environmentally unacceptable area -- an area where the soils and geologic conditions were greatly unsuitable for siting a sanitary landfill. The Metropolitan Council and Washington County then enlisted the aid of CURA/MLMIS, the Minnesota Geological Survey (MGS), and the Soil and Water Conservation District serving Washington County, in locating a better site.

The previous site selection process had proceeded by traditional land use planning methods. With very little analysis of land capability or land suitability, a site was selected and then a process of defining the choice and expensive development of the site followed. The present site selection has proceeded in a much more logical fashion. The EPPL was used to analyze data cells of 40 acres. The analysis took place using four well-defined steps. The first step was the use of inflexible prohibitions to determine where a landfill could not be located. In order to accomplish this, the Minnesota Pollution Control Agency Regulations SW-6 Sanitary Landfill were entered into the computer. This was not a direct process and required some interpretation and judgment, but was not difficult to accomplish. The inflexible prohibitions involve considerations such as developed urban areas, shorelands and wetlands, unsuitable soils and surficial geology, and steep slopes. Using the EPPL, it was possible to generate a single map that, using 63 combinations of restrictions, showed the areas that had not been eliminated. The results showed that 11% of the county (32,440 acres) remained. The most common prohibition was a combination of soil and geological characteristics which eliminated 23% of the county. The second step was a consideration of flexible prohibitions. Flexible prohibitions are factors that are highly desirable, but not absolutely required, or which can be provided, factors such as adequate screening, avoidance of low density urban developments, airports, etc. Those areas that had

not been eliminated by step 1 were examined by the flexible prohibitions. Five percent of the county (14,920 acres) met the requirements of the flexible prohibitions. Step 3 applied additional desirable environmental characteristics that went beyond the requirements of MPCA regulations, factors such as good soils, geology, vegetation and planned future development. Three percent of the county survived this test. In step 4, cost and other land use factors were considered (land distance, 9 ton roads etc.). These factors eliminated all but just a few sites. Only five 20-acre parcels survived. A few more sites had only one adverse factor which could be corrected (such as upgrading roads to a 9-ton capacity).

This case is nearly ideal since neither of two extremes prevail:

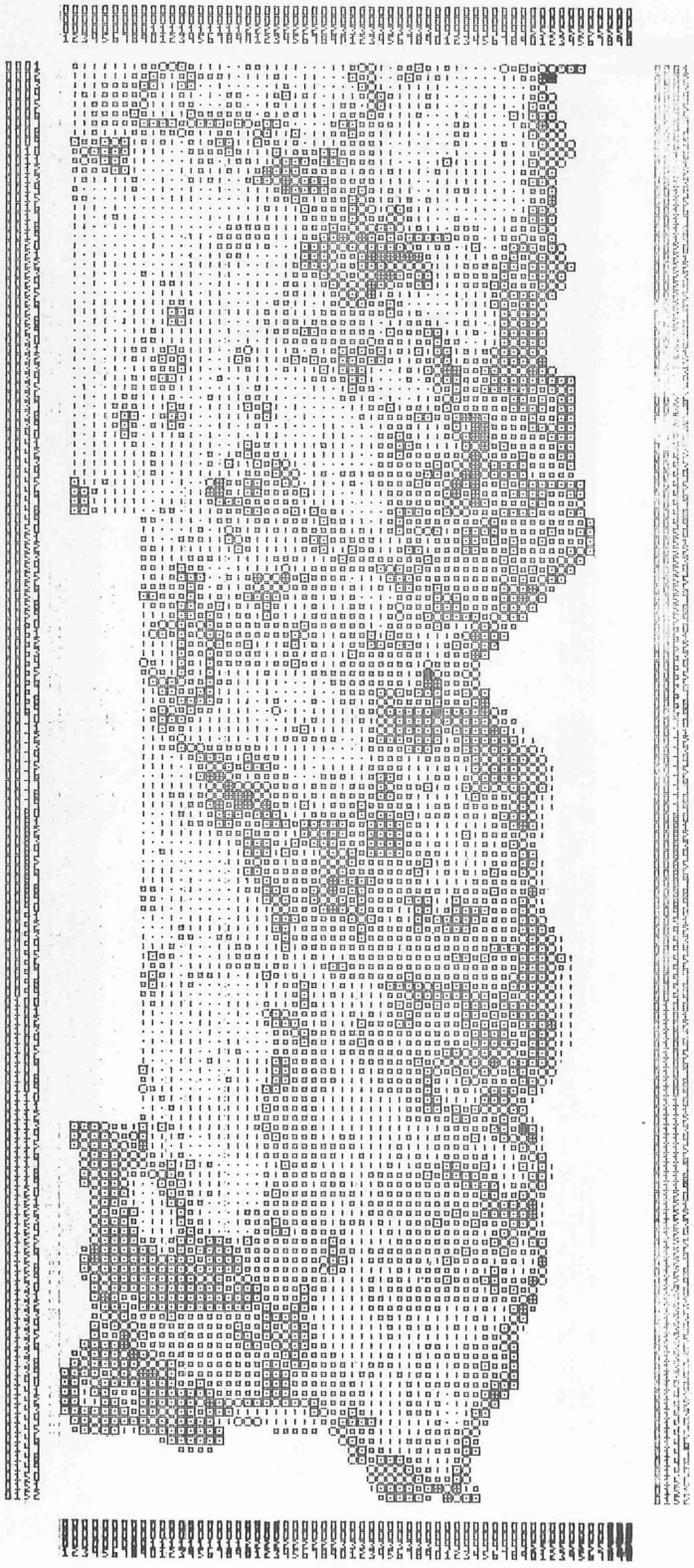
(i) Most of county is "good" so that the analysis does not help select a site.

(ii) None of the county is "good".

The analysis in fact selected just about the right size sample for preliminary engineering studies. It must be emphasized that this analysis process requires that planners be knowledgeable and that they be aware of its limitations. The standard computer caveat "garbage-in, garbage-out" must be kept in mind. Figures 2, 3, 4, 5, illustrate the output of EPPL at various stages of the process.

The report Land Management Information in Northwest Minnesota (1972) written by George W. Orning of MLMIS and Les Maki, now with the State Planning Agency, contains two hypothetical case studies of the use of these land use planning tools that reinforce the conclusions of the case study of the Washington County landfill. They consider two hypothetical cases of the study of a wood processing plant and management of the Thief River watershed. Both of these cases demonstrate the utility of these techniques and the value of reliable land use data.

The MLMIS, as part of its study of the Arrowhead region, has undertaken an intensive data accumulation and coding project for Itasca County. As a further example of the flexibility and usefulness of such information systems, maps have been generated that emphasize particular combinations of characteristics of the land. One map was generated by a choice of characteristics and weights applied to those characteristics that the programmer has chosen as indicative of particularly "scenic" land. By applying different weights, the programmer can generate maps and inventories of a range of land types based on subjective criteria. We believe the great utility of sophisticated land use information systems has been well demonstrated. We further believe that, in view of the historical problems in making well-informed land use decisions, it is apparent that such information systems are essential.



V-21 STEP 1

- 1 Restriction
- 2 Restrictions
- 3 Restrictions
- 4 Restrictions
- 5 Restrictions
- 6 Restrictions
- Good Sites

Source: V-1, V-2, V-4, V-5, V-6, V-7

Scale: 1" = 5 miles

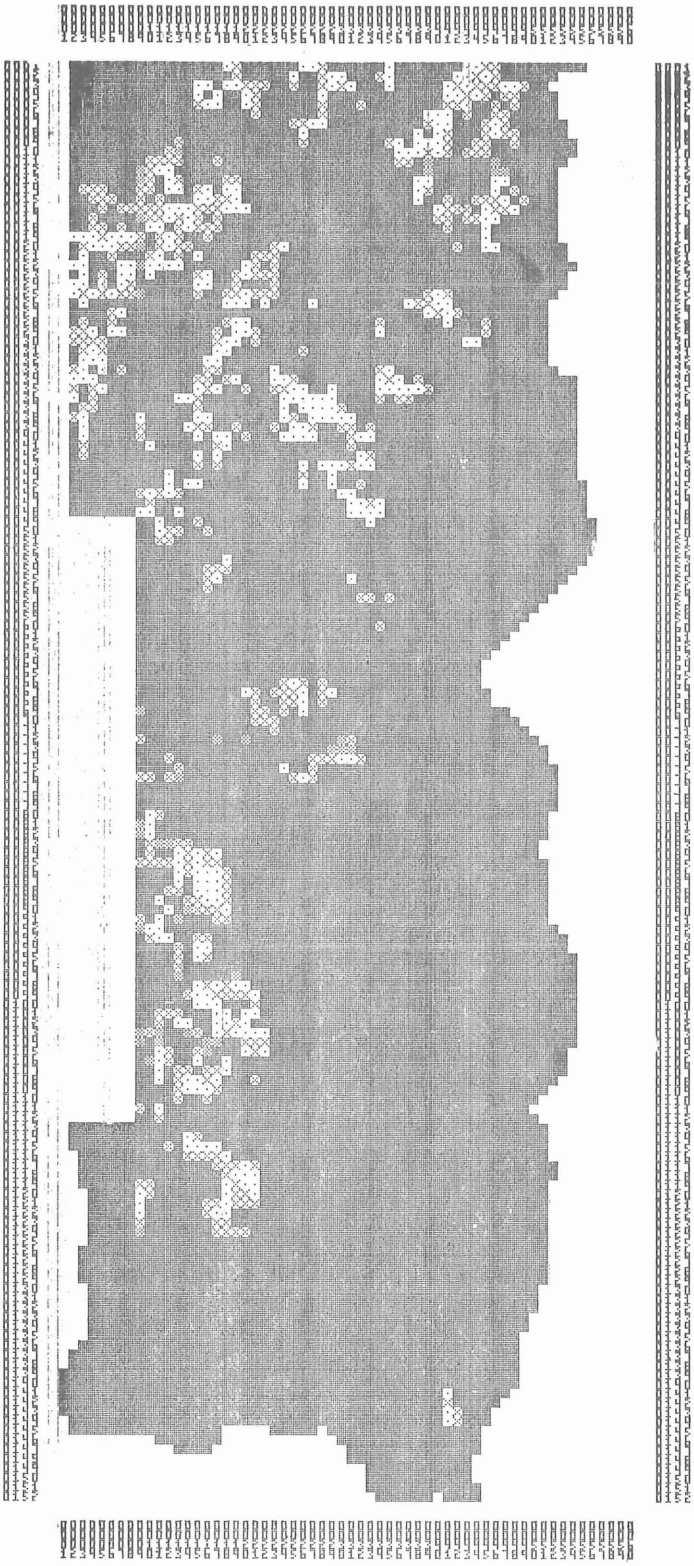
North:

Factors

Slope Over 13% Restrictive
Soil
Geology
Shoreline
Wetlands and Lakes
Urban Development

WASHINGTON COUNTY
SOLID WASTE DISPOSAL
SITE SELECTION STUDY

FIGURE 2



V-22 STEP 2

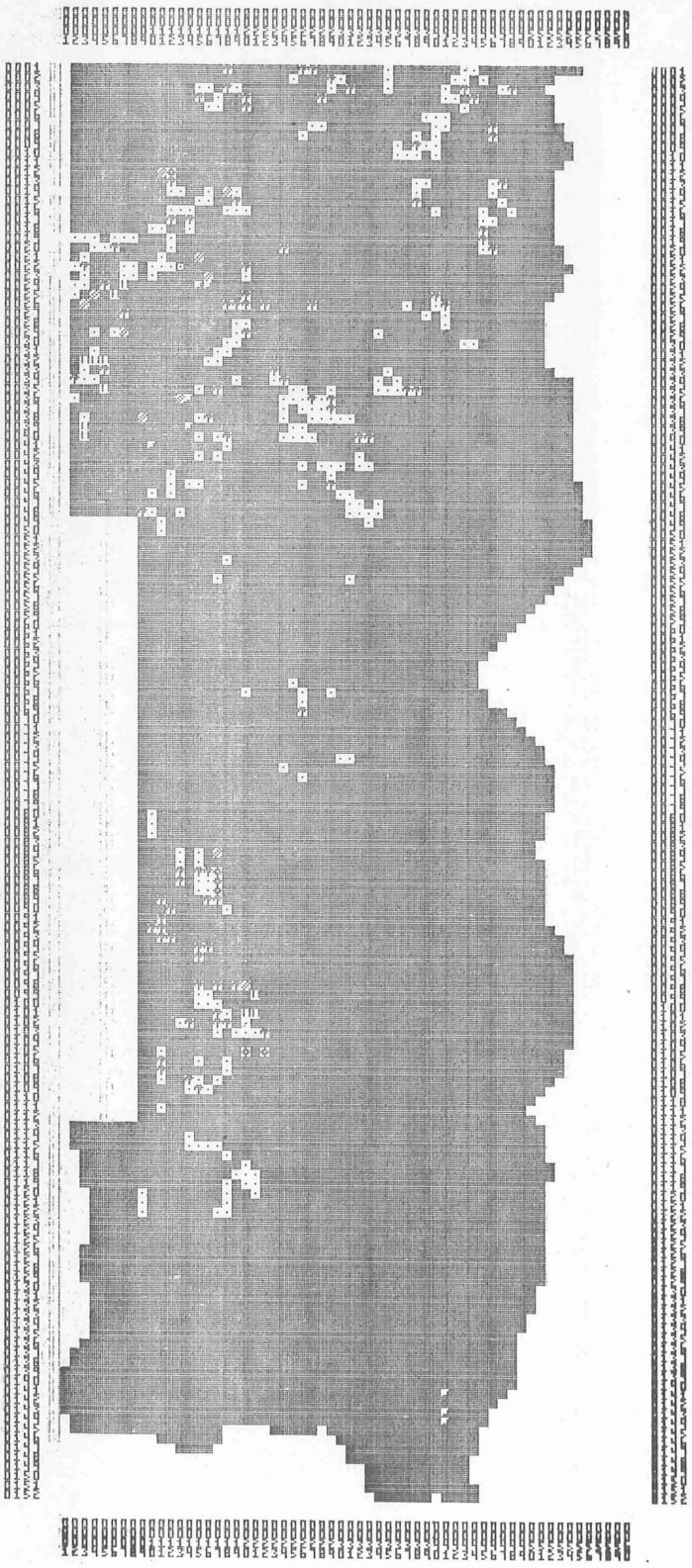
- 1 Restriction
- 2 Restrictions
- 3 Restrictions
- Prohibited
- Good Sites

Source: V-21, V-7, V-8
Scale: 1" = 5 miles
North:

Factors
Using V-21 Good Sites
V-7 Near Parks
Semi-Developed
V-8 Within 1/4 Mile of
State or Federal Roads

WASHINGTON COUNTY
SOLID WASTE DISPOSAL
SITE SELECTION STUDY

FIGURE 3



V-23 STEP 3

- Good Sites
- Geology
- Vegetation
- Intermittent Streams
- Future Development
- 2 Restrictions
- 3 Restrictions
- Prohibited

Source: V-22, V-1, V-2, V-4
V-7

Scale: 1" = 5 miles

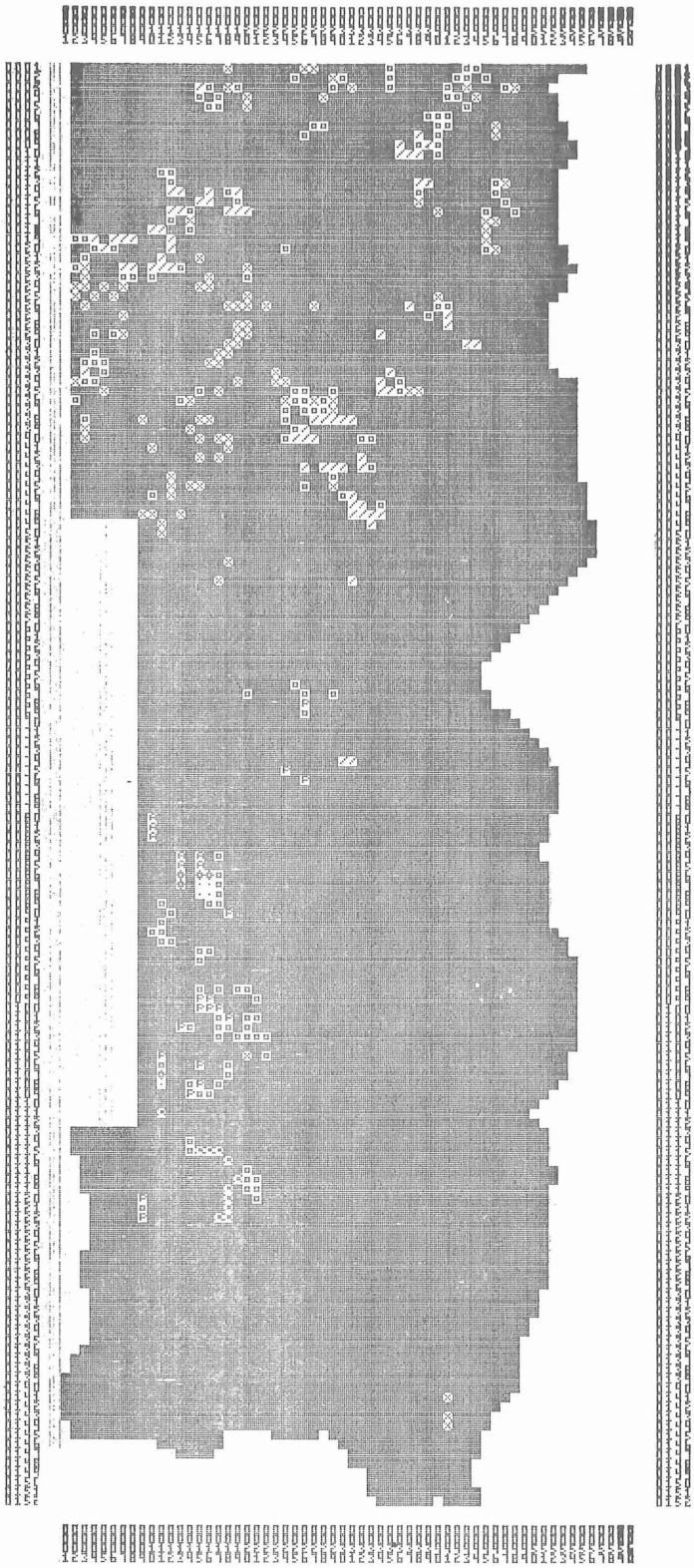
North:

Factors

Moderate Geology
Moderate Soils
Intermittent Streams
Future Development

WASHINGTON COUNTY
SOLID WASTE DISPOSAL
SITE SELECTION STUDY

FIGURE 4



V-24 STEP 4

- Good Sites
- Near Municipal Wells
- Near Private Wells
- Haul Distance
- Near Axle Limit Roads
- 2 Prohibitions
- 3 or 4 Prohibitions
- Step 3 Prohibitions
- Prohibited (Step 2)

Source: V-23, V-9, V-16, V-32
Scale: 1" = 5 miles
North:

Factors

01 Mile Municipal and Private Wells
3 Miles From 694-494
1 Mile From a 9-Ton Road

WASHINGTON COUNTY
SOLID WASTE DISPOSAL
SITE SELECTION STUDY

FIGURE 5

SECTION II

LAND USE DATA

CONCLUSIONS

1. "Decentralization" of the environmental impact statement process will require local units of government to undertake sophisticated environmental analyses. Local governments are not presently prepared to assume this responsibility.

2. A sophisticated land use information system is essential to a good environmental impact analysis system and would help to provide the tools needed by local units of government.

3. The natural resources data base needs to be expanded and improved. Although there are in existence efforts to gather and analyze land use data, they are modest in comparison to the magnitude of the effort required.

4. Much natural resources and land use data is available in existing government records, but it is difficult to extract and use due to a lack of standardized location codes and subjective data entries.

5. The Washington County landfill experience provides an example of how easily accessible natural resources data, demonstrating to decision-makers the constraints and opportunities relating to a land use decision, can result in an improved decision-making process.

RECOMMENDATIONS

1. The State should greatly accelerate its effort to collect natural resources data.

2. Natural resources data needs to be cataloged and indexed so that various units of government and citizens are aware of the existence of all data that has been acquired. All the characteristics of the data need to be indexed, including its accessibility using available analysis tools. An ombudsman should be provided by a state agency, probably the State Planning Agency, to assist local governments and citizens in locating useful data and analysis tools.

3. Standardized codes need to be adopted in records maintained by all levels of government to allow data gathered by all agencies to be used where possible to provide data for environmental/land use planning. Records maintained by various agencies and units of government should be examined to determine their usefulness in collecting such data. Care must be taken to insure that individual liberties and privacy are not violated.

4. The EQC should immediately endeavor to adopt requirements for standardized geocodes and land use and land cover codes in the preparation of environmental impact statements. The EQC should further examine the possibility that the types of data frequently collected for environmental impact statements can be standardized to allow input into information systems.

SECTION III
EXISTING STATE LAND USE PLANNING PROGRAMS

A. Power Plant Siting

The first task under the Power Plant Siting Act of 1973 was development of criteria and regulations by a citizens advisory committee, the EQC attorney, the Power Plant Siting staff, the Technical Committee and the EQC itself. These were adopted by the EQC in July, 1974.

The next task mandated is the development of an inventory of power plant sites and transmission line corridors by July 1, 1975. The EQC has appointed a new citizens advisory committee to assist in development of the inventory. This committee includes some members of the previous advisory committee, representatives of Regional Development Commissions, a representative of the counties, a representative of the municipalities, and a representative of the Minnesota-Wisconsin Power Suppliers' Group.

The inventory will be developed in a sifting process. Exclusion areas will be graphed first. Avoidance areas will then be identified and, if the committee so chooses, will be considered as exclusion areas on the first time through the process. Constraints will then be graphed, such as proximity to water and transportation facilities. Once these areas have been blocked off, the selection process would begin.

The law requires annual review and updating of the inventory. For that reason, the first inventory may be somewhat rough, with the knowledge that a public hearing will be held on it in September, and the site inventory will be reviewed immediately. The first grid should be just under the size of a township (six miles by six miles, or 36 square miles). A smaller cell might raise the anxiety level of area residents unnecessarily or cause land speculation. The cell must be small enough to be a useful planning tool and to identify areas of probable consideration for sites.

In addition to developing criteria and regulations and developing an inventory, the EQC is charged to receive applications for power plants and transmission lines at any time. Four applications have been received to date. The first was an application from Minnesota Power and Light (MP&L) for emergency certification of a 230 kV transmission line from Canada to the Iron Range. On the basis of public hearings, the EQC determined that an emergency did exist. A second set of public meetings and hearings led to development of the route of the line, and a construction permit was issued by EQC. The next application was submitted by NSP for exemption of a line near Mankato. This is a line under one mile in length which the EQC found to be exempt from the Power Plant Siting Act. The third application was from NSP for a 500 kV AC line from

Canada to the Twin Cities. This is a two step application which takes one year. The first step is a corridor. There are three corridors under consideration. Seven public meetings have been held; seven public hearings will be held. Once EQC grants a corridor, NSP will request a construction permit on a specific route. Each part of the process takes six months. The fourth application is from NSP for development of additional capacity at the Sherburne County site. If EQC approves this, NSP will waive its rights to the Sibley County site under the Savings Clause. The application refers to Sherburne County as the preferred site and Sibley County as the alternative.

The EIS regulations do not correspond to the timetable of the Power Plant Siting Act. On the MP&L emergency certification application, these differences were reconciled by use of information already prepared by the consultants, with DNR's comments added,as an EIS. One problem in reconciling these processes in the case of a power plant is the question of need, which is the responsibility of the Energy Agency. Three stages are possible in an EIS: the question of need, which is the responsibility of the Energy Agency; the siting process, which is EQC's responsibility; and the permit process, for which several state agencies have responsibility. Questions of the overlapping of these responsibilities remain to be answered.

B. Shoreland Management

The Shoreland Management Act was passed in 1969. It charged the DNR to promulgate state minimums for regulating development of shorelands in Minnesota. Shorelands are defined as all lands within 1,000 feet of a lake, pond, or flowage and within 300 feet of a river or stream draining water in two square miles. The state is to set minimum guidelines; the counties are to administer and enforce them. By July 1, 1970, state guidelines were to be adopted; by July 1, 1972, each county was to have a land use ordinance, incorporating at least the minimum guidelines for shoreland areas. Hennepin and Ramsey counties were excluded, but were added in a 1973 amendment. Many counties had no land use controls, and this was the first such control for them. In some counties this is leading to comprehensive zoning. Counties had to draft a new ordinance or amend an existing ordinance. These were reviewed and approved by DNR. The last county's ordinance was approved September 1, 1973.

Education of local officials to the goals and methods of the program has been a difficult process, particularly in areas outside the Metropolitan Area. With only three staff persons for 85 counties, monitoring has been difficult. In some counties, citizens have become aware of the program and are informing others. Reorganization of the Division of Waters, Soils and Minerals should lead to better monitoring and follow-up work. The LEAP Program

resulted in division of the state into six regions, which are now being staffed. Regional offices are headquartered in the Metropolitan Area, Rochester, New Ulm, Bemidji, Brainerd, and Grand Rapids. The lake regions, the Arrowhead Region, Northwestern Minnesota and Central Minnesota, have one person each in shoreland and floodplain management. They are spending approximately 90% of their time working with counties on administrative procedures. Granting of variances could be detrimental to the program. Closer monitoring should lessen these problems.

According to the 1973 amendment to the Shoreland Management Act, minimum guidelines for municipal areas were to be developed by April, 1974. The first draft will not be ready for about two months. The Shoreland Management Unit also has other responsibilities, such as Lake Improvement Program, the Water Surface Use Program and the Wild and Scenic Rivers Program, and only three full-time staff people are assigned.

Problems in the program include failure of counties to enforce ordinances and violation of ordinances by citizens, whether intentional or unintentional. Zoning administrators often serve at the whim of the county board, and in several instances zoning administrators who have enforced ordinances strictly have been dismissed. They are now forming a statewide organization and should be better protected.

DNR receives notices of variances from the counties. From Ottertail County, the biggest lake county, 25 notices were received last year. The DNR may comment or take legal action. They always comment on variances having to do with sewage disposal. The DNR has the authority to review and deny variances, but has not chosen to do so under the Shoreland Management Act. Such authority is provided for in the Act, but was not included in the regulations. To make the program more acceptable, DNR left enforcement up to the counties. Counties are now responding favorably to approximately 90% of DNR comments. Several counties have more stringent ordinances than called for in the DNR guidelines. Public and county awareness is improving, and the increased staffing should make the review and comment method more effective. Monitoring is improving, and bi-monthly reports on computerized forms should facilitate it further.

C. Wild and Scenic Rivers

The Wild and Scenic Rivers Act, passed in 1973, provides greater potential for protection and preservation than any other rivers act. Problems include misunderstanding and establishing credibility for the program. Some landowners feel the regulations are too restrictive and are taking their property rights for "a few canoeists and other elitists from the cities." Some local

residents also feel these areas are being preserved for Metropolitan Area residents. This is not the intent of the program or the regulations.

The Act requires one public hearing in the county seat of each county affected. Experience has shown that designation of a wild, scenic or recreational river could not be accomplished without overwhelming opposition if only such hearings were held. From May, 1973, to August, 1974, over 180 local meetings have been held. These are not required in the Act, but general education on the program is essential to its effective implementation. These meetings involved citizens' groups, local officials, landowners, and anyone else who was interested. A slide show was developed for these presentations.

The Kettle River is the first to be proposed for designation under this program. In Pine County, the county in which the major portion of the Kettle is located, opposition to the program was apparent at first, but at a recent candidates' meeting before the election, every county commissioner supported protection of the Kettle River. Meetings have been held with every town board on the Kettle River Plan, and with individual landowners. Six public meetings have been held on the Big Fork and Little Fork, which are not even proposed for study at this time.

The Kettle River Plan has been through three drafts, with changes coming primarily from local input. Local officials are contacted first, along with other influential people in a county, which are identified with the help of local DNR people. A citizens' advisory group is established for each river studied. This group is used as a sounding board for policies contained in the draft plan. Informational meetings are held to explain the program and to solicit involvement by those interested. In the Kettle River area, the town boards were flattered that DNR would ask for their opinions. No provisions in the statewide regulations had to be changed for the Kettle River Plan. A question and answer brochure was prepared on the plan. Mailing lists are compiled of interested persons in the area.

Staff for the program consists of the coordinator, an assistant, one person who works with zoning administrators on land use controls, and one person with a recreation background. Alternatives will be presented to the legislature. One would be to prepare the plan in St. Paul, hold the public hearings, then designate or decide not to designate; or the program can be carried on as it has been. This choice must be made by the legislature, with additional funds provided if they choose the second option.

The budget request for this biennium, for nine rivers, 945 river miles, 302,400 acres, is for $500,000. This compares with the present budget of $100,000. This would include money for implementation of the Lower St. Croix Plan. A proposed study of the Mississippi from Itasca down will require 45 or 46 public hearings just to meet the statutory requirement. The proposed study of St. Cloud to Anoka alone involves 18 counties and many municipalities.

D. Critical Areas Planning Process

In the work program for fiscal 1975 for Critical Areas, about seven task objectives are identified. The public information program will be an information package, including a slide show which explains the program, a brochure, and various technical manuals. These will be taken to the Regional Development Commissions and used to assist them in integrating the program with their work programs. This should provide a consistent format for suggestions from the RDCs.

The permit review procedure is being tested in the Lower St. Croix Critical Area. Procedures for notifying EQC, how the permit is evaluated, drafting of a recommendation by EQC, review by EQC, notice of the recommendation to the local unit of government, and notice to EQC of disposition of the permit application are part of this procedure.

Every permit application is being reviewed; only one in twenty involves any judgment. Twelve local units of government are involved. The staff has notified the local governments that permits for remodeling the inside of a structure, to change the windows, etc., need not be reviewed. All other permits are reviewed. Such review would be impossible for a critical area the size of the Mississippi River Corridor. Between the designation order and the time that the plan and regulations are approved, the law requires that EQC be notified of all permits. After that time only those which require an administrative hearing must be reviewed. Criteria for excluding review of certain permits are being considered.

Crucial to the Critical Areas Planning Process is the close relationship between EQC staff, the RDC and the local units of government. A problem which has become apparent in the Lower St. Croix is that many smaller units have part-time governments, and officials often cannot be reached during normal working hours. A threshold of minimum staffing and understanding seems necessary for local units of government.

Assistance to local units of government is one of the main considerations in the success of the program. Financial aid and skills are necessary to fulfill the responsibilities of the Critical Areas Program. Funds will be available in the future to assist local governments in development of regulations, but not for their administration. It may be necessary to subsidize them or to have them contract for services from larger, more competent units of government.

The tools for dealing with "critical areas," including the Critical Areas Act, the Wild and Scenic Rivers Act, the Shoreland Management Act and the Floodplain Zoning Act, all have different definitions and different operating procedures. With the Office of Local and Urban Affairs (OLUA), the possible extent of standardization under present rules and regulations is being evaluated. Complete standardization would probably require some statutory changes.

Design of an intentory process and implementation of an inventory of potential critical areas are major tasks for 1975. MLMIS data are being

used, including bedrock geology maps with soils ratings and forest productivity ratings. Other necessary data will be collected and synthesized with it. Data on wildlife habitat and surficial geology, and delineation of acquifers in recharge areas are lacking. The Historical Society has a list of historical areas. A second step will be developing weight factors. Both the uniqueness of (natural, scientific, aesthetic or cultural) resources and development pressure must be considered in weighting. Variables for measurement include economic value, recreational value, scientific and educational value of an area.

Methods will first be tested in Itasca County, where MLMIS has coded extensive information. The first area of the state to be included in the inventory will be the North Shore. This will be done in conjunction with the Coastal Zone Management Study and should be completed by next spring.

Other areas which have been suggested as potential critical areas are the Whitewater Area, the Lower Minnesota River Valley, the Mississippi Corridor, the Minnesota Zoo Area, an area near Rochester along a tributary of the Zumbro, several areas on the North Shore, the I-94 corridor near St. Cloud, and the periphery of Voyageurs Park.

The Zoo represents an example of how the Critical Areas Process, by its very potential, can influence cooperative planning. Local units of government (Metropolitan Council, Apple Valley, Eagan, the Zoo Board, the Highway Department, and Dakota County) asked for two months to enter into a joint powers agreement for planning before determination of critical area designation.

Potential critical areas are now identified by information from the public. Development of the inventory will provide a more comprehensive way of identifying them. More subjective methods must continue to be used until all necessary data can be developed.

E. Coastal Zone Management Program

The Coastal Zone Act is a 1972 federal law. It was the result of concern for the coastal areas of the U.S., including the Great Lakes areas. There has been concern for development along the coast, because of the fragile ecology of those areas and because of economic pressures to develop them for various land uses. The Coastal Zone Act is a product of concern for the environment, for the economy and for recreation.

Some states had special Coastal Zone legislation. In Minnesota, an executive order of the Governor designated the State Planning Agency as the coordinating office for developing this program. This is to be done in partnership with state, regional and local government. Funding is two-thirds federal and one-third state. The Management Program must contain six essential elements, as prescribed in the federal legislation:

1) an identification of the boundaries of the state's Coastal Zone;

2) a process for defining appropriate land and water uses in the Coastal Zone;

3) an inventory and designation of geographic areas of particular concern;

4) an evaluation of the adequacy of state and local regulations to properly manage the land and water uses;

5) a designation of priority uses within specific areas throughout the Coastal Zone;

6) a description of the intergovernmental arrangements necessary to develop and maintain an effective and coordinated management process.

The Coastal Zone Management Work Group, which is to develop the management program, consists of representatives of the State Planning Agency, Department of Health, Highway Department, Department of Economic Development, Pollution Control Agency, Department of Natural Resources, Arrowhead Regional Development Commission, Lake County, Cook County and St. Louis County. Lake and Cook counties are represented by county board members; St. Louis County is represented by its Zoning Administrator.

The first meeting was held in early August. At the August EQC meeting, the work group was charged with looking at the North Shore for possible critical areas. The work group decided that this could be done best and in the most orderly manner within the framework of the Coastal Zone Management Program; point 3 of the program would essentially accomplish that task. The EQC did not object to that method.

A data base is being developed, using existing and supplementary information on land use, soils, geomorphic areas, etc. These will provide a basis for decisions on land suitability for future use. Alternatives to septic tanks will be explored, since soils of much of the area are limited for septic fields. Available legal tools are being analyzed. Tools such as county zoning ordinances, subdivision regulations, the Shoreland Management Program, the Wild and Scenic Rivers Program, highway scenic easements, etc. will be evaluated. These evaluations should result in goals, objectives and policies which will strike a balance between environmental and economic concerns.

The program must be developed within three years (beginning June 30, 1974), but it is hoped that it can be completed in a shorter time. Critical areas may be identified during the development of the program, perhaps at the end of the first year, or more likely during the second or third year.

Strip development is a problem which concerns the work group. While there is a good deal of publicly owned land in the North Shore area, much of the land right along the shore is privately owned. Private, and therefore taxable, land of value is generally located along the coast, and this is where development is occurring. Managed growth for which public services

can be provided is desirable. The need for tax base is felt as a pressure by the local people. Conflicts with existing ordinances could result from the program. There is some feeling among local people that the program seeks to preserve a playground for city residents.

Public participation is a big part of the program. A slide show is being developed for use at schools and at public meetings. A brochure is being prepared for distribution at municipal and county offices, libraries and schools. Every other meeting of the work group is held on the North Shore. The first was at Duluth, the second at Silver Bay, and the next one will be at Grand Marais. While most local people feel they might be infringed upon by the program, some groups support it. Further education should broaden the base of support. Some people who were upset have responded favorably after receiving information on the program.

The state does not have any authority for enforcement of the program or approval of local plans. The act provided funding, but did not give authority to the states. The states which have special legislation probably included some enforcement authority in their laws. As it stands now, enforcement will be given to local governments.

Local control will be used where possible, with state guidance. Local officials fear control of the state or of the RDCs. It is hoped that local governments will see the need for planning along the North Shore. As part of its program, the work group may recommend legislation to give the state approval power, or, for example, changes in the Shoreland Management Act, or changes in funding.

SECTION III

EXISTING STATE LAND USE PLANNING PROGRAMS

CONCLUSIONS

1. The State of Minnesota has good laws for certain aspects of land use planning. Improved implementation and coordination of these programs could make them more effective.

2. It appears that resistance to land use planning programs diminishes with increasing public awareness and understanding of them.

3. Local governments often have inadequate resources for implementation of responsibilities assigned to them in state environmental legislation.

4. Planning bodies composed of state and local agency representatives appear to contribute to cooperative relationships and the development of sound programs.

5. Shoreland Management Program: No effective mechanism exists for review of variances granted by local units of government from shoreland management ordinances, short of expensive litigation.

6. Power Plant Siting: The siting of power plants and transmission lines will have tremendous environmental effects on Minnesota and its land throughout the remainder of this century. It is a process little understood by the public at present.

7. Wild & Scenic Rivers: The State has provided insufficient funding to successfully implement a Wild & Scenic Rivers program. The success of such a program is dependent upon dedicated state employees and upon a thorough understanding by local residents and local governmental officials of the nature and extent of the controls imposed by Wild River designation.

8. Critical Areas Process: The Critical Areas Act could provide a major tool for the State to protect particularly sensitive areas from unwise use. The minimal funding provided by the State allows the work of only one or two staff members, thus an effective program giving extensive consideration to any significant large areas of the State is not currently possible.

9. Critical Areas Process: As in the Wild Rivers program, the public relations aspect of a Critical Areas designation is very sensitive and of crucial importance to the success of the program. For example publication of a false rumor that a twelve mile strip along the North Shore of Lake Superior would be designated as a Critical Area produced a strong reaction and stimulated the formation of organized groups opposing such designation.

10. Coastal Zone Management Work Group: The effort to stimulate public participation in the program is commendable.

RECOMMENDATIONS

1. Overall state policy direction should coordinate land use planning on the state level and should provide guidance to local governments. Definitions, operating procedures and timing of state land use planning programs should be standardized to facilitate their implementation. Monitoring and data collection efforts should be intensified (see also Section II). Standard background data would contribute to coordination of various planning programs.

2. Sufficient staff and funding for public education should be provided for each land use planning program. A variety of channels for public education should be used. Citizens should be informed as early as possible of the implementation of a program or of actions under a program.

3. Local governments should receive adequate funding for land use planning responsibilities assigned to them by the State. (See also Section IV). State guidance and state and RDC expertise should also be available to them. While rights of local governments must be respected, strong state positions should be taken when necessary.

4. Local governments should be involved as early as possible in development of state programs which will affect them. Their input should be encouraged in cooperative state and local planning efforts.

5. The State should consider centralization of its land use planning process in a single agency, which could develop the data base and expertise necessary for land use planning and land use planning decisions and programs, both from a technical and a practical and public relations standpoint.

6. The CAC believes that the most desirable structure for such an agency would be an Environmental Quality Council consisting of a citizens' board (as suggested in Section I)* with a small but adequate staff, able to draw upon the expertise of other agencies as needed. Because the environmental impact statement process is basically a planning and land use decision-making tool, such an agency would be the appropriate overseer of the EIS process as well.

7. Review of Variances: An independent environmental hearings board should have jurisdiction to review decisions of local units of government granting variances or conditional use permits that exceed the minimum state standards from those ordinances required by state standards and criteria. Such a mechanism would preserve the important and delicate relationship between the standard-setting agency and the local unit of government, while providing citizens with an opportunity to challenge a decision alleged to be unwise or unsupportable without the necessity of hiring an attorney.

8. Power Plant Siting: The Haworth and Anderson Report on the Minnesota Environmental Policy Act recommends that the Power Plant Siting function be transferred to the Energy Agency. The Minnesota Energy Agency, charged

*See minority reports, Section I.

with the development of energy conservation measures and the determination of need for new power facilities, does not have experience in the collection and utilization of land use planning data and would not be an appropriate agency to perform the Power Plant Siting function.

9. Wild & Scenic Rivers and Critical Areas: The success of these legal tools in protecting particularly important land areas of the state requires substantial additional funding; present staff for both programs is simply inadequate to deal with more than one river or one critical area at a time. At the current rate of the designation of one wild river and one critical area each year, development will outstrip the state's practical ability to deal with land problems in these special areas.

SECTION IV
LAND USE CONTROLS AND AID TO LOCAL GOVERNMENTS

The Office of Local and Urban Affairs was created in 1967 when certain responsibilities of the Department of Business Development, Division of Community Planning, were reassigned to the State Planning Agency. OLUA is to "advise and cooperate with municipal, county, regional and other planning agencies and planning groups within the state for the purpose of promoting coordination between the state and localities as to plans and development...may provide at the request of any governmental subdivision...planning assistance... may accept and disburse grants and other aids for planning purposes from the federal government and from other public or private sources... and shall adopt such other measures as may best be calculated to promote public interest in and understanding of the problems of planning..." (Minn. Stat. Sec. 4.16, Subd. 5). OLUA was further directed to "undertake studies to obtain information and data on urban and rural needs, assistance programs and activities,... provide technical assistance and advice in the solution of such problems,...make available to the governor and the legislature pertinent information relating to federal grants in aid to local governmental units and an analysis; inform local governmental units about federal programs of social or economic aid or assistance for which they are eligible, together with the criteria, standards and conditions upon which such aid is based." (Minn. Stat. Sec. 4.12, Subd. 4)

The 701 Program began in 1954 as federal grants to units of local government, initially under 25,000 population, to help them satisfy the planning requirements of the federal urban renewal program. This involved assistance in preparation of a comprehensive plan and its implementation through zoning ordinances, subdivision regulations, etc.

Today in Minnesota, the 701 Program is not used for planning at the municipal or county level. Grants are made exclusively to RDCs, some COGs, large cities, and the Office of Local and Urban Affairs. The grants are 2/3-1/3 matching grants. Within the State Planning Agency the ratio is about 50-50. More money from the state is necessary to maintain programs at present levels. Funds are now earmarked by the federal government; states are working toward a larger role in determining use of funds.

With the St. John's Center for the Study of Local Government, OLUA has developed eight training modules. These are for sessions of 2½ to 3½ hours, with the emphasis on participatory training, including role playing, slide/tape shows and case studies. They are intended to give local officials factors to consider in decisions, but not answers to specific questions. An example is the Land Use Planning Module. Criteria are considered, such as physical resources (soils, topography, floodplain, environmentally sensitive areas), the relationship of a decision to the surrounding land use, and cost of providing

services. Participants are not told how much weight to give each factor--they should do this in terms of their own communities. One module is being considered to deal with the problem of local officials' lack of awareness of their legal rights under the police powers of zoning and subdivision.

Ramapo. in New York, provides an example of a stage growth plan for a municipal area. Land classifications were made, and development was timed to prevent scattered development and premature extension of services to certain areas. Within 18 years, services were to be extended into all of the developable portions. Developers who wished to go into an area before services were to be provided had to comply with a point system, which meant installing most or all public services themselves. This was accomplished through the use of zoning, subdivision regulations, and capital improvement budgeting.

It is important to make expertise available to local units of government. RDCs now provide one source. The State Planning Agency will be proposing, first to the Governor, then, depending upon his reaction, to the legislature, a state finance grant program to local governments. The basic purpose of the program would be to improve the ability of units of local government to cope with land use and development related decisions. Grants would not be available to defray the cost of programs which are currently being funded by the recipient. A request will be made for four million dollars; a little over half of this amount would be needed by the Metropolitan Council. The grant recipient would be expected to have members of the Planning Commission, the Council and the local staff participate in training programs dealing with land use and development decision making. The grant recipient would be encouraged to do all of the work with local staff or to contract with the RDC. If this were not possible, qualified consultants would be considered. However, in no case would a consultant be permitted to undertake more than 50% of the dollar amount of the approved work programs. Examples of the type of efforts which could be undertaken are growth management or soils studies.

A maximum three-year grant period is being considered, with the local government taking over more of the financing over that period (e.g. 75-50-25 ratio). OLUA would develop regulations for administration. Local units, with the RDC, would develop a work program, and identify how it relates to state policy.

The state grant program could be more easily administered if the state were to define policies and to provide guidance to local governments. The Green Acres Law could be cited as a state policy for preservation of prime agricultural land. If such policies are not made by the legislature, minimum policies will be set out in the rules and regulations for the program. Some land use questions are quite subjective. An example is the question of growth centers, and of optimum city size. This question can be answered for specific parameters, but not generally.

A major concern is the ability of local officials responsible for decisions to make informed decisions. Bad decisions can often be identified, but a middle ground involves fine value judgments. Efforts will concentrate on making local officials aware of the potential effects of a decision, and getting them to examine alternatives.

URBAN GROWTH CONTROL SYSTEMS

A literature review funded by the National Science Foundation is now being completed after 15 months of work. The charge was to pull together literature on urban growth control systems, evaluate it, and make that evaluation available and useful to local officials. The materials gathered in the study are on reserve in the Public Administration Library, 3rd Floor, Blegen Hall. Many are also available in the Metropolitan Council Library. The second volume of the report, which has not yet been published, will have a bibliography of about forty pages. The material is very new, and very little follow-up work has been done. No analyses are available on environmental impacts of growth control systems. Only three analyses of social-economic impacts are available. Students at the University are doing original research in these areas.

Descriptions of growth control systems were the first step. Four questions were then examined: legal considerations, administrative implications, environmental impacts, and economic and social impacts. The report is now being bound and sent to NSF, and will be published by the American Society of Planning Officials, which should ensure circulation to all planning agencies.

Thirteen growth control systems which had been in the news were studied. A long list of techniques was developed, and their implementation was also examined. Many of the tools identified have been in use for some time, but growth control systems are linking them together in a new way. Fifty-seven techniques or system elements were identified. Systems studied included Ramapo; Brooklyn Park, Minnesota; four counties in the Washington, D.C. area; areas in Florida, California, and Oregon; and Boulder, Colorado.

Brooklyn Park, Salem, and Sacramento all instituted their techniques at least partly to preserve agricultural land. If it is economically viable, such land can be preserved. Zoning can be an effective tool when tied to other controls (e.g. limitations on extension of facilities, preferential taxation, environmental controls, and subdivision controls). Brooklyn Park's system was based on subdivision requirements, not on zoning. If development pressure is too great, virtually nothing will work.

Environmental impact statements were used as a technique in Petaluma and Sacramento. San Diego, which was not included in the study, based its growth control system on environmental impact statements. Every development above a certain level was required to file an EIS, including a cost/benefit or cost/revenue analysis, at the expense of the developer. This was required in addition to the requirements of the California Environmental Quality Act. This system did not work well; it was too complex a system to generate necessary information. They fell back on massive down-zoning.

The study found that many techniques are being used in combinations that are non-traditional. Most of the systems studied relied on regulatory measures; tax incentives were used only occasionally, for example in Ramapo. Often these techniques are based on little study and have no monitoring system to evaluate their effects. Citizen input was an important factor; many of the systems resulted from initiative referenda. All areas studied were high-growth areas. Some were entire metropolitan areas, but none were as complex as the Twin Cities Metropolitan Area.

Cost of service and inadequate provision of services was the major motivation for development of these systems. A second motivating factor was environmental concern. A third motivating factor was exclusionary in nature. Most of the systems paid very little attention to possible exclusionary factors, doing only what was necessary to avoid being taken to court. Brooklyn Park appears to be the opposite of exclusionary; there a special effort has been made to encourage multiple-family and subsidized housing. Fairfax County, Virginia, is attempting to develop a point system, in which one category is public housing. Boulder has control over public services, and informally requires low-income housing as a prerequisite for services. The Metropolitan Council will have review power under the special revenue sharing program which has grown out of the HUD programs. The Council will review the plan for a community, and housing projects would be included in the plan. Montgomery County, Maryland, passed an ordinance requiring any developer building a certain number of units to provide a certain percentage of low- and moderate-income housing. In a case like that the question arises as to whether public funds should be provided to those developers.

Some of the more successful systems were natural resources based. An example is Pinellas County (St. Petersburg), Florida, which has an absolute limit on the amount of drinking water, caused by infiltration into the aquifer. There is a very tight allocation system for building permits in the whole county. Part of the driving motivation for Brooklyn Park's system was a potential flooding problem. This was a more complex motivation. The municipality was divided in half, and development was restricted above the line to preserve agricultural land, limit growth to a sewered area, and to prevent flooding problems. Anyone building

above the line must install storm sewers. This system has been well accepted because potato farming is still viable in the area above the line, because there was enough land below the line for development, and because development pressure was weak. For a successful system, good legal talent, good planning, and good administrative staff are necessary.

The Development Framework for the Metropolitan Area will provide standards, guidance and criteria for that area, and may be a step toward development of statewide standards. Land use policy involves many different policies (highway policy, sewer policy, tax policy, agricultural land questions, etc.). This presents an enormous task for the state. Other countries, such as England and the USSR, which have tried to implement land use controls, have had only limited success with nationwide controls.

Some of the greatest impacts on land use have come from interest rates. Interest rates, combined with energy questions, will probably have considerably greater effects than zoning or Green Acres.

SECTION IV

LAND USE CONTROLS AND AID TO LOCAL GOVERNMENTS

CONCLUSIONS

1. Many officials of local governmental units have a limited amount of expertise and training to do an effective job with the land use planning now being required of them.

2. The Office of Local and Urban Affairs and some RDC's are able to provide a limited amount of assistance to local governments.

3. Local governmental officials are frequently ill-informed as to the extent of their government's authority to control land use under the general police power. This often results in weaker decisions than the officials, and their constitutants, prefer, due to arguments (and express or implied threats of lawsuits) presented by developers and their attorneys.

4. Local governmental officials need additional information concerning the natural resource characteristics of their land areas, the true cost of extending urban services to new developments, and available legal tools in order to make the best decisions concerning the use of available land.

5. Easily accessible information about past, present and proposed land use controls is lacking. The general public - and the individual citizen - need this kind of information to enable them to support or challenge their elected decision-makers as the decision-makers set policy.

6. The State has provided few standards or guidelines to assist local governments in making decisions concerning land use. For example there is no legislative policy regarding the staging or timing of development to coincide with the extension of urban services. On a regional level, the Metropolitan Council's Development Guide Framework will provide some standards, guidance and criteria for the Metropolitan Area.

7. The Green Acres law, designed to be a tool to preserve agricultural land in rapidly developing areas, does not work well because there is little motivation for retaining land in agricultural status for any particular period of time, nor are there any criteria for the Green Acre tax status based on agricultural productivity.

8. Land use planning decisions must be based, in the first instance, on the natural characteristics of the land and its suitability for particular types of use or development.

RECOMMENDATIONS

1. In order to provide goals and policies for land use decisions by state, local and regional decision makers, the State Legislature should provide general policies which foster natural resources based land use planning and which deal with the issues of timing and location of growth and development, the preservation of other natural resources such as agricultural land and topsoil, the location of commercial and industrial development relative to residential areas and the preservation of open spaces. The state should also set guidelines to aid local governments in making decisions. The Metro Council's Development Guide Framework may provide a model.

2. The state must provide land use information to local governments. The dissemination of such information is dependent upon the collection and coding of data as described in Section II of this report.

3. All zoning administrators, all planning Commission members, should be required to take a course on planning and zoning law or a demonstration of equivalency, to help them recognize the need for information in making decisions and to recognize that they have rights, as well as developers.

4. While most land use decisions are properly made at the local level, there should be an easily accessible method of review of local decisions which are of more than local significance and affect communities outside of the unit of government making the decision. The Metropolitan Council is given a limited review power under 1974 legislation. The State should consider extending that review power to other regional development commissions or, alternatively, including such appellate authority within the jurisdiction of an environmental appeals board. (See Section I of this report.)

5. The State should prepare a land suitability plan to aid local governments in making decisions. Such a plan would not dictate the uses to which land could be put, but would inform local governments of the uses for which land areas of the state are best suited, based upon their natural resource characteristics.

6. Information on land use control efforts previously used in other areas must be presented to the public in an easily accessible, understandable form. The literature review described in Section IV should be used as a resource for the kind of information needed by the public.

7. The State should consider amending the Green Acres law to insure that agricultural land given special tax treatment will remain agricultural for a reasonable period of time. Additional consideration should be given to preservation of agricultural land through zoning, and by assessing property only for those improvements which benefit the property in its present use (i.e. as agricultural land rather than as potentially developed land).

SECTION V
STATE LAND USE PLANNING

Under an appropriation from the Minnesota Resources Commission (MRC), the State Planning Agency was charged with developing a land use planning program for Minnesota in conjunction with state agencies, Regional Development Commissions and local units of government. A work program was prepared in December, 1973, for MRC.

The popularity of the term "land use planning" grew out of broader considerations for the environment. Conflicts have surrounded the term. In reality, it is neither a plot to eliminate private rights to land nor a panacea for all problems; the State Planning Agency's view lies somewhere in between. Land use is a manifestation of a number of different decisions--environmental decisions, economic decisions and social decisions. A land use planning process is thus more than environmental protection and must address all three of these broad issues.

Needs for better land use decisions are obvious. Most land use decisions are of a purely local nature. Issues which are of state significance must be sorted out, and the ability of local officials to make these local decisions must be strengthened. One way of accomplishing this is to collect and provide the data necessary for good decisions, so that those officials do not have to base decisions on political instincts. Another way of strengthening the local decision-making process is to provide financial assistance. A third way is to develop a perspective or framework within which local planning can take place. The 701 Program was not as effective as it might have been because often consultants were hired to do the work, then left the local officials with the responsibility, and because each community was planned as a separate entity.

Land use planning should start from a national perspective. Minnesota's land uses are primarily agriculture, forestry and urban. Agricultural and forest production are dependent on the national market, which is controlled at the federal level. Most federal land use legislation has been directed to the states, but the federal government also has responsibility for policy and as a landowner. Planning for the State of Minnesota can be devastated by fluctuations in the national economy.

Land use planning involves many factors. Currently a "bandaid approach" is often used to deal with particular problems. For example, new standards for water quality or air quality may be set without consideration of their economic impacts.

Minnesota is probably now in a better position for making decisions on land use than are many other states. Legislation such as Critical Areas, the Environmental Policy Act, Power Plant Siting,

Subdivided Land, Shoreland Management, and Floodplain Management has provided regulatory authority and measures such as Critical Areas, which can contribute to the planning process. Minnesota also has structure that most other states do not have, such as the Regional Development Commissions, which can coordinate the diverse activities of local government; the State Planning Agency, which has the ability to coordinate and to make sound recommendations to the legislature; and the EQC, which can coordinate the interests of state agencies.

A six-step planning process has been identified for land use planning. The first step is to assess resources, including social, economic and physical resources. Efforts have been concentrated on the physical environment. In this biennium new data variables will be added to MLMIS, the computerized information system which has been underway for about six years. Existing data sources are being used where possible. Efforts are being concentrated in Region 3, the Arrowhead. Suitability maps will be developed for agriculture, forestry and, if possible, for other uses.

The second step is to identify problems and opportunities. An example would be the land use conflicts in Region 3 among forestry, mining and tourism. Other possibilities include conflicts between urbanizing and open space, between agricultural land and power lines, and conflicts in legislation, e.g., not enough money to carry out certain programs. A questionnaire has been prepared for RDC's and is distributed when land use presentations are made to each RDC. This helps to identify how they perceive land use and land use problems in their regions.

The third step is to develop goals. This becomes rather theoretical. The intent is to develop a broad directive for the state, to establish an overall direction. If this cannot be done on a statewide basis, perhaps goals can be identified on a regional level. The state constitution has been considered as a vehicle for this, since it could allow citizens to determine what direction they want. Other possible vehicles would be the Commission on Minnesota's Future or the RDC's.

The fourth step is to develop policy, which has been defined as the type of thing enacted by statute. Now many programs are running without policy direction, and conflicts sometimes result. Policies, which deal with implementation of broader goals, should be in harmony with one another and should be a means of resolving conflicts.

The fifth step is implementation at the program level. The state's program budgeting and management by objectives procedure may be used as a basis.

The sixth step is evaluation and accountability, measuring the progress made toward the goals. This step brings the process to a full circle.

Land use planning data are being expanded in a number of areas. The Soils Atlas Program at the University is combining the efforts of the Soils Department at the University and the SCS to produce a series of soils maps. Three maps are now available for the Hibbing, St. Paul and Brainerd areas, with the rest of the state to be completed by July. Interpretations of this information will be computerized, including such factors as soil growth class, species suitability, soil strength, flooding potential, wetness of the soil, appropriateness for septic fields, danger of groundwater contamination,etc. This information is based on sections, or 640 acres. This is good for statewide planning, but is not refined enough for local land use decisions. A fifteen-year program of gathering soils information based on four-acre cells is planned. Cost will be $24 million; $13 million will be provided by the state, with the remainder provided by federal funds.

In the collection of geologic data, past efforts have been concentrated on the Iron Range. Geologic mapping of the Twin Cities area is underway.

A two-year agreement has been made with the Forestry Experiment Station to produce a forest resource inventory for the entire state. This will be based on 10-acre cells and will include identification of species.

The State Planning Agency will recommend to the Minnesota Resources Commission on December 19 adoption of a statewide resource exploration and analysis program (REAP). About seven on-going programs will be detailed under this program, including resource data collection programs for forestry, hydrology, topographic mapping, ERTS and high altitude aerial photography. This is an attempt to demonstrate to MRC and to the legislature the relationship of these various programs by identifying the programs underway, identifying problems and providing a long-range goal or framework. This is proposed as a ten-year program. Some portions will involve new efforts, but some will be maintenance or refinements of previous work. In many cases, there are three levels of data: 1) data which show broad statewide patterns; 2) data which provide a suitable level of specificity for a majority of decisions relating to planning (perhaps 40-acre or somewhat smaller cells); and 3) data for site-specific decisions. It appears that the latter will have to continue to be gathered on a case-by-case basis. The REAP program should produce data on the second level.

SECTION V

STATE LAND USE PLANNING

CONCLUSIONS AND RECOMMENDATIONS

1. Because most land use decisions are local in nature, local governments should be given tools for making better land use decisions. (See also Sections II, III and IV). Land use decisions of statewide significance should be identified and given appropriate consideration on the state level.

2. Natural resources data collection should be a top priority in Minnesota. State land use information gathering and dissemination must be standardized and centralized and made more readily available to local governments and the public. (See also Sections II and IV).

3. Many State agencies are now making decisions which in effect set land use policy for the state, without clear policy direction from the State Legislature.

4. It should be the function of the State Legislature to set land use policy, and that of State agencies to implement that policy.

5. Land use policies are being developed by the Metropolitan Council in the context of their development guide. Such detailed policies should be reviewed and endorsed or modified by the State Legislature.

6. The development of long-range land use planning goals is ultimately the function of the State Legislature, not State agencies, but Regional Development Commissions, the Commission on Minnesota's Future, State agencies and the Environmental Quality Council should, based on their experiences, provide suggested goals and policies for consideration by the Legislature.