Environmental Planning: the Ideal vs. the Reality

An In-depth Look at the Environmental Planning Methods of Bemidji and Rosemount Compared to the Ideal

Elise Souders
Dr. Pat Welle-Advisor
Thesis
February 16, 2001

Table of Contents

Raw data

Second Earth Day?

Reagan Years (bad ride)

too broad Environmental Planning?

NEPA 1969

man vs. human

focuses on good or bad instead of values

More breadth of background than necessary

More & more about less & less

economic benefits of urbanization

wetland delineated (a bad thing?)

No over-arching structure for growth management

(18' Fourth rule)

Phonebook sampling

~~600 names~~ 30 x 200 6000 names names/along cities

ABSTRACT

The goal of this paper is to compare and contrast the environmental planning methods of the "ideal" to two real cities, Rosemount and Bemidji. While the "ideal" can be found in books, what happens when it is used in real life settings is a different story. To involve the public a survey was conducted in both cities to see what citizens knew was happening within their own city. A series of questions pertaining to environmental planning were asked and the respondents' answers were rated on a Likert scale. It was hypothesized that both cities' citizens would agree that environmental planning was happening within their city, but there could always be room for improvement. In the end when the answers were analyzed the results were very similar to what was hypothesized. Most citizens agreed that environmental planning was going well, but within certain areas, such as water or land resources, there could be an improvement. With the results, recommendations were made to both cities about how improvements could be made.

INTRODUCTION

While reading this paper it is hoped that one can understand in the end what types of environmental planning methods Bemidji and Rosemount use in city planning. It is also hoped that the methods used by each city can be compared and contrasted to each other and to "the ideal" found from various literature sources. Finally, the end goal is to take the statistics from the public survey and return the results with recommendations back to the Bemidji and Rosemount city planners. Because as it has been stated in almost every book, public opinion is one of the most important parts to planning.

BACKGROUND

While planning in general and land use regulations can be traced back several hundred years, environmental planning really only began about forty years ago. Although many environmental concerns had been mentioned before that time, it was not until the late 1960's that they actually began to be addressed (Cullingworth 207). In the United States, the steps towards achieving the environmental planning that we see now began in 1905 with Gifford Pinchot and the establishment of the United States Forest Service. Before 1905 the view that most Americans took was that nature was something that should be conquered and tamed (Cullingworth 206). As time progressed through the 1900's several new conservation efforts started to occur, and authors, such as Rachel Carson and her book Silent Spring, started to come out on the market, environmental awareness increased. Ultimately, in 1970 with the first Earth Day, environmental planning began to develop. Things began to change when Ronald Reagan was elected to office in 1980. There was a stop to the environmental policy, and in some cases there was even a reversal since environmental deregulation was the goal of many Reagan staff members (Cullingworth 208). In 1990, with the second Earth Day, George Bush in office, and environmental policy in place the march forward to better the environment began—this time without looking back.

So what exactly is environmental planning, and how do planners succeed in meeting these goals? According to Reg Lang in the Environmental Planning Resourcebook, environmental planning "prepares for purposeful action directed to the environment or its resources for the optimal enhancement of environmental capacity and quality" (p. 21). In other words, planners try to reach a balance between the human and

physical environments. Although most planners working at the local levels deal with environmental planning within their job, there are many planners whose only job is working within the area of environmental planning. Environmental planners tend to be involved in a narrow specialty. They also tend to have a higher education level (such as a Master's degree and above) that is specialized in the sciences and social sciences. Because most local levels of government cannot afford to have a specialized full-time employee, environmental planners tend to work at three different occupations: pollution control, environmental impact assessments, or land use planning (Ortolano 12). Pollution control planners look and predict how environmental quality can be improved when more controls are put into place. Similar to pollution control planners, environmental impact assessors look at what consequences might accrue because of certain projects. Finally, land use planners look for changes in land use when water, air, and land changes are made.

In the late 1960's when people recognized some of the environmental problems that were occurring and environmental policy was starting to come to the forefront, the first major policy that the Federal government put into effect was the National Environmental Policy Act of 1969 (NEPA). Much of the public felt there was a lot of degradation occurring when public works projects, such as highways, powerplants, and water projects, were implemented. In the past the environment was not a concern to the government when these projects went into place, but instead how economically efficient they were was the focus. So, when NEPA was passed on January 1, 1970, the Federal government mandated that federal agencies give environmental factors the same weight as other factors in all projects by using all practicable means.

In order to accomplish the mandate, federal agencies follow three sections of NEPA. The first section contains a declaration of environmental policies and goals. Section two is an "action-forcing" provision to make sure the agencies implement these environmental policies and goals. Finally, in the third section, the Council on Environmental Quality (CEQ) in the executive office of the president was established. The CEQ is the primary party in environmental quality policy coordination, monitoring, and reporting. The CEQ requires that all planning requirements and NEPA combine early into agencies so that the agencies can reflect the environmental values into their plans. When these requirements are in place and the agencies have a plan for a new project, the "action-forcing provisions" come into effect.

The CEQ has put an environmental review process into place so each agency has a step-by-step procedure to ensure environmental quality (Appendix A). The first step is that of an Environmental Assessment (EA). The EA shows if the plan will or will not have a significant environment impact when completed. When there is a finding of no significant impact (FONSI), then the agency can continue their plans as before and no Environmental Impact Statement (EIS) is required. On the other hand, if there looks like there could be environmental consequences associated with the present plan then alternative plans must be looked at--the principal goal of the EIS.

Several steps are then mandated to be taken when an EIS has to be completed. A notice of intent in the preparation of the EIS must be published in the Federal Register. After the notice of intent is published, the scoping process proceeds with public participation, and the scope of the EIS follows as to what parts should be examined more thoroughly (Powell 221). When all of the requirements are met a draft EIS is written.

Once again there is a public and agency comment period before the final EIS is written. When the EIS is done, there is a record of the decision printed in the Federal Register and the agency can continue on with their project whether it be with the original plan that has been modified or with a completely alternative plan. Other countries have been emulating NEPA and the EIS process. Also certain states have taken NEPA and made "little NEPAs" which are a smaller scale of NEPA so that it is easier to implement on a local level.

"THE IDEAL"

Because NEPA is a federal policy it would be imaginable that there would be similar approaches used throughout the nation to implement environmental planning. However, because biases do occur, there is not one single approach that is used--instead each city, county, and state takes their own approach according to their specific needs. Because there is not a single approach there are several traditional procedures that do occur to ensure proper environmental planning.

Environmental Planning Approaches

Most of the time environmental planners look to accomplish the man-in-a-system approach, where man is to be seen within nature instead of trying to conquer it. To accomplish this there are eight approaches that can be used. According to Reg Lang in the Environmental Planning Resourcebook optimal enhancement is one approach. Optimal enhancement emphasizes a strong push for conservation, preservation, protection, creation, and restoration in planning (p 21). In the quality approach it is man and his own judgments that define what quality in general is. When these judgments are put collectively together it forms the basis for environmental planning. In a third

approach there is a return to the man-in-a-system idea with the biosphere/ecosystem perspective in which man is involved within nature and not above it. Other approaches include the systematic approach focusing on wholes such as ecosystems. The fundamentally preventative is a non-reactive approach. The time conscious and impact-oriented approaches round out many of the methods that are used by planners to achieve environmental planning.

Environmental Inventories

These eight approaches many times are intermixed to form a unique approach for each entity for environmental planning. But, of course, there are several other methods that are used as well. One of these other methods used is an environmental survey or inventory. The survey is one of the simpler and more basic approaches used when beginning environmental planning. Basically, the main goal of the survey or inventory is to determine what particular land resources are present in the area. By understanding what resources are abundant and which ones are not it can then be decided where and how planning should continue.

Within the inventory there are two fundamental questions that need to be asked in order to make the most of it. The first question pertains to the constraints and opportunities that the particular environment poses to land use. The second question then inquires about the impacts on the environment from certain land use changes that may occur (Lang 240). Many types of inventories are used; however, there are five types that are used generally in some form or another. There is a visual landscape analysis survey, which evaluates natural systems. These natural systems are evaluated in terms of visual and aesthetic qualities while looking at the suitability for a particular land use. Problems

may arise with this survey, because what may be aesthetically pleasing or displeasing to one may be the opposite of another. A second type of inventory that can be completed is the Natural Systems Inventory Analysis. The focus in this analysis shifts to specific environmental components or features of the land. These specific features are ones that may be protected and therefore may place limitations on certain land uses if they are present. Finally, the last traditional type of survey is an ecosystem analysis. Unlike the visual landscape or Natural Systems Inventory, the ecosystem analysis is a holitistic approach that stresses the interrelationship among different components. This is different than the other two types of analysis that have the tendency of treating each component as separate instead of focusing on the whole. While environmental surveys only look at what is found in the region many times they are conducted in conjunction with other procedures.

Biological Considerations

When planners take a look at what is available as far as resources, materials, humans, and animals they say all of these groups are important considerations in the planning process. But, when environmental planners look at what is out there, their main focus is on the biological considerations. There have been some efforts that have focused on what species are particularly valuable for humans. But, more often then not, environmental planners tend to focus their attention on the entire ecosystem. As scientists have discovered, the ecosystem and its functions as a whole are more important than any one particular species. Similar to not having one specific approach in environmental planning there is not just one specific biological consideration that environmental planning covers. Usually, the criteria falls into ecological evaluations.

For example, evaluations are not necessarily looking for certain increases, but instead the focus is placed on whether or not high values for a particular evaluation means if it is good or bad (Ortoland 285).

A main consideration that is typically looked at is that of certain habitats. These areas can range from rare habitats for species to areas that are appropriate for recreational types of purposes. Many times when these habitats are found or established they are ranked so that they can be managed and used properly in the future. The ranking of the areas can be based on four key elements: diversity, structure and integrity, extent of human contact, and the extent a community responds to these areas (Ortolano 289). There is also a Habitat Evaluation Procedure that has been developed by the United States Fish and Wildlife Service (USFWS). The criteria are looked at by the vegetative features and their physical and chemical characteristics, as well as the carrying capacity and the potential to support species that live in the habitat. Of course, like most anything else, the Habitat Evaluation Procedure encounters some weaknesses. It has the tendency for a narrow species orientation. Furthermore, it does not look at species diversity, the ecosystem structure, and the ecosystem function. Forecasting biological effects due to certain plans that the entity may want to implement can come in four forms. A comparative analysis can happen by looking at the situation with or without the project. Another forecasting method is that of a monitoring approach. A third method is a limited experiment. And the fourth is a mathematical model. Both forecasting models simulate what may happen if the plan or an alternative of the plan is put into place.

Environmentally Sensitive Areas

Like biological considerations, environmental planners and planners in general are interested in environmentally sensitive areas. An environmentally sensitive area is an area that can be degraded if it is not properly controlled or it can also be defined as an area that is hazardous to human life and property (Lang 157). There are several types of environmentally sensitive areas; however, they can be grouped into four general classifications. The first classification is that of fragile lands. These lands are ones that need protection from human activity, which may cause harm or ultimately destroy the land. Wildlife habitat areas, shorelines, and rare geological areas are all examples of pieces of land that could be classified as fragile lands. A second type of land is that of hazard lands. Instead of protecting them from man, man is to be protected from them. Hazard lands, such as floodplains, landslide prone areas, and steep slopes may potentially pose a risk to man and therefore need protection. The final two land classifications are also land types that need to be protected from man who may harm or abuse the sensitive areas. The renewable resource lands (which encompass such lands as aquifer recharge zones, agricultural lands, and forests) is one of these environmentally sensitive areas. Finally, cultural resource lands also need to be protected from man including scenic, education, and recreational types of lands.

In order for planners to use environmentally sensitive lands several steps need to be taken in order to ensure proper usage. First, these environmentally sensitive areas must be identified. Though the main portion of the land may be easy to locate the problem that may occur is dividing what is and what is not considered part of that land. Once that step is complete and the boundaries are established, acquisition and regulation

follow. Many times in order to ensure that the land will have proper usage the land must be acquired by the entity that wants to be in charge of its protection. Finally, the last step, which is ongoing, is the management of the area. The entity in charge makes sure that the land is under its correct function. They are also required to monitor for changes, and if changes occur then the entity is in charge of making proper corrective measures. Because these three steps are all related they then need to be integrated and not just done in separate parts.

Assessing Impacts

Like forecasting biological effects on land use plans, there are two approaches used to assess impacts: forecasting and evaluation. Forecasting predicts the environmental impacts of alternative actions, while evaluations put values on different impacts and establish a way to order the alternative plans (Ortolano 159). Forecasting environmental impacts rely on numerous approaches, methods, and models to determine which alternative plan is the most environmentally suitable. The first approach in forecasting comes in the judgmental form. This approach relies mostly on an expert opinion, but many times it also looks at the social aspects of the project beyond the environmental aspects. The "Delphi Method," like the judgmental approach, relies on the opinions of experts. In this method it tries to increase the effectiveness of experts who forecast environmental impacts--particularly when it is done in a group. The method however, steers away from relying on group meetings of experts, and instead it obtains the experts' opinions from a mail survey. In forecasting environmental impacts, models are the most prominent method. Physical models tend to look at the land and cityscapes.

Forecasting with math models is also a popular method. Scientific laws and statistical analysis are used in the math models to forecast the impacts of a plan.

Along with forecasting, evaluating environmental impacts is another way to understand what may potentially occur when an alternative plan is put into place. Similar to forecasting there are several methods and processes that are used to evaluate. Many times the techniques of ranking alternative plans comes down to using evaluation methods. One of the most common types is the Cost-Benefit Analysis (CBA). CBA looks at the benefits and costs associated with each alternative. The plan with the most benefits that outweighs the costs is usually what guides what happens next. Another method in evaluations has to do with involving public opinion. By involving the public it provides government officials insight into what people want and expect. Involvement can occur in several ways. Public hearings are one of the most common types where an idea may be presented by the entity and the public may comment on it. Public involvement can happen by providing information to the public. Many times this is accomplished through brochures, television, or other forms of mass media. On the opposite side of providing information, obtaining information from the general public also allows public opinions to be expressed and heard. Interviews and questionnaires, such as the one in this project, are forms that allow interaction for those who may not have the time to attend a public hearing. Finally, advisory groups provide another means of public involvement.

A final method of evaluation, which emerged in the 1970's and was still in its beginning stages fifteen years ago, is environmental mediation. When there is plenty of citizen involvement and the agency decisions are questionable is when mediation steps

in. Mediation occurs when the citizen group sues the agency over the final plan. In most cases, the citizens want the agency to stop or modify the final plan. The drawback to environmental mediation is the possibility for it to be abused.

Simulations

The need for simulating potential projects and the eventual assessments of the potential impacts provides another method for deciding which project should take precedence over another. Most of the time the simulation occurs before the project is done to determine various impacts such as noise, water, or air. By conducting the simulation beforehand it not only determines the impacts, but it also aids in deciding which project to do. In various cases visual impact studies are conducted to see how the plan may look. They are created through perspective drawings, artist's impressions, three-dimensional models, and photography. The basis for evaluation comes from evaluative appraisals and preferential judgments. Evaluative appraisals are judged by the quality of the landscape against a standard of comparison. On the other hand, preferential judgments take a personal view for the landscape (Ortolano 306). Simulations, however, do prove some biases depending on who is putting it together and their purpose behind it. Biases can be shown in the drawing caused by lighting, misrepresentation, and the view location. Although these simulations pertain to visual impacts similar simulations can be done to evaluate noise, water, and air impacts.

While most people do not associate noise with environmental planning it does play a vital role. Who really wants to live next to a noisy freeway? Not many people do, but someone has to. The majority of the time noise impact assessment processes are conducted. To begin, a background noise level must be established. Then those land

uses that may potentially be affected by the project are identified. An applicable noise criterion is identified and the forecast is completed of future noise levels with and without the project. After the predicted noise is simulated it is compared to the criteria. Lastly, the project plans are modified if deemed necessary to deal with potential noise problems (Ortolano 340).

The simulation of water quality is accomplished through various models. Hydrologic simulation models help experts to forecast where water will go. Once the simulations are complete there are certain parameters to measure the impacts on the water quality. TDS, or total dissolved solids, does an aggregate measure of various ions. Biochemical Oxygen Demand (BOD) measures the amount of dissolved oxygen found in the water. Radioactivity and pH are also common measurements that are taken. Most forecasting done on water samples pertains to surface water because of the convenience and cost versus groundwater.

Like water quality, there is a range of models to simulate air quality. The Point Source Gaussion Model describes the concentration of various pollutants at numerous points in a space. Multiple Source Models provide similar information as Point Source Gaussion Models by incorporating numerous forms and combinations of the Point Source Gaussion Models. Models for chemically reactive substances also simulate various projects in order to estimate air quality impacts. This model is a little less clear in terms of the results; however, it is easier to spot acid rain or dry deposition. Because air pollution is the presence of air borne residuals like dust, smoke, and fumes, detecting and evaluating the amounts may cause less injury to life and property.

Urbanization problems

Over the past fifty years the rapid expansion of cities around the nation have lead to new problems for planners to worry about beyond the typical air and water quality problems. Although urbanization may reap the economic benefits associated with expanding the city it also creates land use problems that planners now have to deal with. Urbanization may have several devastating effects on the land as it continues to expand. Vegetation is cut back in order to make room for houses, roads, and other buildings. Many marshes are filled in, while wetlands are drained. Topsoil is removed, ecosystems are degraded, altered, and even destroyed. While energy is being used up in record numbers, much of it is also wasted in the process and water quality is also being lowered. All of these effects pose problems for planners. Somehow planners must find a way to achieve an acceptable level of urban development based on the environment's capacity to provide materials and resources while accommodating wastes.

A second problem that is posed is the maintenance and enhancement of the environment's quality itself. Although keeping urbanization under control is tough enough for all planners in the city, the planners on the urban-rural fringe may have a tougher task. The urban-rural fringe is a transition and interaction area where the city meets the country. A distinctive community exists here and there are strong pressures to develop the area. Such is the case in Rosemount. Here, the influx of population to the Twin Cities metropolitan area has forced Rosemount to go from a rural area to and urban-rural fringe area. Besides the problems associated with urbanization comes added problems from the fringe. Many times development will become leapfrogged or sporadic leaving farmland to become fragmented, and in many cases not usable, thereby wasting

land resources. The demand for urban services such as sewer and water also pose problems for planners. Another problem encountered on the fringe is that many natural systems are stretched to their capacity and end up changing, thereby in some cases environmental quality suffers because of it. Then, finally, there is the problem of the urban shadow. This shadow many times causes the removal of agricultural lands past the amount of land needed at that point in time (Lang 164).

So how do planners deal with all of these pressures and help to control sprawl and urbanization? The first task is to protect the land against the urban encroachment. By protecting against encroachment the growth rate tends to slow--another key factor. Monitoring the quality and the capacity of the environment and creating a resilient natural setting also helps. Planners can plan to minimize the impacts of key urban, industrial, and transportation activities. But it is more than just the planners that can help out. Farmers and the rest of the public can also become involved. Farmers should be encouraged to continue to farm especially where development is not planned in the foreseeable future. Today, farmers are selling earlier even though development may not be planned. Many times their taxes are too high, and the money being offered to them is much more than they may make. Such programs as the Farmland Protection Program administered by the United States Department of Agriculture and the Metropolitan Agricultural Preservation Act regulated by the Minnesota Metropolitan Council, encourages farmers to keep their land in farming by giving them incentives and tax breaks so that they can afford to keep farming.

Recreation

With the roaring economy many more people and families have enjoyed their benefits and have been able to sustain more leisure time. Because of this there have been an increasing number of people who now have time to enjoy the outdoors and all of the recreation land that the United States provides. The increase in the popularity of the outdoors--especially among younger people, the increased amounts of leisure time, and the increase in disposable income, has had an impact on recreation lands and it has not been able to keep up with the demands of the people who want to use it. When so many people come and spend time in these recreation lands it exceeds the carrying capacity and the effects can add up. There can be an increase in soil, water, and air pollution, many times caused by the modes of transportation used to move about the recreational site. Damage can occur to the natural flora and fauna that reside there. Snow and solids compaction create problems as well. There is a tendency for increased erosion and groundwater changes. Visual blight and noise have also become problems, which have just emerged recently as in the case of many of the most popular parks. All of these effects tend to increase with the number of visitors, although not necessarily in a linear fashion. For example, soil compaction tends to be more severe in the early stages than the later, because of the initial impacts are much more devastating to the flora and fauna than later on. Mechanized recreation, such as ATVs and snowmobiles, also create more impacts than normal. So what can planners do? Of course there is the idea to build more recreational facilities. The planners also face the pressure of making all of the recreation lands publicly accessible.

Regulations

Land use decisions have traditionally been made at a local level. But, since land use regulations are done by the local government, the Federal and State governments have also been trying to get new approaches implemented for growth management and sustainable communities. Most of the time growth management needs to be done on a region-wide scale, because while one city may limit growth the neighboring city may promote it--offsetting any good that may occur. Whatever cities have done to preserve the environment gets shot down immediately because many zoning ordinances are so flexible, thereby promoting the need for Federal and State help. Federally, they have the easiest part by developing the regulations that states and agencies must follow. NEPA, the Clean Water Act, and the Clean Air Act are all examples of environmental policies that have affected the way land has been used since 1990. But, even more acts have been developed in order to protect more land including coasts, floodplains, and rivers. Until recently state land use regulations have not looked at the environment and most states, with Hawaii and Vermont being exceptions, have no statewide planning or comprehensive controls, although there may be tax breaks for certain land uses.

Even with all of these Federal and State regulations the bulk of the duty falls on the city and local levels. For the majority of local entities, zoning ordinances were the way to go in the past. Although zoning ordinances play an important role, the comprehensive plan is the main guide to how localities will plan and control their area and its growth.

Implementing the Plan

So after much consideration about what planners should look for, implementation of the plan occurs. Planning occurs at three different levels, all of which perform different functions. The top level concentrates on strategic planning. At this level the end product is determined. The goals and policies to achieve the end are also discussed, and finally, the resources and their availability to achieve the goals are identified. The cabinet and council are the main components of the strategic level. The middle level consists of the administrative process in which means and programs are devised to achieve the goals that were set at the strategic level. Senior managers fill these administrative jobs. Finally, the bottom planning level is where supervisors work on the operational job. Their concern is with implementing programs and carrying out specific tasks effectively and efficiently (Lang 231).

Once the tasks, goals, and end projects are identified it is time to implement the plans. There are several types of plans in which planners can choose to model off of. Each type has different characteristics to suit various kinds of jobs. A strategic plan is concerned with the end product and is flexible, while an implementation plan is concerned with the means to get to the end. Both plans maintain conformance of organizational activities and they both stay close to their objectives while making corrections when needed. Comprehensive and functional are two other interconnecting plans. A comprehensive plan as the name states is an overall plan and acts as a framework; where as functional plans are more specific. Both types of plans work with objectives based on land use, physical development, and proper location for facilities.

When the planners seek to implement the plan several steps are taken. The first steps consist of regulation and review. These two components have guidelines, criteria, and objectives that are to be met. The most critical step is that of participation by the public. Environmental problems have the tendency for conflict between groups. However, public participation is more than just a response to the presented goals, it closes the gap between the government and the people, and in the end it helps to create more responsible, better-informed citizens.

THE REALITY

While it is easy to display the ideal framework for environmental planning, it does not always get used in reality. When a comprehensive look is taken at two real life cities, the ideal and the reality are not always the same. Bemidji and Rosemount are two towns in Minnesota, with approximately the same population. Bemidji, located in northern Minnesota, is a rural city, while Rosemount, just south of Minneapolis, is a growing suburb set on the urban-rural fringe. While many things in their planning are similar, there are also differences that can be found.

Bemidji

Bemidji, located about 240 miles NNW of Minneapolis, is a rural town set in the middle of the lakes region and pine forests of northern Minnesota. In 1998, the population was estimated at 12,076 people, up about 1,000 people from the 1990 census. However, the surrounding community of Bemidji encompasses more than twice the number of people of the city at about 30,000. Located in Beltrami County, Bemidji is home to Bemidji State University and Northwest Technical College. The city also houses an industrial park and a technology park. The village of Bemidji was first established in

1896 and gained a strong mayor form of government on November 4, 1905. The strong mayor form held for forty-seven years until 1952 with the current day council/city manager form of government being established. Several types of housing options are available in Bemidji ranging from single-family units to multiple family units and mobile homes. While city retail sales have increased steadily the median house sales price is at $71,000.

not sure I follow the connection

Bemidji's Comprehensive Plan

Despite Beltrami County not having adopted a comprehensive plan to date, the city of Bemidji felt that a comprehensive plan was necessary. The city prepared and adopted their comprehensive plan as a guide in order to manage future growth and to protect the citizens' health, safety, and welfare. Besides preparing a General Growth Management Goal the city also developed goals for the rural service, residential, commercial, industrial, regional growth/land availability, and economic development areas. The primary challenge indicated by the city was the managing of growth in the city despite the lack of comprehensive plans for the county and nearby townships. The comprehensive plan also discussed environmental, park, and rural area plans in order to achieve its goal. As with many of the other areas discussed in the comprehensive plan the environmental portion has a defined goal to it as well.

Future growth was again the forefront goal, and protecting the natural environmental systems from the growth was a major concern. According to the comprehensive plan environmental systems are to be maintained and enhanced so that future generations may access them. Finally, the last part of the goal identifies one of Bemidji's largest natural resources: water. The goal is to protect surface water and

wetlands for a variety of purposes such as for aesthetics, natural qualities, and groundwater recharge. Groundwater supply and quality was addressed as the number one priority in the environmental plan. The main reason is the number of people who use wells to obtain their water supply. Although a leakage from the now-closed landfill has threatened groundwater quality consequently city water now has been extended to many residents. Storm water drainage and surface water quality was number two on the list because of the amount of surface water contained in Lake Bemidji and the source of the Mississippi being located just south of the city. In order to achieve storm water drainage effectiveness, all new developments must contain their own storm water ponds. Erosion/sedimentation control, shoreline management, and wetland protection round out the top five concerns in environmental protection.

Parks and recreational areas are another major component contained within the comprehensive plan. In the comprehensive plan the goal of providing for more parkland is mentioned. Presently, the city contains eighteen parks that encompass 193.43 acres. Nine are community parks, six neighborhoods, and three are unclassified. Although a mandatory park dedication is mentioned in the comprehensive plan it has not been enforced because of legal liabilities that are pending. The park dedication, as sited in the comprehensive plan, is done on net developable land. If a park is not in the plan, then the developers can give the city money for non-dedication purposes.

Because Bemidji lies in northern Minnesota, much of the surrounding area is considered rural. In order to protect the environment that Bemidji is set in, special rural area needs have been addressed in the comprehensive plan. The conservation and open space zone has been designated as one home per twenty acres in order to protect the area

from premature development. And because it is in the rural area, the necessary utilities have not been run out to the homes, and thus the one home per twenty acres will stay at that ratio until the necessary utilities are provided. Environmentally sensitive lands, such as wetlands, state parks, and forests are permanently protected by the comprehensive plan within these rural areas as well.

Bemidji City Planning

While the comprehensive plan gave a detailed outline of the city for the future there were still some unanswered questions about environmental activities that the city planner, Mr. Curt Oakes, had to answer. The comprehensive plan gave a general outline of specific environmental ideas that had been incorporated, but there is a question as to whether they had been accomplished was another question. Storm water retention ponds required in new developments with one acre of paving or more had also been incorporated into other, older parts of the city. Presently, there are three ponds located near Lake Bemidji designated storm water retention ponds and mores sites are being looked into.

To keep in accordance to NEPA, Environmental Assessment (EA) worksheets and Environmental Impact Statements (EIS) were something that has to be consistently addressed. Although no EISs have had to be filled out and completed, the city has seen its fair share of EA worksheets. The most recent EA case applied to the new high school on the edge of town. Bemidji contains a lot of environmentally sensitive lands around the city, and thus certain mitigative measures are common. Mitigative measures, or "physical measures taken to prevent, avoid, or minimize the actual or potential adverse effect of a project" (Gilpin 187), are mostly found in the protection of wetlands.

The Wetland Conservation Act requires that if a wetland is dredged or filled then it must be replaced. In Bemidji this is the case, and in fact it must be done at a two to one ratio. Even though Bemidji is located in a rural environment, it is growing and with growth comes urbanization and development pressure, sometimes making it difficult to maintain environmental quality. However, the city has realized this and therefore has begun to take specific measures to maintain the quality of environment that is found now. Sewers are constantly being put in and extended so that there is not the worry about contamination. Extensive reviews happen with all projects and the majority of the time the Department of Natural Resources is a major player in helping the city to review. Finally, so that all development in the city is not on the open land the city also looks into neighborhood revitalization as a solution. It is contracted out to ensure that it is done properly.

Rosemount

Like Bemidji, Rosemount is a growing city; however, Rosemount is a suburban community. Rosemount is located approximately fifteen miles south of the Twin Cities and the most recent population figure (1998) is 15,224. The city limits cover thirty-six square miles with nearly one half of the city being used for agricultural purposes. A variety of housing options exist with 70% of the people living in single-family units and the remaining 30% in multiple family houses. Over the past 140 years Rosemount has been built up and has become a center for large industries. The eastern third of the city is heavy industry containing a refinery and an industrial waste containment facility. The western third of the city contains businesses and residential areas, and in 1995 there was the addition of an eighty-acre business park. Similar to Bemidji, education facilities are

highly valued. It houses the second largest school district in the state. Rosemount also has the Dakota County Technical College. As Bemidji has seen an increase in retail sales so too has Rosemount and thus leaving the median price of a house at $128,950.

Rosemount's Comprehensive Plan

The first comprehensive plan for the city of Rosemount was established in 1972. It was later revised in 1993. As of the beginning of 2000 an updated version was released. Because the Twin Cities metropolitan area is expected to grow by 650,000 people in the next few years, Rosemount has been requested by the Metropolitan Council to take on more people; thereby, causing the need for a revision of the comprehensive plan. The goals of the comprehensive plan were modified to react to citizens and to take on this anticipated growth. Like Bemidji, growth is a concern and the goals directly reflect this. The city wants to maintain its rural character and preserve the varied landscape of farmlands, wetlands, and woodlands. Living on the urban-rural fringe makes all of these possible. Rosemount's natural land and water environments identified as for needing respect. The comprehensive plan also outlined specific strategies in order to achieve these set goals. Corridors are to be set into the new plans to provide for natural areas and recreation. In order to preserve the rural character of the city, support for ordinances (such as to keep the small town character and development to the northwest quadrant and agricultural lifestyles to the southeast portion of the city) are to be done by everyone. Because of the development pressures many farmers have been selling their farms. Many of them know that they will receive a lot more money by selling rather than trying to farm. The city has realized this and 1,965 acres are under the Metropolitan Agricultural Preserves Act (Rosemount Comprehensive Plan 28). By

adjusting taxes for the farmers it protects prime farmland and keeps natural features and the environment in tact.

Several smaller, specific plans are covered within the comprehensive plan, similar to what Bemidji has done. A redevelopment plan is one. Rather than building on vacant lots and greenfield lands, the city, like Bemidji, wants to keep the idea of redevelopment a possibility. For example, one corner within the city is surrounded by older homes, but in the midst of these homes was an old sports shop that had been losing business for years. In order to keep the residential zone, the city bought the land from the shop owner, demolished the building, and since then has sold the land to Habitat for Humanity so two new houses can go up.

Besides the redevelopment plan there is the surface water management plan and the storm water management plan. Lawn and chemical use, buffer zones around wetlands, groundwater recharge, and the inventory and assessment of wetlands are all covered between the two plans. Finally, as Bemidji did, Rosemount also included a section on parks. Currently there are eighteen parks at 216 acres of space. A mandatory dedication ratio for new developments of $1/25^{th}$ of the development size must be set aside for parks. If no room is available then the park can be set elsewhere within the city. Not included within the parks is the 1500 acres of the Spring Lake Park Reserve that is in the Mississippi River Critical Control Area Plan. Thirteen percent of Rosemount's land is set within the control area, which is dedicated to preserving and managing the environment, scenic, and ecological values of the area (Rosemount Comprehensive Plan 83).

Rosemount City Planning

Even though the comprehensive plan was detailed, there still were unanswered questions that the city planner, Mr. Rick Pearson, had to answer. The comprehensive plan mentioned some environmental areas that needed to be protected, but there were not a lot of specifics. In order to protect wetlands, like Bemidji, a two to one replacement ratio was setup for every wetland destroyed. But to go above and beyond the ordinance all of the wetlands have been evaluated, and the ones that are the most critical are designated wetland to no be built around. Other mitigaitve measures included using Best Management Practices such as creating silt fencing around graded areas to reduce runoff and erosion.

As with Bemidji NEPA has played a role in the city of Rosemount. Most of the new developments within Rosemount are not severe enough to warrant more than an EA worksheet; however, EISs do occur in Rosemount. The Metropolitan Airport Commission did the most recent one. Before the airport was to be expanded at its current site there was the idea of putting it on Rosemount's land.

As the metropolitan area has grown to include Rosemount, urbanization and development have occurred. Protecting the environmental quality is a difficult task for the city and it is basically a balancing act. Not everyone is always happy with the end result; however, when development comes in it is expected to pay for itself. Now with a major housing development going up on 500 acres of open land, the city has decreased the density from three homes per acre to two homes in order to preserve some of the environment.

METHODOLOGY

Sample Design

In almost every book and by both city planners of Bemidji and Rosemount it has been stated that public opinion is one of the most important parts to planning. Linking up with the citizens allows for planners to know what the people want. Although city council meetings and public hearings allow citizens to stand up and voice their concern, not everyone always has time to partake. And even though their concern may be voiced- it is only for one particular subject. On the other hand, the city planners do not have time to always find out how they are doing and what citizens think about on-going and present projects. So, in order to find out about what the citizens were thinking a phone survey (Appendix B) was conducted in both Bemidji and Rosemount. To achieve a random sample the phone book was used and every 200th name was highlighted and called. If the person was not available or did not wish to participate in the survey, the name directly above was called. In the end a total of thirty people from both cities participated in the survey.

Survey Design

The survey focused on how the citizens feel and what they know about environmental planning within the city where they reside. The first six questions wanted the respondent to answer on a Likert scale of strongly agree, agree, disagree, strongly disagree, or neutral. Question seven was to be answered on a scale of one to ten with one being not much and ten being a lot. These first seven questions were used to find out about what the average person thinks. If a random enough sample is complete, the averages that are found should indicate the average of the whole population. The next

two questions were more specific; however, they were applied to both cities. The purpose of the open-ended questions was to obtain more specific answers of what people think. It gave the respondents a chance to express more of what they thought should be addressed. Finally, the last question was once again open ended; however each city's question was different and both dealt with statements that were made within the comprehensive plan. Many times citizens and the planners only focus on the current issues, and many times it cannot be related back to the comprehensive plan's goals. So, this question was designed to let the citizens discuss what they think about how one of the major goals of the comprehensive plan was being met. Finally, the last four questions pertained to the demographics of the respondent. How long citizens had resided in the city, whether they own or rent their place of living, sex, and their age bracket were all asked.

Bemidji Demographics

In order to fully understand what sort of data is being given the demographics of the surveyees must be looked at first. Because of the reluctance for most people to give their exact age an age bracket was given to answer in. They were given in ten-year brackets from age 25-65 and older. In Bemidji, the average age came the first quarter of the third bracket. So the average age was somewhere between the ages of 35-44. But besides being the average age bracket, it was also the most frequently occurring bracket with about thirty percent of the answers. An interesting finding is that in Bemidji all age brackets were covered with at least two people surveyed from each--perhaps giving the survey a more representative sample; however, over one half (63.3%) of the people were in the younger age brackets (<44 years). In 1990 census data 72.9% of the population

was less than forty-five years old. So, in the survey the younger population was slightly underrepresented.

The next demographic question asked was that of the sex of the citizen. Although it is known that one half of the world is male and the other half is female, it is hard to image that a survey would garner the same statistics, but it did in Bemidji. Although from 1990 data, 52.8% are women. Therefore men in this survey were over represented. Another question that was asked was that of owning or renting his or her own home. 86.7% of respondents answered that they owned their own home, while four out of thirty said that they rented. Finally, the last demographic question asked was the length of time that they had lived within Bemidji. Although the answers were given as a single year, for the purpose of the survey they were grouped into five-year segments. The later half of the second bracket (5-9 years) contained the average. However, one half of the participating citizens had only lived in Bemidji for less than ten years.

BEMIDJI RESULTS

Univariate Analysis

The first part of the statistical analysis that will be looked at for Bemidji is that of frequencies and averages. The averages give the planners a relatively good idea of what the total population believes. Although the citizens answered with words, numbers were assigned to each answer:

Strongly Disagree=1
Disagree=2
Neutral=3
Agree=4
Strongly Agree=5
No Answer=9

The first question asked was that of the awareness by the citizen to the projects that were being worked on by the planner. The most frequent answer given by the Bemidji residents was that of the neutral position. The citizens are aware of the projects that are occurring; however, they do not know a lot about them. Although the mode was neutral, the average was at 2.93, validating that the average citizen does not agree that they know what is happening, but they are more aware than others. 57% of the citizens did however fall within one point of the mode (neutral), meaning the majority disagree, agree, or are neutral to knowledge of projects.

To what extent do you agree or disagree that you are aware of the projects the planners are working on

	Frequency	Percent
1 Strongly Disagree	3	10.0
2 Disagree	8	26.7
3 Neutral	9	30.0
4 Agree	8	26.7
5 Strongly Agree	2	6.7
Total	30	100.0

The last three questions asked dealt with the environmental aspects of city planning. The first environmental question asked was that of the agreement or disagreement with the environmental considerations being taken into account by the planners. On a positive note the most frequent answer given was that they agreed that environmental considerations are being taken into account. None of the answers fell below a neutral consideration. This is plus for the planners knowing that the public feels

that they are accomplishing the goal set in the comprehensive plan of protecting the environment from unnecessary growth.

Do you agree or disagree that environmental considerations are being taken into account?		
	Frequency	Percent
3 Neutral	13	43.3
4 Agree	17	56.7
Total	30	100.0

A similar question, yielding nearly the same results (with the mode at agreeing with the statement and all answers falling in the neutral and agreeing ranges) was that of ecologically sound development occurring within Bemidji.

To what extent do you see ecologically sound development occurring in Bemidji?		
	Frequency	Percent
3 Neutral	12	40.0
4 Agree	18	60.0
Total	30	100.0

The last environmental question given was that of how much do the citizens agree or disagree with the appropriateness to set aside land for recreation, open space, or wilderness types purposes. The average agreed with the idea of having a mandatory dedication requirement, and the bulk (47%) of the respondents strongly agreed with the idea.

To what extent do you agree or disagree that it is appropriate to have mandatory dedication ratios?		
	Frequency	Percent
2 Disagree	1	3.3
3 Neutral	4	13.3
4 Agree	11	36.7
5 Strongly Agree	14	46.7
Total	30	100.0

An interesting finding in the question was that there was one respondent who disagreed with the question. Although the person did not give a specific reason why they did not see it as appropriate. Perhaps they felt that was enough parks and open areas within the region.

A second set of tests were performed on the same four questions, this time it was a one sample T confidence interval. Because a 95% confidence interval was performed on the mean difference it can be determined where 95% of repeated sample means will fall based on the mean from the original sample. The first question yielded the lowest confidence interval range with the answers falling mainly in the neutral to disagreeing ranges on the awareness of the projects currently happening in Bemidji. We can infer that if we do repeated sampling, we will be 95% confident that the answers will be between disagree to neutral on the subject. The three environmental questions yielded the smallest confidence intervals--perhaps showing how important the environment is to them. The smallest confidence interval was found in the first environmental question of how much environmental consideration there is by the planners. From this it can be

shown that 95% of the answers may fall into the neutral category. We can assume that the planners are doing an okay job as far as what the citizens believe. Because as was shown in the frequency of the answers the ecologically sound development and the environmental consideration questions had very similar results, and thus they had nearly the same confidence interval range. Once again the answers may generally fall into the neutral category. The last environmental question, mandatory dedication appropriateness, once again yielded a small confidence interval range. This time it can basically be seen that the answers may fall in the agreement category.

Multivariate Analysis

The final set of analysis for the city of Bemidji came in the cross tabulation of various sets of two categories. The first cross tab dealt with the age of the surveyee and the awareness of the projects that are occurring.

To what extent do you agree or disagree that you are aware of the projects that are occurring in the city crosstab by the range age of the respondent

	<25	25-34	35-44	45-54	55-64	<65	Total
Strongly Disagree		2		1			3
Disagree	1		5		2		8
Neutral	1	4		1	2	1	9
Agree		2	2	2	1	1	8
Strongly Agree			2				2
Total	2	8	9	4	5	2	30

As was mentioned before the most frequently occurring age was the age bracket of 35-44 years old. This also proved to be the most knowledgeable group of all. 44% of the age group agreed or strongly agreed that they were aware of the projects. The 25-34 age group also proved to be knowledgeable, six of the eight in the age group agreed or were neutral on the question. However, the other two answers fell in the strongly disagree category, showing that they were not really informed of what was happening. The second cross tabulation came in doing the awareness of the projects against the years that they had lived in Bemidji.

To what extent do you agree or disagree that you are aware of the projects that are occurring in the city Crosstab by the number of years lived in Bemidji.

	<5 years	5-9	10-14	15-19	>20	Total
Strongly Disagree	1	1		1		3
Disagree	3	1	2		2	8
Neutral	3	3			3	9
Agree	1	1	3	1	2	8
Strongly Agree		1		1		2
Total	8	7	5	3	7	30

As one can predict the longer that you live in a place, the more aware you should be. The answers from this cross tab prove that right. For the people that had lived in Bemidji for one to four years they only could disagree or be neutral in what they knew about the project, with no one strongly agreeing with the statement. For the citizens living in Bemidji for ten to fourteen years three of the five answered that they agreed that they

knew what was happening. Finally, for the people living in the city for fifteen to nineteen years, one agreed and one strongly agreed that they were aware.

Rosemount Demographics

Looking at Rosemount's data, it can be found to be very similar to what Bemidji's answers were. The age brackets were kept the same and once again 47% of the respondents were from the 35-44 year age bracket. However, unlike Bemidji, the average age was slightly older with twelve more people above the 35-44 year age bracket. Perhaps the high percentage of people in the 35-44 bracket shows the results from the growth that Rosemount has received recently. While Bemidji covered all of the age brackets, Rosemount did not cover all of them, and in fact no one was sampled from the youngest or the oldest age bracket. Once again the sex of the citizen was another question. And exactly like Bemidji, Rosemount had an even fifty-fifty distribution of males and females. Even in the 1990 census data, there was the same fifty-fifty split. While 30% of Rosemount's housing units are multiple family units, only 6.75% of the respondents rented their own home. The other 93% were people owned their own home. Finally, the length of residency was asked to the people. And again they were grouped into five-year segments. A third of the people had lived in Rosemount anywhere from five to nine years showing the growth of moderately new families. While more people were from the twenty or more years bracket compared to Bemidji, one half had only been there for ten years or less.

ROSEMOUNT RESULTS

Univariate Analysis

As was done with Bemidji, Rosemount's answers had statistical analysis computed on them to learn more about what all of the answers meant. Once again the frequencies and averages were looked at. The first question asked was that of the awareness of the projects that are being worked on. The average came out to be 3.27--therefore meaning that the average citizens are neutral as far as knowing what is happening. Most citizens answered and said that they knew of projects that had been publicized in the paper; however, other projects and details of the projects were not as well known. Although the average was neutral, the largest percentage of the people (30%) disagreed with the awareness.

To what extent do you agree or disagree that you are aware of the projects the planners are working on.

	Frequency	Percent
1 Strongly Disagree	2	6.7
2 Disagree	9	30.0
3 Neutral	7	23.3
4 Agree	7	23.3
5 Strongly Agree	4	13.3
9 No Answer	1	3.3
Total	30	100.0

The same environmental questions were again asked to the Rosemount participants in hopes of being able to compare and contrast the environmental differences

of the rural and urban people. The first environmental question asked was once again if the planners were taking environmental considerations into account. As with Bemidji, the majority of Rosemount residents answered that they agreed that environmental considerations were being taken into account. But, in Rosemount the average was higher than compared to Bemidji with it being 3.93--just slightly lower than agreeing.

Do you agree or disagree that the planners are taking environmental considerations into account?

	Frequency	Percent
2 Disagree	3	10.0
3 Neutral	8	26.7
4 Agree	15	50.0
5 Strongly Agree	2	6.7
9 No Answer	2	6.7
Total	30	100.0

In Bemidji, the second question asked dealt with ecologically sound development occurring, and the results were nearly the same as the first question with the answers coming the neutral to agree range. Rosemount's answers, although similar to their first environmental question, yielded a range of answers. 50% of the participants answered that they felt neutral about sound development occurring; although 37% did answer that they agreed that it was happening. This time there was one person who did answer that they strongly disagreed that sound development was occurring.

To what extent do you see that ecologically sound development is occurring within Rosemount?		
	Frequency	Percent
1 Strongly Disagree	1	3.3
2 Disagree	2	6.7
3 Neutral	14	46.7
4 Agree	11	36.7
9 No Answer	2	6.7
Total	30	100.0

Finally, the last environmental question that was asked was of the appropriateness to have mandatory dedications. Again there was strong support for mandatory dedication; in fact in Rosemount there was more support.

To what extent do you agree or disagree that it is appropriate to have mandatory dedication ratios?		
	Frequency	Percent
3 Neutral	1	3.3
4 Agree	9	30.0
5 Strongly Agree	20	66.7
Total	30	100.0

For being in an urban setting and there already being less open space than a rural area the survey participants wanted the planners to continue to enforce this. Two-thirds of the participants strongly agreed with the idea; although there was one person who was neutral about the statement. When asked why they were neutral they replied that half of

Rosemount was still agricultural land and they did not feel the need to preserve more land.

The one-sample T confidence intervals with a 95% confidence interval were used again as another form of analysis. This time, in all of Rosemount's questions, the confidence interval ranges were larger than Bemidji indicating a larger spread of answers. In the awareness of the projects, the confidence interval falls in the disagree to neutral range. From this we can conclude that while some people are aware of what is happening, there are many who do not. The same confidence interval this time was found from the environmental question of mandatory dedication. 95% of the repeated sample means show that people may give, if the survey was given to all citizens, would be likely to fall in the agree category. The other two environmental questions dealing with environmental considerations and ecologically sound development yielded a confidence interval that ranged from neutral to agreeing that these two subjects are occurring within Rosemount.

Multivariate Analysis

The same cross tabulations were completed for the Rosemount statistics as were done for Bemidji. The first cross tabulation dealt with the awareness of the projects with the age of the participant. While in Bemidji there was a considerable correlation between the two, in Rosemount there was no real correlation.

To what extent do you agree or disagree that you are aware of the projects that occurring in the city

Crosstab by the range age of the respondent

	25-34	35-44	45-54	55-64	Total
Strongly Disagree	1	1			2
Disagree	1	3	3	2	9
Neutral	2	3	1	1	7
Agree		3	2	2	7
Strongly Agree		3	1		4
No Answer		1			1
Total	4	14	7	5	30

While the younger participants were less likely to be aware of what was going on, so were the older participants. The 35-44 year age range, the largest group, showed an equal distribution of awareness with one in each of strongly disagree and strongly agree, and three each in disagree, neutral, and agree. The last cross tabulation once again focused in on the awareness and the years they have lived in the city. Like Bemidji, Rosemount also showed that the longer that the participant lived in the city, the more aware they became.

To what extent do you agree or disagree that you are aware of the projects occurring in the city Crosstab by the number of years lived in Rosemount.						
	<5 years	5-9	10-14	15-19	>20 years	Total
Strongly Disagree	1	1				2
Disagree	1	3	2	1	2	9
Neutral	2	2	2		1	7
Agree		2	1	2	2	7
Strongly Agree		1	2	1		4
No Answer		1				1
Total	4	10	7	4	5	30

While half of the one to four year residents were neutral, three of the five participants in the twenty or more year bracket were neutral or agreed that they knew was happening. The only segment that did not follow the trend was the ten to fourteen year residents. Four of the seven disagreed or were neutral about the awareness; however, of the four participants answered that they strongly agreed with the awareness, one half came from the ten to fourteen year residents.

CONCLUSIONS AND RECOMMENDATIONS

Looking at "the ideal" and the answers that were given by the surveys, the planning departments in Bemidji and Rosemount have done a good job, but as with anything improvements can be made in order to improve their performance even more.

The two largest parts that both cities could improve upon are the environmental inventories and public awareness. During the interview with both city planners the idea

of environmental inventories were brought up and the question was asked if they used them. Both cities mentioned that topography had been assessed; however, both also said that they have not really had to do anything else beyond that; although all of the wetlands in both cities have been mapped in conjunction with the National Wetlands Inventory. Environmental surveys play a large role in aiding the planning process. When land resources are surveyed it can help to identify suitable places to build. But, they also show how land use plans may impact the resources and the environment around the development. Depending on the particular type of survey limits of land uses, areas that need added protection, and visual or aesthetic qualities can be determined. Thereby, in the end, making the development more environmentally conscious.

The second large part that could be improved upon is the public awareness. While computing the statistical data, the awareness of what was actually happening as far as projects were concerned yielded the lowest average in both cities. In Bemidji, the average was 2.93 indicating that most people disagreed that they know what was happening. And in Rosemount, the average was 3.27 showing once again that the citizens are neutral about their knowledge. While the survey was done as randomly as possible—more research needs to be done in order to know the exact means. But beyond the improvements for both cities, each city also had site-specific items that could be improved upon.

In Bemidji, while conducting the survey, one of the open-ended questions asked was what was most important feature between air, water, and land. While some felt they were all important, the majority of the people emphasized that the water was most important. They wanted to make sure that the planning department takes careful

consideration of the water when doing projects. When asked why they felt this way many replied that water is one of the natural features that make Bemidji unique. With Lake Bemidji, the start of the Mississippi river, and all of the wetlands, added to the fact that the majority of the people get their drinking water from groundwater, there are multiple reasons why water is so important to the city.

The other open-ended question dealt with what improvements could happen in environmental planning. Many people wanted to see more trees, parks, and green space with the new developments. The ones that answered like this felt that in the new developments many of the natural features were being cut down or destroyed to put pavement down. Many encouraged the development, but they also wanted to see more emphasis on keeping the natural features, or at least making replacement mandatory.

The same questions were given to the Rosemount residents; however, their concerns were slightly different. Perhaps the answers were different because of the suburban nature of the town. Again, many participants in the survey felt that land, water, and air were all important, but many more felt that the air or land should have particular attention paid to them. The air was an important feature because of the refinery located in town. In fact one participant believed that the refinery should be policed more although that has little to do with the planners. Land was also important to people. When asked why several reasons were given. Once again the refinery and the possible pollutants from the refinery concerned people; but the largest reason was because of the development. The development concern was brought up again in the second open-ended question of what should happen with environmental planning. As the Twin Cities continues to grow, more and more people flock to Rosemount for a place to live, thereby

starting up more development, and thus the old rural ways seem in jeopardy. While the development is okay to a certain extent, citizens do not want it to get out of control. Some realized that the development is necessary to some extent; however, if development has to occur then many feel the mandatory dedication should continue to be enforced. In some cases the people felt the dedication size should be increased for the conservation purpose.

Because the "ideal" planning can be done in so many different ways, it is hard to say exactly what the right way is. Each city, county, or state has to see what works the best for the position that they are in. It is similar to doing trial and error to figure out what is the "ideal" for the particular entity. For the cities of Rosemount and Bemidji, each have set goals and created their own "ideals" that work the best for them. While everything is not the same, both cities have many of the same ideas that they incorporate. So, for many cities their own "ideals" are ones that do not follow exactly to what the books say.

THE NEWSLETTER

To go above and beyond for the Honors thesis requirements required some extra thinking. As I conducted the phone survey for the thesis, the same responses appeared many times to the question regarding what else would you like to see happen as far as environmental planning or planning in general is concerned. The response was to have more information to the public about what the planning department was doing. One of the most important parts of the planning process is public involvement and knowledge. From what I concluded after conducting my phone survey is that not many citizens knew what was happening in their respective cities; thus, the idea for the newsletter.

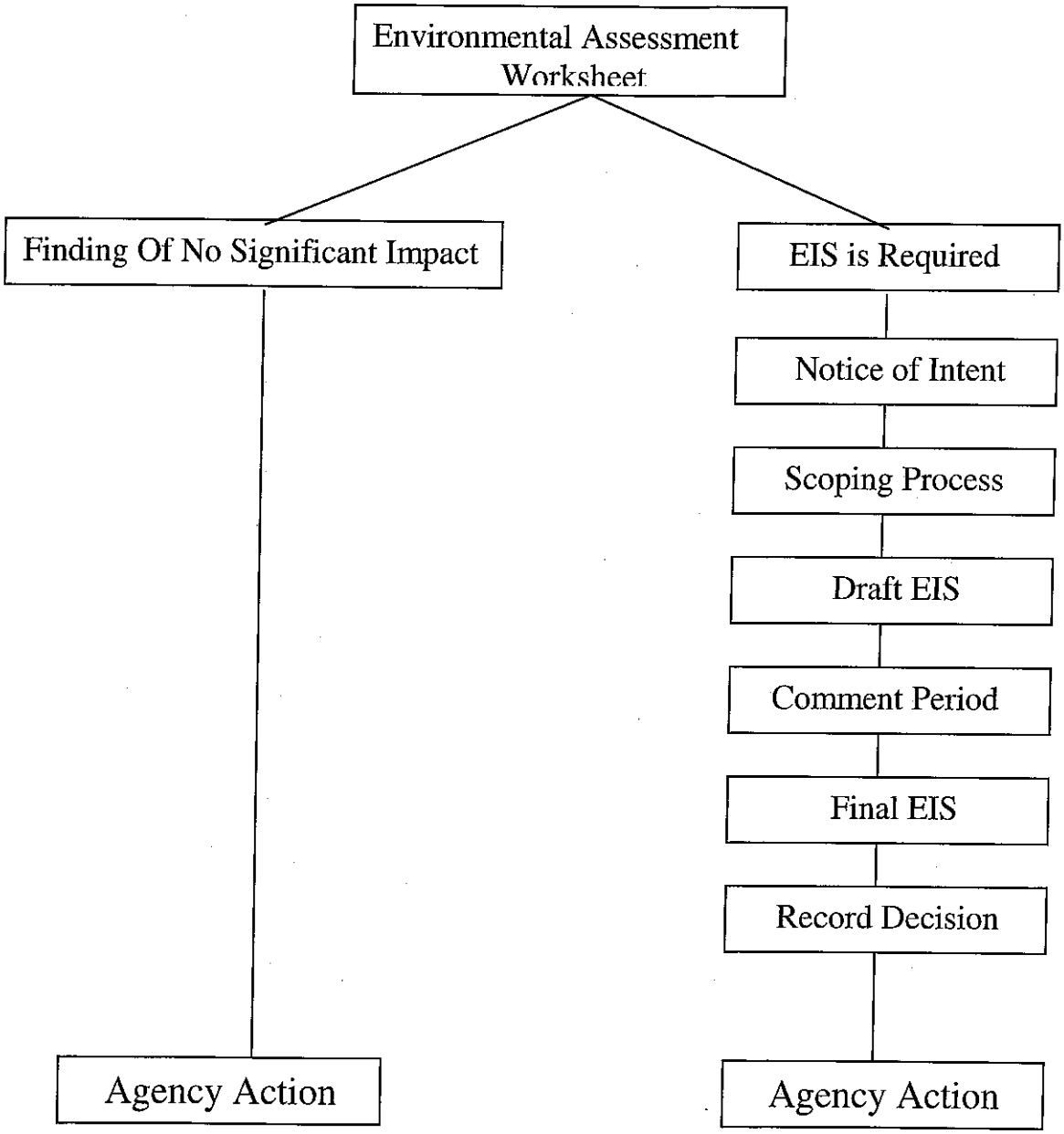
Many times the large planning projects are detailed in the newspapers, but not everyone has a newspaper to look at and read. However, more importantly it only really covers the major projects. The newsletter concept is devoted to going more in-depth as far as the coverage of both major and minor projects are concerned. However, there is more to the newsletter than just covering the planning projects. The idea of the newsletter is to give citizens more insight as far as what exactly planning in the city entails. It will also hopefully cover many laws and other issues that people do not have much knowledge about.

The thought of the newsletter is to have it sent to every citizen within the city. The feasibility of the distribution of newsletters may pose a problem, but because the idea is to have a bi-annual or quarterly newsletter, it does not seem like as big of a challenge as originally anticipated.

The newsletter that has been completed for this project is an example newsletter that details each section and what could be contained within each section. The idea is to have coverage about the major projects that are occurring within the city as a front-page story. Also included are items such as a message from the city planner, a particular topic for discussion, and information regarding the comprehensive plan. Each part is described more in-depth within the example newsletter.

The hope of the newsletter is to provide knowledge and therefore more awareness to the citizens in the city about what is occurring as far as planning is concerned.

Environmental Impact Statements (EIS)



Source: Cullingworth, Barry. Planning in the USA. New York: Routledge, 1997. p 212.

My name is Elise Souders, and I am a senior at Bemidji State University. I am studying Environmental Studies, and I am currently working on my thesis. My thesis looks at the environmental planning methods of the cities of Rosemount and Bemidji. I am conducting a survey on what the public sees and feels about planning in Bemidji/Rosemount. When the thesis is complete the information that I have gathered, along with the information from this survey will be taken back to city hall to be used in the future. It will take about five minutes and the answers you give will be completely confidential. Would you be willing to participate?

Environmental Planning Survey

For the following questions please answer:
Strongly Agree Agree Neutral Disagree Strongly Disagree

1. To what extent do you agree or disagree that you are aware of the projects the city planner/planning commission is currently working on.

2. To what extent do you agree or disagree that you like the projects that the city planner/planning commission have been and are currently working on.

3. To what extent do you see the planner/commission listening to public opinions.
   The planner/commission gives opportunities for public involvement.
   If you disagree, how can it be made better?

4. Do you agree or disagree that environmental considerations are being taken into account by the planners.

5. To what extent do you see ecologically sound development is occurring within Rosemount/Bemidji.

6. To what extent do you agree or disagree that it is appropriate to set aside land in new developments for recreation, open space, or wilderness types of purposes.
   If you agree, how much land (a percentage) should be put aside?

7. On a scale of 1-10 (1 being not much and 10 being a lot) how much is the city taking advantage of opportunities to protect, avoid, or minimize adverse effects of a project or a plan.

OPEN ENDED QUESTIONS

1. What part do you feel more emphasis in the planning process should be placed on: air, water, land or something else? Why?

2. What else would you like to see happen as far as environmental planning or planning in general is concerned?

SITE SPECIFIC QUESTIONS

Rosemount: In the comprehensive plan there was a goal made by the planner and the planning commission to preserve the rural environment that Rosemount has had in the past. Do you see that being met now?

Bemidji: In the comprehensive plan there was the goal of protecting the health, safety, and welfare of the public and protecting the environment from unnecessary future growth. Do you see that the city is doing a good job managing future growth and managing where it should go?

DEMOGRAPHIC QUESTIONS:

1. How long have you lived in Bemidji/Rosemount?

2. Do you own or rent your place of living?

3. Male or Female?

4. What is your age bracket? <25 25-35 35-45 45-55 55-65 65+

WORKS CITED

City of Rosemount. The 2020 Comprehensive Plan for Rosemount. 2000.

Cullingworth, Barry. Planning in the USA. New York: Routledge, 1997.

Gilpin, Alan. Environmental Planning-A Condensed Encyclopedia. New Jersey: Noyes Publications, 1986.

Lang, Reg. Environmental Planning Resourcebook. Montreal: Lands Directorate, 1980.

Metropolitan Council. "1998 Metropolitan Agricultural Preserves Status Report." (1998, April). Available: http://www.metrocouncil.org/planning/98mapsr.htm. [2000, October 11].

Oakes, Curt [City Planner of Bemidji]. Personal Interview. 9 Nov. 2000.

Ortolano, Leonard. Environmental Planning and Decision Making. New York: Wiley, 1984.

Pearson, Rick. [City Planner of Rosemount]. Personal Interview. 19 Oct. 2000.

Powell, Frona. Law and the Environment. United States: West Educational, 1998.

Richardson, Chad. (2000, September 8). "Redevelopment." Rosemount Town Pages, pp 1.

Schultz, Marilyn. Encyclopedia of Community Planning and Environmental Management. New York: Facts on File, 1984.

Wise, Doug and Resource Strategies Corporation. Bemidji Comprehensive Plan-Second Century. 1996.

Rosemount Planning Department

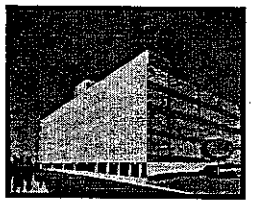
A Guide to what is happening in Rosemount

Spring 2001

In this Issue:

Major Projects that are Occurring

This section on the front page is what would be devoted to what is new in the planning world of the city. It could range from what went on at the last city council meeting to what new projects are being looked into. This would give the citizens an opportunity to read what is new in their community. While some people may subscribe to papers where it contains information regarding the new projects, it must be remembered that not everyone can afford that. So, this newsletter is designed to be sent to everyone's mailbox or postoffice box so they can experience what is new as far as projects that are occurring within the city. Although this may sound like it would take a lot of time and money it would not have to be done that often. It could range from a bi-annual newsletter to a quarterly newsletter. While it was found in my survey that there was not enough information being distributed, hopefully this type of newsletter could eliminate that lack of information. It is important for the planning department to get feedback



A picture of the new building.

Story from page 1

about the projects that may be occurring; however, not everyone may know what is occurring. Hopefully, the front story would discuss the major happenings and major projects that the city is undertaking presently or in the future, giving the citizens information that they might not know about from reading the everyday papers.

A Message from the City Planner or Planning Commission

In this section, there are many different items that could be covered. The article could be written by the city planner, or it could be done by one of the members of the planning commission. Even another option is having a different person for each newsletter that comes out.

This section could cover many topics, but mostly it would be a piece that would be up to the author. It could range from their perspective on certain projects, or it could give people different ideas on how to go about helping in the planning arena.

This section would also give the author a chance to clear up any information that may be hard to understand, or information that is rumored to be wrong.

While the planners and planning commission members do not always have the time to tell their side of the story or the reasons why they support different items on the agenda, this section could again be used to accomplish that as well. Many times the articles in the newspapers contain only the facts and not the reasons why different things are done.

A Topic for Discussion

The reasoning behind including this section is because the layperson is not always informed on all of the legal issues behind the planning profession. So, this topic for discussion could be done on many ideas, but mainly trying to focus in on what people do not know about so that they can inform themselves.

There are many topics that could be included, but some that really seem to stand out include such issues as variances, setbacks, mandatory dedication, environmental inventories, and environmental assessment worksheets.

Basically, a definition of a word could be given, and then it could be related to how it is used in the planning department. For example, mandatory dedication requires a percentage of land be set aside for other options. In Rosemount, an example of mandatory dedication for parks is given within new developments. When a new development is in place, one twenty-fifth of the land must be set aside as open area or park space.

Information Regarding the Comprehensive Plan

Once again, this section like the topic for discussion section could focus on what the everyday person does not know, but may need to or should know about. For most people they are not aware of what a comprehensive plan is or even does, so this section could start with the basics and continue on.

After the basics are covered, a more in depth look could be done on what sections there are in the comprehensive plan. For example, in Bemidji there are many different sections and plans for such things as parks, transportation, and the general growth.

This section could also continue with more than just what is in the comprehensive plan. A history on the plan and revisions when appropriate could also be covered.

Important Phone Numbers

City Hall: 651-999-9999

Planning Department: 651-999-9998

Dakota County Planning Department: 952-999-9997

This phone numbers can be accessed Monday through Friday from 8:00am to 4:00pm. Any of these numbers can take questions regarding this newsletter.

Rosemount Planning Department
Rosemount City Hall
Rosemount, MN
55068

Citizen of Rosemount
1111 Main Street
Rosemount, MN
55068