CHAPTER 8 - CONSERVATION ELEMENT

For many in Vacaville, the City's open-space setting is its most precious natural resource. General Plan policies preserving open space are in the Open Space Element; the Conservation Element, which is required by state law, contains policies for protecting and managing wetlands, creeks, wildlife, vegetation, and air quality. These policies are general, for the most part. Resource-protection regulations enacted by ordinance will establish specific regulations to protect natural features and ensure compatible project design. Many of these regulations have been adopted as a part of the Land Use and Development Code which was prepared and approved between 1995 and 1998.

Requirements for the Conservation Element are established in Government Code (Sec. 65302[d]). This part of the General Plan is to address "the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources." Water as a hydraulic force, commercial fisheries and harbors are not issues in the Planning Area, and therefore not addressed in this Element.

In addition to the City's efforts, county, state and federal agencies have responsibility for environmental protection. The environmental review process required by the California Environmental Quality Act (CEQA) examines the potential effects of individual projects on the environment.

8.1 CREEKS AND WATERSHED PROTECTION

In some locations in the Planning Area, riparian (streamside) vegetation, including large trees, remains even though development encroaches almost to the stream banks. Outside the developed area, streams and associated riparian areas function as both wildlife habitats and drainageways. The Plan seeks to preserve and enhance creeks and their associated vegetation. Riparian woodland and associated undergrowth serve as habitat and cover for wildlife, and also retard creek erosion.

Section 9.2, Flooding and Storm Drainage, includes policies on flood control and drainage.

Guiding Policies

8.1-G 1 Preserve and enhance Vacaville's creeks for their value in providing visual amenity, drainage, and wildlife habitat.

8.1-G 2 Minimize cost and hazard to homeowners created by creeks infringing on private property.

8.1-G 3 Where possible, integrate creeks with trails and other recreational open space. Encourage provision of public access to creek corridors.

8.1-G 4 Preserve and protect water resource areas, including the Alamo, Encinosa, Gibson and Ulatis Creek watersheds.

Implementing Policies

8.1-I 1 Implement the City Creekways Policy in all new development approvals to provide for maximized utility of the creekway areas.

8.1-I 2 Continue to impose creek setback standards on new development.

8.1-I 3 Discourage culverting of creeks of significance to the City.

8.1-I 4 Develop standards requiring protection of creekways during construction, and restoration of creekways after construction.

8.1-I 5 Protect existing stream channels by requiring buffering or landscaped setbacks and storm runoff interception.

8.1-I 6 Consider the establishment of maintenance districts to ensure uniform maintenance for selected channels and creeks.

8.2 WILDLIFE AND VEGETATION

More than a century ago, the area which is today Vacaville, located along the western edge of the Central Valley and bordered by the Vaca Mountains, was constituted of valley grasslands gradually ascending to valley and foothill woodlands west of town. To the north, the valley habitat ascends along a narrow tongue of topographic relief into the English Hills. While urban and agricultural development have transformed much of the Vacaville Planning Area, a variety of remnants of native habitats remains, the net result of which is to favor Vacaville with a diversity of species. With scientists estimating that, globally, hundreds of species per year become extinct, Vacaville's species diversity is an asset and a valued resource.

Within the 100-square-mile Planning Area, vegetation ranges from tiny, unique vernal pools species, such as Goldfields, to rows of orchard crops and street trees. Wildlife resources range from the potential presence of the federally-designated "Threatened" Valley Elderberry Longhorn Beetle, which inhabits the Valley Elderberry Bush and is present in many of the riparian corridors in the Planning Area, to larger species, such as the black-tailed deer,

which may range throughout the riparian corridors, outside the urbanized areas. Recreational fishing takes place at the Lagoon Valley Regional Park. The Park is identified as a fishery by the California Department of Fish and Game, and managed as such by the Parks Department. Natural wetlands exist in limited quantities in some portions of the Planning Area.

The following special status plant and animal species, compiled from U.S. Fish and Wildlife, California Department of Fish and Game and Californian Native Plant Society sources, are reported to occur in the planning area: Swainson's hawk, California red legged frog, Valley elderberry long horn beetle, loggerhead shrike, conservancy fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, Contra Costa Goldfields, alkali milk-vetch, heartscale and recurved larkspur.

Plan policies are intended to protect natural areas, particularly riparian corridors, although conversion of open space to urban uses necessarily decreases available habitat.

Guiding Policies

8.2-G 1 Protect natural environments in recognition of their importance as wildlife habitats and visual amenities.

8.2-G 2 Manage open space in a manner consistent with wildlife protection.

8.2-G 3 Work with the California Department of Fish and Game to develop appropriate policies to maintain recreational fishing at Lagoon Valley Regional Park.

Implementing Policies

8.2-I 1 Require preservation or, where preservation is not possible, replacement of riparian vegetation.

Resource protection regulations should address conservation of riparian vegetation.

8.2-I 2 Minimize removal of woodland habitat.

8.2-I 3 Provide wildlife corridors, where feasible, to enable free movement of animals and minimize wildlife-urban conflicts.

8.2-I 4 Continue to implement the City's existing regulations which protect mature trees and existing natural non-agricultural trees.

8.2-I 5 Require that, as appropriate, new Policy Plans or Specific Plans contain a resource management component.

8.2-I 6 Identify areas of wetlands at the earliest possible stage of development application processing. Policies to protect and preserve wetland habitats shall be contained in the Resource Management section of applicable Policy Plans.

8.2-I 7 Work with the Solano County Water Agency and federal and state agencies to implement a Habitat Conservation Plan to identify and protect species on federal and state endangered and threatened species lists.

8.3 AIR QUALITY

Vacaville's topography and distance from coastal ventilation create the potential for high concentration of air pollutants, which are primarily caused by motor vehicles. The monitoring records (Table 8-1) for the air quality area show that Vacaville has had generally good air quality for the the past few years. The only pollutants for which standards have been exceeded annually during this period are ozone (O3), which exceeded the state standard on an average of seven days a year between 1995 and 1998 and the federal standard on one day in 1996 and two days in 1998, and total suspended particulates (TSP), which exceeded the state standard on an average of 1 day between 1995 and 1998.

The Yolo-Solano Air Quality Management District (YSAQMD) is responsible for monitoring and enforcing standards in the Planning Area. As required by the federal Clean Air Act Amendments of 1990, the District adopted its portion of the Sacramento Area Regional Air Quality Attainment Plan in 1994 as part of the State Implementation Plan. The 1994 Plan generally supersedes the Air Quality Attainment Plan adopted by the District in 1992 and contains state, federal and local measures that will be needed for the region to reach attainment of the National Ambient Air Quality Standards (NAAQS) for ozone by 2005.

State measures include reducing emissions from new on-road vehicles, off-road engines and consumer products. Federal measures include reducing emissions from interstate trucks, boats, aircraft and locomotives. Local and regional measures include programs to accelerate the use of cleaner on-and off-road vehicles and engines to reduce nitrogen oxide (NOx) emissions, and various stationary source measures to reduce reactive organic gasses (ROG) and NOx emission. Programs to reduce hydrocarbon emissions, precursors of ozone, include: use of best available retrofit control technology on existing sources; new source review for new stationary sources and vehicle fuels management, transportation control and indirect control measures for mobile source emissions. At the local level, the District identifies the land-use and growth decisions embodied in the General Plan as being of vital importance in air quality protection.

Guiding Policies

8.3-G 1 Maintain good air quality in the Vacaville Planning Area.

8.3-G 2 Cooperate with regional agencies in developing and implementing air quality management plans.

Implementing Policies

8.3-I 1 Encourage project design that conserves air quality and minimizes direct and indirect emissions of air contaminants.

8.3-I 2 Encourage transportation modes that minimize motor vehicle use and resulting contaminant emissions.

The Transportation Element includes Transportation Systems Management (TSM) policies designed to reduce emissions and alleviate traffic congestion.

TABLE 8-1 AMBIENT AIR QUALITY - VACAVILLE 1995-1998
(Days Standards Were Exceeded)

Pollutant	Standard[a]	1995	1996	1997	1998
Ozone					
	1 hr. > 0.09 ppm (S)	6	8	3	10
	1 hr. > 0.12 ppm (N)	0	1	0	2
	Max. 1-hr. Conc. (ppm)	0.11	0.13	0.11	0.14
Total Suspended Particulates	24 hrs. > 50 ug/m3 (S)	2	0	1	1
	24 hrs. > 150 ug/m3 (N)	0	0	0	0
	24 hrs. > 260 ug/m3 (N)	0	0	0	0
	Max. 24-hr. Conc. (ug/m3)	62	45	74	56

Notes: [a] (S), State Standard; (N) National Standard; ppm, parts per million; ug/m3, parts per cubic meter

Source: California Air Resources Board, 1995-98. Ozone measurement, Vacaville, Elmira Station, Total Suspended Particulates, Vacaville Merchant Street.

8.3-I 3 Consider carbon monoxide levels at intersections when evaluating the need for intersection improvements.

8.3-I 4 Encourage the use of alternative fuel vehicles through the implementation of alternative fuel infrastructure and purchase of alternative fuel, low emission vehicles by the City, transit operator and residents when considering new vehicle purchase.

8.4 WATER CONSERVATION

Currently, the City has "standby authority" to impose water conservation during emergencies. To reduce growth in water consumption, an ongoing water conservation policy should be implemented by the City.

Guiding Policies

8.4-G 1 Encourage and support water conservation programs.

8.4-G 2 Protect and conserve the City's well field.

8.4-G 3 Coordinate water conservation and quality programs with the Solano Irrigation District and other appropriate water agencies.

Implementing Policies

8.4-I 1 Enact local regulations requiring water conservation.

8.4-I 2 Require development proposals to incorporate water-conserving landscape designs.

8.4-I 3 Continue to implement a water conservation landscape standard, which addresses the use of drought-tolerant plant materials, for public buildings, parks and recreation facilities.

Use of native plant and other low water-using landscaping materials, and use of reclaimed water are possible ways to conserve the domestic water supply without sacrificing parks, golf courses, and public areas.

8.4-I 4 Enact local regulations to protect and monitor the wells in the City's well field.

8.4-I 5 Do not allow development that would adversely affect the City's well field.

8.4-I 6 Whenever possible, use non-treated water for irrigation in large landscaped areas.

8.5 HISTORIC AND ARCHAEOLOGIC RESOURCES

Solano County is known for having had in prehistoric times a relatively high population density. The Patwin peoples controlled the area west of the Sacramento River to the

crest of the Coast Ranges. The Patwin lived by hunting, fishing, and gathering, and inhabited semi-permanent villages, the remnants of which have been found in the hills around Vacaville. The archaeological record reflects this density, as recorded by the California Archaeological Inventory (CAI), which lists over two dozen prehistoric archaeological sites within the Planning Area. An estimated 30 percent of the Planning Area has been surveyed. The CAI believes that additional prehistoric cultural resources exist within the Planning Area, most likely to be found in the valleys, at the base of foothills, and on mid-slope terraces along watercourses.

In addition to prehistoric resources, the City of Vacaville contains nearly 200 identified historic structures, including the Peña Adobe, the Will H. Buck House, and the Vacaville Town Hall. All three of these structures are also listed on the National Register of Historic Places. The CAI believes that additional historic resources associated with settlement activities of the early 1800s exist within the unsurveyed portions of the Planning Area. The Downtown area has been designated as a historic district with design standards to enhance the historical character of this central Downtown.

Historic and archaeological resources are offered some protection under state law if deemed unique. Unique, as defined in the Public Resources Code, includes those resources which contain information needed to answer important scientific research questions if there is demonstrable public interest in the information; those resources which have a special and particular quality, such as the oldest of their type and the best available of their type; and those which are directly associated with a scientifically recognized prehistoric or historic person or event.

Guiding Policies

8.5-G 1 Continue to protect historic sites and archaeological resources for their aesthetic, scientific, educational, and cultural values.

8.5-G 2 Continue to protect the historic value of the Downtown area.

Implementing Policies

8.5-I 1 Working in conjunction with the California Archaeological Inventory, review each proposed development project to determine whether the site contains known prehistoric or historic cultural resources and/or to determine their potential for as-yet-undiscovered cultural resources.

8.5-I 2 Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation, if feasible.

The City's Historic Preservation Ordinance mandates the maintenance of designated buildings and the review of any changes to building exteriors or building demolitions.

8.5-I 3 Continue to encourage the renovation of designated historic structures in the Downtown historic district to preserve the architectural, historical, and cultural significance of those buildings; continue to require new buildings in the Downtown historic district to be complementary to the character of the existing buildings.

8.5-I 4 Consider the creation of a Historic Preservation District for the residential areas west of Downtown.

8.5-I 5 Encourage property owners to rehabilitate historic buildings, consistent with regulations which allow such properties, with densities that exceed General Plan standards or are residential uses in a commercial district to be legally conforming. (See also Land Use Element, policy 2.5-I 16.)

Amendments and Corrections to the Conservation Element

March 24, 1992	Resolution No. 1992 - P -2. Policy 8.5-I 5 added. (GP-1-92)
November 9, 1999	Resolution 1999-143; Technical update to the General Plan: Text and Table 8-1 updated and amended to note local special status species and reflect current air quality status and recent regional air quality planning activities; Policies 8.2-G 3, and 8.2-I 5 updated; Policies added to encourage preparation of a habitat conservation plan, 8.2-I 7, and the use of alternative fuel vehicles, 8.3-I 4; policies 8.4-I 3 and 8.4-I 5 amended to conform to policies implemented. (GP-1-99)