



IX - NATURAL RESOURCES ELEMENT



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VISION STATEMENT

Rancho Cordova will achieve a balance of natural resources and urban form through the compatible preservation of natural resources within the man-made environment. Natural resources will be protected, conserved, and reflected in the built environment. Creek corridors, preserves, trees, and open space areas will enhance neighborhoods and public spaces. The community's water resources will be conserved and protected from contamination. All new development will be consistent with stormwater regulations and protect against erosion. The community will strive to conserve energy and to recycle construction materials, green waste, and consumer goods.

INTRODUCTION

Natural resources connect with urban life in many ways, providing an important relationship between humans and the natural environment; including biological resources, and water resources. Ensuring quality management and protection of the City's numerous natural resources will contribute to Rancho Cordova's environmental health as well as to quality of life for residents. The City will become a leader in natural resource conservation, managing natural resources to ensure long-term sustainability while evaluating new opportunities and techniques in conservation.

PURPOSE

The Natural Resources Element identifies the ways in which Rancho Cordova will protect, maintain, and enhance its natural resources for the betterment of current residents and future generations. In combination, the Natural Resources Element and the Open Space, Parks and Trails Element represent the conservation element of the General Plan. The Open Space, Parks and Trails Element contains details on the City's Open Space Plan. It also attempts to balance the present needs of resource users with the need for resource conservation for the common good. The goals, policies, and actions in this Element will foster the preservation of Rancho Cordova's many valuable natural resources, including wildlife, habitat, water resources, soils, and mineral resources.





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RELATED PLANS AND PROGRAMS

The Natural Resources Element relates to several other federal, State and local plans and programs, including the following:

- **National Environmental Policy Act.** The National Environmental Policy Act (NEPA) is a federal environmental review process for projects that have a federal nexus (e.g., impact federal resources or lands, receive federal funding, or require federal approval or permits). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. This Element is consistent with the intent of NEPA. It contains a goal and supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat.
- **Federal Endangered Species Act.** The Federal Endangered Species Act (FESA) is a federal law that protects species that are endangered or threatened with extinction. FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Actions in this Element require the City to coordinate with federal agencies on wetland preserves and creek corridors.
- **Vernal Pool Recovery Plan.** The U.S. Fish & Wildlife Service’s Vernal Pool Recovery Plan (Recovery Plan) covers 33 plant and animal species that occur exclusively or primarily within the California and southern Oregon vernal pool ecosystem. As drafted, the Recovery Plan identifies a five-part strategy to ameliorate or eliminate threats to affected species and to preserve intact vernal pools. This Element contains a goal, policies and actions related to preserving wetlands.
- **Section 404 of the Clean Water Act (404 Permits).** Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into waters of the United States (waters of the U.S.), including wetlands and vernal pools. Activities in waters of the U.S. that are regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. This Element contains a goal, policies and actions related to preserving and mitigating for the loss of wetlands.

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- **Section 401 of the Clean Water Act (Water Quality Certification).** Section 401 of the Clean Water Act requires a State Water Quality Certification for all federal permit or license applications for any activity that may result in a discharge to a water body to ensure compliance with state water quality standards. Most Certifications are issued in connection with section 404 permits for dredge and fill discharges. The Central Valley Regional Water Quality Board issues Section 401 water quality certifications for projects in Rancho Cordova. This Element contains a goal with supporting policies and actions related to creeks and a goal with supporting policies and actions related to water quality.
- **Section 402 of the Clean Water Act (NPDES Permits).** Section 402 of the Clean Water Act establishes permit programs to authorize discharge of storm water from municipal storm sewer systems. Rancho Cordova has a Municipal Stormwater Permit under the National Pollutant Discharge Elimination System (NPDES) Permit Program with Sacramento County, Elk Grove, Galt and the City of Sacramento. The Regional Water Quality Control Board, Central Valley Region, issues and administers the Sacramento NPDES municipal stormwater permit. This Element contains a policy and supporting actions related to urban runoff and discharging materials into creeks.
- **California Environmental Quality Act.** The California Environmental Quality Act (CEQA) is the State's environmental review process that requires public agencies to identify the significant environmental effects of a project and either avoid the significant environmental effects, where feasible, or mitigate the significant environmental effects, where feasible. This Element contains an action that specifically requires CEQA analysis of projects.
- **California Endangered Species Act.** The California Endangered Species Act is the State's listing of endangered and threatened species. It requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing CEQA documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. This Element contains a goal and supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat, and an action requiring coordination with CDFG on Swainson's hawk mitigation.
- **California Fish and Game Code.** The California Fish and Game Code contains laws and regulations relating to California's fish, wildlife, plants, and their habitats. The Code is administered by the California Department of Fish and Game. This Element contains a goal and supporting policies and actions related to protecting and



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preserving diverse wildlife and plant habitat, and an action requiring coordination with CDFG on Swainson's hawk mitigation.

- **Surface Mining and Reclamation Act.** The Surface Mining and Reclamation Act (SMARA) addresses the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. SMARA's requirements apply to all surface mining operations in California that disturb more than one acre or remove more than 1,000 cubic yards of material including, but is not limited to, prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. This Element contains a goal and supporting policies and actions related to environmentally sensitive extraction of minerals and reclamation.
- **California Integrated Waste Management Act.** The California Integrated Waste Management Act (CIWMA) requires each city and county to prepare, adopt, and submit to the California Integrated Waste Management Board a source reduction and recycling element (SRRE) that demonstrates how the jurisdiction will meet the IWMA's mandated diversion goals. This Element contains a goal and supporting policies and actions related to waste reduction, reuse, recycling and composting.
- **California Public Resources Code, Sections 41500-41510.** The Public Resources Code (PRC) requires each city and county to prepare, adopt and submit to the Waste Management Board a program for the safe collection, recycling, treatment, and disposal of hazardous wastes that are generated by households. This Element contains a goal and supporting policies and actions related to recycling and a goal and supporting policies and actions related to recycling of hazardous materials.
- **South Sacramento Habitat Conservation Plan (SSHCP).** The South Sacramento Habitat Conservation Plan (SSHCP) is a mitigation plan being prepared and managed by Sacramento County that seeks strategies that allow commercial, residential, and other development, while balancing the needs of sensitive plant and animal species. The SSHCP covers land within Sacramento County, including portions of the cities of Rancho Cordova, Elk Grove and Galt. The SSHCP is intended to consolidate environmental efforts to protect and enhance wetlands (primarily vernal pools) and upland habitats to provide ecologically viable conservation areas. The SSHCP will also minimize regulatory hurdles and streamline the development permit process for projects that are covered by and consistent with the plan. This Element contains a goal with supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat, a policy about

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participation in an HCP, and a goal with supporting policies and actions related to preserving natural wetlands.

- **American River Parkway Plan.** The American River Parkway Plan was adopted by the City of Sacramento, Sacramento County and the State Legislature to manage the Parkway's natural resources and promote recreation in a natural environment with minimal impacts. Sacramento County is currently updating the American River Parkway Plan. The ARPP Update is required because the context and usage of the three areas has changed considerably since the Plan was adopted. The City of Rancho Cordova is participating in the ARPP Update. This regional resource/amenity passes through the northern portion of Rancho Cordova. This Element contains a goal with supporting policies and actions related to protecting and preserving diverse wildlife and plant habitat.

RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The Natural Resources Element is closely related to the Open Space, Parks, and Trails Element and Air Quality Element of the General Plan. The Open Space, Parks and Trails Element contains goals, policies and actions that establish the open space plan for the City. Together, the two elements represent the conservation element of the General Plan. The Air Quality Element contains policies about maximizing air quality benefits through the use of landscaping and trees, which are directly related to policies in the Natural Resources Element. Where appropriate, cross-references are provided to alert the reader to information in the other elements.

ISSUES AND CONSIDERATIONS

NATURAL RESOURCES SETTING

The Planning Area contains many varied natural resources, from habitats to creeks to water supplies. Each resource has an important function within the City and the region. The City does not contain forests, harbors, or fisheries. Therefore, the Natural Resources Element does not contain goals, policies or actions related to such resources.





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Plant and Animal Habitat



A variety of unique and valuable habitats are found within the Planning Area, including, but not limited to, oak and cottonwood woodlands, various grasslands, vernal pool areas, and open water and rivers. The habitats of the Planning Area contain numerous special status plant and animal species. A comprehensive list of the habitats and species in the Planning Area is provided in the Background Report that accompanies the General Plan.

Table NR-1 at the end of this Element includes a current list of special-status species that occur within the Rancho Cordova Planning Area.

Wetlands and Creeks

Wetlands and creeks in the Planning Area provide a variety of functions to the community. Creeks provide important ecosystem functions. The riparian habitat associated with creeks supports diverse and abundant plant and animal life and provides movement corridors for animals. Wetlands in the project area also have important ecological functions in that they support unique assemblages of specially adapted biota. In addition to their ecological functions, wetlands and creeks provide important water filtration and treatment, water supply, water storage, and recreational functions.

Water Resources

The Planning Area contains several surface water and groundwater resources. Major surface water resources include the American River, the Cosumnes River, Morrison Creek, Laguna Creek, Elder Creek, Buffalo Creek, Blodgett Reservoir, and the Folsom South Canal. Groundwater is found in aquifer zones underneath the Planning Area.



Former Aerojet and Boeing operations associated with rocket testing resulted in groundwater contamination in portions of the Planning Area. The groundwater contamination spread in a plume that extends south and west within Rancho Cordova, as well as north under the American River into Carmichael. The Environmental Protection Agency (EPA) designated the Aerojet property as a Superfund site. A site is only designated as a Superfund site if it has been contaminated by hazardous waste and if the Environmental Protection Agency (EPA) has identified the site as a candidate for cleanup because it poses a risk to human health and/or the environment. In 2000, the EPA proposed a plan to clean up the plume of groundwater contamination to the west of the Aerojet property and to ensure continued, safe water supplies for area residents. Aerojet has installed wells, pipelines, and

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treatment systems in the first phase of their effort to remove the groundwater contamination. Cleaning of the contamination officially began in 1979.

The current groundwater remediation is anticipated to be a long-term commitment, possibly operating more than 100 years. A significant volume of extracted and treated groundwater, possibly exceeding 30,000 acre-feet per year, is expected to be discharged to the American River. After flowing downstream to the Sacramento River and south to the Freeport pumping station, the water will be introduced into the County's municipal water system. The use of this water has been established through legal agreements between Aerojet, Sacramento County, and affected local water agencies.

Water is provided to the Rancho Cordova's Planning Area by three water purveyors including Sacramento County Water Agency (SCWA) Zone 40, Golden State Water Company (GSWC), and California-American Water Company (Cal-Am). The City's water supply is currently provided by a combination of ground and surface water resources. Future water supplies will be provided from a variety of sources, including: water from the Central Valley Project; appropriate water supplies; water transfer supplies; groundwater; recycled water; surface water from the American River; SMUD transfer water; and Aerojet replacement water.

A Water Supply Evaluation was prepared for the General Plan to identify water supply needs of the proposed General Plan under buildout of proposed land uses in the City's current boundaries as well as the Planning Area outside of the City under the State law providing for coordination between cities and counties and water planning activities of water purveyors and agencies. This work involved consultation with the current public and private water purveyors in the Planning Area, as well as requests for formal consultation regarding water supply availability by the City. Urban Water Management Plans (UWMP) for all water purveyors were obtained and used in the Water Supply Evaluation. The UWMPs identified the purveyor's existing and projected future water supplies and projected water demands through 2030 within each of their service areas.

Soils/Aggregate Resources

The soils in the Planning Area are largely expansive clay soils, which tend to present challenges for construction. The Planning Area also contains approximately 10,275 acres of mine tailings, which are comprised of high-quality aggregate resources and possibly mineral resources such as gold. There are several existing mining operations within the Planning Area, some of which may expand in the future. These operations will play an important role in supplying materials for the build-out of the community.



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ISSUES THIS ELEMENT ATTEMPTS TO SOLVE

The goals, policies, and actions in this Element attempt to solve the following issues, raised during discussion of natural resource conservation:

- Protecting wildlife and wetlands areas.
- Encouraging the City and various public agencies to work together to establish natural resource protection areas both inside and outside of the City.
- Ensuring compatibility and mutual benefit, to the maximum extent feasible, between mitigation preserves and urban development.
- Reducing the impacts of new development on the use of water and mineral resources.
- Ensuring the availability of aggregate resources to support construction within the City.
- Maintaining continuous and uninterrupted connections between mitigation preserves providing habitat corridors that allow species migration and minimize habitat and species isolation.
- Reducing solid waste production and promoting recycling activities that seek to reduce the amount of solid waste to state-mandated levels.

GOALS, POLICIES, AND ACTIONS

The goals of this element are as follows and are listed subsequently with corresponding policies and actions. The term “feasible” as used in the Natural Resources Element of the City General Plan shall be defined as follows: “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

- **Goal NR1: Protect and preserve diverse wildlife and plant habitats, including habitat for special status species.**
- **Goal NR.2: Preserve the City’s rich and diverse natural wetlands.**

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- **Goal NR.3:** Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.)
- **Goal NR.4:** Encourage the planting and preservation of high-quality trees throughout the City.
- **Goal NR.5:** Protect the quantity and quality of the City's water resources.
- **Goal NR.6:** Support the environmentally sensitive extraction of minerals and the subsequent reclamation of mined areas.
- **Goal NR.7:** Reduce per capita energy consumption.
- **Goal NR.8:** Promote waste reduction, reuse, recycling, and composting efforts.

GOAL NR.1 - PROTECT AND PRESERVE DIVERSE WILDLIFE AND PLANT HABITATS, INCLUDING HABITAT FOR SPECIAL STATUS SPECIES.



Policy NR.1.1 - Protect rare, threatened, and endangered species and their habitats in accordance with State and federal law.

- **Action NR.1.1.1** - Incorporate habitat preserves and interconnected wildlife corridors in new development areas to allow for animal movement where feasible and as necessary for viability of protected species.
- **Action NR.1.1.2** – Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks, and/or wooded corridors.
- **Action NR.1.1.3** - As part of the consideration of development applications for individual Planning Areas containing habitats that support special-status plant and animal species that are planned to be preserved, the City may require that these preserved habitats have interconnections with other habitat areas where feasible and appropriate to promote the viability of the preserved habitat to support the special-status species identified. The determination of the design and size of the “interconnections” shall be made by the City, with the consideration of a recommendation from a qualified professional, after California Department of Fish

Cross reference:
LU.3.4



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and Game and U.S. Fish and Wildlife Service are provided with an opportunity to comment.

- **Action NR.1.1.4** - Prior to the approval of any public or private development project in areas containing trees, the City shall require that a determinate survey be conducted during the nesting season (March 1 and August 31) to identify if active nesting by birds protected under the Migratory Bird Treaty Act (MBTA) is taking place. If all site disturbance is to occur outside this time, the actions described in this mitigation measure are not required. If nesting activity is observed, consultation with the City of Rancho Cordova Planning Department shall be conducted in order to determine the appropriate mitigation, if any, required to minimize impacts to nesting birds. No activity may occur within 100 feet of any nesting activity or as otherwise required following consultation with the California Department of Fish and Game.

Policy NR.1.2 - Conserve Swainson’s hawk habitat consistent with State policies and Department of Fish and Game guidelines.

- **Action NR.1.2.1** – Establish a Swainson’s Hawk Ordinance in coordination with the California Department of Fish and Game to establish the process of mitigating for the loss of Swainson’s hawk foraging habitat based on habitat value lost to development. The ordinance will set forth a process where habitat lost to development will be mitigated through the permanent protection of equivalent or better existing habitat conditions (referred to hereafter as “mitigation lands”). The specific required mitigation ratios (habitat acreage lost versus mitigation lands) and any other provisions to mitigation process shall be established through technical studies as part of the development of the ordinance and will take into account value of habitat to be converted in relation to habitat value of the mitigation lands (e.g., relation to nesting sites), proximity of the mitigation lands to adjacent conditions affecting habitat (e.g., nearby land uses and already permanently protected lands), and other relevant factors. The ordinance will also establish standards ensuring that mitigation land will be adequately protected and managed in perpetuity (e.g., via conservation easement, deed restriction or other appropriate method), and setting forth the timing of the required provision of mitigation lands in relation with the timing of the loss of habitat in the City (as its boundaries may be changed through subsequent annexations), such that mitigation lands shall be provided no later than prior to ground disturbance.

Policy NR.1.3 – Promote educational programs that inform the public about natural resources.

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- **Action NR.1.3.1** – Coordinate with non-profit groups, educational institutions, and other agencies to provide environmental education programs that inform the public about the City’s natural resources, existing preserve sites, and cohabitation with common urban wildlife populations.

Policy NR.1.4 - Discourage the planting of invasive species.

- **Action NR.1.4.1** - Create an educational leaflet that identifies common invasive species and recommends the planting of non-invasive species.
- **Action NR.1.4.2** - The City shall adopt and maintain a Noxious Weed Ordinance. The Noxious Weed Ordinance shall include regulatory standards for construction activities that occur adjacent to natural areas to inhibit the establishment of noxious weeds through accidental seed import.

Policy NR.1.5 - Ensure the protection of wildlife through the establishment of programs to control feral pet populations.

Policy NR.1.6 – Participate in the development of a habitat conservation plan to address the unique biological resources in Rancho Cordova.

Policy NR.1.7 – Prior to project approval, the City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City’s biological resource mapping provided in the General Plan EIR or other technical materials.

- **Action NR.1.7.1** - For those areas in which special status species are found or likely to occur, the City shall require feasible mitigation of impacts to those species that ensure that the project does not contribute to the decline of the affected species such that their decline would impact the viability of the species. Feasible mitigation shall be determined by the City after the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) are provided an opportunity to comment, and may emphasize a multi-species approach. This may include development or participation in a habitat conservation plan.

Policy NR.1.8 - The City shall encourage creation of habitat preserves that are immediately adjacent to each other in order to provide interconnected open space areas for animal movement.

Policy NR.1.9 - The City shall require that impacts to riparian habitats be mitigated at a no net loss of existing function and value based on field survey and analysis of the riparian



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habitat to be impacted. No net loss may be accomplished by avoidance of the habitat, restoration of existing habitat, or creation of new habitat, or through some combination of the above.

Policy NR.1.10 - The placement of new roadways within habitat preserves shall be discouraged, but is not prohibited. This Policy shall not apply to roadways shown in the Circulation Element or needed to meet goals or policies of the Circulation Element.



Policy NR.1.11 - In such cases where a new roadway crosses a habitat preserve or separates two adjacent preserves, the roadway shall include design features, where feasible and appropriate, to allow for the movement of wildlife across or beneath the road without causing a hazard for vehicles, bicycles and pedestrians on the roadway.

GOAL NR.2 - PRESERVE THE CITY'S RICH AND DIVERSE NATURAL WETLANDS.

Policy NR.2.1 – Require mitigation that provides for “no net loss” of wetlands consistent with current State and federal policies.

- **Action NR.2.1.1** - During the environmental review process, evaluate feasible on-site alternatives that will reduce impacts to wetland resources and effectively preserve these resources.

Policy NR.2.2 - Ensure that direct and indirect effects to wetland habitats are mitigated to the extent feasible by environmentally sensitive project siting and design or other measures.

Policy NR.2.3 – Work with private and non-profit conservation organizations to ensure competitive pricing for mitigation bank credits by allowing government agencies, non-profit organizations, and private landowners to establish vernal pool preserves, designate mitigation areas, create and restore vernal pools, and sell credits to developers for off-site mitigation.

Policy NR.2.4 - Educate the public on the importance and benefit of wetlands areas.

- **Action NR.2.4.1** - Develop trails and associated educational facilities (e.g., information kiosks, signage) around wetland and vernal pool preserves where possible while maintaining the integrity of sensitive natural resources.
- **Action NR.2.4.2** – Consider constructing low impact trails interior to preserves, such as elevated board walkways, in coordination with the U.S. Fish and Wildlife Service and U.S. Army Corps of Engineers.

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Policy NR.2.5 - The City shall require that drainage improvements that discharge into areas of wetlands to be preserved are, to the maximum extent feasible, designed to mimic the undeveloped surface water flow conditions of the area in terms of seasonality, volume, and flow velocity.

GOAL NR.3 - PRESERVE AND MAINTAIN CREEK CORRIDORS AND WETLAND PRESERVES WITH USEABLE BUFFER ZONES THROUGHOUT THE NEW DEVELOPMENT AREAS AS FEASIBLE.

Policy NR.3.1 - Coordinate with property owners and local interest groups, such as the Sacramento Urban Creeks Council, to restore, enhance, and preserve creeks in Rancho Cordova.

Policy NR.3.2 - In general, the City will encourage the preservation of existing location, topography, and meandering alignment of natural creeks. The modification, re-creation and realignment of creek corridors shall recreate the character of the natural creek corridor to the extent feasible, appropriate and consistent with other City policies. Channelization and the use of concrete within creek corridors shall be discouraged, but is not prohibited.

- **Action NR.3.2.1** – Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.
- **Action NR.3.2.2** – Adopt and implement improvement standards for soft bottom channels.

Policy NR.3.3 – Encourage the creation of secondary flood control channels where the existing channel supports extensive riparian vegetation.

- **Action NR 3.3.1** – Work with affected local, state, and federal agencies, including SACOG, the California Department of Water Resources, Delta Keepers, and the U.S. Army Corps of Engineers, to determine when natural creek corridors can and should accommodate storm flows or if separate storm water conveyance structures are necessary.

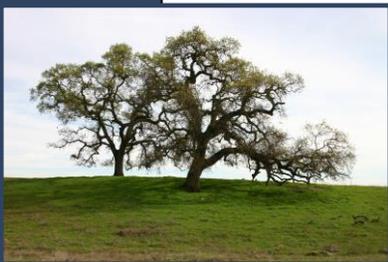
Policy NR.3.4 – Encourage projects that contain wetland preserves or creeks, or are located adjacent to wetland preserves or creeks, to be designed for visibility and, as appropriate, access.

Cross reference:
OSPT 2.3



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- **Action NR.3.4.1** - Establish performance standards for natural resource preserves that accomplish the following:
 - Provide sufficient width for a mowed firebreak (where necessary), adjacent passive recreation uses, and access for channel maintenance and flood control.
 - Offer sufficient width in and/or adjacent to preserves to allow for existing and created wildlife habitat, species sensitive to human disturbance, vegetative filtration for water quality, corridor for wildlife habitat linkage, protection from runoff, and other impacts of urban uses adjacent to the corridor.
 - Allow for sufficient width adjacent to natural resource preserves to allow for trails and greenbelts.
 - Prohibit the placement of water quality treatment structures designed to meet pollutant discharge requirements within mitigation preserves.
- **Action NR.3.4.2** – Establish standards that allow public access in the floodplain and buffers along creek corridors and preserves. Mitigation measures shall be incorporated into environmental documents and conditions of approval that require open-view fencing adjacent to preserves.
- **Action NR.3.4.3** – Establish standards and/or guidelines for development adjoining wetland preserves or creeks to maximize visibility by designing the land plan with public streets on at least one side of the corridor or preserve with vertical curbs, gutters, footpath(s), street lighting, and post and cable barriers to prevent unauthorized vehicular entry into creek corridors and preserves.



GOAL NR.4 – ENCOURAGE THE PLANTING AND PRESERVATION OF HIGH-QUALITY TREES THROUGHOUT THE CITY.

Policy NR.4.1 - Conserve native oak and landmark tree resources for their historic, economic, aesthetic, educational, and environmental value.

- **Action NR.4.1.1** - Implement the City's Tree Preservation and Protection Ordinance (and update as necessary) to establish minimum requirements for preserving native trees and landmark trees in the City, including a definition of the size, species, and age requirements of landmark, oak, and other trees to be protected and/or replaced.
- **Action NR.4.1.2** - Where feasible, require underground utility lines that are in close proximity to oaks and other landmark trees to be designed and installed to minimize

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impacts to trees. Work with the utility provider(s) to coordinate transmission line location and other potential impacts associated with the undergrounding of the utilities.

- **Action NR.4.1.3** - Establish development guidelines that require all oak habitat to be avoided to the maximum extent feasible. When avoidance is not possible, require mitigation efforts that result in preservation of in-kind habitat in the Planning Area.

Policy NR.4.2 - Improve overall landscaping quality and sustainability in all areas visible to the public.

- **Action NR.4.2.1** - Create development guidelines to establish minimum planting standards and require appropriate tree species and planting densities within newly landscaped areas that are visible to or shared by the public. An adopted Tree List should be used as a guideline for all tree plantings within the City.
- **Action NR.4.2.2** - Create development guidelines that address landscaping standards and that require appropriate tree species and densities in buffer areas. The guidelines should also ensure that medians will include native plantings and trees, and will be wide enough to support the long-term viability of the plantings.
- **Action NR.4.2.3** - Provide leaflets and planting guides that promote the use of drought-tolerant native vegetation in home landscaping.
- **Action NR.4.2.4** – Discourage the use of invasive non-native species.
- **Action NR.4.2.5** – Establish a mistletoe abatement and remediation program.
- **Action NR.4.2.6** - Establish guidelines to require planting of trees to reduce “heat island” effects, in order to reduce the need for air conditioning and thus conserve energy.

Policy NR.4.3 - Promote trees as economic and environmental resources for the use, education, and enjoyment of current and future generations.

- **Action NR.4.3.1** - Achieve “Tree City USA” status. This will require the City to continue to implement the City’s Tree Preservation and Protection Ordinance (and update as necessary), appoint a board, department or commission to advise the city on tree issues, spend two dollars per capita on community forestry activities, and hold an Arbor Day celebration.

Cross reference:
UD.2.6.2

Cross reference:
UD.2.6.2

Cross reference:
AQ.2.4



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- **Action NR.4.3.2** - Designate local funds to educate the public on tree planting and preservation.
- **Action NR.4.3.3** - Coordinate with SMUD to offer programs or other resources to provide property owners with information on proper tree selection, proper location to reduce heat transfer effects, planting and maintenance.
- **Action NR.4.3.4** – Actively participate in the Sacramento Tree Foundation Greenprint Program.

Policy NR.4.4 - Prior to the approval of any public or private development project in areas identified or assumed to contain trees, the City shall require that a determinate survey of trees species and size be performed. If any native oaks or other native trees six inches or more in diameter at breast height (dbh), multitrunk native oaks or native trees of 10 inches or greater dbh, or non-native trees of 18 inches or greater dbh that have been determined by a certified arborist to be in good health are found to occur, such trees shall be avoided if feasible. If such trees cannot be avoided, the project applicant shall do one of the following:

- All such trees shall be replaced at an inch-for-inch ratio. A replacement tree planting plan shall be prepared by a certified arborist or licensed landscape architect and shall be submitted to the City of Rancho Cordova for approval prior to removal of trees; or,
- The project applicant shall submit a mitigation plan that provides for complete mitigation of the removal of such trees in coordination with the City of Rancho Cordova. The mitigation plan shall be subject to the approval of the City.
- If the City of Ranch Cordova adopts a tree preservation ordinance at any time in the future, any future development activities shall be subject to that ordinance instead.

GOAL NR.5 - PROTECT THE QUANTITY AND QUALITY OF THE CITY'S WATER RESOURCES.

Policy NR.5.1 - Promote water conservation within existing and future urban uses.

- **Action NR.5.1.1** - Install water-conserving landscaping and irrigation on City-owned and operated facilities.
- **Action NR.5.1.2** - Require development project approvals to include a finding that all feasible and cost-effective options for conservation and water reuse are incorporated into project design.

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- **Action NR.5.1.3** - Establish a program that requires per capita water consumption to be reduced by at least 20 percent by 2030 from 2006 baseline conditions consistent with State law. The program shall include the following measures:
 - Restrict water usage through metering or establishing designated watering days for the City’s residences and businesses.
 - Promote water conservation efforts through education.
 - Implement standards that require low-flow appliances and fixtures in all new development.
 - Work with water providers and water conservation agencies to create an incentive program that encourages retrofitting existing development with low-flow water fixtures.
 - Require new development and landscaped public areas to utilize state-of-the-art irrigation systems that reduce water consumption (e.g., gray-water systems).
 - Encourage drought-tolerant and native vegetation.
- **Action NR.5.1.4** – Require water purveyors to include a provision for water supply monitoring and reporting in the franchise agreements.

Policy NR.5.2 - Encourage the use of treated wastewater to irrigate parks, golf courses, and landscaping.

- **Action NR.5.2.1** – Establish a Large-Scale Recycled Water Program and Citywide Recycled Water Distribution System Ordinance.
- **Action NR.5.2.2** – Coordinate with the City’s water purveyors and the SRCSD to establish a connected “purple pipe” system throughout the City’s new development areas that uses recycled water.

Policy NR.5.3 - Protect surface and ground water from major sources of pollution, including hazardous materials contamination and urban runoff.

- **Action NR.5.3.1** - Restrict hazardous materials storage in the 100-year floodplain to prevent surface water contamination.

Cross reference:
S.5.3



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Cross reference:
S.5.1



- **Action NR.5.3.2** - Educate the community on laws governing the proper handling of hazardous materials, especially those laws which pertain to discharging materials into creeks.
- **Action NR.5.3.3** - Install appropriate signage to deter the discharge of hazardous materials into storm drains.
- **Action NR.5.3.4** - Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state, and federal standards. Future land uses that include on-site storage of hazardous materials and waste comply with all applicable local, state and federal regulations, including those regulating the use, storage, handling and disposal of hazardous materials.

Policy NR.5.4 - Prevent contamination of the groundwater table and surface water, and remedy existing contamination to the extent practicable.

- **Action NR.5.4.1** – Provide information on pollution prevention, disposal of hazardous waste and chemicals, liability and clean-up on the City’s website and in educational materials and brochures.
- **Action NR.5.4.2** - Require clean-up of contaminated ground and surface water by current and/or past owners or polluters.
- **Action NR.5.4.3** - Encourage pollutant cleansing companies to use the latest technologies available in order to expedite the cleansing process and do the least harm to the environment.

Policy NR.5.5 – Minimize erosion to stream channels resulting from new development in urban areas consistent with State law.

- **Action NR.5.5.1** - Require development projects to contain urban runoff control strategies and requirements that are consistent with Master Drainage Plans and the City’s urban runoff management program.
- **Action NR.5.5.2** - Require development within newly urbanizing areas to incorporate runoff control measures into their site design or to participate in an area-

Cross reference:
5.2.3.1

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wide runoff control management effort consistent with standards developed by the Public Works Department.

- **Action NR.5.5.3** - Encourage new development to incorporate features such as grassy swales, multi-use retention or detention basins, and integrated drainage systems to enhance water quality. Work with the Cordova Recreation and Park District to establish standards for integrating retention/detention basins into park sites and create examples of desirable and innovative natural drainage features.
- **Action NR.5.5.4** - Require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment and urban runoff consistent with current state law.

Policy NR.5.6 - Incorporate Storm Water, Urban Runoff, and Wetland Mosquito Management Guidelines and Best Management Practices into the design of water retention structures, drainage ditches, swales, and the construction of mitigated wetlands in order to reduce the potential for mosquito-borne disease transmission.

Policy NR.5.7 - Continue to cooperate and participate with the County, other cities, and the Regional Water Quality Control Board regarding compliance with the joint National Pollutant Discharge Elimination System Permit (NPDES No. CAS082597) or any subsequent permit and support water quality improvement projects in order to maintain compliance with regional, state and federal water quality requirements.



Policy NR.5.8 - The City shall require groundwater impact evaluations be conducted for the Grant Line West, Westborough, Aerojet, Glenborough, Mather and Jackson Planning Areas to determine whether urbanization of these areas would adversely impact groundwater remediation activities associated with Mather and Aerojet prior to the approval of large-scale development. Should an adverse impact be determined, a mitigation program shall be developed in consultation with applicable local, state, and federal agencies to ensure remediation activities are not impacted. This may include the provision of land areas for groundwater remediation facilities, installation/extension of necessary infrastructure, or other appropriate measures.

GOAL NR.6 - SUPPORT THE ENVIRONMENTALLY SENSITIVE EXTRACTION OF MINERALS AND THE SUBSEQUENT RECLAMATION OF MINED AREAS.

Policy NR.6.1 – Ensure that the environmental effects of mining and reclamation on aquifers, streams, scenic views, and surrounding residential uses are prevented or minimized.



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- **Action NR.6.1.1** – Regulate surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 ("SMARA"), Public Resources Code Section 2207 (relating to annual reporting requirements), and State Mining and Geology Board regulations for surface mining and reclamation practice.
- **Action NR.6.1.2** – Coordinate mining operations and urban development to minimize conflicts between residents and mining, particularly where mining is required before urbanization.
- **Action NR.6.1.3** – Require inactive mined lands to be reclaimed to a usable condition that is readily adaptable to the future, anticipated land uses.

Policy NR.6.2 – Eliminate residual hazards to the public health and safety.

- **Action NR.6.2.1** – Establish and require minimum setbacks of future and reauthorized surface mining from adjoining residential land uses.
- **Action NR.6.2.2** - Prohibit the use of cyanide-leaching systems for gold extraction.

Policy NR.6.3 - While mining activities are anticipated to be phased out within the City, the City recognizes the right of these uses to continue and will require setbacks, buffers, screening, and other appropriate measures to allow for the continued operation of mining activities.

GOAL NR.7 - REDUCE PER CAPITA ENERGY CONSUMPTION.

Policy NR.7.1 - Increase energy conservation Citywide.

- **Action NR.7.1.1** - Develop educational programs to increase energy conservation at the household and business levels.
- **Action NR.7.1.2** - Develop a comprehensive program to conserve energy resources at City-operated facilities.

Policy NR.7.2 - Promote the development and use of advanced energy technology and building materials in Rancho Cordova.

Cross reference:
H.6.1

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Cross reference:
LU.2.7

Policy NR.7.3 - Encourage the development of energy efficient buildings and subdivisions.

- **Action NR 7.3.1** - Offer incentives (e.g., reduced fees, expedited entitlement processing, density bonus) for plans/projects that exceed Title 24 energy efficiency requirements by ten percent.

Policy NR.7.4 - Promote energy rebate programs offered by local energy providers (e.g., SMUD, PG&E) as a way to bring energy efficiency into older neighborhoods and developments.

- **Action NR.7.4.1** - Consider the following items as ways to implement this policy:
 - Fund a program that offers incentives for adding energy efficient systems into existing developments;
 - Work with local utility providers to make the public aware of energy rebate programs; and
 - Work with community organizations, such as SMUD, to encourage the inclusion of energy efficient systems in remodels and retrofits of existing development.



GOAL NR.8 - PROMOTE WASTE REDUCTION, REUSE, RECYCLING, AND COMPOSTING EFFORTS.

Policy NR.8.1 - Support recycling efforts by developing a set of programs to educate residents on recycling and provide recycling services.

- **Action NR.8.1.1** - Continue providing curbside recycling and green waste service to all single-family and duplex residences in Rancho Cordova.
- **Action NR.8.1.2** - Create and facilitate a series of educational workshops for the public and businesses on composting and recycling. Provide at least one program to increase recycling by occupants of multi-family housing.
- **Action NR.8.1.3** - Encourage all office, commercial, and multi-family complexes to provide recycling bins and collection service for paper, plastic, glass, and metal.
- **Action NR.8.1.4** - Provide recycling centers at City facilities (e.g., City Hall, libraries) that are available to the public free-of-charge.



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- **Action NR.8.1.5** - Provide locations for household hazardous wastes to be recycled.
- **Action NR.8.1.6** – Remove impediments to successful recycling.

Policy NR.8.2 - Encourage all companies that do business in Rancho Cordova to recycle and reuse construction scraps, demolition materials, concrete, industrial waste, and green waste.

- **Action NR.8.2.1** - Encourage the school districts within the Planning Area to support recycling at school sites by placing easily accessible recycling bins, providing educational programs on recycling, and using recycled products.

Policy NR.8.3 - Promote the use of rubberized asphalt on all public roadways in an effort to recycle old tires and reduce noise impacts. Implementation of this policy will help to preserve aggregate resources.

Policy NR.8.4 - Encourage the use of recycled materials and source reduction (also known as waste prevention) by governmental agencies and local businesses.

- **Action NR.8.4.1** - Ensure that at least 50 percent of the City’s office supply purchases are comprised of recycled or reusable products.

Policy NR.8.5 - Meet state mandates for solid waste reduction and recycling. Increase recycling efforts beyond those required by state law through supporting businesses that buy and sell re-used materials, such as materials exchange centers.

- **Action NR.8.5.1** - Implement the State’s source reduction and recycling element (required by the California Integrated Waste Management Act) and the household hazardous waste element (required by PRC 41500-41510).

Policy NR.8.6 - Encourage the use of recycled-content products and construction materials.

Policy NR.8.7 - Maintain contact with Sacramento County and Allied Waste (or its successor) regarding the capacity projections of Kiefer Landfill and Lockwood Landfill to ensure an adequate capacity in their disposal facilities for the long-term disposal needs of Rancho Cordova.

Cross reference:
N.1.5

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**TABLE NR-1
SPECIAL STATUS SPECIES OCCURRING WITHIN THE
RANCHO CORDOVA PLANNING AREA**

Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
Plant Species				
Downingia pusilla	Dwarf downingia	None	None	CNPS:2 R-E-D: 1-2-1
Gratiola heterosepala	Boggs Lake hedge-hyssop	Endangered	None	CNPS: 1B R-E-D: 1-2-2 USFWS: SC
Juncus leiospermus	Ahart's dwarf rush	None	None	CNPS: 1B R-E-D: 3-2-3 USFWS: SC
Legenere limosa	Legenere	None	None	CNPS: 1B R-E-D: 2-3-3 USFWS: SC
Narvarretia myersii myersi	ssp. Pincushion navarretia	None	None	CNPS: 1B R-E-D: 3-3-3 USFWS: SC
Orcuttia tenuis	Slender orcutt grass	Endangered	Threatened	CNPS: 1B R-E-D: 2-3-3
Orcuttia viscida	Sacramento orcutt grass	Endangered	Endangered	CNPS: 1B R-E-D: 3-3-3
Sagittaria sanfordii	Sanford's arrowhead	None	None	CNPS: 1B R-E-D: 2-2-3 USFWS: SC
Amphibian Species				
Spea (Scaphiopus) hammondii	Western spadefoot	None	None	CDFG: CSC USFWS: SC
Bird Species				
Accipiter cooperii	Cooper's hawk	None	None	CDFG: CSC



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Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
<i>Agelaius tricolor</i>	Tricolored blackbird	None	None	CDFG: CSC USFWS: SC
<i>Ardea alba</i>	Great egret	None	None	
<i>Ardea herodias</i>	Great blue heron	None	None	
<i>Asio flammeus</i> (nesting)	Short-eared Owl	None	None	CDFG: CSC
<i>Athene cunicularia</i> (burrow sites)	Burrowing owl	None	None	CDFG: CSC USFWS: SC
<i>Buteo swainsoni</i>	Swainson's hawk	Threatened	None	
<i>Circus cyaneus</i> (nesting)	Northern harrier	None	None	CDFG: CSC
<i>Elanus leucurus</i>	White-tailed kite	None	None	CDFG: fully protected
<i>Eremophila alpestris actia</i>	California horned lark	None	None	CDFG: CSC
<i>Icteria virens</i> (nesting)	Yellow-breasted chat	None	None	CDFG: CSC
<i>Lanius ludovicianus</i> (nesting)	Loggerhead shrike	None	None	CDFG: CSC USFWS: SC
<i>Plegadis chihi</i> (rookery site)	White-faced ibis	None	None	CDFG: CSC USFWS: SC
<i>Riparia riparia</i>	Bank swallow	Threatened	None	
Invertebrate Species				
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	None	Threatened	
<i>Branchinecta mesovallensis</i>	Midvalley fairy shrimp	None	None	USFWS: SC
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	None	Threatened	
<i>Lepidurus packardi</i>	Vernal pool tadpole shrimp	None	Endangered	
<i>Linderiella occidentalis</i>	California linderiella (fairy shrimp)	None	Endangered	USFWS: SC
Mammal Species				

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Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
<i>Antrozous pallidus</i>	Pallid bat	None	None	CDFG: CSC
<i>Bassariscus astutus</i>	Ringtail	None	None	CDFG: CFP
<i>Myotis ciliolabrum</i>	Western small-footed myotis	None	None	USFWS: SC
<i>Myotis evotis</i>	Long-eared myotis	None	None	USFWS: SC
<i>Myotis thysanodes</i>	Fringed myotis	None	None	USFWS: SC
<i>Myotis volans</i>	Long-legged myotis	None	None	USFWS: SC
<i>Myotis yumaensis</i>	Yuma myotis	None	None	USFWS: SC
<i>Taxidea taxus</i>	American badger	None	None	CDFG: CSC
Reptile Species				
<i>Emys (=Clemmys) marmorata marmorata</i>	North-western pond turtle	None	None	CDFG: CSC USFWS: SC
Key to Ranks and Lists				
CDFG: CSC	California Species of Special Concern			
CDFG: CFP	California Fully Protected			
USFWS: SC	USFWS Species of Concern			
CNPS Lists:				
List 1A: Plants Presumed Extinct in California				
List 1B: Plants Rare, Threatened or Endangered in California or Elsewhere				
List 2: Plants Rare, Threatened or Endangered in California, But More Common Elsewhere				
List 3: Plants About Which We Need More Information – A Review List				
List 4: Plants of Limited Distribution – A Watch List				



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Scientific Name	Common Name	State Listing Status	Federal Listing Status	Other Status
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CNPS R-E-D Codes:

R Rarity

1 Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction is low at this time

2 Distributed in a limited number of occurrences, occasionally more if each occurrence is small

3 Distributed in one to several highly restricted occurrences, or present in such small numbers that it is seldom reported

E Endangerment

1 Not Endangered

2 Endangered in a portion of its range

3 Endangered throughout its range

D Distribution

1 More or less widespread outside California

2 Rare outside California

3 Endemic to California

Source: Ecosystem Sciences, March 2005 and California Department of Fish and Game (CDFG). 2006. California Natural Diversity Database. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game (Version: 09 December 2005)