

---

## 8. CULTURAL, HISTORIC AND PALEONTOLOGICAL RESOURCES

---

This EIR chapter describes existing and potential cultural, historic and paleontological resources in the Specific Plan area, the potential impacts of the proposed Specific Plan on those resources, and mitigation measures recommended to minimize those potential impacts. This chapter was prepared based on a file search and data review commissioned for the EIR from the California Historic Resources Information System (CHRIS) at Sonoma State University,<sup>1</sup> a cultural resources inventory and field survey commissioned for the EIR from Holman & Associates, consulting archaeologists,<sup>2</sup> and contact with tribal representatives of the Rumsey Indian Rancheria.<sup>3</sup> In the interest of cultural resource protection, locational information identified by these sources on recorded, newly-identified and potential cultural resources in the plan area and vicinity is intentionally not reported.

### 8.1 SETTING

#### **8.1.1 Cultural and Historic Resources**

Numerous cultural resource sites, including archaeological sites and historic properties, are located throughout Solano County, including in the plan area and vicinity.

(a) Prehistoric Background. Native Americans of this region at the time of Euroamerican contact were the southeastern Patwin, a hunter-gatherer group centered along the Sacramento River and its tributaries, occupying an area from near Knights Landing to the north, arcing to the southwest along the northern fringe of the Sacramento delta to the mouth of the Napa River on the west. Neighboring groups included the Coast Miwok, Wappo, and Hill Patwin to the west; Costanoans, Yokuts, Plains Miwok, and Maidu to the south and east; and central Wintun to the north. Marshy valley bottoms were occupied intensively in the cool season to exploit seasonally abundant waterfowl and salmon migrations, and vacated in the summer in favor of sites by creeks and tributaries in the drier plains, where seeds were gathered and terrestrial mammals hunted. Patwin winter houses were earth-covered, semi-subterranean multi-family structures 20 to 30 feet in diameter; rectangular brush ramadas were used in the summer.

The Suisun tribelet of the Patwin occupied the area covering Suisun and Green Valleys, including the plan area, undisturbed for centuries prior to the 1800s. An ethnographic village site has been reported just south Rockville. The Suisun Patwin, like all Native Californians,

---

<sup>1</sup>Letters and attachments from Bryan Much, Assistant Coordinator, Northwest Information Center (NWIC), California Historical Resources Information System (CHRIS), Sonoma State University; March 24, 2009 and July 24, 2009.

<sup>2</sup>Holman & Associates, Cultural Resources Inventory for the Middle Green Valley Specific Plan, Solano County, California, prepared for Hart Howerton and Wagstaff and Associates, October 2009.

<sup>3</sup>Meeting with Florinda "Phoebe" Bender, Cultural Resources Information Specialist, Rumsey Indian Rancheria, and Michelle LaPena, attorney, representing Rumsey Indian Rancheria.

suffered severe population reductions and cultural disintegration during the missionization and colonization activities of the 1800s.

(b) Historic Background. Historic activity in the Suisun Valley began in the late 1790s, when Patwin were first taken as converts to Mission Dolores in San Francisco and Mission San Jose. Sam Yeto, later baptized as Chief Solano, is described as the principal chief of an extensive area reaching from Petaluma Creek to the Sacramento River. Chief Solano lived at the village just south of Rockville and had authority over the Suisun tribelet of Patwins. In the 1840s, he received the Suisun land grant, extending east from Rockville to Fairfield, from the Mexican government. Chief Solano was one of the few local Native Americans who survived the smallpox epidemic of 1837-1839 that further decimated the Patwin.

Spanish and Mexican governors issued land grants for portions of what became Solano County to settlers during a 30-year period from 1817 to 1848. The first land grant in the project vicinity was given in 1840 to Jose Francisco Armijo, who received the Tolenas grant in Suisun Valley east of the plan area. The Suscol grant was another of the six Mexican land grants in the area. John Reed Wolfskill settled along Putah Creek in 1842. Of the original historic communities near the plan area, Green Valley was first settled in 1847, when the Stilts adobe was built. Rockville to the north and Cordelia to the south both began as stage stops on the road from Benicia to Sacramento. Rockville later grew to include a few stores, a hotel, and a post office. In 1856, Rockville residents built a stone chapel, most likely from rock obtained from a quarry on Rockville Road. The chapel was the site of Christian revivalist meetings, and regular services were held there until 1895. The chapel was deeded to the Rockville Public Cemetery District in 1929, restored, and established as a California Historical Landmark in 1940.

The first European settlers in Green Valley grew grapes for wine on the valley slopes and maintained the flats for field crops. Green Valley became well known for its grapes and many wineries prospered. The largest winery was established and owned by F.S. Jones, who settled in Green Valley in the 1860s. Jones had 90 acres of wine grapes and a wine cellar capable of holding 50,000 gallons of wine. In the 1870s, a root disease destroyed many plants and most grape growers never recovered. Many growers had also reportedly grown cherry trees, and cherry orchards apparently grew successfully for generations. Gold was found in the area in 1887 and mining continued into the early 20th century. Basalt was also quarried.<sup>1</sup>

(c) Background on Rock Walls. Rock walls are found throughout upland California, especially in the rocky foothills of the Sierra Nevada and the Coast Range. They are typically constructed of unshaped and un-mortared fieldstone taken from the surrounding land. The walls frequently appear to be piled rather than laid and have a wedge-shaped cross-section. Popular lore often attributes the construction of these walls to Chinese laborers.

There are rock walls in the plan area vicinity, constructed between 1859 and 1863, a period when federal land laws were being tested and modified as the government struggled to stay ahead of settlers and land speculators.

---

<sup>1</sup>EDAW, Solano County Draft General Plan Draft Environmental Impact Report, April 18, 2008, page 4.10-11.

During the period between 1852 and March 1862, speculators purchased, partitioned, and sold portions of the Suscol grant, and it was during this period that the rock walls were constructed. The plan area vicinity was partitioned from a larger tract and became three large lots in 1859.

(d) Known Archaeological and Historic Resources in the Plan Area. A number of known cultural resources are located throughout Solano County, including in the plan area and surrounding vicinity, as remnants of the prehistoric and historic periods of settlement described above. The following discussion summarizes the results of the CHRIS records search conducted for the plan area by the NWIC, and subsequent cultural resources inventory and site reconnaissance conducted for the plan area by Holman & Associates, EIR archaeological consultants.

*(1) California Historical Resources Information System (CHRIS) Records Search.* For the purposes of this EIR, a records search was requested from the California Historical Resources Information System (CHRIS), Northwest Information Center (NWIC) at Sonoma State University. The NWIC records search identified eight cultural resources studies on file that combined to cover approximately 15 percent of the plan area. The following is a summary of the NWIC review of these studies and their findings:

The NWIC records search indicated that the plan area contains five recorded Native American archaeological resources, plus one resource with both Native American and historic-era artifacts (CA-SOL-442/H), and one historic-era ranch complex (P-48-000724). Four of the five Native American archaeological sites (file references CA-SOL-6, CA-SOL-11, CA-SOL-15, and CA-SOL-31) have been characterized as habitation sites, and the fifth (P-48-000723) has been identified as an isolated artifact fragment. Four of the five resource sites are located east of Green Valley Road, two are located west of Green Valley Road and north of Mason Road, and one is located west of Green Valley Road and south of Mason Road.

The NWIC records search indicated that, while state and federal inventories list no historic properties within the plan area, the 1951 Cordelia 7.5-minute United State Geological Survey (USGS) topographic quadrangle shows the presence of numerous historic-period buildings or structures within the plan area. These buildings or structures meet the Office of Historic Preservation's criterion that buildings, structures, or objects 45 years or older may be of historical value.

The NWIC concluded that, given the character of the plan area hillsides, valley floor, and creek corridors, there is a "high likelihood" that unrecorded pre-historic period Native American cultural resources exist in the plan area. Native American cultural resources in this part of Solano County have been found at the base of hills, on alluvial flats, on midslope terraces, and near sources of water (including perennial and intermittent streams and springs). The NWIC noted that the plan area contains all three of these environmental features.

The NWIC also concluded that there is a "high possibility" of identifying historic-period archaeological resources in the plan area. U.S. General Land Office (GLO) plat maps from the year 1863 for sections of Green Valley depict numerous orchards, vineyards, fences, and houses. The 1912 Napa 30-minute USGS quadrangle also depicts numerous buildings or structures. The 1951 Cordelia USGS quadrangle depicts some of these buildings but not others.

Based on these findings, the NWIC recommended that further evaluation of the plan area be conducted by a qualified archaeologist and by an architectural historian before development occurs.<sup>1</sup>

(2) *Holman & Associates Cultural Resources Field Survey and Inventory*. Following the NWIC recommendations, Holman & Associates, archaeological consultants, were retained to prepare a programmatic cultural resources inventory of the Specific Plan area for this program EIR. The inventory included review of NWIC records and a field survey of the entire Specific Plan area. The following is a summary of the Holman & Associates findings.

The inventory identified a total of 113 cultural resources found throughout the plan area, on approximately 35 properties located on both the east and west sides of Green Valley Road.

Of the total of 113 resources, 11 were identified as *prehistoric* including five sites associated with midden deposit (refuse from prehistoric habitation) and six flaked stone scatters. The inventory report indicates that these sites “may contain information deemed significant under CEQA criteria.”<sup>2</sup> Surface manifestations of the five previously recorded sites<sup>3</sup> and a previously unrecorded midden site included basalt and obsidian flaked stone artifacts, occasional small pieces of freshwater and/or marine shell and dietary bone, fire-altered rock, and occasional other artifacts. The inventory report states that “given the presence of anthropic soils, the deposits have a high potential of yielding Native American burials, discrete cultural features, and other data that would allow placement of the sites into local and regional archaeological sequences” and that “some of the sites also likely possess other data applicable to a variety of archaeological resource domains.”<sup>4</sup>

The inventory report indicates that there is some potential for discovery of additional prehistoric archaeological resources (such as buried sites) within the plan area. The inventory further states that the resources in the plan area comprise a “natural archaeological research district,” and therefore “the loss of a single site within the area could have an adverse effect on the research potential of similar remaining property types and the planning area as a whole.”<sup>5</sup>

The remaining 102 resources identified by the inventory were individual *historic-period* Euro-American resources, of which 69 are considered potentially eligible for consideration for the California Register. The historic-period resources consisted of: (1) buildings and structures (e.g., houses, barns, sheds); (2) agricultural and landscape features (e.g., rock walls, irrigation ditches, remnant orchards); (3) refuse (e.g., glass, ceramic discarded structural remains and other artifacts); and (4) water collection and storage features (e.g., reservoirs, water tanks, wells/cisterns). Among these historic-period resources, the Holman & Associates inventory

---

<sup>1</sup>Bryan Much, March 24, 2009 and July 24, 2009.

<sup>2</sup>Holman & Associates, Cultural Resources Inventory for the Middle Green Valley Specific Plan, Solano County, California, prepared for Hart Howerton and Wagstaff and Associates, October 2009, page 3.

<sup>3</sup>CA-SOL-6, CA-SOL-11, CA-SOL-15, CA-SOL-31.

<sup>4</sup>Holman & Associates, pages 50-51.

<sup>5</sup>Holman & Associates, pages 54 and 56.

identified 13 resources that are of higher priority for preservation and/or study and groups these resources into the three categories, as follows:

- “Preservation Priority”: four rock walls that are considered resources for which integrity and significance rely in part on preservation in place;
- “Preservation and Study Priority”: five structures--a stone house and shed, a stone building, a water tank, and a house--that have potential significance for the interpretation of regional history and potential for archaeological, architectural, and historical study to yield useful information; and
- “Study Priority”: four sites--a former home site, residential remains, a dry yard, and a barn--that may lack buildings or structures with integrity but maintain potential to provide archaeological information.

Other historic-period resources not listed among these priority categories are considered low priority for further study, beyond basic recording.<sup>1</sup>

### **8.1.2 Paleontological Resources**

(a) Paleontological Background. Paleontological resources are fossilized remains of plants and animals, and associated deposits. The geologic characteristics of an area help to determine its sensitivity for paleontological resources.

Solano County’s geological setting is diverse, spanning 144 million years, from the early Jurassic Period through today. Geologically, the western portion of the county is made up of the north-south trending Sacramento and San Joaquin Valleys, as well as a small portion of the Northern California Coast Ranges. The Northern California Coast Range in Solano County is known as the Vaca Mountains, which consist of Cretaceous and Tertiary strata that have been uplifted and tilted eastward. A large predominantly Quaternary plain lies to the east of the Vaca Mountains.

Geologic units in the plan area vicinity include the following.<sup>2</sup>

*Holocene Alluvium (Holocene: Recent-10,000 years old).* These Late Holocene alluvial deposits overlie older Pleistocene alluvium and/or the upper Tertiary bedrock formations. This alluvium consists of sand, silt, and gravel deposited in fan, valley fill, terrace, or basin environments. This unit is typically in smooth, flat valley bottoms, in medium-sized drainages and other areas where terrain allows a thin veneer of this alluvium to deposit, generally in shallowly sloping or flat environments. These alluvial deposits contain vertebrate and invertebrate fossils of extant, modern taxa, which are generally not considered paleontologically significant.

---

<sup>1</sup>Holman & Associates, pages 52-55.

<sup>2</sup>EDAW, Solano County Draft General Plan Draft Environmental Impact Report, April 18, 2008, pages 4.10-19 through 4.10-20 and Exhibit 4.7-1.

*Pleistocene Alluvium (Pleistocene: 10,000-1.8 million years old).* The majority of alluvium in the central and eastern portions of Solano County consists of sedimentary deposits that are Plio-Pleistocene in age. These less permeable sediments are basin, landslide intertidal, terrace, or riverbank deposit. Vertebrate fossils found in Late Pleistocene alluvium are representative of the Rancholabrean land mammal age from which many taxa are now extinct and include but are not limited to bison, mammoth, ground sloths, saber-toothed cats, dire wolves, cave bears, rodents, birds, reptiles and amphibians. These alluvial deposits are highly sensitive for paleontological resources.

*The Sonoma Volcanics (Pliocene to late Miocene: 1.8-15 million years old).* The Sonoma Volcanics are extensively exposed in the southwestern portion of Solano County, especially near Green Valley. This igneous rock unit consists predominantly of andesite and rhyolite, which can be subdivided into at least three volcanic sequences of different ages and eruptive sources, all of which flank active faults that parallel the San Andreas Fault System. The Sonoma Volcanics have a high paleontologic sensitivity, with 29 vertebrate fossil localities recorded in the county.

*Vacaville Shale (Eocene: 35-55 million years ago).* This geologic unit is made up of brown, thin-bedded and laminated mudstone and gray shale. This unit contains foraminifers and nanoplankton of middle and early Eocene age, and also marine invertebrate microfossils, which generally have low paleontological significance because of their sheer numbers.

(b) Known Paleontological Resources. To identify known fossil locations in the county, an online fossil locality search was conducted for the County on May 13, 2006, using the Berkeley Natural History Museums' online database, specifically data from the University of California Museum of Paleontology, Berkeley. Relevant paleontological and geological literature for the county and vicinity was reviewed for a characterization of the county's geology and paleontological sensitivity.

The locality search identified 238 fossil localities within or directly adjacent to the county. Of this total, 69 localities consist of vertebrate specimens and 169 are invertebrate specimens. The localities occur in 12 distinguishable geologic formations, all of which are known to contain fossils. Most sedimentary geological units and some of the igneous (volcanic) geological units of the county, including the plan area alluvium and volcanics,<sup>1</sup> are paleontologically sensitive.

## 8.2 PERTINENT PLANS AND POLICIES

CEQA requires an EIR to identify the plan and policy setting within which the project is proposed and discuss any inconsistencies between the proposed project and these applicable plans and policies adopted to minimize environmental impacts [CEQA Guidelines sections 15124(b) and 15125(d)]. Adopted federal, state and local laws, policies, and regulatory requirements pertinent to consideration of the potential cultural and historic resource impacts of the proposed Specific Plan are described below.

---

<sup>1</sup>See section 10.1.1, Geology and Topography, of chapter 10, Geology and Soils, of this Draft EIR.

### **8.2.1 Federal Laws and Regulations**

(a) The Secretary of the Interior's Standards. The U.S. Secretary of the Interior is responsible for establishing standards for the preservation and protection of buildings and other cultural resources eligible for listing in the National Register of Historic Places. The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* and *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* outline specific standards and guidelines for the preservation, rehabilitation, restoration, and reconstruction of historic structures. *Preservation* standards and guidelines apply to those buildings that require ongoing maintenance to sustain historic value. *Rehabilitation* standards and guidelines involve the reuse of a historic structure or property while maintaining portions that contribute to historic value. *Restoration* standards and guidelines are applicable to projects that remove portions of a building from another historic period in order to reconstruct missing features from the restoration period. *Reconstruction* standards and guidelines apply to new developments that replicate a historic period or setting. Each set of standards and guidelines provides specific recommendations for proper construction and maintenance.

(b) National Historic Preservation Act (NHPA). Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal money. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance.

Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the National Register of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60.

Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process.

### **8.2.2 State Laws and Regulations**

(a) CEQA. CEQA applies to all discretionary projects undertaken or subject to approval by the state's public agencies (CEQA Guidelines section 15002[i]). CEQA (section 21001[b], [c]) states that it is the policy of the State of California to "take all action necessary to provide the people of this state with... historic environmental qualities... and preserve for future generations examples of the major periods of California history." Under the CEQA Guidelines (section 15064.5[b]), "a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment." CEQA requires that historical resources and unique archaeological resources be taken into consideration during the CEQA planning process (CEQA Guidelines section 15064.5; CEQA section 21083.2).

*Historical Resources.* The CEQA Guidelines (section 15064.5[a]) define a "historical resource" as including the following:

- A resource listed in, or eligible for listing in, the California Register of Historical Resources;
- A resource listed in a local register of historical resources (as defined at Public Resources Code section 5020.1[k]);
- A resource identified as significant in a historical resources survey meeting the requirements of Public Resources Code section 5024.1(g); or
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. (Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the California Register of Historical Resources. See further discussion of the California Register of Historical Resources below.)

A project that causes a “substantial adverse change” in the significance of a historical resource may have a significant effect on the environment (CEQA Guidelines section 15064.5[b]). The CEQA Guidelines (section 15064.5[b][1]) define “substantial adverse change” as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” Generally, the significance of a historical resource is “materially impaired” when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in or eligibility for the California Register of Historical Resources, or its inclusion in a local register of historical resources (CEQA Guidelines section 15064.5[b][2]).

*Archaeological Resources.* If the cultural resource in question is an archaeological site, the CEQA Guidelines (section 15064.5[c][1]) require that the lead agency first determine if the site is a historical resource as defined in section 15064.5(a). If the site qualifies as a historical resource, potential adverse impacts must be considered in the same manner as a historical resource (CEQA Guidelines section 15064.5[c][2]). If the archaeological site does not qualify as a historical resource but does qualify as a unique archaeological resource, then the archaeological site is treated in accordance with CEQA section 21083.2 (CEQA Guidelines section 15064.5[c][3]). In practice, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource.

CEQA (section 21083.2[g]) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

According to CEQA section 21083.2(h), resources that do not meet the above criteria are “nonunique archaeological resources” that need not be given further consideration under CEQA.

*Paleontological Resources.* Appendix G of the CEQA Guidelines requires that a determination be made about whether a project would directly or indirectly destroy a unique paleontological

resource or site or unique geological feature. If an impact would be significant, CEQA requires that feasible measures be undertaken to minimize the impact.

(b) California Register of Historical Resources. The State Historic Preservation Officer (SHPO) maintains the California Register of Historical Resources (CRHR). Properties that are listed on the NRHP are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.<sup>1</sup>

Criteria for inclusion in the CRHR are as follows (Public Resources Code section 5024.1, CEQA Guidelines section 15064.5[a][3]):

- The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- The resource is associated with lives of persons important in our past;
- The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, information important in prehistory or history.

(c) Regulations Regarding Human Remains. The disturbance of human remains without authority of law is considered a felony (Health and Safety Code section 7052). If human remains are Native American in origin, they are within the jurisdiction of the Native American Heritage Commission (NAHC) (Health and Safety Code section 7052.5c, Public Resources Code section 5097.98). According to state law (Health and Safety Code section 7050.5, Public Resources Code section 5097.98, CEQA Guidelines section 15064.5[e]), if human remains are discovered or recognized in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

- The county coroner has been informed and has determined that no investigation of the cause of death is required; and
- If the remains are of Native American origin:
  - The descendants of the deceased Native Americans have had 48 hours from time of access to the location of the remains to make a recommendation to the landowner or person responsible for the excavation work for means of treating or disposing of with appropriate dignity the human remains and any associated grave goods, as provided in Public Resources Code section 5097.98; or
  - The NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 48 hours after being granted access to the location of the remains.

---

<sup>1</sup>Solano County, Rockville Trails Estates Residential Subdivision Revised Draft Environmental Impact Report, June 2008, pages IV.D-7 through IV.D-9.

The following actions must be taken by the landowner whenever (1) the NAHC is unable to identify a descendant, (2) the descendants identified fail to make a recommendation, or (3) the landowner or authorized representative rejects the descendants' recommendations, and the mediation provided for in Public Resources Code section 5097.94(k), if invoked, fails to provide measures acceptable to the landowner:

- The landowner, or the landowner's authorized representative, shall re-inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance; and
- The landowner shall provide for the protection of the re-interment site by doing one or more of the following:
  - Recording the site with the NAHC or the appropriate information center of the California Historical Resources Information System;
  - Utilizing an open-space or conservation zoning designation or easement; or
  - Recording a document with the county in which the property is located.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052).<sup>1</sup>

(d) Senate Bill 18. California State Senate Bill 18 (SB 18) (Tribal Consultation; Government Code section 65352.3) requires local governments to consult with California Native American tribes identified by the NAHC prior to the adoption or amendment of a general plan or specific plan. The purpose of this consultation is to preserve or mitigate impacts on cultural places.<sup>2</sup>

### **8.2.3 Solano County General Plan**

The Solano County General Plan contains the following policies and implementation programs relevant to the proposed Specific Plan and its relationship to cultural and historic resources:

- *Identify and preserve important prehistoric and historic structures, features, and communities.* (Policy RS.P-38)
- *Tie historic preservation efforts to the County's economic development pursuits, particularly those relating to tourism.* (Policy RS.P-39)
- *Consult with Native American governments to identify and consider Native American cultural places in land use planning.* (Policy RS.P-40)

---

<sup>1</sup>EDAW, Solano County Draft General Plan Draft Environmental Impact Report, April 18, 2008, page 4.10-24.

<sup>2</sup>Solano County, Rockville Trails Estates Residential Subdivision Revised Draft Environmental Impact Report, June 2008, pages IV.D-7 through IV.D-9.

- *Require cultural resources inventories of all new development projects in areas identified with medium or high potential for archeological or cultural resources. Where a preliminary site survey finds medium to high potential for substantial archaeological remains, the County shall require a mitigation plan to protect the resource before issuance of permits. Mitigation may include:*
  - *Having a qualified archaeologist present during initial grading or trenching (monitoring);*
  - *Redesign of the project to avoid archaeological resources (this is considered the strongest tool for preserving archaeological resources);*
  - *Capping the site with a layer of fill; and/or*
  - *Excavation and removal of the archaeological resources and curation in an appropriate facility under the direction of a qualified archaeologist.*
  - *Alert applicants for permits within early settlement areas to the potential sensitivity. If significant archaeological resources are discovered during construction or grading activities, such activities shall cease in the immediate area of the find until a qualified archaeologist can determine the significance of the resource and recommend alternative mitigation. (Implementation Program RS.I-25)*
  
- *Work with federal and state agencies to identify, evaluate, and protect the county's important historic and prehistoric resources. Programs administered by such agencies may include:*
  - *California Historic Landmarks*
  - *California Points of Historical Interest*
  - *California Register of Historic Resources*
  - *National Register of Historic Places*
  - *State Historic Building Code (Implementation Program RS.I-26)*
  
- *Refer to the state Senate Bill 18 guidelines and requirements regarding cultural resources. Programs the County will engage in may include:*
  - *ensuring local and Native American governments are provided with information early in the planning process,*
  - *working with Native American governments to preserve and protect Native American cultural sites by designating them as open space where possible,*
  - *providing management and treatment plans to preserve cultural places, and*
  - *working with Native American groups to manage their cultural places. (Implementation Program RS.I-27)*
  
- *Protect and promote the county's historic and prehistoric resources by:*
  - *providing educational programs to the public, staff, and commissions that promote awareness of the county's history and the value in preserving historic or prehistoric resources; and*
  - *exploring and developing historic or prehistoric sites that can be used appropriately as visitor oriented destinations. (Implementation Program RS.I-28)*

## 8.3 IMPACTS AND MITIGATION MEASURES

### **8.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>1</sup> the proposed Specific Plan would be considered to have a significant cultural resources impact if it would:

- (a) cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5;
- (b) cause a substantial adverse change in the significance of an archaeological resource as defined in section 15064.5;
- (c) directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- (d) disturb any human remains, including those interred outside of formal cemeteries.

As described in detail in subsection 8.2.1 above, section 15064.5 of the CEQA Guidelines further defines criteria for determining the significance of impacts on archaeological and historic resources. Section 15064.5 provides that, in general, a resource not listed on state or local registers of historical resources shall be considered by an agency to be historically significant if the resource meets the criteria for listing on the California Register of Historical Resources. Section 15064.5 also provides standards for determining what constitutes a "substantial adverse change" that must be considered a significant impact on an historic resource. Section 15064.5 further states that its provisions apply to those archaeological resources that also qualify as historic resources.

The CEQA Guidelines (section 15064.5[b][4]) specify that, if feasible, adverse effects on the significance of historical resources should be avoided or mitigated. Generally, if a project follows the Secretary of the Interior's standards, its impact on the historical resource is considered mitigated to a less-than-significant level (CEQA Guidelines sections 15064.5[b][3] and 15126.4[b][1]). Generally, documentation of a historical resource by way of narrative, photographs, or architectural drawings does not mitigate the physical impact on the environment caused by demolition or destruction of a historical resource (CEQA Guidelines section 15126.4[b][2]). Preservation in place is the preferred manner of mitigating impacts on archaeological sites (CEQA Guidelines section 15126.4[b][3][A]). When data recovery through excavation is the only feasible mitigation, a data recovery plan must be prepared and adopted before any excavation is undertaken (CEQA Guidelines section 15126.4[b][3][C]). A data recovery plan is not required if the lead agency determines that already completed testing or studies have adequately recovered the scientifically consequential information (CEQA Guidelines section 15126.4[b][3][D]). CEQA section 21083.2 contains additional provisions regarding mitigation of impacts on archaeological resources. CEQA Guidelines section 15064.2(f) specifies that, if historical or unique archaeological resources are accidentally discovered during construction, provisions should include an immediate evaluation of the find by a qualified archaeologist, followed by implementation of appropriate mitigation.

---

<sup>1</sup>CEQA Guidelines, Appendix G, item V (a-d).

### **8.3.2 Relevant Project Characteristics**

As described in chapter 2, Project Description, of this EIR, the Specific Plan proposes development of housing, community/public services uses, "agricultural tourism" uses, and neighborhood commercial uses clustered in four neighborhoods. The remaining approximately 78 percent of land in the plan area would be preserved as open space or agricultural land through a proposed transfer of development rights (TDR) program. The Specific Plan proposes establishment of the Green Valley Conservancy, a non-profit, tax-exempt, legally independent conservation organization that would oversee these preserved areas as well as a comprehensive community design review process.

This EIR assumes that, with development as proposed by the Specific Plan, all 55 housing units that currently exist in the plan area would remain. These existing housing units include structures identified as historic-period resources in the Holman & Associates cultural resources inventory.

### **8.3.3 Impacts and Mitigation Measures**

**Impact 8-1: Disturbance of Archaeological Resources.** The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP sections 3.2.1 and 3.2.2), streetwork (DSP section 3.4.3) and associated environmental stewardship objectives (DSP section 3.3.4) have been formulated with the intent to preserve and protect archaeological resources. The DSP proposes development of housing, community/public service uses, "agricultural tourism uses," and neighborhood commercial uses clustered around four neighborhoods, with the remaining 78 percent of the plan area preserved as open land. The DSP-proposed Green Valley Conservancy, a non-profit conservation organization, would oversee these preserved areas. Nevertheless, DSP-designated development and agricultural areas have the substantial potential to contain buried or obscured prehistoric cultural resources, as verified by the EIR consulting archaeologist. Agricultural activities and grading activities associated with future individual development projects undertaken in accordance with the DSP may disturb existing unrecorded sensitive archaeological resources in the plan area. This possibility represents a ***potentially significant impact*** (see criteria [b] and [d] in section 8.3.1, "Significance Criteria," above).

As described in subsection 8.1.1(d) above, Northwest Information Center (NWIC) records and the Holman & Associates cultural resources inventory have identified a total of 11 archaeological resources in the Specific Plan area. In addition to these identified archeological resources, the Specific Plan area has the potential to contain buried or obscured prehistoric cultural resources.

Certain features of the Specific Plan would help to preserve and protect archaeological resources. For example, the proposed development pattern and habitat protection measures (see subsection 8.3.2 above) would generally preserve riparian areas, where cultural resources are often located. Nevertheless, construction activities (e.g., grading, excavation) and agricultural activities facilitated by the Specific Plan could disturb or destroy known or as-yet unknown archaeological resources.

**Mitigation 8-1.** During the County's normal project-specific environmental review (Initial Study) process for all future, discretionary, public improvement and private development projects in the Specific Plan area, the County shall determine the possible presence of, and the potential impacts of the action on, archaeological resources, based on the information provided by this EIR. For projects involving substantial ground disturbance, the individual project sponsor or environmental consultant shall be required to contract with a qualified archaeologist to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures.

In general, to make an adequate determination, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit), or, alternatively, the need for onsite monitoring of subsurface activities (i.e., during grading or trenching). To complete the inventory of prehistoric cultural resources, mechanical testing is recommended in areas adjoining Hennessey Creek and Green Valley Creek where ground disturbance may be proposed. In addition, evaluative testing may be necessary to determine whether a resource is eligible for inclusion on the California Register of Historic Places.

If a significant archaeological resource is identified through this field inspection process, the County and project proponent shall seek to avoid damaging effects on the resource. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by:

- planning construction to avoid the archaeological site;
- incorporating the site within a park, green space, or other open space element;
- covering the site with a layer of chemically stable soil; or
- deeding the site into a permanent conservation easement (e.g., an easement administered by the proposed Green Valley Conservancy).

When in-place mitigation is determined by the County to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site, shall be prepared and adopted prior to any additional excavation being undertaken. Such studies shall be submitted to the California Historical Records Information System (CHRIS). If Native American artifacts are indicated, the studies shall also be submitted to the Native American

**(continued)**

**Mitigation 8-1 (continued):**

Heritage Commission. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups and required by the County shall be undertaken, if necessary, prior to resumption of construction activities.

A *data recovery plan* and data recovery shall not be required if the County determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in another EIR or are available for review at the CHRIS (CEQA Guidelines section 15126.4[b]).

In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a plan area construction activity, work in the immediate vicinity shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above.

If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15064.5(e) shall apply.

Implementation of this measure would supplement the County's existing General Plan policies and implementation programs and would reduce this impact to a ***less-than-significant level***.

---

**Impact 8-2: Destruction/Degradation of Historic Resources.** The planning process for the Draft Specific Plan (DSP) included consideration of the Secretary of the Interior's standards and other provisions for protecting historic resources. In addition, the 55 existing housing units in the plan area--some of which represent historic-period resources--would not be affected by DSP-facilitated neighborhood and infrastructure framework. Nevertheless, future project-specific development in accordance with the Specific Plan may result in substantial adverse changes in the significance of one or more individual potentially significant historic properties in the plan area. If a historic resource were the subject of a future, site-specific development proposal, substantial adverse changes that may potentially occur include physical demolition, destruction, relocation, or alteration of one or more of these identified resources, such that the resource is "materially impaired." A historic resource is considered to be "materially impaired" when a project demolishes or materially alters the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such an adverse change to a CEQA-defined historic resource would constitute a ***potentially significant impact*** (see criteria [a], [b], and [d] in section 8.3.1, "Significance Criteria," above).

As described in subsection 8.1.1(d) above, Northwest Information Center (NWIC) records and the Holman & Associates cultural resources inventory have identified a total of 102 individual

historic-period Euro-American resources in the plan area, of which 69 are considered potentially eligible for consideration for the California Register according to the Holman & Associates inventory. The historic-period resources consist of buildings and structures, rock walls and other landscape features, water collection and storage features, and refuse and other artifacts.

The planning process for the Draft Specific Plan (DSP) included consideration of the Secretary of the Interior's standards and other provisions for protecting historic resources. In addition, the 55 existing housing units in the plan area--some of which represent historic-period resources--would not be affected by DSP-facilitated neighborhood and infrastructure framework. Nevertheless, construction and agricultural activities facilitated by the Specific Plan could include demolition, destruction, relocation, or alteration of CEQA-defined historic resources.

**Mitigation 8-2.** Generally, for any future discretionary action within the Specific Plan area that the County determines through the CEQA-required Initial Study review process may cause a "substantial adverse change" to an identified historic resource, the County and applicant shall incorporate measures that would seek to improve the affected resource in accordance with either of the following publications:

- The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or
- The Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.

In accordance with the recommendations of the Holman & Associates cultural resources inventory, evaluation of the affected resource shall include consideration of (a) the research potential of the property type, (b) the total number of similar resources in the Specific Plan area and potential impacts on the plan area as a whole, and (c) the preservation and study priorities identified in the Holman & Associates inventory. Each site shall be formally recorded on State of California primary record forms (form DPR 523) and applicable attachments. Recording shall consolidate as many of the structures and features as possible into one site (i.e., record form) where there is a clear historical association, despite the frequent dispersal of features across the plan area.

Successful incorporation of these measures would supplement the County's existing General Plan policies and implementation programs and would reduce the impact to a ***less-than-significant level*** (CEQA Guidelines section 15126.4[b]). This mitigation shall be made enforceable by its incorporation into the Specific Plan as a

**(continued)**

**Mitigation 8-2 (continued):**

County-adopted requirement to be implemented through subsequent development-specific permits, conditions, agreements, or other measures, pursuant to CEQA Guidelines section 15064.5(b)(3-5).

For any future discretionary action that would result in the demolition of an identified historic resource, or otherwise cause the significance of the resource to be "materially impaired," the County shall determine through the Initial Study process that the resulting potential for a significant impact is unavoidable, thereby requiring a project-specific EIR (CEQA Guidelines section 15064.5[a] and [b]). In these instances, potentially significant standing structures and/or features shall be evaluated by a qualified architectural historian familiar with the region and its resources. The County shall use this information to formulate a mitigation plan for the resource, including avoiding the structure or feature or moving it to another location and/or donating some features or samples of artifacts to local historical guilds for public interpretation and permanent curation. If standing structures would be moved or destroyed, potential subsurface impacts and the presence/absence of below-ground features, such as buried foundations and filled-in privies and wells, shall be evaluated and addressed. While existing archival information may be sufficient to address applicable research issues for some resources, focused documentary research and/or oral histories may be required to develop an appropriate contextual framework for interpretation and evaluation of other resources.

**Impact 8-3: Destruction/Degradation of Paleontological Resources.**

Development facilitated by the Specific Plan could disturb existing known or unrecorded paleontological resources in the plan area. This possibility represents a ***potentially significant impact*** (see criterion [c] in section 8.3.1, "Significance Criteria," above).

The plan area may contain paleontological resources, as some geologic units in the plan area vicinity are highly sensitive for these resources. The potential for fossils to be found would be a concern during excavation for Specific Plan-facilitated development in the plan area.

**Mitigation 8-3.** During the County's normal project-specific environmental review (Initial Study) process for all future, discretionary public improvement and private development projects in the Specific Plan area, the County shall determine the possible presence of, and the potential impacts of the action on, paleontological resources. For projects involving substantial ground disturbance, the County shall require individual project applicants to carry out the following measures:

(1) *Education Program.* Project applicants shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel;
- Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface; and
- Procedures for reporting discoveries and their geologic content.

(2) *Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts on paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to the museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the lead agency, shall signify the completion of the program to mitigate impacts on paleontological resources.

Implementation of this measure would reduce the impact to a ***less-than-significant level.***

---

**Cumulative Cultural Resources Impacts.** Buildout of the plan area under the proposed Specific Plan--in combination with other future General Plan-based development elsewhere in the county and subregion--could contribute to cumulative losses in archaeological, historic, or paleontological resources. Implementation of the measures described in this EIR chapter would ensure that the Specific Plan's potential contribution to these cumulative impacts would be ***less-than-significant.***

**Mitigation for Cumulative Cultural Resources Impacts.** No significant impact has been identified; no mitigation is required.

