Open Space Strategy

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Summary

The Open Space Strategy of the *Parks, Trails and Open Space Master Plan* defines the geographic focus, the types of land, and the activities in which the City of Redding will engage to promote the preservation and appropriate public use of important open space in the greater Redding area.

The protection of our valuable natural resources plays a significant part in the City's General Plan, and the Open Space Strategy implements several goals and policies found in its Natural Resources, Recreation, and Community Development and Design Elements. The "Recommended Goals and Policies," section, found at the end of this Strategy, references each open space goal to those in the General Plan.

Our area is fortunate to have a variety of scenic natural features, the most important being the Sacramento River, which is viewed as the focal point of the community and the organizing element of the park and trail system. Establishing public open space areas along the River and its tributary streams provides outdoor recreation and the potential to restore wildlife habitats, create effective storm water management, and preserve scenic views.

Because the planning area for the Master Plan is so large (83 square miles), an important task for the open space program is to locate likely places to focus the City's acquisition and preservation

Proximity to the River, its streams, and other bodies of water is one of the twelve criteria the Master Plan committee used in determining what sorts of lands would make appropriate open space. The remaining criteria address other General Plan goals, including conserving the habitats of sensitive and endangered species, preserving agricultural lands, retaining and re-planting native oak woodlands, maintaining designated multi-family housing lands, and preventing erosion by limiting development on steep slopes.

Sacramento River Bluffs in Downtown Redding

activities. Using a geographic information system (GIS) to perform a spatial suitability analysis, the open space criteria were mapped to discover areas with high open space values. These were then organized into eleven "Open Space Interest Areas."

These Interest Areas are not new zoning districts or overlays, nor do they affect development densities, environmental studies, or review times. Their purpose is to provide a useful compilation of public information for the City and for those involved with land development and land preservation. The Interest Areas shown on the *Open Space Suitability Analysis Map* will help all parties achieve the natural resource and recreation goals already set out in the General Plan.

As with other components of the park and recreation system, the success of the open space program will depend on partnerships, cooperative agreements, and the willingness of diverse interests to come together to create a community resource that we will be proud of in years to come.

The Open Space Strategy is a conceptual framework that offers overall direction for site selection and preservation activities. Details regarding specific projects or parcels will be determined by future efforts.

Definitions of Open Space

The State of California defines open space as "any space or area characterized by 1) great natural scenic beauty or 2) whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources." (Government Code, Section 6954)

When we speak of open space in this document, we are referring to land or water areas that will remain in a relatively natural, undeveloped state. Such lands are often well suited for recreational activities like picnicking, hiking, nature studies, biking and horseback riding. Open spaces may also include agricultural uses such as farming or grazing. They may encompass lands which are owned or controlled by governmental agencies, by conservation groups, or by private individuals with the intent of preserving them in perpetuity for their ecological, visual, or cultural aspects.

View of Mount Shasta from the Mary Lake Open Space Interest Area

Benefits of Open Space

As Californians move toward 2020, the state's population is projected to increase by more than 40 percent. This means 15 million additional people — the equivalent of adding four cities the size of Los Angeles to the state. Redding will participate in this growth and add an estimated 32,134 new residents to our own planning area. This extraordinary population growth and the impacts it will have on our local and regional environment will require us to examine our natural resource management strategies so that we can provide protection and continue to restore our land, air, and water.

For many, the protection of the natural environment requires little justification — you care for the things that you cherish. But in an age of competing funding sources and difficult choices, decision-makers and voters need to be reminded of the many benefits open space brings to a community.

In their “Habitat and Prosperity: Protecting California's Future,” the California Environmental Dialogue, a group of corporate, environmental, and governmental leaders, has drafted a benefit list which helps us frame some of the important reasons open space should play a part in a community’s planning:

Improve Natural Systems

The protection, enhancement, and restoration of watersheds, river and stream zones, and wetlands will reduce the need for costly new water-treatment plants, provide high quality drinking water at reduced cost, reduce the costs of flood damage, and improve water quality for aquatic ecosystems and human recreation.

Reduce Conflicts Caused by Species Extinction

Open space preservation minimizes future loss, degradation, and fragmentation of California's indigenous landscapes, and encouraging restoration and enhancement of threatened habitats. Strengthening the health of ecosystems will also safeguard potential pharmaceutical values, decrease the regulatory burden on private landowners, and reduce the cost of conflicts that arise out of species protection laws.

Support Tourism

Our state's landscape, with its wealth of parks, forests, and unique coastlines, is an asset that supports a thriving tourism industry. The California Division of Tourism estimates that traveler-spending generates approximately $55.2 billion annually (6.5 percent of the gross state product) and supports almost 700,000 jobs statewide. Our own regional landscape has a strong appeal for travelers, and has a vital economic impact that contributes an estimated $200 million in travel expenditures, including payroll and state and local tax revenues, and almost 4,000 jobs in 1999.

Enhance Business Recruitment and Retain Existing Enterprises

Many businesses and skilled workers locate in California because of its environmental quality. The loss of vast amounts of open space and habitat lands for development, without setting aside some of these lands for public uses and enjoyment, could diminish the willingness of business to locate high paying jobs in California (Center for Continuing Study of the California Economy, 1998).

Contribute to the Health of Commercial Fisheries

Commercial fishing is an important industry in California. The wholesale value of fish caught in California fisheries in 1995 was more than $150 million, and 6,000 people were directly employed in wholesale and processing operations. Wetlands, riparian habitats, and the watersheds of the Sacramento River play an important role as nurseries in the production of marine, freshwater, and shell fish.

Mitigate Air and Water Pollution

Rainfall in urban areas washes pesticides and fertilizers from lawns, and oil, antifreeze, gasoline, salt and sand from parking lots and roads. This creates polluted runoff that flows into nearby water bodies. Although concentrated runoff is generally absent in forested watersheds, in heavily paved urban areas, as much as 85 percent of all precipitation can enter nearby water systems in the form of polluted runoff. Because soils filter out many types of contaminants and vegetation slows the flow of water, open space buffers along rivers and streams significantly reduce polluted runoff into urban fresh water systems.

Improve Property Values

Well-maintained parks and open spaces enhance the quality of life by providing scenic views and convenient recreation opportunities. As a result, nearby landowners see an increase in real property values and marketability for their property. According to real estate agents in the Seattle area, property near the 12-mile Burke Gilman Trail is significantly easier to sell and roughly 6 percent more valuable than similar property far from the trail. In our state, homes situated near seven California stream restoration projects had a 3 to 13% higher property value than similar homes located on unrestored streams.

Current Open Space System

Existing Protection Measures

The policies of past and current Redding General Plans have provided measures to protect the environment from the sometimes negative effects of urban development. Particular attention has been paid to preserving as open space floodplains and steep land with slopes greater than 20 percent. These areas have been set aside to prevent loss of life and property damage, minimize erosion, provide valuable habitats, and offer recreational opportunities. They are described in the General Plan as "Greenway," and are subject to specific development constraints.

A review of existing maps estimates the amount of land designated as Greenway to be approximately 8,000 acres. Much of this land is in private ownership and not accessible to the public.

The City's recently revised zoning code also includes an Open Space District ("OS") designation that is used as a preservation tool. Land uses are limited in these zones to those that are consistent with the undeveloped nature of these lands, excepting public infrastructure. Dedicated to the City as a result of the zoning ordinance, these open space areas are located throughout the urban landscape — along our many creeks, behind suburban homes bordering canyons and ravines, and adjacent to the Sacramento River.

Parkland and Open Space

This Master Plan has sought to distinguish park land from open space for the purpose of evaluating inventory. Open Space is not counted as parkland and parkland is not counted as open space. Natural Area Parks, such as Mary Lake, are designated as parkland because they are located within residential developments and contain recreational amenities.

Existing Regional Open Space Framework

The cities located at the upper end of California's central valley — Redding, Shasta Lake and Anderson — together comprise a low-density, urbanized area situated within a region containing many square miles of undeveloped national and state-owned lands (see Regional Open Space Map).

The Shasta-Trinity National Forest, Whiskeytown National Recreation Area, and lands under the management of the U.S. Bureau of Land Management provide federally-owned outdoor recreation and resource protection areas in close proximity to the 100,000 people living in these cities. Immediately west of Redding, the State operates the historic site of Old Shasta, and within an hour's drive many additional state-managed wilderness areas, game refuges, and demonstration forest areas are found.

Winding through this landscape is the beautiful Sacramento River, its cold waters flowing year-round out of Shasta Dam. The River and its many tributaries support a diversity of plant and animal species, and contain historical spawning grounds for numerous species of fish, including four runs of Chinook salmon, as well as trout. Remnants of the original riparian, or riverside, forest is found along their banks, and oak woodlands can still be found in the upland areas.

The Sacramento River and the publicly held lands around Redding and its neighboring cities create a strong physical context of outdoor recreation opportunities, varied wildlife habitats, and remarkable scenic beauty that is valued by residents and visitors alike.

Such an existing framework also suggests that a *region-wide* strategy for open space preservation may be most appropriate, one in which local jurisdictions work together with adjoining governmental partners and grass roots organizations to protect the connecting waters and the flora and fauna found throughout these lands.

This type of planning would reach beyond each jurisdictions' city limits and strive to have a positive effect for area residents at a larger shared watershed level. Operating within a regional perspective, our cities and towns can integrate the surrounding natural landscape with urbanized areas using streamside corridors and trails, and allowing for natural islands amid the sea of concrete and asphalt.

Notable Existing Open Space Areas in the Redding Planning Area, 2003

Open Space Area	*Description*	*Ownership*	*Management Responsibility*	*Open Space Qualities Preserved*
Former Benton Landfill	A 118-acre site, previously designated as open space, which can be enhanced with wildflower and native grass plantings, walking trails connecting downtown to the west side, and shaded vista points from which to enjoy expansive mountain views.	COR	COR	Scenic Views; Close Proximity to Future Parks; Recreational Trail Connections
Kapusta and Riverland Properties	Undeveloped properties acquired by the City in the 1990's, these 153 acres on either side of the River provide fishing access, with some leased agricultural uses.	COR	COR	Riparian Habitat & Corridor; Agricultural Land Preservation
Lower Clear Creek Greenbelt	An award-winning, multi-agency watershed restoration and recreation project stretching from Whiskeytown National Recreation Area down to the Sacramento River along one of the area's larger fishing creeks.	BLM NPS COR	BLM & Horsetown-Clear Creek Preserve (nonprofit)	Recreational Trails; Watershed Restoration & Enhancement
Old Oregon Trail Vernal Pool Restoration Area	A large area of vernal pools north of Highway 44 set aside to mitigate negative environmental impacts from development related to the Sports Complex and Clover Creek Preserve.	COR DFG	COR	Protected Species Habitat, Recreational Trails
Record Heights	A 60-acre west Redding ridgeline containing 6 miles of City-developed dirt trails, and creating an important trail connection between the city and regional recreation areas to the west.	BLM, MCC COR & Various Private	MCC	Recreational Trails; Scenic Views
Sacramento River	The central feature of the City's open space system, its approximately 800 acres support wildlife in the region including protected salmon and trout runs, recreational fishing, boating, rafting, and other water adventures.	CA	CA	Aquatic/Riparian Habitats, Wildlife Corridors, Recreation, Scenic Views
Sacramento River Trail	Approximately 200 acres of connected open space areas on both sides of the Sacramento River adjacent to downtown and Turtle Bay Exploration Park, containing a 9-mile Trail, 3 pedestrian-bike river crossings, and fishing and boating access.	COR USBR BLM	COR BLM	Recreational Trails; River Access; Wildlife Corridor; Riparian Buffer; Scenic Views;
Stillwater Riverfront Property	A 310-acre site that is the site of a wastewater treatment plant, with 1 mile of river frontage containing 100+ acres of valley oak woodland.	COR	COR	Riparian Habitat; River Corridor
Turtle Bay Exploration Park & McConnell Arboretum	A 210-acre river site on both sides of the Sacramento River adjacent to the downtown, leased to Turtle Bay for operation as a natural history, environmental science, and art campus.	COR MCC	TBM	Riparian Habitat and Restoration; Environmental Education
Turtle Bay East	Two parcels totaling 85 acres, containing high bluffs and riverbank, on the east side of the Sacramento River across from Turtle Bay Exploration Park, on either side of Highway 44.	COR	COR	Public Fishing Access; Riparian Habitat; Scenic Views

Abbreviations: COR - City of Redding; USBR - U.S. Bureau of Reclamation; BLM - U.S. Bureau of Land Management; NPS - National Park Service; TBM - Turtle Bay Museums; MCC - The McConnell Foundation; DFG - CA Dept. of Fish and Game; CA - State of Calif.

Implementing the General Plan's Open Space Goals

The Open Space Strategy implements the goals and policies found in the General Plan's Natural Resources [NR], Community Development and Design [CDD], and Recreation [R] Elements. These directives outline specific types of land, described in the following pages, that the City must preserve and protect. Bracketed text, for example [NR6], refers to the relevant General Plan goals and policies, which can be found in the Appendix.

Natural Resource Areas That Support Sensitive Species Habitat

Aquatic Habitats

Wherever there is water — creeks, rivers, sloughs, wetlands, seas, and oceans — there are aquatic habitats. This general category embraces the water-related habitats described below, as well as streambeds. There is a close interrelationship between aquatic communities and their adjacent riparian communities. Almost 1,500 acres of aquatic habitats are present in Redding's planning area. [General Plan Goal NR6]

Salmon Swimming in Sulphur Creek

Riparian Habitats

Riparian corridors occur throughout the United States as linear strips of vegetation adjacent to streams, rivers, lakes, reservoirs, and other inland aquatic habitats. The types of vegetation associated with riparian areas contribute to unique ecosystems that perform a large variety of functions. Riparian habitats are characterized by rich and diverse bird life, and also support mammals, reptiles, and amphibians, which in turn support larger animals.

Streams and rivers also function as corridors for wildlife dispersal and migration, and play an important role in connecting ecosystems that are often fragmented and made dysfunctional by urban development.

Statewide, only 5 percent of the historic river riparian acreage remains. Redding's planning area has significant stands of Sacramento River riparian zones that provide habitat for over 250 species of wildlife. As many as 50 species require riparian areas for their survival. [NR6]

Sacramento River Riparian Zone at the McConnell Arboretum

Vernal Pools

Vernal pools are seasonally flooded depressions with unique plants and animals. During the wet months of spring, the rims of the pools change in color and plant composition as the water recedes. Several aquatic invertebrates are restricted to these special habitats, including species of fairy and tadpole shrimp.

The California Department of Fish and Game estimates that a high percentage of the historically occurring vernal pools within the planning area have been lost or significantly degraded due to a combination of development, draining, grazing, and off-road vehicle use. [NR6]

Vernal Pool in Full Bloom

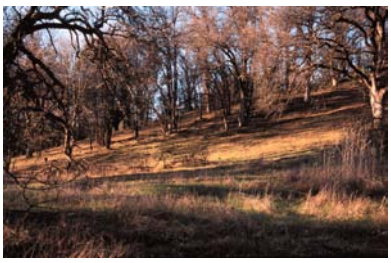
Wetlands

Saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities found in wetlands. Wetlands store precipitation and surface water and then slowly release the water into associated streams and lakes, ground water, and the atmosphere. Wetland plants play an integral role in the ecology of watersheds, filtering pollution from storm waters, providing breeding and nursery sites, resting areas for migratory species, and refuge from predators. [NR6]

Wading Bird in Sacramento River Wetlands

Oak Woodlands

Research in the last decade has shown that oak woodlands, which cover almost 10% of California's 100 million acres, harbor the richest biological diversity of any major habitat in the state. Oak woodlands are home to some 2,000 species of plants, 170 birds, 100 mammals, 60 amphibians and reptiles, and 4,000 species of insects. In addition to their wildlife value, oak woodlands and their associated vegetation improve water quality, control soil erosion, and provide outdoor recreation and aesthetic value. [NR7]



Winter Oak Woodlands in Canyon Creek

Agricultural Lands

While farm production and range land have an obvious economic benefit for the entire community, agricultural land can also be a part of the continuum of open spaces that provides watershed protection and habitat for birds, plants, and wildlife. This is especially true if they can be connected to neighboring municipal, state, and federal parks. Urban sprawl, development pressures, and rising land prices threaten the very existence of agriculture and family farms, and the uncertainty that accompanies farming on the edge of an urban region can lead to declining agricultural investment, productivity, and income. [NR15]

Beyond the Churn Creek Bottom area, which is outside the planning area, the principal areas in Redding with soil characteristics that can support successful agriculture are located along Stillwater Creek from Shasta College to south of the airport, and in the area around South Bonnyview Road. (source: California Dept. of Agriculture)

Agricultural Lands in Stillwater Creek Interest Area

Urban Buffers

Open space lands can be used to help define a city's urbanized limits, thus providing a buffer between adjacent intensive urban land uses and rural or agricultural uses. In addition, these lands can also function as "urban separators" that can help preserve the unique character of adjoining communities. [CDD8]

Outdoor Recreation and Cultural Sites

Open space adjacent to existing parklands can expand the citywide trail network and assist in providing a coordinated and connected outdoor recreation system. In addition, sites with scenic, historic, cultural, or archaeological value should be sought out and protected. In some cases, they may be made accessible to the public through interpretive signage, programs, or tours. In the Redding planning area, there are approximately 200 known archeological sites. [NR12] [R2]

Identification of Potential Open Space Lands

Suitability Analysis

The Master Plan's 83-square mile planning area is large and varied, containing uplands, ridge tops, rivers, streambanks, canyons, and vistas. To determine where the city should focus its community open space activities, a suitability analysis of the entire planning area was made with a geographic information system (GIS).

In this quantitative study, the distribution of the twelve criteria was mapped from currently available data (see table on next page). Each of the criteria, such as oak woodlands, the presence of sensitive plant or animal species, or the location of prime agricultural lands, was mapped separately as a layer of information using an overlay grid with a resolution of 32.8 square feet (10 square meters). When weighted for importance and displayed together, those areas possessing higher values for open space showed up as dark green.

The high value areas were then organized into large Open Space Interest Areas that generally delineate corridors near streams and the Sacramento River, per General Plan Goal NR8, which recognizes the importance of habitat linkages and migratory corridors. The eleven Interest Areas are discussed in detail later in the text. The *Open Space Suitability Analysis Map*, illustrates both the high value areas and the Interest Areas.

Criteria

The mapping criteria used for the GIS analysis were selected using General Plan goals, as discussed in the previous section. Additional research and discussion with agencies and organizations involved in open space preservation, and management, as well as the help of the Master Plan's citizen advisory committee, further expanded and defined the list.

The protection and enhancement of streams and water-related habitats are recurrent themes in both this Strategy and in many policies of the General Plan. Water has an enormous influence on the diversity of species in a dry-summer climate such as ours. Streams and ponds provide important habitats for plants and animals, they function as wildlife corridors, and they contribute significantly to fisheries throughout the state.

Beyond resource protection, these environments have always been attractive to human beings. They offer unique outdoor recreation opportunities, such as creek hikes, bike trails, lakeside picnic spots, natural area interpretation sites, and other low-intensity activities. Currently, there are several school science programs, local action and restoration organizations, and resource agencies focusing their efforts on particular Redding-area watersheds.

Watershed Planning

Watersheds are a useful way to describe the natural landscape in terms of water flow. Just as a state can be divided into interlocking territories called counties, the basins that define where rain falls and drains are called watersheds. In any local landscape, the perimeter boundaries of watersheds are defined by the highest elevations, such as ridgetops. The entire surface of the earth can be divided into contiguous watershed basins.

Watersheds are used to organize the research, data, and activities of organizations and agencies involved in conserving and managing natural resources. Open space activities are better coordinated from this watershed perspective, rather than on a parcel-by-parcel basis.

Redding's open space strategy proposes that the City maintain this broader watershed perspective at all levels of planning and implementation of its open space program.

Twelve Criteria Used in Suitability Analysis to Identify Areas with High Open Space Values

Mapped Criteria	*Associated Open Space Values and Data Sources*	*Weighted Value*
Vacant Land	Undeveloped land is more likely to be available for open space activities and is generally more affordable. (Source: City of Redding GIS)	*18*
Vernal Pools	Areas within 100' of vernal pools were given value because of the special species status assigned to many plants and animals associated with these seasonal water bodies. 100' buffer applied. (Source: CA Dept of Fish and Game, 1994)	*13*
Proximity to Sacramento River	The River is an important feature in the Redding region possessing numerous recreational, biological, and historical values, with a corridor that contains valuable riparian vegetation that supports water-related habitats, including fish populations. 1000' buffer applied. (Source: City of Redding GIS)	*12*
Proximity to Major Streams	The Sacramento River's tributary streams are significant habitats for wildlife, enhance the state's fisheries, and provide natural corridors for both the movement of both animals and people throughout the region. 300' buffer applied. (Source: updated U.S. Dept. Fish and Wildlife National Wetlands Inventory)	*12*
Prime Farm Land or Grazing Land	Agricultural landscapes contribute to the region's economy, provide scenic views, and in some cases contain soils that could support re-vegetation of oak woodland habitats. 10-acre minimum mapping unit. (Source: CA Dept. of Conservation, Farmland Mapping and Monitoring Program)	*10*
Oak Woodlands	Oak woodlands harbor the richest biological diversity of any major habitat in the state, as well as provide value for wildlife, improve water quality, control soil erosion, and provide outdoor recreation and aesthetic values. 40-acre minimum mapping unit. (Source: CA Dept. of Forestry & Fire Protection, Fire & Resource Assessment Program)	*5*
Proximity to Water Bodies	Redding's lakes and ponds are magnets for wildlife, possess high biological diversity, and are attractive recreation spots for walking, nature studies, photography, fishing, or boating. 500' buffer applied. (Source: updated U.S. Dept. Fish and Wildlife National Wetlands Inventory)	*5*
Sensitive or Threatened Species	Preserving areas where sensitive or endangered species of plants and animals have been reported is important to enhancing the biological diversity of our area. Mapped locations. (Source: CA Dept. of Fish and Game, California Natural Diversity Database)	*5*
Steep Slopes Greater than Twenty Percent	Slope protection assists in erosion control and therefore has a positive effect on water quality in stream corridors. The physical qualities of slopes also provide scenic values, offering vistas and view points of the larger landscape from ridge tops, or conversely giving a sense of enclosure and isolation from nearby urban uses when experienced from the bottom of ravines. A 20% slope is one that has 20' of vertical rise over 100' of horizontal distance. (Source: U.S. Geological Survey, 10-meter DEM)	*5*
Proximity to Existing Parks, Trails & Open Spaces	Lands close to existing open space, developed parks, and other recreation facilities that are already owned by the City, or by other groups, multiplies the public's recreation investment, enhances the existing facilities, and contributes to a more coordinated system. 1500' buffer applied. (Source: City of Redding GIS,)	*5*
Distance from Center of the City	Areas away from the city's center have somewhat more value as open space than those closer to the urban core, where developed parks will provide necessary green areas and recreational opportunities. (Source: City of Redding GIS)	*5*
Not Designated Multi-Family Housing	Multi-family housing areas designated on the General Plan were eliminated from the analysis because they should not be used as open space, but should instead be developed to support the City's affordable housing strategies. (Source: City of Redding GIS)	*5*
	TOTAL	***100***

Open Space Interest Areas

Open Space Maps

Eleven Interest Areas were identified through the GIS analysis within nine different watersheds distributed throughout the planning area. They are delineated on the *Open Space Suitability Analysis Map.* Green areas on the map show grid cells which have high open space values, with the darkest green having the highest value.

The Interest Area map assists in organizing a framework for open space within our large planning area. It will be used by City staff and its advisory group to implement the open space program, and will show land developers, resource agencies, and the general public where the City wishes to focus its efforts.

Each of these Interest Areas has the potential to address watershed health, outdoor recreation activities, biological diversity, public safety, scenic views, agricultural or grazing preservation, public stewardship, and education opportunities for area schools.

Not Zoning Districts

It is important to understand that these Open Space Interest Areas **do not** constitute a zoning district or category, but delineate areas that possess high community open space values and, therefore, deserve closer public attention for preservation, restoration and/or protection.

The City shall not deny development or other land use applications that are in compliance with City land use regulations solely because a property is within an Open Space Interest Area.

Further, the existence of an Interest Area does not modify the development rights (i.e residential density) of a property as established by the General Plan and any applicable zoning district. Additional development application materials or the extension of development approval timelines, solely for the purposes of determining a site's actual suitability as open space, shall not be required.

Interest Area Descriptions

The brief descriptions of each area that follow begin in the southwest corner of the planning area, and proceed counterclockwise around the city.

The Sacramento River Corridor

The River is the central feature and organizing principle of the existing open space system. Up and down the stretch of river that runs through the planning area, several parcels are already being managed by the City, the Bureau of Land Management, and the National Park Service.

The River's riparian corridor contains public access points for fishing and boating, and many opportunities for hikers, bikers and strollers to enjoy the 9-mile Sacramento River Trail. Recently completed segments of the Trail, the Hilltop Extension and the Stanford Hills Trail, are just two of the many planned connections that will weave together the River and its tributary streams into the larger urban fabric.

The presence of the River in the Redding region is very important to this area's quality of life and natural ecosystems, and to the region's tourism economy. The General Plan recognized this when it called out the need for a separate planning document, the Sacramento River Corridor Plan.

This proposed planning corridor, described in Policy R1A, runs from Shasta Dam to the City of Anderson. It contains public as well as private holdings, and encompasses many different political jurisdictions — municipal, county, state and federal. The Sacramento River Corridor, because of its size, complexity, and significance, will require a separate regional planning effort that the City hopes to undertake in the near future.

Clear Creek Interest Area

Significant restoration and acquisition activities have been underway for some time in the Clear Creek watershed by several agencies, including the Western Shasta Resource Conservation District, the Bureau of Land Management (BLM), and the Horsetown-Clear Creek Preserve. Work has included the removal of the old Saeltzer Dam, tree planting, spawning gravel re-placement, and other riparian and aquatic habitat enhancements.

The Interest Area encompasses a portion of BLM's *Lower Clear Creek Greenbelt* that would provide a corridor for fish, wildlife, and for people from the Sacramento River all the way to Whiskeytown Lake Recreation Area immediately west of Redding. The City has holdings within this corridor and can be a contributing stakeholder in these continuing efforts, as well as create significant public open spaces for equestrians, hikers and bikers.

Olney Creek Interest Area

Located in the southwestern quadrant of the planning area, the upland portion of the Olney Creek Interest Area has a rocky stream bed, steep canyons and slopes, open oak woodlands, and an old dam site. After crossing under Highway 273, Olney Creek flows south through unconnected open space parcels dedicated to the City behind residential subdivisions, and then by Cascade Community Park where it joins the Sacramento River.

Dedicated open space already exists along the River and will connect this Interest Area to the adjacent Clear Creek Interest Area. Open space activities here could create the potential for significant trail and wildlife corridors in this part of the City.

Oregon Gulch Interest Area

Located between Canyon and Olney Creeks, this Interest Area lies partly within a large, city-owned parcel designated as a future landfill site. The area contains stream habitat along Oregon Gulch Creek's often steep slopes. Until recently, when law enforcement efforts were focused here by the Department of Fish and Game wardens, the area had been the site of illegal activities. It has also been eroded and abused in places by people with off-road vehicles.

Canyon Creek, West Redding

Open space activities in this area would seek to provide open space opportunities to residents on the developing west side and assist in the restoration of the watershed.

Canyon Creek Interest Area

An area of streams, wildlife, and oak woodland habitat on Redding's growing west side, Canyon Creek is under intense residential development pressure. The Creek's canyon already has many dirt trails used by nearby residents for horseback riding and hiking. Additional multi-use trails are planned for the area connecting the existing Blue Gravel Mine Trail on the east end, to the Mary Lake trails beyond Placer Road to the west.

Open space activities for this Interest Area would seek to preserve and restore the Creek's fish habitat and protect the existing oak woodlands in concert with proposed development plans.

Mary Lake Interest Area

This Interest Area incorporates Mary Lake and its surrounding 29-acre Natural Area Park. The 6-acre lake, while man-made, has been praised as "an amazing example of an urban aquatic habitat that includes established wetlands, shallow littoral zones surrounding the lake, as well as mature trees and a variety of wetland and aquatic species" (Jim Keeton, Fisheries Scientist, Keeton Industries, Inc.).

This part of the city also contains significant ridgetop views identified in the General Plan as worthy of preservation, with 360° vistas of the city and surrounding mountains. In addition, there are slopes above Mary Lake containing black oak woodlands, an unusual habitat for this part of the state.

Trail corridors play an important conservation role in this interest area by providing wildlife connections between open spaces. In this interest area, Jenny Creek, which runs northward from Mary Lake to the River, should be retained for these purposes, and will also provide outdoor recreation opportunities with the trail planned here. Also associated with this Interest Area are the popular Westside Trails, a system of dirt trails that will eventually link Redding to the National Whiskeytown Recreation Area as well as to the regional Shasta-Trinity Trail system.

Salt Creek Interest Area

Located at the western edge of the planning area, this Interest Area contains stream habitat for runs of salmon and steelhead, picturesque steep slopes, waterfalls, and swimming holes. Historic mining activities are evident in many places.

Portions of Salt Creek are presently under federal ownership and contain dirt paths created by bike riders and hikers. Nearby future trail linkages are planned that will connect this area to the Mary Lake Interest Area at Lower Springs Road to the south, to Bureau of Land Management (BLM) lands to the west, and to the Sacramento River Trail and the River Rail Trail to the east. These trails will function as wildlife corridors, especially important as this area becomes more developed.

Sulphur Creek Interest Area

A significant urban watershed that connects northwest Redding to the Sacramento River through the McConnell Arboretum, portions of Sulphur Creek are already the focus of restoration activities by the City, the Sacramento Watershed Action Group (SWAG), the Sulphur Creek CRMP, Turtle Bay Exploration Park, and the U.S. Army Corps of Engineers.

Sulphur Creek Restoration Activities (photo courtesy of SWAG)

The area encompasses an undeveloped 31-acre city-owned site and many acres of open space parcels and easements dedicated to the City from adjoining residential subdivision developments. Vernal pools near the creek's headwaters often keep it flowing into summer. Historic large-scale mine dredging activities are evident in many places.

Future open space activities would likely include continued cooperation with the agencies and groups already working here, preservation and restoration of river and stream banks, and the creation of trails along Sulphur Creek that would connect the Arboretum and Turtle Bay with other parts of the city.

Churn Creek / Boulder Creek Interest Area

This Interest Area is characterized by oak woodlands and extensive riparian zones. Churn Creek has many of the problems typical of urban streams, including non-point source pollution from stormwater runoff, eroding banks, and occasional flooding.

Preliminary studies reveal possible opportunities to locate regional flood detention basins within the Interest Area that would mitigate the effects of these stormwater problems.

In addition, nearby schools have expressed an interest in educational stewardship and restoration activities, and a watershed action group is in the process of being formed.

Other open space activities could further develop the Churn Creek Trail, already begun on the McConnell Foundation's holdings. Churn Creek Trail is an important corridor for the east side of the city from the City of Shasta Lake to Enterprise Park. The Trail will also link many existing recreation areas, both developed and undeveloped, including Enterprise Community Park, the Twin View Community Park site along Boulder Creek, the 17-acre undeveloped Churn Creek Park site, the existing Minder Neighborhood Park, and the McConnell Foundation's Lema Ranch trail system.

Stillwater Creek Interest Area

This large Interest Area, which runs north/south along Stillwater Creek, contains sensitive species habitat, oak woodlands, prime agricultural soils, City-owned archaeological sites, and some of the area's larger lakes.

The General Plan has already laid out planning guidelines for this area in its "Stillwater Creek / Old Oregon Trail Focus Area" (Community Development and Design Element, p. 47-48). This corridor provides a natural edge, or buffer, between Redding's urban area to the west and the more rural lands to the east. The General Plan already contains recommendations for this area related to outdoor recreation and open space:

- upgrade the bike path system
- establish trail connections to Shasta College
- develop the regional sports and recreation complex [The Redding Sports Park]
- establish trail connections with Stillwater Creek
- establish multiple use trails along the Creek
- maintain the rural feel along the Old Oregon Trail corridor between Old Alturas Road and State Route 299E

Because of the high development value of some of the land located in this Interest Area, the City would encourage development projects that are responsive to the local environment, per General Plan Goal NR5A. It would also look for opportunities to participate in partnerships with developers and private land owners so that the natural resources and agricultural landscapes that are still present are protected for the future. This may be accomplished through conservation and/or trail easements, and other preservation mechanisms on significant properties.

The proposed Stillwater Business Park is an example of how the City would like to see future development projects designed to co-exist within the Open Space Interest Areas. The business park is a City-owned development at the southern end of the Stillwater Creek corridor that, at the time of this writing, is undergoing extensive environmental review. Designed to fit within the existing natural surroundings and avoid sensitive features, the gross project area encompasses 678 acres.

Its present design is as much "park" as it is "business", with approximately 247 acres for trails, lakes and open space, and 383 acres of development area. The internal trail system within the project could be linked to the proposed 15-mile Stillwater Creek Trail running from Old Oregon Trail north of Shasta College, all the way to the Sacramento River. As proposed, the Stillwater Business Park Project fits within both the Open Space and the Trails and Bikeways Strategies of this Master Plan.

Lower Clover Creek Interest Area

Located in an area with significant future residential development potential, this Interest Area, like the Clover Creek Interest Area, also coincides with a General Plan Focus Area (Community Development and Design Element, pages 49-50).

The Clover Creek drainage basin is described in the General Plan as unique in the planning area because it is home to the majority of "special status" species of plants and invertebrates that are found in the area. They reside in the many vernal pools and vernal pool complexes found throughout the basin. While very little riparian vegetation is associated with Clover Creek, "wet meadow" type wetlands are abundant.

Open space activities within the Lower Clover Creek Interest Area may be useful in:

- preserving some of the existing woodlands still found along the creek
- enhancing habitats for fish and other wildlife
- helping create trail linkages to residential neighborhoods located near the Clover Creek Trail that is proposed from the Redding Sports Park just north of State Highway 44 south to the Sacramento River.

Open Space Site Evaluations

While the Interest Areas identify broad, generalized locations for potential community open space activities, individual properties will need further analysis before they are included in the open space program. An open and objective system for evaluating any nomination or donation is important so that the public and decision-makers can weigh the merits of each property against the program goals.

The key factors listed below will provide a basis for creating this system. While they are consistent with the criteria used to define the Interest Areas, the factors further refine the evaluation process for each parcel and situation. As the open space program continues to develop, these factors and their weighting scheme can be adjusted to meet the evolving goals and concerns of the City and its advisory committees.

Key Factors for Evaluating Open Space Sites

Location Factors
- Within identified Interest Areas
- Contributes to a balanced distribution of open space lands throughout the City
- Contributes to the regional open space system around Redding
- Defines community edges and/or creates urban separators and transition areas between urban and rural areas
- Co-located with regional flood detention structures
- Coordinated with fire management plans

Recreation / Cultural Factors
- Possesses recreation and/or trails potential
- Adjacent to existing or future recreation areas
- Preserves cultural, historic or archaeological values
- Provides vistas of surrounding landscape

Ownership Factors
- Leverages City dollars with other funding sources
- Has partnership potential with public or private entities regarding acquisition or stewardship
- Currently undeveloped or vacant
- Under immediate development threat
- Known and willing seller, when acquisition is a goal
- Bargain or opportunity sale, when acquisition is a goal
- Possesses positive public support
- Has an identified source for funding long-term private or public stewardship

Resource Protection Factors
- Habitat restoration or preservation potential
- Provides wildlife corridors or linkages

Open Space Improvements and Amenities

An important part of the Open Space Strategy is the provision for appropriate public recreational use and access to lands within the open space system. In some cases, the improvements for public use may consist of simple footpaths and trail markers, while elsewhere additional amenities may be needed, especially in popular areas that receive heavy use.

Most of the improvements listed in the next table are included for visitor comfort or convenience, such as drinking fountains, restrooms and off-street parking areas. Other amenities that include concessions and site rentals, suggest the possibility of creating a source of income to offset the funds needed to provide and maintain community open space.

Any improvements must be done carefully so that the public's enjoyment of these special places is balanced with the need to protect a site's natural resources from excessive development or use.

There will be instances where land planned as open space must also accommodate public service needs such as streets, utilities, and fire management and access trails. Care should be taken in the design of these facilities to ensure, to the extent feasible, that the open space resources are not compromised, and that public use and enjoyment of the area is maintained.

Visitor Amenities along the Sacramento River Trail.

Improvements and Amenities Appropriate for Open Space Areas

Improvement or Amenity	*Description*
Gateways and Trailheads	Basic improvements that are provided whenever public access is a part of a site's management goals. Should include signage to identify the site, restrooms, information kiosks with maps, seating and picnic areas, drinking fountains, and parking.
Trails and Trail Connections	Paved and/or unpaved multi-use or special-use corridors consistent with the most current national trail development standards, with connections to nearby residential areas and major destinations.
Equestrian and Boat Access	Adequate parking and staging areas to accommodate fishing activities, equestrians and their horses, and boaters with trailers.
Accessibility Features	Improvements to make sites available to people with varied levels of abilities and all ages. These may include boardwalks and ramps across difficult areas, assistive hand railings, signage for the visually and hearing impaired, and trailhead signs and maps that allow any user to understand the characteristics or conditions that will be encountered (such as route length, slope, change in elevation, surface materials, and obstacles), and which will enable any person to make informed choices about which paths to travel.
Park Host Dwellings or Ranger Stations	Structures that provide greater site management control; especially useful at remote sites or those with large acreage.
Nature Centers	Places to conduct interpretive programs, organize guided hikes, and carry out special events related to the site's natural or cultural resources.
Special Occasion Rentals	Scenic places such as overlooks, meadows, or bridges that are made available at a reasonable rental cost to the public for small special occasions.
Rustic Amphitheaters or Pavilions	Unique venues with more elaborate improvements made available for large weddings, parties, picnics, corporate events, outdoor ceremonies, and other special events.
Emergency Features	Adequately sized and properly distributed routes for fire and medical emergencies; telephone or call stations in remote areas.
Fire Management Features	Shaded fuel breaks and fuel reduction areas as needed to control fire hazards, especially along the urban-wildland interface where development abuts open space lands.

Planning and Management

Open Space Management Plans

Providing the public with access to recreational activities — picnicking, fishing, hiking, boating and nature study — requires careful advance planning. Therefore, land acquired for the open space system will not be open for regular, formal public use until funds are available to develop a management plan. This will ensure that each open space component becomes an asset to the community and not a target for complaints, or worse, a source of liability.

Management plans will strive to balance public access and enjoyment with the need to protect and manage the land for its natural resource values. The varied and sometimes competing issues associated with each site can be evaluated and decided through this process, and will involve neighborhood representatives, citizen organizations, resource management agencies, local governments, businesses, and interested individuals.

In several parts of the planning area, management plans already exist for lands managed by the U.S. Bureau of Land Management (BLM) and the National Park Service. Watershed assessment studies may have already been done by local organizations, such as a CRMP (Coordinated Resource Management and Planning group), or other agency, such as the Western Shasta Rural Conservation District. Where new management plans are needed for City open space areas, these will be coordinated with existing plans and with other public and private partners and owners.

At a minimum, each site's specific management plan will include actions addressing the following important issues:

- Designated lead agency or responsible party for all management and maintenance activities
- Fire management concerns, including fire control and fuel management
- Maintenance issues, such as vegetation control of invasive exotic species like blackberries, litter abatement, illegal activities and vandalism
- Recreation amenities and improvements appropriate for the site
- Connection opportunities to citywide recreation facilities and trails
- The desired level of public access (unrestricted, limited, or none)
- Public safety issues related to transients and undesirable or illegal activities
- Stormwater protection measures
- Public education and stewardship activities relevant to the special qualities of the site, including interpretive facilities such as maps and exhibits
- Compatibility of existing and proposed site improvements with adjacent properties and land uses
- Habitat restoration, enhancement projects, trail building, and appropriate volunteer activities
- Funding sources to assure the existence of long-term stewardship and care
- Local landowner concerns to minimize trespass on private lands

Open Space Technical Advisory Group

The open space program and its management should include the participation of the public. At the present time, the Community Services Advisory Commission, a five-member citizen board appointed by the City Council, has several duties and responsibilities relevant to the open space program, as well as those related to parks and tourism issues. The Commission is charged with making recommendations regarding long-range development of open space improvements, reviewing proposed capital expenditures regarding open space, and it may also review and recommend open space policies for City Council approval. (See the Appendix for an excerpt from the Redding Municipal Code describing the Commission's duties and responsibilities.)

The formation of a technical advisory group to assist the existing Community Services Advisory Commission is deemed necessary for the successful implementation of this open space program. The expertise and perspective offered by local citizens and volunteer-professionals will help the City to accurately evaluate the complex issues associated with open space activities and help set realistic goals for the program. The relationships fostered through such a group will also contribute to building the strong network of partners needed to successfully seek grant funds to implement the program.

Specific property findings generated by the Open Space Technical Advisory Group would be brought back to the full Commission for their final recommendation. Much as it does now for parkland issues, the Community Services Advisory Commission will provide a public forum for open space property selection, acquisition and preservation alternatives, or for the consideration of land disposal within the open space program.

Where open space sites are related to the subdivision development approval process, the Commission's recommendations will be forwarded first to the Planning Commission, and then to the City Council for final action. Otherwise, open space recommendations from the Community Services Advisory Commission will go directly to the City Council for their approval.

Fishing on the Sacramento River near Caldwell Park

Members of the Technical Advisory Group should be drawn from the fields of natural resources and from representatives of the community at large. At least one member of the Community Services Advisory Commission should serve as liaison to the group. Because there may be open space sites related to subdivision maps, a member of the Planning Commission should also be included in the membership. Support staff from the city would come from Community Services Department, Parks Division, Development Services Department, the Fire Department, and Volunteer Services.

Public Support for Community Open Spaces

National Support

Throughout the United States, there is broad public support for parks and open space preservation. According to the Trust for Public Land and the Land Trust Alliance, the total local and state open space funding created at the ballot box in 2003 was approximately $1.8 billion. In 2002, $6.9 billion was approved by voters to acquire and restore land. In 2001, an "off-year" for elections, 137 ballot measures were approved in 24 states, generating approximately $1.7 billion in new public funding. And in 2000, at least 140 open space initiatives were passed in 31 states, creating more than $6 billion in additional open space funding.

Support in California

California voters have approved a number of bond measures for park and open space development, generating billions of dollars for purchases by the State and by local governments.

In March 2002, Californians passed Proposition 40, with 56% voter approval. This park bond is the largest measure passed by any state to protect parks, beaches, playgrounds, forests, and threatened open space. Supported by a strong coalition of conservation, park preservation, business, and labor organizations, the bond will fund local parks ($832 million), state conservancies ($445 million), water resource protection ($375 million), wildlife conservation ($300 million), and historical and cultural resources ($267 million).

Prior to that, the *Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000* (Proposition 12) was passed, which provided $2.1 billion for many programs addressing open space. Redding has been a significant beneficiary of this bond measure. Approximately $35 million in competitive grants and per capita funds from that bond are being used to improve trails throughout the city, create the Clover Creek Preserve, assist Turtle Bay with the development of the Exploration Park along the Sacramento River, rebuild the municipal swimming pool downtown, and develop the long-awaited Sports Park.

Sacramento River Trail in the McConnell Arboretum

Strong Local Support

Redding residents also appear to favor open space preservation. In the fall of 2001, the City conducted a mail survey that polled 5,000 randomly selected households, with 1,352 responding to various parkland, recreation and open space issues. Key findings relating to open space, listed below, indicate that there is support for an open space program in the Redding area.

- When asked to rank six quality-of-life attributes, 79% of respondents positively supported preserving environmentally sensitive areas, and 86% said that protecting open space from development was very important or somewhat important to them.
- The survey also revealed a high participation rate for walking and jogging on the trails that are located in existing open space areas. Two-thirds (67%) of respondents use the trails for walking at least a few times a year, with the Sacramento River Trail receiving the most use.

Funding an Open Space Program

The preservation, development and maintenance of lands set aside for natural resource preservation and public use will require dependable, long-range funding. A program of this type necessarily takes the long view, calling for action today so that future generations may benefit.

In other cities, open areas preserved years ago at the edge of town are now cherished oases set within the urban landscape. As the Redding region continues to grow to more than 130,000 in the next twenty years, adequate resources are needed to implement this open space strategy so that we may look back on our efforts with pride.

While the Master Plan has a separate section that discusses funding and implementation strategies, open space activities often have additional funding opportunities and sources.

Grants and Other Governmental Sources

The Natural Resources Infrastructure Fund was established in 1997 by the California legislature to provide a significant funding source for local conservation projects. Funded by the state's tideland oil revenues, this fund is expected to generate between $40 to $70 million annually.

The Environmental Enhancement and Mitigation (EEM) Program was created in 1989 by Proposition 111, and requires the state to spend $10 million each year beyond what is legally required to mitigate the effects of transportation projects. Funded from the state's gas tax revenues, grants are available for projects that mitigate directly or indirectly the environmental impacts of modified or new public transportation facilities, including roads and railways. Grants are usually limited to $350,000 and are available for planning, restoration, and land acquisition.

The Habitat Conservation Fund, established by Proposition 117 in 1990, receives $30 million per year, in part from state tobacco tax. Five state agencies receive the funds, including the Department of Parks and Recreation, which receives $2 million annually. Funds are distributed as competitive grants to local public agencies on a 50 percent matching basis and are available for restoration and enhancement of wildlife habitat and significant natural areas.

The Riparian Habitat Conservation Program was established in 1992 and is funded by Proposition 117. This program allows the Wildlife Conservation Board (WCB) to issue grants and loans to public agencies and non-profit organizations for the acquisition and restoration of riparian habitats throughout California. Grants typically range from $4,000 to $400,000.

The National Fish and Wildlife Foundation (NFWF) was established in 1994 to issue grants to local agencies and nonprofit organizations for the acquisition of lands important for the protection of sensitive fish, wildlife and plant species. Grants typically range from $10,000 to $150,000 and must be matched by non-federal funds.

The North American Wetlands Conservation Fund is managed jointly by the U.S. Fish and Wildlife Service (USFWS) and the North American Wetlands Conservation Council. The fund derives most of its revenues from federal fees on hunting licenses. Grants are available for wetlands conservation projects involving acquisition, restoration, enhancement, creation, or management of wetlands ecosystems and other habitat for fish and wildlife, particularly migratory fowl. Grants of up to $1 million are made by the Large Grants Programs and require non-federal matching funds.

The Transportation Enhancement Activities (TEA) Program is a part of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 which requires that states spend a minimum of ten percent of their Surface Transportation Funds on "transportation enhancements" or conservation-related projects such as the acquisition of scenic lands, easements, historic sites, the construction of bike trails, and archaeological or historical preservation. Eligible projects must be related to a transportation facility and be above and beyond normal transportation projects or mitigation. Non-federal matching funds are required. California, under the administration of CALTRANS, was required to spend $200 to $250 million over the first six years of the legislation.

Special District Status

While sewer districts, fire districts and school districts are widely recognized entities, an open space district is a lesser-known method for funding public improvements. These separate units of government may encompass multiple jurisdictions, with a defined territory in different cities and counties.

As self-financing legal entities, districts have the ability to collect funds directly from the people who benefit from the services, whether for parks, recreation, trails or open space areas. The advantages of this method of funding (acquisition, management or development), is the predictability of the revenue stream, which can be obtained through taxes, user fees, or bonds. On the downside, districts are somewhat time consuming to implement.

While special districts are found throughout the nation, one of the first was California's East Bay Regional Park District, created in 1934 with a 5¢ -per-$100 value property assessment. The district now owns and operates more than 60 park sites, with 94,500 acres, and has an annual budget of $122 million.

Public Land Trusts

A public land conservation trust is another mechanism devoted to protecting open space, agricultural lands, wildlife habitats, and natural resource lands. Trusts achieve their objectives primarily through acquiring and managing interests in land or lease back holdings, or by purchasing conservation easements that protect sensitive land from development. Since they are less restrained by formalities and regulations than are public entities, land trusts are usually able to respond more quickly to purchasing opportunities, and can often assist public agencies with the technicalities of acquisition.

Locally, the Shasta Land Trust, founded in 1998, has begun to acquire lands and conservation easements. On the national level, The Trust for Public Land, The Nature Conservancy, and the American Land Conservancy, are just a few of the public trusts working in northern California that can play a part in the development of an open space program in the Redding area.

Shasta Land Trust's Fenwood Ranch on the Sacramento River

Open Space Strategy Recommended Goals and Policies

Implementing a community open space program for Redding will undoubtedly be an exciting and challenging undertaking. City leadership and public support on key policies and recommendations will be required. This will help ensure that the coming years of population growth and increased development in our region will not result in environmental degradation, but will instead restore and maintain those qualities of our natural environment that the community now enjoys.

To achieve the City's vision, the following goals and policies are recommended. Bracketed text refers to relevant General Plan goals and policies in the Natural Resources [NR], Community Development and Design [CDD], Recreation [R], Public Facilities [PF], and Air Quality [AQ] Elements, which can be found in abridged form in the Appendix.

Open Space Preservation

Goal OS1

Preserve and protect the significant habitats, plants, and wildlife in the planning area. *[NR5]*

Policies that implement this goal include:

OS1A Focus acquisition and preservation activities on six types of land:

- *Steep Slope*s - Slope protection assists in erosion control and water quality preservation within stream corridors and the Sacramento River, the source for much of Redding's drinking water. Scenic qualities are also associated with ridgetops vistas, and canyons provide natural landscape buffers. [NR10]
- *Floodplains* - Areas lying within the 100-year floodplain have a significant impact on riparian habitats, and the plants and animals that inhabit them. In many parts of the city, floodplains have been badly damaged through mining or development. The restoration of these areas can do much to increase fish populations, buffer adjacent land uses, and provide trail corridors. [NR10]
- *Natural Resource Areas That Support Sensitive Species Habitat* - The primary lands of interest relating to natural resource areas are associated with oak woodlands and aquatic habitats (riparian-streamside, wetlands, and vernal pools). [NR5 through NR9]
- *Agricultural Land*s - Farm production and grazing on family farms and other agricultural lands benefit the entire community as well as provide habitat for birds, plants and wildlife. [NR15]
- *Urban Buffers* - These lands help define a city's urban limits, provide a buffer between urban and rural uses, and act as "urban separators" to preserve the unique character of adjoining communities. [CDD8A] [AQ2-25]
- *Outdoor Recreation Areas and Cultural Site*s - Open space adjacent to existing parks, or which can expand the existing trail network, will contribute toward a connected outdoor recreation system. Sites with scenic, historic, cultural or archaeological value should also be sought out and protected. [NR12] [R2]

Open Space Planning and Management

Goal OS2

Provide planning and management of open space lands and resources, which are owned and otherwise protected by the City, so that they are an asset to the community. *[NR9]*

Policies to implement this goal include:

OS2A *Management Plans.* Develop management plans for all parcels and easements for which the City has or will expend public resources. Such plans will:

- Direct activities and improvements in a manner consistent with the reason(s) why the sites were originally acquired.
- Address fire management concerns and improve protection.
- Balance the opportunities to develop land for public access and enjoyment with the need to protect and manage the land for its natural resource values.
- Identify the lead agency responsible for management and maintenance activities.
- Examine recreation and trail opportunities.
- Address vegetation control measures, stormwater protection needs.
- Evaluate the need for habitat restoration projects.
- Include public education and stewardship activities whenever possible.
- Address local landowner and adjacent property owners' concerns.

OS2B *Technical Advisory Group.* Form a group to assist the existing Community Services Advisory Commission, and to help ensure the successful implementation of the open space program. [NR9B]

- Utilize the expertise and perspective volunteered by citizens and professionals to help the City accurately evaluate the complex issues associated with acquiring and protecting potential open space lands, and set realistic goals.
- Volunteer members of the Technical Advisory Group should be drawn from the fields of natural resources and from representatives of the community at large.
- At least one member of the Community Services Advisory Commission, and one member of the Planning Commission should serve as liaisons to the Technical Advisory Group.
- City staff support for the Technical Advisory Group should come from Community Services, Parks, Development Services, Fire, and Volunteer Services, and/or other departments and divisions, as deemed necessary.

OS2C *Inventory.* Regularly update databases of existing open space lands and create an inventory of their resources (e.g. property size, natural resources present, current use, etc.). [NR5C]

OS2D *Partnerships.* Build a strong network of partners with conservation organizations, individuals, the development community, and public agencies to successfully implement the program. [R12] [PF15B]

OS2E *Resources.* Budget resources for planning, implementation, management, and monitoring.

Open Space Land Selection

Goal OS3

Provide decision makers with an objective open space property selection and evaluation method. *[NR11]*

Policies that implement this goal include:

OS3A *Open Space Suitability Analysis*. Evaluate potential open space lands using science-based land and resource methods.

OS3B *Interest Areas.* Focus open space activities in the Open Space Interest Areas, which are delineated using the above method. [NR6] [NR8]

- Update on a regular basis the data used in evaluating potential open space lands. [NR5C]

OS3C *Other Areas.* Opportunities that may present themselves outside of the Interest Areas will be evaluated carefully for their compatibility with the goals of the open space program.

OS3D *Scarcity.* Consider the relative scarcity of the land type or resource being conserved when analyzing acquisition offers.

OS3E *Watersheds.* Use a watershed approach when evaluating prospective land for inclusion in the open space program.

Open Space Acquisition & Activities

Goal OS4

Adopt an open, consistent, and objective decision-making process for the acquisition of open space land by the City. *[NR11]*

Policies to implement this goal include:

OS4A *Acquisition Methods.* Acquire and hold the least interest in a property necessary to carry out the intended open space goals for that property.

OS4B *Acquisition & Preservation Methods.* Utilize a variety of open space preservation methods [NR6F, NR11]], including:

- acceptance of land donations
- conservation and trail easements
- partnerships in acquisition and restoration
- leases
- habitat mitigation banking
- habitat conservation plans
- land trades and transfers
- fee title acquisition

OS4C *Willing Sellers.* Future open space activities should take place with the willing cooperation of land owners.

OS4D *Disposal of Acquired Open Space.* Once the City acquires open space lands, they will not be sold, leased, traded, or otherwise conveyed unless approved by a public hearing and City Council action.

- In some instances, the City may have to dispose of unneeded land that may be attached or connected to parcels acquired for the program.