A PROGRAM FOR OPEN SPACE PLANNING IN THE TUCSON AREA

by

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STATEMENT BY AUTHOR

This internship report has been submitted in partial fulfillment of requirements for the degree, Master of Science with a Major in Urban Planning, at The University of Arizona.

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August 4, 1970
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PREFACE

The preservation of land free of structures has been of great interest to the author for a long time. After living 22 years in the Rocky Mountain city of Colorado Springs, Colorado, he lived in the northeastern United States where congestion, pollution and lack of open spaces are prevalent in most of the large cities. It is the author's conviction that the same problems exist but to a lesser degree in the Rocky Mountain Area. Our "wide open spaces" are cherished as one of the West's greatest amenities but the land could rapidly be wasted in monotonous subdivision developments and strip commercial activity. To insure that open spaces will remain in the West, action to preserve these lands must be taken immediately.

The problem of insuring the preservation of open spaces goes beyond the vast acreages of the mountains, plains and deserts. The problem is a very real one in the nation's metropolitan areas where most people live and where the recreation open space needs are greatest. Here lies the real importance of open space planning for there must be open spaces in urban areas where people can find refuge from the noise and congestion of the streets. Moreover, open spaces allow for sunshine, fresh air and recreation that is so important for a balanced life. Open spaces can also be used to give shape to an urban area, and provide relief from what would otherwise be uninterrupted urban development. With growing leisure time there is increasing demand for open spaces to accommodate recreation needs. Lands suitable for this use
must be identified and reserved before they are absorbed by other urban development.

The open space plan is an integral part of a metropolitan area's comprehensive plan. As the comprehensive plan is developed open spaces for recreation and conservation must be allocated along with land for health services, education, industry and other activities. The open space planning process, moreover, is similar to that used in planning for other community activities. It requires the process of inventory and analysis from which conclusions are drawn as to adequacies and inadequacies of land and facilities and recommendations made.

This report's methodology involves first the identification of existing open land in the Tucson area. Determinations are then made as to their adequacy in meeting recreation and conservation needs. An open space system to meet these needs is proposed along with the devices that could be used for land acquisition and development. The adequacy of local planning efforts is then determined followed by a description of what open space planning must still be done and how it should be accomplished. The overall objective is to propose an open space system capable of implementation using any number of funding programs provided by federal, state and local governments.

As a part-time employee of the City of Tucson's Department of Community Development, Urban Program Division, the author has had some exposure to the application process a city must follow to obtain federal money for a number of programs. For the past year there has been a great deal of interest in preparing an application for open space funds provided through the Department of Housing and Urban Development.
The administrative and research-oriented groundwork necessary for this application has provided some of the information for this internship report. Since the City's Planning Division is not doing detailed open space planning, a model for the open space planning process has been built from non-work sources.
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INTRODUCTION

In the Tucson area it is unclear what the function of publicly owned or controlled open space should be in the development of this growing metropolitan area. There seems to be an overall attitude of plenty of land for everyone.

On the one hand it may be observed that spectacular open spaces of the natural environment are still preserved in many areas, including low density and extensively spread urban and suburban development, extensive holding of public lands by federal and state authorities, and land holdings of private groups of extensive acreages for recreational and other open space purposes.

On the other hand it is observed that large reservations in the form of public lands have not been coordinated to reinforce an urban form-open space relationship. Moreover, the extensive land-using facilities such as airports, expressways, flood plain easements, and the like have not been incorporated in a rationally coherent open space and land use policy. The leap-frogging and scattered development of the urbanized area has caused diseconomies in land use and facilities cost.

From the above statement of problem it is apparent that open space planning is needed in the Tucson area. Open space would serve not only as a modulator or container for urban form but also serve the needs for recreation, conservation, and preservation of scenic areas. Implementation of an open space plan involves both public and private action.
This report will first describe the Tucson regional setting, and then, go on to define the term "open space" and describe the ways in which it can be used. Next, a process for open space planning is presented, as well as the devices of acquiring rights in the land and the application of these devices to the Tucson landscape. The next section will review the open space planning that is now going on and conclude by making recommendations as to what activities must still be carried out and how they will be accomplished if adequate open space planning is to be provided for the Tucson area.
THE REGIONAL SETTING

The Tucson regional setting is shown in Figure 1, page 4. Located in a desert valley, surrounded by mountain ranges, the city is characterized by many contrasts in climate and vegetation. Within an hour's drive by automobile one can view the Douglas fir and Ponderosa pine at 9000 feet on Mt. Lemmon as well as the great saguaros and a variety of trees such as cottonwood, olive, citrus, eucalyptus, and mulberry on the 2,400 foot valley floor.

The climate is also quite varied. In the valley, average temperatures from December through February range from a high of 66.7 to a low of 35.7 degrees. Average temperatures for June, July and August vary from a high of 98.2 to a low of 68.8 degrees. Temperatures on Mt. Lemmon average ten to twenty degrees cooler. Tucson is one of the sunniest cities in the country, with an average percentage of possible sunshine which far exceeds that of Boston, Chicago, Miami, New York, St. Louis and, with the exception of two months, Los Angeles. Tucson has an average of 194 cloudless days per year with


2Ibid.


Figure 1

The Tucson Regional Setting

most sunshine occurring in the months of May and June.6

Rainfall is sporadic in the Tucson area. It is most abundant during the months of July and August with long dry spells during much of the remaining year. Average annual precipitation is 10.57 inches.7 In the winter snow is common above 4,500 foot elevations but rarely falls in the valley.

Tucson's air is generally dry. Although there have been a few times when the relative humidity has been reported as zero, the averages rise well above that over the years. A summary of monthly averages for the 1931 to 1960 official U.S. Weather Bureau records, shows that the lowest average relative humidity occurs in May, 12% at 5PM, and the next lowest, 13% at 5PM for June.8 On the average, 67% is the highest monthly relative humidity which occurs in August at 5AM. The next highest of the averages is 63%, which occurs at 5AM in January.9 The thirty-year averages of relative humidity for different times of the day at Tucson, are as follows: 5AM, 52%; 11AM, 30%; 5PM, 25%; 11PM, 43%. The average of these four figures is 37.5%.10

Winds vary in direction and velocity in the Tucson area. In the winter months they are mostly from the south and southeast in the early morning, from the north and northwest by midafternoon, returning to the south and southeast by evening. Winds in the summer months are also from the southeast in the early morning hours, but shift to the west by midafternoon, returning to the south by evening. Velocities

6 Valley National Bank, p. 47.
7 U.S. Department of Commerce, Climatic Summary of the United States, p. 36.
9 Ibid.
10 Ibid.
are generally lowest in the early morning and highest at midafternoon, especially during the spring months.\textsuperscript{11}

Tucson is an old city. Established in 1776 as a walled presidio to protect Spanish missions and settlements along the Santa Cruz River, the city has since grown mainly to the east, northeast and south, with northeasterly growth stopping at the base of the Santa Catalina Mountains. Originally covering eighteen acres, the Tucson Urban Area now occupies more than 174,000 acres.\textsuperscript{12} The historical growth process is shown in Figure 2, page 7. Little development has occurred in the Santa Cruz flood plain or on the alluvial slopes of the Tucson Mountains west of the Central Business District. Future development is likely to occur northwest of the Central Business District along Interstate Highway 10 and south along Interstate Highway 19.\textsuperscript{13} These high-speed limited access facilities should make the large supply of vacant private land within ten to fifteen miles of the Central Business District increasingly attractive for development.\textsuperscript{14}

Tucson's regional topography has had a direct influence on the location of surface transportation routes (Figure 1). In the Tucson Valley, highways and railroads generally follow the relatively flat valley floors. The Southern Pacific Railroad tracks come into Tucson

\textsuperscript{11}\textit{Institute of Atmospheric Physics, University of Arizona, Technical Memorandum No. 58-5, Percentage Frequency Distribution of Wind Directions At Tucson, Arizona, For Selected Months and Hours, August 9, 1958.}


\textsuperscript{14}\textit{Tbid.}
GROWTH OF THE CITY OF TUCSON

ORIGINAL INCORPORATION 1877

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Area</th>
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1910

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1930

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<td>1930</td>
<td>32,506</td>
<td>7.16</td>
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1940

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<tr>
<td>1940</td>
<td>37,752</td>
<td>7.94</td>
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1960

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<th>Population</th>
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<td>1960</td>
<td>72,892</td>
<td>7.08</td>
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1965

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<th>Year</th>
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<td>1965</td>
<td>236,877</td>
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POPULATION PER SQUARE MILE

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<thead>
<tr>
<th>Year</th>
<th>United States</th>
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<th>City of Tucson</th>
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<tr>
<td>1880</td>
<td>16.9</td>
<td>0.4</td>
<td>--</td>
<td>3.503</td>
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<tr>
<td>1890</td>
<td>21.7</td>
<td>0.8</td>
<td>--</td>
<td>2.975</td>
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<tr>
<td>1900</td>
<td>25.6</td>
<td>1.1</td>
<td>--</td>
<td>2.766</td>
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<tr>
<td>1910</td>
<td>31.0</td>
<td>1.8</td>
<td>--</td>
<td>3.518</td>
</tr>
<tr>
<td>1920</td>
<td>35.6</td>
<td>2.9</td>
<td>3.3</td>
<td>3.517</td>
</tr>
<tr>
<td>1930</td>
<td>41.2</td>
<td>3.8</td>
<td>6.0</td>
<td>4.406</td>
</tr>
<tr>
<td>1940</td>
<td>47.7</td>
<td>4.4</td>
<td>7.9</td>
<td>4.755</td>
</tr>
<tr>
<td>1950</td>
<td>50.7</td>
<td>6.6</td>
<td>15.3</td>
<td>4.770</td>
</tr>
<tr>
<td>1960</td>
<td>60.1</td>
<td>11.5</td>
<td>28.7</td>
<td>5.001</td>
</tr>
<tr>
<td>1965</td>
<td>64.2</td>
<td>14.3</td>
<td>35.3</td>
<td>5.115</td>
</tr>
</tbody>
</table>

Area at Last Census

Annexed Since Last Census

Annexed Between 1960-65 Census and Present City Limits

Source: City Planning Division, County Planning Department, Population Study, January 1, 1967, p. 7.

Figure 2
from the southeast and continue towards Gila Bend to the northwest. A branch goes south from Tucson, to Nogales. The main highways also run from southeast to northwest; also Interstate Highway 19 goes south from Tucson, paralleling the Southern Pacific Railroad tracks. Secondary highways go north to Oracle Junction, west to Ryan Field and northeast to the top of Mt. Lemmon. In general, there is excellent access by road to all parts of the Tucson Valley.

Concerning Tucson's land use, the Tucson Area Transportation Planning Agency completed a land use survey in 1960. It covered the Tucson area's 610 square miles. The information is summarized in Table 1.15

Table 1

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>Percent of total</th>
</tr>
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<tbody>
<tr>
<td>Single residential</td>
<td>13,287</td>
<td>3.40</td>
</tr>
<tr>
<td>Multiple residential</td>
<td>2,427</td>
<td>.62</td>
</tr>
<tr>
<td>Commercial residential</td>
<td>2,384</td>
<td>.61</td>
</tr>
<tr>
<td>Business</td>
<td>1,242</td>
<td>.32</td>
</tr>
<tr>
<td>Industrial</td>
<td>6,711</td>
<td>1.71</td>
</tr>
<tr>
<td>Vacant</td>
<td>257,891</td>
<td>66.02</td>
</tr>
<tr>
<td>Public and quasi-public</td>
<td>6,834</td>
<td>1.75</td>
</tr>
<tr>
<td>Military</td>
<td>11,045</td>
<td>2.83</td>
</tr>
<tr>
<td>Agricultural</td>
<td>10,304</td>
<td>2.64</td>
</tr>
<tr>
<td>Natural preserves</td>
<td>43,571</td>
<td>11.15</td>
</tr>
<tr>
<td>Indian reservations</td>
<td>18,701</td>
<td>4.79</td>
</tr>
<tr>
<td>Streets, alleys, public rights-of-way</td>
<td>16,235</td>
<td>4.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>390,632</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>


15Frank Williams, p. 12.
Analysis of Table 1 provides some significant findings.

Dividing 390,000 acres into the 1970 population of 284,926\(^{16}\) produces a gross density of 0.73 persons per acre. Without the vacant land there is a gross developed density of 2.15 persons per acre. A net developed density of 8.66 persons per acre results with the exclusion of vacant, military, and agricultural lands, natural preserves, Indian reservations, streets, alleys and public rights-of-way. Finally, the net residential density is 15.74 persons per acre, a figure close to residential densities of many other American cities.

Conclusions to be drawn from this section are numerous. Among them we should consider the fact that the population of the Tucson Metropolitan Area could more than double without extending its boundaries. The land use figures presented in this section suggest that within any foreseeable time in the future, there would be no scarcity of land for development within the Tucson Metropolitan Area. For example, in 1960 there were 257,891 acres of vacant land. Tucson's overall density averaged 3115 persons per square mile, or approximately five per acre. At this very low density the holding capacity of this vacant land would be 1,289,455 people. Without increasing existing densities, it will be possible to accommodate a population well in excess of any figure thus far projected, within the area surveyed by the Tucson Area Transportation Study in 1960.

The density of 3115 persons per square mile for the City of Tucson would suggest that development policies should be adopted for increasing densities in the future. This would compliment the policies for open space suggested in this report, by increasing densities permitted on buildable land particularly in conjunction with open space development.

OPEN SPACE USE POTENTIAL

Open land may be found in a number of uses in Tucson. As has been shown in Table 1, some 66.02 percent of the Tucson area was vacant in 1960. This means that Tucson could double its population without extending its developed area.

The existence of huge amounts of vacant property has resulted largely from the holding of land for speculative purposes, causing developers to build homes on cheaper land further from the Central Business District. These vacant lands usually stay in their natural state, often collecting trash deposited by passers-by. Open space is also found in other uses such as parks, cemeteries, sidewalks, alleys, streets and highways, school playgrounds, the University campus and the University Experimental Farm. Great linear open spaces exist as major drainageways such as the Rillito and Pantano washes and the Santa Cruz River.

**A Definition of Open Space**

To gain perspective and to permit thorough analysis of the subject, a definition of "open space" is necessary. For the purposes of this report, open space means land that has few or no structures built upon it; land that has the primary function of curbing sprawl or channeling urban growth and the secondary functions of providing recreation, conservation of resources, and preservation and enhancement of scenic and historic areas.
Open Space as a Modulator of Urban Form

The Tucson Valley (Figure 1, page 4) is well-suited for open space planning. There are vast acreages of public lands on all sides of the metropolitan area: Coronado National Forest to the east, northeast, southeast and south; Saguaro National Monument to the east and northwest; Santa Rita Experimental Range and Wildlife Area to the south; San Xavier Indian Reservation to the southwest, and Tucson Mountain Park to the west (Figure 3). The San Xavier Indian Reservation is probably more quasi-public in nature. Although largely undeveloped, it is possible that these lands will not remain completely open, particularly next to Tucson's built-up areas, unless full cooperation is obtained from the Indians.

In the last thirty years Tucson has been expanding rapidly, both in size and population, as shown in Figure 2. Growth to the west, northeast and east has been stopped by Tucson Mountain Park and Coronado National Forest (Figure 1). Assuming the current urbanized area population of 284,926 grows to a year 2000 population ranging from 460,000 to 697,000, coupled with improving transportation and continued construction of low density suburban homes mostly on the urban fringe, residential sprawl could conceivably spill to the borders of the public reservations and on towards Phoenix, Nogales and Sells, resulting in

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17 City Planning Division, County Planning Department, Population Study, January 1, 1967, p. 7.

18 Tucson Area Transportation Planning Agency, Forecast Review and Data Inventories, p. 7.

19 City Planning Division, Revised Population Projections For The Tucson Urban Area and Pima County 1965-2000, October, 1967, Table I.
Eastern Pima County, Arizona

MAJOR PUBLIC RESERVES

LEGEND

- National Forests, National Monuments, Military & Indian Reservations and County Park Lands

Figure 3
pressure to free public lands for development. If kept in public ownership, the large public reserves could serve as containers of urban sprawl if they are effectively linked together.

In the meantime there are other measures which could be used to define limits of intensive urban development. In this regard the most important elements are the Tucson Urban Area's major drainageways with their open flood plains which not only provide relief from the city's pervasive monotonous residential sprawl but also separate the more intensively developed land from the land that is less intensively developed. The greatest percentage of the Tucson Urban Area's population lives within the area delineated by the major drainageways (Figure 4). These geographic features serve and could continue to serve as containers of intensive urban development.

The Santa Cruz and Rillito Rivers and the Pantano Wash should become a belt of publicly controlled open land which is part of a system of open space linkages. These would connect not only the large public lands on both sides of Tucson but also major city parks, large cemeteries, the University of Arizona Main Campus, and historic areas (Figure 5). Serving the needs of conservation and recreation, the "connectors" would give top priority to pedestrians who have been forgotten with the increasing use of cars. Thus the connectors would provide footpaths, as well as bicycle paths and bridle paths.

Open space as a modulator of urban form should be the primary objective of open space planning in Tucson. The use of land in this manner requires public control through ownership of rights in the land or through legal means such as zoning. There already exists in public
TUCSON URBAN AREA
POPULATION ESTIMATES, JAN. 1, 1967
TUCSON URBAN AREA: 296,000

Figure 4

prepared by: city and county planning departments, tucson, arizona
ownership the vast acreages surrounding the metropolitan area. However, most of the flood plains of the major drainageways, as well as other lands which would serve as connectors, are in private ownership. The devices which could be used for land acquisition and control are discussed in a later section. The coordination of lands used for national forests, natural drainageways, and transportation corridors would give shape, meaning and improved land use to the Tucson Urban Area.

Open Space for Outdoor Parks and Recreation

Recreation may be defined as "the creative use of leisure time, release from compulsion and the opportunity to grow, develop inner capacities, release tensions and frustration." Outdoor recreation provides the healthful exercise necessary for individual physical fitness. It promotes mental health. It offers spiritual values, for being outdoors can be a deeply moving experience. It is valuable for education in the world of nature.

According to Eckbo, both public and private facilities must be integrated for outdoor recreation. In Tucson, for example, bridle paths located on private property could be integrated into a public system of open spaces and trailways. Parks should serve the recreation needs of persons of all ages, by providing rich variations of water, rock and vegetation formations of natural inspiration. It is the "free flow and wonder of natural scenery" that is important.


22Eckbo, p. 100.
With its plants ranging from Saguaro cactus and creosote bush on the desert floor to Ponderosa pine on Mt. Lemmon, Tucson's landscape provides much variety. The problem is that within the city most emphasis has been on providing lush, green water-using parks on the basis of population distribution while natural desert areas have not received adequate recognition for their park potential. To get to the natural desert parks one must travel outside the city to Coronado National Forest, Saguaro National Monument and Tucson Mountain Park. While it is important for people to be able to walk from their homes to a neighborhood park or playground, these need not be only isolated spots of green. Parks of all sizes, both with recreation facilities and left in their natural state must be planned as components of an integrated open space system which brings the unique qualities of the desert into the city. People should be able to walk or ride through the system without interference from motor vehicles.

These recreation amenities could be planned as component parts of the System of Open Space Connectors shown in Figure 5. The Rillito and Pantano washes, the Santa Cruz River and other drainageways already serve as areas for horseback riding, dune buggy and motorcycle riding and even some hiking. However, these washes are blighted in many ways: with old cars used for bank stabilization, with raw sewage, with stagnant ponds left by gravel companies. In some areas, the washes are open dumps. With a general cleanup, these washes could better serve the needs of recreation and constitute the major element of Tucson's recreation resources.

The provision of adequate open spaces inside the city would tend to relieve crowded conditions in recreation areas outside, make urban
areas more pleasant places in which to live, and provide accessible rec-
recreation for those who cannot afford to leave the city for such pursuits.

In 1962 the Outdoor Recreation Resources Review Commission
recommended that the Federal Government take full advantage of the
opportunities to promote outdoor recreation in connection with many
other Federal activities. There would be more assistance to State and
local governments and to landowners through a wide variety of programs.

The Outdoor Recreation Resources Review Commission submitted the
following recommendations:23

Fish and Wildlife Management. The Bureau of Sport Fisheries
and Wildlife should take the lead in dealing with the legal,
economic, organizational and other problems related to the pro-
vision of public hunting and fishing opportunities.

Disposition of Surplus Federal Lands. Surplus Federal lands
suitable for outdoor recreation purposes should be made avail-
able to State and local governments at no cost, with appropri-
ate reversion clauses.

Indian Lands. The Bureau of Indian Affairs should provide
increased assistance to Indian owners in developing the econom-
ic potential of public outdoor recreation activity on their lands.

Open Space. In view of the urgent needs of urban dwellers for
areas that can be used for recreation activities, the Commission
endorses continuation of the recently endorsed "open space"
program.

Licensing of Non-Federal Hydroelectric Projects. The Federal
Power Commission should continue the practice of issuing li-
censes containing clauses for the purposes of protecting fish
and wildlife, maintaining pool levels at given elevations dur-
ing certain seasons for recreation purposes, and controlling
use and development of shoreline areas.

Small Watersheds. Legislation should be enacted to permit
explicit consideration of public outdoor recreation benefits
created by small watershed projects carried out under the
Watershed Protection and Flood Prevention Act of 1954 (Public

Other Agricultural Programs. Certain programs and policies of the Department of Agriculture should be modified where practical to take account of their potential for providing public outdoor recreation opportunities.

Highways. Federal and State governments should give explicit recognition to recreation values in the planning and design of highways.

With proper planning and coordination of federal, state and local programs and agencies, the goals for outdoor recreation may be achieved; the unique qualities of excellent climate and natural desert vegetation may be enjoyed both by residents and by the growing number of tourists in Tucson.

Open Space for Conservation, Preservation and Flood Control

The goals of conservation and preservation are using the land, air and water resources with the least possible damage to our unique environment so that a balanced relationship between urbanized areas and less developed areas is maintained.

Major drainageways should be managed in a manner which will reduce flood hazards and erosion, assist in recharge of ground water resources, satisfy the needs of urban development, and provide open space and recreation areas. Sufficient supplies of clean water, air, and soil depend upon vegetational cover to increase water table recharge, restore oxygen to the air and to prevent soil erosion.

There are natural areas such as large stands of saguaro cacti whose which must have protection from urban development. The same is true of the abundant wildlife.
Open Space to Preserve Historic Areas

Open spaces that are part of or surround historic sites could become an element of an open space plan for the Tucson area. Sites which fall into this category include Fort Lowell Park on the city's northeast side near the Rillito River, several old adobe landmarks along Main Avenue in the downtown area, and San Xavier Mission to the southwest of the city. These sites and others should be worked into the system of trailways and open spaces along the Rillito and Santa Cruz drainageways.

Open Space to Improve Aesthetics

Areas that have few, if any, structures built upon them may be used to improve the appearance of their sites. Of course this may occur incidentally if the area becomes a green park. On the other hand, an open area may be blighted with trash and billboards. In Tucson this problem is compounded by the lack of vegetation to hide ugliness.

Aesthetics should be improved and blight removed in a number of locations. Highways, roads and streets, parkways, freeways, and drainageways should be landscaped using plants varied in form and texture to provide not only a break in visual monotony, but also vistas and a sense of orientation for the mobile viewer. Natural desert plants should be used as much as possible to minimize water usage and to help create and maintain a desert southwest identity.
POPULATION

Open space planning requires the process of identifying and analyzing the Tucson Urban Area's population in terms of numbers and characteristics. This brings an understanding of existing inadequacies and needs for recreation and permits a basis for projecting the needs that must be met in the future. Projected population growth also gives an indication of the pressures that will be put on vacant land located on the urban fringes; this has been discussed earlier in the report.

Growth

Tucson is, without doubt, a growth area, having grown from 7,531 people in 1900\(^{24}\) to about 285,000 today. Since the late 1940's annual increases have been between 10,000 and 15,000 for all but a few years. Between 1963 and 1966 population gains were about 2000 annually but have increased to 8,000 to 10,000 per year since then.\(^{25}\)

Population projections for the Tucson Urban Area for the year 1980 range from a low of 352,000 to a high of 425,000 and a year 2000 population ranging from 460,000 to 697,000. The population of the urban area was based on 85 to 88 percent as a total of Pima County population.\(^{26}\)

\(^{24}\)Frank Williams, p. 5.


\(^{26}\)City Planning Division, Revised Population Projections, Table I.
The main basis for growth has been in-migration.\textsuperscript{27} Except for the 1962 - 1965 period, net in-migration has accounted for two-thirds or more of Pima County's population increases;\textsuperscript{28} it may be assumed that 85 to 88 percent of these people settled and will continue to settle in the Tucson Urban Area.

It was found from a household mail survey taken by Development Research Associates that only about five percent of the respondents were born in Tucson, most of whom were heads of households earning annual incomes of $25,000 or more or Mexican-Americans living on the south side of Tucson.\textsuperscript{29} Most of the in-migrants had come from northern and eastern states, with more recent arrivals being from California and other western states as well as from southern states.\textsuperscript{30}

When asked why they moved to Arizona, about fifty percent moved either for health or "general environmental" reasons. The remaining moves were made in connection with military transfers and to obtain a better job. More than 75 percent of the retired persons indicated they moved for health or environmental reasons.\textsuperscript{31} Extent of mobility is derived from analysis of 1960 census data which indicates that 69\% of Tucson's population had changed residence between 1955 and 1960.\textsuperscript{32}

\textsuperscript{27}Development Research Associates, p. 13.

\textsuperscript{28}Ibid.

\textsuperscript{29}Ibid., p. 25.

\textsuperscript{30}Ibid.

\textsuperscript{31}Ibid., p. 32.

According to Tucson's 1960 census information, average family income for the tracts located in the downtown, west and south sides of the city was approximately $4,795.\textsuperscript{33} Average income for families on the north, northeast and east sides was $6,786.\textsuperscript{34} In 1967 Development Research Associates estimated the median family income for the Tucson Urban Area to be about $7,000, based on a household personal survey. They estimated that approximately eighteen percent of Tucson's families have incomes under $3,000, a level slightly higher than the national average. This percentage has remained about the same since 1959 while about one-third decrease in this group has been shown in the nation as a whole. In 1968 the number of families with incomes of $10,000 or more was less than the national average. Median family incomes are about six percent below those of the nation as a whole due to the relatively large percentage of people working in lower paying service jobs.\textsuperscript{35}

**Ages**

The median age for the Tucson Urban Area is estimated to be about 27 years. Since 1960 there have been fewer children age fourteen and under on the one hand and more people age 65 and over on the other. The median age of heads of households is approximately 46 years. The median age of more recently in-migrated household heads is 39 years, compared to 54 years for those arriving before 1960.\textsuperscript{36} Most of the


\textsuperscript{34}Ibid.

\textsuperscript{35}Development Research Associates, p. 39.

\textsuperscript{36}Ibid., p. 45.
heads of households age 65 years or older reside in the University and downtown areas. About forty percent of the heads of households over 65 years of age are employed to some extent. Also there are many "semi-retired" persons, that is, those who receive benefits such as military retirement pay, who are fully employed.37

Education

The Household Personal Survey conducted by Development Research Associates in 1969 indicated that 33 percent of the household heads had no high school diploma. This compared with about 45 percent in 1960. The survey also found that 28 percent had received only a high school diploma. Nineteen percent had had some college, and twenty percent had received a college degree. Average levels of educational attainment are closely correlated with family incomes. As may be expected, persons with highest levels of educational attainment are concentrated in the University area while lower levels are found near the Central Business District.38

It may be concluded that Tucson's population will double by the year 2000. Between 1970 and 2000 the in-migrants will continue to move here mostly for health reasons. There will be fewer children under age fourteen and more people age 65 or older. The median age of in-migrating household heads will be over age 39. With retirement programs becoming more popular and with retirement occurring before

38 Ibid., p. 50.
age 65, there is likely to be an increase in the number of both winter
visitors and new residents between the ages of 55 and 65.

It may also be concluded that the average family income will
probably remain lower than the national average, due to the high number
of service jobs. This may be offset by the growth in export manufac-
turing activity, although many plants move here because of labor econ-
omies. Retirement incomes are not high and if the number of retirees
increases their incomes will tend to lower the areawide average income
level.

The education level is probably rising, with fewer people
without a high school diploma. This may be caused by the higher level
of education attained by in-migrants.

Recreation and open space must be provided to suit a population
that is becoming more numerous, more mobile, more highly educated and
older. The significance of Tucson's population characteristics and
recreation needs in relation to existing and potential recreation
lands and facilities is considered more specifically in the next section.
RECREATION NEEDS

Increasing urbanization in the Tucson Urban Area is outstripping the supply of recreation facilities. In the more rapidly developing parts of the community, several large regional parks are needed. These areas are located on the east and northeast sides of the city where incomes are generally higher than average. Neighborhoods in this area often have homeowners' associations which provide recreation facilities such as a swimming pool on a cooperative basis. However, there are many homes without immediate access to such facilities.

People living on the east and northeast part of the city have more money to spend on recreation than the families on Tucson's south side. Sometimes the more affluent families have stables and horses which are ridden in the Catalina Foothills and along the Rillito and Pantano washes. Horseback riding is a recreational need for many of these people, a need which may be harder to fill if residential development continues to use up the Catalina Foothills and encroaches upon the Rillito and Pantano washes.

Some of the flood plains along these washes should be acquired by the county to preserve these areas for not only horseback riders but also for hikers and persons studying nature. With some channelization the flood plains could also be used for the needed regional parks.

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39 City of Tucson, Department of Community Development, A Concept Plan for Open Spaces, Parks, Trailways, & Drainageways, 1970, p. 5.
40 Ibid.
containing facilities such as basketball and tennis courts, baseball fields and picnic areas. Demand for these recreational pursuits in the northeastern part of Tucson is likely to continue as more people with higher incomes and higher levels of education move into the general area.

The recreation needs are somewhat different for the people living on the west and south sides of the city where levels of income and education are lower. Although recreation facilities exist, their distribution is such that low income and elderly persons are often unable to take advantage of them due to lack of transportation and time. Many of these people work more than eight hours a day, six days a week. Their recreation must be accessible.

The Model Cities area includes most of the poorer neighborhoods. This organization is helping the people meet their recreation and open space needs by planning "pocket" parks near residences and a linear park along the Santa Cruz River. The latter facility will not only add to the aesthetic appeal of the downtown area, but also provide recreation for tourists staying in hotels and motels along Interstate Highway 10.

In 1967 the City and County Planning Departments prepared a regional parks plan for 1985. The standards used in the plan were derived from those used by the National Recreation Association. They require one neighborhood park of five to ten acres to serve a population.

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41 City of Tucson, A Concept Plan, p. 5.
42 Gary Johnson, Senior Planner, Model Cities, City of Tucson, Arizona, personal interview 3/25/70.
43 Pima County Planning Department, City Planning Department, Regional Parks Plan, June, 1967, p. 4.
of 3,000 - 6,000; one district park of twenty to forty acres to serve a population of 15,000 - 30,000; one regional park of 125 or more acres to serve a population of 60,000 - 85,000; one golf course of 160 acres for 18 holes to serve a population of 40,000 - 60,000.\textsuperscript{44}

A standard for pedestrian, bridle and bicycle pathways was obtained from the Forest Supervisor of Coronado National Forest. It calls for a trail width of ten feet.\textsuperscript{45}

Applying the above minimum standards to the present area population of 284,926 produces 95 neighborhood parks of 475 acres, 19 district parks of 380 acres, five regional parks of 625 acres, seven golf courses of 1120 acres, and 38 acres for the system of pathways shown in Figure 5. Total acreage required: 2,638 acres.

To compare with this minimum standard there exists 2,228.42 acres of parkland in the Tucson Urban Area; 2,081.42 acres in the City\textsuperscript{46} and 147.00 acres in the County.\textsuperscript{47} The city acreage includes 45 neighborhood parks totaling 158.3 acres, eight district parks with a total of 258.31 acres, three regional parks totaling 580.22 acres, and three golf courses of 713.03 acres. It is clear that in order to make up the 409.58 acre deficit to meet minimum standards, the neighborhood park

\textsuperscript{44}Pima County Planning Department, City Planning Department, p. 4.

\textsuperscript{45}Clyde Doran, Forest Supervisor, Coronado National Forest, personal interview 7/20/70.

\textsuperscript{46}City of Tucson, Parks and Recreation Department, Park System, January, 1970, p. 16.

\textsuperscript{47}City of Tucson, Parks and Recreation Department, Major Existing Parks and Recreation Areas in Pima County, 1969.
acreage should be doubled and the district and regional park acreage increased. The entire pathway system would have to be established under public control.

By 1980, with a minimum population of 352,000, the area will need 1,064.58 acres of parks and paths in addition to the present acreage. The year 2000 population of 460,000 persons will need 4,343 acres or an increase of 2,114.58 acres over the present supply.

Much of the space needed for parks may be provided by the 257,891 acres of vacant land scattered throughout the Tucson Metropolitan Area. An additional 9,426 acres of flood plain are available for trails, picnic areas and park usage along the Rillito and Pantano washes and the Santa Cruz River.

Land is available to meet the present and future recreation needs of Tucson's population. The problem is that the land exists in varying sizes and shapes. This is not quite the same with the major drainageways which are long, linear strips of open land that would serve as the main links in an open space system.

To accommodate present and future population, new residences of medium to high density should be developed in coordination with the System of Open Space Connectors shown in Figure 5. To prevent sprawl, the new construction should be permitted only within the present urbanized area. The objective of providing residents of all income levels with immediate access to pedestrian pathways and other new recreation facilities would then be met.
STRATEGY FOR LAND ACQUISITION

After land has been designated for open space use, control over the land must be gained. Strategy for land acquisition is probably the most important step in open space planning. The following sections describing several ways to acquire land are taken from Whyte's *The Last Landscape*.

The Police Power

Police power is engaged to prevent people from using land in a way that injures the public welfare. For open space preservation, police power may take the form of zoning. In some communities this has been effective at least temporarily in saving open space until it can be purchased.

Large-lot zoning has been used in some cases but this doesn't save open space, it squanders it. Economic pressures may force the splitting up of large lots but governments may tax the extra value added to a property by rezoning. A rezoning may also be put up for bids and sold to the highest bidder.

In flood plain zoning federal grants for open space and water facilities may be conditional upon local governments zoning flood plains against structural uses. But communities must guard against zoning the property out of all possible uses for this could be

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49 Ibid., p. 43.
construed as taking of property unconstitutionally.

"Conservation" or "open-space" zones can retard, if not prevent development of the countryside for structural purposes. Whyte thinks this may be pushing the police power a little far but favors the idea as an experimental tactic. Agricultural zoning may also be used to preserve open space. This has been successful only to the point where the farmer can no longer resist the inflated price per acre offered by developers. Finally, aesthetic zoning for improving community appearance has been upheld by the courts. Some states have been successful in fighting billboards under this power. But, this will only eliminate billboards, it will not hold land in open space.

The public's welfare is at stake in preventing building on flood plains, filling in of wetlands and marshes, changing of channels, shore lines and bulkhead lines, and preventing closing off the view along the rights-of-way. As long as the landowner is not unfairly treated by the zoning there is no reason to pay him for not injuring the public welfare. Land that lies beyond these examples could not be zoned for open space. Governments would have a difficult if not impossible task justifying the regulation of such property under the guise of police power. In trying to save open space, we are looking for a positive benefit, not just the absence of something harmful. Such a benefit must be paid for under the power of eminent domain.

50 Whyte, p. 53.
51 Ibid., p. 57.
52 Ibid., p. 59.
The Fee Simple

Use of the fee simple to buy land is buying it outright. This is the clearest and surest way to save land. Money for this purpose has been in short supply but is increasing. Under the federal Open Space Program, $135 million was provided between 1961 and 1968. The Land and Water Conservation Fund Program, since January 1965, has provided $214 million in matching grants to states for land acquisition and park development. States' bond issues for open space programs totaled $455 million between 1962 and 1968.53

"Greenspan" grants, under the Department of Agriculture, pay half the cost of converting excess cropland into local parks and conservation areas and provide money for recreational areas around dams constructed under the Small Watersheds Act.54 Congress has not authorized funds under "Greenspan" since 1967.55

One huge problem in land acquisition by agencies is that land prices have been going up between 5% and 10% a year and the price of the open space land that is best for parks has been going up much faster.56 While Congress is taking years to appropriate money to purchase land, its value continues to soar. Moreover, Congress has not favored the funding of revolving funds used to purchase land in a

52Whyte, pp. 61-62.
53Tbid., p. 63.
54Tbid., p. 63.
55James M. Hunt, Deputy Director, Conservation and Land Use Programs Division, Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture, letter to the Urban Program Analyst, City of Tucson, 2/9/70.
56Whyte, p. 64.
Private groups, such as the Nature Conservancy, have used their own revolving funds to pre-empt land for later public acquisition. On a local basis, it will buy land public agencies would like to have. When the legislatures get around to providing the money, it will sell the land to the agencies and put the proceeds back into the revolving fund.58

Other techniques for obtaining land are purchase and lease-back, life-tenancy arrangements, and purchase and sale-back. Purchase and leaseback may be used, for example, when a community wishes to purchase a farm on its outskirts. The community purchases the farm, then leases it either to the former owner or to someone else with the conditions that the land remain in farming, that the rent be modest enough to make the farming profitable and yet provide the community with an appreciable return on its investment.59

According to a life-tenancy arrangement, an agency will buy land with the proviso that the present owners can continue to use it, subject to normal restrictions, for a stated period of years or as long as they live.60

Purchase and sale-back: under excess condemnation laws the state buys more land than is needed for a particular purpose, such as

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57 Whyte, p. 65.
58 Ibid., p. 70.
59 Ibid., p. 74.
60 Ibid., pp. 74-75.
a highway, then leases the excess back or sells it back for use that will make it serve as a buffer zone. 61

The Department of Housing and Urban Development can give grants to communities to pay the interest charges on money they borrow for advance land acquisition. Land may also be bought on the installment plan. A pre-determined portion is bought each year, with title being exchanged at the beginning of the period. 62

Another technique is pre-emptive buying in which the public agency buys strategically placed parcels to prevent a developer from gathering enough land for a development. 63

Finally, landowners sometimes are willing to give land if asked and provided they can gain some tax advantage. This technique has had success where private groups have organized with the personnel armed with sufficient legal and tax knowledge and good salesmanship to counsel "clients" who are large landowners sympathetic to the ideals of preserving open space. 64

**Easements**

Through easements an agency acquires from a landowner a right in his property - perhaps the right that it remain open and undeveloped. 65 The value of an easement is the difference between what the property is worth without the restrictions and what it is worth with them.

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61 Whyte, p. 75.
62 Ibid., p. 77.
63 Ibid., p. 78.
64 Ibid., pp. 79-80.
65 Ibid., p. 89.
Easements may be positive or negative. In positive easements, we acquire the right to do something with part of the man's property. A public agency may buy a right-of-way for a public footpath or a hiking or bicycle trail; it may buy the fishing rights so the public may use the banks of a stream. In negative easements we do not ask for physical access to the property; we buy away from the owner his right to ruin it. Through a conservation or scenic easement we acquire from the owner a guarantee that he will not put up billboards or dig away hillsides.  

Easements benefit the community in several ways. An easement may preserve open space without the community having to buy the land outright. Second, the land remains on the local tax roles. Third, there is no maintenance burden. There are benefits to the owners. They keep their land, and by agreeing to the easement they forestall the necessity of outright acquisition. By agreeing not to develop the most scenic portions of their property, owners may enhance the value of the portions they might develop. Finally, there are tax benefits for the giving of an easement; it may be taken as a charitable deduction on the owner's income tax. Also, the land is assessed not at development potential value but as open space value.  

Easements have been used with great success in Wisconsin, New York and California. In Wisconsin, easements have been obtained for land along 153 miles of the Great River Road. In New York, fishing easements along 1000 miles of streams have been secured since 1950. In California, home developers have been deeding conservation easements  

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66 Whyte, pp. 90-91.  
67 Ibid., pp. 92-94.
on open space to the local municipality, guaranteeing that it would forever remain open. 68

The Tax Approach

According to "preferential assessment," open space is assessed only at its open space value. Seven states have adopted preferential assessment. This technique is used most often with farms on the urban fringe. The farm is assessed at its farm value, not at its market value, as long as the land is actively farmed. This does not keep the land out of the developer's hands and it has been difficult if not impossible for assessors to distinguish between farmer and developer. 69

Some reform has been achieved in Maryland. "Preferential assessment will be denied a property that is subdivided, rezoned, or sold for more than seven times its farm-assessed value. Also Montgomery County could levy a transfer tax of up to six percent on the sale price of property previously assessed as farmland." 70

In Connecticut, open space assessment applies to several categories of land, and is geared to the community's land-use plan. To qualify, the land must be designated as open space by the local planning commission. Moreover, there is a clause giving communities the power of eminent domain to acquire easements and fee title to open space. 71

Preferential assessment will probably do very little to halt the

68 Whyte, pp. 99-110.
69 Ibid., pp. 117-125.
70 Ibid., p. 127.
71 Ibid.
conversion of open space. Even if the speculator is weeded out and only the true farmer benefits, the farmer will almost inevitably sell out when the price is right. Nonetheless, if preferential assessment delays development of the countryside for any appreciable period, it is worth it.

**Defending Open Space**

After open space land is secured, it is ripe for encroachers: highways, cloverleaves, dams, sewage plants, post offices, parking lots and public projects of many kinds. Nationwide, we are adding more open space than we are losing, but additions are mainly in outlying areas and losses are mainly in the urban areas where open space is needed most. Highway engineers have tended to design highways through parks to avoid homeowners protest associations. Moreover, such a route requires less demolition and is cheap.

Encroachment may be limited by raising the cost of taking parkland. An agency that is taking parkland should be required to provide comparable land, or the money to buy it. Other measures would be to open up the taking of parkland to judicial review and taxpayers suits to prevent improper use of public funds.

What is needed is a basic policy statute by the federal and state governments declaring that parkland serves one of the highest public purposes and should not be taken unless there is no alternative; the burden of proving there is no alternative should be on the taker.

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72 Whyte, p. 133.
73 Ibid., pp. 135-136.
74 Ibid., p. 140.
75 Ibid., p. 142.
On the side of open space are the Federal Aid Highway Act of 1966 and the act setting up the Department of Transportation. The first act declares that "it shall be the national policy for the federal government to make maximum effort in the highway program to preserve federal, state and local parklands and historic sites." The second act says that "no highway program may be approved that takes conservation or parkland when there is a feasible alternative." Unfortunately, there is no provision for enforcing the directives. Citizens have no legal basis to protest violations.76

Most of Whyte's suggested devices to acquire land could be effectively applied to implement an open space plan in the Tucson area. It must be remembered that land acquisition may involve extremely high costs which should be avoided if possible. For this reason the County and City governments, in general, should try for land control using the cheapest legal means possible before resorting to the fee simple.

The major elements of the System of Open Space Connectors (Figure 5) are the major drainageways. These are subjected to potential high losses in lives and property from flash floods and should be given a flood plain zone designation which restricts development. Agricultural zoning should be applied where the flood plains are used for farming or ranching. To prevent accusations of the taking of property through zoning restrictions that are too tight, uses must be permitted, such as pedestrian, bicycle and bridle paths, golf

76 Whyte, pp. 144-145.
courses, picnic areas and other non-structural uses. Rights to land for these uses should be secured through gifts or easements which would be combined with utility and other easements as much as possible.

The proposed pedestrian and bicycle pathways linking existing parks with the drainageways would use existing public alleys and street rights-of-way as much as possible and purchase rights in additional land when necessary. There must be enough right-of-way to permit the design of paths that are insulated from the danger, noise and pollution of cars. Purchase of additional right-of-way for landscaping and pathways should be accomplished through the fee simple method. This would be necessary along Speedway and the other streets shown as "Landscaped Street with Pedestrian Pathways" in Figure 5. The fee simple should also be used for the acquisition of parkland to meet present and future needs. The historic sites, existing parks and green spaces and mountain parks shown in Figure 5 are already in public ownership.

When applying these devices, good salesmanship cannot be overemphasized. The man who negotiates for a person's land must be knowledgeable about all possible means of acquisition as well as the tax benefits that the owner would be entitled to. Moreover, it is essential that the acquisition program have complete backing from local communication media, as well as politicians, community leaders, the Sierra Club, Boy Scouts, Girl Scouts, Arizona Horsemen's Association and other conservation and recreation groups in the Tucson area.
EXISTING OPEN SPACE PLANNING IN THE TUCSON AREA

Presently there is no open space planning for the Tucson Metropolitan Area. Perhaps a beginning of open space planning is an open space concept now being prepared in a joint effort by the City of Tucson and Pima County Planning Departments.

The Open Space Concept is "a preliminary appraisal of open space needs and potentials in the Tucson region." Open space is defined as "any space or area which if maintained in an open state would enhance the living environment by conserving natural or scenic resources, prevent floods, promote soil conservation, provide recreation facilities, preserve historic sites, and shape urban development patterns."

The report then goes on to state goals for an open space system, parks and recreation, major drainageways, conservation and preservation, aesthetic qualities of the city and community participation. It defines Tucson's environment in geographical and climatic terms and points out the need for open space and recreation facilities due to increasing population, leisure time and income. The need for protecting natural areas is emphasized.

The open space system would be designed not only to provide open space, but also to suggest a positive pattern of development. Tucson's mountains and drainageways would serve as the main links of the system. Other links would connect parks, public open spaces,

77 City of Tucson, Department of Community Development, A Concept Plan for Open Spaces, Parks, Trailways, & Drainageways. 1970, p. 3.
private developments, and major centers of activity such as the University of Arizona, the downtown, and other large areas of commercial and cultural activity. Landscaped streets and drainageways, as well as landscaped alleys and easements, would act as linking elements visually and functionally tying many of these scattered places together.

The Concept proposes a system of hiking and riding trails which pass through the most scenic portions of the open areas... Eventually the longer trails could provide overnight facilities at intervals of a day's hiking distance. Loop trails should permit shorter circuit trips, while new connecting trails could integrate the local trail network into the proposed state trail network. Recreation and scenic drives would serve to connect parks, recreation areas, and points of historic or special interest, and would take the motorist through delightful and varied country. Turn-out points, rest stops, and vista points would be planned with such highways and parkways.78

The Concept also recommends the retention of a non-urbanized low density belt around the City of Tucson. It proposes that the regional pattern of rivers and washes link various open space elements such as golf courses, national forests and monuments, wildlife areas, open spaces in cluster developments, parks, and agricultural areas.

The Concept points out that the Rillito and Pantano washes are being pressured by urbanization. These washes should be kept in a natural state for recreational purposes such as riding, picnicking and nature study, with limited low density development. Sand and gravel pits should be filled after they have been depleted and the washes restored to natural conditions, with the possibility of parks

78City of Tucson, A Concept Plan, p. 9.
being created for active and passive recreation in selected filled areas along the channels.

The importance of providing parks, small open spaces and street landscaping in the more built-up areas is emphasized. Finally, policy recommendations which would serve as guidelines for implementing the open space concept are suggested.

The Open Space Concept is obviously a very general approach to open space planning. However, it clearly defines what open space is and goes on to describe how it can be used more efficiently in the Tucson region. The Concept does not discuss blight nor mention billboards; nor does it emphasize the use of non-water-using plants for landscaping. The report is only a beginning; it does not suggest a planning process and is not designed to point out the individual lots and parcels that must be acquired and developed as parts of an open space plan. As an introduction to open space planning in the Tucson region, the Open Space Concept is successful.

For some time the city has been considering the preparation of an application for funds under the Department of Housing and Urban Development's Open Space Land Program for predominantly undeveloped areas. The program, authorized under Section 702 of the Housing and Urban Development Act of 1961, probably has the broadest objectives in helping communities implement an open space plan. According to the Roth Report: 79

79 Staff of Representative William V. Roth, Jr., 1969 Listing of Operating Federal Assistance Programs Compiled During the Roth Study, p. 572.
This program is designed to assist and encourage States and local units of government in the timely acquisition and development of land to be used as permanent open space. The 50 percent grant-in-aid program is to help finance the acquisition of title to, or other permanent interest in, such land and its development for open space uses. The term "open space land" means only undeveloped or predominantly undeveloped land in an urban area which has value for park and recreation purposes, conservation of land and other natural resources, and historic or scenic purposes. It is the purpose of this program to help curb urban sprawl and prevent the spread of urban blight and deterioration, to encourage more economic and desirable urban development, to assist in preserving areas and properties of historic or architectural value, and to help provide necessary recreation, conservation, and scenic areas.

Funds may be spent for the acquisition of land and certain buildings and other structures on the land, within the limitations of program policies. In the case of developed land in built-up portions of the urban area, (sec. 705), costs of demolition and removal of improvements will be paid when such improvements are inappropriate for the intended open space use and there is no available open space within the service area of the planned project. Major development, such as swimming pools, marinas, etc., is not eligible under this program.

An application has not been prepared for these funds because Tucson cannot meet the planning requirements. There is no single, areawide planning agency to carry out the Department of Housing and Urban Development's program requirements. An analysis of Tucson's shortcomings in comparison with these requirements under the Open Space Program is given in the appendix.

The Model Cities organization is beginning open space planning in the Model Neighborhood Areas. Preliminary planning has shown that the Santa Cruz River represents a major environmental problem that contributes greatly to the general deficiencies found in the area.

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80 Gary Johnson, Senior Planner, Model Cities, City of Tucson, Arizona, personal interview 3/25/70.
Flooding, soil erosion, channel shifting, stagnant water, odors, raw sewage, weeds, pests, insects and general dumping of rubbish typify some of the physical problems inherent along the river. It is becoming increasingly clear that if lasting solutions are to be found for the many problems of the Model Cities area, whether they be physical, economical, or social, major improvements will have to be made along the Santa Cruz River.

The Open Space Concept explains the goals of open space planning along the river: 81

The concept of a linear park along the Santa Cruz River is designed to eliminate the blighting effect that the river now has in the Model Cities area and to develop this resource into a positive environmental element. The linear park is not intended to be merely inactive green space, but instead a vibrant multiple use recreational area with a variety of facilities serving the needs of nearby residents and others. Picnic areas, playgrounds, hiking, riding, and bike trails could be visually and functionally linked with adjacent development to bring out the full potential of this area, making it one of the most viable urban areas of Tucson. It could be integrated into the State trailways system as part of the historic trailway linking Spanish missions all the way into Sonora.

A landscaped and visually enhanced Santa Cruz River would be visible to travelers on the freeway and would do much to improve the image of the city.

A number of studies are planned for the Santa Cruz. A topographic study is urgently needed as a first phase for a total examination of the river and its environs in order to determine potential land use. The study would be made for a 15-mile stretch of the river, three-and-a-half miles of which lie in the Model Cities area. It is anticipated that initial projects resulting from topographic and

81 City of Tucson, A Concept Plan, p. 11.
feasibility studies would be on this portion of the river. However, to provide needed planning data, it will be necessary to study the river in detail for several miles on each side of the Model Cities area.

The Public Works Planning Advances Program, under the Metropolitan Development Office of the Department of Housing and Urban Development is a possible source of funds for this project. This is not an outright grant program but rather provides interest-free advances to assist in the planning of essential public works and community facilities. The planning advances must be repaid to the Federal Government when construction begins. It is anticipated that construction on various public facilities in connection with the Santa Cruz River will start within the five-year implementation period of the Model Cities Program.

It is estimated that cost of the proposed project will not exceed $56,200, of which $20,000 is available from the current City budget. The $20,000 will be divided equally between the Water Department and the Community Development Departments' budgets. An application has been prepared for the balance, not to exceed $36,200, under the Public Works Planning Advances Program.

Model Cities is looking to other sources of financing for their open space program. The Parks-In-Cities Program, authorized under Section 705 of the Housing Act of 1961, is administered through the Department of Housing and Urban Development. It provides parks and other open space areas within developed portions of urban areas.

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82Roth, p. 574.

83City of Tucson, Department of Community Development, Communication to the Mayor and Council No. 5206, January 19, 1970, p. 2.
The grant assistance amounts to 50 percent matching grants for acquiring, developing, and preserving open space land for permanent park and recreation use, conservation of natural resources, and historic or scenic purposes; obtaining title or other permanent interests in developed land in built-up areas to be cleared and used for open space use (including demolition costs) or in areas where open space cannot effectively be provided through the use of existing undeveloped land; and developing open space acquired under this program, including such items as basic sanitary facilities, paths, walks, landscaping, and shelters, but not such major items as docks, amphitheaters, swimming pools, golf courses, etc. 24

Grants may be made only where assistance is needed for carrying out a unified or officially coordinated program that meets criteria for provision and development of open space land as part of a comprehensive area development program. In other words, the grant recipient must meet the same comprehensive planning requirements as are stated under the open space program for undeveloped areas.

The Parks-In-Cities Program is given more attention by the federal government than is the larger scale open space program. This is because the Parks-In-Cities Program is designed for low income neighborhoods. To qualify for funds the project must serve a neighborhood or community whose median family income is $5,000 or less. There may be exceptions to this ruling, however. Special

24Roth, pp. 566-7.
cases are decided on the basis of the evidence presented.  

To obtain a commitment for funds, the applicant may simply file a letter to the Department of Housing and Urban Development's regional office, expressing intent to submit an application under the Open Space Program, general location of the site(s) to be acquired and developed, estimated total project acreage and cost, and a commitment to acquire the land and complete development within one year. The regional office must respond within one week, either providing the assurance and letter of consent to proceed, or explaining to the applicant why such assurance is impossible under the circumstances.

The letter of assurance will temporarily set aside the necessary funds, following which the community has 90 days to complete "necessary actions that can permit formal action on an application and grant reservation and obligation." In other words, the applicant must prove that the first steps toward fulfilling the Open Space Land Program requirements are underway. If the applicant has not "taken up" the assurance at the end of the 90-day period, the assurance will be cancelled.

Having identified tracts and acreages to be acquired and developed as part of a linked system of parks and open spaces along the Santa Cruz River, the Model Cities organization has submitted the "letter of intent" to the Department of Housing and Urban Development.

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86 Ibid.
87 Ibid., p. 1.
Development. The open space system falls within the $5,000 median family income criteria.88

Model Cities has used other sources of federal assistance and also state assistance for open space planning. The U.S. Army Corps of Engineers has conducted studies of the Santa Cruz River with regard to flood control and bank stabilization. In the past, the Corps has turned down requests for bank stabilization because benefit-cost ratios didn't point towards the initiation of such a project. Recently, with Model Cities pressing for the location of employers and the provision of recreation facilities along the Santa Cruz, the Corps has agreed to make bank improvements.89

To assist in planning future land use in the Model Cities area, the U.S. Department of Agriculture, Soil Conservation Service has completed a study of soils in the Model Neighborhood Area. This will help define those areas most suitable for open space and recreation.90

Landscaping along those portions of the Santa Cruz River adjacent to Interstate 10 could possibly be financed through the Highway Beautification Program. In the near future native and ornamental plants will be planted by the State Highway Department along rights-of-way and median strips of I-10 and I-19 where they run through the city. Also landscaping will be provided in connection with improvements

88 Johnson, personal interview 3/25/70.
89 Ibid.
planned for Valencia Road.\textsuperscript{91}

Landscaping for open spaces in other parts of the city is provided through the Tucson Beautification Program.\textsuperscript{92} Comprehensive beautification work, including park improvements, historic site and public place beautification, as well as parkway median landscaping are provided through the Department of Housing and Urban Development. Median landscaping has been completed for Alvernon Way, Speedway Boulevard and Country Club. Similar to the Department of Housing and Urban Development's Open Space Program, the beautification program is now strongly oriented toward deprived areas and model neighborhoods.\textsuperscript{93}

There are other sources that provide funds for the acquisition and development of open spaces. In addition to local revenues, the City Parks and Recreation Department has been using funds provided through the Bureau of Outdoor Recreation and State Lake Improvement Program.\textsuperscript{94} Additional assistance has been received through the Committee for Economic Opportunity's Operation Mainstream and the Tucson Waste Water Reclamation Project.\textsuperscript{95}

Bureau of Outdoor Recreation funds are used for planning, acquisition, construction and improvement of major facilities and parks

\textsuperscript{91}Carl Nielsen, Project Supervisor, Arizona Highway Department, Tucson District, personal interview 3/26/70.

\textsuperscript{92}City of Tucson, Department of Community Development, Urban Program Division, \textit{Federal Assistance Status Summary}, April 15, 1970, p. 11.

\textsuperscript{93}Ibid.

\textsuperscript{94}Ibid., pp. 8-9.

\textsuperscript{95}Ibid., p. 9.
related to outdoor recreation. These funds are provided through the Land and Water Conservation Fund Act of 1965. They consist of 50% matching grants to states, counties and local governments by way of the Department of Interior and the Arizona Outdoor Recreation Coordinating Commission. Financial responsibility is on the states, which may fund their share from any non-federal source. Three percent surcharges added to project cost are for Arizona Outdoor Recreation Coordinating Commission administration. Sixty percent of the federal share must be allocated for land acquisition purposes, with the remaining forty percent available for site improvement. Applications have been submitted to the Arizona Outdoor Recreation Coordinating Commission for improvements in nine parks and land acquisition on the northeastern section of the city. Total project cost: $185,767. Bureau of Outdoor Recreation funds: $85,790. These projects have been approved by the Arizona Outdoor Recreation Coordinating Commission and have been forwarded to the San Francisco office of the Bureau of Outdoor Recreation.

The State Lake Improvement Program provides funds for the development of lakes and boating facilities (docks, ramps, water supply, etc.). Monies are derived from boat registration fees and boat fuel tax administered by the Arizona Outdoor Recreation Coordinating Commission. Two project applications were submitted in July, 1969. The Kennedy Park Lake water supply line, estimated to cost $35,000, was approved by the Arizona Outdoor Recreation Coordinating Commission and,

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96 City of Tucson, Federal Assistance Status Summary, p. 8.
97 Ibid.
in conjunction with the Water and Sewers Department, $69,000 for lakes number two and three at Silverbell Park has received tentative approval. The latter included $20,000 for lake construction, $15,000 for water supply line, $10,000 for parking facilities and other improvements and $24,000 for restroom facilities. The sum of $81,800 applied for was judged not sufficiently "boating oriented" and was not approved. The approved funds have been received but construction has not yet begun.98

The Silverbell Park Project is a joint effort between the Parks and Recreation Department and the Water and Sewers Department with special emphasis on experimental reclamation of treated sewage waste water for recreation use. Federal and state agencies involved are the Department of Interior Federal Water Pollution Control Administration and the University of Arizona Departments of Civil Engineering, Microbiology and Fisheries.99 When completed, Silverbell Park will be one of Tucson's largest regional parks.

Both Silverbell Park and Kennedy Park are excellent examples of applying federal, state and local programs to a single project. In addition to State Lake Improvement Program and Bureau of Outdoor Recreation sources, the Tucson Committee for Economic Opportunity, Inc. has furnished supplies, equipment, ramadas, fire pits, a sprinkler system, comfort station, tables and benches, as well as labor. Much of the land for Kennedy Park was purchased from the Bureau of Land Management at $2.50 per acre.100

98 City of Tucson, Federal Assistance Status Summary, p. 9.

99 Ibid., p. 58.

100 Emerson Hall, Recreation Supervisor, City Parks and Recreation Department, City of Tucson, Arizona, personal interview March 26, 1970.
As a commissioner of the Arizona Outdoor Recreation Coordinating Commission, the Tucson City Parks and Recreation Director has recommended that the Tucson region be an integral part of the state trailways plan. In accord with such a plan, there would be trailways, bicycling and riding paths and open space linking parks along the Santa Cruz and Rillito washes. City Councilman Robert Royal has made clear his intentions to implement such a plan.\(^{101}\)

For many years there have been plans for a linked system of parks along the Rillito Creek. One plan, prepared by the City-County Planning Department in 1958,\(^{102}\) shows continual zones of "open areas" along the Santa Cruz and Rillito. The Pima County Parks and Recreation Department prepared a plan for trailways along the Rillito Creek in 1961.\(^{103}\) The plan shows a system of riding and hiking trails which would run between the Pantano Wash and the Santa Cruz River. The county is still interested in developing such a system.

The county is continually acquiring and developing land for parks. Existing parks of all sizes are spotted around the Tucson urban area. For many years the county has cooperated with the Bureau of Land Management and has purchased much of its land from the Bureau's bank of land to the west and southwest of the Tucson Mountains. Tucson Mountain Park, adjoining Saguaro National Monument,

\(^{101}\)Eugene Reid, Director, City Parks and Recreation Department, City of Tucson, Arizona, personal interview 3/26/70.

\(^{102}\)Pima County Parks and Recreation Department, Proposed Coronado Trailways (map), 4/11/61.

\(^{103}\)Pima County Planning and Zoning Commission, Open Area Water Course Commission, Open Areas (map), 7/16/58.
has been effective in curbing urban sprawl to the west. However, the county has no other parks of sufficient size to curb sprawl on other sides of the city.

The county has used Bureau of Outdoor Recreation funds for its acquisition and development of park sites. At Ajo Park, these funds helped build two restrooms, three ramadas, and a rifle range. At Marana the funds were used to provide an irrigation system, three baseball diamonds, and two tennis courts. They helped buy the Fort Lowell swimming pool and the land for Manzanita Park.¹⁰⁴

¹⁰⁴Ellis Cooke, Park Planning Supervisor, Pima County Parks and Recreation Department, personal interview 3/25/70.
OPEN SPACE PLANNING: WHAT STILL NEEDS TO BE DONE
AND HOW IT SHOULD BE ACCOMPLISHED

It is obvious from the foregoing that many federal, state and local programs are operating with little, if any, coordination. Each agency administering open space funds is operating with only its own objectives in mind. There are no overall metropolitan open space objectives which each of the above programs could implement.

Perhaps the biggest cause of the lack of adequate open space planning is the fact that there is no suitable metropolitan planning agency to carry out a program of on-going, areawide comprehensive planning. Pima Association of Governments is not a planning agency; it does not carry on short or long-range planning. It is set up to approve applications for federal funds for programs and community facilities that have metropolitan impact. The organization has no resolution to make it a planning body nor is it staffed to be a planning body in the sense of preparing plans for the future. It is important to review the background of this agency to determine what it can and cannot do with regard to planning.

The Pima Association of Governments, formerly named Pima County Association of Governments and Tucson Urban Area Regional Reviewing Committee, began in 1966 through a compact between the City of Tucson, Pima County, Town of South Tucson and Sanitary District Number 1.105

105Compact of the Pima County Association of Governments, December, 1966, p. 2.
The compact set areawide comprehensive planning as one of its functions: "to plan comprehensively for the solution of regional problems requiring inter-governmental cooperation." Evidently, to "plan comprehensively" has never meant more than a discussion of mutual problems, for the extensive process of a single agency planning for land use, transportation, community facilities, open space and other elements has never been done in Tucson.

The compact was amended by City Resolution No. 6889, passed and adopted April 18, 1967. The resolution officially established a committee composed of the elective officials of the City of Tucson, Pima County and Town of South Tucson, "for consideration and study of local applications to the Department of Housing and Urban Development involving federal funds."106

This resolution was amended on May 15, 1967, to give the committee responsibility "...for the review, approval and policy coordination for the development of comprehensive planning in the Tucson Urban Region as it relates to the Federal Assistance Program as referred to in Sec. 204 of the Demonstration Cities and Metropolitan Development Act of 1966,"107

On June 14, 1967, Governor Jack Williams designated the Tucson Urban Area Regional Reviewing Committee as an areawide agency "to perform metropolitan or regional comprehensive planning for the area within which contemplated assistance is to be used" also as specified in Section 204.108

106 City of Tucson, City Resolution No. 6889, April 18, 1967.
107 City of Tucson, City Resolution No. 6934, May 15, 1967.
There have been no further resolutions adopted by the Pima Association of Governments. Today it operates according to Resolutions 6889 and 6934 as a body whose primary function is to review applications for federal funds. There is no "metropolitan or regional comprehensive planning" initiated and carried out by this organization. The paid staff consists of one part-time man and a secretary. It is apparent that this association exists solely to meet the minimum requirements of federal programs the area's governments have sought to obtain.

Federal requirements are becoming more stringent. Beginning October 1, 1971, Tucson will have to be certified as to its on-going areawide comprehensive planning before funds will be made available for open space planning, water and sewer facilities, and mass transit. According to the guidelines, the Areawide Planning Jurisdiction shall include a municipality or other built-up place, plus the surrounding areas which form an economic and socially related region, taking into consideration such factors as present and future (minimum 20 years) population distribution and patterns of urban growth, location of transportation and other facilities, and distribution of industrial, commercial, residential, governmental and other activities.109

An areawide comprehensive planning agency must be established for the Tucson area as soon as possible. This could be accomplished if the Pima Association of Governments adopted the necessary resolutions to make it such an organization. Another solution might be a merger of the City of Tucson, Town of South Tucson and Pima County into a single government, as has been proposed by the Tucson Community Goals

Such action would result in the formation of a single, area-wide planning agency.

Comprehensive planning for the Tucson area must begin immediately with open space planning considered as one of the main elements. The agency should establish and follow an open space planning program. Assuming the agency would want to tap all possible federal, state and local sources of funds, the program would be set up to meet their requirements. Money for implementing the plan may be available one year but not the next. The open space plan should therefore be a continuing guide, always ready to use the funds and devices that become available.

The open space planners should use the material that has been produced and proceed to more thorough inventory and analysis. For example, the City's Open Space Concept has broadly suggested the lands to be controlled in an open space plan, while lands in the Model Cities' portion are more specifically identified. All lands to be acquired must be specifically identified in coordination with the areawide comprehensive planning process. While the comprehensive plan is being prepared, operations of existing federal, state, local and private organizations whose activities are directly or indirectly related to open space planning should be coordinated as much as possible with at least an areawide open space concept.

The open space plan must be practical. Where possible the land must not be left in an idle state, but serve as many uses and functions

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as possible: providing the location of utility easements, possibly a sewage treatment facility, foot paths and riding trails, picnic areas, water recharge areas, preserved historic sites, scenic vistas, and unique natural areas. It would be a comprehensive package going beyond the normal park standards requiring so many acres of parks per so many persons.

An effective open space program would turn the monotonous City of Tucson into a place that is both interesting and attractive. It would help modulate urban form and serve the needs of conservation and improved aesthetics. The outdoor recreation needs of Tucson's residents and visitors would be closer to fulfillment, making the city a better place to live in and visit. It is time that state and local governments recognize the real benefits that can be gained through open space planning and get on with the job.
APPENDIX

OPEN SPACE LAND ACQUISITION AND DEVELOPMENT GRANTS
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

The United States Department of Housing and Urban Development's Open Space Program has the broadest objectives in helping communities implement an open space plan. To determine how close the Tucson Urban Area comes to being eligible for this program, it is necessary to compare its planning action to meet the requirements.

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<tr>
<th>Federal Requirements</th>
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| I. Areawide Comprehensive Planning  
  A. There must be underway an areawide comprehensive planning program for the urban area in which the land being acquired is located. | In terms of an areawide, integrated planning program for land use, transportation, community facilities, recreation and other comprehensive planning elements, carried out by a single agency, such a program is nonexistent. |
| B. A comprehensive planning agency must be officially established or designated, staffed, and funded so as to be operationally capable of carrying on areawide comprehensive planning. | According to its compact, the Pima Area of Governments was originally established to carry out areawide comprehensive planning. This organization, now called Pima Association of Governments, is neither staffed nor funded to carry on areawide comprehensive planning. It operates only as an application-reviewing body. |

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<td>C. The planning agency should have representation of local general governmental units which contain at least 90 percent of the population of the planning area, defined as the entire urbanized and urbanizing area regardless of local or State boundaries.</td>
<td>By themselves, neither Pima County nor the City of Tucson represent 90 percent of the area's population. Pima Association of Governments is not a &quot;planning agency.&quot;</td>
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| D. The agency must have adopted a work program or schedule of activities covering no less than a 12-to-18 month period, containing satisfactory evidence that the land-use element and such other essential elements of a comprehensive plan relating to open space planning and programming will be completed in a reasonable period of time. | Since there is no single areawide planning agency, this requirement has not been met. In the event such an agency is formed, there are some existing recommendations and data that would be useful. For example, a continuous program of acquisition of open spaces and park sites prior to development is a policy recommendation of A Concept Plan for Open Spaces, Parks, Trailways, & Drainageways. A long range acquisition program is also recommended. An general land use plan was completed by the City-County Planning Department in 1960.  
| E. Local planning and any other sub-regional comprehensive planning must be coordinated with, or be a part of, the areawide comprehensive planning process. An agency carrying out sub-regional planning must be an active member of, or participant in, the areawide planning organization. | All city plans for schools, transportation, water and sewers are coordinated with Pima County and South Tucson via Pima Association of Governments. These plans are not coordinated with an areawide comprehensive plan for such a plan does not exist.  
113 City-County Planning Department, General Land Use Plan, A Part of the Master Plan, Tucson, Pima County, Arizona, July, 1960.
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<tr>
<td>II. Areawide Open-Space Planning</td>
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<td>A. Long-range (minimum 20 years) open-space planning for the acquisition and development of open-space land, as an element of areawide comprehensive planning, must be underway.</td>
<td>The only step in the direction of this requirement is a policy recommendation of A Concept Plan for Open Spaces, Parks, Trailways &amp; Drainageways which states that the city should acquire &quot;open spaces and park sites prior to urbanization.&quot; This is hardly a beginning for parcels must be identified, owners determined and strategy for acquisition planned in accordance with an areawide comprehensive plan.</td>
</tr>
<tr>
<td>B. The comprehensive planning agency must have adopted or approved a work program for long-range open-space planning which shall include the following elements:</td>
<td>Standards and criteria have not been specifically stated. The unofficial Open Space Concept calls for locating all open space and recreation facilities &quot;on sites having low site development costs, within reasonable travel distance of users, and with easy access assured.&quot; These criteria are far from adequate. Location, types and uses must be defined and described in great detail.</td>
</tr>
<tr>
<td>1. Standards and criteria as to location, types, and uses of open-space land to guide open-space acquisition and development in the urban area.</td>
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<tr>
<td>2. An inventory of existing open space of all types, both public and private, in the urban area.</td>
<td>An inventory of land along the Santa Cruz River in the Model Cities area has been made. In the foregoing text the author has suggested additional types of open space that should be inventoried.</td>
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<td>3. A projection, based upon the application of the standards and criteria, of open-space needs for the urban area for a period of at least 20 years including an analysis of open-space needs as related to other elements of comprehensive planning, such as land</td>
<td>This projection has not been made.</td>
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114 City of Tucson, A Concept Plan, p. 15.
### Federal Requirements

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**Federal Requirements**

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<td>use, transportation, public facility, and other functional planning.</td>
<td>An analysis of methods for the preservation of open space has not been made by the City or County. Certain policies have been recommended in the City's Open Space Concept. They include the outright acquisition of open spaces and park sites prior to urbanization and acquisition of park sites in connection with land clearance activities.</td>
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<tr>
<td>4. An analysis of methods for the preservation of open-space including examination of the merits of using less-than-fee acquisition methods (e.g., easements, etc.) and the preparation of new or remedial local or State legislation which may be needed to implement such methods.</td>
<td>This analysis and determination have not been made.</td>
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<tr>
<td>5. An analysis and determination of the most effective fiscal and operational arrangements of the major land-acquiring bodies in the urban area for the design and implementation of an open-space program for regional acquisitions.</td>
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### III. Areawide Open-Space Programming

A. There must be a work program providing for the development of a short-range (5-10 years) areawide open-space program consistent with open-space planning. The program should include the following elements:

1. A fully developed schedule of priorities for the acquisition and development of open space having regional implications. 

A schedule of priorities for the region has not been put forth. However, present priority is for improvement and development of the Santa Cruz River in the Model City of Tucson, A Concept Plan, p. 15.
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<td>Cities Neighborhood, to eliminate blight and improve amenities for tourists.116</td>
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<td>2. Estimates of the cost of the sites to be acquired and/or developed and an analysis of the methods to be used in financing them.</td>
<td>Estimates of costs have been made with regard to the Santa Cruz River in the Model Cities Neighborhood.117 Methods of financing have considered only federal programs.</td>
</tr>
<tr>
<td>3. A preliminary sketch plan of the urban area showing the priority open-space sites to be acquired during the five to ten year program period.</td>
<td>There is no sketch plan showing priority of land acquisition.</td>
</tr>
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B. The schedule of priorities shall reflect consideration of, at least, the following factors:

1. The correction of existing open-space deficiencies. 

2. The immediate acquisition of lands which will demonstrably control or shape urban development. 

There is no schedule of priorities to reflect the correction of existing open-space deficiencies.

This is stated in the unofficial Open Space Concept,118 under the paragraph titled "Open Space Concept." The goal is to identify natural areas that carry their own values and developmental limitations and suggest a positive pattern of development.

116 Gary Johnson, Senior Planner, Model Cities, City of Tucson, Arizona, personal interview March 25, 1970.

117 Ibid.

118 City of Tucson, A Concept Plan, p. 6.
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<td>3. The acquisition of unique open space having no feasible alternatives.</td>
<td>This is not specifically stated in the City's Open Space Concept.</td>
</tr>
<tr>
<td>4. The acquisition of tracts which are key elements of an open-space program.</td>
<td>Acquisition by tract has not been programmed.</td>
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<tr>
<td>5. The acquisition and development plans of all major bodies in the urban area including state agencies and special districts, having responsibility for the acquisition and development of open-space facilities.</td>
<td>Plans for freeways, parkways and scenic routes have been considered.</td>
</tr>
<tr>
<td>6. To the extent possible, the acquisition and development plans of major private open-space bodies in the urban area should be considered, particularly from the standpoint of correcting deficiencies or imbalance through a combination of public and private resources.</td>
<td>Private plans have not been given adequate consideration.</td>
</tr>
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IV. Local Comprehensive Planning  
A. For projects located in metropolitan areas, there must be local comprehensive planning for the area in which a proposed project is to be located. Such local comprehensive planning must meet the following requirements:  
1. There must exist an interstate, State, regional, or local planning agency officially authorized and operationally able (e.g., funding  

Although the city and county employ planning personnel, comprehensive planning is not carried on.
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<td>and staffing) to carry on local comprehensive planning for the area in which a proposed project is to be located.</td>
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<tr>
<td>2. The local comprehensive planning process must include local open-space planning and programming as well as a broad, problem-solving approach.</td>
<td>There is no &quot;local comprehensive planning process.&quot;</td>
</tr>
<tr>
<td>3. Local comprehensive planning for the area in which a proposed project is to be located must be coordinated with the areawide comprehensive planning. At a minimum, active membership or participation in the areawide planning agency by the agency responsible for such local comprehensive planning will be accepted as meeting this requirement.</td>
<td>There is no areawide comprehensive planning nor an agency to carry it out.</td>
</tr>
</tbody>
</table>

V. Project Consistency
A. The proposed project must be consistent with the areawide comprehensive planning. At a minimum, one of the following conditions relating to the proposed project must be met:
1. Short-range open-space programming must have progressed to the point where it can serve as a basis for determining that the proposed project is consistent with it, or

There is no areawide comprehensive planning for any project to be consistent with.
<table>
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<tr>
<th>Federal Requirements</th>
<th>Past and Present Actions to Meet Requirements</th>
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<tr>
<td>2. The proposed project is urgently needed and can reasonably be expected to be consistent with the program.</td>
<td>The Model Cities organization is gathering data on the blighted condition of the Santa Cruz to emphasize the urgency of their open space project.¹¹⁹</td>
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<td></td>
<td>B. Each open-space application shall be reviewed by the comprehensive planning agency for the urban area, in accordance with criteria and procedures developed by that agency. If the applicant is not a unit of local government, the application shall be reviewed by the unit of local general government in which the proposed project is to be located.</td>
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<td>C. The required review agency or agencies shall be given thirty days from the date of a request to review and comment on an application.</td>
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<td>D. In the case of complex, multi-jurisdictional urban areas, the areawide planning agency may arrange for the review of applications to be performed by appropriate subregional planning agencies.</td>
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<tr>
<td>VI. Maintenance of Eligibility</td>
<td>Eligibility must be attained first.</td>
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<tr>
<td>To maintain eligibility for open-space grant assistance, the area must be making satisfactory progress in carrying out the work programs required under Sections I, II, and III above.</td>
<td></td>
</tr>
</tbody>
</table>

¹¹⁹City of Tucson, Department of Community Development, Communication To The Mayor and Council No. 5206, January 19, 1970.
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