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THE COST OF GROWTH:
A STUDY ON THE COSTS INCURRED WHEN A
MUNICIPALITY EXTENDS ITS BOUNDARIES
by
RICHARD DEAN SCHLEGEL

A professional paper submitted in partial fulfillment
of the requirements for the degree
of
Master of Public Administration

Approved:

Chairperson, Graduate Committee

Head, Major Department

Graduate Dean

MONTANA STATE UNIVERSITY
Bozeman, Montana
January 1982
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Growth is considered to be good, but is it good? This paper explores the issue of growth and weighs the factors involved in an attempt to draw some conclusions to this question. In theory spreading the costs among many people will reduce the per capita costs. This leads us to the first hypothesis which states: As a city's population increases, per capita costs for services will decrease. In order to determine if an economy of scale applied to growing municipalities, tax rates of several municipalities with increased populations were observed. It was found that instead of decreasing as expected, the opposite occurred; the tax rates in these growing cities significantly increased as population increased. The figures used in this example were calculated in constant dollars to remove the bias of inflation.

The second hypothesis states: As areas are annexed, the city residents will bear a significant portion of the cost to extend services to these areas. To gather information for this hypothesis it was proposed that the city services of water, sewage treatment, and garbage collection be costed out to determine the financial impacts of annexation upon the residents of Bozeman. The data tended to show that as the City annexed areas, the expenditures needed to provide these services increased. The result was higher user charges to the residents. Another area in which residents pay for growth is through the financing of SID's on large acreages of raw land. It was brought out that as growth occurs there is an increasing reliance upon SID's to finance large scale development that is taking place in Bozeman. This would be an equitable system in that those who are responsible for the increased costs, due to the extension of services would then be contributing significantly to the cost of these improvements. The city resident according to theory would not be paying for the improvements of the annexed areas. However, this is not true. Because of economical reasons many of the developers allow their SID installments to become delinquent. The City has an obligation to see that these payments are made in a timely fashion, therefore the SID Revolving Fund was created to pay the delinquent SID's. The source of the SID Revolving Fund comes primarily from a levy that is placed on all property in the City. As shown by these examples, many of the costs associated with growth have been passed along to the community at large to absorb.
CHAPTER I

INTRODUCTION

Fiscal distress in many of the nation's cities is a priority public policy issue. Spiraling costs of public services, decline in the economy, emigration of the middle income residents and other social problems have had devastating effects on the fiscal condition of many American cities.¹ Many of the problems are growth-related. The City of Bozeman is only one of such cities in the nation experiencing fiscal problems.

This study examines the impacts on the budget of Bozeman in terms of dollar costs when its boundaries are extended through the annexation process. The purpose of this paper is not to make an emotional or philosophical argument for or against growth or development; rather it is to make public officials, as well as the public, more aware of the implications associated with annexation. These officials have obligations and responsibilities to the residents of both the community and the annexed areas to insure that city services are being provided for in a fair and equitable manner.

The arguments in favor of growth are generally made in economic terms and usually typified by the comments like
"we must grow in order to broaden our tax base", or "we need to grow to bring in more revenues". The theory is that with additional property on the assessment rolls, more funds will be available for the city. There is a catch to this in that along with increased revenues, there will be increased expenditures. The city will be responsible to the residents of an annexed area for providing adequate police and fire protection, streets, water and sewer, solid waste collection, and other services that are otherwise provided to the rest of the residents. It is likely that the expenditures will far exceed the revenues from these areas when annexation occurs. Although certain individuals may derive private (personal) benefits without contributing their fair share towards expenses, it is the community at large that picks up the tab. In economic terminology this is known as the "free rider" effect. This is to say, the city residents are subsidizing many of the city services for those residing on the fringes of the city.

In theory spreading the costs among many people should reduce the per capita costs. However this may not be the case where public goods are involved. If an economy of scale existed for growing municipalities, there should be a financial gain for the city in terms of increased reve-
nues offsetting expenditures. The basic issue is to determine whether there is a relationship between growth and greater efficiency in municipalities which would mean a savings for the city and its residents. Efficiency as used in this context means the provision of services with the lowest per capita cost possible.

Two hypotheses will be utilized to illustrate the effects of growth. The first hypothesis states: As a city's population increases, per capita costs for services will decrease. The second hypothesis states: As areas are annexed, city residents will bear a significant portion of the cost to extend these services.

In order to determine if an economy of scale would apply to growing municipalities, tax rates of municipalities with increased populations would be observed. The millage rates for the City of Bozeman for the years 1960-1980 will be examined to determine the effects of growth upon the city's finances.

To determine the financial impacts of annexation upon the City it is proposed that the following city services be costed out:

1. Water
2. Sewage treatment
3. Garbage collection

Because of the number of annexations and rate of development in these areas, the population of Bozeman has increased considerably over the last ten years. These trends are expected to continue. Bozeman cannot build walls around the City to stop the influx of new people, but it can plan for future expenditures to provide services for the new residents. It is intended that this project will help public officials and citizens to understand the ramifications of growth upon a municipality's budget and to take positive steps in meeting the challenges of tomorrow.

The paper is divided into five chapters. Chapter I is an introductory chapter. Chapter II, entitled "Bozeman and Its Development," provides the reader with historical information about Bozeman. Chapter III, "Annexation and Its Impacts," discusses the topic of annexation and the city services of Water, Sewage Disposal System and Garbage collection. Chapter IV, entitled "Financial Impacts of Growth: Expenditures," will discuss the costs incurred by the city to provide services. Chapter V entitled "Financial Impacts of Growth: Revenues," discusses the revenues derived from various sources. Chapter VI entitled "The Cost of Growth: Who Pays?" draws conclusions to the information presented, and ends with some recommendations.
END NOTES


Bozeman: Early History

The Gallatin Valley has long been an area of attraction, starting with the Indians who used the area as a common hunting ground. The valley offered good hunting for the roaming tribes of the Blackfeet, Flatheads, and Crow Indians. The Indians named this area the "Valley of Flowers" which is now known as the Gallatin Valley.¹

The area remained relatively unexplored by the white man until the advent of the Lewis and Clark Expedition of 1805.² They came in search of headwaters of the Missouri. They were successful in their quest with the discovery of three rivers flowing into one to form the Missouri River. Lewis and Clark named these rivers the Gallatin, Madison and Jefferson. In their journals, Lewis and Clark wrote about the abundance of wildlife and the tall green prairie grasses. After mapping the area and finding navigable waters, the Expedition left the area. For many years the valley was left to the roaming Indian tribes without interference by the white man. However, with the gold rush fever, things did not remain peaceful for much longer. Starting with the discovery of gold at Sutter's Mill in California, the development of the West
had begun. After a few years, gold became scarce in California, but the gold fever still persisted. And the gold diggers shifted their operations from California to Idaho and Montana. Places like Bannack, Helena, and Virginia City grew overnight as the word of finding gold spread.

John Bozeman and some associates recognized that the fertile Gallatin Valley could be an important agricultural center for supplying the hungry miners. They established a town which grew in importance and was later named the county seat in 1867. Because of the highly productive soils the Gallatin Valley was given the title of "Egypt of America." A variety of agricultural products were shipped from Bozeman to national markets. It was also during this time the Bozeman Trail became famous as a more expeditious route to the gold fields of Bannack and Virginia City. This also helped to establish Bozeman as a major trading center in the region. Shots would ring out and the Bozeman Trail became known as "Bloody Bozeman" because of the numerous skirmishes with the Indians. As losses mounted, the community became apprehensive resulting in the establishment of Fort Ellis, three miles east of Bozeman. The 1880's saw the introduction of railroads into the area. A period of tranquility and growth was ushered in which further strengthened the
area: as a strong marketing hub, a center of government, and a major agricultural center. In 1893, Bozeman was incorporated by the territorial legislature of Montana. In the early 1890's, Montana State College was established in Bozeman through the Land Grant Program. Gradually, Bozeman has become an important retail, governmental, and educational center with a lessening agricultural influence.

Later Development

In the 1960's, the college was upgraded to university status. Montana State University became recognized in many fields of study and its reputation spread. By the late 1970's, Montana State University rivaled the University of Montana in enrollment figures and in the early 1980's surpassed the University of Montana in enrollment figures. While the University of Montana was cutting back in both courses and faculty, Montana State University was able to expand. The more than 12,000 students and staff significantly contribute to the economy of Bozeman.

Other factors such as the recreational opportunities have also been responsible for the growth of the last two decades. Bozeman offers scenic beauty and is easy accessible to fishing, hunting, boating, hiking, and skiing. There are two excellent skiing facilities, both located
within an hour's drive of Bozeman. Major shopping centers such as Main Mall and University Square have been constructed in the recent past to take in a wide market area which makes the city an even more appealing center for business.

Trends

The growth that has occurred in Bozeman can be categorized as a gradual growth cycle, without the boom-bust phenomenon seen in other communities of the state such as Anaconda, Butte, Red Lodge, Glasgow, Virginia City, and Great Falls. Until the 1960's Bozeman had a "small town" atmosphere because population increases were not dramatic. But by the 1970's the city grew rapidly. As the population began to increase dramatically, vast acreages of land became part of the city. What was once rich farm land soon became housing developments by overnight. The land boom began to take hold in the early 1970's as people began to speculate on land as a hedge against inflation. It was soon learned that growth-related problems were not an exclusive concern of the more populated areas of the country such as Los Angeles, New York City, or Denver. Bozeman could no longer pretend to be a sleepy little town and ignore the effects of growth. Although the population of Bozeman is presently only 21,611 persons (which is small compared to other
-10-
cities) it is a major city in Montana.

Considerable population growth has taken place in the Gallatin Valley over the last ten years and, if present trends continue, the next ten years should witness an equal amount of growth. In 1970, the population of Bozeman was reported at 18,670; in 1980, the Preliminary Census reported the population of Bozeman as being 21,611 persons. This is an increase of over 15% for the last ten years. To further illustrate the growth that has taken place, the following graph is provided on Page 11. This graph shows the growth curves of Bozeman, Gallatin County, and the State of Montana during the period of 1940 to 1975. This period has seen a growth rate of 34% for the state, 203% population increase for the county, and a 260% population increase for the city. It is estimated that for the same period, the metropolitan area had a population growth rate of over 350%. Table 2.1 shows the population projections for the years of 1985 to 2000.

Bozeman and the 4½ mile jurisdictional area that surrounds the city has been projected to have a population increase of between 9,720 to 25,300 people during the period of 1975 through 1990. California, Hawaii, Colorado, and a number of other high amenity areas have already experi-
State, County, and City Population Growth

Figure 2.1 State, County, and City Population Growth Between 1940-1975

Table 2.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Bozeman</th>
<th>Planning Area</th>
<th>Total Metro Population</th>
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<tr>
<td>1985</td>
<td>31,400</td>
<td>12,800</td>
<td>44,200</td>
</tr>
<tr>
<td>1990</td>
<td>36,900</td>
<td>18,400</td>
<td>55,300</td>
</tr>
<tr>
<td>1995</td>
<td>43,800</td>
<td>25,200</td>
<td>69,000</td>
</tr>
<tr>
<td>2000</td>
<td>52,400</td>
<td>33,800</td>
<td>86,200</td>
</tr>
</tbody>
</table>

enced this type of growth phenomenon. The question then is, how should Bozeman grow in order to maximize the benefits of development and minimize the costs that are associated with development.

In order to resolve the problem of how Bozeman should grow, critical problems associated with growth need to be identified. Some of the growth-related problems that are characteristic of development has plagued other cities are discussed in the following paragraphs.

I. Sprawl Type Development

This type of development, generally known as urban sprawl, is very costly because of the large areas of land that is used. Subdivisions are dispersed throughout the planning areas and continue to spread until large acreages are engulfed by relatively low population density develop-
ments. As in other communities that have faced the problem of "leap-frog development," Bozeman is also facing the beginning of this problem in which the very amenities that have made this area desirable and attractive are threatened with destruction.

The type of development occurring in the Bozeman area can be seen by looking at the map provided on the following page. Two distinct "growth nodes" can be seen from the map, (1) the Four Corners area and (2) the foothills near the Hogeman – Hyalite Canyon area which is located south of Bozeman. These areas are presently beyond the city service area. However, because of the increasing concentration of people in these areas, pressure may be brought upon the city to extend services. There is also the potential problem that businesses might relocate or new businesses will establish themselves in these areas to capitalize on the developments that are taking place. The result would be a loss of possible revenue sources which would weaken the city's tax base. Although these developments are located out of the city limits, many of these people enjoy their livelihood in the city and consequently draw on city services either directly or indirectly without contributing to the costs of providing such services.
Map 1. The Bozeman Area.
II. Loss of Agricultural Land

Because of the amount and type of development that has taken place over the recent years, hundreds of acres of prime agricultural land has been removed from production and have been transformed into residential areas. More efficient land use would result if growth could be channeled to areas adjacent to the city limits or on marginal agricultural land. The valley that was once known as the "Egypt of America" is rapidly being subdivided and developed with the result being the loss of prime agricultural land that cannot be easily replaced. The gold rush ended many years ago but has since been replaced by the "land rush" which threatens to take even more acres of agricultural land. Because of land speculation, the price of land has reached exorbitant figures which makes it more profitable in some cases to sell the land to developers rather than farm it.

It has been roughly estimated there are approximately 25,000 acres of good agricultural land within the 55,000 acre jurisdictional area of Bozeman. There have been a number of developments on these highly productive lands. The results of this are not very apparent at this time. However if there should be a need for increased food production, it will be necessary to bring marginal farm land into pro-
duction. The cost of doing this will be very high in addition to lower crop yields. Map 2 shows the amount of agricultural land that is considered to be prime land around the Bozeman area.

III. Inflated Land Costs

During the period 1965-1971 the land prices jumped dramatically because of the demand for small to medium size tracts of land that were in or close to the city. In 1965 the average price per acre was reported to be $2,171.22. It nearly doubled by 1972 with the average going price of over $4,126.00 per acre. Large numbers of people were forced out of the market of lots that were in the city and into the country where land prices were somewhat cheaper. This condition helped to feed the fires of urban sprawl which will have significant effects in the future upon the residents of Bozeman. Since 1972 land prices have become even higher as the land speculation fever persisted. Inflation has run rampant and land looks like an excellent hedge against the forces that are continually devaluing the dollar.

IV. Health Hazards

Poor planning and site development has placed some housing units on poor soils that are not suitable for develop-
ment. There have been some reports about septic tank failures due to the poor locations of these developments. Factors such as a high water table, flood plain area, poorly suited soils are natural limitations which need to be taken into consideration when developing land for housing sites. There also have been reports of well water contamination in which dye tests conducted within some of the local subdivisions indicate that waste effluents are being discharged into the streams.

Another problem the city must take into consideration is the financial demands caused by growth. The financial demands upon a city during the growth process have short term costs as well as far-reaching effects. These concerns must be taken into consideration while the municipality is budgeting in order for the community to be financially solvent in future years.
END NOTES


2. Ibid., p. 5.


6. Ibid., p. 5.


8. *Growth Study*, op. cit., p. 3.


10. Ibid., p. 8.


14. Ibid., p. 3.

15. Ibid., p. 5.
Annexation is a method by which municipalities can add land to its boundaries. Under provisions of Montana law, annexation can occur through five methods: annexation of contiguous land, annexation of contiguous government land, annexation of wholly surrounded land, annexation by petition, and annexation with the provision of services. These methods are individually discussed in the following paragraphs.

Annexation of Contiguous Land

Contiguous land is defined as "Tracts or Parcels of land which border land to the city even though such tracts or parcels of land may be separated from such city or town by a stream, river, or a strip of land too small or narrow to be plated."\(^1\)

If it is determined by the city government that annexation of contiguous land will be in the best interest of the city and its residents, a resolution of intent shall be passed and adopted to this effect. Upon passage of the resolution, the city must notify in writing those residents who will be affected by this action. In addition to this, the city must publish a notice of the intent in a local
newspaper at least once a week for two successive weeks.
After a period of twenty days from the date of the notice's publication, the city government will review all correspondence from the freeholders of the area. If the majority of freeholders of the area do not protest the annexation, the governing body will pass and adopt a resolution of annexation with a thirty day effective date.

Annexation of Contiguous Government Land

Contiguous government land may be either state or federally owned. The administrative head of the agency responsible for government land may petition the city requesting annexation. The municipality will then pass a resolution giving its intent to annex the land and will set a time and place for a public hearing on the matter. The notice of the resolution of intent to annex will be published in a local newspaper at least once in two consecutive weeks. This notice shall also state the time and place set for public hearing on the proposed annexation. After conducting a public hearing on the proposed annexation if it is found that such annexation is in the best interest of the city, the governing body can pass and adopt a resolution annexing the land. The resolution shall become effective thirty days after its passage and approval. A copy of the resolution
along with a map of the annexed land will be filed in the Clerk and Recorder's Office of the county in which the municipality is located.

Annexation of Wholly Surrounded Land

Present Montana law gives first class cities the authority to annex land wholly surrounded by the city through the process of passing a resolution of intent to annex, giving notice of resolution and passing a resolution of annexation. Since the area is already surrounded, protest is not available to the residents of these areas even though the majority of freeholders of the area object to being annexed. Certain lands used for the purposes of agriculture, mining, smelting, or industrial or manufacturing concern can be excluded from the provisions of this section.

Annexation by Petition

Another method by which annexation may occur is through the petition process. If a municipal governing body receives a petition from not less than 33 1/3% of the registered voters requesting annexation, the issue must be presented to the registered voters of the municipality.

If the governing body receives a written petition requesting annexation by more than 50% of the registered
voters of the area, then an election is not necessary. If the petition is approved, the governing body shall pass a resolution annexing the area.

Annexation with the Provision of Services

This section of the Codes attempts to correct some of the inequities that have resulted from past planning practices. The statutes have become explicit on what conditions must be met in order for annexation to occur in an equitable manner. This section provides that:

(1) It is declared as a matter of state policy that current annexation laws and planning methods incorporated in the Montana system are in many cases discriminatory and are in many of the Montana cities causing indiscriminate growth patterns and in many cases forcing citizens of municipalities to be annexed without the provision for adequate city services extended and provided for them.

(2) Likewise in many cities, city government is annexing and adding to cities not to the benefit of those being annexed, but to the benefit of the city merely to derive a greater tax base.

(3) Likewise in many cities there are those lying on the perimeter of the city, not within the corporate boundaries of a city that are deriving many benefits from the city without paying their just and equal share for these services.  

By state law, municipalities are required to provide a long range plan for the extension of services for the purpose of correcting past inequities. This plan "must show anticipated development a minimum of five years into the
future, showing on a yearly basis how the municipality plans to extend services, develop, and add sections to the city." In addition to these requirements, the city must establish a method . . ., by which the municipality plans to finance extension of services into the area to be annexed, the municipality must provide the area to be annexed with a plan of how they plan to finance other services to be included, within the district -- mainly police protection, fire protection, garbage collection, street and street maintenance services. . . . In this annexation plan, it must be clearly stated that the entire municipality tends to share the tax burden for these services." There has been mounting criticism of the annexation laws both from the public and private sectors. The developers complain that current annexation laws were designed for areas that are already developed and are hard to apply to annexation of undeveloped areas. There is also criticism of the bureaucratic procedures that must be followed in order for annexation to occur. The annexation process is no doubt a very complex and time consuming one. Coordination between the city and county governments is very crucial. In addition there must also be cooperation and coordination among city personnel, such as the planning staff, finance department, city engineer's office and the city manager's office in order to insure a smooth operation. Many times these ingredients have been missing which resulted in a
great deal of frustration. The law requires that the cities do comprehensive studies on the cost of extending services to the new residents and the annexed areas and how these services will be financed. The problem is that many of the cities have a very limited planning staff with very limited resources. Because of this these studies are usually prepared by a private consultant hired by the developer which raises the question of a conflict of interest.

Historically, annexation in Bozeman has occurred through annexation of contiguous land. The city has not actively set out on a growth campaign in order to broaden its tax base. For the most part developers have come before the City Commission actively seeking annexation to the city. Map 3 on page 26 shows the amount of land that was annexed in a particular year by using a color coded system. Map 4 on page 29 shows a breakdown of annexations in two periods: 1960-1970 and 1970-1980.

By examining these maps it is quite evident that there has been a significant amount of development that occurred in Bozeman during these last two decades. In 1961, the City of Bozeman encompassed an area of over 2,641 acres. By 1970 another 1,716 acres were added making the total acreage of the city approximately 4,356 acres. From 1960-
<table>
<thead>
<tr>
<th>YEAR</th>
<th>COLOR CODE</th>
<th>AREA</th>
</tr>
</thead>
</table>
| 1960 | ![Color Code](image1) | 1. Bozeman Senior High  
Buttrey's  
Cleveland Subdivision |
|      |            | 2. University Subdivision |
|      |            | 3. Thompson Addition, #2 |
|      |            | 4. Thompson Addition #3 |
|      |            | 5. Westridge Subdivision |
|      |            | 6. Westside Annexation |
| 1963 | ![Color Code](image2) | 7. Portion of MSU  
8. Portion of MSU |
| 1964 | ![Color Code](image3) | 9. Graf's 2nd Addition  
10. University Subdivision, #2 |
| 1965 | ![Color Code](image4) | 11. Gallatin County Resthome  
12. Thompson Addition, #4 |
| 1966 | ![Color Code](image5) | 13. Stroazzi's 1st  
14. Island Area Annexation |
| 1967 | ![Color Code](image6) | 15. Westlake Annexation  
16. Graf's 3rd Addition |
| 1968 | ![Color Code](image7) | 17. Mt. Vista Subdivision  
18. Portion of MSU  
19. Portion of MSU  
20. Homesites Subdivision |
| 1970 | ![Color Code](image8) | 21. Holiday Inn Annexation |
### COLOR CODES OF ANNEXATIONS BY YEAR
(Continued)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>COLOR CODE</th>
<th>AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td></td>
<td>22. Triangle Area Annexation</td>
</tr>
<tr>
<td>1972</td>
<td></td>
<td>23. Tai Lane Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24. Remington Addition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25. Westlake 3rd Addition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26. Figgins Addition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27. Graf's 4th Addition</td>
</tr>
<tr>
<td>1974</td>
<td></td>
<td>28. Valley View Annexation</td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td>29. Summit Engineering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30. Northeast Annexation</td>
</tr>
<tr>
<td>1977</td>
<td></td>
<td>31. Evans Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32. McChesney Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33. Nelson Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34. KBMN Annexation</td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td>35. Travelodge Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36. Main Mall Annexation</td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td>37. Burrup Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38. Woodridge Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>39. Junke Annexation</td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td>40. Stratford Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41. Buronepe Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>42. Allison Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43. Pearson Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44. Barrick Annexation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45. Town Pump Annexation</td>
</tr>
</tbody>
</table>
Map 4. Annexations By Decade.

- Annexations 1960-70
- Annexations 1970-80
1970, the city's acreage increased by over 35%. In 1980, the city had a total of approximately 5,328 acres, an increase of about 972 acres, which was a 15% increase.\textsuperscript{10}

When areas are annexed by a municipality, certain services will have to be provided to these new residents under state law. For the purposes of this paper, the services of water, sewer, and garbage will be discussed to illustrate the impact of growth on Bozeman's budget.

**Garbage**

The City of Bozeman has a unique refuse collection system in that both city and commercial operations are in existence, unlike most other cities where the city or private firms provide this service. The city collects the majority of housing units in Bozeman and private firms serve some of the housing units in the city and practically all the commercial industrial concerns in Bozeman. At the present time, the city collects 5,780 (72%) housing units, private firms collect approximately 1,511 (20%) housing units and Montana State University collects about 661 (8%).\textsuperscript{11}

The impact of growth can be seen by viewing the annual reports on the average number of weekly stops made by the city packers. Table 3.1 provided on page 31 shows the
average number of weekly stops for the years of 1961, 1971, and 1981.

Table 3.1
Average Number of Weekly Stops (1961-1981)

<table>
<thead>
<tr>
<th></th>
<th>1961</th>
<th>1971</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>569</td>
<td>674</td>
<td>757</td>
</tr>
<tr>
<td>Tuesday</td>
<td>494</td>
<td>573</td>
<td>752</td>
</tr>
<tr>
<td>Wednesday</td>
<td>614</td>
<td>631</td>
<td>725</td>
</tr>
<tr>
<td>Thursday</td>
<td>607</td>
<td>641</td>
<td>682</td>
</tr>
<tr>
<td>Friday</td>
<td>227</td>
<td>321</td>
<td>715</td>
</tr>
</tbody>
</table>

|       | 2,511 | 2,840 | 3,631 |

From 1961 to 1971 the average number of weekly stops increased by 13%, whereas from 1971-1981 it rose by more than 27%.\textsuperscript{12}

To meet the increased demand for collection service, the city garbage collection week was expanded from 3\frac{1}{2} days to a 5-day collection week. Along with the increased collection time, equipment changes were made. The city purchased larger packers, going from 16 yard packers to 20 cubic yard packers.\textsuperscript{13}

Besides providing refuse collection services, the City of Bozeman also operates a sanitary landfill which is located
about two miles north of the city. The present landfill was
established in 1969 and was estimated to have a life expect-
tancy of approximately 50 years.\(^{14}\) There are several factors
involved with the operation of the landfill that could
shorten the projected life expectancy of the landfill consid-
erably. Ground water pollution is one important factor that
needs to be taken into consideration because of the landfill
operation. Test wells are presently being drilled and sam-
pies being taken in order to monitor the amount of leeching
that is taking place.\(^ {15}\) If these tests indicate that the
ground water is being polluted by the landfill operation,
the amount of land that can be utilized as a landfill site
will be considerably reduced.\(^ {16}\)

Another important factor that needs to be considered
is the waste generation rates for the City of Bozeman.
Waste generation is dependent upon population, for as popu-
lation increases, the amount of solid waste that is generated
increases in proportion.\(^ {17}\) Based upon past studies it has
been ascertained that the waste generation rate per capita
varies with population density. Large urban areas generate
a higher per capita rate than rural areas because of the
industrial commercial operations that are found in the urban
areas. The refuse generated in the rural areas is comprised
mainly of household refuse such as the residuals of cooking and food preparation.\textsuperscript{18}

Cities having populations greater than 10,000 were found to have solid waste generation rates that ranged from 4.68 lbs/person/day to 6.26 lbs/person/day with the average for cities of this size being 5.75 lbs/person/day.\textsuperscript{19} The solid waste generation rate calculated for Bozeman was 6 lbs/person/day.\textsuperscript{20} The divergence among the cities is due mostly to the large difference in the amount of demolition material that is generated. It has been projected that the Bozeman sanitary landfill operated under present conditions has a useful life of approximately 20 years. A period of rapid growth in the area and the potential of a leeching problem could shorten the life of the landfill considerably.

The impact of population growth on the landfill will not be felt immediately by the residents of Bozeman because purchasing of land for replacement is still at least 20 years away. New technology may make the present sanitary landfill system obsolete, such as the incineration plant that is being constructed at Livingston, Montana. However the impacts of growth can be seen on the garbage collection system of the city. At the present time the city cannot provide refuse collection services to additional housing
units because the city has reached its collection capacity. Collection service can be expanded if the city were to acquire a new packer and employ additional personnel. It is likely that expansion will occur because many city residents are petitioning the City Commission for city collection service. The price for city service is considerably cheaper than the service provided by the private firms. For example, the basic unit price for collection and disposal is $41.40 annually compared to a city resident with private collection who pays approximately $78.00 annually in addition to an annual landfill assessment of approximately $12.42. Thus there is quite an inequity. If the city expands its collection service to these people, the cost of the expansion will be passed along to be shared by the entire community as user charges are always uniform.

**Sewers**

Waste water treatment is another essential service provided to the residents of Bozeman. In the late 1960's and early 1970's federal legislation and regulations became stricter concerning the amount of emissions of wastes into the streams and rivers. In order to meet the more stringent federal mandates concerning the discharge of effluents into the rivers and streams, many cities and towns had to...
upgrade their waste water treatment systems. The present Bozeman waste water treatment plant was constructed in 1969 to meet the new federal legislation and regulations that were coming in. The treatment plant is undergoing construction that will enhance the plant's operation to a significant degree. After completion of Phase II, the treatment plant will have an anticipated capacity for a population of over 36,000 people. According to the 1980 Census, the population of Bozeman was over 21,600 persons. Thus the treatment plant can extend sewer service to approximately 14,400 persons.

The extension of city sewer service will most likely be to areas that are adjacent to the existing sewer system. These areas include Bridger Drive, the area west of the city limits between West Main and the midsection line north of Durston Road, and the area south of the city limits along South 19th, South 3rd Avenue and Sourdough Road. A large portion of these areas are designated as areas having severe septic tank limitations which means that a great deal of pressure will be placed upon the City Commission by the developers to rule in favor of annexation with the provision of sewer service.

Relatively undeveloped areas such as Story Hills and
Valley Units have been recently annexed to the city which when developed will have a tremendous impact upon the treatment plant facility. Map 3 is based on calculations using present zoning standards which projects the possible population of areas in the city's jurisdictional area. If these projections are accurate, the City of Bozeman will have to expand the treatment plant facility by the early 1990's in order to accommodate the increased number of people who are expected to the residents of the city.

Water

Another important service provided by the city to its residents is water. In some areas of the country, private water companies provide service to the residents of the community. The present water supply for Bozeman comes from three drainage areas: (1) Lyman Creek, (2) Bozeman Creek, and (3) Hyalite Creek. The first source of water secured by the city was the Lyman Creek system which is located northeast of Bozeman. The system was established by a private company in 1889 and was purchased by the city ten years later. The system consists of a small earth fill dam and a concrete inlet structure in Lyman Creek. The city has the right to the first 238 miners inches of flow in Lyman Creek. The stream flow rarely exceeds this amount except in the
early spring runoffs. The average flow of Lyman Creek is 134 miners inches during the summer and drops in the winter to about 50 miners inches.\textsuperscript{25}

When the Lyman Creek water supply became insufficient to meet the needs of the city, other sources of water were developed such as the Bozeman Creek system. The system consists of a small intake and settling basin on Bozeman Creek located about 6 miles south of Bozeman.

The city has 1866 rights to 200 miners inches of the normal flow from Bozeman Creek and, in addition, has preference to a 1865 right located downstream from the city's intake structure.\textsuperscript{26} The city also has 1878 rights which are good for flood water only. During the winter the minimum flow in the Bozeman Creek is often less than the 625 miners inches of decreed water rights.\textsuperscript{27} During the summer and early fall the minimum flow is approximately 2900 miners inches.\textsuperscript{28} Some of the water that feeds the Bozeman Creek comes from Mystic Lake, located approximately 7 miles above the Bozeman Creek intake. An earth fill dam at the lake outlet was constructed by the Bozeman Creek Reservoir Company that provides about 1,480 acre feet of useful water storage. The storage is divided into 20 shares of which the city owns 9 shares. This storage is used to supplement the
Bozeman Creek water during the summer months.

The third source of water is from the Hyalite Creek system which is located south of Bozeman. It was developed to meet the increasing demand for water when the Bozeman and Lyman Creeks supply became inadequate. The Hyalite Reservoir is a component of this system that is operated by the Middle Creek Reservoir Association. The city had contracted with the Middle Creek Association prior to 1956 for 1,050 acre feet of water annually from the Hyalite Reservoir. An additional 1,460 acre feet was contracted for in 1956. As a result of these contracts, the total Hyalite annual storage was over 2,500 acre feet.

Table 2 shows the Water Consumption Rate for the city of Bozeman during the period of 1961-1972 and Projected Water Usage up to 1993. The population figures shown are based on projections made by the City-County Planning Board. It was projected by a private engineering firm hired by the city that the average consumption rate will remain at approximately 260 gallons per capita per day (gpcd). It was also projected that the maximum day demands will raise to a rate of 650 gpcd. The maximum day demands in other Montana cities is generally between 550 and 600 gpcd. It is estimated that by 1993, the maximum day demand for Bozeman will be
## Table 3.2

### Water Consumption Records

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Total Pumped Per/Yr.</th>
<th>Maximum Day Million Gallons</th>
<th>Average Day gpcd</th>
<th>Maximum Day gpcd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>13,892</td>
<td>1,589</td>
<td>9.7*</td>
<td>325</td>
<td>698</td>
</tr>
<tr>
<td>1962</td>
<td>14,423</td>
<td>1,511</td>
<td>8.1</td>
<td>287</td>
<td>562</td>
</tr>
<tr>
<td>1963</td>
<td>14,954</td>
<td>1,609</td>
<td>9.0</td>
<td>295</td>
<td>602</td>
</tr>
<tr>
<td>1964</td>
<td>15,485</td>
<td>1,564</td>
<td>9.35</td>
<td>276</td>
<td>604</td>
</tr>
<tr>
<td>1965</td>
<td>16,016</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1966</td>
<td>16,547</td>
<td>1,726</td>
<td>9.25</td>
<td>286</td>
<td>559</td>
</tr>
<tr>
<td>1967</td>
<td>17,078</td>
<td>1,740</td>
<td>9.77</td>
<td>279</td>
<td>572</td>
</tr>
<tr>
<td>1968</td>
<td>17,609</td>
<td>1,713</td>
<td>9.85</td>
<td>266</td>
<td>559</td>
</tr>
<tr>
<td>1969</td>
<td>18,140</td>
<td>1,764</td>
<td>8.43</td>
<td>266</td>
<td>466</td>
</tr>
<tr>
<td>1970</td>
<td>18,670</td>
<td>1,826</td>
<td>10.55</td>
<td>268</td>
<td>565</td>
</tr>
<tr>
<td>1971</td>
<td>19,508</td>
<td>1,871</td>
<td>11.73</td>
<td>263</td>
<td>601</td>
</tr>
<tr>
<td>1972</td>
<td>20,024</td>
<td>1,896</td>
<td>10.52</td>
<td>259</td>
<td>525</td>
</tr>
</tbody>
</table>

### Projected Water Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Total Pumped Per/Yr.</th>
<th>Maximum Day Million Gallons</th>
<th>Average Day gpcd</th>
<th>Maximum Day gpcd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>26,944</td>
<td>2,557</td>
<td>16.8</td>
<td>260</td>
<td>625</td>
</tr>
<tr>
<td>1990</td>
<td>36,948</td>
<td>3,506</td>
<td>24.0</td>
<td>260</td>
<td>650</td>
</tr>
<tr>
<td>1993</td>
<td>39,690</td>
<td>3,766</td>
<td>25.8</td>
<td>260</td>
<td>650</td>
</tr>
</tbody>
</table>

*Average for maximum week.*
25.8 million gallons. Since consumption of water in Bozeman is at or near the maximum day demand for several consecutive days, it will be necessary to have a supply designed to meet the maximum day demand. Storage is used to meet fluctuations in demand during the day and most importantly provide a reserve for fire fighting purposes.

Because of the high demand for water in Bozeman it will be necessary to seek additional water rights and to repair leaks in the system that rob the city of millions of gallons of water each year. Population growth has had a significant impact on the water system of the City of Bozeman and this impact will become more apparent in the future. In order to resolve the problems associated with the high consumption rate, the city has embarked on new courses of action. The city is beginning to find and repair the major leaks in the transmission lines which will add to the city's supply capability. The city has also been gradually converting flat rate accounts to meters over the last 20 years. In 1962, 51% of the total accounts were metered, by 1981 the number of meters comprised 83% of the total water accounts. By converting flat rate accounts to meters, the city has saved a significant amount of water because of the incentives to conserve that meters provide. In addition, the
city has raised the water rates. With these programs in effect there will be more incentive on the part of the residents to conserve water.

Table 3 shows the amount of meter connections for the years 1969 through 1981. During this ten-year period, the number of water connections had increased over 51%. The impact of this growth has been felt on the water service's budget which will be discussed in Chapter IV.

In summary, because of growth there has been significant impact upon the city services during the period of 1960 through 1980. The amount of equipment and manpower necessary to provide these services has been increased to meet the increasing demand for services. The next Chapter will discuss the expenditures of these services and the impacts that growth will have on the budgets of water, sewage, and garbage services of the City of Bozeman.
Table 3.3
Metered Hook-Ups (Water)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Hook-Ups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>2,655</td>
</tr>
<tr>
<td>1970</td>
<td>2,747</td>
</tr>
<tr>
<td>1971</td>
<td>2,854</td>
</tr>
<tr>
<td>1972</td>
<td>2,997</td>
</tr>
<tr>
<td>1975</td>
<td>3,326</td>
</tr>
<tr>
<td>1976</td>
<td>3,452</td>
</tr>
<tr>
<td>1977</td>
<td>3,587</td>
</tr>
<tr>
<td>1979</td>
<td>3,758</td>
</tr>
<tr>
<td>1980</td>
<td>3,891</td>
</tr>
<tr>
<td>1981</td>
<td>4,010</td>
</tr>
</tbody>
</table>
END NOTES

1. Montana Codes Annotated, 1979, 7-2-4301, p. 76.
2. Ibid., p. 77.
3. Ibid., 7-2-4402, p. 80.
4. Ibid., 7-2-4501, p. 81.
5. Ibid., 7-2-4601, p. 82.
6. Ibid., 7-2-4702, p. 86.
7. Ibid., 7-2-4732, p. 90.
8. Ibid., p. 90.
9. Interview with Art Van'T Hul, City Engineer, City of Bozeman (March 1981).
10. Ibid.
12. Interview with Clinton Gee, Street Superintendent, (March 1980).
13. Ibid.
14. Ibid.
15. Interview with Art Van'T Hul, City Engineer, City of Bozeman, (February 1981).
16. Ibid.
18. Ibid., p. III-11.


23. Ibid., p.

24. In order to clarify these terms a brief explanation will follow. Miners inches refer to the rate of water flow, for example in Montana, 40 miners inches is equal to 1 cubic foot per second which equals 450 gallons of water per minute. One cubic foot per second (CFS) flowing 24 hours equals 2 acre feet, which means, 1 acre two feet deep.


26. Ibid., p. 11.

27. Ibid., p. 12.


29. Ibid., p. 13.


31. Ibid., p. 15.

32. Ibid., p. 18.

33. Ibid., p. 22.

34. Ibid., p. 31.

35. Ibid., p. 32.

37. Ibid.
CHAPTER IV
FINANCIAL IMPACTS OF ANNEXATION: EXPENDITURES

It is argued that annexation of areas by a municipality will broaden the tax base. As a result of annexation, revenues will significantly increase because of the additional property taxes derived from these areas. However, the municipality will also face increased expenditures as the municipality must in return provide services to these areas. As is required by state laws, the city must spend additional money to provide the services of police and fire protection, street maintenance, water, sewage disposal, and other services that are normally provided city residents.

Although the common assumption is that as a city increases in population, the increased revenues derived from taxes should offset expenditures, the evidence appears to contradict this. Several graphs are used in this Chapter to demonstrate the effects growth has upon the services of a community.

Figure 4.1 shows (a) the average tax rates and (b) average per capita expenditures of 18,050 municipalities which have been grouped by population size. Based on this graph, there appears to be little evidence of an economy of
Figure 4.1 United States Municipal Governments, 1966-67. (a) Total general expenditures per capita; (b) Total tax revenues per capita; as a function of population size.

scale for municipal affairs. Per capita costs of operations did not decline as would be expected if an economy of scale existed. In fact the opposite occurred with operating costs nearly doubling. Thus larger population cities are more expensive to operate than smaller population cities in the United States. To look at a city that is more or less similar to Bozeman, Boulder, Colorado is taken as an example.

Figure 4.2 show the effects of population growth on Boulder during the 1960's when Boulder's population increased nearly 77%. Other cities located in the general geographic area of Boulder also experienced similar increased operational costs due to growth.

Another interesting point concerning growth and per capita expenditures is illustrated in Figure 4.3. Among the 148 Standard Metropolitan Statistical Areas (SMSA's) having over 200,000 population, those that lost population during the period 1962-1967, averaged a 9% increase in per capita cost, whereas those that gained population averaged a 12% increase in per capita costs.

It can be argued that the information above has exaggerated the negative side of growth because large cities provide public services which are superior to the services provided by smaller populated cities (under 100,000). Instead of receiving more for their tax dollars, the residents
Comparison of Population, Per Capita Costs, and Personal Income
(Boulder, Colorado)

Figure 4.2 Boulder, Colorado, 1960-70. (a) City of Boulder population;
(b) City of Boulder per capita costs at constant dollars; (c) Colorado
personal income per capita at constant dollars.
Source: Pikes Peak Area Council of Government, The Costs of Growth:
Figure 4.3 Total general expenditures per capita in 1967 by local governments of Standard Metropolitan Statistical Areas, as a function of population growth rate (1960-70).

of the larger populated cities receive less public services per capita than the residents of smaller populated cities. Parks, recreational facilities and police protection are given as examples.

Figure 4.4 shows the average per capita public expenditures on park and recreational facilities by local governments in the United States.⁵

Figure 4.5 shows the public recreational facilities per 10,000 population in United States cities.⁶

Figure 4.6 shows the average park acreage per 10,000 population for United States cities and counties in 1965 as a function of population size.⁷ It appears that based on these graphs, the larger the population of a city, the larger the per capita expenditures will be with fewer acres of park land and recreation facilities.⁸

Now let us turn and examine police protection by using the Figures 4.7 and 4.8. Figure 4.7 illustrates the average public expenditures per capita for police protection by municipalities and counties in 1967.⁹ Figure 4.8 shows the average crime rates as a function of population size in 1971.¹⁰

Based on these figures, it does not appear that increased expenditure reduces the crime rate. In summary it
Figure 4.4 Average public expenditures per capita for parks and recreation facilities in 1967 as a function of population size. (a) By municipalities; (b) By local governments of county areas.

Public Recreation Facilities

Figure 4.5 Public recreation facilities per 10,000 population in U.S. cities as a function of population size (1965).

Figure 4.6  Average park acreage per 10,000 population as a function of population size for (a) U.S. cities (1965); and (b) U.S. counties.

Figure 4.7 Average public expenditures per capita for police protection in 1967 as a function of population size. (a) By municipalities; (b) by local governments of county areas.

Average Per Capita Crime Rates

Figure 4.8 Average crime rates as a function of population size. (a) Total number of crimes per 1000 population; U.S. cities (1970); (b) Number of property plus violent crimes per 1000 population; U.S. cities (1970); (c) Number of violent crimes per 10,000 population; U.S. cities (1970); (d) Total number of crimes per 1000 population; SMSA's (1971); (e) Number of forcible rapes per 100,000 population; SMSA's (1971).

appears that services provided by larger populated cities are not necessarily superior to the services provided by smaller populated cities.

After discussing economies of scale and related aspects, let us now turn to growth related impacts that have occurred in Bozeman in terms of tax rates and expenditures necessary for the provision of services. During the last two decades, property taxes and per capita expenditures have increased significantly as witnessed in the following graphs. Figure 4.9 shows how the City of Bozeman's mill levy rates increased through 1960-1980. From 1960-1970, the mill levy rate increased by relatively slight margins. The following decade was quite the opposite in that there was a tremendous increase in the millage rates.

Figure 4.10 shows the per capita expenditures of the City of Bozeman from 1960-1980. The period 1960-1970 saw moderate changes in per capita expenditures for the provision of services. During 1970-1980, the picture was quite different in that per capita expenditures began to increase significantly. A detailed cost analysis follows.

Cost Analysis

The basis of the growth study involves the dollar and cents issue of what the residents will have to pay for muni-
Figure 4.9 Bozeman Mill Levy Rates, 1960-80.
Source: Gallatin County Assessor's Office
Figure 4.10 Per Capita Expenditures of the City of Bozeman, 1960-80.
cicipal services by 1990. To determine what future expansion would probably cost the city, growth was examined as to two variables: population size and the area in which these people reside or expected to reside.

The parameters of population size and growth areas were defined by four distinct and separate growth patterns which represent the extremes of probable development in Bozeman based on projected population figures and available land. The alternatives are:

1. Low Population — Contained Growth
2. High Population — Contained Growth
3. Low Population — Peripheral Growth
4. High Population — Peripheral Growth

Description of the Four Growth Pattern Alternatives

In the planning board study, the population of Bozeman was projected to be between 29,558 and 42,379. These two population levels provide the high and low levels for the contained and peripheral growth alternatives. Each population level was placed in two possible growth areas. Under the contained growth alternative, the assumption was made that all future growth will take place within the present city limits. The peripheral growth alternatives made the assumption that future growth will occur within the proposed
sewer service area as delineated in the Thomas, Dean, and Hoskins' "Facility Plan for the City of Bozeman." The projected peripheral growth area can be seen on the map on the following page.

Assumptions and Limitations

In the course of the Bozeman Area Growth Study, certain assumptions and limitations were necessary in order to focus on the costs and revenues inherent in the four possible growth patterns. These assumptions and limitations were as follows:

1. The study's objective is to compare and contrast the four growth alternatives which deal with a range of population and amount of land needed to accommodate such populations.

2. The projections are made on the assumption the City of Bozeman will provide municipal services in the growth area -- be it contained or peripheral.

3. Generally, capital costs are projected to include all municipal services required for Bozeman's expected population increases. Capital expenditures needed to upgrade present services have not been taken into account. This assumes that the current level of services now provided by the city will be extended to new residents.
Map 5. Sewer Service Area

4. Operating costs consist of money spent to provide municipal services to the entire city population. Future operating costs were determined by using 1974 as a per capita base.

5. All projections are made in 1974-1975 dollars. No provision has been made for inflation since it is assumed any use in this economic indicator would affect all four alternatives equally. Also there does not seem to be a method to predetermine a rate of inflation that would reasonably fit the cost-revenue situation in the future.

6. Capital costs for projected facilities are estimated and amortized over the payback period of each. No consideration is made for replacement of existing facilities.

**Analytical Basis**

Each municipal service costs were described as being a function of either population alone or population and area in order to achieve as complete and true cost projections as possible. Only three services were selected for study. These were the services of water, sewer, and garbage.

Capital expenditures were removed from operating costs in each department to provide not only a sound basis for the cost of city services, but also is customary with local budgeting.
Projection of Future City Costs

The base-year operating cost figure (1974) for each service was divided by the 1974 population estimate of 21,000 to obtain a dollar per capita operation cost. This per capita operating cost figure was used to calculate the operating costs of the various municipal services as a given population level. Additional capital costs for each of the four growth alternatives were considered for each service in all municipal departments.

Water

In order to meet the increased demand for water, it will be necessary to construct a reservoir on Bozeman Creek. The cost of constructing a reservoir will be reflected in all growth patterns.

Water costs are projected to 1990 in the following paragraphs for the four alternative growth patterns.15

1. Low Population -- Contained Growth

(a) Operating Costs: Per Year

$15.79 \times 29,558 = \$466,720

(b) Capital Expenditures:

Bozeman Creek Reservoir: $2,000,000
2 million gallons ready for city use: 150,000
10 million gallons treatment: 500,000
Distribution Improvements: 784,200
($3,434,200 amortized over 20 years at 5%) = 275,560
2. High Population -- Contained Growth

(a) Operating Costs:

\[ 15.79 \times 42,379 = 669,164 \]

(b) Capital Expenditures:

- Bozeman Creek Reservoir: $2,000,000
  - 2 million gallons ready for use: $150,000
  - 15 million gallons treatment: $1,000,000
- Distribution Improvements: $784,200
  - ($3,934,200 amortized over 20 years at 5%) = 315,680

3. Low Population -- Peripheral Growth

(a) Operating Costs:

\[ 15.79 \times 29,558 = 466,720 \]

(b) Bozeman Creek Reservoir: $2,000,000
  - 2 million gallons ready for use: $150,000
  - 10 million gallons treatment: $500,000
- Distribution Improvements: $500,000
- Trunk lines: $750,000
  - ($4,184,200 amortized over 20 years at 5%) = 355,740

4. High Population -- Peripheral Growth

(a) Operating Costs:

\[ 15.79 \times 42,379 = 699,164 \]

(b) Capital Expenditures

- Bozeman Creek Reservoir: $2,000,000
  - 2 million gallons ready for use: $150,000
  - 15 million gallons treatment: $1,000,000
- Distribution Improvement: $784,200
- Trunk lines: $684,200
  - ($684,200 amortized over 20 years at 5%) = 375,860
Sanitary Disposal System

The following figures are the projections of Sanitary Disposal System costs to 1990:

1. Low Population -- Contained Growth
   (a) Operating Costs:            Per Year
       $4.79 \times 29,558 = $141,582
   (b) Capital Expenditures:
       Expansion of Secondary Treatment: $3,047,000
       Renovation to meet 1983 standards:
       $1,821,000
       ($4,868,000 amortized over 20 years at 5%) = 390,608

2. High Population -- Contained Growth
   (a) Operating Costs:
       $4.79 \times 42,379 = 202,995
   (b) Capital Expenditures:
       Same as 1(b) above = 390,608

3. Low Population -- Peripheral Growth
   (a) Operating Costs:
       $4.79 \times 29,558 = 141,582
   (b) Capital Expenditures:
       Same as 1(b) and 2(b) above = 390,608
4. High Population -- Peripheral Growth

(a) Operating Costs:

\[ 4.79 \times 42,379 = 144,582 \]

(b) Capital Expenditures:

Same as 1(b), 2(b), and 3(b) above = 390,608

Sewer Lines

The per capita operating costs per year reflects lines already installed. It will be necessary in all four growth patterns to seal portions of sewer lines to reduce ground water infiltration. In addition an interceptor line must be constructed to collect sewage from the New Hyalite View Subdivision.

The following information is the projected sewer line costs to 1990 under each of the four growth alternative patterns.17

1. Low Population -- Contained Growth

(a) Operating Costs:

\[ 1.74 \times 29,558 = 51,430 \]

(b) Capital Expenditures:

Reduction of infiltration: $83,000
Hyalite Interceptor: 107,000
($190,000 amortized over 20 years at 5%) = 15,304
2. High Population — Contained Growth

(a) Operating Costs:

\[ \$1.74 \times 42,379 = \] $73,739

(b) Capital Expenditures:

- Reduction on Infiltration: $166,000
- Hyalite Interceptor: $107,000
  \[ ($273,000 \text{ amortized over 20 years at 5\%}) = 21,960 \]

3. Low Population — Contained Growth

(a) Operating Costs:

\[ \$1.74 \times 29,558 = \] $51,430

(b) Capital Expenditures:

- Reduction of Infiltration: $83,000
- Hyalite Interceptor: $107,000
  \[ ($190,000 \text{ amortized over 20 years at 5\%}) = 15,246 \]
- Trunk line expansion: $929,830
  \[ ($929,000 \text{ amortized over 20 years at 5\%}) = 74,610 \]

4. High Population — Peripheral Growth

(a) Operating Costs:

\[ \$1.74 \times 42,379 = \] $73,737

(b) Capital Expenditures:

- Reduction of Infiltration: $166,000
- Hyalite Interceptor: $107,000
  \[ ($273,000 \text{ amortized over 20 years at 5\%}) = 21,906 \]
- Trunk line expansion: $1,328,329
  \[ ($1,328,329 \text{ amortized over 20 years at 5\%}) = 106,585 \]
Garbage

The present refuse collection system is at operating capacity. If the city continues to annex, it will be necessary to purchase additional packers and increase manpower. The following figures are the projections of the garbage collection and disposal costs to 1990.¹⁸

1. Low Population -- Contained Growth
   (a) Operating Costs:  
   $6.64 \times 29,558 = \$141,582$
   (b) Capital Expenditures:
   (1) 20 cubic yard packer truck ($60,000 amortized over 4 years at 5\%$) = 15,908

2. High Population -- Contained Growth
   (a) Operating Costs:  
   $6.64 \times 42,379 = \$281,396$
   (b) Capital Expenditures:
   Sames as 1(b) above = 15,908

3. Low Population -- Peripheral Growth
   (a) Operating Costs:  
   $6.64 \times 29,558 = \$141,582$
   (b) Capital Expenditures:
   Sames as 1(b) above = 15,908
4. High Population -- Peripheral Growth

(a) Operating Costs:

$6.64 \times 42,379 = \text{ } 281,396$

(b) Capital Expenditures:

(2) 20 cubic yard packers trucks

($120,000 \text{ amortized over 4 years at } 5\% ) = \text{ } 31,816$

Summary of Costs Under the Alternative Growth Patterns

After totaling the departmental costs, a picture began to emerge from the four growth alternatives with the following results:

Total municipal costs under Low Population -- Contained Growth alternative were estimated at $1,498,694.00 per year.

Total municipal costs under High Population -- Contained Growth alternative were estimated at $1,971,450.00 per year.

Total municipal costs under Low Population -- Peripheral Growth alternative were estimated at $1,653,426.00 per year.

Total municipal costs under High Population -- Peripheral Growth alternative were estimated at $2,125,654.00 per year.

In general terms, the larger the population of a city,
the more it costs to provide municipal services. As the above figures show, these costs can vary depending upon the land area used in development. This can be seen in the differences in total municipal costs for each of the contained and peripheral growth alternatives. Less land is consumed under higher density development, therefore distances for providing water and sewer lines, and garbage service would be shorter than low density development. Because of the shorter distances involved, costs would be considerably reduced.
END NOTES


3. Ibid., p. 27.

4. Ibid., p. 6.

5. Ibid., p. 29.


7. Ibid., p. 31.

8. Ibid., p. 32.

9. Ibid., p. 33.

10. Ibid., p. 34.


15. Ibid., p. 30.

16. Ibid., p. 28.

17. Ibid., p. 29.

18. Ibid., p. 30.
CHAPTER V

FINANCIAL IMPACTS OF GROWTH: REVENUES

Determining the financial cost upon the residents of the city is only part of the development question and was dealt with in the previous Chapter. This Chapter will address the question who pays for development? In an attempt to answer this question, city revenues were examined.

For analysis, various sources of revenue had been divided into five general categories. These categories are:¹

1. Property Taxes
2. User Charges
3. Fines, Fees, Permits
4. Federal Funds
5. State Funds

The property taxes category includes all revenues collected through general property tax assessments.

The user charges category are fees collected for water, sewer, and street light services. The category of fines, fees, permits is comprised of various revenues collected from business licenses, building permits, police court fines, etc.

The federal funds category are revenues distributed to cities by the federal government through revenue sharing.
programs, grants, etc.

The state funds category is comprised of revenues collected by the State of Montana and distributed to the cities and towns. These revenues are derived from taxes on liquor and beer, gasoline, and motor vehicles.

Revenue Projections

The revenue categories of fines, fees, and permits, state and federal funds were described as being a function of population because a specific population total will generate a certain amount of revenue. The other revenues were calculated on the basis of how much money was necessary in order to provide certain municipal services. The costs were divided among the population in the form of a user fee. An example of this would be a water bill. Property taxes are best described as a product of the taxable value of all properties multiplied by a mill levy.

Revenues and Land Usage

According to the Bozeman Area Growth Study, revenues vary less with land usage compared to capital and operating costs. Most of the revenues are described as a function of population. Taxes are an exception, which are a function of the assessed value of a parcel of land, improvements and the
mill levy.

User Charges

Generally revenues required to cover service costs for water, sewer street, and street lights are acquired by billing each user a proportionate amount on a monthly basis. This makes user charges a function of cost. This is in contrast to the other revenue categories which operate independent of costs.

Fines, Fees, Permits

This category is described as a function of the population size of a city. It was assumed that the revenues from this category would be applied towards operational costs.

State Funds

State funds received by the cities and towns are for the most part dependent upon the population size of the municipalities. These funds are beer, wine, and liquor apportionments and gasoline tax apportionments, and vehicle license fees. These revenues are applied towards operational costs.
Federal Funds

Federal funds are a highly variable item since there are numerous factors such as philosophy of the administration, mood of Congress, and the like, which will significantly influence the amount of revenue a city receives.

Property Taxes

Property taxes are based on the assessed and taxable valuation of land and improvements in the city. Classification and appraisal of all real property through the state is done by the county assessor, acting as an agent for the state.

Property taxes generate over half of the total state and local tax revenues in Montana. It is the most important source of revenue for local governments accounting for up to 81% of local revenues in some locations in the nation. Property taxes are calculated according to a given formula.

Summary of Revenue Analysis

Revenues, like municipal costs vary with population and land area used in development. The Figures 5.1 through 5.5 on the following pages present a summary of projected revenues and costs for each of the growth alternatives.

Under present city policy, the cost of all municipal improvements in a developing area are financed by SID's.
Figure 5.1. Flow Chart of Required Revenues
Alternative #1

Total Cost
$3,542,269

Operating Costs
$2,357,519

Minus User Charges
$2,357,519
$701,356
$1,656,163

Capital Costs
$1,184,750

Minus User Charges
$1,184,750
$681,414
$503,335

Minus Other Sources
$1,656,163
$415,290
$333,710
$262,179
$644,984

Total User Charges
$1,382,770

Minus SID Revenues
$1,382,770
$215,043
$65,499
$77,024
$71,204

Total Tax Revenue Required:
$3,542,269

Remaining Operating Costs Covered By Property Taxes:
$644,984

Remaining Capital Costs Covered By Property Taxes:
$71,204

Figure 5.2 Flow Chart of Required Revenues For Alternative 1
Figure 5.3 Flow Chart of Required Revenues For Alternative 2.
Alternative #3

Total Cost
$4,876,928

Operating Costs
$2,457,163

Capital Costs
$2,319,765

Minus User Charges
$2,457,163
- 718,150
$1,739,013

Minus User Charges
$2,319,765
836,204
$1,683,561

Minus Other Sources
$1,739,013
- 415,290
- 333,710
- 262,179
$ 727,834

Total User Charges
$1,554,354

Minus SID Revenues
$1,683,561
- 243,894
- 887,357
- 8,666
- 195,989
- 230,474
$ 104,931

Remaining Operating Costs Covered By Property Taxes:
$832,765

Remaining Capital Costs Covered By Property Taxes:
$104,931

Total Tax Revenue Required:
$4,876,928

Figure 5.4 Flow Chart of Required Revenues For Alternative #3
Figure 5.5 Flow Chart of Required Revenues For Alternative 4
The improvements are paid by the property owners. It was calculated that by the year 1990, the average SID assessment would be $560 per year for twenty years for property owners in the peripheral growth area. Under the contained growth alternatives, the SID assessment would be approximately $153 per year for twenty years.

The cost of SID's may become prohibitive for many prospective home buyers. If so, in order to finance these improvements it may be necessary to use city-wide bond issues. This would mean the entire city pays for the consequences of sprawl development.

Generally, peripheral growth will be more expensive than contained growth, both in terms of expense to the city and in the amount of land area utilized. Also the more people residing in the city, the more expensive it is to provide municipal services. The degree of cost variance is influenced by the population density of an area.

It is important to know who is going to pay for this development in order to plan for additional revenues that will be necessary to finance the development. In the revenue analysis, it was shown that revenues for the city were derived from various sources. As growth occurs, there is a significant increase in special improvement district financ-
ing. Figure 5.6 illustrates how the cost of SID's increase under the four growth pattern alternatives. Without SID's the cost of financing these improvements would be placed upon the city residents and as a result, there would be substantial tax increases.

As of this writing the growth that Bozeman has experienced since 1960 could be categorized as a peripheral growth. During twenty years, the city has doubled in acreage. The population projections found in the growth study may be inaccurate, but the acreage projections are quite accurate.

By examining past expenditures it may be possible to understand the impacts that growth imposes upon the residents of the city in the future. As a result of growth, there have been significant economic costs for the provision of municipal services. Figure 5.7 shows the expenditures for the services of water, garbage, and sewage treatment from 1960-1980.

These services are known as Enterprise Funds; that is, they are intended to be self-supporting. Revenues are generated from these services by charging user fees to the consumers of these services. Water fees are based on the number of cubic feet of water used. Sewer charges are based upon a percentage of the customer's water billing. Garbage
Summary of Costs and Revenues

Alternative #1

Alternative #2

Alternative #3

Alternative #4

Costs
Revenues

Figure 5.6. Summary of Costs and Revenues for Municipal Services by the 1990
Expenditures for Sewer, Water, and Garbage

Figure 5.7. Expenditures for Sewer, Water, and Garbage in Constant Dollars
charges are based on the number of rooms a particular residence may have. Appendix I shows examples of the current users' fees charged to city customers.

The revenues derived from these services are intended to offset the costs incurred. Growth and inflationary pressures have resulted in deficits of thousands of dollars in recent years in some of the city's operations. For the last few years the Garbage Funds has reported losses amounting to thousands of dollars. In order to recoup these losses it has been necessary to raise the user fees. In some cases there has been borrowing from the General Fund in order to cover the expenditures.

The next chapter will discuss the topic of who pays for development. Although it was stated that improvements would be paid by the residents of the annexed areas for the most part through SID's, because of the recent economic developments this assumption might not be so.

2. Ibid., p. 43.

3. Ibid., p. 44.


5. There are now 11 classes of property, each with its taxable value as a percentage of assessed value. Taxable value as a fraction of market value of various classes of property is set by the Legislature.

The calculation of property taxes is illustrated below by assuming a home and lot with a market value of $40,000 and a tax levy of 200 mills. The tax is computed as follows:

$40,000 assessed value (= market value)
$40,000 x .0855 (8.55 percent) = $3,420 taxable value
$3,420 x .2 (200 mills) = $684 property tax

The total property taxes received are made up of varying portions of agricultural, residential, commercial, and industrial taxes.

Ibid., p. 9.


7. Ibid., p. 61.

8. Ibid., p. 63.

9. These figures used in this graph were calculated in constant dollars in order to remove the bias of inflation. City of Bozeman, "City Manager's Estimates of Expenditures and Revenues," Fiscal Years 1960-1980.
CHAPTER VI

THE COST OF GROWTH: WHO PAYS?

In Chapter V the various revenue sources of the city were discussed in great detail. During this discussion it was brought out that as growth occurs there is an increasing reliance upon SID's to finance the development that is taking place. This would be an equitable system in that those who are responsible for the increased costs, due to the extension of services, would then be contributing significantly to the costs of these improvements. The city resident according to the theory then would not be paying for the improvements of the annexed areas. However, this is not true. In practice, many of the costs associated with growth, annexations in particular, have been passed along to the community at large. This Chapter will examine the relationship between growth and revenues and discuss how the increased cost of services are absorbed by the community.

Special Improvement Districts

The issues that should be closely examined are who will benefit from these improvements and will these improvements be financed in as fair and equitable manner as possible. One method by which costs of improvements are passed along is through the use of Special Improvement Districts. The
original purpose of the SID's was to help small lot owners finance improvements such as streets, water and sewer lines and street lighting. However developers have taken advantage of the SID's which resulted in increased expenditures for all the city residents.

Major costs are incurred by the landowner or developer with the installation of sewer and water lines and road systems. The cost of installing these facilities can be enormous if the proposed improvement area is not located within close proximity of existing municipal services. If there are no subdivisions between the proposed improvement area and existing municipal facilities, the total cost of the SID's must be absorbed by the developer until such time that other SID's are created between these points. Financial arrangements will be made with later developers to contribute towards the cost of extending municipal services. There could be potential financial problems in the future for the city having one developer responsible for such large amounts of SID's. When a home or lot is sold, the SID's along with the interest and penalties, are passed on to the buyer(s). However in recent years the economy has been in a slump which has stagnated the real estate business. The developers have had difficulty in selling their lots and as
a result they have been faced with making the SID installment payments themselves rather than being able to pass on the costs to the home or lot buyers. These SID payments can amount to thousands of dollars which would make it difficult for a developer to pay. As a result, many of these SID payments have become delinquent. For example, Valley Unit SID's for sewage, water, and paving amount to approximately $3,953,167. The annual installment in this context is over $197,658, which was due on November 30, 1981, and is delinquent as of this writing.3

In a recent local newspaper article, it was reported "property owners in Bozeman have failed to pay a total of $424,900 in special improvement district assessments in 1979 and 1980." The delinquencies of $271,000 for 1980 amounts to about 20% of the total amount assessed for that year. The tax delinquencies in 1979 totaled approximately $153,900 which was approximately 12% of the total SID assessments for the year 1979.4 The result of these delinquencies can have a dramatic effect upon the tax rates of a municipality.
Present City Policy on Delinquencies

Currently SID's that become delinquent are turned over to the County Treasurer's Office for collection. Taxes are allowed to remain delinquent for 3 years before action to sell the property is taken. During this time, interest and penalties keep accumulating on the balance due. However in light of the current interest rates, the penalties charged against the property by state law are comparatively low (12%). Because of this fact, many property owners instead of borrowing money from financial institutions, will allow their taxes to become delinquent. Instead of paying an interest rate of 20% (to the bank) these people are in effect borrowing from the county at 12% interest. This is good business practice if the money saved from paying taxes is invested wisely. If the city experiences a shortfall of revenue from property taxes, they will be forced to borrow at the current interest rates. The increased costs are passed back to the taxpayers in the form of higher mill levies.

SID Revolving Fund and Mill Levies

Under present Montana law, the municipalities are granted the authority to create a revolving fund for the purpose of "securing prompt payment of any special improve-
ment district bond(s) . . . as it becomes due." 

It further stipulates the sources available to the municipalities for the SID Revolving Fund; by the transfer of funds from the general fund to the revolving fund. Such transfers from the general fund are considered to be loans. In addition to transfer from the general fund, a tax on all taxable property in such city or town may be levied by the municipality to meet the financial requirements. The levy together with the transfer from the general fund is not to exceed in any one year 5% of the principal amount of the then-outstanding special improvement district bonds. 

To protect itself from delinquencies to some extent, the city has levied a half mill property tax on all real property in the city. The amount realizable depends upon the taxable value for the year in question. Currently, this amounts to about $42,000. According to the Fiscal Year 1981 Annual Trial Balance, the city's SID Revolving Fund contained only $117,000. There has been some concern recently that in light of the number of delinquencies, the revolving fund might not have adequate funds to cover the delinquencies.

As a result of borrowing from the general fund, increased pressure has been placed on the city to search for
additional revenues, usually in the form of increased property taxes. This fact can be witnessed by the graph on page 58 which illustrates the dramatic increase in the mill levies during the period of 1960-1980.

User Fees

Even though SID's finance the capital expenditures required to construct the physical facilities needed to extend municipal services, the city accepts the long term obligation of maintaining these facilities. Maintenance on water and sewer lines are very expensive projects that can amount to hundreds of thousands of dollars. The more linear feet of lines that a system has, the more maintenance costs will be incurred by the city. The city has extended its water and sewer lines considerably over the last twenty years as annexations occurred. This fact is evidenced by the increased expenditures for the services of sewer and water in the graph on page 84. In order to finance the maintenance of these systems it has been necessary for the city to sell bonds. Several million dollars worth of bonds have been sold since the early 1960's to finance these capital improvements. The bonds are paid through the user fees which are billed to the residents on a monthly basis. Since the city billing system for water and sewer usage is based
on a basic unit method, the increased costs are absorbed by all the residents of the city. The city does not distinguish between residential districts in its billing; therefore an area that was recently annexed will pay the same basic unit rate as those areas that have been in the city for several years.

Conclusions and Recommendations

From the above discussion it is evident that costs of development through annexation are in fact farmed out among all the residents and are not necessarily paid exclusively by those who are benefitted. Given this inequity what could be done?

The city has some options available that it can exercise to alleviate some of the financial difficulties that are associated with growth and delinquencies. Some of these options are discussed in the following paragraphs.

(1) Increased Interest and Penalties

With the passage of Senate Bill 42 in the last legislative session, Montana law provides,

... that one-half of all taxes levied and assessed will be due and payable before 5 p.m. on November 30 next thereafter and that unless paid prior thereto the amount then due will be delinquent and will draw interest at the rate of \( \frac{5}{6} \) of 1% per month from and after such delinquency
and 2% will be added to the amount thereof as a penalty.\footnote{10}

(2) Tax Sales

After a period of time the city has the option of collecting the SID delinquencies through tax sales. Section 7-12-4183 of the Montana Codes Annotated states, When payment of any one installment of any special assessment becomes delinquent, all payments of subsequent installments shall, at the option of the city or town council and by appropriate resolution duly adopted, become delinquent. Such delinquent special assessments shall be certified to the county clerk of the county in which such city or town is situated, and the county treasurer must collect such delinquent special assessments and taxes in the same manner and at the same time as said taxes for general, municipal and administrative purposes are collected by him. In case the same are not paid, the whole property shall be sold, the same as other property is sold for taxes.\footnote{17}

This should provide an incentive to pay SID assessments.

(3) Redemption of Property

The redemption of the property sold may be made by the owner or any party having interest in or lien upon such property. This must be done within 36 months from the date of purchase or at any time prior to the giving of the notice and application for deed to the property.\footnote{12}

In Section 15-18-102, it is provided that,
in all cases where real estate has been sold for delinquent taxes, the purchaser or his assignee at such tax sale may subsequent thereto pay the subsequent taxes assessed against said land, and upon the redemption of said land from such tax sale, the redemptioner shall in addition to the amount for which the said land was sold, with interest thereon, pay the subsequent taxes paid by the purchaser or his assignee at such tax sale, with interest thereon at the rate of 8% per annum from the date of payment of such taxes. In all notices of application for tax deed, the applicant shall state, in addition to the amount paid at the tax sale, the amount of subsequent taxes paid by the applicant of his assignee upon such land, with interest thereon at the rate of 8% per annum from the date of such payment, and no redemption shall be made until the amount of such sale with interest and such subsequent taxes and interest shall have been paid by the person seeking to redeem such lands.  

1) Closer Examination of Proposed SID's

In light of the facts presented in this work, caution should be taken on the part of city officials in examining future requests for creation of additional SID's. As a matter of fact, as of December 1981, the city has a total of $10,156,600 in outstanding SID bonds. If there should be a large number of delinquencies, the city would be facing a severe financial situation. The original purpose of SID's was to provide small lot owners of developed land a method by which they could finance improvements. In the last 20 years developers have taken advantage of SID's to finance the development of raw
land. In fact, there have been developments on land that is marginal which could not have been developed without the use of the city's SID programs. The costs of developing these marginal areas have been passed back to all the residents of the city.

It is recommended that before additional SID's are created, the area in which the improvements are to occur, must be at least 75% developed.

2) Impact Fees

In addition to closer scrutiny of new SID's, it is recommended that the city study the prospect of charging impact fees to developers. Many cities in other western states have adopted this practice in order to cope with the additional demand that growth places upon the existing facilities. Sanitary sewer systems, water and road systems are the most expensive capital items of the city that are significantly impacted by growth. To remedy the impacts caused by growth upon their municipal services, the City of Mesa, Arizona passed Ordinance 1386 which provided for an impact fee schedule for residential development.\(^{15}\) (See Appendix II)

In several court cases, the city's authority to charge impact fees has been upheld in many of the states.\(^{16}\)
The cities of Santa Clara and Mesa were used as examples of what possibly could be implemented in Bozeman. If it were possible to implement impact fees for sewer treatment, water and roads, significant amounts of revenue would be generated to offset some of the growth-related impacts. The cost of expanding the sewage treatment plant, for example, would be shared in a more equitable manner if an impact fee schedule were adopted by the City Commission.

3) Enterprise Funds

In addition to implementing impact fees, serious study should be undertaken of the Enterprise Funds. User charges should be examined to determine if the fees charged to the users of these municipal services cover the costs incurred in the provision of these services. For the most part, there has been little planning for future capital projects in terms of establishing cost reserves. User charges should reflect future capital improvement projects to replace worn-out equipment. The costs of replacing this equipment and facilities would be considerably reduced if a capital improvement program were adopted through action by the City Commission.

In these distressed economic times, many cities face a gloomy financial outlook. As of this writing, it appears
that Federal Revenue Sharing funds will be replaced by block grants to be administered by the states. This could have severe financial impacts upon the municipalities across the United States. The City of Bozeman received over $169,000 for fiscal year 1981 in Federal Revenue Sharing Funds.\textsuperscript{17} If the city were to lose these funds and could not replace these funds through other means, severe personnel cutbacks would result. Vital city services such as police and fire protection have already felt the financial axe in past years' budget crunches. Coupled with the possible loss of Revenue Sharing and potential SID's delinquencies, the city could be placed in severe financial straits. The financial impacts of these events would be much more severe than those faced by the city and its residents in 1978. The city has not fully recovered from the 1978 financial fiasco. It is true that SID's have paid for the most part the costs of extending municipal services. However, there is a danger that if enough property owners default on these SID payments, the city would face a financial disaster. The result would be an explosion in the mill rate for several years to come.

4) Futuristic Thinking

Along with a more stringent examination of SID projects, it is recommended that forward-looking budgetary
methods be implemented by the city administration. In his budget message the City Manager stated: "The City Manager and City Commission must constantly look beyond one (1) fiscal year at a time in the budgeting process. What appears to be surplus dollars in one year may very well be the salvation of the City of Bozeman in future years." There has been little effort in past city administrations to plan for future expenditures. There must be a concerted effort in this direction to create five-year capital programs. In the case of the garbage service, there needs to be financial plans made on the acquisition of new packer trucks and, at a later date, new land to replace the present landfill. These items will require major expenditures on the city's part and to date there are no funds being set aside as a reserve for capital replacement. Even with the advent of several garbage assessment increases, there has not been enough revenues generated to create a surplus. For the past two years, the garbage fund has incurred deficits making it necessary to borrow from the general fund.

As stated earlier in this paper, it is not the intention of the author to argue against growth, but to present information that will aid public officials to cope with growth and to be aware of its implications. In the past
there have been stopgap measures taken to stave off the financial impacts of growth. Comprehensive action should be taken now to examine past annexation and SID(s) policies in order to evaluate the situation faced by Bozeman and its residents. Growth will continue to occur in this area and significant costs have been incurred and will continue to be incurred by the city in order to accommodate growth. It is the contention of this paper that growth should be financed in a fair and equitable manner. Those who are responsible for growth should pay their fair share of the costs involved instead of having these costs passed on to the community at large.

2. Interview with Neil Mann, Assistant City Engineer, City of Bozeman, (Sept. 1981).


4. Ibid., p. 1.


6. Ibid., 7-12-4221, p. 59.

7. Ibid., 7-12-4222, p. 59.


12. Ibid., 15-18-102, p. 313.

13. Ibid., p. 314.


18. Ibid., p. 2.
### APPENDIX I

#### 1980 GARBAGE SCHEDULE

- Base of $41.40 for a 4 room house
- Percentage of Increase - 15%

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In Mesa, Arizona, the City Council passed Ordinance 1471 for the purpose of implementing a method of direct cost recovery to provide a source of funding for the city's continued capital investment in these systems. The ordinance provides for development fees to be charged by the City for connection to the city water or sewer system are established in accordance with the following schedule:

**Water and Sanitary Sewer Development Fee**

**Water Development Fee**

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**Sanitary Sewer Development Fee**

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BIBLIOGRAPHY


