

# **CARSON CITY OPEN SPACE PLAN**

**An Element of the Carson City Master Plan  
Carson City, Nevada**



**Carson City Open Space Advisory Committee**

**Carson City Departments of Parks and Recreation  
and Community Development**

June 2000

## TABLE OF CONTENTS

|  |    |
|--|----|
| Acknowledgements .....                                     | 4  |
| INTRODUCTION.....  | 5  |
| Carson City’s Open Space Setting .....                     | 5  |
| Why We Need A Plan .....                                   | 6  |
| How the Plan was Created .....                             | 7  |
| Public Input and Review .....                              | 7  |
| Analysis Methodology .....                                 | 7  |
| PUBLIC INPUT.....  | 9  |
| Focus Groups and Neighborhood Meetings.....                | 9  |
| Opinion Survey .....                                       | 10 |
| Reasons to live in Carson City .....                       | 11 |
| Current Use of Open Space.....                             | 11 |
| Priority Areas to Preserve for Open Space.....             | 13 |
| Approaches to Acquisition of Open Space.....               | 15 |
| CARSON CITY’S OPEN SPACE RESOURCES AND CONSTRAINTS.....    | 17 |
| Visual Open Space .....                                    | 17 |
| Important Environmental Conditions.....                    | 18 |
| Vegetation .....   | 18 |
| Wildlife .....   | 18 |
| Rare Species .....   | 19 |
| Open areas important to health, safety and welfare.....    | 20 |
| Watersheds/wellheads .....                                 | 20 |
| Drainageways.....  | 20 |
| Areas Subject to Flooding.....                             | 20 |
| Areas of Cultural/Recreational Importance.....             | 21 |
| Existing Protection of Open Space.....                     | 21 |
| State Lands .....  | 22 |
| Federal Lands .....  | 22 |
| Dedicated Open Space .....                                 | 23 |
| Hillside development ordinance.....                        | 23 |
| Other City Ordinances.....                                 | 24 |
| Other Types of Existing Open Space Protection.....         | 24 |
| Wetlands.....  | 24 |
| Watershed and Wellhead Protection Areas .....              | 24 |
| Degrees of Protection.....                                 | 25 |
| High.....  | 25 |
| Medium .....   | 25 |
| Low .....  | 25 |
| MASTER PLAN FOR THE FUTURE OPEN SPACE SYSTEM.....          | 26 |
| At-Risk Open Space – GENERAL AREAS FOR PRESERVATION.....   | 26 |
| CRITERIA for Open Space Preservation.....                  | 26 |
| A. Physical characteristics- .....                         | 27 |
| B. Acquisition circumstances and value to the system ..... | 29 |
| DESIRED OPEN SPACE AREAS .....                             | 30 |
| APPROACHES TO LAND PROTECTION.....                         | 33 |
| Carson City’s Open Space Strategy .....                    | 33 |
| Preservation Tools.....                                    | 34 |
| MANAGEMENT OF OPEN SPACE .....                             | 39 |
| General Requirements .....                                 | 39 |
| Public Safety .....  | 39 |
| Property Acquisition .....                                 | 39 |
| Environmental Stewardship .....                            | 39 |

|   |    |
|---|----|
| Maintenance of improvements .....                             | 39 |
| Public awareness/education.....                               | 39 |
| Management Roles/Responsibilities .....                       | 40 |
| Open Space Coordinator .....                                  | 40 |
| Open Space Advisory Committee .....                           | 40 |
| CC Board of Supervisors.....                                  | 40 |
| Policies .....  | 40 |
| IMPLEMENTATION .....  | 42 |
| SHORT RANGE ACTION STEPS (Adoption of Plan to Two Years)..... | 42 |
| MEDIAN RANGE ACTION STEPS (Two to Four Years).....            | 44 |
| LONG RANGE ACTION STEPS (Four to Five Years).....             | 46 |
| O.S.A.C. LOW PRIORITIES ISSUES .....                          | 46 |
| APPENDIX .....  | 48 |
| A.1 Open Space Evaluation Form.....                           | 48 |
| A.2: Policies .....   | 50 |
| 1. Purposes of Open Space .....                               | 50 |
| 2. Acquisition and Protection of Open Space Land.....         | 50 |
| 3. Management of Open Space lands .....                       | 51 |
| A.3: Data Sources.....  | 53 |
| A. Carson City Urban Interface Plan Amendment.....            | 53 |
| B. Recreation management .....                                | 53 |
| C. Pine Nut Mountains Proposed Plan Amendment .....           | 53 |
| A.4: Related Plans and Studies .....                          | 53 |
| A. Carson City Master Plan Land Use Plan Element Update ..... | 53 |
| B. Carson River Master Plan.....                              | 53 |
| A.5: Approvals and Endorsements.....                          | 53 |
| A.6: Public Opinion Survey .....                              | 54 |
| Demographic characteristics .....                             | 54 |
| Attitudes toward Open Space .....                             | 55 |
| Use of Open Space .....                                       | 55 |
| Areas to Preserve for Open Space .....                        | 55 |
| Attitudes about the Acquisition of Open Space .....           | 56 |
| Management policy-.....                                       | 58 |
| Employment .....  | 59 |
| Flexibility of protection.....                                | 59 |
| A.5 OPEN SPACE INVENTORY/ANALYSIS MAPS .....                  | 60 |

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## INTRODUCTION

In 1996, the citizens of Carson City approved ballot question #18, the Quality of Life Initiative that authorized a ¼ of 1% (.25%) increase in the sales tax to raise funds for Open Space, parks and trails. This tax will raise approximately \$1,700,000 per year initially, with 40% allocated to Open Space, 40% allocated to Parks/Trails<sup>1</sup> and 20% to Maintenance of new parks projects. This Master Plan is intended to guide the use of the Open Space funds as well as other means to preserve Open Space for Carson City.

Ballot Question #18 defined Open Space as “undeveloped land having significant natural resources important to the quality of life in our community.” This definition has been refined by the Open Space Advisory Committee to include land that:

- Is in a natural, or primarily natural state;
- contains significant natural, visual or cultural features that warrant protection;
- is permanently protected.

By this definition, Open Space in Carson City is intended mainly to preserve the natural landscape and to accommodate certain types of passive recreation, such as hiking, running, bicycling and horseback riding. Open Space in Carson City is not intended to be used for traditional active recreation facilities such as parks, playground equipment, baseball diamonds, soccer fields, and swimming pools. However, under certain circumstances, the only physical facilities to be located in Open Space areas are trails and supporting picnic areas, interpretive facilities, restrooms, and parking lots. Open Space lands may be converted to parks through an easement purchase or land exchange with the Parks and Recreation Department.

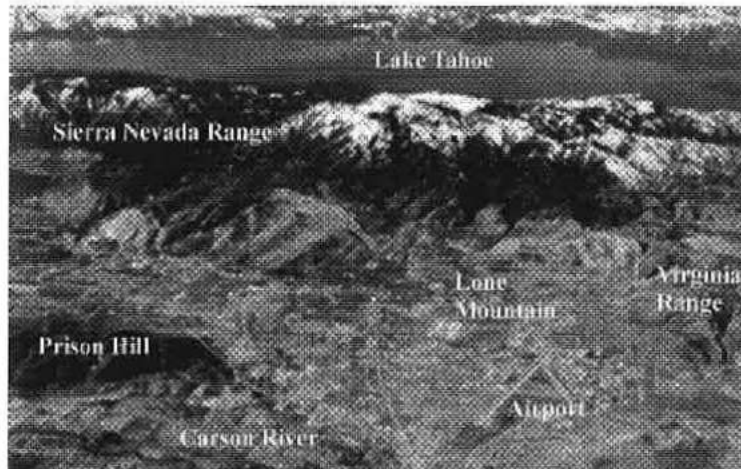
### CARSON CITY’S OPEN SPACE SETTING

Open Space plays an important role in the quality of life of Carson City. Entering Eagle Valley from any one of the four dramatic gateways, one is struck by the visually compact Carson community surrounded on three sides by mountain ranges. From any location in town one can see close, surrounding mountains in almost every direction: the forested Sierra Nevada Range on the west, the Virginia Range on the north and the Pine Nut Range on the east. Within the valley are several prominent topographic features such as Lone Mountain, Rattlesnake Mountain and Prison Hill. In and near town there are still a number of pastures and open meadows that give an immediate connection with rural character and Carson City’s agricultural past. On the east edge of the valley the Carson River meanders south-to-north through a corridor lined with tall cottonwoods, creating a shady respite from the openness of the valley.

But Open Space is important to Carson City for reasons other than just visual: Carson City’s water supply comes from wells that are replenished by rain and snowfall that falls on open land and infiltrates the ground. The hillsides are used extensively for walking and biking. Several areas are used intensively for motor bikes and off-road vehicles. The Carson River corridor is a popular retreat for strolling, fishing and picnicking.

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<sup>1</sup> Open Space funds may be used to acquire lands for trails and the park/trail funds may be used for trail construction.



*Figure 1: Carson City in the foreground separated from Lake Tahoe by the Carson Range*

Because Carson City is almost completely surrounded by public land (owned by federal and state agencies) many residents take the area's Open Space for granted, assuming that all the open land is protected. Yet one can see recent development beginning to encroach on the hillsides, slowly filling in the meadows and pastures. Areas for walking, jogging and biking are becoming harder to find and more difficult to reach. Even the public land is not assured to remain open – it can be subject to land exchanges and/or certain kinds of development. As Carson City continues to grow, pressure to develop the remaining open land will only increase. Thus, in recent years there has been a growing community awareness of the need to preserve Open Space.

#### **WHY WE NEED A PLAN**

At today's land prices, the funds generated by the Ballot Question #18 Sales Tax will only allow the acquisition of a limited amount of land. What key parcels of land should be acquired or protected? What should be the priorities? Are there other ways to protect Open Space? These are questions that an Open Space Plan can help answer.

The purchase of land is just one of many different ways Open Space can be preserved. Thus, this plan will not only guide the acquisition of Open Space, but also will provide a strategic framework for the use of other, complementary tools to preserve Open Space. In Carson City there are a number of public agencies that have jurisdiction over land. They can play a strong role in Open Space preservation. There are also many ways private citizens can contribute to the preservation of Open Space (over and above donating land or money). This Open Space Plan is intended to help coordinate various public and private efforts, and assure that resources of the community are used most effectively in the preservation of Open Space.

The plan generally identifies desired Open Space, establishes priorities and suggests potential tools for preservation. It also outlines a variety of ways to work with potential partners to achieve multiple Open Space objectives (such as ground water recharge, stormwater management, protection of wildlife habitat, preserving visual relief from development, and air quality improvement, to name a few).

## HOW THE PLAN WAS CREATED

### Public Input and Review

This plan was created under the direction of the Open Space Advisory Committee (OSAC), comprised of seven members and two alternate members representing a cross-section of community interests and public agencies. The staff of the City's Departments of Parks and Recreation and Community Development provided day-to-day coordination.



*Figure 2: An OSAC committee worksession*

In addition to many public OSAC meetings, there were many other opportunities for individual citizens to share their suggestions and concerns about Open Space. These included:

- the distribution of over 1,600 mail-back questionnaires with informational brochures;
- the return of over 500 completed questionnaire responses;
- extensive coverage by CATV
- updates in 10 issues of the Carson City Capitol City Focus newsletter;
- four neighborhood meetings;
- a city-wide open house;
- the printing and distribution of more than 60 copies of a draft plan for public review and comment;
- numerous presentations by OSAC members to community groups and local organizations; and,
- public hearings before the City Planning Commission and the Board of Supervisors.

Many suggestions and comments received were incorporated in the plan.

### Analysis Methodology

Geographic Information System (GIS) mapping and modeling were used to portray the opportunities and constraints of potential Open Space areas. Environmental data

from various sources<sup>2</sup> were combined to create a composite map of areas with high Open Space values. Areas that are protected from development by existing regulations were also portrayed. Combining these two maps identified the *land that has high Open Space values, but is not protected through existing regulations*. This is the focus of the Open Space program. Within these focus areas, Open Space that is valued and not protected by existing regulation, specific parcels will be identified and evaluated on a case-by-case basis, according to several criteria: relative value as Open Space, ability to link with trails, and ability to be acquired/protected.

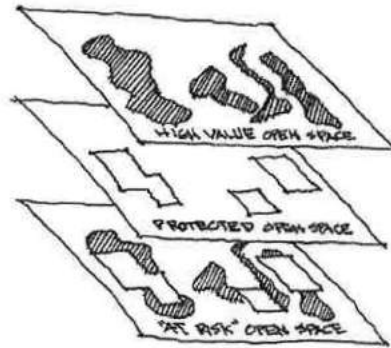


Figure 3: Diagram of analysis methodology

When using the maps in this report as a guide for Open Space conservation, there are four important points to keep in mind:

- A. ***The maps show general patterns, not exact locations.***  
The lines on the maps do not represent exact boundaries. Only the general locations of characteristics are indicated, and the boundaries shown are relative. It is expected that, over time, specific parcels will be identified within the general areas identified in the maps.
- B. ***The maps are dynamic.***  
The data maps are the result of today's information and technology. They will need to be periodically updated as new information is desired and/or becomes available.
- C. ***Onsite analysis and field verification are absolutely necessary.***  
When evaluating and prioritizing specific parcels of land for Open Space preservation detailed site analysis and field verification must be conducted.
- D. ***The maps are just part of the decision-making process.***  
The maps are not an absolute determinant for decision-making. Rather, they are tools that, in combination with common sense and good judgment, can be used to enhance decisions for Open Space preservation and to communicate the basis for those decisions. Final decisions about specific Open Space parcels and their relative priority, will be made by the Board of Supervisors, with input from the public, City staff and the Open Space Advisory Committee.

In the end, the usefulness of the maps is not that they depict exactly what to preserve, but that they indicate where to look, what questions to ask, and what connections (trail) can be made. They are a tool in making Open Space decisions.

<sup>2</sup> For more detailed information about the data sources used, see Appendix A3.



## PUBLIC INPUT

### FOCUS GROUPS AND NEIGHBORHOOD MEETINGS

Focus Group interviews were held to gain insights into general public perceptions about Open Space, to guide preparations for the Neighborhood Meetings, and to help formulate meaningful questions for the opinion survey. Two separate Focus Groups were formed to represent a cross-section of the community. Each group had approximately 12 attendees. Most of the attendees had lived in Carson City for over 10 years. The discussions were informal, to allow follow-up on specific questions.

Subsequently, four Neighborhood Meetings were held in separate locations, two each evening on two consecutive evenings. Although attendance varied, approximately 25 people attended each of the Neighborhood Meetings. After a brief presentation about the purpose and the general intent of the Open Space Plan process, the audience was asked to comment on questions similar to those presented in the Focus Groups. Key discussion points and a synopsis of comments from both the Focus Groups and Neighborhood meetings are summarized below:

*Question 1: Why did you support the Open Space ballot question?*

- The Open Space sales tax was a means of preserving land from development, without disadvantaging the landowner. We need to be sensitive to the rights of landowners, but still there are lands that should be set aside for the public. The Open Space tax was a means to resolve this inherent conflict.
- Open areas are important to Carson City's quality of life. For some, they are the reason they moved here, or have grown to love the area. Key Open Space includes empty parcels of land within town, and the Carson River corridor. The Open Space Tax was a possible way to save these areas.
- The Open Space Tax was a way to "give something back" to the community, to leave a legacy for future generations.
- Open Space was a means to stop growth.
- Open Space programs have been initiated in other communities and we liked the result.

*Question 2: What does the term "Open Space" signify to you?*

- Any space that doesn't have a structure on it
- Parks, but not intensively developed ones.
- Land in a fairly natural condition, with minimal change.
- Facilities that people can come and enjoy, such as a golf course, or recreation facility
- (Most felt) Open Space should be usable (as with trails)
- Uses incompatible with Open Space (such as moto cross and four-wheel drive areas) should have separate, designated areas
- Open Space generally has to be a significant size.

*Question 3: What land would you set aside as Open Space? (Note: these responses do not indicate any order of preference)*

- The hillside area above the college
- Clear Cree
- Andersen's ranch on Mountain Street
- V&T right-of-way above Children's Home
- Mouth of Ash Canyon
- Prison Hill
- Mexican Dam
- Duck Hill
- McClellan Peak
- Wandering Skipper habitat
- Small pieces of property that access larger ones
- Land that one can see has a higher priority than environmental land
- The hillsides – they are vulnerable to development from people who want to look out over the valley. They are the distinctive features we can see. Hills without houses all over them.
- The Carson River
- Corridors to connect the river to the foothills.
- Don't buy a parcel if there are other constraints that will preclude development anyway
- Other irrigated areas

*Question 4: How do you feel about restrictions being imposed on Open Space after it is purchased?*

- OK if related to safety (don't want people mixing with cows) or environmental reasons, view issues or erosion.
- It would be OK to have land that was purchased only for protection of views and the public wouldn't have to be able to walk on it.
- Past compromises made in approving developments caused a number of participants to worry that Open Space would not be protected permanently.

*Question 5: Should we buy as much land as we can, right away? Or buy land more slowly and develop amenities as we go?*

- General support for a balanced approach of buying land and concurrently developing amenities (such as trailheads, parking areas, trails, signage).

## **OPINION SURVEY**

Surveys were mailed to over 1,600 households that were randomly selected from motor vehicle registration lists and voter registration lists. The 503 surveys sent back yielded a response rate of 31%, which is relatively high for a mail-back survey of this complexity. The total number of returns reached a key statistical threshold that gives a 90%+ confidence level that the responses to most of the questions are representative of the attitudes of the general community (or that the responses of the sample are similar to the responses that would have been received if every household had been sampled).

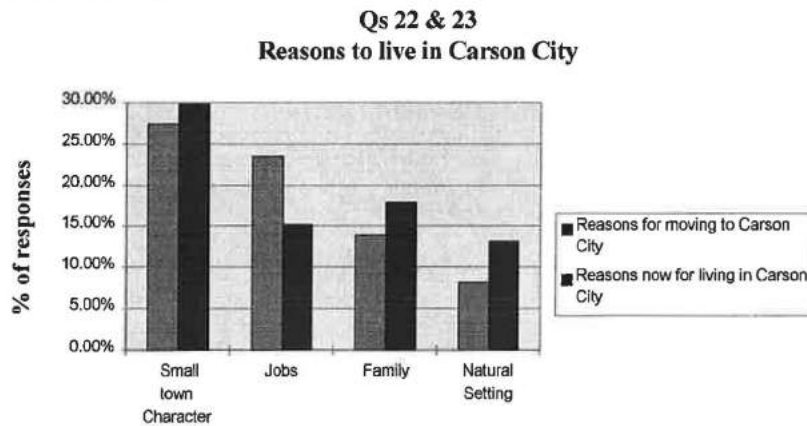
### **General Characteristics of Respondents**

It is sometimes helpful to note the demographic characteristics of the respondents. Generally, the respondents were:

- *Middle aged* (85% were 36 years old, or more) with the largest group being ages (58%)
- *Not newcomers to Carson City* (82% have lived here six years or more)
- *Small families* (48% were two-member households).

### Reasons to live in Carson City

Carson City’s physical environment is increasingly important to residents. When asked in Questions 22 and 23 why they moved to Carson City, and why they live here now, from a list of nine possible choices, "job" declined as a reason to stay. Three reasons that *increased* in importance were: "small town character", "family", and "natural setting".



### Current Use of Open Space

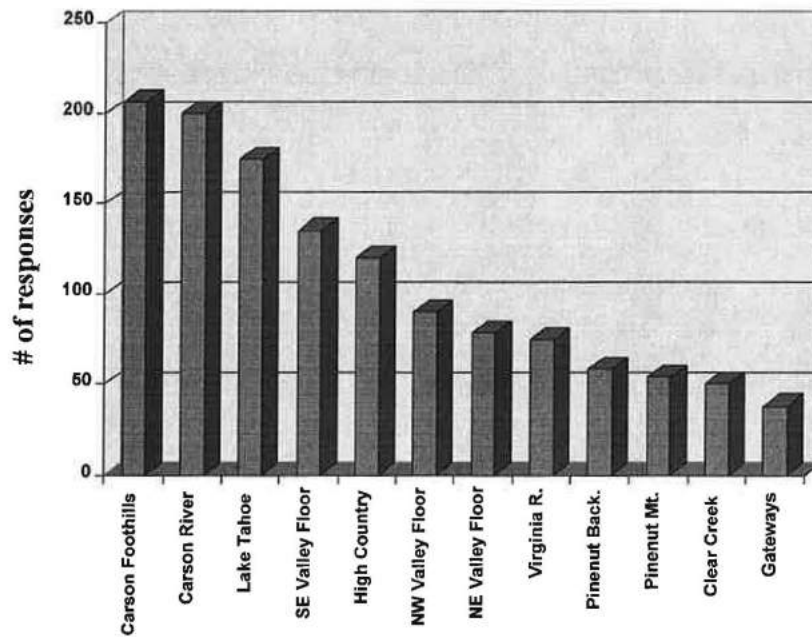
When asked how they used Open Space (Question 2), the responses indicate that the majority of Carson City residents currently use Open Space primarily for *visual and passive* purposes, as indicated by the following general ranking relative to *frequency-of-use*;

- |                     |                          |
|---------------------|--------------------------|
| 1. Just look at it  | 7. Walking the dog       |
| 2. Observe wildlife | 8. Fishing               |
| 3. Walking          | 9. Mtn. Biking           |
| 4. Picnicking       | 10. In-line skating      |
| 5. Hiking           | 11. All-terrain vehicles |
| 6. Biking           | 12. Horseback riding     |

In a related question (Question 3), from a list (and map) of thirteen possible areas, the five *areas* most used for Open Space recreation (not parks) were, in order of use (the number that indicated each area is in parentheses):

1. Carson Range foothills (206)
2. Carson River Corridor (200)
3. Lake Tahoe area (174)
4. SE Valley Floor (Prison Hill area) (135)
5. Carson Range High County (120)

Q3: OS Use Areas

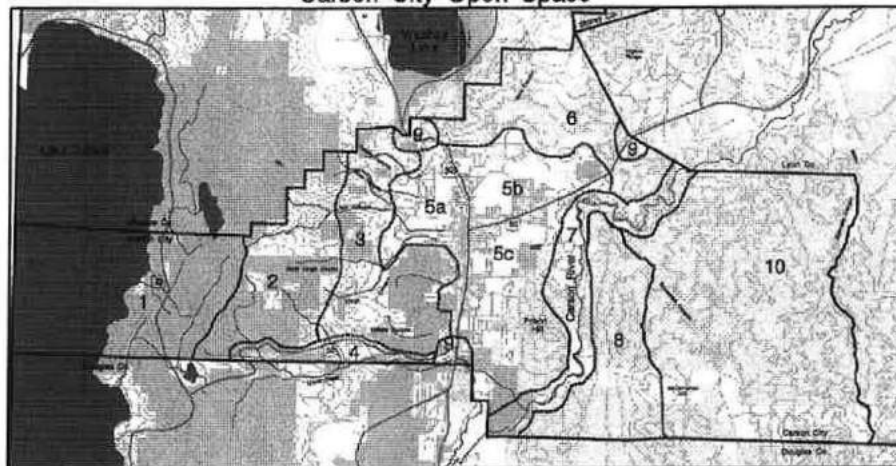


**Map Key:**

|                    |    |
|--------------------|----|
| Carson Foothills - | 3  |
| Carson River -     | 7  |
| Lake Tahoe -       | 1  |
| SE Valley Floor    | 5c |
| High Country -     | 2  |

|                     |    |
|---------------------|----|
| NW Valley Floor -   | 5a |
| NE Valley Floor -   | 5b |
| Virginia Range -    | 6  |
| Pinenut Backrange - | 10 |
| Pinenut Mt. -       | 8  |
| Clear Creek -       | 4  |
| Gateways -          | 9  |

Carson City Open Space



## Priority Areas to Preserve for Open Space

From Question 1 the top five areas to preserve for Open Space were:

1. Carson River corridor
2. Hillsides visible from the city
3. Working, irrigated ranches
4. In-town trail corridors
5. Trail corridors outside the city

Q1: Open Space Preferences

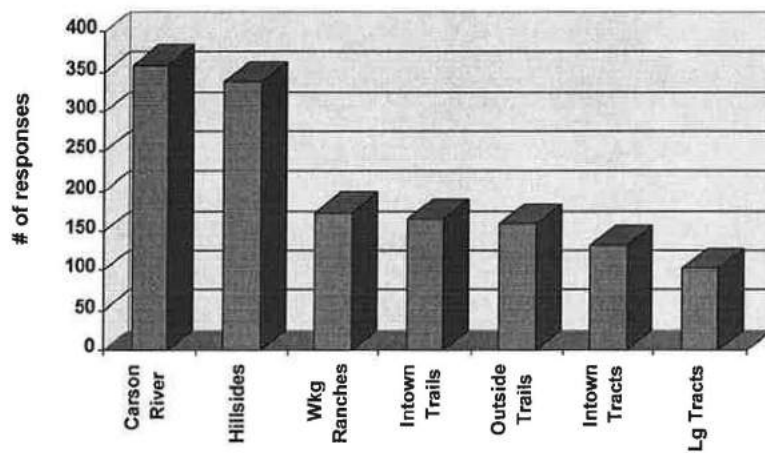


Figure 4: The Carson River Corridor was given the highest ranking for preservation

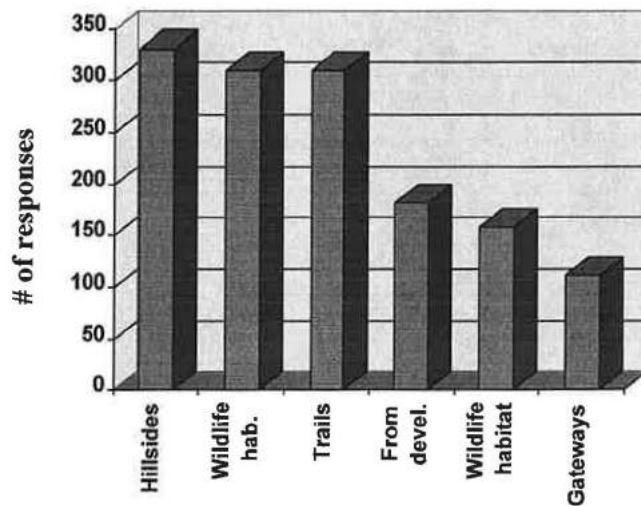
As can be seen from the graph of the responses above, it is clear that the "Carson River" and the "Hillsides Visible From The City" were the most significant *areas* to preserve.

From Question 10, the three most important *reasons* to preserve Open Space were:

- Preserve hillsides from development
- Protect wildlife habitat
- Provide trails

However, when asked specifically about acquiring Open Space "to prevent development" (Question 12), there was only a moderately strong support. This suggests that in general, the emphasis should be to preserve the Open Space for its own merits rather than to restrain development.

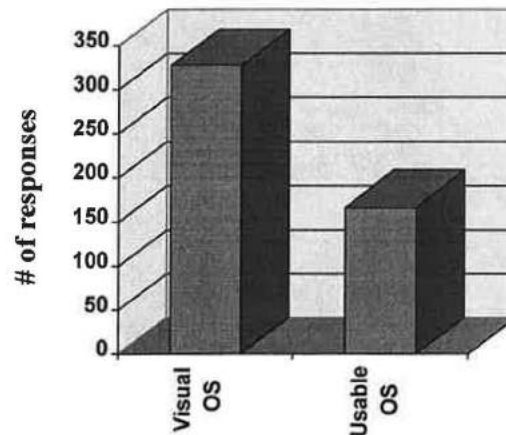
**Q10: Preserve...**



**Purposes for Open Space**

In response to Question 5, if a choice must be made between visual Open Space vs. Open Space that can be used (hike, walk, bike, etc.), the preference is clearly toward *visual* Open Space.

**Q5: OS Preference**



## Approaches to Acquisition of Open Space

In response to Question 8 about the *sequence* of acquiring vs. improving Open Space, a majority of respondents preferred buying land *and* concurrently making improvements (trails, parking, signs, and environmental restoration) – a balanced approach – rather than just buying land as quickly as possible.

When asked about means of *paying* for acquisitions (Question 9) respondents also favored a balanced approach, combining bonds *and* pay-as-you-go, rather than just using bonds (bonds would allow more land to be bought initially, but require interest payments) or just using pay-as-you-go (which would make less money available initially and result in slower acquisition).

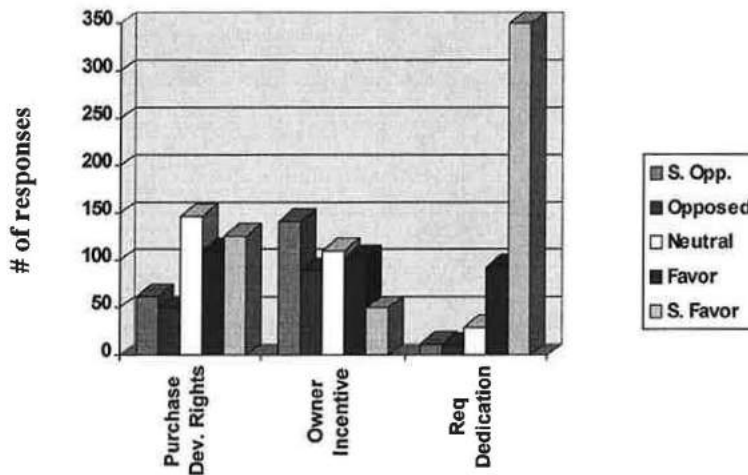
With regard to *methods* of acquisition *other than purchase* (Question 4), Respondents slightly favored purchase of development rights. They tended to oppose giving density incentives to landowners, and very strongly favored required dedications of land and trails in conjunction with new subdivisions.

## Management of Open Space

Looking ahead to management issues on Open Space, respondents were asked (Question 7) about acceptance of possible regulations and restriction on Open Space. Respondents strongly supported virtually all the potential restrictions on Open Space, if necessary for environmental reasons, including:

- Require dogs be kept on leashes
- Require people to stay on trails
- Prohibit motorized vehicles in some areas
- Make some areas off limits during certain seasons
- Prohibit bicycle access to some areas

Q4: Other Means of Acquisition

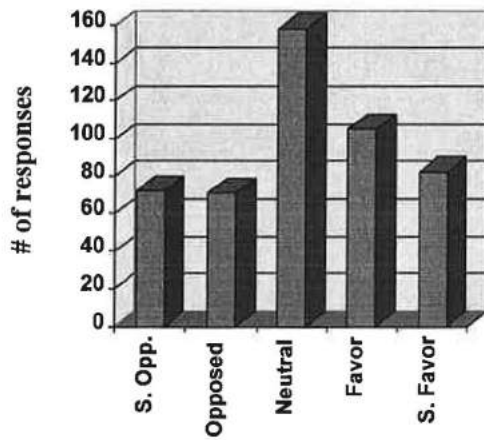


### Permanence of Open Space

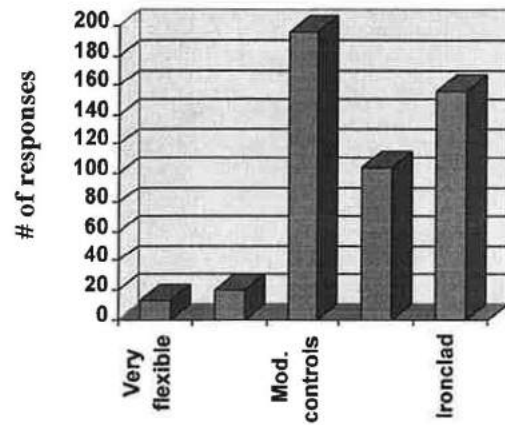
Question 11 asked about the public's willingness to allow Open Space to be converted to active parks. To this question, respondents were neutral-to-favorable. However, the responses to Question 13 indicated a desire for *strong* protection of Open Space after it is acquired.

More detailed information about the survey is found in the Appendix. (A6)

Q11: Allow OS conv. to parks



Q13: Permanence of OS





## CARSON CITY'S OPEN SPACE RESOURCES AND CONSTRAINTS

### CHARACTERISTICS OF EXISTING OPEN LAND

The undeveloped public and private land in Carson City includes: large open areas around the airport, farmland in and near the city, scattered small vacant tracts within neighborhoods and the broad foothills and mountains that surround the city.

While all undeveloped land contributes to a sense of openness, some of it is more valuable as Open Space than others, whether it is due to visual attractiveness, public health/safety, or value for wildlife habitat. It is not realistic to assume we can preserve all currently undeveloped land, nor is it desirable. Land is also needed for housing, for employment and for the City to grow. As Carson City grows, land will also be needed for active parks and other public uses. Therefore, we must identify and focus on the land that will be most important as Open Space (left in a natural condition) to current and future generations.

The characteristics that are most important to Carson City for protection as Open Space, can be grouped into four basic categories:

- high visual value (City backdrop, scenic areas, feeling of openness)
- important environmental conditions (wildlife habitate, rare species, etc.)
- open areas important to public health/safety, welfare (flooding, ground water recharge)
- areas of cultural/ recreational importance (historic, existing use area)

Each of these categories is described in greater detail below<sup>3</sup>: many of which are illustrated on the maps in Appendix A5.

### Visual Open Space

A Visual Preference Survey<sup>4</sup> administered in 1994 confirmed that Open Space lands are important visual elements of the city. Scenes that highlighted the mountains and other dominant landscape features scored very positively with local residents. The

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<sup>3</sup> The available data and accuracy of the characteristics described here vary widely. Additional studies need to be conducted to improve the accuracy of the mapping, which will aid future decision-making. This is particularly important for wildlife habitats, wetlands, vegetation types and aquifer recharge, and wellhead protection areas. Conditions that were considered but not adopted as justifications for Open Space protection include the following:

- Geologic faults – setback requirements vary greatly, and may not even be required. Fault zones may be used for non-structural development such as roads, parking lots, golf courses, etc.
- Mineral deposits – The Nevada Bureau of Mines and Geology (Tingley 1990) gives the Carson City area a low-to-moderate potential for the occurrence of gold, silver, copper, iron and tungsten, and a low potential for manganese. Gravel deposits are not identifiable from existing geology or soils maps. The deposits are generally considered shallow and not commercially viable. Volcanic cinder is viable, but not identifiable from existing information.

<sup>4</sup> Visual Preference Survey. Carson City, Nevada, 1994. VPS is a trade registered mark from A. Nelessan Associates. Inc., Princetown, New Jersey

Carson River landscape also scored high. Significant visual resources of Carson City include:

- Views of the mountain backdrop that surrounds the city;
- Prominent land forms such as the “C” Hill, Lone Mountain, Prison Hill, and Rattlesnake Mountain that contribute to Carson City’s unique identity;
- Irrigated agricultural lands within the community that are a relief from development.

Visual Open Space was ranked as a *very high priority* for conservation, in the opinion survey conducted in conjunction with this Open Space plan as described in Chapter 2.



*Figure 5: Irrigated pasture land provides valuable visual Open Space within the city.*

## **Important Environmental Conditions**

### *Vegetation*

Native vegetation in the lower Eagle Valley is dominantly shrubs such as sagebrush, rabbitbrush, antelope bitterbrush, and Anderson peach brush; and grasses such as bottlebrush squirreltail, Thurber needlegrass, Indian ricegrass and Sandberg bluegrass. Areas that have burned in the recent past, such as parts of Duck Hill, C Hill and the north foothills, evidence a considerable quantity of annual weeds (non-native species) such as Russian thistle and cheatgrass. Cheatgrass is a particularly flammable ground cover that greatly increases the danger of wildfires.

Tree species vary by elevation and slope direction. On the east foothills are found pinon pine, and juniper trees. In the west mountains and higher elevations of the foothills can be found white fir, incense cedar, Ponderosa Pine, Red Fir, Lodgepole Pine, Western White pine, Jeffrey pine, and aspen. In the lower elevations, trees such as cottonwood, alders, chokecherry and willows are found.

### *Wildlife*

There is a great variety of wildlife species in the Carson City area, including mule deer, mountain lions, bobcats, black bears, beavers, coyotes, gray fox, quail, mourning dove, muskrats, raccoons, striped and spotted skunks, jackrabbits, hawks, owls, eagles, cottontail rabbits and a variety of small mammals, reptiles and amphibians. The Eagle Valley serves as an important winter range for the deer herds that migrate through the area and move down from nearby mountains. A small band of wild horses

is found in the Pine Nut range east of the City. They can occasionally be seen grazing between the foothills and the Carson River.



*Figure 6: Wild mustangs roam the mountains and foothills east of Carson City*

Drainage corridors in the west canyons (Kings, Combs, etc.) are important to wildlife because they serve many different species of small animals as both habitat and migration corridors. The richest riparian corridor in Carson City is along the Carson River.

Wetlands are both wildlife habitats and natural water filtration systems. Official wetland maps are not available for Carson City. Wetlands must typically be identified through site-specific inventory. However, probable wetlands can be found in numerous locations, large and small, in drainages and low areas throughout the valley.

#### *Rare Species*

Bald eagles visit the Carson City area in winter but are not known to nest or reside here year-round. No other *threatened* or *endangered* species have been identified in the area. Two *sensitive* species in the area are the Carson City wood nymph butterfly and the Carson wandering skipper butterfly. The wandering skipper is known to select saltgrass areas in the Hot Springs vicinity of Carson City. Both species utilize riparian habitats to complete their life cycles.

The Open Space program will facilitate the preservation of habitat for a variety of vegetation, wildlife species, including rare ones. In turn, preserving these habitats will enhance the value of Open Space lands for present and future generations.

## Open areas important to health, safety and welfare

### *Watersheds/wellheads*

Portions of Carson City's undeveloped land serve as watersheds and infiltration areas that protect the quantity and quality of the public water supply. Watersheds receive precipitation in the form of snow and rain. Precipitation that falls on the foothills gradually flows into drainageways where it is absorbed into the ground. In the ground, this water continues to flow underground toward the valley floor where it is eventually withdrawn through the City's wells. Each of the City's well heads has a designated protection area. These zones represent various time intervals (five years, ten years, etc.) that ground water will take to migrate to the wellhead. If ground water contamination were to occur, these zones reflect the margin of safety before the wellhead would likely be contaminated.

The Open Space Plan is important to the City's watershed protection program since it can facilitate the conservation of areas essential for protecting Carson City's water resources. Similarly, the City's wellhead and watershed programs can facilitate the acquisition of Open Space lands through potential partnerships.

### *Drainageways*

Drainageways collect runoff and channel it to the Carson River. Major drainageways include the west canyons (King's, Voltaire, Vicee, Combs, and Ash) as well as a number of other smaller tributary drainages. These areas are important to protect not only for their drainage functions, but also as wildlife habitat and for their aesthetic values. Drainageways typically support larger trees and shrubs and contain more diverse ecosystems. These areas are important to protect as a natural resource.



*Figure 7: Major drainageways are important for storm water functions as well as wildlife habitat.*

### *Areas Subject to Flooding*

Carson City is susceptible to flooding most frequently from intense warm winter storms that melt a heavy snow pack. The general drainage direction is from the foothills to the Carson River that carries runoff out of the Valley. The areas subject to flooding are indicated by flood plain designations on special maps. In addition to the federally designated 100-year flood plains there are other, more frequent flood occurrences (10-year, 25-year floods) that are not usually mapped but are just as

important. In the developed portion of the City, some of the flood plains disappear since the flood flows are conveyed through the city by drainage ditches and underground pipes.

The Open Space Plan can facilitate the preservation of lands subject to flooding and drainages therefore contributing to the health, safety and welfare of residents.

### **Areas of Cultural/Recreational Importance<sup>5</sup>**

Carson City's historic sites are generally related to its role as a government center and mining community in the 1800's. Recorded historic sites include historic sites related to Open Space include numerous government buildings, such as the Nevada State Capital, the U.S. Mint, the Nevada State Library, Pony Express trails, V&T railroad grade and the Carson River route of the Emigrant Trail. Mill sites are located near the V&T grade along the Carson River. On Duck Hill is located the Virginia City Pipeline and Flume that carried water from Marlette Lake and Hobart Reservoir to Virginia City. Some known pre-historic sites have been identified but remain not well publicized for their protection.

Public lands around Carson City are popular for off-highway vehicle use, horseback riding and mountain biking. The Prison Hill area receives an estimated 7,000 visits annually from local residents.<sup>6</sup> The Carson River, with its tall cottonwood trees, is a popular destination for passive recreation such as walking, fishing, and canoeing. Relatively little of the Carson River corridor is in public ownership.



*Figure 8: Carson City's open areas are used recreationally in all seasons.*

The areas of Cultural and Recreational importance enhance the enjoyment of Open Space. The plan may be one additional means of permanently preserving Carson City's historic context.

### **EXISTING PROTECTION OF OPEN SPACE**

Although there is a significant amount of undeveloped land in and around Carson City, not all of it is subject to imminent development. Land that has some form of

<sup>5</sup> Recreation on Open Space land is intended to be oriented to take advantage of the land in its natural condition, as differentiated from the more organized recreation that takes place in parks.

<sup>6</sup> Carson City Urban Interface Plan Amendment, 1996.

legal constraint to development may be considered as “already protected” and not requiring further public action to preserve it. However, even for “protected land”, there are varying degrees of protection. For example, City parks are permanently protected from development. Designated floodways<sup>7</sup> are also well protected but floodplains may be developed under certain conditions. Some federally owned lands are not permanently protected. Often, federal lands may be subject to certain kinds of development (mining, logging, and access roads) or may be transferred to public or private parties in exchange for private land to be preserved elsewhere.

Various kinds of existing protection are described below:

### **State Lands**

State Trust lands were set aside by Congress to allow each state to derive revenue for the public school system. Therefore, for the purpose of this plan, these are always candidates for development (such as subdivisions or shopping centers). Although in the past, many of these parcels have been used primarily for grazing, most states are becoming more aggressive in encouraging development that will increase state revenues. Thus, it must be assumed that State Trust Lands are highly susceptible to development.

On the other hand, forested lands owned by the state are relatively immune to traditional development. The State does have this property protected to insure the integrity of the Carson City watershed. The State Prison lands in Carson City include large open areas such as the prison farm and large natural area buffers. The State Prison system is not likely to allow urban development on these lands for security reasons. However, they may receive additional development of prison facilities. Generally, in Carson City it is expected that State Prison land will remain mostly undeveloped, although not accessible to the general public.

### **Federal Lands**

Federal lands in Carson City fall under the jurisdiction of either the U.S. Forest Service or the Bureau of Land Management. Federal lands are generally protected against most traditional development. However, they can be subject to less-intensive kinds of uses. For example, federal lands (BLM and US Forest Service) are managed under “multiple-use” guidelines, meaning they may be used for recreation, mining, logging, wildlife management, mineral extraction, etc. Federal lands may also be traded to private parties<sup>8</sup>, or given to local governments for “Recreation and Public Purposes (R&PP) that generally includes some form of construction of public facilities.

Generally speaking, federal lands located west of U.S. Hwy 395 (Carson foothills) are under the jurisdiction of the U.S. Forest Service. Federal lands located east of U.S. Hwy 395 are managed by the BLM. The BLM has recently adopted an Urban Interface Plan for the Carson City area that designates specific areas for possible R&PP uses and sets aside a large portion of the visible BLM land (east and north foothills) for protection from any development or transfer including the withdrawal of mineral rights. The U.S. Forest Service is currently developing a similar plan for its land on the west foothills of Carson City.

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<sup>7</sup> The floodplains is the fringe area of irrigation, the floodways is the channel where floodwater moves with velocity.

<sup>8</sup> The Silver Saddle Ranch was recently acquired by the BLM through a trade for BLM land in the Las Vegas area.

## Dedicated Open Space

The Existing Protection of Open Space map (in the Appendix) portrays land that is committed to remain as Open Space through some form of binding legal constraint, such as an easement or subdivision agreement. Examples of land preserved through development agreement include the Silver Oak golf course, University Heights Open Space and Empire Ranch open areas.

## Regulatory Constraints

Regulatory constraints such as zoning, hillside ordinance, floodplain regulations, etc. are sometimes significant enough to preclude, or significantly restrict, development. Several important regulatory constraints are described below:

### *Floodways, Floodplains*

Areas subject to 100-year frequency floods are identified on maps prepared by the Federal Emergency Management Agency (FEMA). Based on these maps, the City imposes development restrictions, and FEMA provides flood insurance. *Floodways*, the channel where floodwater is projected to move with velocity, are generally precluded from most types of development. However, land outside the *floodway*, but still within the 100-year *floodplain*, can be developed subject to specific engineering restrictions. Even though these restrictions are expensive, they are not prohibitively so, and therefore the floodplain is considered only partially protected.



Figure 9: The Carson River in flood condition, growing the floodway (active channel) and floodplain (fringe area of irrigation)

### *Hillside Development Ordinance*

The City has implemented specific development restrictions for hillside areas. Development on slopes over 15% must comply with the City's Hillside Development Manual, which prescribes special standards for cut/fills, roads, etc.

A Special Use Permit is required for development on slopes over 33%, and also for development above the designated Skyline. Since a Special Use Permit is discretionary, this requirement can be more of a significant constraint to development and can greatly reduce overall density. However, some development is still allowed in these conditions. Therefore, the hillside regulations are only a *modest* constraint to development.

### *Other City Ordinances*

Planned Unit Developments (PUD's) in Carson City are required to set aside up to 40% of the gross land area as Open Space. Since the PUD approach brings much greater flexibility to development, properly used it can be an effective incentive for the creation of Open Space. Large lot zoning can be somewhat effective in protecting Open Space. It has two drawbacks however: 1) it can be changed by land owner request and Board of Supervisors approval and 2) the smaller the lot size, the less Open Space is preserved. The City has given moderate-sized (1 unit/ 10 acres) zoning to most of the area outside the "blue line" (the City's boundary for providing urban services).

### **Other Types of Existing Open Space Protection**

Two potential regulatory constraints were not mapped:

#### *Wetlands*

Wetlands have a high degree of protection. They are regulated by the US Army Corps of Engineers. The regulations do allow limited development, but only with expensive mitigation. However, wetlands are not typically mapped on a regional scale, and are not mapped in any detail in the Carson City area. Thus their regulatory impact is only identifiable on a project-by-project basis and is difficult to map actual location and amount of wetland Open Space in advance, as it may be different than predicted.

#### *Watershed and Wellhead Protection Areas*

Although, the City has designated most of the west mountains as its watershed area and has identified wellhead protection, zones around the existing municipal wells (See Appendix) neither of these designations is accompanied by a regulatory requirement that reduces development. Therefore they are not yet effective at protecting Open Space.



## DEGREES OF PROTECTION

The constraints described above, whether mapped or not, are grouped below into three relative *categories of protection*:

**High** – *highly probable to remain undeveloped.*

- Dedicated Open Space
- Wetlands
- BLM/USFS Urban Interface Area

**Medium** – *may be developed, but usually at high cost or at a relatively low level of development.*

- Federal lands (BLM, USFS)
- State Prison lands
- Hillside slopes over 33%
- FEMA Floodways

**Low** – *constraints to development are modest and although restricted, some level of development is likely.*

- Private land outside of City “blue line” (urban limit)
- Skyline areas and Hillside slopes of 15% to 33%
- State Trust lands
- Floodplains

These categories are merely intended to reflect the *relative* degree of protection (or potential for development) for land that might have one or more of the above constraints.

## MASTER PLAN FOR THE FUTURE OPEN SPACE SYSTEM

### “AT-RISK” OPEN SPACE – GENERAL AREAS FOR PRESERVATION

The previous chapter identified and mapped the open lands with desirable characteristics for protection. If we eliminate from this category the lands that have *high* and *moderate-to-high* degrees of protection, we are left with the desirable land that *does not have* existing protection. This land is “at risk” (from an Open Space perspective) and is shown on the *Open Space Opportunities* map.



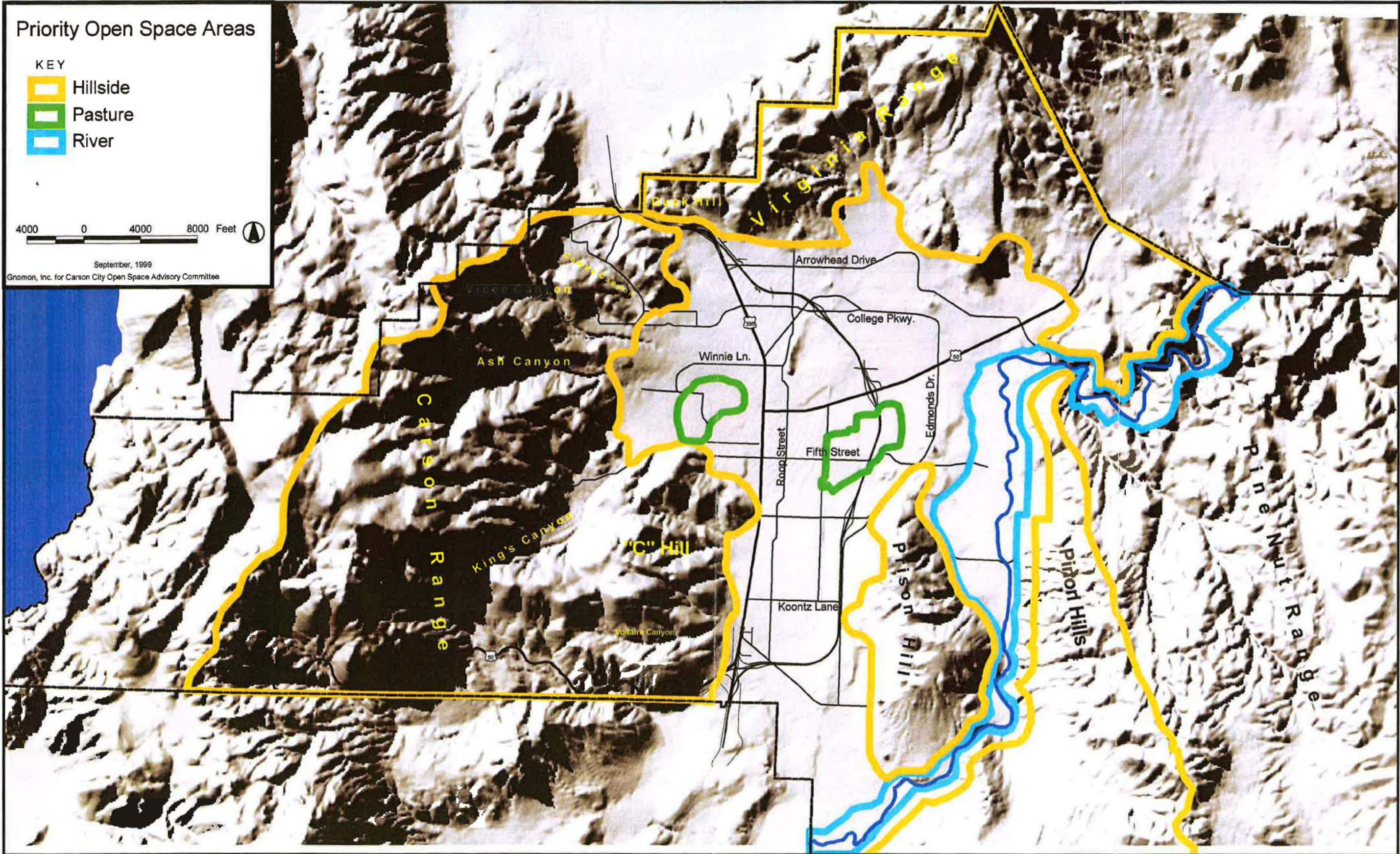
*Figure 10: We can not assume that all of the visible hillsides are already protected from development*

### CRITERIA FOR OPEN SPACE PRESERVATION

Within the general areas identified in the Open Space Opportunities Map, there are many individual parcels to choose from. Furthermore, throughout the life of the Open Space program many other parcels will be recommended or offered for inclusion. Rational decision-making is greatly aided by a consistent evaluation/prioritizing process.

The evaluation and prioritizing of sites is fundamentally subjective. To make this process somewhat more rigorous and replicable, a set of criteria can be used, which are outlined below. The criteria are divided into two categories: A) the physical characteristics of the land, and B) Prioritizing factors or relative to its acquisition and value to the overall system.

These criteria (also see the Open Space Evaluation Form in the Appendix), are intended to provide a general framework for evaluation and consistent discussion of the merits and potential of each parcel.



### Priority Open Space Areas

- KEY
- Hillside
  - Pasture
  - River



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Carson Range

King's Canyon

Ash Canyon

"C" Hill

Voltaire Canyon

Park Hill

Vigors Range

Arrowhead Drive

College Pkwy.

Winnie Ln.

Roup Street

Fifth Street

Edmonds Dr.

Koontz Lane

Plisnon Hill

Pipon Hills

Pine Nut Range

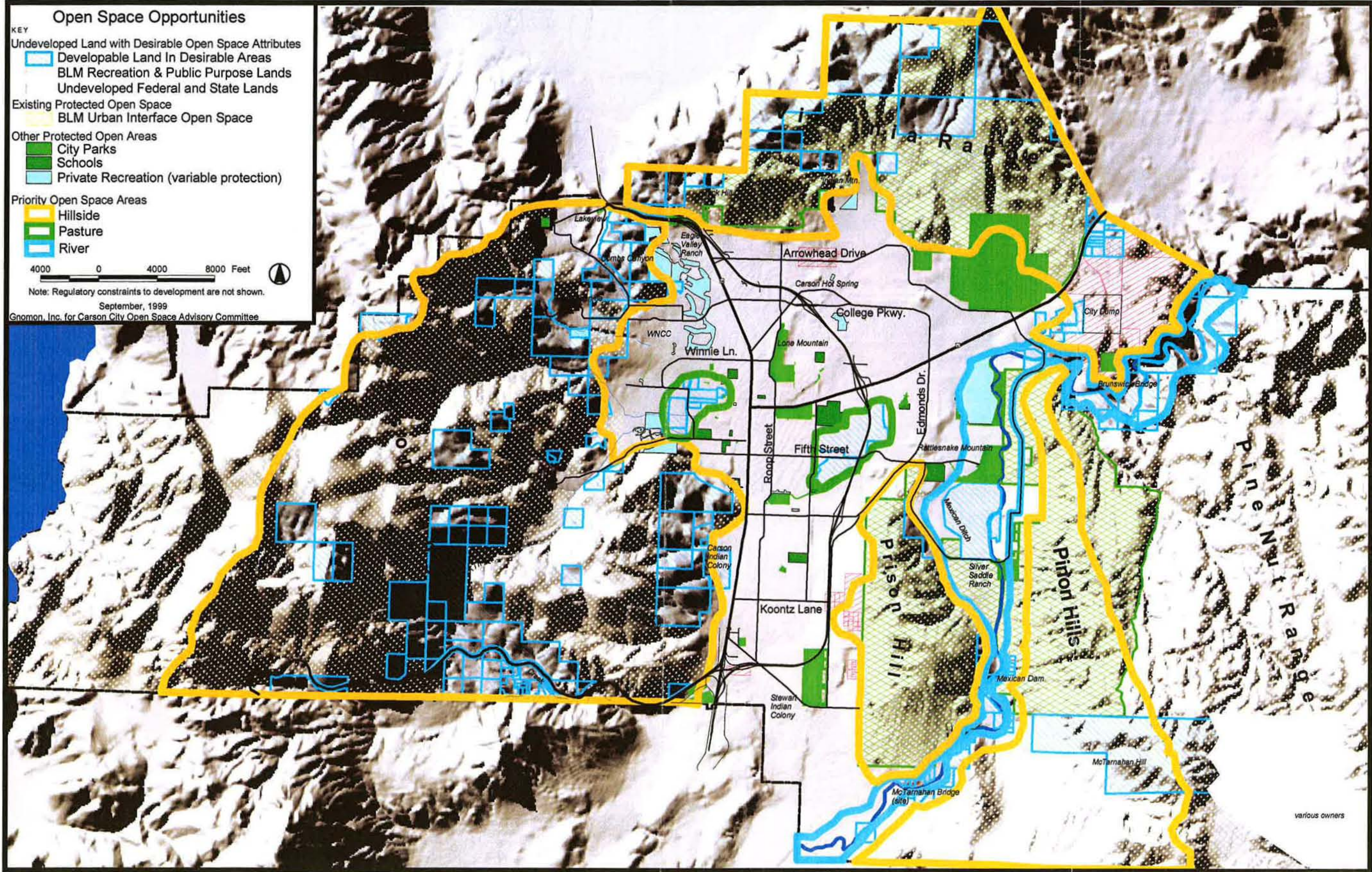
# Open Space Opportunities

**KEY**

- Undeveloped Land with Desirable Open Space Attributes
  - Developable Land In Desirable Areas
  - BLM Recreation & Public Purpose Lands
  - Undeveloped Federal and State Lands
- Existing Protected Open Space
  - BLM Urban Interface Open Space
- Other Protected Open Areas
  - City Parks
  - Schools
  - Private Recreation (variable protection)
- Priority Open Space Areas
  - Hillside
  - Pasture
  - River

4000 0 4000 8000 Feet

Note: Regulatory constraints to development are not shown.  
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various owners

## A. Physical characteristics

*The extent to which a property possesses qualities that will meet the purposes of Open Space.* Desirable qualities of Open Space for Carson City include the following:

- Wildlife habitat - provides valuable habitat and migration corridors
- Natural areas - riparian area, wetlands,
- Visibility - will protect mountain backdrop and is visible from many viewpoints
- Land forms have topographic variety and visual interest
- Size - larger parcels generally better than small ones for natural Open Space
- Accessible - public access is preferred
- Historic, cultural resources - archeology, historic and local landmarks
- Health, safety and welfare - protects water supply, avoids flood hazards and improves air quality
- Will help preserve the Carson River Corridor
- Carson Foothill Area - close enough to be convenient for public access
- Provides connection to Open Space or trails
- Preserves existing agriculture irrigation or grazing



*Figure 11: Trail connections to Open Space are a key objective of the Master Plan*

## B. Acquisition circumstances and value to the system

Over and above a property's physical condition, there are a variety of circumstances that can dramatically affect a property's cost and relative ease of acquisition. They include the following:

*Does the parcel represent a unique physical condition?*

Even though the parcel may be small, the physical characteristics may be of such critical nature that the parcel is more important than another larger parcel or one with conditions that are more common to the Carson City area.

*Can the property be acquired relatively easily? Are the terms favorable? Is there a potential to leverage funds?*

The ability to acquire a parcel with out adversity, and with partners will lower the net cost and enables limited resources to be spread further. The disposition and motivation of the landowner is important. Cases where the landowner is interested in conservation will generally result in a more affordable project.

*Is there urgency?*

Sometimes the threat of development or the loss of an opportunity makes one parcel more important at a given time, than another.

*Is the parcel part of the Open Space Element of the Carson City Master Plan?*

A parcel that will fill in a key part of the plan may be more valuable in the long run, than a more unique parcel that cannot be connected to the system.

*Is there community support for conserving the parcel as Open Space?*

Parcels that have demonstrable community support for conservation, as Open Space, should be strongly considered particularly where such support might lead to opportunities for public-private partnerships for conservation and management. Community partnerships are essential for obtaining many types of funding, particularly grants.

*Does the parcel present any unusual maintenance or development costs?*

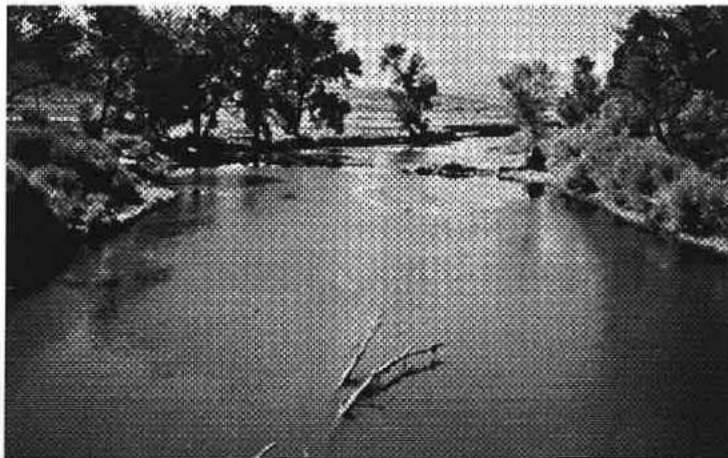
Unusual costs may stem from the presence of environmental contaminants, or the need for drainage or other improvements. Parcels with such characteristics should be evaluated in light of the additional costs.

## **DESIRED OPEN SPACE AREAS**

After applying these Open Space criteria, the Open Space Advisory Committee has identified several key areas for initial Open Space preservation:

- Carson River corridor
- Scenic vistas and visible hillsides
- Working agricultural areas in or near the City
- Linkages for trails, trail heads and connection of Open Space parcels (these are shown in the Valley Floor Connectivity map)

These areas are shown on the *Priority Open Space Areas* map.








*Figure 12: The Carson River corridor is one of Carson City's key desired Open Space areas*

The Open Space Access and Linkage map shows all the Open Space opportunities and existing parks, in the context of the City's proposed trail system. This map shows how the trails system can potentially link parks and Open Space into a continuous, diverse system that will serve all quadrants of the City. It also helps identify general corridors through developable land that should be preserved, even if the entirety of the parcel is not preserved.





# Open Space Access and Linkages

## Proposed and Existing Trails, Paths, Lanes, Shared Roadways\*

-  Route Lying on Developable Land (note - approximate route only)
-  Proposed and Existing Trails, Bike Lanes, Shared Roadways

-  Undeveloped Land with Desirable Open Space Attributes
-  Developable Land In Desirable Areas
-  BLM Recreation & Public Purpose Lands

-  Existing Protected Open Space
-  BLM Urban Interface Open Space

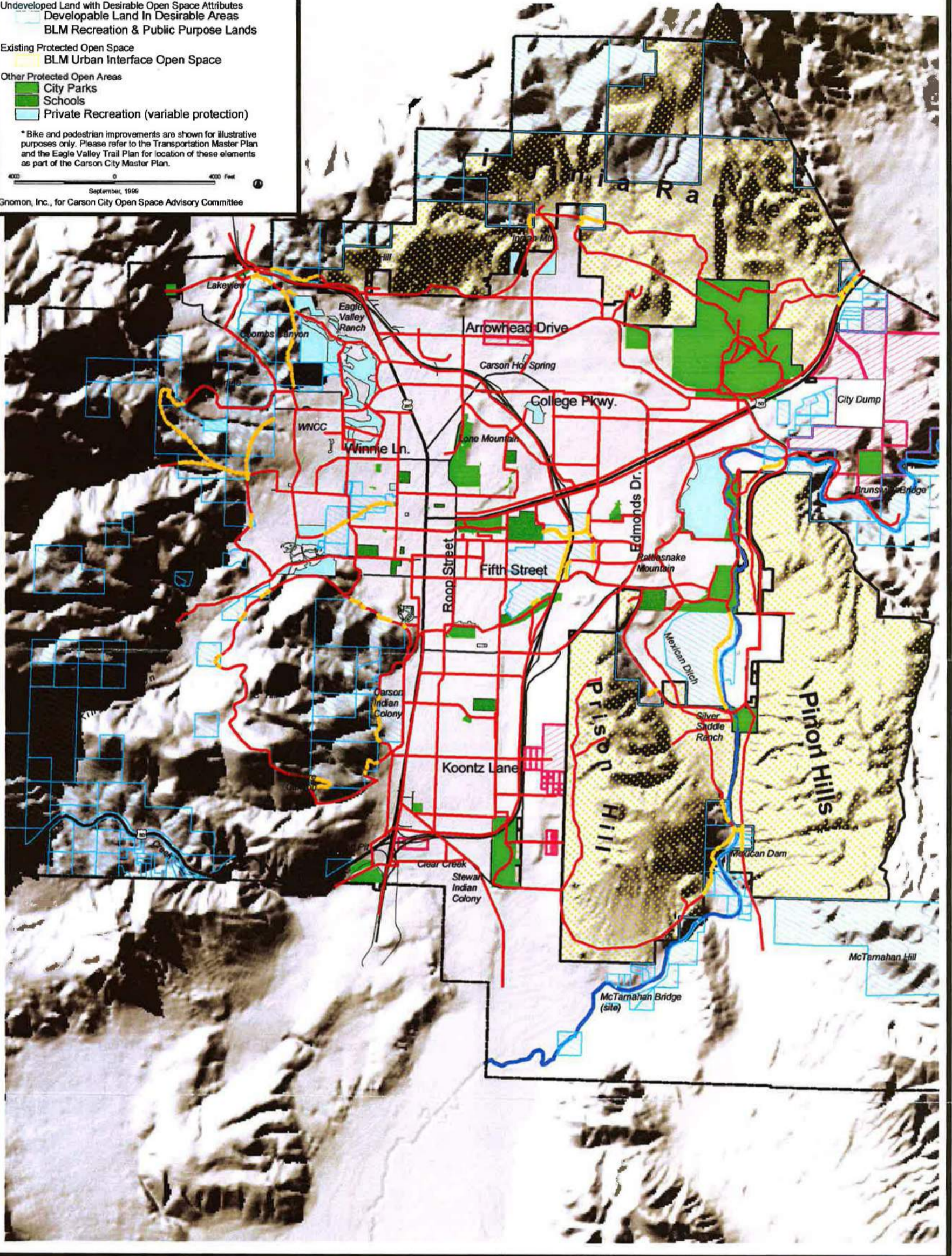
-  Other Protected Open Areas
-  City Parks
-  Schools
-  Private Recreation (variable protection)

\* Bike and pedestrian improvements are shown for illustrative purposes only. Please refer to the Transportation Master Plan and the Eagle Valley Trail Plan for location of these elements as part of the Carson City Master Plan.

0 4000 Feet

September, 1999

Gnomon, Inc., for Carson City Open Space Advisory Committee





## APPROACHES TO LAND PROTECTION

### CARSON CITY'S OPEN SPACE STRATEGY

The Open Space sales tax will initially generate approximately \$700,000 per year for the acquisition and management of Open Space. (this will increase in subsequent years or the sales tax is projected to increase) At an average price of \$30,000 per acre this will allow the purchase of approximately 23 acres.

Since this amount is small, relative to the need, acquisition alone will not achieve the Open Space objectives defined above. This suggests the City must exercise a high degree of creativity and work with as many partners as possible to leverage all available resources. The key elements of this multi-faceted strategy are as follows:

#### **A. Work with landowners to find win/win solutions.**

Often, by engaging landowners early in the process, and flexibly exploring a variety of options with them, new ways, or new combinations of ways, can be found to meet the objectives of the public and the landowner. In many cases, the options available and their implications are not known by landowners. For example, a below-market sale can generate tax credits that might be extremely valuable to a corporate seller. Estate considerations can be very significant to others. Even the designation (without purchase) of Open Space will increase the value of the remaining land in a subdivision.

#### **B. Use the most appropriate preservation tools, and where appropriate, use multiple tools in combination with each other.**

The Preservation Tools section below outlines 12 ways that Open Space can be secured. A number of these will allow property to be preserved at little or no cost, or at least acquired at prices favorable to the City. They accomplish this by allowing the City to structure deals that are favorable to the varying tax and estate conditions of the sellers. Several of the tools can be used in combination with others - increasing the benefit to both buyer and seller.

#### **C. Purchase lands only when necessary.**

The sales tax proceeds will only purchase a relatively few acres per year. Thus, direct purchase of land should be a last resort, when all other options have been exhausted. Even then, strategic, catalyst purchases should be considered first and foremost. These are purchases that might, for example, preserve a key parcel (around which other strategies can be used to tie in adjacent parcels), to provide matching funds for public or private grants, etc.

#### **D. Prioritize acquisitions using the Open Space Evaluation Form**

It will be important to focus on the most important opportunities and urgencies in any given budget year. The use of a standard set of criteria will go far to reduce

subjectivity, help the public understand the basis for decisions and bring continuity from year to year. These criteria are outlined in a following section. Purchase land only when necessary.

**E. Work with partners whenever possible to leverage other resources.**

There are many agencies and organizations with interests in Carson City that could be coordinated to achieve many Open Space objectives. These cooperative actions can range from intergovernmental agreements (such as the Urban Interface Plan recently endorsed by the City and the BLM) all the way to working with land trusts and conservancies to provide “bridge” financing and to help negotiate complex transactions. The Wetland Reserve Program and the Farmland Protection Program of the U.S. Department of Agriculture are examples of possible partnering options. Even within the City there are opportunities for interagency action (such as among Utilities, Parks and Recreation, Public Works and Open Space) to jointly acquire a parcel or an easement. The OSAC can play a key facilitator role in coordinating these multi-agency efforts.

**F. Make acquired Open Space permanent.**

Land acquired for Open Space should be permanent; especially those procured with public funds. This might be accomplished by ordinances or recording of restrictive covenants and establish specific policies and procedures regarding the change of use of Open Space. Such security will also assure landowners that a donation of land will be permanent.

## **PRESERVATION TOOLS**

Listed below are a variety of means that can be used to protect Open Space. Relatively few involve outright purchase of land. Others utilize incentives related to development regulations or tax law. Many of the tools can be used in combination.

### **1. Conservation easement**

A conservation easement is a voluntary and permanent agreement to restrict the developability of one’s land in order to preserve conservation values. The easement can be donated by the landowner (usually with a tax benefit for the value of development that is precluded), or purchased by a public or non-profit entity. The landowner retains ownership of the land and the uses that are not restricted in the easement. The purchaser/recipient is required to make periodic inspections to assure the conditions of the easement are being applied. Like all easements, it applies to future owners of the land. A conservation easement can be very flexible, limiting development as much as the landowner desires. Since the easement restricts future development, it reduces the value of the land and can therefore be an effective means of reducing estate taxes.

## **2. Cluster development**

Instead of spreading development evenly across a parcel, cluster development results in smaller lots grouped on one portion of the site, leaving the rest of the land undeveloped. For example, on a 10-acre tract of land zoned for 1 unit per acre, rather than 10 1-acre lots, cluster development might result in 10 ½ acre lots, leaving 5 acres of Open Space. Cluster development can be implemented through zoning requirements or incentives (more units if they are clustered). Usually site plan criteria are established so the Open Space protects the most valuable resources: agricultural land, wildlife habitat, visible hillsides, etc. The Open Space is usually protected by a permanent conservation easement granted to a public agency or land trust. Currently the Carson City Planned Unit Development ordinance allows the use of this tool.

## **3. Deed restrictions/covenants**

For landowners that prefer not to deal with government or non-profit entities, but still wish to set aside land for Open Space, a deed restriction or covenant may be more acceptable. Since deed restrictions and covenants are enforced by the other parties to the agreement (adjacent landowners), not by the government, enforcement is not assured and as a last resort must be done through the court system, which makes it less likely. Also, the restrictions are not perpetual and do not provide tax benefits of charitable deductions, as do easements.

## **4. Reserved life estate**

Allowing the landowner to continue to use the property during their lifetime and/or the lifetime of their immediate family may remove a barrier to a sale or donation by making it possible to take advantage of the income while still enjoying the property.

## **5. Cash purchase**

Cash purchase at fair market value is one of the most common transactions between landowners and a public entity. Nevertheless, while this may yield the greatest gross return, capital gains, estate and other taxes may make other types of transactions more attractive in the long run.

Cash purchases can be made in two ways:

- Annual budgeting – from the annual income of the entity (pay-as-you-go)
- Bond issue – from bonds sold to raise a large amount of capital, repaid from annual income over multiple years.

The purchase can include a variety of considerations to respond to the financial/tax circumstances of the seller.

### *a. Bargain sale*

A bargain sale is a combination of sale and gift to a government or non-profit entity. It enables the seller to realize income and tax benefits from a charitable gift for the difference between the fair market value and the bargain sale price.

*b. Charitable gift annuity*

For property owners that have held land for a long time with a substantial appreciation in value there may be significant tax advantages in donating the property to a public entity in exchange for an annuity payment for retirement program.

*c. Installment purchase*

An installment purchase is a purchase in multiple payments, usually over a number of years. This can benefit the seller by placing them in a lower tax bracket, and usually benefits the purchaser in allowing them to spread their acquisition over more properties. An interest rate is built into each payment. If the purchaser is a public entity the interest may be exempt to the seller.

*d. Rolling option*

Another means to extend a purchase over a number of years is to purchase it through a series of options. An option is the right, but not an obligation, to purchase property at a specified price before a specified date. It may be used for example, by a City that is prohibited from entering into contracts (such as an installment purchase) that would bind future Board of Supervisors. To effect a rolling option purchase, the property is divided into multiple options. The purchasing entity initially pays for all the options (usually for a token price) and then exercises one of the options each year, while renewing the options on the remaining parcels. Usually, the options specify that the parcels be purchased in sequence from least-attractive (for Open Space purposes) to most-attractive, so there is incentive for the purchasing entity to complete the entire purchase and not leave the landowner with an unusable parcel at the end.

*e. Bridge financing/land trust*

Sometimes a land trust, especially a larger one such as the Trust for Public Lands, will acquire land for a public entity and then resell it to the public entity at favorable terms. Often, the purchase price is set below market, the difference being designated as a tax-exempt donation by the seller to the land trust and/or the public entity.

## **6. Donation or gift**

Over and above public-spirited citizens, landowners in special financial/tax circumstances may find charitable donation particularly advantageous for tax and estate planning purposes.

## **7. Land exchange**

Public entities occasionally have properties that are of suitable size and location to make them attractive to be traded for private lands desired for Open Space. Land exchanges are generally done on the basis of appraised value rather than size. Land trades can be time-consuming and complex but can be beneficial to both the seller (no tax for an equal exchange) and the purchaser (no cash required).

## **8. Purchase of development rights (PDR)**

While not currently available in Carson City, PDR may be attractive to a landowner that desires to retain ownership and use of the land, but does not wish to develop it.

PDR is a means of compensating an owner for relinquishing the development potential of his/her land. The development potential (right) is purchased by a public entity and extinguished. The value of a development right is the difference between the value of land as farmland (or vacant land) and its value for development. For example, if a 10-acre tract of farmland (without development potential) would sell for \$30,000 and the same 10-acre tract of land with development potential sell for \$100,000, the difference (\$70,000) would be the value of the development rights. Furthermore, if the zoning of the land (say 1 unit per 5 acres) allowed two units to be built, these two development rights would have a value of \$35,000 each. As a general rule, the value of development rights ranges from 30% to 80% of the fair market value of the land, usually in direct proportion to the closeness of roads, utilities, and other services that allow development. When development rights are purchased, the land is usually restricted from future development through a deed restriction or conservation easement granted to a non-profit organization.

## **9. Transferable development rights (TDR)**

TDR's are similar to PDR's in that the seller can be compensated for relinquishing development potential, but instead of being purchased and extinguished, the development rights may be purchased by private entities and transferred to other parcels of land. To be sure the TDR's are placed in acceptable locations, some communities formally designate "sending" and "receiving" sites for TDR's. The "sending" sites are areas desired to remain as Open Space; the "receiving" sites are areas that are suitable for higher development densities. Because of the difficulty in establishing appropriate values for the TDR's, and of matching buyers and sellers, the most successful programs<sup>9</sup> have been the result of establishing a public "bank" to buy and sell TDR's. A TDR "bank" usually requires significant capital to initiate. To be able to sell and purchase development rights requires the creation of a formal system to record and track the transactions. Once implemented, a TDR program can be an effective means of preserving Open Space at little public cost, though it does require a well-managed effort to maintain the system.

## **10. Estate planning**

The combination of state and federal inheritance taxes can create obligations of 55% or more of the value of the property. Often, inheritors are required to sell the inheritance to pay the taxes. A surprising number of landowners are not knowledgeable about inheritance taxes and are unprepared for the consequences to their estate. Land trusts and other public agencies seeking to preserve Open Space should actively encourage landowners to seek proper assistance in estate planning. In this process, landowners will be more likely to become aware of the advantages and opportunities for charitable donations to reduce estate taxes.

## **11. Land preservation development**

A recent innovation is special not-for-profit organizations that achieve Open Space preservation objectives through limited development. They typically acquire a property and do limited, carefully planned development to recover the costs of the land. This approach requires specialized expertise and initial funding. Although it

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<sup>9</sup> Montgomery County, Maryland; Boulder County, Colorado.

does result in some development, it has been found to be effective in preserving key parcels in areas where other Open Space tools are not workable.

## **12. Intergovernmental agreements (IGA's)**

IGA's are a form of cooperation between governments or agencies. Carson City and the BLM have recently entered into an Urban Interface Plan, a form of IGA, to protect the north and east foothills abutting the city. A similar agreement is being developed with the Forest Service. Possible candidates for other IGA's include Nevada Forest and State Trust Lands, Washoe, Storey, Lyon and Douglas counties. Possible topics that could be addressed in IGA's include: appropriate land uses on lands that have high value for Open Space, continuity of trails and coordination of trail heads, common Open Space objectives and priorities, reciprocal review of development proposals, annexation considerations, etc.

## MANAGEMENT OF OPEN SPACE

### GENERAL REQUIREMENTS

The Open Space plan has been developed through the staffs of the Parks and Recreation Department and the Community Development Department, under the overall direction of the OSAC. Initially, the City's Open Space responsibilities will include public awareness, intergovernmental coordination and property negotiation/acquisition. As the City begins to acquire land and/or easements, it will begin to incur new responsibilities. Eventually, they will include maintenance of improvements, environmental stewardship, and public safety. A comprehensive list of ultimate responsibilities include:

#### *Public Safety*

- Leash laws, off-leash areas (coordinate with Env. Stewardship tasks)
- Provisions for fire protection, flooding
- Remedies for infractions

#### *Property Acquisition*

- Evaluation, prioritization
- Contact with property owners and/or agents
- Coordinate: title search (including mineral and water rights), hazardous material surveys
- Legal forms for purchase of fee, easements, accepting charitable donations, etc.
- Coordinate efforts of others: land trusts, agencies, governments)
- Recording deeds, agreements and assuring compliance with their conditions

#### *Environmental Stewardship*

- Protection/rehabilitation of habitats, species
- Location of improvements to minimize impacts
- Monitoring health of environments
- Fire management

#### *Maintenance of improvements*

- Signage (identification, regulations)
- Fencing
- Drainage & erosion control
- Re-vegetation
- Weed control

#### *Public awareness/education*

- Nature hikes
- Presentations (schools, community groups)
- Publications (brochures, newsletters, cable TV tours)
- Summer jobs for youth
- Outreach to potential land donors, volunteer organizations
- Corporate stewardship, Adopt-a-Canyon, etc.
- Trail etiquette

## **MANAGEMENT ROLES/RESPONSIBILITIES**

Carson City's Open Space responsibilities can be filled initially by existing City staff that will "wear several hats". Eventually, the program will need its own staff members to oversee various Open Space functions. It will be important, even from the outset, to have a clear definition of roles and responsibilities.

To this end, initial roles and responsibilities for Open Space will be assigned as follows:

### *Open Space Coordinator<sup>10</sup>*

- Coordinates the work of other city staff members assigned to Open Space
- Act as point person and coordinates negotiations with property owners
- Work with the Parks & Recreation Director to prepare the annual budget for Open Space activities
- Assure that Open Space maps are current and the Open Space master plan is updated at least every 5 to 7 years
- Coordinate Open Space activities, land acquisitions and management with other City departments
- Present recommended actions to the Open Space Advisory Committee and to the Board of Supervisors
- Direct preservation and construction work on Open Space lands purchased by the City

### *Open Space Advisory Committee*

- Make recommendations to Board of Supervisors regarding Open Space purchases, physical improvements, plan review, and development recommendations and policies
- Assist the Open Space Coordinator with preliminary property negotiations and provide resource information

### *CC Board of Supervisors*

- Approve amendments to the Open Space Element of the Carson City Master Plan
- Authorize negotiations and purchases of Open Space by the City
- Approve Open Space Implementation plan, policies and procedures

## **POLICIES**

Most organizations are guided by policies. Policies are "decisions made in advance". They usually address recurring issues so they don't have to be debated each time they come up. Policies help remove bias and bring predictability to the operation of an organization. Policies can be formal or informal. Organizations that operate in the public domain are usually required to develop and follow formal policies. Since Open Space has not been a domain of Carson City in the past, there are few, if any Open Space policies already established.

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<sup>10</sup> Because this position may include physical improvements and technical environmental expertise (weed control, wildlife monitoring, etc.) this position should be located within the purview of Parks and Recreation Department.



Conflicts will inevitably occur between preservation of resources and public use. To resolve these issues it will be important for the City to begin to develop and follow formal policies with regard to Open Space. In the Appendix are listed a preliminary list of policies, that will undoubtedly be refined and amended as the Carson City Open Space program matures.

This is not to suggest that Open Space will be inflexibly bound by policies. Rather, it merely assures that when a decision is made to depart from “policy”, it will do so consciously and with justification.

See the Appendix for Open Space Policies.

## IMPLEMENTATION

The Open Space Advisory Committee has developed an aggressive implementation plan with short, medium and long range action steps. These action steps combined with a general five year time line are intended to focus the Committee and City staff on priorities, provide accountability to the Board of Supervisors and set a realistic expectation level within the community for implementation of the Open Space Element to the Master Plan.

### SHORT RANGE ACTION STEPS (ADOPTION OF PLAN TO TWO YEARS)

- Recommendation 1:** Adopt the Open Space Plan as an Element of the Carson City Master Plan.
- Lead Responsibility:** O.S.A.C. / Community Development Department
- Recommendation 2:** Formally assign responsibilities for Open Space management to the Parks and Recreation Department. Continue to use existing staff of Parks and Recreation Department and Community Development Department to implement the Open Space program for the first year. Assign responsibility for Open Space sub-tasks that will affect other City departments. Establish annual goals and accountability criteria.
- Lead Responsibility:** O.S.A.C. / Parks and Recreation Department /Community Development Department
- Recommendation 3:** Identify key parcels for conservation easements / land acquisition for the first two years of the program. Protecting the City's visual backdrop, the irrigated agricultural lands and the Carson River corridor should be the highest priority initially. Follow steps in Land Protection Strategy.
- Lead Responsibility:** O.S.A.C.
- Recommendation 4:** Develop a coordinated City / O.S.A.C. review process for developers inquiring about potential impact of Open Space on their property. Use the City's Development Standards and brochures to communicate with the public and developers. Establish these standards as part of City policies, guidelines or ordinances to be developed subsequently to the adoption of this plan.
- Lead Responsibility:** Community Development Department / Planning Commission
- Recommendation 5:** Analyze feasibility of bond issue if necessary to purchase initial parcels.
- Lead Responsibility:** O.S.A.C. / Parks and Recreation Department / Finance Department

**Recommendation 6:** Assign individuals on the OSAC to assist with negotiations for real estate acquisitions. Assure those persons and key city staff who are conversant with all of the potential acquisition tools. With input from City Attorney, establish procedures for contact with potential property owners.

**Lead Responsibility:** O.S.A.C. / City Manager / City's Attorney Office / Parks and Recreation Department / Community Development Department

**Recommendation 7:** Conduct a series of neighborhood meetings with the public to identify "linkage" properties on the valley floor for land acquisition / easements. Use Carson City Bicycle System Plan and Eagle Valley Trail System as basis for implementation.

**Lead Responsibility:** O.S.A.C. / Parks and Recreation Department

**Recommendation 8:** Continue to actively monitor and participate with the U.S.F.S. and B.L.M. in the planning process and land trades, exchanges and disposals for the public lands managed by these Federal agencies within Carson City.

**Lead Responsibility:** Community Development Department / Parks and Recreation Department / O.S.A.C.

**Recommendation 9:** Explore the feasibility of entering into a Memorandum of Understanding with the U.S.F.S., B.L.M., Natural Resources Conservation Service, U.S.G.S., and Nevada Division of Wildlife wherein they agree to provide specialized expertise needed in order to analyze land acquisition proposals.

**Lead Responsibility:** O.S.A.C. / Parks and Recreation Department / Community Development Department

**Recommendation 10:** Compile a list of "essential resources" including partnerships with American Land Conservancy and establishment of a Land Conservation Trust.

**Lead Responsibility:** O.S.A.C. / Parks and Recreation Department / Community Development Department

**Recommendation 11:** Supplement the Hillside zone district, especially for the 15% to 33% slope category with design guidelines. The design guidelines will provide recommended suggestions for site layout, hillside engineering principles, architecture, construction materials and methods and best management practices. These guidelines will be directed toward conserving Open Space and/or minimizing project impacts to Open Space values on hillsides.

**Lead Responsibility:** O.S.A.C. / Community Development Department / Development Engineering

**Note:** The development approval process can be used to effectively conserve onsite resources and maintain connectivity in wildlife habitat and riparian areas, while remaining "density neutral". This option is implicit in the

existing Hillside zone district. Clearer, explicit direction in how it can be applied will make it a more viable choice for landowners, developers, and builders.

**Recommendation 12:** As part of future master plan developments or amendments to the Boundary of Urban Services or “Blueline”, require the dedication of Open Space resources that have high value to the Open Space system. Develop specific criteria for evaluating areas as additions to the City’s Open Space system and applied in the master plan.

**Lead Responsibility:** Community Development Department/O.S.A.C.

**Recommendation 13:** Develop a non-profit “Friends of Open Space” organization and volunteer program to increase the public’s awareness of Open Space issues. Promote a volunteer work force for clean up days on City Open Space and resource management restoration projects

**Lead Responsibility:** O.S.A.C.

**Recommendation 14:** Conduct semi-annual joint meetings of the Open Space Advisory Committee and the Carson River Advisory Committee to discuss key land conservation easements or land acquisitions along the Carson River which would accomplish goals of the Carson River Master Plan and the Open Space Element of the Master Plan.

**Lead Responsibility:** O.S.A.C. / Carson River Advisory Committee / Community Development Department/ Parks and Recreation Dept.

**Recommendation 15:** Work with Carson City Property Management Committee and City Departments to identify city-owned lands that have natural value for use as Open Space. Pursue the protection of those lands by deed restrictions, and their public use subject to specific conditions and criteria.

**Lead Responsibility:** Open Space Coordinator / O.S.A.C. /Community Development Department

**Note:** To evaluate land disposal requests and recommendations from the Property Management Committee for approval or disapproval; Parks and Recreation to use and maintain if the property is designated Open Space. Consider lands that have a demonstrable natural significance or value based on the purposes and selection criteria set forth in the plan. City owned land placed in Open Space status would be the responsibility of the Parks and Recreation Department.

#### **MEDIAN RANGE ACTION STEPS (TWO TO FOUR YEARS)**

**Recommendation 16:** Review the need to designate an Open Space Coordinator and to re-assign Open Space.

**Lead Responsibility:** Parks and Recreation Department / O.S.A.C.

**Note:** With the approval of O.S.A.C. the Open Space Coordinator position would receive half time funding through the Quality of Life Initiative - Open Space Funds.

**Recommendation 17:** Establish standards for Open Space improvements: fencing, signage (identity, regulatory).

**Lead Responsibility:** Parks and Recreation Department

**Note:** Actual construction (i.e. restrooms, trails, etc.) will be administered by the Parks and Recreation Department.

**Recommendation 18:** On a consultant basis hire GIS firm to maintain and update the Open Space GIS map system as a public information resource. Discuss the feasibility of moving the Open Space mapping needs and requirements into the City' structure by using Information Service for creation of maps and drawings.

**Lead Responsibility:** O.S.A.C. / Parks and Recreation Department / Information Services

**Note:** The information developed for the Open Space Plan needs to be refined / expanded and then made available as a central information reference for Open Space resources for the community. The maps could be used to educate property owners about the resources on their land. The data could also be used by land trusts in pursuing voluntary conservation options with property owners, by developers in preparing master plans, development plans, and subdivision plats, and by planners in applying land development policies and regulations pertaining to Open Space conservation.

**Recommendation 19:** Develop basic knowledge among key O.S.A.C. members and city staff of appraisal techniques and land values in relation to proposed Open Space properties.

**Lead Responsibility:** O.S.A.C. / Open Space Coordinator/ Parks and Recreation Department / Community Development Department/ Assessors Office

**Recommendation 20:** Adopt the Open Space Plan as the standard of reference for review of Open Space designations in master plans submitted for amendment.

**Lead Responsibility:** Community Development Department / Open Space Coordinator

**Note:** Require those master plan amendments to be reviewed for consistency with approved citywide plans, including the Open Space Plan.

**Recommendation 21:** Develop programs to increase awareness of the tax and estate planning benefits of donations of land and conservation easements. Enlist aid of Nevada nonprofit land trusts in the effort.

**Lead Responsibility:** O.S.A.C. / Open Space Coordinator

**Note:** Awareness of the benefits of conservation easements will broaden the options for private landowners and allow the City to tailor more creative approaches to conserving specific areas.

**Recommendation 22:** On a regional basis, work with surrounding counties to coordinate Carson City's Open Space goals with their adjacent land uses and visual backdrops.

**Lead Responsibility:** Community Development Department/ Open Space Coordinator

#### **LONG RANGE ACTION STEPS (FOUR TO FIVE YEARS)**

**Recommendation 23:** With the recommendation of O.S.A.C. and approval of the Board of Supervisors, the Parks and Recreation Department would hire an Open Space Manager to be responsible for continued development of the Open Space Program and management of Open Space properties.

**Lead Responsibility:** Parks and Recreation Department / O.S.A.C.

**Note:** The assumption at this point is the Open Space Program has matured and the City has acquired property that needs to be managed. The Open Space Manager would be a full time position and would receive funding from the Quality of Life Initiative - Open Space Funds

**Recommendation 24:** Collect Open Space GIS Mapping and Resource Information from Gnomon, Inc. City to maintain and update Open Space mapping resources for public information resource and property management.

**Lead Responsibility:** Open Space Manager / Informational Services

**Recommendation 25:** Prepare for future review and update of the Open Space Element to the Master Plan required after five to seven years after adoption of plan.

**Lead Responsibility:** Open Space Coordinator/ Community Development Department

#### **O.S.A.C. LOW PRIORITIES ISSUES**

**Recommendation 26:** Conduct an analysis of requirements, and costs vs. benefits of setting up Purchase of Development Rights (PDR) and Transferable Development Credits (TDC) systems to preserve Open Space. Implement if feasible.

**Lead Responsibility:** Community Development Department / Open Space Coordinator

**Recommendation 27:** Continue to monitor and update existing soil/geology information and study their relationships to more precisely identify soil types and locations that are optimum for water infiltration (watershed/wellhead aquifer recharge). Compile data using existing City and U.S.G.S. information. Protect these areas by ordinance.

**Lead Responsibility:** Open Space Coordinator / Water Utilities Department

**Recommendation 28:** Continue to monitor and update existing information on natural areas and study this information to more definitively document significant wildlife and vegetation habitats and other resources, etc.

**Lead Responsibility:** Open Space Coordinator

# APPENDIX

## A.1 OPEN SPACE EVALUATION FORM

**Table A. Physical Characteristics**

For each parcel, select the highest value for each physical feature. If none apply, leave blank.

| Physical Feature            | Defining Authorities   | Characteristics (check if present or applicable)   | Value                                   |
|-----------------------------|--|--|---|
| Wildlife habitats/corridors | US Fish & Wildlife Service, Nev. Div. Of Wildlife, or documented scientific observation    | <input type="checkbox"/> Contains habitat or corridor for threatened or endangered (T&E) species<br><input type="checkbox"/> Contains high value habitat for non-T&E species<br><input type="checkbox"/> Contains migration corridor<br><input type="checkbox"/> Observed presence of wildlife or fish | Very High<br>High<br>Medium<br>Moderate |
| Natural communities         | US Army Corps of Eng. Or competent specialist, such as the Nevada Natural Heritage Program | <input type="checkbox"/> Has healthy, sustainable riparian area<br><input type="checkbox"/> Presence of mature canopy trees, shrubs<br><input type="checkbox"/> Majority of parcel with healthy native grasses<br><input type="checkbox"/> Contains jurisdictional (ACOE) wetlands                     | High<br>Medium<br>Moderate<br>Low       |
| Landform/scenic quality     | Committee, staff, consultants  | <input type="checkbox"/> Open water (lakes, ponds, river, stream)<br><input type="checkbox"/> Contains ridge or promontory w/ long views<br><input type="checkbox"/> Contains a valley that provides enclosure/privacy   | High<br>High<br>Medium                  |
| Visibility                  | Committee, staff, consultants  | <input type="checkbox"/> Visible from major roads<br><input type="checkbox"/> Visible only from local roads<br><input type="checkbox"/> Visible primarily from adjacent residences   | High<br>Medium<br>Low                   |
| Size                        | Committee  | <input type="checkbox"/> Larger than 40 acres<br><input type="checkbox"/> 20 to 40 acres<br><input type="checkbox"/> 10 to 20 acres  | High<br>Medium<br>Low                   |
| Accessibility               | Committee, staff, consultants  | <input type="checkbox"/> Significant portions can be opened to public<br><input type="checkbox"/> Limited portions opened to public use  | High<br>Medium                          |
| Historic/cultural           | State Historic Preservation Office,  | <input type="checkbox"/> Known or high potential archaeological resource<br><input type="checkbox"/> Historic designation (national, state or local)<br><input type="checkbox"/> Significant local cultural feature (physical landmark, working farm, unique structure, etc.)                          | High<br>Medium<br>Moderate              |
| Water protection            | CC Public Works  | <input type="checkbox"/> Within 5 year well protection zone<br><input type="checkbox"/> Within 10 year well protection zone<br><input type="checkbox"/> Contains high-infiltration soils within watershed protection area  | High<br>High<br>Medium                  |
| Flood hazard                | Federal Emergency Management Agency  | <input type="checkbox"/> Is within FEMA-designated 100 year floodplain<br><input type="checkbox"/> Is within area of known flooding  | Low<br>Medium                           |
| Prime farmland              | U.S. Department of Agriculture   | <input type="checkbox"/> Is land of statewide agricultural importance (irrigated farmland)   | High                                    |



**Table B. Prioritizing Factors**

This part of the evaluation assumes that some form of acquisition is necessary to protect the parcel(s) that will not be protected by existing City, State or Federal regulation (wetlands, flood plain, easements, etc.)

For each parcel check the most appropriate priority factor for each category below.

| Category                                  | Definition (check if present)   | Priority |
|---|---|----------|
| Uniqueness of habitat type                | <input type="checkbox"/> One of few remaining examples of at least one characteristic in Table A                    | High     |
|   | <input type="checkbox"/> Habitat or physical setting is relatively rare in Carson City                              | Low      |
| Ease of acquisition                       | <input type="checkbox"/> Landowner motivated to sell at less cost than market value                                 | High     |
|   | <input type="checkbox"/> Can be acquired with terms (options, payment structure, trade, etc.) favorable to the City | Medium   |
|   | <input type="checkbox"/> Cost are not greater than appraised value, terms are not unfavorable                       | Low      |
| Potential to share cost                   | <input type="checkbox"/> Likely, significant participation of non-City funding partners                             | High     |
|   | <input type="checkbox"/> Likely participation from other funding sources  | Medium   |
|   | <input type="checkbox"/> Likely significant participation from other City departments                               | Low      |
| Urgency                                   | <input type="checkbox"/> Development is imminent  | High     |
|   | <input type="checkbox"/> For sale (acquisition/development likely)  | Medium   |
|   | <input type="checkbox"/> Private negotiation, not on open market  | Low      |
| Is a significant part of Open Space plan? | <input type="checkbox"/> Located within an Open Space priority area   | High     |
|   | <input type="checkbox"/> Parcel is designated on current Open Space master plan                                     | Medium   |
|   | <input type="checkbox"/> Adjacent to, or can be linked to other Open Space parcel, trail or park                    | Medium   |
| Citizen support                           | <input type="checkbox"/> Has City-wide citizen support/advocacy   | High     |
|   | <input type="checkbox"/> Has local citizen support  | Medium   |
|   | <input type="checkbox"/> No significant opposition  | Low      |

## A.2: POLICIES

### 1. Purposes of Open Space

1.1 Open Space is land that is:

- in a natural or primarily natural state
- contains significant natural, visual, or cultural features that warrant protection and
- permanently protected.

1.2 Open Space in Carson City is intended mainly to preserve the natural landscape, and certain types of passive recreation, such as hiking, running, bicycling and horseback riding. Recreational facilities in Open Space areas are typically limited to trails and supporting picnic areas, interpretive facilities, restrooms, and parking lots.

1.3 Open Space in Carson City is not intended to be used for traditional active recreation facilities such as parks, playground equipment, baseball diamonds, soccer fields, and swimming pools.

### 2. Acquisition and Protection of Open Space Land

2.1 Open Space land may not be improved after acquisition except to manage, protect or provide passive recreation use, habitat for native plant or wildlife species, or to permit continuation of agriculture.

2.2 Open Space funds may be used to purchase land; to protect, preserve or restore natural resources; to afford limited public access and protect users and property.

2.3 Trails and trail-related improvements (trailhead parking, signage, restrooms, trash receptacles, etc.) will not be funded from the Open Space portion of the Ballot 18 Sales Tax. These improvements will be funded from the Parks portion of Ballot Question 18, in conjunction with conveying easements or land.

2.4 Open Space can be protected through a variety of mechanisms, including, but not limited to: donations, intergovernmental agreements, acquisition of partial-fee interests (easements, development rights, etc.), and zoning and other regulatory restraints on development.

2.5 The City will purchase land for Open Space only when no other approach is possible that will meet OS objectives.

2.6 Open Space funds may be used to purchase:

- Land
- easements that preserve the land in an undeveloped condition,
- development rights that preclude development of specific parcels, and
- water rights that may be used for the management of the land or for preservation of habitat.

2.7 Decisions to purchase Open Space lands are made by the Carson City Board of Supervisors. The OSAC makes acquisition recommendations to the Board of Supervisors, based on the directions and policies of the Carson City Master Plan, (including this and other elements)

and an evaluation of the Open Space needs of the community. Acquisition procedures are subject to all applicable federal, state and local statutes, ordinances and regulations.

- 2.8 Potential acquisitions will be evaluated according to the Open Space Guidelines form in this document. The Open Space Guidelines form may not be modified in the same meeting as they are used to evaluate a specific parcel of land.
- 2.9 The City will attempt to acquire mineral and water rights associated with or of benefit to a parcel of irrigated land if financially feasible and if consistent with Open Space objectives.
- 2.10 Potential acquisitions will be assessed for potential hazardous waste problems. Clean-up responsibilities will be delineated in the acquisition documents.
- 2.11 Acquisition includes a responsibility for stewardship. Land that is acquired will be inventoried in detail (collect existing data, photographic record, and specific studies as warranted to document unique conditions) and thereafter monitored at least annually.
- 2.12 Contact with property owners for negotiation purposes will only be conducted through the Chairperson of the OSAC for the first two years of the plan and through or with the Open Space Coordinator thereafter.
- 2.13 Generally, property purchased for Open Space may not be disposed of, or converted to another use. In certain cases it may be necessary to acquire a total property when only a portion of the property is desired for Open Space purposes. In such cases, and when identified prior to acquisition, the City may dispose of the undesired portion of the parcel and shall reimburse the Open Space fund by the higher of: the sale price of the undesired portion or the original pro-rata cost of the undesired portion.
- 2.14 Property originally acquired for Open Space may be converted to another public use, such as a park if the Open Space fund is reimbursed for the value of the converted property at the time of its conversion or original cost, whichever is higher.
- 2.15 In special circumstances, Open Space lands may be used for rights-of-way for roads provided they have been previously identified in the City's Master Plan and elements thereof. Water, sewer and other below ground utilities may be installed on Open Space lands only if adequate financial guarantees are escrowed to assure that the disturbed area will be restored to an indistinguishable natural appearance. Visible structures unrelated to the use or management of the Open Space (such as overhead powerlines, transformers, signs, etc.) will not be permitted on Open Space lands.

### **3. Management of Open Space lands**

- 3.1 Open Space lands will generally be open for passive public use and enjoyment and trails will be developed where possible to appropriate access.
- 3.2 Certain Open Space properties may be leased for continued agricultural uses such as farming and grazing. Agricultural leases may continue to afford limited public access for passive use when not precluded by safety considerations
- 3.3 A goal of the Open Space Program is the protection and perpetuation of native plants, animals, birds, fish and reptiles as part of the natural ecosystem of Open Space lands. Native plants, animals, birds, fish and reptiles will be protected from removal. Natural processes and the controlling rules and regulations of federal and Nevada wildlife agencies will be used to

- control and manage native species. Non-native species may be introduced only if they do not eliminate or displace native species and only with the approval of the appropriate federal and state agencies.
- 3.4 The City will seek to restore, maintain or improve the quality of all surface and ground water resources on Open Space lands. Activities with high potential for point or non-point source water pollution will be avoided.
  - 3.5 It may be necessary to close an Open Space property or water body temporarily in order to protect a natural resource or to make a property safe for public enjoyment.
  - 3.6 Landscape conditions caused by natural phenomena (flooding, erosion, wildfires) may be modified for habitat restoration, public safety or reconstruction of public facilities such as trails or cultural resources. Where erosion control is required, a natural-appearing method will be used.
  - 3.7 To the maximum extent possible, plantings other than agricultural crops will consist of species native to the local ecosystem. High priority will be given to management of weeds that will have a substantial impact or can be reasonably controlled. Chemical pesticides, insecticides and herbicides will be used only when staff has determined that other options are not feasible or acceptable.
  - 3.8 The City will maintain the integrity of water delivery and storage structures on its Open Space lands. It will responsibly manage water for beneficial uses to ensure the protection of water rights.
  - 3.9 The City will seek to protect significant historic, archeological and ethnographic values on Open Space lands. Potential resources will be evaluated according to Carson City's Historical Architecture Review Committee and State and National Register standards. Archeological resources shall be left undisturbed unless removal is justified for protection. Historic areas, structures or landscapes will be preserved in their present condition if that condition allows satisfactory maintenance and use within the financial constraints of the Open Space program. Cultural resources not identified as having local, state or national significance may be permitted to deteriorate naturally, unless their removal is necessary for public safety or to restore land to its natural condition.
  - 3.10 Volunteers are a valuable resource to the Open Space staff and to the public. The Open Space program will make an organized effort to provide volunteer work that is meaningful, productive and satisfying for the volunteers as well as Open Space staff.
  - 3.11 The Open Space element of the Carson City Master Plan will be updated at least every 5 to 7 years.

### **A.3: DATA SOURCES**

A variety of data sources were used to map and model natural features and areas in the geographic information system analysis for the Open Space Plan. The following is a brief description of the source data used in each map.

- A. *Carson City Urban Interface Plan Amendment*  
An amendment to the Walker Resource Management Plan, this addition wanted to identify areas where public lands would be bought and managed by the citizens of the area and lands that would be available for acquisition by State or local organizations.
  
- B. *Recreation management on wildland and urban interface public lands in Carson City*  
A cooperative effort between the Bureau of Land Management and Carson City for planning and management of outdoor recreation facilities in regards to public lands and wildlands.
  
- C. *Pine Nut Mountains Proposed Plan Amendment and Environmental Assessment*  
This assessment also served as an amendment to the Walker Resource Management Plan to establish a guide for managing motorized vehicle recreation in the Pine Nut Mountain range, to preserve the wildland from harsh motorized use impact.

### **A.4: RELATED PLANS AND STUDIES**

- A. *Carson City Master Plan Land Use Plan Element Update*  
This update was intended to establish guidelines for the creation of zoning areas and development thresholds. It accomplished this by using criteria to determine land use designations and standards for development of land.
  
- B. *Carson River Master Plan*  
A master plan that guided the preliminary study, design and implementation projects for the Carson River. It also served as a stage for the city and community to come together for the enhancement of the area, culturally, politically and geographically.

### **A.5: APPROVALS AND ENDORSEMENTS**

The following groups were given a presentation about the Carson City's Open Space master planning effort:

Carson City Rotary Club  
American Business Women's Association  
Board of Realtors  
Carson City Natives and Newcomers Club  
American Association of Retired Persons  
Seroptimist Sertoma Club

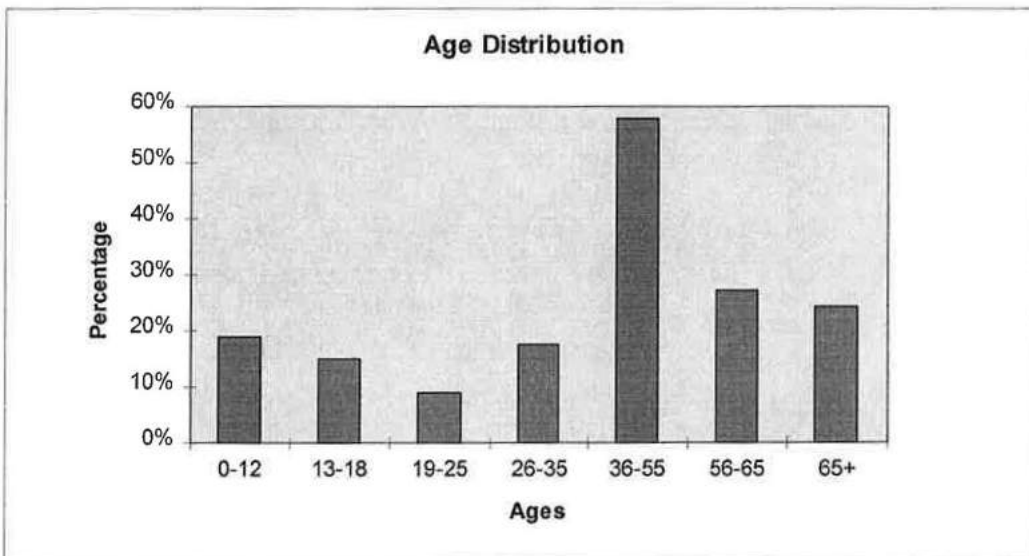
## A.6: PUBLIC OPINION SURVEY

In conjunction with the Open Space Master Plan, an opinion survey was conducted to sample the opinions of Carson residents regarding Open Space objectives and potential policies. Approximately 1,600 questionnaires were mailed out to random residents within Carson City and 503 surveys were returned (a response rate of 31.4%). Statistically, 400 or more responses creates a 90+% confidence level that the returned data is representative of the community as a whole. Several questions were compared to demographic trends to see if there was any significant difference between gender, length of time in Carson, area of residence, age etc. Answers with some significance are pointed out in the discussion below.

### Demographic characteristics

Of those who responded to the survey,

- **Gender:** 52.3% were female and 45.3% were male
- **Age:** 85% of the respondents were 36 or more years old.
- **Tenancy:** 82% have lived here for six years or more
- **Employment:** 45% of households have at least one person working for a private corporation, 34% have one or more working for a public agency, and 23.5% have one or more people that are self employed (Since there may be more than one employment type in a household, the total may exceed 100%).
- **Household size:** A two-person household was the most common.



## Attitudes toward Open Space

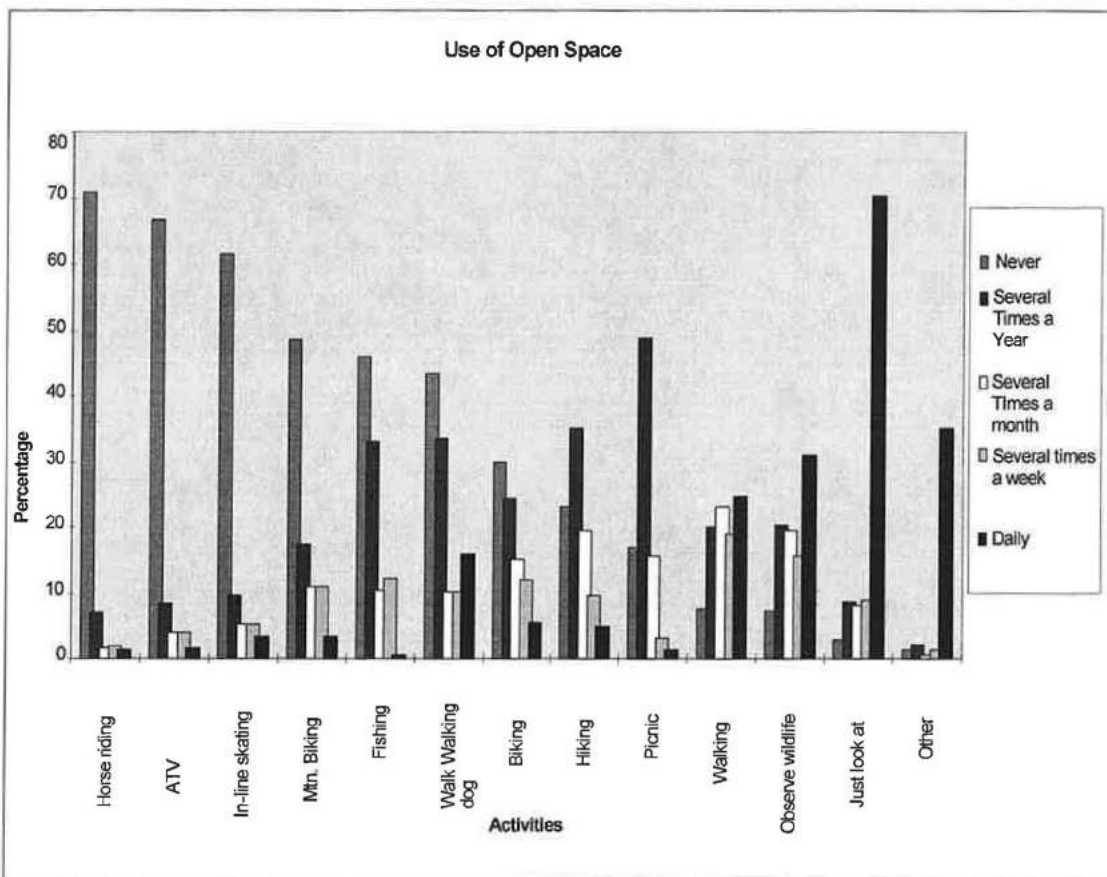
### Use of Open Space

The respondents were asked to indicate how they use Open Space. The following graph ranks the activities according to frequency of use.

Open Space greatly varies between activities, seasons and interest. The Open Space uses that received the highest overall use are:

1. Looking at Open Space
2. Observing wildlife
3. Walking

Along with *recreational* activities, respondents were asked to identify the most important ways they would use a trail system. More passive uses, such as hiking and observing, were more predominate.



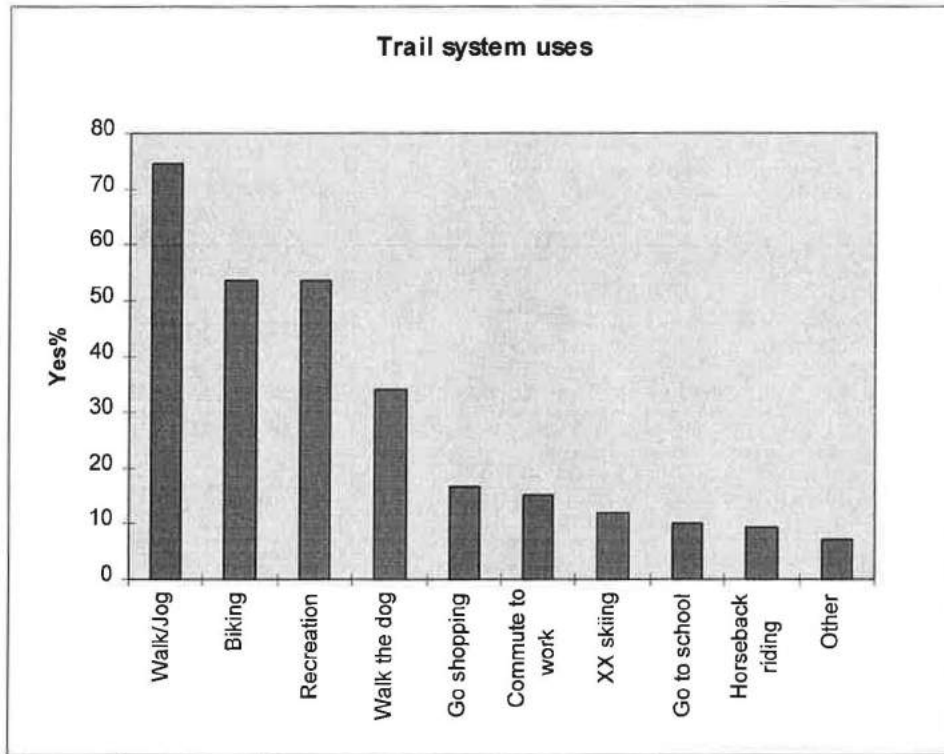
### Areas to Preserve for Open Space

The top three preferences for potential Open Space areas are:

1. The Carson River corridor,
2. Hillside visible from the city, and
3. Working, irrigated ranches.

Question #10 asks the respondent to rank reasons why Open Space should be preserved. In general, respondents ranked:

1. Preserve hillsides from development,
2. Protect wildlife habitat and to
3. Provide trails and natural areas for walking and biking.



*Acquisition of Open Space*

Methods to acquire Open Space. (Question #8)

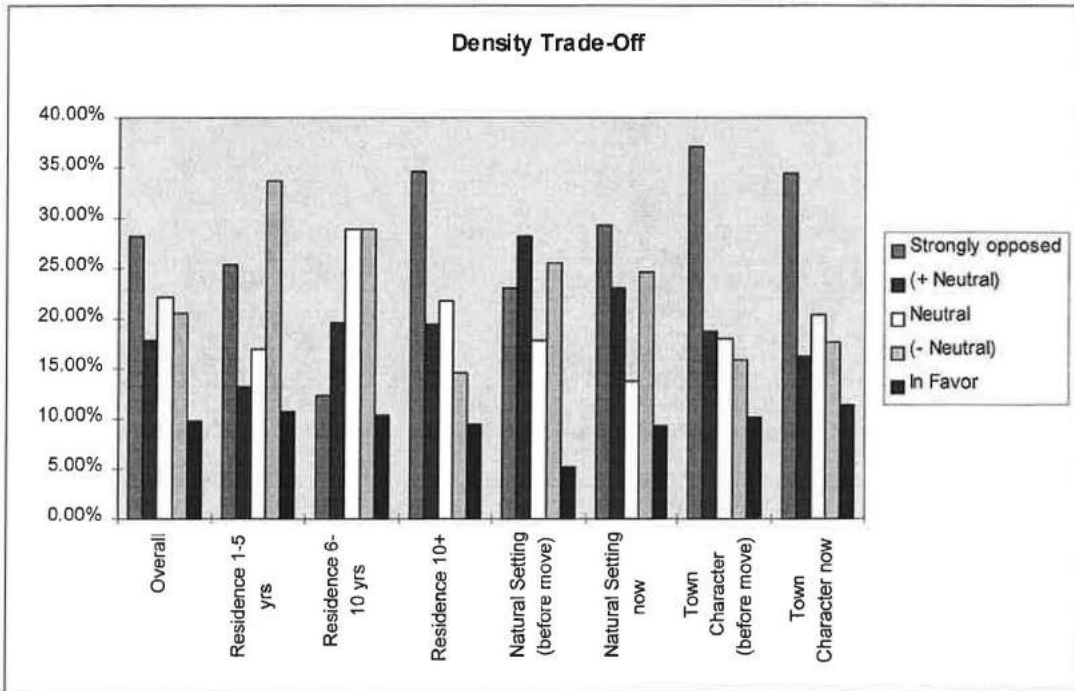
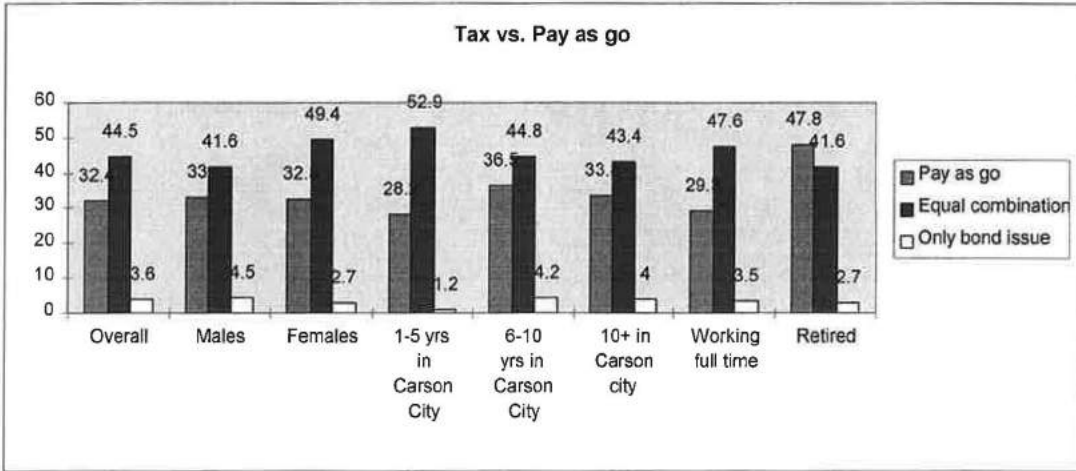
The survey respondents were asked to choose between two approaches to acquiring Open Space: 1) buy as much and as quickly as possible, or 2) buy slowly and develop as it is acquired. The results are strongly in favor of the concurrent buy-and-develop approach, by a 55% to 40% margin.

|                         |        |
|-------------------------|--------|
| Buy quick/develop quick | 40.80% |
| Buy slow and develop    | 55.70% |
| No answer               | 3.60%  |

To purchase Open Space, tax revenues may be used each year or larger amounts can be used by selling bonds and then re-paying them annually with tax revenues. A bond issue is not heavily favored.

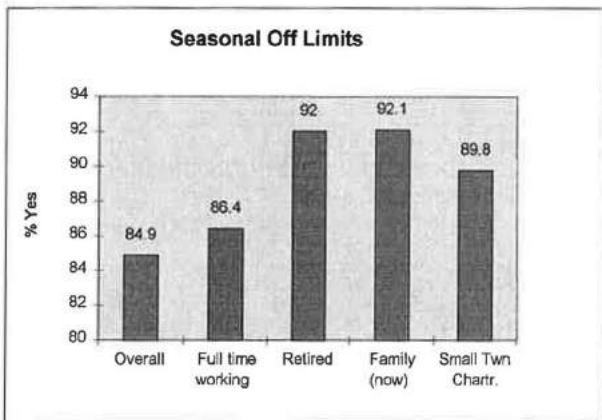
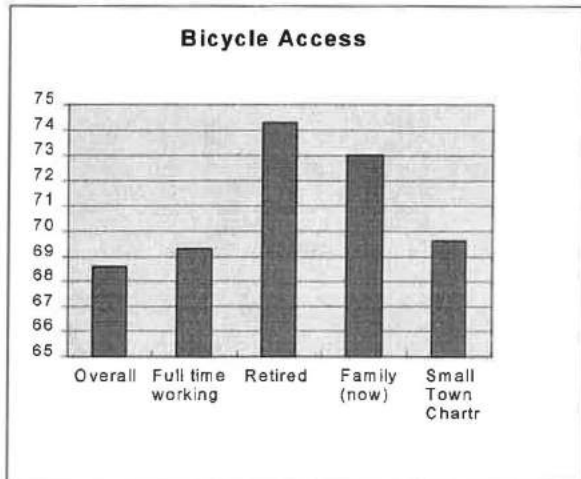
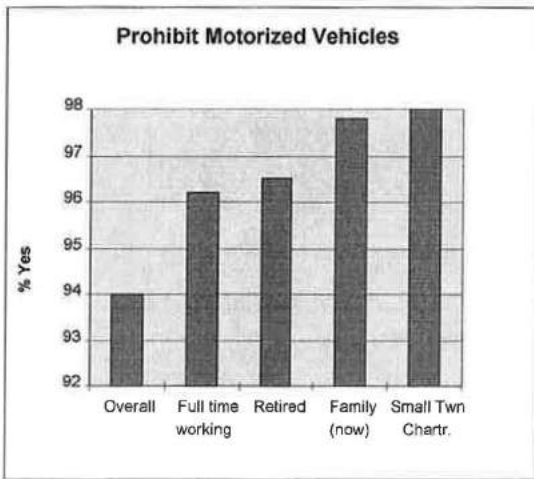
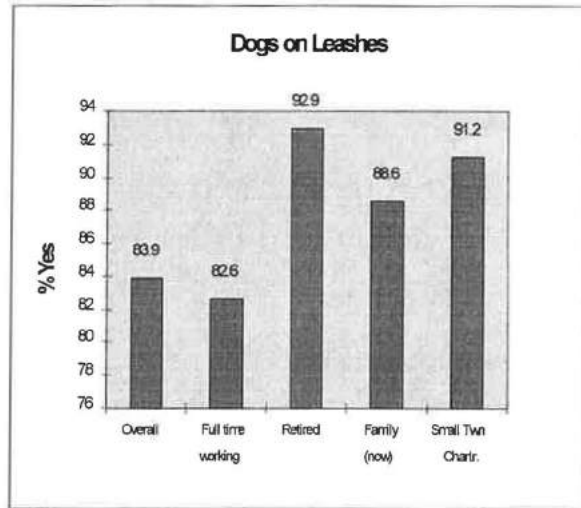
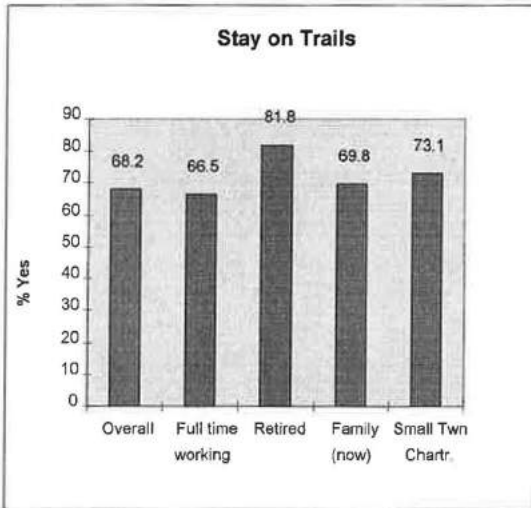
Since all the land desired couldn't be purchased, there needs to be other creative techniques to acquire this land. One option is to require developers to dedicate land for trails and Open Space when they design a sub-division. Another option is to give the landowner an incentive by allowing higher density in exchange for leaving some land open. The majority is opposed to this idea most likely because it would create more heavily populated areas. Overall, the community favors a neutral approach towards the purchase of development rights.





**MANAGEMENT POLICY-**

Question 7 - Acceptable restrictions on public Open Space are compared in the graphs below.



|                             |        |
|-----------------------------|--------|
| Dogs on Leashes             | 83.90% |
| Stay on Trails              | 68.20% |
| Prohibit Motorized Vehicles | 94%    |
| Seasonal Off Limits         | 84.90% |
| Prohibit bicycle access.    | 68.60% |

## EMPLOYMENT

Employment - As a trend within the categories, full time working residents outside the house have a lower approval response rate to the restrictions and typically the retired category exhibits a relatively higher yes response rate to restrictions.

Households - As the size of the household increases, the less likely they are to support the restriction. For staying on trails – one-member household favors the restriction to stay on trail by 76% where four members favor it 60.3% and five members favor it by 57.1%. Five or more members even choose no by 55% to prohibit bicycle access- whereas other households favored it.

|                   | Overall | Working<br>FT | Retired | Resid.<br>1-5<br>years | Like<br>small<br>town | 5a   | 5b   | 5c   |
|-------------------|---------|---------------|---------|------------------------|-----------------------|------|------|------|
| Strongly opposed  | 14.3    | 15.4          | 17.0    | 9.5                    | 15.0                  | 15.1 | 16.5 | 13.3 |
|                   | 14.1    | 15.0          | 10.7    | 15.5                   | 17.0                  | 16.1 | 20.0 | 13.3 |
| Neutral           | 31.4    | 28.7          | 40.2    | 31.0                   | 25.2                  | 29.0 | 21.7 | 40.3 |
|                   | 20.9    | 26.2          | 14.3    | 26.2                   | 23.8                  | 22.6 | 20.9 | 18.8 |
| Strongly in Favor | 16.8    | 14.7          | 17.9    | 17.9                   | 19.0                  | 17.2 | 20.9 | 14.4 |

- Males are slightly more neutral to females at 36.2% to 29.8%. For those who have lived in Carson City for longer than ten years are more strongly opposed (16.3%) than those who have lived 1-5 yrs (9.5%). Retired people were more neutral (40.2%) than full time workers (28.7%).
- Area 5c is more neutral (40.3%) than 5a (29%) and 5b (21%) however 5b is more in favor by 20.9 % to 5a (17.2%) and 5c (14.4%) - Those who moved to Carson City for family reasons support the conversion to parks with the highest support at 24%.

## CONTROLS BY BOARD OF SUPERVISORS.

### FLEXIBILITY OF PROTECTION

|                     | Overall | 1-5 yrs | 6- 10 yrs. | 10 yrs + | Full-<br>time | Retired |
|---------------------|---------|---------|------------|----------|---------------|---------|
| Much Flexibility    | 2.6     | 2.4     | 5.3        |          | 2             | 2.1     |
|                     | 4.1     | 7.1     | 2.1        |          | 4             | 4.5     |
| Moderate Controls   | 40.1    | 44      | 37.9       |          | 39.4          | 42.5    |
|                     | 21.3    | 15.5    | 17.9       |          | 24.5          | 24      |
| Ironclad protection | 31.9    | 31      | 36.8       |          | 30.1          | 26.8    |
|                     |         |         |            |          | 26.8          | 38.9    |

Overall 53% want ironclad protection - Those with 1-5 years residency have the highest in terms of moderate controls at 44% however those with 6-10 yrs are the highest with 36.8% for ironclad protection - The larger the families the less control desired.

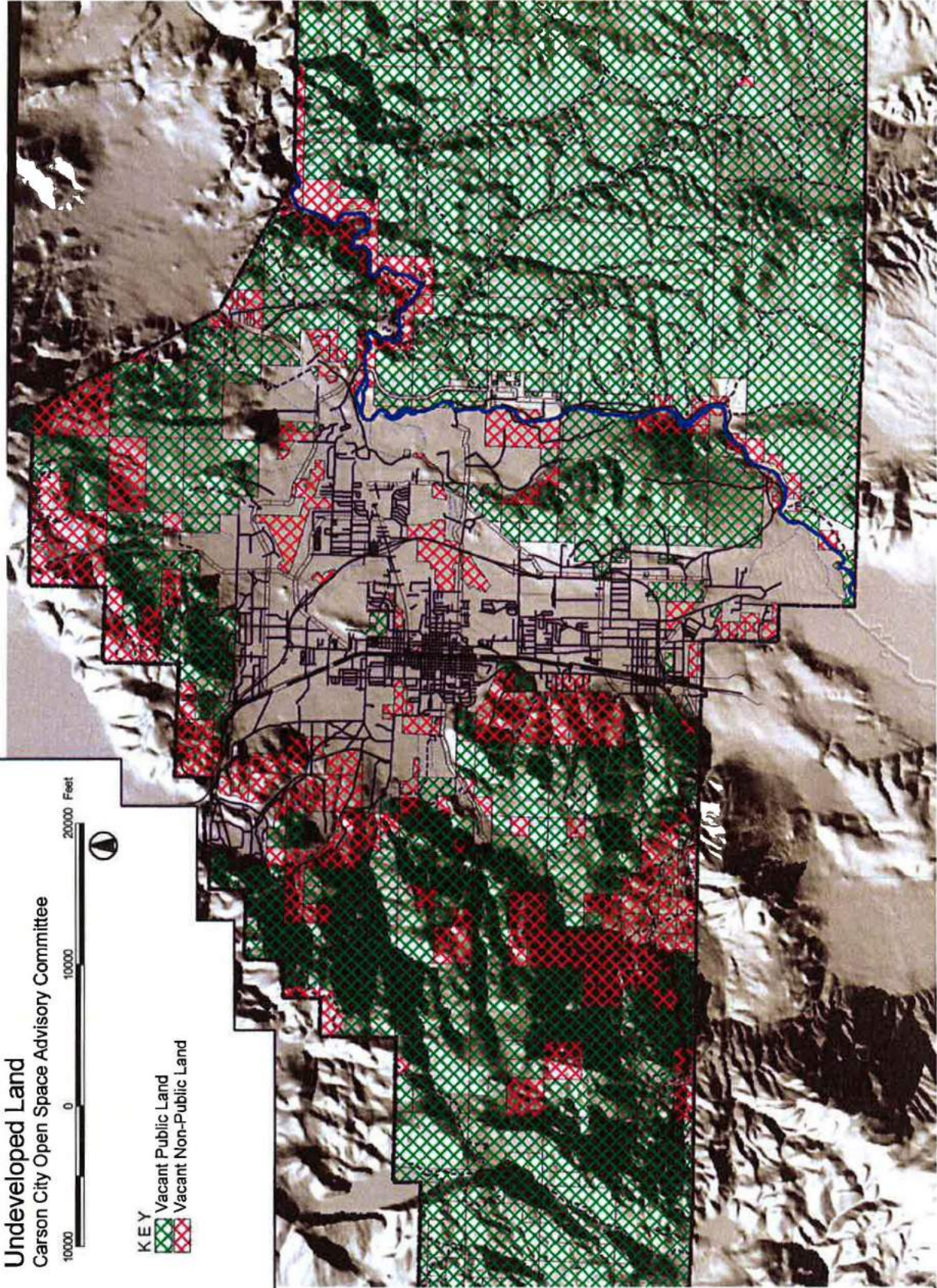
Area 5b desired more ironclad protection (at 40.7%) compared to 5a at 23.2% and 5c at 31.3%. Area 5c is more moderate at 46.2% than 5b at 31.9% and 5a at 36.8%

Full time workers are more in favor of moderate controls than those who are retired.

**Undeveloped Land**  
Carson City Open Space Advisory Committee



- KEY**
- Vacant Public Land (Green cross-hatch pattern)
  - Vacant Non-Public Land (Red cross-hatch pattern)



# Constraints to Development - Slope/Skyline

Carson City Open Space Advisory Committee


10000 0 10000 20000 Feet



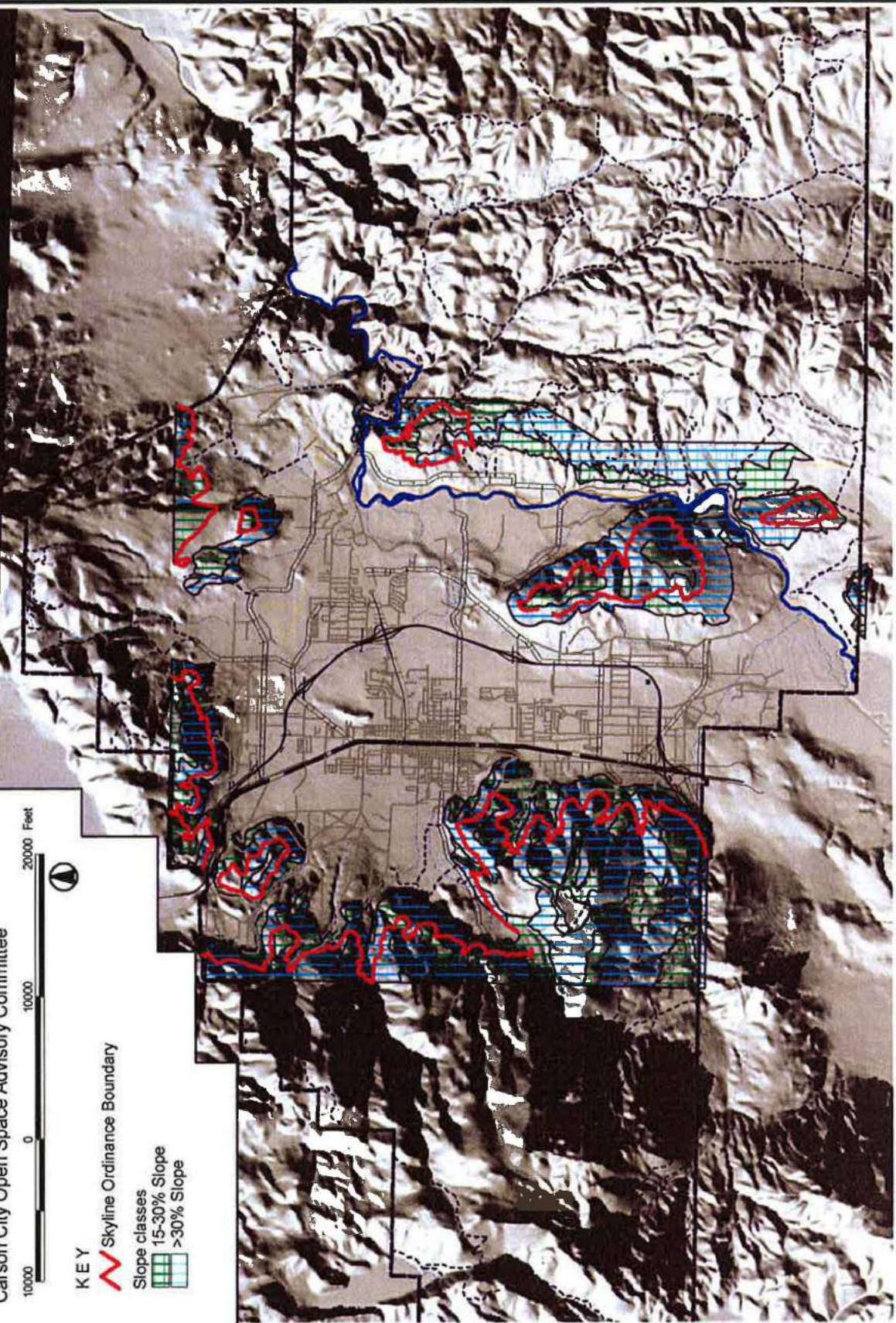
KEY

 Skyline Ordinance Boundary

Slope classes

 15-30% Slope

 >30% Slope




# Existing Conditions -- Vegetation

Carson City Open Space Advisory Committee

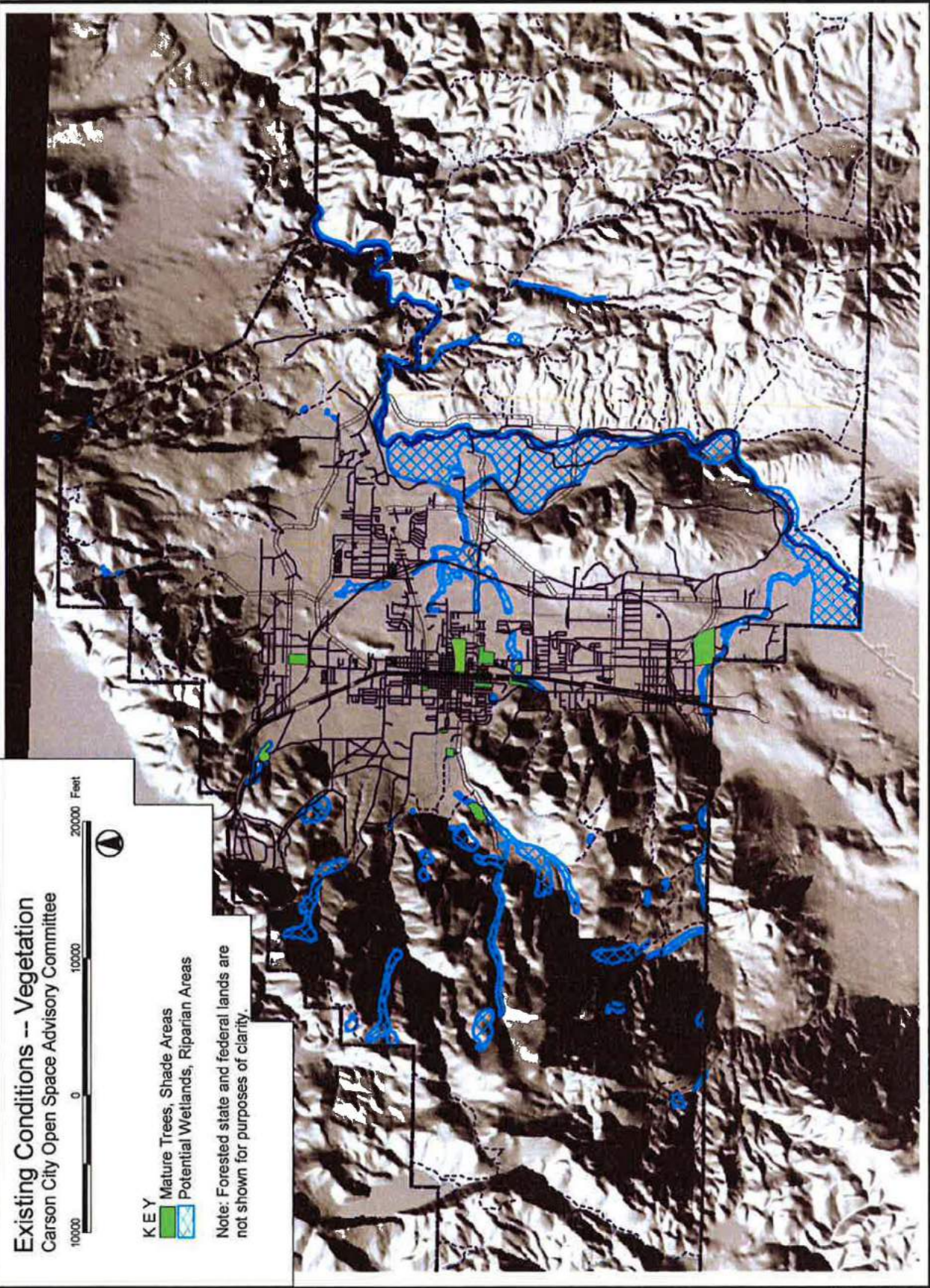


## KEY

 Mature Trees, Shade Areas

 Potential Wetlands, Riparian Areas

Note: Forested state and federal lands are not shown for purposes of clarity.

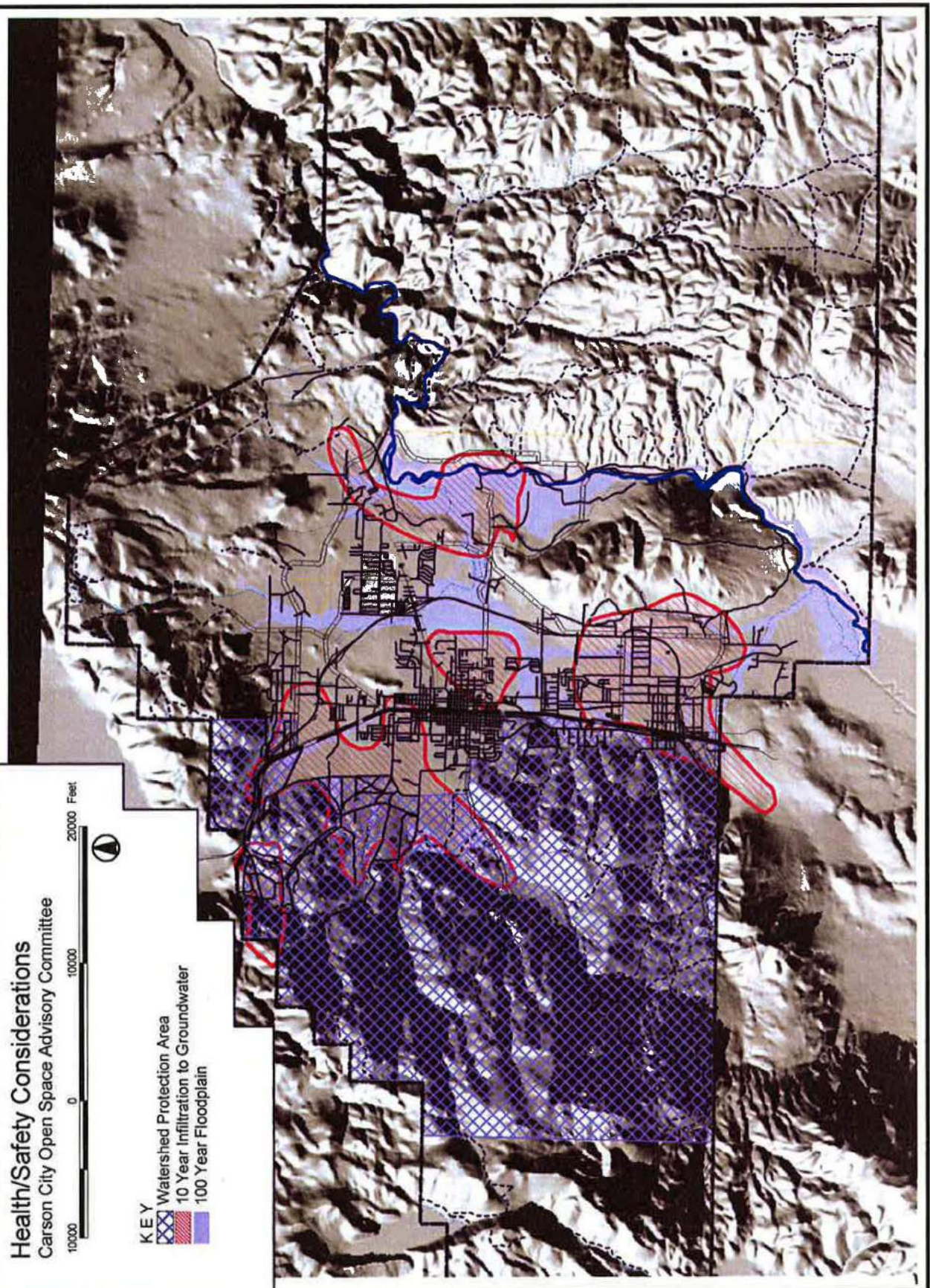


# Health/Safety Considerations

Carson City Open Space Advisory Committee



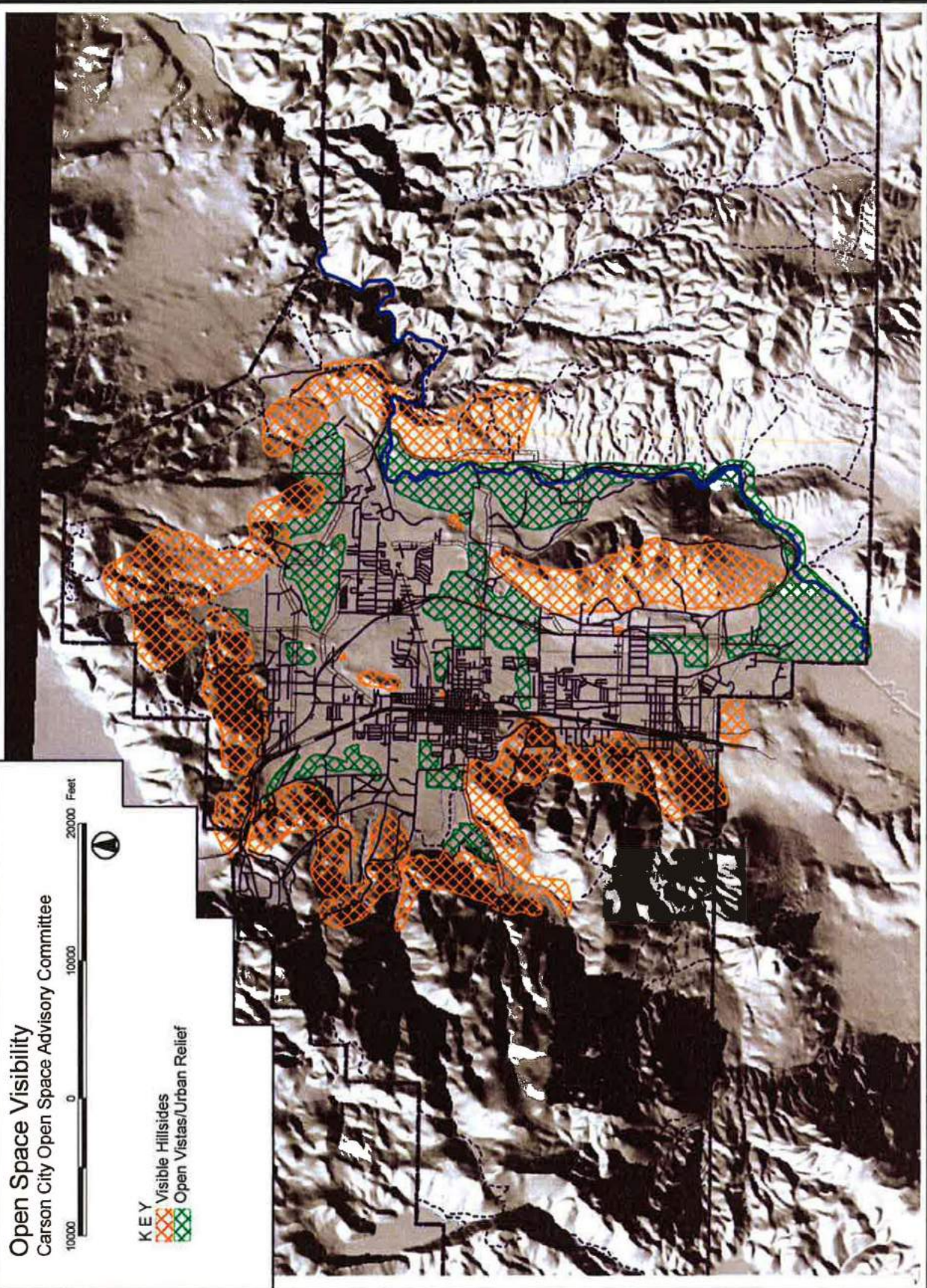
- KEY**
- Watershed Protection Area
  - 10 Year Infiltration to Groundwater
  - 100 Year Floodplain



**Open Space Visibility**  
Carson City Open Space Advisory Committee



- KEY**
- Visible Hillside
  - Open Vistas/Urban Relief





# Existing Protection of Open Space

Carson City Open Space Advisory Committee

10000 0 10000 20000 Feet



## KEY

- City Parks
- BLM Urban Interface Land
- Schools
- Private Open Space

