# V. OPEN SPACE AND CONSERVATION ELEMENT

2025

CITY OF ROSEVILLE CALIFORNIA

# OPEN SPACE AND CONSERVATION

Open Space System
Vegetation and Wildlife
Groundwater Recharge and Water Quality
Archaeological, Historic and Cultural Resources

**S**tate law requires each general plan to address open space and conservation issues including the preservation, management, and efficient use of open space and natural resources. The state has defined open space lands as being essentially unimproved and devoted to the preservation of natural resources, managed production of resources, outdoor recreation, and public health and safety. Conservation efforts are intended to focus on the wise management of natural and manufactured resources to assure their continued availability for use, appreciation, and enjoyment.

**S**tate law is also addressing the issue of Climate Change, in terms of both the cause and the potential effects. Natural resource conservation has been identified as one of the most effective ways to counteract the effects of global warming. Although not currently mandated to do so, Roseville's conservation efforts increase and maintain vegetated groundcover through the protection of trees and woodland areas, and the enhancement of urban parks and street-tree programs. Since Climate Change is also likely to have adverse effects on vulnerable plant and animal species, Roseville's conservation efforts also address the preservation of natural habitats, both aquatic and terrestrial. Such sustainable goals and policies throughout the General Plan are designated with an icon: Also, a more focused discussion of Climate Change can be referenced in the Air Quality element of the General Plan.

**T**he City recognizes that open space land is limited and that valuable resources must be conserved wherever possible. For many in Roseville, the City's open space setting is a highly valued natural resource. Given the strong interrelationship between open space and conservation issues, the City of Roseville has chosen to combine discussion of these items into a single Open Space and Conservation Element.

**R**esources provide both tangible and intangible benefits. Oak woodlands and riparian areas, for example, provide benefits to the City not only in the diversity of species they support, but also in their aesthetic appeal to City residents.

**T**he challenge for Roseville is to balance the preservation of open space, and other tangible and intangible resources, with continued growth and development. In addition, natural resources will need to be managed in a manner that allows resident use and benefit, while ensuring the long-term value and availability of the resources.

**T**he Open Space and Conservation Element provides goals and policies intended to ensure the current and future preservation, enhancement, and management of the natural

resources in the City. The element includes the following components:

***Open Space System*** defines the basic form, structure, and use of the City's open space system. Emphasis is placed on creating an interconnecting system of open space that balances natural preservation with human use. Included in the open space system are natural habitat, preserve areas, greenbelt, and park and recreation lands in both public and private ownership.

***Vegetation and Wildlife*** identifies the primary components of the City's natural systems and defines their relationship to the open space network. The preservation and management of grasslands, oak woodlands, riparian areas, seasonal wetlands, and special-status species are discussed.

***Groundwater Recharge and Water Quality*** focuses on protecting the quantity of groundwater and the quality of surface water resources

***Archaeological, Historic and Cultural Resources*** identifies Roseville's heritage, providing direction for the preservation, enhancement, and management of historic sites and buildings.

**T**he broad scope of issues addressed in the Open Space and Conservation Element overlap with other elements of the General Plan. Table V-1 reflects the relationship of open space and conservation issues to other General Plan elements. The Open Space and Conservation Element should be used in combination with the other elements to insure full implementation of all General Plan resource-related policies.

**T**here are no prime farmlands or agricultural operations generating significant principle income in Roseville. Although a small area within the West Roseville Specific Plan contains prime farmland within a pistachio orchard. Areas within the western sphere of influence area contain farmland of local importance mainly used as grazing land. In addition, mineral resources, consisting of sand and gravel, are limited and no mineral extraction operations currently exist or are anticipated to exist in the City during the planning period. No policies relating to agricultural or mineral resources, therefore, have been included in the Open Space and Conservation Element. Should the City decide to expand in the future, policies relating to these issues may need to be considered.

**A**lthough the plan focuses on the current General Plan land use allocation and boundaries, it is intended that the goals, policies, and implementation measures contained herein will also apply should the City determine to increase its land use allocation or boundaries.

**It is an overall goal of the Open Space and Conservation Element to preserve a comprehensive interconnecting system of open space, encompassing preservation and enhancement of natural habitat and significant resource areas, for the use, appreciation, and enjoyment of the community.**

## TABLE V-1

## OPEN SPACE AND CONSERVATION ISSUES RELATIONSHIP TO GENERAL PLAN ELEMENTS

| | |
|---|---|
| **Land Use** | • Open Space Land Use Definitions |
| **Air Quality & Climate Change** | • Air Quality Conservation |
| **Open Space & Conservation** | • Open Space System<br>• Vegetation & Wildlife<br>• Groundwater Recharge & Water Quality<br>• Archaeological, Historic & Cultural Resources |
| **Parks & Recreation** | • Parks & Recreation Definitions, Standards & Citing Criteria<br>• Open Space Maintenance |
| **Public Facilities** | • Water & Energy Conservation<br>• Source Reduction and Recycling |
| **Safety** | • Flood Control<br>• Geologic and Seismic Safety |

# OPEN SPACE SYSTEM

## A. SETTING

**O**pen space provides both relief from urbanization and access to natural areas in and around the community. In addition, open space lands provide an opportunity for habitat preservation and enhancement. Roseville has numerous natural areas that serve open space functions. A majority of these focus on the oak and riparian environments along the City's creek systems.

**R**oseville's overall open space system consists of a variety of natural and man-made elements. At the present time there are approximately ~~2,929~~3,155 acres of land in the City designated for open space use[1]. A majority of this acreage consists of floodplains, wetland preserves, watershed areas, and associated woodlands. This total does not include traditional developed parks or golf courses.

**T**he City's open space system includes ~~2,064~~2,225 acres of wetland preserve areas that were created as on-site mitigation. The preserve areas are monitored and managed in accordance with the permit conditions of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.

**T**he General Plan Land Use Element identifies two land use categories, Open Space and Parks & Recreation, to be applied to the various types of open space lands. These designations are generally reflected on Figure V-1, Open Space Areas. Definitions for the categories above can be found in the Land Use Designations, Definitions and Standards Component of the Land Use Element. The open space land use categories will be overlaid by corresponding zoning districts that will further define their uses and limitations.

**O**pen space of all types, including natural and man-made, are to be preserved throughout the City. It is intended that these resources will be primary factors in defining the City's identity and character.

**T**he City has assigned priority to the development of a comprehensive open space network, connecting public and private open space lands, and providing access to destinations throughout the City and surrounding areas. Although some of the designated open space resources may not be naturally contiguous, they bear a positive and direct relation to each other through the formation of connecting corridors. Providing linkages between these components allows for wildlife, pedestrian, and bicycle circulation as well as other potential passive recreation and educational opportunities. A regionally linked system also allows for connections to adjacent communities.

## B. OUTLOOK

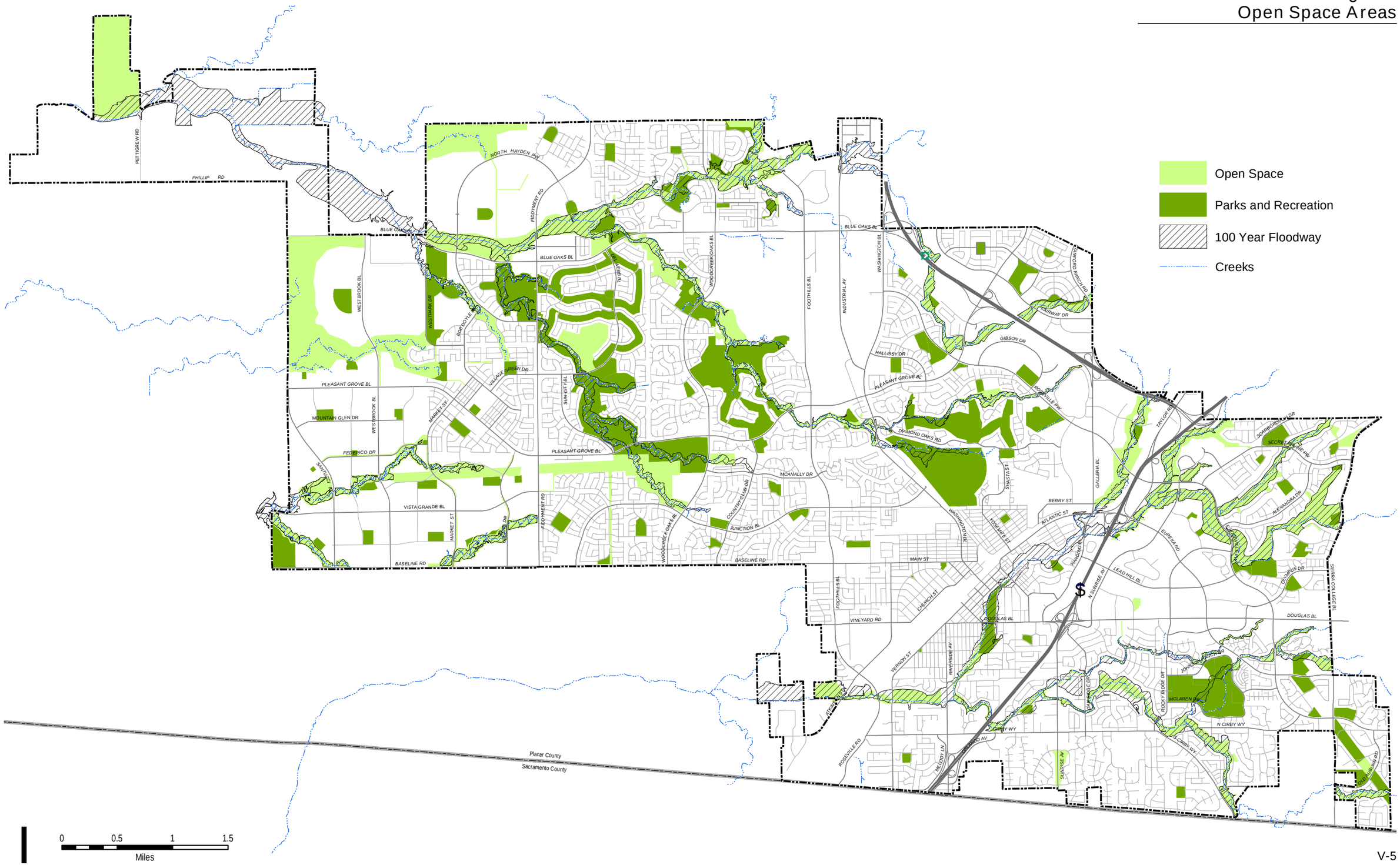
**P**reservations of open space and natural areas for habitat protection, as well as the enjoyment of Roseville citizens, is a basic goal of the Roseville General Plan. Current and planned development presents a challenge to the City in achieving this goal. However, proper implementation of supporting programs, development standards and guidelines will help preserve and enhance designated open space and natural habitat areas and insure that such areas are properly considered and conserved when analyzing future development.

**S**hould the City decide to expand beyond its current urban land use allocation, the exact boundaries and methods of preservation for open space resources would need to be determined consistent with the goals and policies of this element and the remainder of the General Plan.

**S**tate and federal resource agencies have indicated a preference for large-scale off-site preservation for certain wetland habitats. In addition, future open space and resource preservation strategies may require close coordination with large-scale County open space preservation programs or state and federal Natural Communities Conservation Plan/Habitat Conservation Plan efforts. These issues will require close inter-agency coordination.

[1] Roseville Land Inventory, 2009

Fig. V-1
Open Space Areas






S:\Arcdata\planning\Map Library\General Plan\Update Files\2012\2011PL-043(GPA-000062)\GP_Fig.V-1(Open Space Areas).mxd - 02/27/2012 @ 1:13:41 PM

# C. GOALS AND POLICIES

| GOALS: | OPEN SPACE SYSTEM |
|---|---|
| ***Goal 1*** | **E**stablish a comprehensive system of public and private open space, including interconnected open space corridors that should include oak woodlands, riparian areas, grasslands, wetlands, and other open space resources. |
| ***Goal 2*** | **U**tilize the open space system to connect neighborhoods and separate development areas within the City. |
| ***Goal 3*** | **P**rovide access to public open space areas through the establishment of a series of public linkages that will be adequately managed and protected. |
| ***Goal 4*** | **I**ntegrate, where feasible, passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas. |
| ***Goal 5*** | **C**onsider alternatives to City ownership and management of open space preserve areas. |

| Policies: | Open Space System | *Implementation Measures* |
|---|---|---|
| **1.** | **P**rovide an interconnecting system of open space corridors that, where feasible, incorporate bikeways and pedestrian paths. | *Each of the following measures shall be utilized, as applicable, to implement all of the policies of the Open Space System Component:*<br>*- Land Use Designation*<br>*- Zoning Ordinance*<br>*- Specific Plans*<br>*- Development Review Process*<br>*- Resource Inventory*<br>*- Preservation Mechanisms*<br>*- Maintenance and Management Programs*<br>*- Intergovernmental Coordination*<br>*- Bicycle Master Plan*<br>*- Community Design Guidelines*<br>*- Parks and Recreation Comprehensive Master Plan*<br>*- Public Education Program* |
| **2.** | **P**rovide interconnected open space corridors between open space and habitat resources, recreation areas, schools, employment, commercial service and residential areas. | |
| **3.** | **W**ork with adjacent jurisdictions to connect the City with regional open space and trail systems, providing a network of open space and habitat resources, pathways and, where reasonable, equestrian trails through the City to link nearby communities. | |

**4.** **R**equire all new development to provide linkages to existing and planned open space systems. Where such access cannot be provided through the creation of open space connections, identify alternative linkages.

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**5.** **P**rovide access to public open space resources except in those areas determined by the City to be sensitive to human presence.

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**6.** **T**ake into account consideration of natural habitat areas in developing linkages and in preserving open space areas. Identify alternate sites for linkages where sensitive habitat areas have the potential to be adversely impacted.

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**7.** **M**aximize opportunities for preservation and maintenance of open space resources, including establishment of private open space areas. Consider coordination with non-profit organizations and investigate the potential for conservancy ownership and/or management of open space areas.

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**8.** **P**rovide opportunities for public education through the City's public open space system, natural resource areas, and parks and recreation facilities.

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**9.** **W**here feasible, entryways into Roseville shall incorporate the preservation of natural resource areas, such as oak woodland, riparian and grassland areas as a way of defining the City's boundaries and identity.

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**10.** **C**onsider the use of open space for the location of flood control facilities where such facilities allow compatible passive recreational use and resource preservation.

## D. IMPLEMENTATION MEASURES

**E**ach of the following measures shall be utilized, as applicable, to implement all of the goals and policies of the Open Space System Component:

### 1. Land Use Designation
*(Existing)*

**D**esignate all areas identified for open space use and/or habitat preservation with the appropriate open space land use designation as defined in the Land Use Element.

### 2. Zoning Ordinance
*(Existing)*

**C**ontinue to implement the Zoning Ordinance that includes open space land use and development regulations consistent with the goals and policies of the Open Space and Land Use Elements.

### 3. Specific Plans
*(Ongoing)*

**E**nsure that new or revised specific plans are consistent with the goals and policies of the General Plan. The specific plans shall identify and designate open space resources including grasslands, woodlands, wetlands, riparian areas, floodplains, recreation areas and other open space and habitat resources. This will include areas of scenic or educational value.

**P**articular attention shall be given to comprehensive resource conservation efforts for the entire plan area. Specific plans shall create open space systems that insure the preservation of designated open space and habitat resources, create corridors between the resources, link various specific plan land uses and services, link the plan area with the remainder of the City, and accommodate regional open space, compatible flood control facilities, and trail systems. Corridors shall be designed to consider the convenient movement of wildlife and path users with minimal restrictions from roadways and other urban features. Specific Plans shall describe methods of preservation, long-term maintenance, and provisions for management. Development agreements will be utilized to ensure preservation, maintenance, and management techniques including potential alternative ownership and management approaches involving non-profit land trusts or conservancy organizations

### 4. Development Review Process
*(Ongoing)*

**R**efer any development proposal that has a direct or indirect impact on designated open space, significant habitat, preserve or drainage areas to the Community Development, Parks and Recreation and Public Works Departments, as applicable, for comment. In addition, where development proposals have a potential impact on resources identified as being within the jurisdiction of outside agencies, including the California Department of Fish and Game, California Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and National Oceanic and Atmospheric Administration, refer such projects to the appropriate agencies. Consider the comments of the departments and agencies in the development review process.

**T**he environmental review for projects shall include an inventory of the quantity and quality of resources, assessment of potential project impacts, identification of preservation techniques, and other mitigation and monitoring measures. Parcels shall not be created for urban purposes when significant natural resources would make such parcels undevelopable unless City approved mitigation programs are incorporated.

**I**n addition to open space preservation, explore development alternatives and standards to minimize impacts on open space areas. Such techniques may include grading standards, limitation of development intensity, and cluster development. Development design should maximize the total open space frontage visually accessible to public view. Where appropriate, encourage native plants and landscaping that provide wildlife habitat. Address project linkages to local and regional open space networks through project review. Where appropriate, utilize development agreements to ensure open space preservation, maintenance, and management techniques.

## 5. Resource Inventory
*(Ongoing)*

**I**n conjunction with environmental review per CEQA, require that resource field surveys be submitted concurrent with development applications inventorying the type, quantity and quality of existing open space resources and conditions. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed, is within an adopted specific plan area, or contains resources considered less than significant. The completed surveys will be used in evaluation of individual projects as well as in the compilation of a comprehensive natural resource inventory for the City.

## 6. Preservation Mechanisms
*(Ongoing)*

**E**xplore and utilize a variety of mechanisms to promote and ensure the preservations of designated open space resources. Such mechanisms may include, but are not limited to, dedication, fee-title purchase, donations, transfer or purchase of development rights, and credits against park dedication requirements. If it is determined by the City that an open space resource is not desired for public ownership, the City may designate the preservation of such resource in private ownership. A decision not to seek public ownership may occur when the resource is not desired for public access and where public management and maintenance cannot be efficiently accommodated. In such cases, the permanent preservation of the resource shall be ensured through land use and zoning, recorded map, deed restriction, conservation easement, or other City approved mechanism.

**W**here feasible, and desirable, the acquisition and preservation of open space resources may be facilitated by working with non-profit land trusts and conservation organizations.

## 7. Operation and Management Plans
*(Ongoing)*

**A**ccompany the designation of any area as open space with a program to ensure the long-term maintenance and management of the area. The program shall address restrictions regarding grading and drainage from adjacent land uses, permitted and prohibited uses and activities, the frequency and type of maintenance needed, management and monitoring provisions to ensure the continued viability of the resource, and designated costs and funding sources. When open space preserves are established as the result of permits issued by federal or state agencies, the maintenance and management programs shall be consistent with applicable permitting requirements and related Operation and Management Plans. Endowment funds, maintenance districts, or other revenue sources shall be established to ensure sufficient funding for maintenance and any required monitoring and reporting. Funding should consider law enforcement costs to ensure protection of natural values, improvements, public use and adjacent properties. New Preserve areas established by federal permit should be considered for appending to the City's Preserve Area Overarching Management Plan to ensure consistent City-wide Preserve area management practices.

## 8. Intergovernmental Coordination
*(Ongoing)*

**C**onsult, at the earliest possible opportunity, with adjacent jurisdictions and responsible agencies to ensure the coordinated designation and preservation of open space areas. Such efforts shall consider continuity of areas between jurisdictions, potential connections between communities and regional systems, and opportunities for regional resource preservation and banking.

## 9. Bicycle Master Plan
*(Existing)*

**I**mplement the Bicycle Master Plan as specified in the Bikeway/Trails component of the Circulation Element. The Bicycle Master Plan was developed according to State standards and provides a prioritized list of bikeway projects, improvements, and programs that will result in a comprehensive, inter-connected bikeway system.

## 10. Community Design Guidelines
*(Existing)*

**I**mplement the Community Design Guidelines as specified in the Land Use Element. The guidelines include standards to promote the

integration of the natural and built environments and design standards for the City.

## 11. Parks and Recreation Comprehensive Master Plan

*(Existing)*

**I**mplement the Parks and Recreation Comprehensive Master Plan as specified in the Parks and Recreation Element. The Master Plan includes a full assessment of traditional and non-traditional park lands and recreation opportunities.

## 12. Public Education Programs

*(Ongoing)*

**T**he City will participate in public programs emphasizing awareness of open space and resource conservation issues. When feasible, such programs should be coordinated with the local school districts and community groups. Efforts will be made to reach all households and provide accessibility through the timing and location of these programs.

# VEGETATION AND WILDLIFE

## A. SETTING

**V**egetation and wildlife resources and corridors are an important component of the overall open space system. These resources, including trees, wetlands, riparian, and creek areas, have been the historic focus of preservation efforts in Roseville. If future generations are to enjoy and benefit from the resources available to the present generation, these finite and fragile resources need to be preserved and managed.

**T**he vegetation and wildlife resources found in Roseville can be broadly classified by habitat types. The grasslands, oak woodlands, riparian areas, creeks, and seasonal wetlands support a wide variety of plant and animal species. Where feasible, the focus of preservation efforts shall be multi-purpose. It is preferred, as an example, to preserve woodlands, grasslands, and wetlands in combined, rather than separate and unconnected, settings.

**T**he various habitat types are summarized below. Table V-2 lists the common plant and wildlife species associated with each habitat type. Figure V-2 generally reflects the location of the habitat areas in Roseville.

***Annual Grasslands.*** Relatively small amounts of self-sustaining grasslands still exist in the northern and western undeveloped edges of Roseville. Less extensive areas of grassland can be found in smaller undeveloped areas scattered throughout the City. Before the Spanish and later immigrants arrived in the Central Valley, the grasslands consisted of native species. The effects of grazing and clearing large tracts for agriculture resulted in the decline of native species, so that today most of the grasslands in the region are non-native. These areas do, however, provide important habitat for birds and other wildlife.

***Oak Woodlands, Riparian and Creek Areas.*** The oak woodlands found in Roseville generally occur in proximity to the City's major stream channels. The microclimates and alluvial soils provide ideal conditions for the deeper rooting shrubs and trees found in these habitats. Most woodland areas are relatively open with little shrub growth.

**T**he riparian areas support much wider biological diversity. Situated along and within the City's creeks and water courses, the riparian corridors are a source of food and water and provide cover, nesting sites, and migration and dispersal corridors for wildlife.

**R**iparian areas are important in flood protection and they improve air and water quality through natural filtering. The oak woodland areas and riparian and creek habitats represent resources to the City not only in the diversity of species they support, but also in their natural open space and aesthetic values. The City's creek systems are further described in the Groundwater Recharge and Water Quality Component of this element.

**T**he City regulates the protection of its native oak trees through the Tree Preservation Ordinance. This ordinance includes standards that limit disturbance within the protected zones of oaks and emphasizes avoidance of trees. Where avoidance is not feasible, and tree removal is authorized by the City, mitigation is required on an inch for inch basis. The Tree Preservation Ordinance has been, and will continue to be, a highly valuable tool in protecting Roseville's oak trees and habitat.

**C**onsistent with open space implementation measure 7, a Creek and Riparian Management and Restoration plan is being developed which will provide standards for creek and riparian area management and enhancement.

***Seasonal Wetlands.*** Many of the wetland areas found in Roseville are seasonal in nature receiving, retaining, or transporting water only during the wet season. Wetlands are subject to the regulations of the U.S. Army Corps of Engineers under the provisions of Section 404 of the Clean Water Act. Two primary types of seasonal wetlands are found in the City: intermittent drainages and vernal pools.

**I**ntermittent drainages are typically narrow channels one to ten feet in width that flow over a variety of substrata in Roseville. Most are wet only during the winter, transporting run-off. They typically are dry during the summer with

scattered ponds, but may contain water from adjacent urban runoff.

**V**ernal pools represent a significant seasonal wetland resource in Roseville. They are considered unique not only due to their limited natural occurrence and distribution, but also because of the unique native plant and animal species they support. Found in the valley grassland areas, vernal pools are typically small, shallow, hardpan-floored depressions that fill with water during the wet winter season, gradually drying by late spring or early summer.

**T**wo types of vernal pools occur in the Roseville area. The first, northern volcanic mud flow vernal pools, occur in shallow depressions on Mehrten mud flow formations where the slope is generally less than two percent. The second type of vernal pool is the northern hardpan. These generally occur on the Inks or Cometa soil series found at the lower watershed portions of creek floodplains.

**D**uring the wet season, the pools provide special habitat required for unique plant and animal species whose germination, growth, and reproductive cycles coincide with the availability of collected water. There is significant variety between individual pools both in the length of time they remain wet and in the diversity of plant species present.

**V**ernal pool habitats, although relatively abundant in Roseville and the Sacramento/Placer County region, are considered unique on a statewide basis. The fact that several plant species only occur in association with these special habitats has triggered concern about their inventory and preservation.

**S**pecial-Status Species. The California Department of Fish and Game maintains the California Natural Diversity Data Base. This database includes known locations of plant and animal species that are officially listed (state and federal) as endangered, rare and threatened, plus those species considered by the scientific community to be deserving of such listing.

**T**he sensitive plant species that may be found within Roseville are primarily associated with vernal pool environments and include: Bogg's Lakehedge Hyssop (*Gratiola heterosepala*), Dwarf Downingia (*Downingia humilis*) and Vernal Pool Brodiaca (*Dichelostemma lacuna-vernalis*). Bogg's Lake Hyssop is listed as endangered by the state and California Native Plant Society (CNPS). Dwarf Downingia and Vernal Pool Brodiaca are both included on the CNPS "watch list" and are of sufficiently limited distribution to warrant continued monitoring. Vernal pools in the City may also contain federally-listed endangered vernal pool tadpole shrimp (*Lepidurus packardi*) and federally-listed threatened vernal pool fairy shrimp (*Branchinecta lynchi*).

**A**nadromous chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley steelhead (*Oncorhynchus mykiss*) are known to be present seasonally in Dry Creek and its upper tributaries. Steelhead is listed by the U.S. Fish and Wildlife Service as a threatened species under the Endangered Species Act (ESA). Chinook salmon within the Central Valley Fall/Late Fall-Run are listed as a candidate species.

**I**n addition to the federal or state classified rare or endangered wildlife species known to inhabit Roseville, favorable habitats for other listed species can be found in the area. Other special status species potentially present in Roseville include Cooper’s hawk, Swainson’s hawk, Valley Elderberry, Longhorn Beetle, Sanford’s Arrowhead, and the Northwestern Pond Turtle. Bald eagles have been sighted near Folsom Lake, and the American peregrine falcon is found in the Sacramento Valley.

## B. OUTLOOK

**T**he preservation and protection of habitats and wildlife is an important goal of the Roseville General Plan. In order to properly analyze potential impacts of planned development, resource field surveys will be required during the development review process. The completed surveys, as well as the compilation of a comprehensive natural resource inventory for the City, will be used to evaluate individual projects.

**T**he potential loss of Roseville's natural areas from development pressures represents a threat to these sensitive habitats. The City will be challenged in balancing resource preservation with development needs. Woodland, riparian and wetland preservation efforts will focus on

avoidance first, with compensation utilized when avoidance is not feasible. The goal of such efforts is to ensure a no-net loss of significant resources and, when necessary and appropriate, to pursue off-site resource preservation at locations proximate to the City so as to provide benefit to City residents. Preservation efforts will require close coordination with the California Department of Fish and Game, California Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service and Environmental Protection Agency and any on-going “landscape level” conservation planning efforts.

## TABLE V-2
## COMMON PLANT AND WILDLIFE SPECIES FOUND IN THE ROSEVILLE AREA

### I. Grassland Environments

***Plant Species:*** Wild oat, wild barley, bromes, tarweed, fescues, foxtail grass, clovers, popcorn flower, lupine brodiaea, owls clover, goldfield, and larkspur. Few trees are supported in these grassland habitats due to limited soils, lack of moisture, predominance of shallow hardpan, and past grazing activities.

***Wildlife Species:*** Mammals such as the broad-footed mole, San Joaquin pocket mouse, Western harvest mouse, deer mouse, house mouse, California ground squirrel, pocket gopher, blacktailed jackrabbit, striped skunk, badger, and coyote; birds such as the ring-necked pheasant, common barn owl, burrowing owl, short-eared owl, rufous-crowned sparrow, lark sparrow, red-winged blackbird, and Western meadowlark; and, reptiles and amphibians including the common king snake, Western garter snake, Western rattlesnake, gopher snake, racer, Western toad, Western spade-foot toad, slender salamander, and Pacific tree frog.

### II. Oak Woodland and Riparian Environments

***Plant Species:*** Oaks are the most visually dominant plant species found in the oak woodlands and riparian areas. A majority of the oaks are interior live, blue, or valley oaks. Other tree species found include digger pine, California buckeye, Fremont cottonwood, sycamore, willow, and black walnut. Understory species include buckbrush, coffeeberry, poison oak, yerba santa and blackberry.

***Wildlife Species:*** Mammals such as the gray fox, coyote, opossum, California myotis, big brown bat, Western gray squirrel, brush mouse, and spotted and striped skunks; birds such as the red-tailed hawk, turkey, mourning dove, California quail, white crowned sparrow, Anna's hummingbird, scrub jay, mockingbird, turkey vulture, black-shouldered kite, barn owl, Northern pygmy owl, Western screech owl, acorn woodpecker, Nuttals woodpecker, downy woodpecker, Northern flicker, yellow-billed magpie, bushtit, plain titmouse, wrentit, Bewick's wren, white-breasted nuthatch, American robin, European starling, rufous-sided towhee, brown-headed cowbird, house finch, lesser goldfinch, and American goldfinch; reptiles and amphibians including the alligator lizard, gopher snake, common king snake, Western garter snake, ringneck snake, aquatic garter snake, Western rattlesnake, racer, slender salamander, arboreal salamander, Western toad, Western spade-foot toad, Pacific tree frog, and bull frog; and, fish including the Sacramento squawfish, bluegill, green sunfish, Sacramento perch, brown bullhead, mosquito fish, and minnows. Some of the watercourses in the City are intermittent, which limits fisheries, but there are seasonal occurrences of the various fish species listed above. Federally-listed Chinook Salmon and Central Valley Steelhead are found in both Linda and Dry Creeks, and Secret and Miners Ravines, and salmon fingerlings have been planted in Miners Ravine in the past by the California Department of Fish and Game.

### III. SEASONAL WETLAND ENVIRONMENTS

***Plant Species:*** Mesa mint, popcorn flower, navarretia, toad rush, goldfields, coyote thistle, and wolly marbles. Plant species of special concern include Bogg's Lake hyssop, dwarf downingia and vernal pool brodiaca.

***Wildlife Species:*** Crustaceans and insects are the predominant invertebrates that occur in this habitat, including: federally endangered vernal pool tadpole shrimp, and federally threatened vernal pool fairy shrimp, water fleas, clam shrimp, seed shrimp, rotifers, dragonflies, water beetles, mosquitoes, mayflies, water bugs, water boatmen, water striders, and back swimmers. Several migratory bird species also utilize seasonal wetlands for varying periods of the year, including mallards, killdeer, greater yellowlegs, least sandpipers, common snipe, and great blue heron.

# C. GOALS AND POLICIES

**GOALS:** **VEGETATION AND WILDLIFE**

***Goal 1*** **P**reserve, protect, and enhance a significant system of interconnected natural habitat areas, including creek and riparian corridors, oak woodlands, wetlands, and adjacent grassland areas.

***Goal 2*** **M**aintain healthy and well-managed habitat areas in conjunction with one another, maximizing the potential for compatible open space, recreation, and visual experiences.

***Goal 3*** **P**rotect special-status species and other species that are sensitive to human activities.

| **Policies:** | **Vegetation and Wildlife** | ***Implementation Measures*** |
|---|---|---|
| **1.** | **I**ncorporate existing trees into development projects, and where preservation is not feasible, continue to require mitigation for the loss of removed trees. Particular emphasis shall be placed on avoiding the removal of groupings or groves of trees. | *Each of the following measures shall be utilized as applicable to implement all of the Goals and Policies of the Vegetation and Wildlife component:*<br><br>*- Land Use Designation*<br>*- Zoning Ordinance*<br>*- Specific Plans*<br>*- Development Review Process*<br>*- Resource Inventory*<br>*- Preservation Mechanisms*<br>*- Maintenance and Management Programs*<br>*- Tree Preservation Ordinance*<br>*- Floodway Preservation Ordinance*<br>*- Wastewater Discharge*<br>*- Grading Ordinance*<br>*- Stormwater Ordinance*<br>*- Wetland Mitigation Guidelines*<br>*- Community Design Guidelines*<br>*- Public Education Programs*<br>*- Intergovernmental Coordination* |
| **2.** | **P**reserve and rehabilitate continuous riparian corridors and adjacent habitat along the City's creeks and waterways. | |
| **3.** | **R**equire dedication of the 100-year flood plain or comparable mechanism to protect habitat and wildlife values in perpetuity. | |
| **4.** | **R**equire preservation of contiguous areas in excess of the 100-year flood plain as merited by special resources or circumstances. Special circumstances may include, but are not limited to, sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grassland connections in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements. | |

**5.** **L**imit recreation activities within the 100-year flood plain and require additional setback areas for trails and other public recreation uses so that natural resource areas are not adversely impacted.

**6.** **P**rovide for protection and enhancement of native fishery resources, including continued coordination with the California Department of Fish and Game to release water into Linda Creek.

**7.** **R**equire cumulative mitigation plans for wetlands, where feasible, in association with specific plans.

**8.** **C**onsider substitute site mitigation for federally non-regulated wetlands, provided that such mitigation will provide comparable habitat values.

**9.** **L**imit the access of pedestrians and cyclists to vernal pool and wetland areas so that access is compatible with long-term protection of these natural resource areas.

**10.** **M**anage public lands with special-status species to encourage propagation of the species and discourage non-indigenous, invasive species.

**11.** **H**abitat preservation and mitigation for woodlands, creeks, riparian and seasonal wetland areas should occur within the defined boundaries of the impacting projects where long-term resource viability is feasible and desirable.

**12.** **C**onsider the use of City property for habitat preservation and mitigation requirements resulting from development proposals when such efforts do not conflict with existing resources, recreational opportunities, or other City goals, policies, or programs.

**13.** **W**ork with adjacent jurisdictions, regulatory agencies, and community organizations to explore opportunities for regional mitigation banking.

## D. IMPLEMENTATION MEASURES

**E**ach of the following measures shall be utilized, as applicable, to implement all of the goals and policies of the Vegetation and Wildlife Component:

### 1. Land Use Designation
*(Existing)*

**D**esignate all areas identified for open space use and/or preservation with the appropriate open space land use designation as defined in the Land Use Element.

### 2. Zoning Ordinance
*(Existing)*

**C**ontinue to implement the Zoning Ordinance that includes open space land use and development regulations consistent with the goals and policies of the Open Space and Land Use Elements. Modification may include establishment of a zoning designation applicable to sensitive resource areas.

### 3. Specific Plans
*(Ongoing)*

**E**nsure that new or revised specific plans are consistent with the goals and policies of the General Plan. The specific plans shall identify and designate open space resources that may include grasslands, woodlands, wetlands, riparian areas, floodplains, recreation areas, and other open space and habitat resources. This will also include areas of scenic or educational value.

**P**articular attention shall be given to comprehensive resource conservation efforts for the entire plan area. Specific plans shall create open space systems that ensure the preservation of designated open space and habitat resources, create corridors between the resources, link various specific plan land uses and services, link the plan area with the remainder of the City, and accommodate regional open space, compatible flood control facilities, and trail systems. Corridors shall be designed to consider the convenient movement of public path users and wildlife with minimal conflicts from roadways and other urban features. Specific plans shall describe methods of preservation, long-term maintenance and provisions for management. Development agreements may be utilized to ensure preservation, maintenance and management techniques, including potential alternative ownership and management approaches involving non-profit land trust or conservancy organizations.

### 4. Development Review Process
*(Ongoing)*

**R**efer any development proposal that has a direct or indirect impact on designated open space, significant habitat, preserve or drainage areas to the Community Development, Parks and Recreation and Public Works Departments, as applicable, for comment. In addition, where development proposals have a potential impact on resources identified as being within the regulatory jurisdiction of outside agencies, including the California Department of Fish and Game, California Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and National Oceanic and Atmospheric Administration, refer such projects to the appropriate agencies. Consider the comments of the departments and agencies in the development review process.

**T**he environmental review for projects shall include an inventory of the quantity and quality of resources, assessment of potential project impacts, identification of preservation techniques, and other mitigation and monitoring measures. Parcels shall not be created for urban purposes when significant natural resources would make such parcels undevelopable unless City-approved mitigation programs are incorporated.

**I**n addition to open space preservation, explore development alternatives and standards to minimize impacts on open space areas. Such techniques may include grading standards, limitation of development intensity, and cluster development. Development design should maximize the total open space frontage visually accessible to public view. Where appropriate, encourage native plants and landscaping that provides wildlife habitat. Address project linkages to local and regional open space networks through project review. Where appropriate, utilize development agreements to

ensure open space preservation, maintenance and management techniques.

## 5. Resource Inventory
*(Ongoing)*

**I**n conjunction with environmental review per CEQA, require that resource field surveys be submitted concurrent with development applications inventorying the type, quantity, and quality of existing open space resources and conditions. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed, is within an adopted specific plan area, or contains resources considered less than significant. The completed surveys will be used to evaluate individual projects as well as to compile a comprehensive natural resource inventory for the City.

## 6. Preservation Mechanisms
*(Ongoing)*

**E**xplore and utilize a variety of mechanisms to promote and insure the preservation of designated open space resources. Such mechanisms may include, but are not limited to, dedication, fee-title purchase, donations, transfer or purchase of development rights, and credits against park dedication requirements. If it is determined by the City that an open space resource is not desired for public ownership, the City may designate the preservation of such resource in private ownership. A decision not to seek public ownership may occur when the resource is not desired for public access and where public management and maintenance could not be efficiently accommodated. In such cases, the permanent preservation of the resource shall be ensured through land use and zoning, recorded map, deed restriction, conservation easement, or other City-approved mechanism.

**W**here feasible and desirable, the acquisition and preservation of open space resources may be facilitated by working with non-profit land trusts and conservation organizations.

## 7. Operation and Management Plans
*(Ongoing)*

**A**ccompany the designation of any area as open space with a program to ensure the long-term maintenance and management of the area. The program shall address restrictions regarding grading and drainage from adjacent land uses, permitted and prohibited uses and activities, the frequency and type of maintenance needed, management and monitoring provisions to ensure the continued viability of the resource and designated costs and funding sources. When open space preserves are established as the result of permits issued by federal or state agencies, the maintenance and management programs shall be consistent with applicable permitting requirements and related Operation and Management Plans. Endowment funds or maintenance districts shall be established to ensure sufficient funding for maintenance and any required monitoring and reporting. Funding should consider law enforcement costs to ensure protection of natural values, improvements, public use, and adjacent properties. . New Preserve areas established by federal permit should be considered for appending to the City's Preserve Area Overarching Management Plan to ensure consistent City-side Preserve area management practices.

## 8. Tree Preservation Regulations
*(Existing)*

**E**nforce and regularly evaluate the Tree Preservation regulations contained in the Zoning Ordinance. These regulations provide standards for the removal, preservation, and mitigation of native oak trees. Emphasis is placed on avoidance first, mitigation second. Where mitigation is not feasible on-site, tree preservation and mitigation efforts should be considered in locations that enhance or expand existing resource areas.

## 9. Flood Damage Prevention Ordinance
*(Existing)*

**E**nforce and regularly evaluate the Flood Damage Prevention Ordinance. This ordinance regulates the preservation of the 100-year flood plain, as defined in the Safety Element, to protect habitat and wildlife values in perpetuity. Areas outside but adjacent to the 100-year floodplain may be designated for dedication or preservation if special circumstances or resources exist. These may include, but are not limited to, sensitive wildlife or vegetation,

wetland habitat, oak woodland areas, grasslands in association with other habitat areas, slope or topographical considerations, recreation opportunities, and maintenance access requirements.

## 10. Wastewater Discharge
*(Existing)*

**C**ontinue to regulate the discharge of treated wastewater into Dry and Pleasant Grove Creeks in accordance with Regional Water Quality Control Board and National Pollutant Discharge Elimination System (NPDES) standards. These standards are intended to eliminate water quality impacts to fisheries and other aquatic resources.

## 11. Grading Ordinance
*(Existing)*

**E**nforce and regularly evaluate the Grading Ordinance. The Grading Ordinance includes specific standards for project construction and erosion control. Enforcement helps to reduce sedimentation within the creek systems that can impact aquatic resources. The ordinance requires prompt re-vegetation of disturbed areas, avoidance of grading activities during wet weather, and avoidance of disturbance within drainageways as well as other erosion and sedimentation control measures.

## 12. Stormwater Ordinance
*(Proposed)*

**T**hrough the Environmental Utilities Department, adopt an ordinance designed to implement measures to improve the short-term and long-term quality of stormwater run-off. Guidance for the preparation of development plans to minimize water degradation from urban development shall be incorporated. The plan shall include identification of cost-effective urban run-off controls, including Best Management Practices, to limit urban run-off pollutants into the waterway systems and shall be consistent with EPA Stormwater Management regulations and National Pollutant Discharge Elimination System (NPDES) Phase 2 requirements.

## 13. Wetland Mitigation Guidelines
*(Proposed)*

**I**n conjunction with required environmental review per CEQA, regulate the preservation, mitigation, monitoring and maintenance of wetland areas in coordination with the California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency. For federally non-regulated wetlands, the City may require compensation or mitigation based on the value of the resource and reserves the right to consider not-in-kind compensation.

**W**etland preservation, mitigation, monitoring and maintenance efforts in Roseville shall, where feasible, comply with the following principles:

- Avoidance of resources as a first priority, with compensation or mitigation implemented when avoidance is determined not to be feasible or desirable;
- No net loss of wetland acreage, values or function, or habitat of comparable value is provided;
- Comprehensive rather than incremental preservation, compensation or mitigation programs;
- Preservation, compensation or mitigation efforts focused on enhancing and expanding existing resource areas rather than creating isolated resource pockets;
- Preserves, compensation or mitigation areas created that are large enough to be self-sustaining and ensure the long-term preservation of wetland resources and required watersheds, provide an adequate buffer, and have a sufficient number of wetlands to support adequate species populations and range;
- Preserves and compensation or mitigation areas selected on their representativeness, habitat quality, watershed integrity, defensibility, buffer, size, plant species, variety, and presence of special status species.

**W**hen avoidance is determined not to be feasible or desirable, compensation or mitigation shall occur based on the following priorities:

1. On-site within the identified project or specific plan area when long-term resource viability is feasible.

2. Off-site, but within the City of Roseville, when on-site compensation or mitigation is determined not to be feasible or desirable.

3. Off-site outside the City only when the above two options are determined not to be feasible or desirable. Compensation or mitigation efforts outside the City should be in close proximity and accessible to Roseville residents and should be coordinated with regional preservation and banking efforts. Proposals to provide wetland compensation or mitigation outside the City shall be accompanied by documentation indicating how the compensation or mitigation proposal benefits the resource and the City and how the loss of open space resources in the City will be mitigated.

**A**ll wetland preserve, compensation or mitigation areas shall be designated as permanent open space and maintained as specified in implementation measures 6 and 7 of this component. City property may be utilized for preservation or mitigation if such efforts do not conflict with existing resources, recreational opportunities or other City goals, policies and programs. Pedestrian and cyclist access to preservation and compensation or mitigation areas shall be well-defined and limited to minimize impacts upon the resources. Areas identified s having special status species shall be monitored and managed to encourage the continued viability of the species and discourage non-indigenous invasive species.

## 14. Community Design Guidelines
*(Existing)*

**E**nforce and regularly evaluate the Community Design Guidelines as specified in the Land Use Element. These guidelines contain standards to promote the integration of the natural and built environments, including City entryways.

## 15. Public Education Programs
*(Ongoing)*

**T**he City will participate in public programs emphasizing awareness of open space and resource conservation issues. When feasible, such programs should be coordinated with the local school districts and community groups. Efforts will be made to reach all households and provide accessibility through the timing and location of these programs.

## 16. Intergovernmental Coordination
*(Ongoing)*

**P**ursue a regional approach to habitat preservation. This effort includes working with adjacent jurisdictions, the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, California Department of Fish and Game, National Oceanic and Atmospheric Administration, and community organizations to develop a programmatic permitting and mitigation process, and explore opportunities for habitat preservation, restoration and enhancement. .

# GROUNDWATER RECHARGE AND WATER QUALITY

## A. SETTING

**T**he focus of this component is the preservation and protection of the City's groundwater and surface water quality. Domestic water supply and water conservation are addressed in the Water System and the Water and Energy Conservation components of the Public Facilities Element.

**R**oseville is located within two drainage basins. Pleasant Grove Creek and its tributaries drain most of the western and central areas of the City north of Baseline Road and the Diamond Oaks Golf Course. Dry Creek and its tributaries drain the remainder of the City from Rocklin to the north, Loomis Basin to the east, Sacramento County to the south, and Placer County to the west. The Dry Creek system has year-round flows in its major water courses, while the Pleasant Grove system is intermittent in nature with only seasonal flows (although when the Pleasant Grove Wastewater Treatment Plant comes online, Pleasant Grove Creek west of the PGWWTP will flow year round). The primary stream systems and drainage basins in the City are reflected in Figure V-3.

**M**ost major stream areas within Roseville are protected by City policy that requires dedication and prohibits development of the 100-year floodplain area. Exceptions exist mainly within the infill areas where some private ownership of floodplain exists and the historic encroachment of development has occurred. Many of the streams in Roseville are found in their natural state; limited sections of others have been channelized.

**U**rbanization has a substantial impact on water quality both short and long-term. Development results in an increase in impervious surfaces such as roofs, streets, sidewalks, and storm drains. These combine to decrease infiltration opportunities and (depending upon soil type) may increase the volume and rate of run-off. Increased run-off velocity adds to the potential for channel erosion resulting in increased sediment into the watercourses. In addition, sediment deposited in streams from construction-related activities results in degradation of spawning, rearing, and food producing habitat. Removal of riparian vegetation can have significant impacts by increasing stream temperature and reducing the input of biologic materials into the streams.

**L**ong-term impacts to water quality may occur as a result of run-off from urbanization that enters the watercourses. Reduction in permeable surface areas limits the percolation and associated filtration processes beneficial to water quality. Urban run-off from surfaces such as streets, parking lots, driveways, and landscaped areas typically includes oil, grease, heavy metals, pesticides, herbicides, fertilizers and sediments. Increases in urban run-off have been shown to impact, among other things, aquatic habitat.

**U**rbanization can also impact groundwater recharge and quality. Roseville, as well as a majority of the Sacramento and South Placer area, is located over the north central portion of California's Central Valley groundwater basin. This aquifer is an extensive system of different groundwater basins extending from Red Bluff to Bakersfield.

**I**ncreased incidence of droughts has been identified as a potential effect of Climate Change, further necessitating proactive policies and programs such as Roseville's Stormwater Ordinance and Aquifer Storage and Recovery Program. City policies addressing these effects are identified where applicable.

**G**roundwater supplies are naturally recharged by rainwater that reaches the subsurface saturated zone of the soil. The rate and quantity of water reaching the saturation zone depends on factors that include the amount and duration of precipitation, soil type, moisture content of the soil, and vertical permeability of the unsaturated zone. The Roseville area is composed of several soil types with three main geologic formations. Water permeability varies with each of the formation types. In general, the primary locations for potential groundwater recharge are along the City's major watercourses.

**I**ncreased impervious surfaces associated with urbanization, particularly in areas of high recharge potential, impact percolation opportunities. This, combined with pumping for agricultural and urban uses, can impact groundwater levels. In addition, pollutants found in urban run-off can leach into aquifers impacting groundwater quality.

**M**onitoring and protection of groundwater resources is important to the maintenance of adequate groundwater supplies and quality. Streambeds and other areas where recharge potential is high should be explored for preservation to ensure groundwater levels. Maintaining high water quality within the creek systems will also help to keep contaminants out of the aquifer.

## B. OUTLOOK

**F**or the most part, measurements of water quality within the Roseville area indicate no major sources of pollution are present. However, some concern has been expressed about groundwater quality in portions of the City. Two wells, neither of which are connected to the City's domestic water system, have shown signs of contaminants. Because Roseville does not rely on groundwater as a primary domestic water source, this has not been a major issue in the past. As development increases, concerns about surface water quality and groundwater supply and quality are likely to increase.

**T**he City has and will continue to comply with Environmental Protection Agency stormwater management regulations as enforced by the State Water Resources Control Board and the Regional Water Quality Control Board. These regulations include requirements for National Pollutant Discharge Elimination System (NPDES) Phase II permits. Roseville promotes the use of cost-effective urban run-off controls, including Best Management Practices, to reduce pollutants from entering the waterways. These practices include the use of oil and sand separators, grassy swales, detention ponds, vegetative buffers, and other source control, housekeeping, and treatment measures.

**P**lans to protect the City’s water resources and water quality include the development of standards for urban run-off, monitoring of groundwater, and protection of waterways and recharge areas.

# C. GOALS AND POLICIES

| | |
|---|---|
| **GOALS:** | **GROUNDWATER RECHARGE AND WATER QUALITY** |
| ***Goal 1*** | **C**ontinue to improve surface water quality and accommodate water flow increases. |
| ***Goal 2*** | **E**nhance the quantity and quality of groundwater resources. |

| **Policies:** | **Groundwater Recharge and Water Quality** | ***Implementation Measures*** |
|---|---|---|
| **1.** | **U**tilize cost-effective urban run-off controls, including Best Management Practices, to limit urban pollutants from entering the watercourses. | *- Stormwater Ordinance*<br>*- Development Review Process*<br>*- Specific Plans* |
| **2.** | **I**mplement erosion control and topsoil conservation measures to limit sediments within watercourses. | *- Development Review Process*<br>*- Specific Plans*<br>*- Flood Damage Prevention Ordinance* |
| **3.** | **E**nsure a buffer area between waterways and urban development to protect water quality and riparian areas. | *- Development Review Process*<br>*- Specific Plans*<br>*- Flood Damage Prevention Ordinance* |
| **4.** | **C**ontinue to monitor and participate in, as appropriate, regional activities affecting water resources, groundwater, and water quality. | *- Interagency Coordination* |
| **5.** | **C**ontinue to monitor groundwater resources and investigate strategies for enhanced sustainable use. Areas where recharge potential is determined to be high shall be considered for designation as open space. | *- Development Review Process*<br>*- Specific Plans*<br>*- Water Well Monitoring*<br>*- Land Use Designation*<br>*- Zoning Ordinance*<br>*- Preservation Techniques* |
| **6.** | **W**here feasible, locate stormwater retention ponds in areas where subsoil is suitable for groundwater recharge. | *- Development Review Process*<br>*- Specific Plans*<br>*- Flood Control* |

# D. IMPLEMENTATION MEASURES

## 1. Stormwater Ordinance
*(In Progress)*

**T**hrough the Environmental Utilities Department, develop an ordinance designed to improve the short-term and long-term quality of stormwater run-off. Guidance for the preparation of development plans to minimize water degradation from urban development shall be incorporated. The ordinance shall include identification of cost-effective urban run-off controls, including Best Management Practices, to limit urban run-off pollutants into the waterway systems and shall be consistent with EPA Stormwater Management regulations and National Pollutant Discharge Elimination System (NPDES) Phase 2 requirements. *(Policy 1)*

## 2. Development Review Process
*(Ongoing)*

**R**efer any development proposal that has a direct or indirect impact on water quality or groundwater recharge and quality to the Community Development and Environmental Utilities Departments, as applicable, for comment. In addition, where development proposals have a potential impact on resources identified as being within the jurisdiction of outside agencies, including the California Department of Fish and Game, California Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, and National Oceanic and Atmospheric Administration, refer such projects to the appropriate agencies. Consider the comments of the departments and agencies in the development review process.

**T**he environmental review for projects shall include an inventory of the quantity and quality of water resources, assessment of potential project impacts, and identification of mitigation and monitoring measures. The issues of urban run-off controls, erosion control, recharge area preservation, and buffer areas shall be addressed. In addition, the handling and storage of toxic chemicals shall be examined to minimize the risk of discharge into storm drains, watercourses, or groundwater. *(Policies 1, 2, 3, 5 and 6)*

## 3. Specific Plans
*(Ongoing)*

**E**nsure that new and revised specific plans are consistent with the goals and policies of the General Plan. The specific plans shall identify and designate open space resources including grasslands, woodlands, wetlands, riparian areas, floodways, recreation areas and other open space, buffer, and habitat resources. The environmental analysis for each specific plan shall address water quality programs, recharge area preservation, and erosion control and urban run-off management. In addition, specific plans shall include guidelines that address development along waterways. Guidelines should consider access, security, and separation from urban development. Development agreements will be utilized to ensure preservation, maintenance and management techniques. *(Policies 1, 2, 3, 5 and 6)*

## 4. Grading Ordinance
*(Existing)*

**E**nforce and regularly evaluate the Grading Ordinance. The Grading Ordinance includes specific standards for project construction and erosion control. Enforcement helps to reduce sedimentation within the creek systems that can impact aquatic resources. The ordinance requires prompt re-vegetation of disturbed areas, avoidance of grading activities during wet weather, avoidance of disturbance within drainageways as well as other erosion and sedimentation control measures. *(Policy 2)*

## 5. Flood Damage Prevention Ordinance
*(Existing)*

**E**nforce and regularly evaluate the Flood Damage Prevention Ordinance. This ordinance regulates the preservation of the 100-year flood plain as defined in the Safety Element to protect habitat and wildlife values in perpetuity. Areas outside but adjacent to the 100-year floodway may be designated for dedication of preservation if special circumstances or resources exist. These may include, but are not limited, to sensitive wildlife or vegetation, wetland habitat, oak woodland areas, grasslands in association with other habitat areas, slope or topographical considerations,

recreation opportunities, and maintenance access requirements. *(Policy 3)*

## 6. Interagency Coordination
*(Ongoing)*

**C**ontinue to coordinate City water quality, groundwater and water resource efforts with the appropriate local, state, and federal agencies. *(Policy 4)*

## 7. Water Well Monitoring
*(Ongoing)*

**T**hrough the Environmental Utilities Department, continue to monitor the City's wells for water quality and quantity. *(Policy 5)*

## 8. Land Use Designation
*(Existing)*

**D**esignate all areas identified for open space use and/or preservation with the appropriate open space land use designation as defined in the Land Use Element. Open space land use shall be applied to primary watercourses and may be considered for significant recharge areas. *(Policy 5)*

## 9. Zoning Ordinance
*(Existing)*

**C**ontinue to implement and enforce the Zoning Ordinance's open space district and development regulations for consistency with the goals and policies of the Open Space and Land Use Elements. *(Policy 5)*

## 10. Preservation Mechanisms
*(Ongoing)*

**E**xplore and utilize a variety of mechanisms to promote and ensure the preservation of designated open space resources. Such mechanisms may include, but are not limited to, dedication, fee-title purchase, donations, transfer or purchase of development rights, and credits against park dedication requirements. If it is determined by the City that an open space resource is not desired for public ownership, the City may designate the preservations of such resource in private ownership. A decision not to seek public ownership may occur when the resource is not desired for public access and where public management and maintenance could not be efficiently accommodated. In such cases, the permanent preservation of the resource shall be ensured through land use and zoning, recorded map, deed restriction, conservation easement, or other City-approved mechanism.

**W**here feasible, and desirable, the acquisition and preservation of open space resources may be facilitated by working with non-profit land trusts and conservation organizations. *(Policy 5)*

## 11. Flood Control
*(Component Instituted by the General Plan)*

**R**egulate flood control, detention and retention efforts in accordance with the goals, policies and implementation measures of the Flood Control Component of the Safety Element. *(Policy 6)*

## 12. Aquifer Storage and Recovery
*(Proposed)*

**T**hrough the Environmental Utilities Department, investigate the potential for development and implementation of an Aquifer Storage and Recovery (ASR) program. A successful ASR Program would allow the City to maximize sustained use of the groundwater basin in conjunction with surface water supplies, while providing a strong backup water supply during critically dry years consistent with the City's commitments contained in the Water Forum Agreement.

# ARCHAEOLOGICAL, HISTORICAL AND CULTURAL RESOURCES

## A. SETTING

**P**rior to exploration by Spanish explorers and American trappers, the Roseville region was inhabited by the Valley Nisenan. The term Nisenan ("of us" or "from our side") is applied to the Southern Maidu Indians who made their home along drainages of the American, Yuba, and Bear Rivers and the lower reaches of the Feather River. The Nisenan were hunters and gatherers, relying on acorns, seeds, roots, fish, deer, elk, rabbits, and small game for sustenance. Two principal types of habitation sites existed: permanent settlements often located on low rises near the larger streams; and, seasonal encampments (utilized for food gathering) along the smaller drainages.

**T**wo large permanent Nisenan sites have been identified within the City. These sites are located within Maidu Regional Park. In addition, numerous smaller archaeological sites have been identified throughout Roseville. Many of the sites contain shallow midden deposits and bedrock mortar milling stations.

**O**utside exploration of the region was first recorded in the early 1800's. This included explorations conducted by Gabriel Moraga between 1806 and 1808 and fur trapping expeditions led by Jed Smith in 1827 and 1828.

**T**he discovery of gold in 1848 brought over 10,000 people to Placer County, with Roseville being established as a railroad town and a local commerce center. Building materials, mining equipment, livestock staples, and other major commodities were delivered to the region by railroad. Roseville prospered as a principal rail head that provided the frontier towns with goods and services. By 1854 agricultural and ranching pursuits (fruit, grain and beef stock) had begun in the area.

**T**races of Roseville's ranching and mining past are still evident today. Holdings of the Spring Valley Ranch were enclosed by rock walls built by Chinese laborers. Several of these walls can still be found in the City. In addition, numerous historic features, including ditches, pits, small mounds, and low terraces exhibit evidence of historic mining operations along several of the City's creeks.

**A**n inventory of significant historic sites has been prepared by the Roseville Historical Society. Two local sites, the Haman House and the Maidu Indian sites, are listed on the *National Register of Historic Places*. These and other sites of historic interest are identified on Figure V-4. Smaller archaeological finds exist that have not been listed on Figure V-4 to protect these sites from vandalism and unauthorized excavation. A majority of these sites are located in areas designated with open space land use.

## B. OUTLOOK

**T**he City has opened the Maidu Interpretive Center in Maidu Park. This center incorporates the significant archaeological resources found in the area and provides interpretive information for residents.

**O**ther planning efforts, including the Old Town, Downtown and Riverside Master Plans, are currently underway, which will aid in identifying priorities and policies for areas of historical significance. Additionally, the Roseville Historical Society is participating in a countywide inventory of historic sites.

**T**he City has included Historic District regulations within its Zoning Ordinance. These regulations are applied to Roseville's original commercial core generally east of Washington Boulevard and north and west of the Union Pacific Railroad tracks. These regulations include use, architectural and signage criteria for existing and new development to ensure the rehabilitation, revitalization, and preservation of the area.

**S**tate government participates in the protection and preservation of cultural resources through the State Office of Historic Preservation (SHPO) and the California Native American Heritage Commission. Both agencies comment on environmental documents and development

proposals that may impact cultural sites or artifacts. The City will continue to coordinate the preservation of historic and archaeological resources with these agencies.

# C. GOALS AND POLICIES

| GOALS: | ARCHAEOLOGICAL, HISTORIC AND CULTURAL RESOURCES | |
|---|---|---|
| ***Goal 1*** | **S**trengthen Roseville's unique identify through the protection of its archaeological, historic and cultural resources. | |
| **Policies:** | **Archaeological, Historic and Cultural Resources** | ***Implementation Measures*** |
| **1.** | **W**hen items of historical, cultural or archaeological significance are discovered within the City, a qualified archaeologist or historian shall be called to evaluate the find and to recommend proper action. | *- Development Review Process*<br>*- Specific Plans* |
| **2.** | **W**hen feasible, incorporate significant archaeological sites into open space areas. | *- Development Review Process*<br>*- Specific Plans*<br>*- Land Use Designation*<br>*- Zoning Ordinance* |
| **3.** | **S**ubject to approval by the appropriate federal, state, local agencies, and Native American Most Likely Descendant (MLD), artifacts that are discovered and subsequently determined to be "removable" should be offered for dedication to the Maidu Interpretive Center. | *- Development Review Process* |
| **4.** | **P**reserve and enhance Roseville's historic qualities through the implementation of the Downtown, Old Town, and Riverside Master Plans. | *- Zoning Ordinance*<br>*- Master Plans* |
| **5.** | **E**stablish standards for the designation, improvement and protection of buildings, landmarks, and sites of cultural and historic character. | *- Zoning Ordinance*<br>*- Master Plans* |
| **6.** | **P**articipate in the completion of a countywide inventory of historical sites. | *- Interagency Cooperation* |

| | | |
|---|---|---|
| **7.** | **E**ncourage public activities, including the placement of monuments or plaques, that recognize and celebrate historic sites, structures, and events. | *- Community Organizations* |
| **8.** | **E**xplore funding for cultural, archaeological and historic programs and activities. | *- Interagency Cooperation*<br>*- Community Organizations*<br>*- Parks and Recreation Comprehensive Master Plan* |
| **9.** | **P**rovide opportunities to public awareness and education through coordination with the Historical Society and local schools. | *- Interagency Cooperation* |

# D. IMPLEMENTATION MEASURES

## 1. Development Review Process
*(Ongoing)*

**R**efer any development proposal that may have an impact on archaeological, historic or cultural resources to the appropriate federal, state or local agency for comment, including the State Office of Historic Preservation and the Native American Heritage Commission. Consider the comments of the agencies in the development review process.

**I**n association with environmental review per CEQA, the City shall require that an archaeological survey be prepared by a qualified archaeologist for projects for which it is determined that there is a reasonable probability that archaeological or historic resources exist. If such resources are identified, a plan for their disposition shall be prepared. This may include designation as open space, excavation, capping, or donation to the Maidu Interpretive Center.

**I**f archaeological or historic resources are discovered during project development, halt construction activity in the vicinity of the resource, contact a qualified archaeologist for determination of resource significance, and notify the State Office of Historic Preservation. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

**I**nformation identifying specific locations of archaeological and historic sites shall be kept confidential to prevent illegal removal or vandalism of artifacts. *(Policies l, 2 and 3)*

## 2. Specific Plans
*(Ongoing)*

**E**nsure that new or revised specific plans are consistent with the goals and policies of the General Plan. The specific plans shall incorporate a comprehensive inventory, analysis, and mitigation plan for archaeological and historic resources. Where feasible, significant archaeological resources shall be incorporated into park or other open space areas. All significant archaeological sites located in parks and other open space areas should be protected and left in an undisturbed state. Development agreements should be utilized to ensure preservation, maintenance, and management techniques. *(Policies 1 and 2)*

## 3. Land Use Designation
*(Existing)*

**D**esignate all areas identified for open space use with the appropriate open space land use designation as defined in the Land Use Element. This will, where feasible, include areas identified as having significant archaeological resources. *(Policy 2)*

## 4. Zoning Ordinance
*(Existing)*

**C**ontinue to implement the Zoning Ordinance's open space land use and development regulations for consistency with the goals and policies of the open space and land use elements. *(Policies 2, 4 and 5)*

## 5. Master Plans
*(Ongoing)*

**C**ontinue to refine and complete the Old Town, Downtown, and Riverside Master Plans. Include within these plans identification of significant historic structures, provisions to preserve and/or enhance existing buildings, and guidelines for compatibility of new and existing development. Coordinate the master plans with redevelopment efforts to promote the preservation, revitalization and enhancement of the areas. *(Policies 4 and 5)*

## 6. Interagency Cooperation
*(Ongoing)*

**C**ooperate with other state, federal and local agencies in the identification and preservation of archaeological and historic resources. This will include working with Placer County and the Roseville Historical Society on the inventory of historic sites. *(Policies 6, 8 and 9)*

## 7. Community Organizations
*(Ongoing)*

**C**ontinue to encourage, support and cooperate with various community organizations, including the Roseville Historical Society, in recognizing significant places and events in Roseville's past. *(Policies 7 and 8)*

## 8. Parks and Recreation Comprehensive Master Plan

*(Existing)*

**T**he Parks and Recreation Comprehensive Master Plan was adopted by the City Council on May 17, 1995.

**T**he Parks and Recreation Comprehensive Master Plan should be updated a minimum of every three years and/or with any significant modification to the city's land use allocation. The Plan will be used to ensure continual review and updating of recreation facility standards. Periodic survey of City-administered recreation programs should also be conducted by the Parks and Recreation Department in order to evaluate the content and popularity of programs being offered. *(Policies 4, 7, 10 and 11)*