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## EXECUTIVE SUMMARY

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Pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines, this environmental impact report (EIR) has been prepared by the County of Solano to describe the environmental consequences of a County-proposed Middle Green Valley Specific Plan. The project, as articulated in the *Preliminary Draft Middle Green Valley Specific Plan*, October 28, 2009 (Draft Specific Plan), is intended to carry out the goals and policies identified by the Solano County 2008 General Plan for the approximately 1,905-acre Middle Green Valley "special study area."

(1) Existing Plan Area. The approximately 1,905-acre plan area is located north of the Fairfield City limits along Green Valley Road, and at the east edge of the western hills. The plan area is comprised of a valley floor, with two drainage corridors--Green Valley Creek and Hennessey Creek, surrounded by foothills including steep slope areas and oak woodland. The plan area includes grazing lands in the hills, a mixture of cultivated and cultivable agricultural land on the valley floor (substantial portions of which have recently not been in cultivation), over 200 acres of vineyard, and a number of existing building and infrastructure elements including approximately 55 rural residential units, a 10,000-square-foot winery (VG Cellars), three livestock feed barns, numerous additional agricultural barns, sheds and other accessory structures, approximately 20 miles of fencing, approximately 6 miles of overhead power and communications lines, three stock ponds, and a Solano County Water Agency operated reservoir.

The plan area is sandwiched between existing suburban residential developments in the unincorporated upper Green Valley to the north and incorporated City of Fairfield immediately to the south and southeast. The plan area is highly valued for its rural character and scenic qualities.

(2) General Plan Background. The General Plan-stated goal for the area is to maintain the rural character of the valley while allowing some opportunity for compatible residential development. The General Plan calls for use of land use tools such as clustering and transfer of development rights to limit the effects of residential development on the rural character of the valley, including the valley's viewsheds, wildlife habitat, wildlife movement corridors and agricultural activities. The General Plan calls for adoption of a plan (either a specific plan or master plan) for Middle Green Valley that would implement these objectives.

(3) Proposed Specific Plan. In response to these General Plan objectives, the Draft Specific Plan would establish a land use and circulation layout, and associated land use tools such as development clustering, a transfer of development rights (TDR) program, and use of conservation easements, to limit the effects of residential development on the rural character of the valley, and on the valley's viewsheds, wildlife habitat, wildlife movement corridors, and agricultural activities. The Draft Specific Plan includes a described "vision" and set of proposed principals, goals, concepts, neighborhood framework, and associated land use and character policies, land use designations, related use standards, building types standards, financial and infrastructure implementation provisions, community design themes, neighborhood design code

provisions; building type, form and character standards; landscape standards; open land requirements; street and circulation standards; sign standards; and design review guidelines for the Middle Green Valley plan area formulated to implement the General Plan objectives.

The Specific Plan proposes an interwoven combination of land conservation and development provisions designed to create a limited number of new residential units, "capped" at a maximum of 400 new primary residential units (consistent with General Plan stated objectives for the plan area) and up to 100 new secondary residential units, in compact cluster development patterns surrounded by an interconnected network of agricultural and natural open lands, and served by a circulation system of rural streets, bikeways, pedestrian pathways and trails.

Approximately 1,490 acres (about 78 percent) of the plan area is designated as permanent open land, of which approximately 440 acres would be preserved as working agriculture. Approximately 23 percent of the planning area is designated for development, in a "neighborhood framework," each neighborhood having a designated informal pattern of rural roads, residential building types, and community buildings.

(a) *Four Neighborhoods.* The plan includes a "neighborhood" framework of four component areas: the Green Valley Road Corridor, Elkhorn Neighborhood, Three Creeks Neighborhood and Nightingale Neighborhood.

The Draft Specific Pan proposes the following ultimate development program within the four neighborhoods:

- *Residential:* development of up to 400 new primary residential units, with up to 100 new secondary residential units, on approximately 337 acres in Rural Mixed-Use Center, Rural Farm, Rural Meadow, Rural Neighborhood, and Agriculture-Residential designations, ranging in density from one unit per five acres (Agriculture-Residential) to four to eight units per acre (Rural Mixed-Use Center);
- *Community Services:* up to 18 acres of community/public service uses, including a potential non-denominational chapel (up to 200 seats), farm stand (up to 3,000 square feet), community recreation center (up to 8,000 square feet), neighborhood elementary school (up to 325 students), and a land conservancy office (up to 3,000 square feet);
- *Agricultural Tourism:* up to approximately 50,000 square feet of agricultural commodity processing and commercial nurseries (e.g., wineries, olive oil production, etc.); up to approximately 10,000 square feet of agricultural tourism retail (locally produced wine, olive oil, flowers, produce, etc.); and a possible inn (commercial lodging) of up to 25 rooms;
- *Neighborhood Commercial:* up to 10,000 square feet of neighborhood-serving office and retail commercial floor space; and
- *Roads, Trails and Infrastructure:* approximately 60 acres of existing and proposed rural roads and other infrastructure.

(b) *Water and Sewer.* The plan proposes two basic options for providing water and wastewater services to the neighborhood development areas: (a) connecting the development areas to existing urban service systems in the vicinity (i.e., the City of Fairfield municipal water

system and Fairfield-Suisun Sewer District) consistent with the General Plan, or (b) establishing onsite water and wastewater systems.

(c) *County Services Area.* Under both water/sewer options, the plan proposes formation of a County Services Area (CSA) to maintain and operate plan area water, sewer, storm drainage, recycled water, and parks and recreation services.

(d) *Community Facilities District.* The plan describes possible CSA establishment of a Community Facilities District (CFD) which, pursuant to California Assembly Bill 1600, would issue revenue bonds and establish an associated special assessment charged on a fair share basis to new plan area development benefiting from CFD-funded infrastructure.

(e) *Conservation Easement Program.* The plan also proposes establishment of a Green Valley Conservancy to oversee the protection and management of the approximately 1,590 acres of agricultural and open lands.

(f) *TDR Program.* In addition, the plan proposes a transfer of development rights (TDR) and conservation easement program to offer plan area property owners the opportunity to place agricultural lands under conservation easement and sell development rights.

(4) Required Approvals. Implementation of the proposed Specific Plan would require County approval of the Specific Plan and associated County General Plan and Zoning Map amendments to incorporate the Specific Plan. Implementation of the Specific Plan would also require County establishment of the County Services Area (CSA) to maintain and operate plan area water, sewer, storm drainage, recycled water, and parks and recreation infrastructure; and County approval of a Master Development Agreement with plan area property owners. Implementation of the Specific Plan may also require local and state agency approvals from the City of Fairfield, Fairfield-Suisun Sewer District, Solano County Local Agency Formation Commission (LAFCO), California Department of Public Health, California Department of Fish and Game, and Regional Water Quality Control Board.

This EIR has been prepared by the County to provide the CEQA-required environmental documentation for all such local and state approvals.

(5) Environmental Issues. As provided for in the California Environmental Quality Act (CEQA) statutes and guidelines, the environmental focus of this EIR is limited to those environmental issues known to the County, including those concerns identified as possibly significant in their preliminary review of the proposed project (Initial Study) and Notice of Preparation (NOP), and by other interested agencies and individuals in response to the NOP. These identified areas of environmental concern include possible project impacts on:

- (a) aesthetics,
- (b) agriculture and mineral resources,
- (c) air quality,
- (d) biological resources,
- (e) climate change,
- (f) cultural, historic and paleontological resources,
- (g) energy,
- (h) geology and soils,
- (i) hydrology and water quality,

- (j) land use and open space,
- (k) noise,
- (l) population and housing,
- (m) public health and safety,
- (n) public services and utilities, and
- (o) transportation and circulation.

(6) Summary of Impacts and Mitigation Measures. Each significant Project impact and associated mitigation measure or measures identified in this Draft EIR is summarized in Table ES-1: the SUMMARY OF IMPACTS AND MITIGATIONS chart, that follows. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 3 through 17 of this Draft EIR. The chart is arranged in five columns: (1) environmental impacts, (2) level of impact significance prior to implementation of recommended mitigation measures, (3) recommended impact mitigation measures, (4) entity responsible for implementing each mitigation measure, and (5) level of impact significance after implementation of the mitigation measures. In those instances where more than one measure, or some combination of measures, would be required to mitigate an impact, a series of mitigation measures is listed.

*Note: Where the entity responsible for implementing a mitigation measure is identified under "Mitigation Responsibility" in Table ES-1 as "County," all or part of the ultimate responsibility for carrying out the measure may be extended by the County to individual applicant/developers as a condition of County approval--e.g., as a condition of Development Agreement, subdivision, and/or other project-specific approval.*

(7) Unavoidable Significant Impacts. CEQA Guidelines section 15126.2(b) requires that the Draft EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." Mitigation measures have been identified in this Draft EIR sufficient to reduce identified significant and potentially significant effects associated with the proposed project to less-than-significant levels, with the exception of the following significant impacts which have been identified as unavoidable (see Table ES-1):

- **Impact 3-3: Project Contribution to General Plan-Identified Countywide Cumulative Impacts on County Visual Character.** Existing vegetative screening would block views of Specific Plan-designated neighborhood development from Green Valley Road. The Specific Plan land use and open space framework, associated stringent development standards and design guidelines would also minimize the project visual impacts. The project would nevertheless contribute to this General Plan-identified cumulative visual effect.
- **Impact 4-1: Impact on Prime Farmland.** A principle and goal of the Draft Specific Plan, implemented through the Specific Plan-proposed Green Valley Agricultural Conservancy, Agricultural Business Plan, Resource Management Plan, and Transfer of Development Rights Program, is to return the substantial portion of state-designated Prime Farmland inventory in the plan area that has not been in recent cultivation back to cultivated agricultural use. Nevertheless, the Draft Specific Plan proposed Elkhorn, Nightingale and Three Creeks neighborhood areas would convert some areas of state-designated Prime Farmland in the plan area. Over time, Specific Plan-designated development in these three neighborhood areas would permanently remove up to an estimated 123 acres of Prime Farmland from agricultural production. This Specific Plan-related long-term potential

for conversion of some of the Prime Farmland in the plan area to urban use would represent a **significant and unavoidable impact**. (Alternative Specific Plan land use concepts which would reduce the amount of designated Prime Farmland displaced by development are described in Draft EIR chapter 19, Alternatives to the Proposed Action, under Alternatives 19.2: Modified Specific Plan Land Layout to Avoid Prime Farmland Areas, and Alternative 19.3: Reduced Specific Plan Development Capacity.)

- **Impact 5-3: Long-Term Regional Air Emissions Increases.** Specific Plan-facilitated development is not reflected in the latest applicable Clean Air Plan (CAP). The Specific Plan's inconsistency with the CAP is primarily an administrative effect, in that the CAP is out-of-date and does not reflect the current 2008 Solano County General Plan and other recent planning projections. In addition, traffic increases associated with Specific Plan-facilitated development would likely exceed the latest proposed BAAQMD significance threshold for reactive organic gases (ROG), should that threshold be adopted. Since no feasible full mitigation for this ROG contribution impact has been identified, the Specific Plan's effect on long-term regional emissions increases would represent a **significant and unavoidable impact**.
- **Impact 7-1: Specific Plan-Related and Cumulative Increase in Greenhouse Gas Emissions.** Construction and ongoing operation of Specific Plan-facilitated development would result in a net increase in carbon dioxide and other greenhouse gas emissions. The Specific Plan contains guidelines and principles for encouraging energy efficiency in new development within the plan area. In addition, Specific Plan-facilitated new building construction and other improvements would be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings, helping to reduce associated future energy demand and associated Specific Plan contributions to cumulative regional greenhouse gas emissions. Nevertheless, because the effectiveness of this Specific Plan-proposed mitigation program in reducing the plan-related contribution to cumulative greenhouse gas emissions in the region cannot be reliably quantified (see Mitigation 7-1 in EIR chapter 7), it has been conservatively determined that the Specific Plan would contribute measurably to an anticipated substantial cumulative net increase in regional greenhouse gas emissions, representing a **significant unavoidable project and cumulative climate change impact**.
- **Impact 17-1: Baseline Plus Project Impacts on Intersection Operations.** Until implementation of the planned I-80/I-680/SR 12 and Green Valley Road/I-80 Interchange Improvement Project (i.e., the planned reconstruction of this interchange complex as described in section 17.1.3 of this Draft EIR) is funded and implemented, the projected interim baseline plus project operational impacts on the following three study intersections are considered to be **significant and unavoidable**:
  - #7: Green Valley Road at Business Center Drive in the PM peak hour,
  - #9: Green Valley Road at the I-80 Westbound on-ramp in the AM and PM peak hours, and
  - #10: Green Valley Road at the I-80 Eastbound ramps in the AM and PM peak hours.
- **Impact 17-2: Cumulative Plus Project Impacts on Intersection Operations.** Under projected cumulative (2030) plus project conditions, the project would contribute

significantly to further deterioration of traffic operations at one study intersection, #5: Green Valley Road at Westlake Drive, in the PM peak hour. It is recommended in this Draft EIR that this intersection be left in its current condition, since the project-related delay would be limited to the left-turn movement at the side street (Westlake Drive approach in the PM peak), an effect that would not seem to justify adding a signal.

**Table ES-1  
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<i>AESTHETICS</i>				
<p><b>Impact 3-1: Impacts on Scenic Vistas.</b> Prominent views from the plan area of the Western Hills have been identified in the Solano County General Plan as one of the County's important "scenic vistas." The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP section 3.2.1) and associated visual resource protection policies, development standards, and design guidelines (DSP sections 3.2, 3.3, 3.4, 4.2, 4.4, and 5.1 through 5.9) have been specifically formulated with the intent to ensure that future plan area land use and development under the Specific Plan remains compatible with, benefits from, enhances and protects the rural character and unique scenic features of Middle Green Valley, including views of the Western Hills, as well as views of plan area riparian corridors, meadows and foothills. The DSP calls for establishment of a system of environmental stewardship (section 3.3.4) to implement the plan's visual and agricultural landscape preservation and enhancement goals, to be applied in conjunction with a plan area <i>Neighborhood Design Code</i> and associated Design Review</p>	S	<p><b>Mitigation 3-1:</b> Prior to County approval of any future plan area subdivision or other discretionary development application, the project applicant/developer shall provide site plan, architectural, landscape and infrastructure design details demonstrating to the satisfaction of the Middle Green Valley Conservancy Design Review Committee, County staff and County Planning Commission that the development design:</p> <ul style="list-style-type: none"> <li>▪ sufficiently protects existing visual access from Green Valley Road and other important plan area vantage points towards foreground and middle-ground rural landscapes and the Western Hills background;</li> <li>▪ protects existing intervening landforms and vegetative buffers;</li> <li>▪ maintains building rooflines that do not exceed existing intervening landforms and vegetative screening; and</li> </ul>	County	LS

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<p>Process. The Design Code would identify project-specific design submittal requirements for all future discretionary development. The proposed plan area Design Review Process is intended to supplement the requirements of the standard County development review process with a newly-established Middle Green Valley Conservancy Design Review Committee.</p> <p>Nevertheless, until individual project-specific applications are submitted with associated detailed design information sufficient to verify to Green Valley Conservancy Design Review Committee and County staff satisfaction adequate protection of scenic vistas and adequate visual screening from Green Valley Road, it is assumed that future individual development projects undertaken in accordance with the Specific Plan may disrupt views of the Western Hills and plan area riparian, meadow and foothill features, from Green Valley Road and other important vantage points. In particular, development within the DSP-designated neighborhood areas nearest Green Valley Road would have the potential to alter foreground and middle-ground views from Green Valley Road. This possible Specific Plan effect on scenic vistas represents a <b>potentially significant impact</b>.</p>		<ul style="list-style-type: none"> <li>▪ emphasizes building forms, designs, colors, materials, etc. that are reflective of and conducive to the surrounding rural landscape.</li> </ul> <p>Implementation of this measure would reduce this potential impact to a <b>less-than-significant level</b>.</p>		
<p><b>Impact 3-2: Increase in Nighttime Lighting and Glare.</b> The DSP includes a streetscape lighting description (section 5.7.6) that</p>	S	<p><b>Mitigation 3-2:</b> To minimize glare and "sky glow" from new outdoor area lighting, prior to County approval of any future plan area</p>	County	LS

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<p>suggests, but does not mandate, "low-level lighting"... "where nighttime events may warrant a lighted trail or path of travel for safety" and "directional and/or facility identification signs" that "may integrate low levels of light for visibility." The DSP also indicates that "All fixtures used in the landscape will be full-cut-off fixtures that will help maintain the dark nighttime sky." (DSP page 5-113). Nevertheless, although the degree of darkness experienced in Middle Green Valley and views of stars and other features in the nighttime sky would not be substantially diminished as a result of Specific Plan implementation, project-specific new development permitted by the Specific Plan in the four designated neighborhoods, as well as the farmstand envisioned along Green Valley Road immediately north of Mason Road, would include new sources of exterior lighting in an otherwise rural setting that could result in localized "light trespass" into the nighttime sky (i.e., new sources of sky-glow) or towards Green Valley Road, Mason Road, or other plan area travel routes. In addition, development of neighborhood facilities such as the anticipated school and firehouse, could include new exterior lighting features with noticeable and potentially adverse light and glare effects. The possible Specific Plan light and glare effects represent a <b>potentially significant impact</b>.</p>		<p>subdivision or other discretionary development application that includes exterior lighting, the project applicant/developer shall include in the project application materials lighting design measures that ensure protection of surrounding uses from spillover light and glare, use of low lighting fixtures, use of adequately shielded light sources, use of light sources that provide a natural color rendition, and avoidance of light reflectance off of exterior building walls. Incorporation of these and similar measures by a qualified design professional into the project-specific design would reduce this potential for light and glare impacts to a <b>less-than-significant level</b>.</p>		

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<p><b>Impact 3-3: Project Contribution to General Plan-Identified Countywide Cumulative Impacts on the County Visual Character.</b> The General Plan EIR has determined that cumulative development of General Plan-permitted urban land uses throughout Solano County would permanently change views, including valued scenic vistas, throughout the County and would substantially alter the visual character of the County through conversion of agricultural and open space lands to developed urban uses. The General Plan EIR notes that, although implementation of General Plan-required project-specific comprehensive design guidelines and architectural standards would reduce project-specific impacts on aesthetic resources, "there is no mechanism to allow implementation of development projects while avoiding the conversion of the local viewsheds from agricultural land uses and open spaces to urban...development." The General Plan EIR has also determined that no feasible mitigation measures or policies are available that could fully preserve existing visual qualities countywide while allowing development of urban uses under the adopted General Plan, and "Therefore, this impact would remain <b>significant and unavoidable</b>" (General Plan Draft EIR page 4.11-9).</p>	S	<p><b>Mitigation 3-3:</b> No mitigation has been identified which would be sufficient to eliminate the project contribution; therefore the project contribution to this impact would be <b>significant and unavoidable</b>.</p>	County	SU

Existing vegetative screening would block views of Draft Specific Plan-designated

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<p>neighborhood development from Green Valley Road. The Draft Specific Plan land use and open space framework and associated stringent development standards and design guidelines would also minimize project visual impacts. The Draft Specific Plan would also retain about 78 percent of the plan area in permanent agricultural and open space use. In addition, the Draft Specific Plan includes detailed development standards and form-based design guidelines that would serve to substantially reduce the aesthetic impacts of development within the various Specific Plan-designated neighborhood areas.</p> <p>Nevertheless, the project contribution to this General Plan-identified cumulative impact would not be "de minimis" (the commonly-used CEQA term for an effect so small or minimal in difference to the status quo that it does not constitute an environmental impact). Therefore, under CEQA, the project contribution to this General Plan-identified significant unavoidable cumulative impact would be <b>significant</b>.</p> <p><b>AGRICULTURAL AND MINERAL RESOURCES</b></p> <p><b>Impact 4-1: Impact on Prime Farmland.</b> The 2008 Solano County General Plan indicates that the county included approximately 365,650 acres of agricultural land in 2007, including</p>	S	<b>Mitigation 4-1:</b> The DSP would facilitate rural development within the plan area in accordance with the adopted 2008 Solano County General Plan. It has been determined	County	SU

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<p>approximately 157,740 acres of "Important Farmland." This "Important Farmland" included state-designated "Prime Farmland" (farmland considered to have the soil quality, growing season, and moisture supply needed to produce sustained high yields) and "Farmland of Statewide Importance" (farmland similar to "Prime Farmland," but with minor shortcomings, such as greater slopes, etc.). The plan area includes approximately 700 acres of Prime Farmland.</p> <p>A principal goal of the Draft Specific Plan (DSP), implemented through the DSP-proposed Green Valley Agricultural Conservancy, Agricultural Business Plan, Resource Management Plan, and Transfer of Development Rights program, is to return the substantial portion of this 700-acre total that has not been in recent cultivation back to cultivated agricultural use. Nevertheless, the DSP-designated Elkhorn, Nightingale and Three Creeks neighborhood areas overlap some areas of Prime Farmland in the plan area. The DSP-designated Agriculture Residential (5-acre minimum residential lots) and Rural Farm (2 to 5 acres per unit) land use categories within these three neighborhoods, totaling roughly 66 acres, would not preclude continued primary use for sustained high-yield agricultural production. However, the DSP-designated Rural Neighborhood (1 to 4 units</p>		<p>that such development could, over time, permanently remove up to an estimated 123 acres of Prime Farmland from agricultural production. Chapter 19 of this Draft EIR, Alternatives to the Proposed Action, evaluates an alternative Specific Plan land use layout that would avoid all plan area Prime Farmland (Alternative 19.2). The evaluation indicates that the land use layout changes necessary to accommodate the County General Plan-suggested maximum development capacity of up to 400 new primary residential units and up to 100 new secondary residential units in a manner that avoids the 123 acres of plan area Prime Farmland would force more development into sensitive viewsheds and wildlife habitat and corridors, thereby defeating many of the key project objectives listed in section 2.3 of this Draft EIR. Therefore, it has been determined that no feasible mitigation is currently available to avoid this impact, this Specific Plan-related long-term potential for conversion of Prime Farmland in the plan area to urban use would represent a <b>significant and unavoidable impact</b>.</p>		

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<p>per acre) and Rural Mixed-Use Center (4 to 8 units per acre) categories within these neighborhoods, totaling roughly 123 acres, would preclude continued high-yield agricultural production. The DSP would therefore, over time, convert up to approximately 123 acres of Prime Farmland to non-agricultural use. Although this DSP-related Prime Farmland loss would constitute a small (0.08 percent) portion of the County's total "Important Farmland" inventory, and would be offset by the DSP measures to return other plan area Prime Farmlands to high-yield agricultural production, it would nevertheless represent a <b>significant environmental impact</b> under CEQA.</p> <p><b>Impact 4-2: Indirect Impacts on Prime Farmland.</b> In addition to converting up to approximately 123 acres of Prime Farmland to non-agricultural use, DSP-facilitated development in the Elkhorn, Nightingale and Three Creeks neighborhoods could cause conflicts between new, project-facilitated residential uses and nearby or adjacent or nearby existing Prime Farmland agricultural activity. The large size of most DSP-proposed residential lots would allow substantial building setbacks from this property line, which would reduce the possibility for conflicts. Nevertheless, the introduction of new residential uses near existing Prime Farmland operations could result in land use compatibility</p>	S	<p><b>Mitigation 4-2:</b> Chapter 2.2 of the Solano County Code protects farm operations from nuisance complaints associated with residential uses located next to active agricultural operations. The County's "right-to-farm ordinance," as it is commonly known, guarantees existing farm owners the right to continue agricultural operations, including, but not limited to, cultivating and tilling the soil, burning agricultural byproducts, irrigating, raising crops and/or livestock, and applying approved chemicals in a proper manner to fields and farmland. The ordinance limits the circumstances under which agriculture may be considered a nuisance. To prevent future residential/agriculture conflicts in the County,</p>	County	LS

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<p>problems for the existing farmland operations, such as nuisance complaints from new residents, livestock disturbance by domestic pets, trespassing, and vandalism. Nuisance complaints can potentially cause farm operators to curtail operations, and can deter additional investment in farm-related improvements that support the county's agriculture economy. This potential conflict between DSP-facilitated existing farmland operations, residential development and existing agricultural uses represents a <b>potentially significant impact</b>.</p> <p><i>AIR QUALITY</i></p> <p><b>Impact 5-1: Construction-Related Air Quality Impacts.</b> Construction or demolition activities permitted and/or facilitated by the proposed Specific Plan may generate construction-period exhaust emissions and fugitive dust that could temporarily but noticeably affect local air quality. This would represent a <b>potentially significant impact</b>.</p>	S	<p>notice of this ordinance is currently required to be given to purchasers of real property. Consistent with the Solano County Code, and as a condition of future subdivision and other discretionary development approvals in the plan area, the County shall require the development applicant/developer to provide notification in writing to all prospective purchasers of residential property of the potential nuisances associated with adjacent and nearby farm operations and the existence of the County right-to-farm ordinance.</p> <p>Implementation of this measure would reduce the potential for project indirect impacts on Prime Farmland to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 5-1.</b> The County shall require construction contractors to comply with Solano County General Plan Implementation Program HS.I-59 (best management practices) and Implementation Program RS.I-49 (requirements for diesel vehicles). In addition, for all discretionary grading, demolition, or construction activity in the Specific Plan area, the County shall require implementation of the following measures by construction contractors, where applicable:</p>	County	LS
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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p><i>Dust (PM<sub>10</sub>) control measures that apply to all construction activities:</i></p> <ul style="list-style-type: none"> <li>▪ Water all active construction areas that have ground disturbances at least twice daily and more often during windy periods.</li> <li>▪ Cover all hauling trucks or maintain at least two feet of freeboard.</li> <li>▪ Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas.</li> <li>▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas, and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads.</li> </ul> <p><i>Enhanced dust (PM<sub>10</sub>) control measures (for construction sites that are greater than four acres, are located adjacent to sensitive receptors, or otherwise warrant additional control measures):</i></p> <ul style="list-style-type: none"> <li>▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).</li> </ul>		

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		<ul style="list-style-type: none"> <li>▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.</li> <li>▪ Limit traffic speeds on any unpaved roads to 15 miles per hour.</li> <li>▪ Replant vegetation in disturbed areas as quickly as possible.</li> <li>▪ Suspend construction activities that cause visible dust plumes to extend beyond the construction site.</li> </ul> <p><i>Measures to reduce diesel particulate matter and PM<sub>2.5</sub>:</i></p> <ul style="list-style-type: none"> <li>▪ Post clear signage at all construction sites indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite or adjacent to the construction site.</li> <li>▪ Prevent the use of construction equipment with high particulate emissions. Opacity is an indicator of exhaust particulate emissions from off-road diesel powered equipment. The project shall ensure that</li> </ul>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>emissions from all construction diesel-powered equipment used on the project site do not exceed 40-percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40-percent opacity (or Ringelmann 2.0) shall be repaired or replaced immediately.</p> <ul style="list-style-type: none"> <li>▪ Ensure that contractors install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors).</li> <li>▪ Properly tune and maintain equipment for low emissions.</li> </ul> <p>The above measures are BAAQMD-identified "feasible control measures for construction emissions of PM<sub>10</sub>." Implementation of these measures would reduce the construction-related air quality impact to a <b>less-than-significant level</b>.</p>		
<p><b>Impact 5-2: Odor Impacts on “Sensitive Receptors.”</b> Specific Plan-facilitated development in the plan area may expose sensitive receptors, such as housing and potentially a school, to odors. This effect is considered to be a <b>potentially significant project and cumulative impact</b>.</p>	S	<p><b>Mitigation 5-2.</b> In reviewing projects proposed in accordance with the Specific Plan, the County shall implement Solano County General Plan policies and implementation programs to reduce the potential for odor impacts on sensitive receptors, including Implementation Program HS.I-58 (encouraging agricultural best management practices) and Implementation Program HS.I-63 (establishing buffers). Implementation of these measures would be</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 5-3: Long-Term Regional Air Emissions Increases.</b> Specific Plan-facilitated development is not reflected in the latest applicable Clean Air Plan (CAP). In addition, future traffic increases associated with Specific Plan-facilitated development would generate regional emissions increases that would exceed the latest proposed BAAQMD emission-based threshold of significance for reactive organic gases (ROG). The effect of long-term regional emissions associated with Specific Plan-facilitated development is therefore considered to be a <b>significant project and cumulative impact</b>.</p>	S	<p>expected to reduce odor impacts on sensitive receptors to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 5-3.</b> In addition to the energy-efficiency and other emissions-reducing measures already included in the Specific Plan (e.g., provisions of sidewalks, bicycle lanes, etc.), the County shall require that the Specific Plan include the following requirements:</p> <ul style="list-style-type: none"> <li>▪ Wire each housing unit to allow use of emerging electronic metering communication technology.</li> <li>▪ Restrict the number of fireplaces in residences to one per household and/or require residential use of EPA-certified wood stoves, pellet stoves, or fireplace inserts. EPA-certified fireplaces and fireplace inserts are 70- to 90-percent effective in reducing emissions from this source. Also encourage the use of natural gas-fired fireplaces.</li> <li>▪ Require outdoor outlets at residences to allow use of electrical lawn and landscape maintenance equipment.</li> <li>▪ Make natural gas available in residential backyards to allow use of natural gas-fired barbecues.</li> </ul>	County	SU

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<ul style="list-style-type: none"> <li>▪ Require that any community services operation in the plan area use electrical or alternatively fueled equipment for maintenance of the areas under its jurisdiction.</li> </ul> <p>These strategies can be expected to reduce Specific Plan-related regional emissions assumed in the air quality analysis by perhaps 5 percent. This amount would fall short of the 23-percent reduction needed for emissions to fall below the proposed BAAQMD significance threshold for ROG.</p> <p>The finding of a significant impact is based primarily on inconsistencies among the land use projections used in various plans (i.e., the proposed Specific Plan, the recently adopted Solano County General Plan, and the 2005 Bay Area Ozone Strategy). As a result, the Specific Plan's inconsistency with the CAP is primarily an administrative effect, in that the CAP is out-of-date and does not reflect current planning projections. The BAAQMD is likely to adopt an updated CAP that would include the latest County projections, including proposed development in the Specific Plan area. Until the current CAP is updated to reflect changed assumptions regarding the County General Plan and Specific Plan projections, adoption and implementation of the Specific Plan would</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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remain technically inconsistent with the current CAP.

In addition, however, Specific Plan-facilitated development would likely exceed the proposed BAAQMD significance threshold for ROG, should that threshold be adopted. Since no additional feasible full mitigation has been identified, the Specific Plan's effect on long-term regional emissions increases, as reflected in these administrative provisions, would therefore represent a **significant and unavoidable impact**.

**BIOLOGICAL RESOURCES**

**Impact 6-1: General Areawide Impacts on Biological Resources.** The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP sections 3.2.1 and 3.3.2), street network (DSP section 3.4.3) and associated environmental stewardship provisions and habitat protection objectives (DSP sections 3.3.4 and 5.5.6) have been formulated with the intent to avoid and protect mixed oak woodland forest, grassland pockets, and Hennessey Creek and Green Valley Creek riparian corridors, and to minimize biological resource impacts in general. The Draft Specific Plan also specifically acknowledges the framework that would be established by the Bureau of Reclamation and Solano County Water Agency's proposed Solano Multi-

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**Mitigation 6-1.** The County shall encourage avoidance, minimization and compensatory mitigation of identified biological resources, including careful consideration by prospective individual project applicants of the biological resource constraint information provided in this EIR during the pre-application project design phase. In addition, prior to County approval of any future plan area subdivision or other discretionary development application, the project proponent shall submit a *biological resources assessment report* prepared by a qualified biologist for County review and approval. The *biological resources assessment report* shall contain a focused evaluation of project-specific impacts on biological resources, including temporary and

County

LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Species Habitat Conservation Plan (HCP) (DSP section 2.4.3) for complying with federal and state regulations for special-status species while accommodating future urban growth. In addition, the tree and habitat protection objectives identified in the DSP (section 5.5.6) specifically call for the protection of existing mature hardwood and oak trees; preservation, conservation and enhancement of open lands that provide wildlife habitat; minimization of tree and shrub removal in foothill areas; and repair of environmental degradation that has previously occurred. Nevertheless, based on the evaluation of biological resources occurring or potentially occurring within or in the vicinity of the DSP-designated development areas by the EIR consulting biologist, it has been determined that future individual development projects undertaken in accordance with the DSP may result in potential site-specific impacts on biological resources including sensitive vegetation and aquatic communities, special-status plant species, and special-status wildlife species, due to future individual project-level residential, commercial and mixed- use development, landscaped parkland construction, active open space land uses, and associated road and utility/infrastructure construction activities. This possibility represents a <b>potentially significant impact</b>.</p>		<p>indirect impacts, as well as all related biological impact avoidance, minimization, and compensatory mitigation measures included in the project. If the assessment results in a determination that: (a) no oak woodland area, potentially jurisdictional wetland area, or riparian habitat or other stream features would be affected; and (b) no special-status plant or animal species habitat known to occur or potentially occur on or in the vicinity of the project would be affected; no further mitigation would be necessary. If the assessment results in a determination that one or more of these features would be affected, the assessment shall identify associated avoidance, minimization, and/or compensatory mitigation measures shall be consistent with the requirements of corresponding Mitigation 6-2 through 6-13 which follow in this EIR chapter, as well as all other applicable state and federal laws and regulations.</p> <p>Prior to project approval, the County shall also confirm that project-level development has received the necessary permits, approvals, and determinations from applicable biological resource agencies as identified under Mitigations 6-2 through 6-13 which follow. Implementation of these measures would reduce the potential impact to a <b>less-than-significant level</b>.</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-2: Potential Conflict with Solano County Multispecies Habitat Conservation Plan.</b> The Draft Specific Plan includes substantial measures intended to minimize potential conflicts between future individual developments undertaken under the Specific Plan with the policies of the Bureau of Reclamation and Solano County Water Agency's Administrative Draft Solano County Multispecies Habitat Conservation Plan (HCP). Nevertheless, if future individual project-level development undertaken under the Specific Plan includes aspects, or proposes special-status species impact avoidance, minimization and/or compensatory mitigation measures, that are not consistent with the HCP as ultimately adopted, the individual project would conflict with the provisions of an adopted Habitat Conservation Plan. This possibility represents a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 6-2.</b> The County shall ensure that, prior to construction, project-level applicants implement (a) multispecies impact avoidance, minimization and compensatory mitigation measures consistent with the Solano HCP (even if the individual project-level application does not require a jurisdictional approval from an HCP implementing agency such as the SCWA, City of Fairfield Municipal Water, or SID); or (b) comparable measures approved by applicable resource agencies. This measure would reduce the potential impact to a <b>less-than-significant level</b>. <i>[Note: This mitigation measure is intended to incorporate the final HCP, once adopted.]</i></p>	County	LS
<p><b>Impact 6-3: Impact on Oak Woodlands.</b> The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential impacts on existing oak woodlands. Nevertheless, future individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary and/or indirect impacts on oak woodland communities, representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 6-3.</b> Prior to approval of future individual, site-specific development projects within the plan area, the project proponent shall submit an <i>oak woodland management plan</i>, consistent with the requirements of the Specific Plan and this EIR (see below). The <i>oak woodland management plan</i> may be integrated into the <i>biological resources assessment report</i> (see <i>Mitigation 6-1</i>).</p> <p>Direct impacts on oak woodland shall be mitigated by (a) conservation of oak woodland</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-4: Impact on Riparian Communities.</b> The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential impacts on Green Valley Creek and Hennessey Creek riparian communities. Nevertheless, future, individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary, indirect impacts on riparian communities in the plan area, representing a <b>potentially significant impact</b>.</p>	S	<p>through the proposed Transfer of Development Rights program (or other method if necessary) at a minimum of a 1:1 ratio by acreage, and (b) replanting of removed heritage oaks at a 1:1 ratio. Transplantation of existing oaks would not require compensatory mitigation.</p> <p>Implementation of this measure, combined with the detailed mitigation provisions included in the Specific Plan (see below), would reduce the potential impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 6-4.</b> Proponents of projects that have been determined through <i>Mitigation 6-1</i> (biological resource assessment report) to involve potential impacts on riparian vegetation communities shall:</p> <p>(a) contact the California Department of Fish and Game (CDFG) to determine whether a Lake and Streambed Alteration Agreement is necessary; and</p> <p>(b) provide a detailed description of the potential riparian habitat impacts and proposed mitigation program to the Regional Water Quality Control Board (Water Board) as part of the project's Water Quality Certification application.</p> <p>Final mitigation for direct and permanent impacts on riparian vegetation/habitat would be</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>subject to <i>jurisdictional agency approval</i>--i.e., approval by the CDFG and Water Board. (The term "jurisdictional agency" as used throughout the mitigation program description in this EIR chapter refers to the federal and state resource agencies with authority pertaining to the subject impact--i.e., the applicable combination of USFWS, Corps, CDFG and/or Water Board, based on the jurisdictional authorities described in sections 6.2.2 and 6.2.3 herein.)</p> <p>Mitigation shall include: (a) preservation of riparian habitat at the jurisdictional agency-established minimum ratio, measured by acreage, either onsite or at an approved mitigation bank; and (b) replanting riparian vegetation in preserved riparian areas at the jurisdictional agency-established minimum ratio as measured by acreage, either onsite or at an approved mitigation bank. Temporary impacts on riparian habitat may be mitigated by replanting of riparian vegetation at the jurisdictional agency-established minimum ratio. Preserved riparian habitat areas shall be protected in perpetuity by a conservation easement.</p> <p>New development lot lines and the edges of cultivated agricultural fields in preserved lands shall be set back from preserved riparian corridors by a minimum of 50 feet for tributaries</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>and a minimum of 100 feet from Green Valley Creek and lower Hennessey Creek.</p> <p>The potential for introduction of invasive species into riparian communities shall be minimized through use of the planting palettes recommended in the Specific Plan, or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants shall be encouraged.</p> <p>To provide additional direct mitigation for project impacts on Hennessey Creek riparian vegetation, and potential indirect, in-kind mitigation for riparian impacts elsewhere in the plan area, a <i>Hennessey Creek conceptual restoration plan</i> shall be prepared. This conceptual restoration plan shall be prepared to jurisdictional agency satisfaction prior to final approval of any future plan area subdivision map or other discretionary approval involving direct impacts on Hennessey Creek riparian communities, or impacts on riparian communities elsewhere in the plan area that may be subject to in-kind mitigation.</p> <p>Implementation of these measures would reduce the potential impact to a <b>less-than-significant level</b>.</p>		
<b>Impact 6-5: Impact on Wetlands, Streams, and Ponds.</b> The Draft Specific Plan includes land use and circulation configurations and	S	<b>Mitigation 6-5.</b> Proponents of projects that have been determined through <i>Mitigation 6-1</i> (biological resources assessment report) to	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>associated measures intended to avoid or minimize potential impacts on existing wetlands, streams and ponds. Nevertheless, future, individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on wetlands, streams, and ponds in the plan area, representing a <b><i>potentially significant impact</i></b>.</p>		<p>involve potential impacts on wetlands, streams and ponds shall:</p> <p>(a) contact the California Department of Fish and Game (CDFG) to determine whether a Lake and Streambed Alteration Agreement is necessary; and</p> <p>(b) submit a Section 404 permit application to the U.S. Army Corps of Engineers (Corps) and a Water Quality Certification application to the Regional Water Quality Control Board (Water Board). A jurisdictional Section 404 delineation must be approved by the Corps before permits can be issued by the above-listed agencies.</p> <p>Final mitigation for direct and temporary impacts on wetlands, streams, and ponds shall be subject to the approval of the CDFG and Water Board. Mitigation for direct impacts shall include a minimum of (a) preservation of wetland, stream, and/or pond habitat at the jurisdiction agency-established minimum ratio, measured by acreage, either onsite or at an approved mitigation bank; and (b) creation of wetland, stream, and/or pond habitat in preserved areas at the jurisdiction agency-established minimum ratio, either onsite or at an approved mitigation bank. Onsite preserved habitat areas shall be protected in perpetuity by a conservation easement.</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>New development lot lines and the edges of cultivated agricultural fields in preserved lands shall be set back from preserved wetlands, streams, and ponds by a minimum of 50 feet from tributaries and a minimum of 100 feet from Green Valley Creek and lower Hennessey Creek.</p> <p>New and expanded road crossings over streams shall be designed and constructed to minimize disturbance to the stream channel by the use of measures such as clear span bridges or arch span culverts when feasible, and minimizing the number and area of footings placed in and at the margins of stream channels.</p> <p>The Hennessey Creek conceptual restoration area (see <i>Mitigation 6-4</i>) shall be made available to provide for mitigation of direct impacts on Hennessey Creek riparian communities, or potential in-kind mitigation for riparian impacts elsewhere in the plan area.</p> <p>As indicated in <i>Mitigation 6-4</i>, the potential for introduction of invasive species shall be minimized through use of the planting palettes recommended in the Specific Plan, or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants shall be encouraged.</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-6: Impact on Special-Status Plant Species Observed or Known to Occur in the Plan Area.</b> Development undertaken in accordance with the Specific Plan may result in direct, temporary, or indirect impacts on one special-status plant species observed or known to occur in the plan area, Northern California black walnut, which is a California Native Plant Society (CNPS) List 1B species. This possibility represents a <i>potentially significant impact</i>.</p>	S	<p>These measures would reduce the potential impact to a <i>less-than-significant level</i>.</p> <p><b>Mitigation 6-6.</b> Prior to approval of future individual project-level development plans in the plan area, the potential for occurrence of special-status plant species in the proposed project area should be evaluated under <i>Mitigation 6-1</i> (biological resources assessment report requirements) by a qualified professional biologist and based on the information provided by this EIR and other appropriate literature resources. If suitable habitat for special-status plant species is present in the proposed project area, protocol-level special-status plant surveys shall be conducted during the appropriate blooming period by a qualified professional biologist. The results of the report shall be provided as part of a protocol-level <i>special-status plant survey report</i>, or integrated into other biological documentation.</p> <p>If special-status plant species are found during protocol-level special-status plant species surveys, the special-status plant species survey report shall provide a discussion of avoidance, minimization, and mitigation measures as appropriate for each species population. Species observed to be present shall be avoided if feasible. If avoidance of these species is not feasible, the special-status plant species shall be transplanted to suitable habitat areas using techniques most suited for</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>the species based on best available science. This may include seed collection, transplantation, or other appropriate methods depending on the observed plant species.</p> <p>Potential indirect hydrology impacts shall be evaluated as part of the <i>special-status plant species survey report</i>. If special-status plant species populations could be affected by changes in hydrology as a result of the proposed project, measures such as establishment of appropriate buffers and/or changes to grading contours (if feasible) shall be recommended to maintain preserved and avoided plant species populations.</p> <p>The potential for introduction of invasive species shall be minimized through use of planting palettes recommended in the Specific Plan or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants is encouraged.</p> <p>Construction activities shall disturb the minimum area necessary to complete construction work and disturbed areas seeded with a mix containing native species as soon as possible following disturbance. Construction equipment shall be kept clean of vegetative material, and construction traffic shall be restricted to those areas necessary to complete construction.</p>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-7: Impacts on Special-Status Plant Species with Potential Habitat in the Plan Area.</b> Development undertaken in accordance with the Specific Plan may result in direct, temporary or indirect impacts on special-status plant species that have not yet been observed or are not yet known to occur, but could potentially occur, based on habitat conditions in the plan area, including CNPS List 1B species (Alkali milk-vetch, Big-scale balsamroot, Big tarplant, Narrow-anthered California brodiaea, Mt. Diablo fairy lantern, Tiburon paintbrush, Holly-leaved ceanothus, Pappose tarplant, Western leatherwood, Adobe lily, Diablo helianthella, Brewer's westernflax, Robust monardella, Baker's navarretia, Snowy Indian clover, and Saline clover) and CNPS List 2 species (Dwarf downingia, Rayless ragwort, and Oval-leaved viburnum). This possibility represents a <b>potentially significant impact</b>.</p>	S	<p>Implementation of these measures to the satisfaction of the listing jurisdictional agency would reduce the potential impact to a <b>less-than-significant level</b>. The listing jurisdictional agency is the federal, state and/or local agency--i.e., the USFWS, or CDFG, CNPS, or County--that has recognized (i.e., listed) the species as a special status species deserving special consideration because of its rarity or vulnerability.</p> <p><b>Mitigation 6-7.</b> Implement <i>Mitigation 6-7</i>. Implementation of this measure as a condition of future individual discretionary project approvals, to the satisfaction of the listing jurisdictional agency (CDFG), would reduce this potential impact to a <b>less-than-significant level</b>.</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-8: Impacts on Special-Status Wildlife Species Observed or Known to Occur in the Plan Area.</b> Development undertaken in accordance with the Specific Plan may result in direct, temporary or indirect impacts on special-status wildlife species observed or known to occur in the plan area, including CDFG Species of Special Concern (Loggerhead Shrike, Grasshopper Sparrow, and Western Pond Turtle), a USFWS Bird of Conservation Concern (Lewis's Woodpecker), a Federal Threatened Species (Steelhead) and a CDFG Protected Species (Monarch Butterfly). This possibility represents a <b>potentially significant impact.</b></p>	S	<p><b>Mitigation 6-8.</b> The <i>biological resources assessment reports</i> submitted by applicants for project-level developments in the plan area shall evaluate the potential for special-status wildlife species to occur in the proposed project areas and shall identify appropriate avoidance, minimization and/or compensatory measures. In accordance with <i>Mitigation 6-2</i>, the <i>biological resources assessment reports</i> shall refer to the anticipated Solano HCP for appropriate avoidance and minimization measures. Impacts on avian species protected by the Migratory Bird Treaty Act (MBTA) shall be avoided through preconstruction breeding bird surveys and avoidance of occupied nests. Implementation of this measure as a condition of individual discretionary project approval, to the satisfaction of the listing jurisdictional agency(ies), would reduce this potential impact to a <b>less-than-significant level.</b></p>	County	LS
<p><b>Impact 6-9: Impacts on Special-Status Wildlife Species with Potential Habitat in the Plan Area.</b> Development undertaken in accordance with the Specific Plan may also result in direct, temporary or indirect impacts on special-status species that have not yet been observed or are not yet known to occur, but could potentially occur, based on habitat conditions in the plan area, including CDFG Species of Special Concern (Pallid Bat, various Western Bat species, American Badger, and Northern Harrier), CDFG Fully Protected</p>	S	<p><b>Mitigation 6-9.</b> Implement <i>Mitigation 6-8</i>. Implementation of this measure as a condition of future individual discretionary project approvals, to the satisfaction of the listing jurisdictional agency (CDFG), would reduce this potential impact to a <b>less-than-significant level.</b></p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Species (Golden Eagle and White-Tailed Kite) and a USFWS Bird of Conservation Concern (Golden Eagle). This possibility represents a <b>potentially significant impact</b>.</p> <p><b>Impact 6-10: Impact on Loggerhead Shrike, Lewis's Woodpecker, Grasshopper Sparrow and Other Protected Bird Species.</b> Future, individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on nesting and foraging habitat for protected bird species known to occur in the plan area, including Loggerhead Shrike, Lewis's Woodpecker, and Grasshopper Sparrow, as well as other special-status and Migratory Bird Treaty Act-protected bird species with the potential to occur in the plan area, representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 6-10.</b> If construction or other disturbance to suitable nesting habitat for these and other potential special-status bird species is conducted between February 1 and August 31, pre-construction breeding bird surveys shall be conducted by a qualified biologist no later than 30 days prior to the anticipated start of construction. Construction and removal of suitable nesting vegetation may be initiated without pre-construction surveys if removal and disturbance of suitable nesting habitat is conducted between September 1 and January 31.</p> <p>If breeding birds are observed during pre-construction surveys, disturbance to active nests shall be avoided by establishment of a buffer between the nest and construction activities. Appropriate buffer distances are species- and project-specific but shall follow the guidelines of the ADHCP: for example, a minimum of 500 feet would be required for Swainson's Hawk and a minimum of 250 feet for Special Management Species (Loggerhead Shrike, Grasshopper Sparrow, and Tricolored Blackbird). For all other special-status bird species, a minimum buffer distance of at least 50 feet shall be required.</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-11: Impact on Western Pond Turtle.</b> Future individual discretionary project-specific development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on Western Pond Turtle and suitable habitat for this species, representing a <b>potentially significant impact</b>.</p>	S	<p>The <i>biological resources assessment reports</i> required under <i>Mitigation 6-1</i> for all individual discretionary development projects in the plan area shall contain analysis of measures that would be used by a proposed development project to minimize and avoid potential indirect impacts on special-status bird species.</p> <p>Implementation of these measures would reduce the potential impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 6-11.</b> The presence of suitable aquatic and dispersal habitat for WPT shall be evaluated by a qualified biologist as part of the <i>biological resources assessment report</i> required under <i>Mitigation 6-1</i>. Projects containing suitable aquatic habitat for WPT shall provide an analysis of potential impacts, along with avoidance, minimization, and mitigation measures for potential impacts on WPT. It is recommended that final avoidance, minimization, and mitigation measures be developed in consultation with CDFG and/or be consistent with the measures outlined in the anticipated Solano HCP.</p> <p>Direct impacts on WPT habitat shall be mitigated through implementation of the mitigation measures described above for wetlands, streams, and ponds (<i>Mitigation 6-5</i>). Indirect hydrology and water quality impacts on</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<p>WPT shall be mitigated through implementation of mitigation measures recommended in chapter 11, Hydrology and Water Quality, of this EIR.</p> <p>These measures would reduce the potential impact to a <b>less-than-significant level</b>.</p>		
<p><b>Impact 6-12: Impact on Steelhead.</b> The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential direct and indirect impacts on plan area streams and stream habitats. Nevertheless, future individual project-specific discretionary development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on Steelhead in Green Valley Creek, a Federal Threatened Species, representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 6-12.</b> Utility crossings and new and expanded road crossings over streams shall be designed and constructed to minimize disturbance to the stream channel by using measures such as clear span bridges or arch span culverts when feasible, and by minimizing the number and area of footings placed in and at the margins of stream channels. Appropriate construction Best Management Practices (BMPs) such as those recommended in this EIR or in the anticipated Solano HCP to minimize impacts on Steelhead shall also be implemented. Design and minimization measures are subject to approval, and may change, based on consultation with the National Marine Fisheries Service (NMFS).</p> <p>Riparian vegetation mitigation measures outlined in <i>Mitigation 6-4</i> shall also be implemented to reduce impacts on riparian vegetation that may affect Steelhead. Mitigation measures for stormwater quality and quantity identified recommended in chapter 11, Hydrology and Water Quality, of this EIR shall be implemented to minimize indirect impacts on</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		Steelhead from stormwater and water quality changes due to construction.		
		Implementation of these measures would reduce the potential impact to a <b>less-than-significant level</b> .		
<b>Impact 6-13: Impact on Wildlife Habitat Corridors and Linkages.</b> Compared to other forms of development, the cluster development patterns proposed by the Specific Plan would greatly reduce the potential impact on habitat corridors and linkages, and the proposed preservation of large open space areas would help preserve opportunities for wildlife habitat use and movement. Nevertheless, future individual discretionary project-level development undertaken pursuant to the Specific Plan has the potential to impact wildlife habitat corridors and linkages, through the introduction of barriers to wildlife movement in the form of wider roads with increased traffic and increased development and human presence, representing a <b>potentially significant impact</b> .	S	<b>Mitigation 6-13.</b> As part of the <i>biological resources assessment report</i> required under <i>Mitigation 6-1</i> , each project undertaken pursuant to the Specific Plan shall include minimization and mitigation measures for potential impacts on wildlife corridors. Measures may vary based on project location, project design, and habitat types present.  Project-level developments shall maintain the limits of development specified in the Specific Plan to provide adequate buffers for habitat corridors. Stream setbacks specified in <i>Mitigation 6-4</i> shall be implemented to maintain adequate corridor widths in riparian areas to allow for movement of wildlife.  Implementation of these measures would reduce the potential impact to a <b>less-than-significant level</b> .	County	LS
<b>Impact 6-14: Cumulative Impact on Biological Resources.</b> Development in the Specific Plan area, in combination with other future development elsewhere in the county and subregion, could contribute to cumulative	S	<b>Mitigation 6-14.</b> The County shall ensure that <i>Mitigations 6-1</i> through <i>6-13</i> above are implemented. With successful implementation of these measures, the Specific Plan's contribution to the cumulative biological	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>biological resources impacts, including cumulative losses of special-status species, Heritage Trees, and other vegetation and wildlife. These cumulative impacts have been considered in the preparation and adoption of the Solano County General Plan and County-certified General Plan EIR, as well as in similar documents prepared for and adopted in other jurisdictions. The Specific Plan's potential contribution to cumulative effects on biological resources would represent a <b><i>potentially significant cumulative impact</i></b>.</p> <p><i>CLIMATE CHANGE</i></p> <p><b>Impact 7-1: Specific Plan-Related and Cumulative Increase in Greenhouse Gas Emissions.</b> Construction and ongoing operation of Specific Plan-facilitated development would result in a net increase in carbon dioxide and other greenhouse gas emissions.</p> <p>The Specific Plan contains guidelines and principles for encouraging energy efficiency in new development within the plan area. In addition, Specific Plan-facilitated new building construction and other improvements would be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings, helping to reduce associated future energy demand and associated Specific Plan</p>		<p>resources impact would be reduced to a <b><i>less-than-significant level</i></b>.</p> <p><b>Mitigation 7-1.</b> The proposed Specific Plan contains measures to encourage energy efficiency in new Specific Plan-facilitated development. To further ensure that the proposed Specific Plan facilitates growth in a manner that reduces the rate of associated greenhouse gas emissions increase, discretionary approvals for Specific Plan-related individual residential, commercial, agricultural, and public services projects in the Specific Plan area shall be required to comply with the Climate Action Plan to be developed and adopted by the County. In the interim, Specific Plan-related discretionary approvals shall incorporate an appropriate combination of the following greenhouse gas emissions reduction measures (from Table 7.3):</p>	County	SU

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<p>contributions to cumulative regional greenhouse gas emissions.</p> <p>Nevertheless, conservatively assuming construction emissions of 66 to 1,443 tons per year and an estimated ongoing "worst case" net increase in greenhouse gas emissions of approximately 10,779 metric tons per year (or 6.65 metric tons per year per capita), the proposed Specific Plan could be expected to result in a <b>significant project and cumulative global climate change impact.</b></p>		<ul style="list-style-type: none"> <li>▪ features in the project design that would accommodate convenient public transit and promote direct access for pedestrians and bicyclists to major destinations;</li> <li>▪ adoption of a project design objective for public buildings to achieve Leadership in Energy and Environmental Design (LEED) New Construction "Silver" Certification or better, in addition to compliance with California Code of Regulations Title 24 Energy Efficient Standards;</li> <li>▪ planting of trees and vegetation near structures to shade buildings and reduce energy requirements for heating and cooling;</li> <li>▪ preservation or replacement of existing onsite trees;</li> <li>▪ construction and demolition waste recycling (see <i>Mitigation 16-12</i> of this EIR); and</li> <li>▪ preference for replacement of project exterior lighting, street lights and other electrical uses with energy efficient bulbs and appliances.</li> </ul> <p style="text-align: center;">Implementation of appropriate combinations of these mitigation measures in individual Specific</p>		

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		Plan-related developments would substantially reduce Specific Plan-related greenhouse gas emissions impacts. However, because the effectiveness of this mitigation program in reducing the Specific Plan-related contribution to cumulative greenhouse gas emissions in the region cannot be reasonably quantified, it has been determined that the Specific Plan, when combined with anticipated overall cumulative development in the region as a whole, would potentially produce a substantial net increase in greenhouse gas emissions, representing a <b>significant unavoidable project and cumulative climate change impact.</b>		
<i>CULTURAL, HISTORIC AND PALEONTOLOGICAL RESOURCES</i>				
<b>Impact 8-1: Disturbance of Archaeological Resources.</b> 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	S	<b>Mitigation 8-1.</b> 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	County	LS

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<p>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 <b>potentially significant impact</b>.</p>		<p>remaining on the site and warranted mitigation measures.</p> <p>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.</p> <p>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</p>		

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		<p>of mitigating impacts on an archaeological site. Preservation may be accomplished by:</p> <ul style="list-style-type: none"> <li>▪ planning construction to avoid the archaeological site;</li> <li>▪ incorporating the site within a park, green space, or other open space element;</li> <li>▪ covering the site with a layer of chemically stable soil; or</li> <li>▪ deeding the site into a permanent conservation easement (e.g., an easement administered by the proposed Green Valley Conservancy).</li> </ul> <p>When in-place mitigation is determined by the County to be infeasible, a <i>data recovery plan</i>, 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 Heritage Commission. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups and</p>		

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		<p>required by the County shall be undertaken, if necessary, prior to resumption of construction activities.</p> <p>A <i>data recovery plan</i> 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]).</p> <p>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.</p> <p>If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 5064.5(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 <b><i>less-than-significant level</i></b>.</p>		

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<p><b>Impact 8-2: Destruction/Degradation of Historic Resources.</b> 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 <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 8-2.</b> 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:</p> <ul style="list-style-type: none"> <li>▪ The Secretary of the Interior's <i>Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings</i>; or</li> <li>▪ The Secretary of the Interior's <i>Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i>.</li> </ul> <p>In accordance with the recommendations of the Holman &amp; 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 &amp; Associates inventory. Each site shall be formally recorded on State of California primary</p>	County	LS

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		<p>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.</p> <p>Successful incorporation of these measures would supplement the County's existing General Plan policies and implementation programs and would reduce the impact to a <b>less-than-significant level</b> (CEQA Guidelines section 15126.4[b]). This mitigation shall be made enforceable by its incorporation into the Specific Plan as a 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).</p> <p>For any future discretionary action that would result in the <u>demolition</u> 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</p>		

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		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.		
<b>Impact 8-3: Destruction/Degradation of Paleontological Resources.</b> Development facilitated by the Specific Plan could disturb existing known or unrecorded paleontological resources in the plan area. This possibility represents a <i>potentially significant impact</i> .	S	<b>Mitigation 8-3.</b> 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:	County	LS

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		<p>(1) <i>Education Program.</i> Project applicants shall implement a program that includes the following elements:</p> <ul style="list-style-type: none"> <li>▪ Resource identification training procedures for construction personnel;</li> <li>▪ Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface; and</li> <li>▪ Procedures for reporting discoveries and their geologic content.</li> </ul> <p>(2) <i>Procedures for Resources Encountered.</i> 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</p>		

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		<p>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.</p> <p>Implementation of this measure would reduce the impact to a <b><i>less-than-significant level</i></b>.</p>		
<b>GEOLOGY AND SOILS</b>				
<p><b>Impact 10-1: Landslide and Erosion Hazards.</b> The Specific Plan would allow development in areas that may be subject to landslide and erosion hazards, representing a <b><i>potentially significant impact</i></b>.</p>	S	<p><b>Mitigation 10-1.</b> At County discretion and consistent with Solano County General Plan policies HS.P-12 through HS.P-15 and HS.P-17 and implementation programs HS.I-21 and HS.I-22, future subdivision and other discretionary development approvals may be subject to <i>detailed, design-level geotechnical investigations</i> that include analysis of landslide and erosion hazards and recommend stabilization measures. The County may also require preparation of Preliminary Grading Plans and/or Preliminary Geotechnical Reports, prepared by a licensed Engineering Geologist,</p>	County	LS

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		before approval of specific developments within the plan area. Under this existing County authority, the investigating Engineering Geologist may be required to determine the extent of any necessary landslide remediation and supervise remediation activities during project construction to ensure that any existing or potential future landslides are fully stabilized. Mitigation measures (e.g., soil replacement, setbacks, retaining walls) shall be required as needed to protect against damage that might be caused by slope failure. Required compliance with these existing Solano County policies, implementation programs and development review procedures to the satisfaction of the County would reduce the potential effects of landsliding and soil erosion to a <b>less-than-significant level</b> .		
<b>Impact 10-2: Expansive Soil Hazards.</b> Most of the areas proposed for development under the Specific Plan have “moderate” to “high” shrink-swell potential. The plan area’s moderately to highly expansive soils would be expected to undergo repeated cycles of shrinking and swelling in response to changes in soil moisture. Utility lines, road and building foundations, and sidewalks and concrete flatwork constructed on top of naturally occurring expansive soils, or based on fills that contain a high percentage of expansive soils, would be subject to long-term damage, representing a <b>potentially significant impact</b> .	S	<b>Mitigation 10-2.</b> The <i>detailed, design-level geotechnical investigations</i> required at the County’s discretion (see <i>Mitigation 10-1</i> ) shall include analysis of expansive soil hazards and shall recommend warranted stabilization measures. The individual project Engineering Geologist shall inspect and certify that any expansive soils underlying individual building pads and all roadway subgrades have been either removed or amended in accordance with County-approved construction specifications, or shall make site-specific recommendations for grading, drainage installation, foundation design, the addition of soil amendments, and/or	County	LS

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<p><b>Impact 10-3: Groundwater Impacts.</b> Mass grading, construction of cuts and fills, redirection of existing drainage patterns, and installation of landscaping irrigation as part of future development allowed by the Specific Plan could affect existing patterns of groundwater flow in the plan area, resulting in slope instabilities that would represent a <b><i>potentially significant impact</i></b>.</p>	S	<p>the use of imported, non-expansive fill materials, as may be required to fully mitigate the effects of weak or expansive soils and prevent future damage to project improvements. These recommendations shall be reviewed and approved by a County-retained registered geologist and incorporated into a report to be included with each building permit application and with the plans for all public and common area improvements. Implementation of these measures to the satisfaction of the County, combined with conformance with standard Uniform Building Code and other applicable regulations, would reduce the potential effects of expansive soils to a <b><i>less-than-significant level</i></b>.</p> <p><b>Mitigation 10-3.</b> Onsite drainage systems shall be regularly maintained to ensure that storm water runoff is directed away from all slope areas. Educational materials that discourage overwatering in landscaped areas shall be furnished to all future lot owners and property managers at the time of purchase and periodically thereafter (perhaps by inclusion with water or tax bills), as part of an effort to control groundwater seepage. Implementation of these measures to the satisfaction of the County would reduce this potential effect to a <b><i>less-than-significant level</i></b>.</p>	County	LS

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<i>HYDROLOGY AND WATER QUALITY</i>				
<p><b>Impact 11-1: Construction-Period Impacts on Water Quality.</b> Surface water pollutants associated with Specific Plan-facilitated construction activity, including soil disturbance associated with grading activities, could significantly degrade the quality of receiving waters in Hennessey Creek, Green Valley Creek and, ultimately, Suisun Bay, representing a <b><i>potentially significant impact</i></b>.</p>	S	<p><b>Mitigation 11-1.</b> The County shall ensure that the developer of each future Specific Plan-facilitated discretionary development in the plan area complies where applicable with all current state, regional, and County water quality provisions, and in particular, complies with the process of development plan review established in the County's Storm Water Management Plan (SWMP), and associated County NPDES permit issuance requirements instituted to address short-term and long-term water quality issues, including construction period activities. Implementation of this requirement would reduce this impact to a <b><i>less-than-significant level</i></b>.</p>	County	LS
<p><b>Impact 11-2: Ongoing Impacts on Water Quality.</b> Ongoing activities associated with project-facilitated development could increase the level of contaminants in receiving waters. Sources of pollutants could include (a) runoff from new roadways, parking areas, and other paved areas; and (b) herbicides, pesticides, and fertilizers used in new agricultural activities and new domestic landscaping. These factors could combine to significantly degrade the quality of receiving waters in Hennessey Creek, Green Valley Creek, and ultimately, Suisun Bay, representing a <b><i>potentially significant impact</i></b>.</p>	S	<p><b>Mitigation 11-2.</b> As a condition of future discretionary development approvals in the plan area, the County shall ensure that developers comply with applicable Solano County Storm Water Management Plan and NPDES permit requirements. In addition, as recommended in the County General Plan under Implementation Program RS.1-67, the minimum riparian buffer width to protect water quality and ecosystem function shall be determined according to existing parcel size. For parcels more than 2 acres in size, a minimum 150-foot development setback shall be provided. For parcels of 0.5-2.0 acres, a minimum 50-foot setback shall be provided. For</p>	County	LS

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<p><b>Impact 11-3: Flooding Impacts.</b> For the most part, the Specific Plan-designated development areas avoid identified creek and dam failure inundation areas. Nevertheless, a limited number of Specific Plan-designated Agricultural-Residential (5-acre minimum lots), Rural Farm (1 to 5 acres per unit) and Rural Neighborhood (1 to 4 units per acre) land use designations in the proposed Elkhorn, Nightingale and Three Creeks neighborhoods overlap the Solano County General Plan-identified Lakes Madigan &amp; Frey Dam Inundation Area and Green Valley Creek 100-year flood zone, the latter as mapped by the Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) program. Since there are as yet no specific development proposals associated with these residential land use designations, direct flooding impacts cannot be determined. Nevertheless, these Specific Plan-designated residential development area overlaps could</p>	S	<p>parcels less than 0.5 acre a minimum 20-foot setback shall be provided. Exceptions to these development setbacks apply to parcels where a parcel is entirely within the riparian buffer setback or development on the parcel entirely outside of the setback is infeasible or would have greater impacts on water quality and wildlife habitat. Implementation of this measure would reduce the impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 11-3.</b> As a condition of future residential subdivision and other discretionary development approvals in these particular areas, the County shall ensure that project-specific applications comply with Solano County General Plan policies and requirements related to flood hazard protection, including policies HS.P-5 (appropriate elevation and flood proofing), HS.P-7 (mitigation requirements to bring risks from dam failure inundation to a reasonable level), and HS.I-11 (applicant-prepared engineering report requirements for new development for human occupancy in designated dam failure inundation areas). Implementation of this measure would reduce the impact to a <b>less-than-significant level</b>.</p>	County	LS

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<p>potentially result in the placement of housing within a dam failure inundation zone or 100-year flood hazard area, with associated risks to public safety and property damage, and could result in the placement of structures in the flood zone which would impede or redirect flood flows. These possible effects represent a <b>potentially significant environmental impact</b>.</p> <p><i>NOISE</i></p> <p><b>Impact 13-1: Impact of Green Valley Road Traffic Noise on Specific Plan-Facilitated Residential Development.</b> The Draft Specific Plan (DSP) designated neighborhood framework (DSP section 3.2.1) has been formulated with the intent to separate noise sensitive land uses from Green Valley Road. Nevertheless, DSP-designated residential development in the Three Creeks Neighborhood along Green Valley Road may be exposed to traffic noise that exceeds “normally acceptable” levels established by the Solano County General Plan (i.e., noise greater than 60 dBA L<sub>dn</sub>), representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 13-1.</b> For project-specific residential development proposals on sites adjoining Green Valley Road, the County shall require applicants to conduct site-specific noise studies that identify, to County satisfaction, noise reduction measures that would be included in final design to meet State and County noise standards. These measures may include the following:</p> <ul style="list-style-type: none"> <li>▪ Minimizing noise in residential outdoor activity areas (i.e., ensuring that noise levels would be below 65 dBA L<sub>dn</sub>) by locating the areas at least 50 feet from the center line of Green Valley Road and/or behind proposed buildings.</li> <li>▪ Providing air conditioning in all houses located within 100 feet of Green Valley Road so that windows can remain closed</li> </ul>	County	LS

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<p><b>Impact 13-2: Effect of Proposed Noise-Generating Land Uses on Noise-Sensitive Land Uses.</b> Noise-generating land uses facilitated by the Draft Specific Plan, such as agricultural activities, commercial uses, and the possible fire station and wastewater treatment plant, may expose noise-sensitive uses such as housing, recreational areas, and the possible future onsite school to noise and/or vibration. Possible noise exposure exceeding State and Solano County standards represents a <b>potentially significant impact</b>.</p>	S	<p>to maintain interior noise levels below 45 dBA L<sub>dn</sub>.</p> <p>Implementation of these measures would reduce the impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 13-2.</b> New noise-generating uses facilitated by the Specific Plan shall be subject to the noise compatibility guidelines, standards, policies, and implementation programs established by the Solano County General Plan. In accordance with General Plan Implementation Program HS.I-67, noise analysis and acoustical studies shall be conducted for proposed noise-generating uses, as determined necessary by the County, and noise abatement measures shall be included to County satisfaction to ensure compliance with applicable guidelines and standards.</p> <p>In addition, new noise-sensitive uses developed adjacent to noise-generating uses shall be designed to control noise to meet the noise compatibility guidelines, standards, policies, and implementation programs established by the Solano County General Plan. In accordance with General Plan Implementation Program HS.I-67, noise analysis and acoustical studies shall be conducted for proposed noise-sensitive uses, as determined necessary by the County, and noise attenuation features shall be included to</p>	County	LS

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<p><b>Impact 13-3: Specific Plan-Facilitated Construction Noise.</b> Existing and future rural residential and other potential noise-sensitive land uses throughout the Specific Plan area could be intermittently exposed to noise from Specific Plan-facilitated future, project-specific construction activity, representing a <b>potentially significant impact</b>.</p>	S	<p>ensure compliance with applicable guidelines and standards.</p> <p>Implementation of these measures would reduce this impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 13-3.</b> To reduce noise impacts from Specific Plan-related construction activities, the County shall require future project-specific discretionary developments to implement the following measures, as appropriate:</p> <ul style="list-style-type: none"> <li>▪ <i>Construction Scheduling.</i> Ensure that noise-generating construction activity is limited to between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and that construction noise is prohibited on Saturdays, Sundays, and holidays.</li> <li>▪ <i>Construction Equipment Mufflers and Maintenance.</i> Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</li> <li>▪ <i>Equipment Locations.</i> Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.</li> </ul>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
		<ul style="list-style-type: none"> <li>▪ <i>Construction Traffic.</i> Route all construction traffic to and from the construction sites via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.</li>   <li>▪ <i>Quiet Equipment Selection.</i> Use quiet construction equipment, particularly air compressors, wherever possible.</li>   <li>▪ <i>Noise Disturbance Coordinator.</i> For larger construction projects, designate a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The County should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)</li> </ul>		

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		Implementation of these measures would reduce this impact to a <b><i>less-than-significant level</i></b> .		
<b>Impact 13-4: Specific Plan-Facilitated and Cumulative Traffic Noise Impacts on Green Valley Road.</b> Traffic from Specific Plan-facilitated development would increase traffic noise levels on Green Valley Road by 3 to 4 dB above existing levels. While the Specific Plan-related traffic noise increase alone would not represent a significant impact, its contribution to the cumulative traffic noise increase on Green Valley Road south of Eastridge Drive would represent a <b><i>significant cumulative impact</i></b> .	S	<b>Mitigation 13-4.</b> To reduce the traffic noise increase along Green Valley Road, the County should consider the use of noise-reducing pavement, along with traffic calming measures (which could achieve noise reductions of approximately 1 dBA for each 5 mile-per-hour reduction in traffic speed). These measures may not be feasible, however, and may not be directly applicable to the Specific Plan, particularly since the segment of Green Valley Road where the highest traffic noise increase is expected (the northbound segment south of Eastridge Drive) is not within the Specific Plan area. The Specific Plan's contribution to the cumulative traffic noise increase along Green Valley Road is therefore considered a <b><i>significant unavoidable impact</i></b> .	County	SU
<b>PUBLIC HEALTH AND SAFETY</b>				
<b>Impact 15-1: Future Storage and Use of Agricultural Chemicals.</b> In all four Draft Specific Plan-designated neighborhoods, the plan would permit residential development adjoining agricultural uses, some of which may store and/or use pesticides or other hazardous substances. Agricultural uses allowed by the Draft Specific Plan would also adjoin certain offsite residential areas, such as the upper Green Valley neighborhood north of the	S	<b>Mitigation 15-1.</b> As an amendment to the proposed Specific Plan (Policy OL-11) and/or as part of the proposed Resource Management Plan and/or Agricultural Business Plan, the County shall require a minimum 200-foot-wide buffer between residential and school uses and agricultural properties within and adjoining the Specific Plan area. In addition, the County shall ensure that agricultural operators within the Specific Plan area comply with all	County	LS
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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Specific Plan area and the Hidden Meadows subdivision south of the plan area. In addition, in the proposed Nightingale Neighborhood, the Specific Plan would also allow development of an elementary school in the northwestern corner of the neighborhood, close to but not adjoining agricultural areas. The potential exposure of residents or other site occupants to pesticides or other hazardous substances used in agriculture would represent a <b>potentially significant impact</b>.</p> <p><b>Impact 15-2: Hazardous Materials from Proposed Onsite Wastewater Treatment Plant (Wastewater Options B and C).</b> Operation of the proposed wastewater treatment plant within the Specific Plan area under proposed Wastewater Option B (Onsite Treatment) and Wastewater Option C (Fairfield-Suisun Sewer District Connection/Onsite Treatment Combination) would involve regular handling, use, and disposal of hazardous materials and wastes during the course of normal operations. In addition, the onsite wastewater treatment plant would create the potential for release of raw or treated sewage or other stored hazardous materials through mishandling or an emergency situation. These potential hazards would represent a <b>potentially significant impact</b>.</p>	S	<p>applicable local, state, and federal regulations regarding hazardous materials, including Solano County General Plan provisions, Solano County Code requirements, and the permitting processes of the Solano County Department of Resource Management and Solano County Agriculture Department. These measures would reduce the impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 15-2.</b> Implement <i>Mitigation 16-5</i>. In addition, after the wastewater treatment plant and associated collection system have been installed, the County shall confirm that a full environmental regulatory compliance review has been conducted to verify that, based on the actual equipment stalled and specific quantities of hazardous materials handled, used, and disposed, the facility is operating in compliance with applicable environmental laws and regulations. These measures would reduce the impact to a <b>less-than-significant level</b>.</p>	County	LS

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<i>PUBLIC SERVICES AND UTILITIES</i>				
<p><b>Impact 16-1: Project Domestic Water Facilities Impacts on Existing Wells--Option B (Onsite Groundwater).</b> It is anticipated that the three or more onsite wells proposed under water supply Option B under full buildout conditions would use a small and less than significant portion of the water annually recharged into the Green Valley-Suisun Valley aquifer. Although the precise location of the three or more wells proposed under Option B has not yet been determined, it is considered unlikely that any existing wells located in the Middle Green Valley would experience significant water table fluctuations attributable to pumping from one or more of the proposed project wells, given the relatively high water table elevation, high soil permeability, and large aquifer volume in the area. Nevertheless, until Option B well locations have been specifically identified and adequately tested, analyzed and monitored, it is assumed for CEQA purposes that one or more of the project wells could possibly contribute to underperformance or failure of one or more existing nearby wells due to water table fluctuations, particularly after successive years of drought conditions. This possibility represents a <b>potentially significant environmental impact</b>.</p>	S	<p><b>Mitigation 16-1:</b> Under water supply Option B, the well monitoring and reporting procedure required by the County for community water systems shall include evaluation (testing, analysis and monitoring) of potential drawdown resulting from operation of the proposed Option B wells. In the event that significant drawdown with documented adverse effects on nearby existing wells is observed, the Option B CSA management shall implement corrective measures sufficient to mitigate the impacts to a level of less than significant, to the satisfaction of the County Division of Environmental Health, possibly including some combination of the following:</p> <ul style="list-style-type: none"> <li>▪ Extending the depth of the problem project well(s) or affected well(s) sufficient to correct the impact;</li> <li>▪ Providing replacement project or replacement affected well(s); or</li> <li>▪ Providing a water supply connection for the affected well(s) to the Option B water supply system.</li> </ul> <p>Implementation of this measure would reduce this impact to a <b>less-than-significant level</b>.</p>	County	LS

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<p><b>Impact 16-2: SID System Adequacy to Meet Project Irrigation Demands.</b> The Solano Irrigation District (SID) would continue to provide for agricultural irrigation supply needs within existing SID boundaries. The Specific Plan also proposes that most development area domestic landscape irrigation needs would be supplied by the SID, as is typical of other kinds of residential development in the unincorporated portions of Green Valley. SID has indicated that its existing system serving the plan area is operating at or near capacity, and that additional analysis may be necessary to determine whether sufficient capacity is available to provide additional service within the plan area. Until such additional analysis is completed and verifies to SID satisfaction sufficient system capacity to serve the plan-proposed additional demands, it is assumed that SID capacity may be insufficient, representing a <b>potentially significant environmental impact</b>.</p>	S	<p><b>Mitigation 16-2:</b> Implement the following:</p> <p>(1) SID will not serve any lands located outside the SID boundary. SID service to any lands within the plan area that are outside the existing SID boundary would require annexation to SID. Annexation of land to SID shall conform to the requirements of SID, USBR, and the Solano County Local Agency Formation Commission (LAFCO). For any proposed SID annexation, complete the additional analysis deemed necessary by SID to determine whether sufficient capacity is available to serve the proposed annexation area, and satisfy the other annexation requirements of SID, USBR, and LAFCO.</p> <p>(2) Per SID Rules and Regulations, a separate water service (turnout) shall be provided to each newly created parcel within the district (i.e., with the current SID boundary or annexed plan area land) at the applicant/ developer's expense. SID and the applicant/ developer will need to determine how, if, and what type of service (agricultural irrigation or municipal landscape irrigation) each separate parcel is to receive. The applicant/developer may be required to pay to have SID's engineer perform an analysis of the existing system to determine if there is sufficient capacity to serve the proposed development.</p>	County	LS

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		<p>(3) Landscape irrigation service to the proposed development would require the design and installation of a municipal-style water system. At a minimum, the applicant/ developer shall provide for a headworks pumping plant, either off one of SID's pipelines or off the USBR Green Valley Conduit, to provide pressurized service to each parcel of the development. Depending on anticipated demand and existing SID system capacity, the applicant/developer may be required to pay for any necessary upgrades to existing SID water facilities required to adequately serve all parcels of the development at the same times, since rotated water service deliveries are impractical and difficult to enforce on municipal-type systems.</p> <p>(4) If additional SID agricultural service to the proposed development is required, the design and installation of individual turnouts to each parcel and a rotational service schedule would need to be determined and followed. At a minimum, the applicant/developer shall provide for pipelines and appurtenances to provide service to each parcel of the development. In addition, the applicant/developer may be required to pay for any necessary upgrades to existing SID water facilities required to adequately serve all parcels of the development at the same time, depending on the proposed demand and system capacity.</p>		

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		<p>(5) All costs associated with the design and installation of any SID water extension system shall be at the expense of the applicant/ developer. SID shall review and approve the proposed system design prepared by the applicant/developer's engineer.</p> <p>(6) System installation shall be to SID's standards. SID would require the applicant/ developer to sign a work order acknowledging and approving all costs associated with the review of the design and to have a SID inspector onsite during system installation.</p> <p>(7) Arrangements satisfactory to SID shall be made for the design and construction of the new system before SID will approve a parcel map.</p> <p>(8) The applicant/developer shall provide easements for all new pipelines and facilities that would be granted to SID, including all facilities up to and including individual lot meters.</p> <p>(9) No permanent structures shall be allowed to be constructed over SID's existing rights-of-way, nor shall any trees be planted within 6 feet of the edge of any SID pipelines.</p>		

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		<p>(10) SID pipelines shall not be located within any of the proposed residential lots.</p> <p>(11) Water that could be provided by SID is non-potable and not for human consumption, and cannot be treated onsite for potable uses. Therefore, before SID provides non-potable water service, the developer shall provide proof of an alternate source of potable water for the property. Since each parcel would be served with both potable and non-potable water, all lines and fixtures connected to SID's non-potable service shall be clearly marked "NON-POTABLE – DO NOT DRINK."</p> <p>(12) Upon completion of construction of non-potable service to the subject properties, land owners shall contact SID to establish water service accounts.</p> <p>(13) The SID certificate shall be added to all final parcel maps, subdivision maps, and improvements plans in the plan area, and SID shall review, approve, and sign all maps and plans.</p> <p>Implementation of this measure would reduce this impact to a <b>less-than-significant level</b>.</p>		
<b>Impact 16-3: Project Construction Impacts on Existing SID, USBR and City of Vallejo Facilities in the Plan Area.</b> Construction activity associated with buildout under the	S	<b>Mitigation 16-3:</b> Plans for development contiguous to SID, USBR and City of Vallejo easements and facilities, or roadway or utility crossings of these facilities, shall be submitted	County	LS

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<p>proposed Specific Plan, including general development activity as well as Specific Plan-proposed water and wastewater facilities construction, may affect existing Solano Irrigation District (SID), U.S. Bureau of Reclamation (USBR) and City of Vallejo water easements and facilities in the plan area, representing a <b><i>potentially significant environmental impact</i></b>.</p>		<p>to and approved by these agencies prior to implementation. Any submittal to the USBR shall be through the SID. No permanent structures shall be located over or within these existing pipeline easements without an alternative route being offered at developer expense. Utility crossings shall provide a minimum of three feet of clearance between the utility and the pipelines. Proposals for roadway crossings of any of these pipes shall include an engineered stress analysis on the pipe to ensure the pipeline would withstand proposed roadway loadings. Residential lots shall not be located within SID, USBR, City of Vallejo easements. Wastewater lines and other facilities on residential lots shall be kept clear of SID and USBR easements. Any sewer lines crossing USBR facilities shall be installed in a secondary casing across the USBR right-of-way.</p> <p>The applicant/developer shall sign an "Agreement for Protection of Facilities" before the start of any construction on or contiguous to any SID or USBR facilities. The agreement shall be followed during construction contiguous to or crossing any SID or USBR pipelines and easements. At the applicant/developer's expense, SID would repair any construction damage to SID or USBR facilities, and the City of Vallejo would repair any construction damage to City facilities.</p>		

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<p><b>Impact 16-4: Potential Project Exceedance of FSSD Wastewater Treatment System Capacity--Options A (FSSD Connection) and C (FSSD Connection/Onsite Treatment Combination).</b> Specific Plan wastewater treatment Option A would involve connection of the proposed Specific Plan development area to the Fairfield Suisun Sewer District (FSSD) via an existing City of Fairfield conveyance system. The proposed Specific Plan development program would generate an estimated approximately 135 acre feet per year of wastewater treatment demand not specifically accounted for in current FSSD wastewater management planning, including the current FSSD Master Plan. The adequacy of the FSSD treatment plant, Cordelia Pump Station and associated City of Fairfield collection mains to accommodate the project contribution to anticipated cumulative future treatment demands has not been determined. The project-plus-cumulative demands for wastewater treatment may therefore exceed future City of Fairfield conveyance and FSSD treatment capacity, representing a <b>potentially significant project and cumulative environmental impact.</b></p>	S	<p>Implementation of this measure would reduce this impact to a <b>less-than-significant level.</b></p> <p><b>Mitigation 16-4:</b> The Specific Plan proposes establishment of a County Service Area (CSA) pursuant to California Government Code section 25210.1 et seq. to provide the financing and management for providing wastewater treatment services to the proposed Specific Plan development areas. Once approved, the CSA would be granted limited funding and management powers and the Board of Supervisors may act as the CSA board. The proposed CSA may issue general obligation bonds or revenue bonds to finance the necessary wastewater and other common infrastructure, which would be funded by development connection and user fees.</p> <p>Prior to County approval of any future residential subdivision map or substantive discretionary non-residential development application in the plan area under wastewater treatment Options A or C, implement the following:</p> <p>(1) establish the Specific Plan-proposed County Services Area (CSA) for the development area;</p>	County	LS

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<p><b>Impact 16-5: Potential Project Inconsistency with State Tertiary Wastewater Discharge Standards--Options B (Onsite Treatment) and C (FSSD Connection/Onsite Treatment Combination).</b> Under proposed wastewater service Option B (onsite wastewater treatment system),</p>	S	<p>(2) formulate and adopt the Specific Plan-proposed Wastewater Master Plan for the development area;</p> <p>(3) establish agreement with the FSSD to serve the ultimate development area wastewater treatment need identified in the Wastewater Master Plan; and</p> <p>(4) establish associated wastewater system connection and user fees sufficient to fund the ultimate development area wastewater treatment facility needs identified in the Wastewater Master Plan, including purchase of required FSSD treatment capacity and construction of associated sewer system infrastructure--e.g., onsite collection system, offsite parallel municipal sewer main installation, associated capacity upgrades to the Cordelia Pump station, etc. (CSA Responsibility).</p> <p>Incorporation of these measures as Specific Plan policy would reduce this potential impact to a <b>less-than-significant level</b>.</p> <p><b>Mitigation 16-5:</b> Prior to County approval of any future residential subdivision map or substantive discretionary non-residential development application in the plan area under wastewater treatment option B or C, implement the following:</p>	County	LS

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<p>Wastewater from the Specific Plan development areas would be collected and treated onsite using a local collection system similar to Option A, but instead of a connection to the FSSD, the collected wastewater would be conveyed to an onsite Membrane Bioreactor (MBR) package wastewater treatment plant that would treat the collected wastewater to tertiary recycled water standards. The tertiary treated wastewater would then be reused onsite for agricultural irrigation, ornamental landscaping irrigation, park and playing field landscaping irrigation, toilet flushing, and other jurisdictionally permitted uses. Although the Specific Plan proposes to treat all collected wastewater to County and State tertiary recycled water standards, until the Specific Plan proposed Master Wastewater Plan for Options B and C, including complete engineering specifications for the onsite treatment system, are completed to County satisfaction and the associated recycled wastewater reuse aspect is approved by the RWQCB and CDPH, it is assumed that Options B and C may not comply with the wastewater treatment water quality and environmental health protection standards, and ongoing monitoring and reporting requirements, administered by these two state agencies, representing a potentially significant environmental impact (see significance criterion [a] under section 16.2.3, "Significance</p>		<p>(1) establish the Specific Plan-proposed CSA for the Specific Plan development area;</p> <p>(2) formulate and adopt the Specific Plan-proposed Wastewater Master Plan for the proposed development areas (CSA responsibility);</p> <p>(3) establish associated wastewater system connection and user fees sufficient to fund ultimate Specific Plan development area wastewater treatment facility needs identified in the Wastewater Master Plan, including construction and ongoing operation, monitoring and maintenance of the onsite wastewater treatment and disposal system (CSA responsibility); and</p> <p>(4) complete the RWQCB Discharge Permit process for the proposed irrigation in designated areas, and CDPH permit procedures pursuant to CCR Title 22 standards for the proposed use of tertiary treated wastewater for irrigation (CSA responsibility).</p>		

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Criteria," above), representing a <b>potentially significant impact</b> .				
<p><b>Impact 16-6: Potential Project Inconsistencies with SID Standards-- Options B (Onsite Treatment) and C (FSSD Treatment Combination/Onsite Treatment).</b> The Specific Plan proposes that, under wastewater treatment Options B or C, tertiary-treated wastewater would be reused onsite for agricultural and domestic irrigation purposes in conjunction with Solano Irrigation District (SID) water. The Solano Irrigation District (SID) may determine that delivery of tertiary effluent from the onsite MBR treatment plant via the existing SID conveyance system for agricultural and domestic irrigation purposes may be unsuitable for certain types of irrigation and therefore undesirable to the District. This proposed aspect of Wastewater treatment Options B and C may therefore be infeasible, representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 16-6:</b> In addition to compliance with California Department of Public Health (CDPH) and San Francisco Bay Regional Water Quality Control Board (RWQCB) groundwater and environmental health protection standards (see Mitigation 16-1-2), any project Wastewater Management Plan proposal to use SID conveyance or delivery components to supplement the project recycling system shall be designed to SID satisfaction or eliminated. One possible approach may involve SID delivery of raw water to a single point in the proposed CSA system, for plan area distribution by a CSA-operated distribution system. Formulation of this Wastewater Master Plan component to SID satisfaction would reduce this impact to a <b>less-than-significant level</b>.</p>	County	LS
<p><b>Impact 16-7: Project Impact on Fire Protection and Emergency Medical Services.</b> Development in accordance with the Specific Plan may increase the demand for fire protection and emergency medical services sufficiently to create a need for new or altered facilities, representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 16-7.</b> Before approval of the first Tentative Subdivision Map application in the Specific Plan area, the County shall obtain written verification from the Cordelia Fire Protection District (CFPD) that either (1) the CFPD's need for a new fire station in the general vicinity has been met (e.g., by plans for a new station on the Rockville Trails Estates site), or (2) a new fire station is needed within the Specific Plan area. If the latter is verified,</p>	County	LS

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		the County shall require plans for construction of a fire station within the plan area as a condition of Tentative Subdivision Map approval, and confirm that any necessary additional environmental review is conducted. Incorporation of these measures as Specific Plan policy would reduce the impact to a <b>less-than-significant level</b> .		
<p><b>Impact 16-8: Project Impacts on Emergency Response, Evacuation, and Access.</b> Development in accordance with the Specific Plan would cause traffic increases and congestion on Green Valley Road, possibly delaying emergency response and evacuation. In addition, the 16-foot-wide emergency access roads proposed by the Specific Plan would not meet the CFPD standard (minimum 18-foot width), creating the potential for inadequate emergency access and interference with emergency response and evacuation plans and representing a <b>potentially significant impact</b>.</p>	S	<p><b>Mitigation 16-8.</b> Implement mitigation measures identified in chapter 17, Transportation and Circulation, to reduce the impacts of Specific Plan-related traffic on Green Valley Road and other local roads. In addition, before approval of each Tentative Subdivision Map in the Specific Plan area, the County shall obtain written verification from the CFPD that proposed emergency access provisions meet CFPD road design and emergency access standards and require any necessary changes as a condition of map approval. Incorporation of these measures as Specific Plan policy would reduce impacts on emergency response, evacuation, and access to a <b>less-than-significant level</b>.</p>	County	LS
<p><b>Impact 16-9: Project Wildfire Hazard Impact--Ongoing.</b> The Specific Plan would introduce residential (Rural Meadow, Rural Neighborhood and Agriculture-Residential) and residential/commercial (Rural Neighborhood/Community Service) land within or adjacent to areas where wildland fire danger is "moderate"</p>	S	<p><b>Mitigation 16-9.</b> Implement <i>Mitigation 16-7</i> and <i>Mitigation 16-8</i>. In addition, as a condition of Certificate of Occupancy approval, each individual discretionary development project in the Specific Plan area shall meet all applicable California Building Code and California Uniform Fire Code standards (including standards for</p>	County	LS

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to “very high.” Specific Plan-facilitated development within or abutting these areas would create an “urban/wildland interface,” increasing the risk of wildland fires and associated needs for additional fire protection personnel and facilities. Failure to sufficiently reduce this urban/wildland interface fire hazard through appropriate fuel management and other fire suppression techniques and/or provide the necessary fire equipment access, emergency evacuation, and additional fire protection personnel and facilities, could result in substantial safety hazard and impair CFPD response time and evacuation efforts, representing a <b>potentially significant impact</b> .		building materials, construction methods, fire sprinklers, etc.) and all applicable State and County standards (including Solano County General Plan policies) for fuel modification and/or brush clearance in adjacent areas. Incorporation of these measures as Specific Plan policy would reduce the impact to a <b>less-than-significant level</b> .		
<b>Impact 16-10: Project Wildfire Hazards-- Construction Period.</b> Construction in Specific Plan-designated development areas may involve handling and storage of fuels and other flammable materials, creating temporary fire hazards in the “urban/wildland interface” and representing a <b>potentially significant impact</b> .	S	<b>Mitigation 16-10.</b> As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require that construction contractors conform to all applicable fire-safe regulations in applicable codes, including California Occupational Safety and Health Administration (OSHA) and local requirements for appropriate storage of flammable liquids and prohibition of open flames within 50 feet of flammable storage areas. Incorporation of these measures as Specific Plan policy would reduce the impact to a <b>less-than-significant level</b> .	County	LS
<b>Impact 16-11: Impact of Specific Plan Proposed Trails on Bay Area Ridge Trail Plan.</b> Unless subsequent trail implementation	S	<b>Mitigation 16-11.</b> As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require written	County	LS

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plans are coordinated with the Bay Area Ridge Trail Council, proposed trails within the Specific Plan area may not meet Bay Area Ridge Trail standards, representing a <b>potentially significant impact</b> .		verification that the Bay Area Ridge Trail Council has reviewed and approved final trail design and construction to ensure that trails within the Specific Plan area comply with Bay Area Ridge Trail standards, as appropriate. Incorporation of this measure as Specific Plan policy would reduce the impact to a <b>less-than-significant level</b> .		
<b>Impact 16-12: Project Construction-Period and Long-Term Solid Waste Impact on Landfills.</b> Construction and operation of land uses proposed by the Specific Plan would generate solid waste that would require disposal at a landfill. While landfill capacity is currently expected to be adequate to serve this development, the situation could change over the life of the Specific Plan, particularly if the currently pending Potrero Hills Landfill expansion proposal is not approved before the scheduled landfill closure date of January 1, 2011. Any potential for inadequate landfill capacity or the potential need for new facilities would represent a <b>potentially significant impact</b> .	S	<p><b>Mitigation 16-12.</b> The project shall comply with Solano County General Plan policies and other provisions calling for source reduction and recycling in construction and ongoing operations. As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require the applicant to provide written verification from the appropriate landfill operator that adequate landfill capacity is available to accommodate construction and operation of the project.</p> <p>In addition, the applicant shall be required to prepare and implement a recycling plan for the construction phase of the project. The recycling plan shall address the major materials generated by project construction and identify means to divert a portion of these materials away from the chosen solid waste landfill.</p> <p>Incorporation of this measure as Specific Plan policy would reduce the impact to a <b>less-than-significant level</b>.</p>	County	LS

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<i>TRANSPORTATION AND CIRCULATION</i>				
<p><b>Impact 17-1: Baseline Plus Project Impacts on Intersection Operations.</b> The project would contribute significantly to baseline level of services impacts (i.e., intersection turning movement volumes) at the following local intersections during typical weekday peak hours:</p> <p><i>Weekday AM Peak Hour:</i></p> <p>(Intersection #9) Green Valley Road at the I-80 Westbound On-Ramp (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic volume by more than one percent at this stop-sign controlled intersection)</p> <p>(Intersection #10) Green Valley Road at the I-80 Eastbound Ramps (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic volume by more than one percent at this signalized intersection)</p> <p><i>Weekday PM Peak Hour:</i></p> <p>(Intersection #5) Green Valley Road at Westlake Drive (project-generated traffic would result in an LOS change from C under baseline</p>	S	<p><b>Mitigation 17-1:</b></p> <p>(1) Baseline plus project impacts on this stop sign controlled intersection 5, Green Valley Road at Westlake Drive, would not warrant installation of a traffic signal. It is recommended that the intersection remain in its current configuration, since the project-related significant delay would be limited to the side street left-turn movement in the PM peak hour only (Westlake Drive approach), and alternative routes are available to motorists at this location. This impact is therefore considered to be <b>significant and unavoidable</b>. If the City of Fairfield determines in the future that a traffic signal is warranted at this intersection, the City and County could agree on a portion of the signal installation cost to be assigned to the plan area, and the County could identify an associated fair share per residential unit contribution as a condition of subsequent individual subdivision map approvals in the plan area.</p> <p>(2) For project impacts on intersections 7 and 9, future subdivision and other discretionary development approvals in the plan area shall pay a proportionate fair share of the cost of planned interim improvements to the Green</p>	County	SU

S = Significant  
 LS = Less than significant  
 SU = Significant unavoidable impact

NA = Not applicable  
 County = Solano County

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>conditions to E under baseline plus project conditions at this stop sign controlled intersection)</p> <p>(Intersection #7) Green Valley Road at Business Center Drive (project-generated traffic would result in an LOS change from E under baseline conditions to F under baseline plus project conditions at this signalized intersection)</p> <p>(Intersection #9) Green Valley Road at the I-80 Westbound On-Ramp (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic volume by more than one percent at this stop-sign controlled intersection)</p> <p>(Intersection #10) Green Valley Road at the I-80 Eastbound Ramps (project-generated traffic would result in an LOS change from E under baseline conditions to F under baseline plus project conditions at this signalized intersection)</p> <p>These project-generated intersection LOS changes would represent a <b>significant impact</b>.</p>	S	<p>Valley Road/I-80 interchange that have been identified by the City of Fairfield, including:</p> <ul style="list-style-type: none"> <li>▪ At signalized intersection 7, Green Valley Road at Business Center Drive, improvement plans are being developed to allow for free right-turn movements on the northbound and southbound approaches to the intersection. The southbound free right-turn would also include construction of a separate right-turn lane for the southbound Green Valley Road approach to Business Center Drive.</li> <li>▪ At unsignalized intersection 9, Green Valley Road at the I-80 Westbound on-ramp, the on ramp leg of the intersection is to be realigned to allow for the addition of a separate left-turn lane for northbound Green Valley Road, along with a new traffic signal.</li> </ul> <p>(3) For project impacts on signalized intersection 10, Green Valley Road at the I-80 Eastbound Ramps, the planned reconstruction of the Green Valley Road/I-80 interchange would ultimately mitigate the anticipated AM and PM peak hour baseline plus project operational impacts; however, no feasible interim improvements to the interchange have been identified to mitigate these impact</p>		S

S = Significant  
 LS = Less than significant  
 SU = Significant unavoidable impact

NA = Not applicable  
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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 17-2: Cumulative Plus Project Impacts on Intersection Operations.</b> Under projected cumulative (2030) plus project conditions, the project would contribute significantly to further deterioration of traffic operations at intersection 5, Green Valley Road at Westlake Drive, in the PM peak hour,</p>	S	<p>(mitigation would ultimately require reconstruction--i.e., widening--of the overpass).</p> <p>Implementation of the mitigation measures identified above for intersections 7 and 9 would substantially reduce the amount of peak hour delay per vehicle at these two intersections, but not to less than significant levels. The projected background plus project peak hour ratings at each of the four study intersections would remain at LOS E or F. In addition, because the County does not have jurisdiction over these intersections (within the City of Fairfield), implementation of the mitigation measures listed above for intersections 7 and 9 is not assured. Therefore, until implementation of the planned I-80/I-680/SR 12 Interchange Improvement Project (the planned reconstruction of the I-80/I-680/SR 12 and Green Valley Road interchange, as described in section 17.1.3 herein) is funded and implemented, the projected baseline plus project intersection impacts on intersections (7), (9) and (10) are considered to be <b>significant and unavoidable</b>.</p> <p><b>Mitigation 17-2:</b> The cumulative plus project condition at this intersection would not warrant installation of a traffic signal. It is recommended that this intersection remain in its current unsignalized condition, since the project-related significant delay would be limited to the left-turn movement at the side</p>	County	SU

S = Significant  
 LS = Less than significant  
 SU = Significant unavoidable impact

NA = Not applicable  
 County = Solano County



Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
reducing operations from LOS C to LOS E. This intersection LOS change would represent a <b><i>potentially significant cumulative impact</i></b> .		street (Westlake Drive) approach in the PM peak hour only, and alternative routes are available to motorists at this location. This impact is therefore considered to be <b><i>significant and unavoidable</i></b> .		

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(8) Summary of Alternatives Evaluation. To provide a basis for further understanding of the environmental effects of the proposed Project and possible approaches to reducing identified significant impacts, and to comply with section 15126.6 of the CEQA Guidelines (Consideration and Discussion of Alternatives to the Proposed Project), chapter 19 of this EIR identifies and discusses six alternatives to the proposed action. The six identified alternatives are summarized below:

(9) Alternatives Evaluation Conclusion--Environmentally Superior Alternative. CEQA Guidelines (section 15126[e][2]) stipulates, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Table 19.1 in chapter 19 (Alternatives to the Proposed Action) herein provides a summary comparison of the environmental implications of the various identified project alternatives for all of the environmental issues considered in this EIR. When viewed together, Table 19.1 indicates that, of the various alternatives evaluated in this chapter, **Alternative 19.4: Alternative Specific Plan--Reduced Development Capacity ("200/200 Plan")**, a plan with up to 200 new primary residential units and up to 200 associated new secondary residential units, would result in the least adverse combination of environmental impacts and would therefore represent the "environmentally superior alternative" under CEQA. However, this "environmentally superior alternative" would be substantially less effective than the proposed project in attaining the economic balance between compatible development and sustained farming and ranching, open space preservation, and natural resource management through viable development rights transfer and conservancy mechanisms, and therefore may not constitute a feasible project.

(10) Mitigation Implementation. For those mitigation measures identified in this Draft EIR that are adopted by the County, a mitigation monitoring program will be undertaken to verify mitigation implementation pursuant to CEQA Guidelines section 15097 (Mitigation Monitoring and Reporting). Implementation of most of the mitigation measures recommended in this Draft EIR could be effectively implemented through incorporation into the Specific Plan itself and monitored through normal subsequent County development review procedures. However, to satisfy CEQA, a documented record of mitigation implementation will be necessary. Chapter 21 of this Draft EIR includes a suggested Mitigation Monitoring Checklist form for County use in meeting the requirements of CEQA; i.e., in establishing the "who, what, when, and how" aspects for each mitigation measure from this Draft EIR that is ultimately adopted as a condition of project approval.