IV. MITIGATION MONITORING PROGRAM

MITIGATION MONITORING PROGRAM PROCEDURES

Section 21081.6 of the Public Resources Code requires a Lead Agency to adopt a "reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment" (Mitigation Monitoring Program, §15097 of the CEQA Guidelines provides additional direction on mitigation monitoring or reporting). The County of Solano (the "County") is the Lead Agency for the Rockville Trails Estates Residential Subdivision project ("Modified Project") and is therefore responsible for enforcing and monitoring the mitigation measures in this Mitigation Monitoring Program (MMP).

A Revised Environmental Impact Report (REIR) has been prepared to address the potential environmental impacts of the Modified Project. Where appropriate, this environmental document identified Modified Project design features or recommended mitigation measures to avoid or to mitigate potential impacts identified to a level where no significant impact on the environment would occur. This MMP is designed to monitor implementation of the required and recommended mitigation measures and conditions set forth for project approval for the Modified Project as identified in the Revised Draft Environmental Impact Report (RDEIR) and the Revised Final Environmental Impact Report (RFEIR). The required and recommended mitigation measures, as well as the conditions set forth for project approval are listed and categorized by either Section and/or impact area, with an accompanying identification of the following:

- Monitoring Phase, the phase of the project during which the mitigation measure shall be monitored:
  - Pre-Construction, including the design phase
  - Construction
  - Occupancy (post-construction)
- Implementing Party, the party responsible for implementing the mitigation measure.
- The Enforcement Agency, the agency with the power to enforce the mitigation measure.
- The Monitoring Agency, the agency to which reports involving feasibility, compliance, implementation and development are made.

The MMP for the Modified Project will be in place throughout all phases of the project. The project applicant shall be responsible for implementing all mitigation measures unless otherwise noted. The applicant shall also be obligated to provide certification, as identified below to the appropriate monitoring agency and the appropriate enforcement agency that compliance with the required mitigation measure has been implemented. The County will be used as the basic foundation for the MMP procedures and will also serve to provide the documentation for the reporting program.

Generally, each certification report will be submitted to the County in a timely manner following completion/implementation of the applicable mitigation measure and shall include sufficient information to reasonably determine whether the intent of the measure has been satisfied. The County shall assure that project construction occurs in accordance with the MMP. Departments listed below are all departments of the County unless otherwise noted.

AESTHETICS

Required Mitigation Measures

AES-1 through AES-4

Provided the development standards listed in Section III (Modified Project Description) under Development Standards, are completely implemented, impacts to aesthetics would be less than significant and no additional mitigation measures are required.

Monitoring Phase	Pre-Construction/Construction/Operation
Implementing Party	Applicant/Contractor/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

Development Standards

Various conservation and sustainable, architectural, roadway and circulation, and landscaping design and development standards are included as part of the Modified Project. These standards are listed below and would be implemented in order to establish a rural residential development, while encouraging a design that is in synchronization with the environment.

Conservation and Sustainable Design

The Modified Project incorporates a range of refined measures designed to reduce energy usage and the consumption of greenhouse gases (GHG). These features include:

- Reduced pumping and maintenance requirements associated with the replacement of four separate treated water storage ponds (Storage Ponds A-D) with a single Consolidated Pond.

- Reduced water pumping, storage and maintenance, all associated with use of recycled (Title 22-compliant UV-disinfected tertiary treated water) on turf and plants within the neighborhood park facility located immediately east of the MBR wastewater treatment plant and on landscaping within the common area in the vicinity of the proposed main entrance (located south of the MBR plant).

- Reduced water consumption and associated pumping, storage and maintenance savings associated with mandatory use of drought-tolerant landscape species within lot Building Envelope areas, and

complete prohibition of private yard landscaping outside of the lot Building Envelopes (which may range up to 10,000 square feet, where appropriate).

- Mandatory use of energy-efficient appliances, water conservation systems, heating/cooling, and lighting systems on all homes in the project (these features are in addition to those currently required under Title 24 building code standards).

Architectural Design

The architectural standards provided for the Modified Project are as follows:

- Buildings would be located below prominent ridgelines wherever possible.

- Buildings would be designed to follow existing grades as closely as possible. Structures would be designed to conform to existing grades and would be required on sloped lots to reduce building heights and to minimize grading.

- Building materials and colors would be selected to ensure compatibility with the surrounding natural landscape. Colors and material would be subdued and reserved in general in order to harmonize with the setting and its own colors. Earth and wood tones would be used for roofs. Natural wood and stone would be encouraged. In addition, reflective glass or other glaring materials would be discouraged.

- Buildings would be sited in a manner that is sensitive to the location of existing trees. Buildings would be located close to trees in order to blend with the natural setting while protecting significant vegetation.

- Scale, massing and composition would be loose and informal. Low massing, and modest scaling shall be encouraged and building geometry shall reflect the natural setting.

- Use of isolated, open exposed piers in the treatment of the lower story of hillside houses would be prohibited.

- Driveways would be minimized in width and located to preserve trees and to reduce the need for grading. Additionally, driveways may be grouped to serve parcels that are removed from the road.

- Residential lighting would be kept to a minimum to meet safety standards, reduce light and glare. Lighting paths, entranceways, and outdoor living areas shall be directed downward to maintain rural character and reduce nuisance to adjacent properties.

Roadway and Circulation Design

All roadways through the development will be rural in character and design. Formal, urban-type curbs, gutters and sidewalks shall not be permitted. In addition, the proposed roadways would be designed to meet the following standards:

- Major roads through the development would be a width of between 32 to 40 feet edge to edge with a paved shoulder on both sides, and where possible an asphalt concrete (AC) dike on the inside (cut side of the road).

- Minor roads through the development would be a width of 24 feet edge to edge with a gravel shoulder on one side and a paved shoulder and AC dike on the inside.

- Split road sections would be encouraged to reduce grading or to protect site resources (e.g., trees, watercourses). Split road sections would not exceed 250 feet in length and would not serve an area containing more residential lots than the CFPD Fire Chief feels is appropriate.

- Standard urban or suburban type sidewalks are not permitted within the development. However, a path system would be implemented for pedestrian circulation throughout the development, where trails would be utilized to connect development areas.

- Streetlights in the development would be limited to key intersections. Where streetlights or outdoor area lighting is proposed, the lighting shall be of a low-intensity variety. Lighting would be kept to a minimum to reduce light and glare, yet meet safety standards. Selection of specific lighting standards for the development would be based on maintaining rural standards and minimizing ambient light.

- As required by the CFPD, an EVA fire road would be designed to connect development to Morrison Lane, located east of the site. The road would be cleared and graded to a minimum width of 12 feet and a maximum slope of 16 percent.

- Access to the project site would be provided from two points along Rockville Road; identified as the main and secondary site access gate, respectively. The western, secondary access gate is not intended to provide primary access to the site. This entrance would be designed to maximize safety and minimize light, glare, and noise to adjacent residences. The design of the roadway would include retaining walls along cut banks to minimize the amount of cut and fill. In addition, to ensure minimal use of this access gate, the following measures would be implemented during the road improvement construction phase:

    - All project identification, including subdivision signage and entry sentinels, would be limited to the main, eastern access to the site. Subdivision identification would not be provided at the western, secondary access point.

- Delivery vehicles would be directed to the main, eastern access to the site. One sign would be posted at the western, secondary entrance prohibiting use by delivery trucks and other large vehicles.

Landscape Design

The following provides the landscape requirements and standards included as part of the Modified Project:

- The overall landscape design of developed areas would reinforce the existing character of the site by utilizing native plants, native stone, and sensitive grading that preserves trees and reflects existing topography.

- To the extent possible, environmental conditions would be maintained to sustain native species. Particular attention would be given to utilize xeric landscaping and to retain or plant native landscape buffers at key visual access points.

- All areas of cut or fill would be stabilized by the planting of approved materials and/or by low walls of native stone. Fill slope would not exceed a 2:1 slope; cut slopes would exceed 2:1 only where recommended by soils engineers and to minimize the extent of grading.

- The main loop road would be designed with staggered stands of a native tree species (e.g., California bay laurel or native oaks) or trees of similar character, both to serve as windows and to focus views along the drive. The ground plane to the curb would be planted in native grasses and wildflowers.

- Where existing trees are to be preserved, lot grading and building construction would stay clear of the driplines of such trees as much as possible, especially in the case of heritage oaks. Landscape and irrigation improvements would be designed to maintain the health of existing trees.

- Tree planting would be required along public streets where effective at softening the effects of light and glare from cars and structures.

- Low rip-rap walls and small vertical cuts would be utilized where appropriate to preserve existing trees where grading would otherwise intrude into the dripline area. Native stone will be used where possible to reinforce vertical cuts while preserving the site's visual character.

- A detailed landscape and irrigation plan for general subdivision and common areas anticipated to be landscaped would be submitted for County review, prior to approval of the modified Vesting Tentative Map.

- Trees and shrubs would be selected to aid in the screening of structures from off-site. Native landscaping species would be used in the landscaping plan. However, non-native, fast growing trees and shrubs could be used within building areas to promote interim screening.

AIR QUALITY

Required Mitigation Measures

AQ-1 (Construction/Demolition Emissions) & AQ-7 (CO and Related GHG Emissions)

Because the Modified Project construction and demolition would generate PM_{10} emissions, the following mitigation measures in accordance with County practice and Bay Area Air Quality Management District (BAAQMD) standard mitigation requirements would be required to reduce construction-related air quality impacts to a less-than-significant level. The project sponsors shall require that the following practices be implemented by including them in the contractor construction documents:

- The first phase of construction shall require 30 percent of construction equipment to meet Tier 1 United States Environmental Protection Agency (USEPA) certification standards for clean technology. The remainder of construction equipment (70 percent), which would consist of older technologies, shall be required to use emulsified fuels.

- The second phase of construction shall require 30 percent of construction equipment to meet Tier 2 USEPA certification standards for clean technology and 50 percent to meet Tier 1 USEPA certification standards. The remaining 20 percent of construction equipment, which would consist of older technologies, shall use emulsified fuels.

- For all larger vehicles, including cement mixers or other devices that must be delivered by large trucks, vehicles shall be equipped with California Air Resources Board (CARB) level 3 verified control devices.

- Water all active construction areas at least twice daily.

- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.

- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.

- Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.

- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as soon as possible.
- Install wheel washers for all exiting trucks or wash off the tires or tracks of all trucks and equipment leaving the construction site.
- Install wind breaks at the windward sides of the construction areas.
- Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.

Monitoring Phase	Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Planning Service Division/BAAQMD
Monitoring Agency	Public Works/Planning Services Division

BIOLOGICAL RESOURCES

Required Mitigation Measures

BIO-1 Candidate, Sensitive or Special-Status Plant Species

BIO-1a Oval-Leaved Viburnum

The occurrences of oval-leaved viburnum shall be avoided as part of proposed grading and development through general avoidance of areas of chaparral habitat on the site and specific avoidance of the mapped location of this species on the hillside slope between proposed Lots 45 and 46 along Road C and Road A. The two mapped location shall be fenced with temporary orange construction fencing that includes a 100-foot buffer around the stand of oval-leaved viburnum. The temporary protective fencing shall be installed under the supervision of a qualified botanist and shall remain in place during the entire construction period.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Botanist/Contractor
Enforcement Agency	Planning Services Division/CDFG/USFWS

Monitoring Agency Planning Services Division

BIO-1b Other Special-Status Plant Species

Although the potential for occurrence of special-status plant species on the site outside the limits of detailed surveys conducted in 2005 is remote, supplemental detailed surveys shall be completed to confirm that no populations occur in previously unsurveyed locations that could be affected by development under the Modified Project plan. The supplemental surveys for special-status plant species shall include the following components and meet the following standards:

- Supplemental detailed surveys shall be conducted by a County-approved qualified botanist in early summer, if necessary to confirm absence of any populations of special-status plant species in previously unsurveyed locations proposed for grading or vegetation removal. This shall include areas where landslide repair or other slope stabilization may be required, new trail or open space improvements, or portions of lots zoned A-20 which are to be cleared and developed with vineyards or other agricultural crops.

- If populations of any special-status plant species are encountered, an appropriate mitigation program shall be prepared for any listed species or those maintained on Lists 1B or 2 of the CNPS Inventory. The mitigation program shall be prepared in consultation with the CDFG, and shall include appropriate authorizations from CDFG and/or USFWS for any listed species under the ESAs. Measures contained in the mitigation program shall be based on the life history of the species encountered, successful mitigation treatments used for this species in the past, and legal protective status, and may include one or more of the following components as negotiated with the agency representatives: avoidance of the population, collection of seeds and vegetative material during the appropriate developmental stage of the program, procedures for sowing and establishment techniques appropriate to the life cycle of the plant, development of a maintenance and monitoring plan specific to the environmental conditions necessary for survival of the new population, identification of funding sources to provide for implementation of the plan, and management and maintenance of the mitigation area.

- Potential impacts on any species maintained on Lists 3 and 4 of the CNPS Inventory would not be considered significant and no additional mitigation would be required for these species.

Monitoring Phase Pre-construction/Construction/Operation
Implementing Party Applicant/Biologist/Contractor/Homeowner's Association
Enforcement Agency Planning Services Division/CDFG/USFWS
Monitoring Agency Planning Services Division

BIO-1c Valley Elderberry Longhorn Beetle (VELB)

As stated in the Biological Assessment, and indicated in the additional avoidance provided under the Modified Project plans, the Modified Project has been redesigned to avoid elderberry shrubs; however

complete avoidance may not be feasible. A Mitigation Program for VELB shall therefore be prepared by a qualified entomologist in consultation with the USFWS and shall provide for the protection, replacement, and management of any habitat shown to be adversely affected by proposed development. The Mitigation Program shall be required as a condition of approval for the project Vesting Tentative Map, and shall be verified prior to approval of a Final Map or issuance of a grading permit, whichever occurs first. The Mitigation Program shall include the following components and meet the following standards:

- Proposed grading and development shall be redesigned to avoid removal or adverse impacts on elderberry shrubs to provide compliance with the USFWS Conservation Guidelines which recommend that a 100-foot buffer be established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Of particular concern is the importance of avoiding the cluster of shrubs located between Lots 134 and 135 along Road H (where previously planned lots have been removed in the Modified Project design), between Lots 44, 45 and 46 along Road C (where previously planned lots have been removed in the Modified Project design), and between Lots 67 and 68 on Road A (again, where previously planned lots have been removed in the Modified Project design). This requirement shall be implemented through the adjustment of Building Envelopes, or the relocation of lots, if necessary, in the vicinity of the shrubs to avoid their removal or harm.

- If the removal or relocation of any shrubs is unavoidable or a 100-foot buffer can not be provided, then the Mitigation Program must do one or more of the following: (a) implement an on-site mitigation and monitoring component that includes transplantation of shrubs and planting of elderberry seedlings in a permanently protected location; or (b) obtain credits for VELB habitat at a USFWS-approved mitigation bank. In addition, a VELB conservation plan shall be prepared and implemented by the applicant incorporating measures for avoidance, construction protective measures, treatment of buffer areas (restoration, maintenance, and protection), transplantation procedures, planting program, establishment of a permanent conservation area, and monitoring over a 10-year period. Because some of the elderberry shrubs would likely be relocated, a detailed program to transplant affected shrubs would be required, along with the required plantings of associated native species specified in the USFWS Conservation Guidelines.

- If an on-site mitigation and monitoring component is included in the Mitigation Program, this component shall specify avoidance and protective measures to be implemented during construction, require repair of any buffer areas damaged during construction, define elderberry transplantation to the USFWS-approved conservation area, describe the mitigation planting component with additional elderberries and other associated native plants within the conservation area, and specify maintenance and monitoring provisions for the conservation area. A minimum survival rate of at least 60 percent of both the elderberry shrubs and associated native plants shall be maintained throughout the monitoring period. Failed plantings shall be replaced within one year of discovery if survival drops below the 60 percent threshold. Monitoring shall be provided over a 10-year period with annual monitoring reports submitted to the USFWS.

Monitoring Phase	Pre-construction/Construction/Operation
Implementing Party	Applicant/Biologist/Contractor/Homeowner's Association
Enforcement Agency	Planning Services Division/CDFG/USFWS
Monitoring Agency	Planning Services Division

BIO-1d California Red-Legged Frog (CRF)

If, notwithstanding the 2006 protocol surveys, the site is found by the USFWS to be potential habitat for CRF, a Mitigation Program shall be prepared by a qualified wildlife biologist to minimize and mitigate potential impacts of the project on this species. The Mitigation Program shall be prepared in consultation with USFWS, CDFG, and Corps and shall provide for the protection, replacement, and management of habitat affected by Modified Project. The Mitigation Program shall be required as a condition of approval for the project Tentative Map, and may require substantial revision to allow for habitat connectivity for CRF across the site, depending on the outcome of agency consultation. If the USFWS concurs that the site is not potentially occupied habitat, then no mitigation for this species would be required unless preconstruction avoidance measures are still required by the USFWS. If CRF is confirmed to be present on the site or the site is considered to be potentially occupied habitat by the USFWS, the Mitigation Program shall include the following components and meet the following standards:

<u>Preconstruction and Construction Avoidance Provisions</u>

- Preconstruction surveys shall be conducted by a Service-approved biologist prior to any grading or major vegetation clearance to ensure that no individual CRF are lost during construction. The Mitigation Program shall: 1) describe in detail the survey approach and methodology, and 2) specify that grading or vegetation clearance may not occur in any area where individual CRF are located until such time as the individual has either moved out of the disturbance zone or has been physically relocated by a Service-approved biologist legally authorized to handle the species.

- Monitor all vegetation clearing and grading activities within potential habitat for CRF by a Service-approved biologist. The Mitigation Program shall specify the duties of the Service-approved biologist.

- Train all construction personnel in CRF identification, habitat description, legal protective status, construction restrictions, and procedures to avoid unnecessary disturbance to potential habitat or incidental take of these species. The details of the training procedures shall be included as a component of the Mitigation Program.

- Install exclusionary fencing prior to grading or major vegetation clearance where appropriate to keep CRF out of construction areas. The Mitigation Program shall identify where such fencing is to be installed and provide procedures for fence installation, monitoring, and maintenance. The Mitigation Program shall require that the exclusionary fencing be installed under the direct supervision of a Service-approved biologist and shall be inspected and maintained during the course of construction activities on the site.

- Identify the need for possible use of permanent exclusionary fencing to prevent and minimize dispersal of CRF into developed areas, based on input from the USFWS and CDFG. This may be particularly important at locations where development may be proposed within 300 feet of any identified breeding or dispersal habitat, to prevent the movement of individuals into developed areas. If used, these features shall be designed and installed during project construction under the supervision of a Service-approved biologist.

Habitat Avoidance and Mitigation Provisions

- Avoid development in essential habitat for CRF to the maximum extent practicable, in accordance with agreements reached with agency representatives and mitigation standards used by the USFWS. According to the USFWS standards, essential habitat areas for CRF typically includes all aquatic habitat, areas within a 300-foot distance of aquatic habitat, and areas that are likely to serve as movement corridors between aquatic habitat on-site. Connectivity shall be maintained for CRF to other areas of potential habitat, both on and off-site, as part of habitat avoidance.

- Where development of essential habitat and movement corridors cannot be completely avoided and on-site mitigation is considered insufficient by the CDFG and USFWS, the loss shall be mitigated by permanently preserving similar quality habitat known to support CRF at off-site locations in the Cordelia vicinity of Solano County, as negotiated with the regulatory agencies. It is possible that the mitigation location, whether on-site or possibly off-site as well, could be used to achieve mitigation for other biological and wetland impacts, depending on its habitat characteristics, provisions for habitat creation and/or enhancement defined as part of the Mitigation Program, and negotiations with the CDFG and USFWS.

- Define methods to minimize the potential for harassment or take of listed and non-listed species as a result of increased human activity associated with development of the site. This shall include an educational program for future residents, fencing and signage at access points into natural open space, use of sensitive grade changes and culvert undercrossings in uplands where roadways or trails bisect designated movement corridors, and possible use of permanent exclusionary fencing.

Habitat Connectivity and On-Site Management Provisions

- Define methods to provide connectivity for CRF between open space areas on-site and to the surrounding undeveloped lands to the west, north, south, and east.

- Provide for permanent protection and adaptive management of open space lands (both on-site and possibly off-site) intended to function as potential habitat for CRF.

Monitoring Phase	Pre-construction/Construction/Operation
Implementing Party	Applicant/Biologist/Contractor/Home Owner's Association

Enforcement Agency	Planning Services Division/CDFG/USFWS/Corps
Monitoring Agency	Planning Services Division

BIO-1e Birds

Any active raptor or loggerhead shrike nests in the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (September through February), or if this is not feasible, by conducting a pre-construction survey for raptor nests. Provisions of the pre-construction survey and nest avoidance, if necessary, shall include the following:

- If grading or tree removal is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall conduct a pre-construction nesting survey no more than 21 days prior to initiation of grading to provide confirmation on presence or absence of active nests in the vicinity.

- If active nests or an occupied burrow are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the CDFG and implemented to prevent nest abandonment. At a minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. A nest-setback zone of at least 300 feet shall be established for raptors and 100 feet for loggerhead shrike within which all construction-related disturbances shall be prohibited. The perimeter of the nest-setback zone shall be fenced or adequately demarcated, and construction personnel restricted from the area.

- If permanent avoidance of the nest or occupied burrow is not feasible, impacts shall be minimized by prohibiting disturbance within the nest-setback zone until a qualified biologist verifies that the birds have either a) not begun egg-laying and incubation, or b) that the juveniles from the nest are foraging independently and capable of independent survival at an earlier date. A survey report by the qualified biologist verifying that the young have fledged shall be submitted to Solano County Department of Resource Management prior to initiation of grading in the nest-setback zone.

- In addition, pre-construction surveys shall be conducted for burrowing owl within 30 days of project-related ground-disturbing activities throughout the year to determine whether any nesting owls are present and to provide for their protection during the active breeding season or passive relocation during the non-breeding season if nests are encountered. The surveys shall be conducted by a qualified biologist and shall comply with the latest version of the Burrowing Owl Protocol and Mitigation Guidelines.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division/CDFG
Monitoring Agency	Planning Services Division

BIO-1f Special-Status Plant and Wildlife Species

The applicant shall obtain all necessary permits from the CDFG, Corps, USFWS, and the RWQCB as required by federal and State law to avoid, minimize or offset impacts to any species listed under either the State or federal Endangered Species Acts or protected under any other State or federal law as follows:

- Before project implementation, a delineation of waters of the United States, including wetlands that would be affected by development, shall be made by qualified biologists through the formal CWA Section 404 process.

- If based on the verified delineation, it is determined that fill of waters of the United States would result from project implementation, authorization for such fill shall be secured from the Corps through the Section 404 permitting process.

- A CDFG Stream Bed Alteration Agreement and a RWQCB CWA Section 401 Water Quality Certification would also be required by the project activities. The applicant shall obtain all legally-required permits from the CDFG and RWQCB.

- Consultation or incidental take permitting may be required under the ESA. The applicant shall obtain all legally-required permits from the USFWS for the "take" of protected species under the ESA.

- Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Solano County Department of Resource Management prior to issuance of any grading or building permits for the project.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division/RWQCB/CDFG/USFWS/Corps
Monitoring Agency	Planning Services Division

BIO-1g Special-Status Plant and Wildlife Species

Sensitive and general habitat features outside the limits of approved grading and development on the project site shall be protected by identifying a construction and development boundary on all project plans and prohibiting construction equipment operation within this boundary. The boundary shall also reflect limitations imposed on individual residential lots outside the Building Envelopes (as identified by recorded easement), and shall be staked and flagged in the field with a highly visible color coded system and all construction and equipment operators shall be instructed to remain outside this no-disturbance boundary for the duration of construction. Establishing this boundary would reduce the need for restoration of natural areas to be retained as open space that were destroyed as a result of uncontrolled vehicle and heavy equipment operation or inadvertently damaged by short-cutting across permanent open

space areas. This includes the remote possible loss of occurrences of special-status plant species which may occur on the site, but remain undetected despite the completion of detailed surveys in 2005 and 2008.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

BIO-2 Riparian Habitat

BIO-2a Vernal Pools and Seeps and Springs

A Mitigation Program shall be prepared by a qualified wetland specialist to provide for the protection, replacement, and management of vernal pools and larger freshwater seeps and springs on the site affected by proposed development. The Mitigation Program shall be required as a condition of approval for the project Tentative Map, and may require substantial revision to the extent of proposed development to ensure adequate avoidance of these sensitive natural community types. The Mitigation Program shall include the following components and meet the following standards:

- Final grading plans, Building Envelope configurations and site improvement plans shall be designed to avoid removal or adverse impacts on the vernal pool located along Road G in the vicinity of Lots 169 and 170 and the large seep (Seep D) on the slope below Lots 183 and 184 along Road G. Consideration shall also be given to avoiding or minimizing impacts to the complex of seeps (Seeps H, I, G, and possibly A) to accommodate the cul-de-sac to Road B and Lots 6, 7, and 8, and seeps (Seeps K and L) along the ephemeral drainage to be culverted by Road A in the vicinity of Lots 28 and 29. Grading and development shall preferably be restricted a minimum of 50 feet from features to be preserved, which shall be incorporated into permanent open space.

- Appropriate measures shall be developed and implemented to prevent inadvertent degradation to the habitat functions and values of the vernal pool and seeps to be protected, including consideration of urban runoff, routine maintenance of open space for weed control and fire fuel management, and possible application of herbicides or fertilizers in the vicinity of these features, which shall be prohibited.

- Provide adequate mitigation for any direct or indirect impacts on these features where complete avoidance is infeasible, as required under Mitigation Measure BIO-3 for wetlands and other waters.

Monitoring Phase	Pre-construction/Construction/Operation
Implementing Party	Applicant/Biologist/Contractor/Home Owner's Association
Enforcement Agency	Planning Services Division/RWQCB/CDFG/USFWS
Monitoring Agency	Planning Services Division

BIO-2b Valley Needlegrass Grassland

A Mitigation Program shall be prepared by a qualified biologist to provide for the protection, replacement, and management of valley needlegrass grasslands on the site affected by Modified Project. The Mitigation Program shall be required as a condition of approval for the project Tentative Map, and may require substantial revision to the extent of proposed development to ensure adequate avoidance of this sensitive natural community type. The Mitigation Program shall include the following components and meet the following standards:

- Proposed grading and development shall be redesigned to minimize disturbance to the large stand of valley needlegrass grassland bisected by Road A on the slope below the residential use north of Road C, avoid the stand in the vicinity of Lot 134 along Road H, and avoid disturbance to the two stands located in proposed open space areas.

- Appropriate measures shall be developed and implemented to prevent inadvertent degradation to the habitat functions and values of the native grasslands to be protected, including consideration routine maintenance of open space for weed control and fire fuel management, and possible application of herbicides or fertilizers in the vicinity of these features, which shall be prohibited.

- Provide adequate mitigation for any direct or indirect impacts on the stands of valley needlegrass grasslands where complete avoidance is infeasible. Replacement grasslands shall be provided at a minimum 2:1 replacement ratio and shall be established in suitable locations within proposed open space areas. The native grassland replacement component of the Mitigation Program shall emphasize establishment of purple needlegrass (*Nassella pulchra*) and other compatible native grassland species.

- The grassland replacement component of the Mitigation Program shall specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring shall be conducted by the qualified biologist for a minimum of five years and continue until the success criteria are met.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

BIO-3 Jurisdictional Waters

No conceptual mitigation program has been prepared for the project, but the Wetland Analysis prepared by the applicant's biologist provides information on the anticipated loss of jurisdictional waters based on the preliminary delineation, and a brief summary of proposed mitigation. Proposed mitigation would entail additional avoidance of some mapped features and providing replacement wetlands where avoidance is considered infeasible. Replacement wetlands would be provided at a 2:1 ratio, and would be

created through excavation of basins in uplands or detention of surface water in drainage swales. No information on the proposed locations of the approximately 2.5 to 3.0 acres of replacement wetlands necessary to meet the specified 2:1 ratio, details on habitat creation, performance standards, maintenance and monitoring requirements, or contingency measures are provided in the Wetland Analysis. Meeting this requirement on-site may be difficult without substantially altering additional jurisdictional waters on the valley floors where topography is gentle enough to allow for creation of new wetlands.

The proposed mitigation measures are discussed below:

- A Mitigation Program shall be prepared by a qualified wetland specialist to provide for the protection, replacement, and management of jurisdictional waters on the site affected by proposed development. The Mitigation Program shall be required as a condition of approval for the project Tentative Map, and may require substantial revision to the extent of proposed development to ensure adequate avoidance of jurisdictional waters. The Mitigation Program shall include the following components and meet the following standards, subject to review and approval by the applicable state and federal agencies:

- Proposed grading and development shall be redesigned to avoid removal or adverse impacts on the vernal pool located along Road G in the vicinity of Lots 169 and 170 and the large seep (Seep D) on the slope below Lots 183 and 184 along Road G. Consideration shall also be given to avoiding or minimizing impacts to: the complex of seeps (Seeps H, I, G, and possibly A) to accommodate the cul-de-sac to Road B and the Building Envelopes and driveways within Lots 6, 7, and 8; the approximately 900 linear feet of ephemeral drainage and associated seeps (Seeps K and L) to be culverted by Road A in the vicinity of Lots 19, 24, 28, 29, and 30; and the ephemeral drainages and scattered wetland features in the vicinity of Road D outside the limits of anticipated landslide repair encompassing portions of Lots 84, 85, and 86. This shall include balancing the limits of necessary landslide repair in the vicinity of Road D with the objective of protecting and minimizing disturbance to the ephemeral drainages and wetland features in the area. With the exception of the preferred 50-foot setback standard from the vernal pool and large seeps to be avoided as called for Mitigation Measure BIO-2a, grading and development shall preferably be restricted a minimum of 25 feet from other jurisdictional waters to be preserved, which shall be incorporated into permanent open space.

- Appropriate measures shall be developed and implemented to prevent inadvertent degradation to the habitat functions and values of the jurisdictional waters to be protected, including consideration of urban runoff, routine maintenance of open space for weed control and fire fuel management, and possible application of herbicides or fertilizers in the vicinity of these features, which shall be prohibited.

- Provide adequate mitigation for any direct or indirect impacts on jurisdictional waters as coordinated with the CDFG, Corps, and RWQCB where complete avoidance is infeasible. Replacement wetlands shall be replaced at a minimum 2:1 replacement ratio and shall be

established in suitable locations within proposed open space areas. The wetlands replacement component of the Mitigation Program shall emphasize establishment of native freshwater marsh, riparian, and uplands species to enhance existing habitat values.

- The wetland replacement component of the Mitigation Program shall specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring shall be conducted by the qualified wetland specialist for a minimum of five years and continue until the success criteria are met.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division/CDFG/USFWS
Monitoring Agency	Planning Services Division

BIO-4 Wildlife Corridors and Movement

BIO-4a Wildlife Movement

Proposed grading and development shall be redesigned to preserve habitat functions and values of the proposed open space on the site and to maintain opportunities for terrestrial wildlife movement across the site. This shall include the following modifications to the proposed Tentative Map:

- Residential development and roadway improvements along proposed Road D and A in the southwestern corner of the site shall accommodate a Major Western Wildlife Corridor that extends to the proposed open space area surrounding the plateau area. This requirement shall be achieved through: (1) adjusting Building Envelopes as needed within the lots along the east side of Road D and the west side of Road A to provide for a minimum corridor width of 500 feet and maximize the effective width of the wildlife corridor; (2) prohibiting any exclusion fencing outside of the building improvement area on the wastewater treatment plant site, which would otherwise extend into the 500-foot wide corridor between the wastewater treatment plant site and the Building Envelope on Lot 86 on Road D; (3) installation of an oversized culvert at the drainage crossing of Road D and appropriately sized soft-bottom culverts under Road A as approved by the Solano County Department of Resource Management to encourage movement of smaller wildlife species; (4) avoidance of vertical curbs along portions of the roadways that cross the corridor; (5) recordation of an appropriate easement to permanently protect the wildlife movement corridor; and (6) planting of supplemental native vegetation within the corridor and in the vicinity of approved building sites to enhance the wildlife movement function of the corridor and provide effective screening of new residences. Compliance with this measure shall be demonstrated on the appropriate Final Map(s) and improvement plans, which shall be reviewed and approved by Solano County, prior to the issuance of any permits for the project.

- The repair work for Landslide L2 shall be designed to stabilize the slope above the Road D lots, while minimizing the removal of trees and woodland vegetation, and shall be approved by Solano

County. Grading associated with proposed slope stabilization must be balanced with the need to protect the existing woodland cover that borders the proposed wildlife corridor and adequately controlled to provide a buffer from proposed development so that the corridor remains an attractive and stable area for wildlife. Of particular concern is retention of existing mature trees, to the extent feasible, on the east side of Lots 73 and 78 along Road D, which provide important screening of the proposed residential development along Road D and are essential to establishment of a viable wildlife movement corridor along the drainage to the east.

- Expand the Tree Mitigation Program outlined in BIO-4b as necessary to provide for replacement of any additional trees located westerly of the anticipated slide repair along Road D which may be necessary for repair of Landslide L2, as determined by the project geologist.

- Provide for a functional continuation of the Major Western Wildlife Corridor between Road C and the relocated lots along Road A near the intersection with Road G to maintain a minimum corridor width of 500 feet and avoid intrusion into this upland location. This requirement shall be achieved through: (1) elimination or relocation of Lot 45 (at the end of Road C) and adjustment of the Building Envelope location within Lot 56 (on Road A) away from the Major Western Wildlife Corridor; (2) installation of an appropriately sized soft-bottom culverts under Road A as approved by the Solano County Department of Resource Management to encourage movement of smaller species; (3) avoidance of vertical curbs along the portion of the roadway that crosses the corridor; (4) recordation of an appropriate easement to permanently protect the wildlife movement corridor; and (5) planting of supplemental native vegetation within the corridor and in the vicinity of the south side of the Building Envelopes on Lots 56 through 58 on Road A to enhance the wildlife movement function of the corridor and provide effective screening of new residences.

- Retain limited opportunities for wildlife movement as linkages through open space areas between the Major Western and Upland Eastern Wildlife Corridors, by maintaining three enhanced linkages across Roads A and G. This requirement shall be achieved by: (1) eliminating or relocating Lots 120 and 121 and adjusting the Building Envelopes on Lots 239 and 240 along Road G to create a minimum corridor linkage width of 300 feet; (2) eliminating lots and/or adjusting Building Envelopes on Lots 56-70 along the west side of Road A to create two expanded corridor linkage with minimum widths of 200 feet in the vicinity of the proposed openings between Lots 62 and 63 and Lots 67 and 68; (3) recordation of an appropriate easement to permanently protect the wildlife movement corridor linkages and prohibit inappropriate uses; and (4) planting of supplemental native vegetation within the open space areas between the Building Envelopes adjoining these corridor linkages to enhance their intended function for wildlife movement and provide effective screening of new residences.

- Retain opportunities for wildlife movement along the southeastern edge of the site to maintain a minimum corridor width of 300 feet. This requirement has been substantially achieved through the design refinements reflected in the Modified Project, and shall be implemented by: (1)

maintaining the relationship between the Building Envelopes shown on the Modified Tentative Map within Lots 104 through 109 on Road F and the southerly project boundary; (2) recordation of an appropriate easement to permanently protect the wildlife movement corridor; and (3) planting of supplemental native vegetation within the corridor in the vicinity of approved building sites to enhance the wildlife movement function of the corridor and provide effective screening of new residences.

- Provide an upland wildlife movement corridor with a minimum width of 400 feet from the northern edge of the site to the drainage course located between Roads G and M to be retained as permanent open space. This requirement has been substantially achieved through the design refinements reflected in the Modified Project, and shall be implemented by: (1) maintaining a minimum corridor width of 400 feet between the Building Envelopes within Lots 260 and 354 on Road K; (2) adjustment of the Building Envelope to Lot 354 on Road K; (3) installation of appropriately sized soft-bottom culverts under Road K as approved by the Solano County Department of Resource Management to encourage movement of smaller species; (4) avoidance of vertical curbs along the portion of the roadway that crosses the corridor; (5) recordation of an appropriate easement to permanently protect the wildlife movement corridor; and (6) planting of supplemental native vegetation within the corridor in the vicinity of approved building sites to enhance the wildlife movement function of the corridor and provide effective screening of new residences.

- Develop a Wildlife Corridor Planting Plan to provide supplemental vegetative screening between adjoining Building Envelopes along wildlife corridor areas: (1) between Roads D and A; (2) southeast of Road F; (3) between Roads C and G; (4) between Roads J and M; (5) adjoining the Road K crossing; and (6) between the Building Envelope on Lot 86 and the wastewater treatment plant site westerly of the project entrance opposite Rockville Hills Regional Park. This Plan shall indicate the areas proposed for planting, the plant species that would be used, planting methods, maintenance of the plantings, performance standards, and an annual report. The vegetative screen shall be composed of native plants indigenous to the local area. Screening shall consist of plants that have full canopies and the ability to provide dense cover. Plant aggregations shall provide a continuous or nearly continuous amount of cover within the corridors and at the wildlife connector to facilitate movement of wildlife.

- Establish and implement a program, as approved by the Solano County Department of Resource Management, to monitor activity levels of animals utilizing the wildlife movement corridor in the vicinity of the "wildlife connector" opposite Rockville Hills Regional Park. The program shall include pre-construction base line information, as well as an annual reporting of activity levels for five years following initiation of work within Phase I of the project. This monitoring program is intended to document changes in baseline conditions for wildlife movement across the site and to provide information for use by the County in the design and implementation of wildlife movement corridors within other developments.

Monitoring Phase	Pre-construction/Construction
Implementing Party	Applicant/Biologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

BIO-4b Wildlife Cover

A Mitigation Program shall be prepared by a qualified biologist or restoration specialist to provide for the protection, replacement, and management of oak woodland and savanna habitat on the site affected by proposed development. The Mitigation Program shall be required as a condition of approval for the project Vesting Tentative Map, and may require substantial revision to the extent of proposed development to ensure adequate avoidance of this natural community type. The Mitigation Program shall include the following components and meet the following standards:

- Proposed Building Envelopes and associated grading and development shall be redesigned to minimize disturbance to areas of dense woodland cover within individual lots, and the Mitigation Program shall provide for the replacement of trees which cannot be avoided. This shall include: (1) realignment and refinement of driveways within Building Envelopes, as necessary, along Road K; (2) design of repair work for Landslide L2 to stabilize the slope above the Road D lots, while minimizing the removal of trees and woodland vegetation, particularly on the east side of Lots 73 through 78 along Road D and consistent with plans approved by Solano County; and (3) realignment and refinement of driveways within Building Envelopes, as necessary, along Road G between the intersection with Road J and Lots 181 and 182, and in the vicinity of Lots 240 and 241.

- Proposed treated wastewater disposal areas in the eastern portion of the site shall be concentrated in areas of existing grassland cover and shall minimize disturbance to areas of oak woodland and savanna. Any tree removal within the wastewater disposal area shall be replaced as called for in the Final Tree Mitigation Program, described below, providing a minimum 1:1 replacement ratio.

- Areas which serve as mitigation for impacts on oak woodland and savanna habitat shall be permanently preserved through establishment of a conservation easement.

- A Draft Tree Mitigation Program was prepared by the applicant's biologist to mitigate estimated impacts on tree resources.

- Prior to approval of the first Final Map, a Final Tree Mitigation Program shall be prepared and implemented based on the Draft Tree Mitigation Program, which provides for further avoidance and adequate replacement for tree resources impacted by proposed development, including smaller trees. The Final Tree Mitigation Program shall also comply with PRC §21083.4 mitigation standards. The Tree Protection Plan in the Final Tree Mitigation Program shall include a component that identifies the location of all trees 5 inches or greater in diameter (dbh) and provides for their consideration as part of tree avoidance and protection. Where avoidance of

trees with trunk diameters ranging from 5 to less than 18 inches (dbh) is not feasible, as determined by the County, replacement shall be provided at a minimum 1:1 replacement ratio as part of the Tree Revegetation Plan and Monitoring Plan. Similarly, where avoidance of trees with trunk diameters (dbh) of 18 inches or greater is not feasible, as determined by the County, replacement shall be provided at a minimum 3:1 replacement ratio, as part of the Tree Revegetation Plan and Monitoring Plan. Avoidance efforts undertaken as part of refinement of the approved Tentative Map and as part of the Home Site Development Consideration described in the Tree Protection Plan shall give preference to avoidance of trees with trunk diameters of 18 inches (dbh) or greater because of their age and length of time necessary to replace habitat values. Mitigation shall entail collecting propagules (acorns) on-site, where possible, and planting replacement trees using 1 and 5-gallon sized specimens, developed from local stock, in buffer zones along roadway corridors and between homes and open space areas. Additional plantings shall be planted in sparsely vegetated grassland areas. Tree plantings shall be monitored by the subdivider's certified arborist or qualified biologist, who shall additionally prepare and provide annual reports to the County Department of Resource Management, for seven years to determine success of the revegetation. This shall include monitoring of possible establishment of Sudden Oak Death on the site, with appropriate recommendations made to prevent further spread and tree loss if this disease becomes established on the site. The Tree Revegetation Plan and Monitoring Plan describes mitigation site selection, implementation methods, and performance criteria. The Tree Revegetation Plan and Monitoring Plan assumes that seven years of monitoring would be provided, but does not specify contingency measures if performance criteria are not met. The Final Tree Mitigation Program shall specify contingency measures to ensure success establishment of mitigation plantings.

- Standards specified in the Final Tree Mitigation Program shall be incorporated into the subdivision CC&Rs to ensure proper implementation

- A certified arborist or qualified biologist shall be retained as needed to provide on-going assistance to property owners regarding the care and protection of trees to be retained.

- An Elderberry Care and Maintenance pamphlet shall be compiled by the applicant and presented to each property owner supporting an elderberry tree. This pamphlet shall discuss the potential for the occurrence of the threatened valley elderberry longhorn beetle and the use of elderberry trees by the beetle. The need for and methods of protecting elderberry trees will also be discussed in the pamphlet.

- An Oak Tree Care and Maintenance pamphlet shall be compiled and presented to each property owner at the time of initial project sale.

- At the time of building permit issuance (or design review, if applicable) an inventory of existing trees shall be provided with development plans, and deed restrictions shall specify that the trees shall be protected.

- A certified arborist or qualified biologist shall be retained throughout the construction process to monitor construction compliance with the Tree Protection Plan specified in the Final Tree Mitigation Program.

Monitoring Phase	Pre-construction/Construction/Operation
Implementing Party	Applicant/Biologist/Arborist/Homeowner's Association/Contractor
Enforcement Agency	Planning Services Division/CDFG/USFWS
Monitoring Agency	Planning Services Division

BIO-4c Habitat Disturbance

A qualified landscape architect or restoration ecologist who specializes in native habitat restoration shall be retained to incorporate the following provisions into the Landscape Plans for the project:

- Prohibit the use of highly undesirable species in landscape improvements on the site which could spread into the adjacent open space areas. Unsuitable species include: blue gum eucalyptus (*Eucalyptus globulus*), acacia (*Acacia* spp.), pampas grass (*Cortaderia selloana*), broom (*Cytisus* spp. and *Genista* spp.), gorse (*Ulex europaeus*), bamboo (*Bambusa* spp.), giant reed (*Arundo donax*), English ivy (*Hedera helix*), German ivy (*Senecio milanioides*), Himalayan blackberry (*Rubus discolor*), cotoneaster (*Cotoneaster pannosus*), fennel (*Foeniculum vulgare*), and periwinkle (*Vinca* spp.), among others identified in the CalEPPC List.

- Incorporate an eradication program that effectively controls and preferably eliminates highly aggressive non-native species such as French broom, Himalayan blackberry, and periwinkle from the site, and replaces them with appropriate shrub and groundcover species.

- Define maintenance and monitoring provisions to ensure the successful establishment and long-term viability of native plantings and the control and eradication of highly aggressive non-native French broom, Himalayan blackberry, periwinkle, and other noxious weeds from the site. The maintenance and monitoring program shall be implemented during a minimum seven year monitoring required as part of tree replacement and wetlands mitigation, and shall continue as part of long-term maintenance of open space areas.

- Provide for reseeding of all graded slopes not proposed for roadways, residences, and ornamental landscape plantings with a mix of native grasses and forbs appropriate for the site rather than a conventional seed mix typically used for erosion control purposes to replace and improve existing habitat values of grasslands disturbed on the site.

Monitoring Phase	Construction/Operation
Implementing Party	Applicant/Biologist/Contractor/Homeowner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

BIO-4d Wildlife Habitat Resources

Measures recommended in Mitigation Measures BIO-1a through BIO-1g; BIO-2a and BIO-2b; BIO-3; as well as, BIO-4a and BIO-4b would serve to partially protect important natural habitat on the site for wildlife, avoid the potential loss of raptor nests, control the loss of woodland habitat and provide for replacement tree plantings, and minimize disturbance to wetlands and provide for replacement of affected jurisdictional waters. The following additional provisions shall be implemented to further protect wildlife habitat resources, and shall be defined in CC&Rs for the residential lots:

- Fencing that obstructs wildlife movement shall be restricted to the Building Envelopes on residential lots, and shall not be allowed elsewhere on the site. This shall include a restriction on use of wildlife exclusionary fencing over more than 5 percent of the lots to be zoned RR-20 in the vicinity of the Building Envelopes identified on the Vesting Tentative Map. Wildlife exclusionary fencing shall not obstruct or cross perennial and intermittent drainages, which typically serve as movement corridors for terrestrial wildlife. Wildlife exclusionary fencing is designed to exclude wildlife and contains one or more of the following conditions: lowest horizontal is within 1.5 feet of ground OR highest horizontal is over 6 feet OR top or bottom wire is barbed OR distance between top wires is less than 10 inches OR it combines with existing structures or fences, even on neighboring parcels, to create an obstacle to wildlife movement.

- Lighting shall be carefully designed and controlled to prevent unnecessary illumination of natural habitat on the site. Lighting shall be restricted to building envelopes on residential lots, and the minimum level necessary to illuminate roadways and other outdoor areas. Lighting shall generally be kept low to the ground, directed downward, and shielded to prevent illumination into adjacent natural areas.

- Livestock shall be prohibited on the residential lots zoned RR-10 to prevent trampling and removal of groundcover vegetation.

- Dogs and cats shall be confined to individual residences and the fenced portion of the building envelopes to minimize harassment and loss of wildlife, except dogs on leash and cats with bells on collars.

- All garbage, recycling, and composting shall be kept in closed containers and latched or locked to prevent wildlife from using the waste as a food source.

Monitoring Phase	Operation
Implementing Party	Applicant/Homeowner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULTURAL RESOURCES

Required Mitigation Measures

CULT-2 Archaeological Resources

CULT-2a Site CA-SOL-335

To ascertain that subsurface deposits do not extend beyond the surface boundaries determined by the test units, deep excavations to underlying sterile sediment shall be required. Depending on access, these excavations could be done with a backhoe, or by hand using shovels or augers. Once boundaries are defined, avoidance during construction shall be assured by fencing to keep equipment outside the archaeological site. Lastly, small portions of renumbered Extensive Agricultural Lots 362-365 contain CA-SOL-335 site area. Deeds for these parcels shall be amended with stipulations for avoidance and preservation of the CA-SOL-335 area, or the portions of those lots that contain the archaeological deposit shall be removed from private ownership and designated as common property.

If avoidance of CA-SOL-335 is not possible, then mitigation of project effects is recommended in the form of sufficient controlled archaeological excavations to exhaust the research potential of the affected site area. The amount of excavation conducted would depend on the area extent of the archaeological site subjected to potentially significant project impacts.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Archaeologist
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-2b Site CA-SOL-335

Include site CA-SOL-335 in a conservation easement to protect this archaeological resource.

Monitoring Phase	Pre-Construction/Operation
Implementing Party	Applicant/Archaeologist/Homeowner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	**Planning Services Division**

CULT-2c Site CA-SOL-335

Redesign the project to avoid impacts to CA-SOL-335 due to the proposed development. To avoid impacts to CA-SOL-335, the archaeological site, including a 100-foot buffer zone around the site, shall be excluded from disruption during project construction.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Archaeologist/Contractor

Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-2d CA-SOL-352

Design all final improvements for the Modified Project to avoid impacts to CA-SOL-352 due to the proposed development. To avoid impacts to CA-SOL-352, the archaeological site, including a 100-foot buffer zone around the site, shall be excluded from disruption during project construction.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Archaeologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-2e CA-SOL-352

If avoidance of site CA-SOL-352 is impractical or infeasible, a qualified archaeologist shall be retained to conduct test excavations at the site to determine the extent of its subsurface deposit and its integrity. If it is found to be highly disturbed, lack definable components, or lack significant subsurface deposit, no further work would be necessary. If the site is found to have an intact, significant deposit, a qualified archaeologist would conduct final data recovery to obtain enough information to characterize the site's components and activities before project construction.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Archaeologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-2f CA-SOL-352

If avoidance of site CA-SOL-352 is unavoidable, all grading within 100 feet of CA-SOL-352 shall be monitored by a county-approved archaeologist. If any cultural materials are exposed during grading, cease work in the immediate vicinity of the find and the qualified archaeologist shall determine the potential significance of the material, in accordance with the guidelines prescribed in the California Environmental Quality Act (CEQA) Guidelines, Appendix K, Archaeological Impacts, the California Health and Safety Code, Section 7050.5, and the California Public Resources Code, Section 5097.98(a) and (b).

Monitoring Phase	Construction
Implementing Party	Applicant/Archaeologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-3 Paleontological Resources

CULT-3a

Grading of the project site shall be monitored by a County-approved paleontologist.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Paleontologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-3b

If paleontological resources are encountered during the course of site grading, work in that area shall be halted and the project paleontologist shall have the authority to temporarily divert or redirect grading to allow time to evaluate any exposed fossil material.

Monitoring Phase	Construction
Implementing Party	Applicant/Paleontologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-3c

If the project paleontologist determines that the resource is significant, then any scientifically significant specimens shall be properly collected by the project paleontologist. During collecting activities, contextual stratigraphic data shall also be collected. The data will include lithologic descriptions, photographs, measured stratigraphic sections, and field notes.

Monitoring Phase	Construction
Implementing Party	Applicant/Paleontologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-3d

Scientifically significant specimens shall be prepared to the point of identification (not exhibition), stabilized, identified, and offered for curation to a suitable repository that has a retrievable storage system, such as the University of California, Berkeley and Museum of Paleontology.

Monitoring Phase	Construction
Implementing Party	Applicant/Paleontologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-3e

The project paleontologist shall prepare a final report at the end of the earthmoving activities; the report shall include an itemized inventory of recovered fossils and appropriate stratigraphic and locality data. The project paleontologist shall send one copy of the report to the Solano County; another copy should accompany any fossils, along with field logs and photographs, to the designated repository.

Monitoring Phase	Construction
Implementing Party	Applicant/Paleontologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

CULT-4 Human Remains

If human remains or previously unidentified cultural deposit are discovered at the project site during construction, work at the specific construction area at which the finds have been uncovered shall be suspended within 50 feet of the discovery until a qualified archaeologist is retained to inspect the finds. If human remains are discovered, and determined to be Native American in consultation with the Solano County coroner, the Native American Heritage Commission shall be contacted within 24 hours to determine the Most Likely Descendant who shall be responsible for their disposition.

If it is determined that the previously unidentified archaeological deposit will be further damaged by construction activities, the significance of the deposit shall be evaluated through controlled archaeological excavation. If the deposit is determined significant but cannot be avoided by construction, project effects shall be mitigated through sufficient controlled excavation to exhaust the research potential of the affected site area. It will be the responsibility of the project sponsor to submit a plan for avoidance or for evaluation and mitigation to the relevant Lead Agency before construction can continue in the area of the archaeological deposit.

Monitoring Phase	Construction
Implementing Party	Applicant/Archaeologist/Contractor
Enforcement Agency	Planning Services Division/County Coroner
Monitoring Agency	Planning Services Division

GEOLOGY & SOILS

Required Mitigation Measures

GEO-1 Fault Rupture

Prior to recordation of any Final Maps, additional geologic investigations shall be performed to document Holocene fault activity within the northerly alignment extension of the Cordelia Fault, and to assess the potential for future activity along this alignment. The location of trenches and the boundaries of the Fault Zone shall be established by survey as part of this process. The investigation shall include exploration of

the extended alignment of the Cordelia Fault on the site up to the northern limit of development. The report shall be reviewed by a registered geologist acting on behalf of the County (not a third party reviewer retained by the applicant). Consistent with Solano County General plan policy, setbacks for single-family residences shall be observed as follows: (1) Single story single-family residences shall be set back a minimum of 50 feet from those portions of the fault identified within the Alquest-Priolo Earthquake Fault Zone Boundary as being active or potentially active, as well as from any other portions of the extended alignment of this fault identified through the subsequent geologic investigation as being active or potentially active; and (2) Two story residences shall be set back a minimum of 100 feet based on the same criteria. The setbacks shall be implemented as shown in Figure IV.E-4.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Geologist
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-4 Liquefaction, Lateral Spreading, and Post-Liquefaction Reconsolidation

GEO-4a

Design level investigations shall evaluate the potential for soil liquefaction at locations where springs and other sources of water are present.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Geologist
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-4b

The design level geotechnical report shall evaluate the potential for localized liquefaction including supplemental subsurface exploration, laboratory testing, engineering analysis, and development of final mitigation measures, as needed. Potential mitigation measures may include over-excavating and replacing loose or soft soils with engineered fill compacted to current compaction standards.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Geologist
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-5 Geologic and Soil Instabilities

GEO-5a

Design level investigations shall include additional subsurface exploration at landslides L2, L3, L4, and L5 to evaluate the nature and extent of these landslide features including excavating test pits using a tracked excavator or four-wheel-drive backhoe. Once the presence, lateral extent, and depth of the landslides is determined there are several potential mitigation measures which include: relocating proposed improvements outside of potential landslide impact zones; buttressing the lower portion of the landslide; or removing the entire landslide and replacing it as an engineered fill buttress. Landslide material can be reused as engineering fill provided it is free of debris or deleterious material and can be properly moisture conditioned and compacted. The suspected landslide limits shall be shown and recommendations provided for reducing the potential for damage to proposed residences and the stormwater detention pond (DP-E2) planned in the vicinity of landslides L4 and L5. The design level investigations shall be subject to the review and approval of the County.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Geologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-5b

A setback shall be developed for residential lots proposed beneath steep to vertical rock outcrops. The setback shall provide catchment for debris resulting from small slope failures, erosion, or rock falls. The setback shall be of sufficient size to prevent these materials from impacting residential lots. Setbacks shall consist of a level bench equipped with drainage facilities to deter water from entering residential lots and to catch debris. If determined necessary during design level investigations, a rock fall control barrier shall be constructed in the setback to prevent rolling rocks from entering residential lots. This barrier shall be constructed near the rear of a residential lot and would consist of a metal or heavy gauge wire fence, reinforced concrete or masonry wall, and/or earthen berm. Periodic maintenance and removal of debris shall be required, including the creation of a geotechnical hazard abatement district or other appropriate entity (e.g., Community Services District (CSD) or Homeowner's Association (HOA)) that is funded for such maintenance. Any additional site hazards identified during the design level investigation of known slope failures and rock falls shall be documented in a supplemental report with recommendations for remediation, and shall be subject to review and approval by the County.

Monitoring Phase	Pre-Construction/Construction/Operation
Implementing Party	Applicant/Geologist/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-6 Soil Erosion/Loss of Topsoil

Permanent erosion control measures shall be placed on all slopes. At a minimum, all slopes shall be hydroseeded. Based on the results of the design-level investigation, more aggressive permanent erosion control measures shall be evaluated to minimize surface runoff velocities and erosion potential. Additionally, a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared with the grading plans to fulfill regulatory requirements.

Monitoring Phase	Pre-Construction/Construction/Operation
Implementing Party	Applicant/Geologist/Contractor/Home Owner's Association
Enforcement Agency	Planning Services Division/RWQCB
Monitoring Agency	Public Works/Planning Services Division

GEO-7 Expansive Soil

GEO-7a

The design level geotechnical report shall provide final grading recommendations to address expansive soil compaction. Expansive materials shall be moisture-conditioned to at least three percent above the laboratory optimum prior to compacting to aid in reducing shrink and swell of compacted clays on-site.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Geologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-7b

If soil or bedrock material classified as moderately to highly expansive and having liquid limits greater than 50, such as interbedded layers of tuff bedrock, are encountered in large amounts where embankment construction is proposed, these materials may need to be processed or handled such that they are blended with other less expansive materials, buried in deeper fills containing less expansive materials, or segregated for use elsewhere on the site. Once grading plans have been developed, the actual use of these materials in engineered fill construction shall be further evaluated and the location of primary borrow source areas for fills shall be determined. Additionally, supplemental field and laboratory testing of potential cut materials shall be completed.

Monitoring Phase	Construction
Implementing Party	Applicant/Geologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-8 Differential Compaction

GEO-8a

Resistance values for lateral loads shall be provided for single family homes. These loads shall be obtained using a combination of passive pressure against the embedded face of the foundations, and a base friction value times the net vertical dead load. Lateral resistance from the upper foot of soil shall be neglected where the soil surface is not confined by slabs or pavements.

Monitoring Phase Monitoring Phase	Construction
Implementing Party	Applicant/Geologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-8b

The design level geotechnical report shall require that slabs-on-grade used in habitable areas shall utilize a vapor retarder system in accordance with the requirements and specifications provided in ASTM E1745-97 and ASTM E11643-98 and at least four inches of capillary break rock to reduce the potential for moisture migration through the slab.

Monitoring Phase Monitoring Phase	Construction
Implementing Party	Applicant/Geologist/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-9 Soils Supporting Stormwater and Wastewater Effluent Embankments

GEO-9a

Design level investigations shall include additional stability analyses, including pseudo-static stability analyses, to finalize the wastewater effluent and stormwater retention embankment design and construction, including final mitigation requirements, prior to construction. This analysis shall be completed in accordance with appropriate geotechnical engineering standards of practice, including the Seed (1979) and Hynes and Franklin (1984) methodology described in Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California (SP117). These analyses shall include updating the deformation analysis, as needed, to include appropriate soil strength parameters. Typically, cyclic-yield strengths of embankment materials are used in the analysis, which is estimated to be approximately 80 percent of the undrained strength of the soil. Where down-stream residences are present, a third-party technical peer review of the final embankment design and construction documents shall be required to reduce the potential for adverse impacts associated with embankment failures.

Monitoring Phase Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Geologist/Engineer/Contractor

Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-9b

Design level investigations shall include additional subsurface exploration, laboratory testing, and engineering analysis to finalize the design and verify the feasibility of constructing the proposed wastewater effluent and stormwater retention embankments at the proposed locations. These analyses shall include additional testing of both in-situ and remolded samples of various foundation materials to evaluate the strength of foundation materials (especially extremely soft to soft tuffaceous material), the collapse potential of saturated, tuffaceous material under the weight of new embankment loads, permeability of foundation material, and the residual strength of saturated remolded foundation material. Additional analyses shall also be completed to further evaluate the range of embankment and foundation material strengths, long-term settlement of underlying tuffaceous materials, and the permeability of foundation materials. Conventional grading methods could be implemented to over-excavate potentially unsuitable or unstable soils and residual/weathered bedrock zones prior to placement of embankment fill materials and prior to construction of the proposed detention pond embankments. Detailed grading recommendations shall be provided in the design level geotechnical report.

Monitoring Phase Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Geologist/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-9c

The bottom of the wastewater effluent pond shall be designed to adequately mitigate seepage through potentially pervious foundation materials in accordance with applicable state guidelines. This may include lining the pond with a relatively impervious liner system such as heavy duty HDPE liners underlain with a geosynthetic clay liner. Additionally, a system of geonet or geocomposite drainage net shall be installed under the geosynthetic clay liner to drain the ground water around the Pond. This subdrain system shall either be directionally piped through the adjoining hillside for discharge to a lower elevation, or connected to a sump pump that will cycle leaked effluent into the Consolidated Pond. Once the location, geometry, and function of the ponds have been finalized through design level investigations, the final design of the pond liners shall be determined.

Monitoring Phase Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-9d

A monitoring and maintenance program to ensure that the proposed on-site drainage features are operating properly shall be developed and implemented through an HOA and/or other appropriate entity established for the development (the Consolidated Pond is part of the wastewater treatment system, and will be maintained through a state-regulated public utility or CSD). Surface water shall not be allowed to flow over the top of engineered slopes or down engineered slope faces. Ponding of water shall not be allowed at the tops or bottoms of slopes, or on pavements. Slopes shall be graded at a minimum of two percent slope to direct surface water to a suitable discharge point and/or drain inlet. The subsurface drains shall consist of perforated piping and permeable gravel or drain rock. Subdrains shall be installed where seepage is observed. Subdrains shall be installed at the toe of any proposed cuts or slopes, depending on the actual condition observed during construction.

Further, the monitoring and maintenance program shall check that treated wastewater is not seeping past the Consolidated Pond liner system and into the underlying permeable rock formation. In addition, this program shall include a condition where effluent can be temporarily diverted or stored if a portion of the proposed Consolidated Pond requires repairs.

Monitoring Phase Monitoring Phase	Pre-Construction/Operation
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

GEO-9e

The design level geotechnical report shall include keyway, bench, and subdrain recommendations. Appropriate access points (cleanouts) to facilitate the long term maintenance of the system shall be required for all subdrain construction. Appropriate subdrain outfall locations that shall reduce the potential for slope erosion and instability shall be determined during final grading and improvement plan preparation in consultation with the project civil engineer. Additionally, an as-built subdrain plan shall be prepared following completion of the mass grading.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Geologist/Engineer/Contractor
Enforcement Agency	Planning Services Division/RWQCB
Monitoring Agency	Public Works/Planning Services Division

Although the proposed mitigation measures would reduce project impacts to less-than-significant levels, the following mitigation measure is recommended in order to ensure that the proposed project remains in compliance with the proposed mitigation measures:

GEO-10

To ensure the applicant's geologic and geotechnical consultants are given the opportunity to participate in the final design and construction phases of the project, the applicant's consultants (Registered Geotechnical Engineer and Registered Engineering Geologist) shall review and approve the final grading, drainage, and foundation plans and specifications. Also, upon completion of construction activities, the applicant's consultant shall provide a final statement indicating whether the work was performed in accordance with project plans and specifications, and the consultant's recommendations.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Geologist/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

HAZARDS & HAZARDOUS MATERIALS

Required Mitigation Measures

HAZ-1 Hazardous Materials & Risk of Upset Impact

A full environmental regulatory compliance review shall be conducted after the wastewater treatment plant and associated collection system is installed to verify that, based on the actual equipment installed and specific quantities of hazardous materials, the facility is operating in compliance with all appropriate environmental laws and regulations.

Monitoring Phase	Construction/Operation -
Implementing Party	Applicant/Geologist/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

HYDROLOGY & WATER QUALITY

Required Mitigation Measures

HYDRO-3 Alteration of Drainage Patterns Resulting in Erosion or Siltation

As proposed by the applicant, detention ponds are a partial solution to address potential increases in peak flow rates resulting from development and attendant hydromodification effects on local stream channels. No basins are proposed in some portions of the site where development would occur; where detention ponds are proposed, they are located some distance below the most likely sites for erosion, between the ridgetops and the valley floors. In addition to direct impacts on stream continuity, adjacent habitats, and sensitive species considerations, on-line detention basins promote accumulation of sediment, causing additional impacts when sediment is periodically removed to maintain required floodwater capacities.

Site- and project-specific factors supporting alternative solutions include: favorable local soils and hydrology; a project drainage strategy oriented towards dispersion of runoff and away from piping; modest estimated increases in post-project peak discharges, with magnified impacts from smaller, more frequent storms; and the County guidance to maintain post-project peak flows at pre-project levels, rather than requiring flow reduction to substantially below existing conditions.

The applicant's SWPPP shall identify the BMPs that will be used to reduce post-construction peak flows to existing levels in all on-site drainages where construction will occur. Existing peak flows shall be estimated using conventional modeling as specified by Solano County design guidelines; however, the County may choose to require that the project modeling be modified to incorporate site-specific data if engineering staff decide that model refinement is warranted to more accurately estimate actual pre-project flows and detention requirements across a range of storm events and avoid potential hydromodification impacts.

Neighborhood- and/or lot-level BMPs to promote infiltration of storm runoff shall be emphasized, consistent with RWQCB and Solano County guidance for NPDES Phase 2 permit compliance. These types of BMPs, which may also enhance water quality, include infiltration basins and trenches, dry wells, rain gardens, on-contour grassy swales, media filters, and biofiltration features. BMPs shall be designed in accordance with engineering criteria in the California Stormwater BMP Handbook or other accepted guidance and designs shall be reviewed and approved by the County prior to issuance of grading or building permits for the roadway or driveways. The applicant shall prepare a clearly defined operations and maintenance plan for water quality and quality control measures. The design and maintenance documents shall include measures to limit vector concerns, especially with respect to control of mosquitoes. The applicant shall identify the responsible parties and provide adequate funding to operate and maintain stormwater improvements (through a HOA, Geological Hazard Abatement District (GHAD), CSD, Community Facilities District (CFD) or similar organization). If lot-level BMPs are accepted by the County as a suitable control measure, the applicant shall establish a mechanism for enforcement to assure that BMP functioning is being maintained as designed. The applicant shall also establish financial assurances, as deemed appropriate by the Solano County Department of Resource Management, enabling the County to maintain the stormwater improvements should the HOA or other entity disband or cease to perform its maintenance responsibilities.

Monitoring Phase	Pre-Construction/Construction/Operation
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Planning Services Division/RWQCB
Monitoring Agency	Public Works/Planning Services Division

HYDRO-4 Localized Erosion from Storm Runoff Discharges

The Modified Project proposes to use constructed swales and existing drainageways, and to rely less on conventional piping, to disperse storm runoff from houses and roadways into nearby drainages, consistent with guidance from the RWQCB and Solano County. If grassy swales are used to treat as well as convey road runoff, then they must meet the recommended criteria for length (at least 100 feet) and velocity (less

than or equal to 1 foot per second) specified in the California Storm Water BMP Handbook. Measures to dissipate energy and control runoff velocities would be required to prevent discharges from eroding slopes and cause gullying and sediment transport downstream.

An alternative to concentrating road runoff that appears viable at many locations would be to outslope the road so that instead of concentrating drainage, runoff sheet flows across the roadways and is diffused downslope. Use of this approach to the extent feasible would not only reduce potential erosion impacts, but would also provide water quality treatment and assist in reduction of peak flow rates.

The applicant shall submit a revised drainage plan to the County that identifies the location of swales, provides designs consistent with recognized engineering criteria, and includes measures to control runoff velocities and dissipate energy at outlets. Where feasible, designs shall minimize concentration of discharges from the roadway. Possible approaches may include, but are not limited to, outsloping the road to diffuse runoff downslope or designing for discharges at more frequent intervals. The drainage plan shall be reviewed and approved by the County prior to issuance of grading or building permits for the roadway or driveways.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

HYDRO-5 Stormwater Drainage

HYDRO-5a

The project applicant shall further contribute its fair and proportionate share to improving off-site conditions within the channel between Green Valley Creek and Rockville Road by participating with other property owners in the cost of cleaning and widening this surface channel, subject to County approval and access authorization.

Monitoring Phase	Operation
Implementing Party	Applicant/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

HYDRO-5b

The applicant's SWPPP shall identify the BMPs to control erosion and sedimentation and provide for treatment of 80 to 85 percent of post-construction runoff from new impervious areas. Neighborhood- and/or lot-level treatment BMPs shall be emphasized, consistent with RWQCB and Solano County guidance for NPDES Phase 2 compliance. These types of BMPs, which may also assist in reducing post-project peak flows, include infiltration basins and trenches, dry wells, rain gardens, on-contour grassy swales, media filters, biofiltration features and grassy swales. BMPs shall be designed in accordance with

engineering criteria in the California Stormwater BMP Handbook or other accepted guidance and designs shall be reviewed and approved by the County prior to issuance of grading or building permits for the roadway or driveways. As provided above under Mitigation Measure HYDRO-3, if lot-level BMPs are accepted by the County as a suitable control measure, the applicant shall establish a mechanism for enforcement to assure that BMP functioning is being maintained as designed.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Environmental Health Services /Planning Services Division
Monitoring Agency	Environmental Health Services /Planning Services Division

HYDRO-6 Degradation of Ground Water Quality

The applicant shall abandon all unused wells on the project site consistent with Solano County Environmental Health standards and the standards described in State of California Bulletin 74-81 (Water Well Standards).

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Environmental Health Services /Planning Services Division
Monitoring Agency	Environmental Health Services /Planning Services Division

NOISE

Required Mitigation Measures

NOISE-1 Temporary Increases in Noise (Construction Noise)

- The construction contractor shall locate stationary noise sources as far from existing sensitive receptors as possible. If stationary sources must be located near existing receptors, they shall be muffled and enclosed within temporary sheds or other structures.

- The construction contractor shall implement feasible noise controls to minimize equipment noise impacts on nearby sensitive receptors. Feasible noise controls include improved mufflers, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds.

- Equipment used for project construction shall be hydraulically or electrically powered impact tools (e.g., jack hammers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. Where use of pneumatically-powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. A muffler could lower noise levels from the exhaust by up to about 10 dB(A). External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dB(A). Quieter procedures shall be used (such as drilling rather than impact equipment) wherever feasible.

- The construction contractor shall implement appropriate additional noise reduction measures that include shutting off idling equipment and notifying adjacent residences (at least one time) in advance of construction work.

- The County shall identify a disturbance coordinator, and the name and phone number of this person shall be conspicuously be posted at the project site in an area that can be accessed by the general public. If noise complaints are received, the disturbance coordinator shall respond to the complaints and shall take the steps necessary to mitigate the problem.

- The construction contractor shall not stage equipment within 500 feet of any inhabited residences on the project site.

- The construction contractor shall limit construction activity to the hours of 7:00 AM to 7:00 PM on weekdays and 8:00 AM to 6:00 PM on Saturdays. No construction shall be allowed on Sundays and holidays or without permission from the County of Solano.

- Blasting shall be limited to daytime hours from 10:00 am to 4:00 pm only.

- Adjacent property owners shall be notified prior to any on-site blasting activities.

- A blasting permit shall be obtained from the Solano County Sheriff's Department prior to any blasting.

- Blasting shall only be conducted by licensed certified personnel consistent with Federal, State, and local regulations.

Monitoring Phase	Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

NOISE-3 Result in Permanent and Temporary/Periodic Increases in Noise

NOISE-3a

To the extent feasible, the electric pump motors, lift motors, and all other exterior, noise-generating equipment associated with the wastewater treatment plant should be located on the south side of the structure.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

NOISE-3b

Internally audible alarms (inside the building), together with external flashing lights visible to local pedestrians and motorists, shall be provided at the proposed fire station site. This approach is frequently used in relatively quiet residential settings, and considered adequate in terms of safety considerations.

Monitoring Phase	Pre-Construction/Construction/Occupancy (post-construction)
Implementing Party	Applicant/Contractor
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

NOISE-3c

In addition to reducing exterior noise levels, the project sponsor could further reduce sensitivity to otherwise potentially unexpected residual noise by alerting prospective purchasers to the presence and operational characteristics of the station. To be fully effective, notice of the planned construction and 24-hour operation of the fire station should be provided in the sales prospectus materials, as well as the project's CC&R's.

Monitoring Phase	Pre-Construction/Construction/Occupancy (post-construction)
Implementing Party	Applicant/Contractor/Homeowner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Planning Services Division

NOISE-3d

Operating procedures shall be prepared and implemented by the CFPD regarding sensitive use of external truck-mounted alarms in the vicinity of residences, consistent with state law and applicable District safety procedures.

Monitoring Phase	Occupancy (post-construction)
Implementing Party	Cordelia Fire Protection District/Homeowner's Association
Enforcement Agency	Cordelia Fire Protection District/Planning Services Division
Monitoring Agency	Cordelia Fire Protection District/Planning Services Division

PUBLIC SERVICES

Required Mitigation Measures

PS-2 Fire Services

Prior to the issuance of grading permits, the CFPD shall review the phasing plans for the Modified Project to determine when the proposed emergency access road shall be installed in relationship to the development of on-site homes. The EVA improvements shall be included in the corresponding Final

Subdivision Map improvement plans, as reviewed by the County. In addition, the emergency access road shall be designed to adhere to County design standards.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	CFPD/Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

PS-5 Park Services

Because the trails would be part of the Bay Area Ridge Trail, final trail design and construction would be reviewed and approved by the Bay Area Ridge Trail Council's Trail Steward to ensure the on-site tails are consistent with Bay Area Ridge Trail standards.

Monitoring Phase	Pre-Construction/Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Planning Service Department
Monitoring Agency	Planning Services Department

TRANSPORTATION/TRAFFIC

Required Mitigation Measures

TRANS-1 Near-Term (2010)

Mitigation of the unacceptable conditions at the Suisun Valley Road/Rockville Road intersection could be achieved by implementing the following improvements:

- Convert the westbound through lane on Rockville Road to a shared through/left-turn lane to provide an exclusive left-turn lane and a shared left-turn/through lane.
- Modify the signal equipment to allow split phase operations in the east/west direction.
- The provision of a second westbound left-turn lane would also require the construction of a second receiving lane on southbound Suisun Valley Road. Preliminary analysis indicates that a second receiving lane would be feasible within the existing right-of-way by restriping.

The intersection would operate at LOS C (23 seconds of delay) during the AM peak hour with this improvement, which is considered a less-than-significant level. Required improvements needed for the Suisun Valley Road/Rockville Road intersection have been incorporated into the planned I-80/I-680/SR-12 Interchange project improvements (Major Thoroughfare Zone of Benefit No. 1), set by the County. These associated improvements are scheduled to be completed by 2010. The project applicant would contribute to this mitigation measure by paying its fair share (20 percent) of the cost through participation in existing and future County and regional programs for funding improvements.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-2 Near-Term (2010)

Mitigation of the unacceptable conditions at the Green Valley Road/Business Center Drive intersection could be achieved by implementing the following improvements:

- Restripe the eastbound approach to provide two exclusive right-turn lanes, one shared left-turn/through lane, and one exclusive left-turn lane.
- Construct one exclusive right-turn lane and a third through lane on the southbound approach.
- Upgrade signal equipment to provide overlap operations for the northbound and eastbound right-turn movements.

The intersection would operate at LOS D (55 seconds of delay) during the PM peak hour with this improvement, which is considered a less-than-significant level. This intersection is located in the City of Fairfield and these improvements are programmed by the City of Fairfield with secured funding through CFD No. 2007-1. Under Resolution No. 2007-175, Attachment A, these improvements specifically include the Green Valley Road Widening at Business Center Drive, such as: roadway improvements consisting of widening the southbound approach, modifying the existing traffic signal and related improvements. The project sponsor would contribute to this mitigation measure by paying its fair share (9 percent) of the cost through participation in existing and future programs for funding improvements as determined by Solano County and the City of Fairfield.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-3 Near-Term (2010)

Mitigation of the unacceptable conditions at the Suisun Valley Road/Westbound I-80 Ramps intersection could be achieved by implementing the following improvement:

- Signalize the intersection.

The intersection would operate at LOS C (27 seconds of delay) during the AM peak hour and LOS B (17 seconds of delay) during the PM peak hour with this improvement, which is considered a less-than-significant level. This intersection is located in the City of Fairfield and this improvement is programmed by the City of Fairfield, with secured funding through CFD No. 2007-1. Under Resolution No. 2007-175,

Attachment A, improvements would include Suisun Valley Road and I-80 Westbound Ramps, installation of a traffic signal and related improvements. The project sponsor would contribute to this mitigation measure by paying its fair share (7 percent) of the cost through participation in existing and future programs for funding improvements as determined by Solano County and the City of Fairfield.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-4 Near-Term (2010)

Mitigation of the unacceptable conditions at the Abernathy Road/Westbound I-80 Ramps intersection could be achieved by implementing the following improvement:

- Signalize the intersection.

The intersection would operate at LOS B (19 seconds of delay) during the AM peak hour with this improvement, which is considered a less-than-significant level. This intersection is located in the City of Fairfield and this improvement will be implemented as part of the North Connector project, funded by the CFD No. 2007-1. Under Resolution No. 2007-175, Attachment A, as of August 2007, it was confirmed that Mitigation Measure TRANS-4 improvements were associated with the North Connector arterial with funding provided by CFD No. 3 and STA. The project sponsor would contribute to this mitigation measure by paying its fair share (8 percent) of the cost through participation in existing and future programs for funding improvements as determined by Solano County and the City of Fairfield.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-7 Near-Term (2010)

Mitigation of the unacceptable conditions at the Abernathy Road/Eastbound I-80 Ramps intersection could be achieved by implementing the following improvement:

- Signalize the intersection.

The intersection would operate at LOS B (12 seconds of delay) during the PM peak hour with this improvement, which is considered a less-than-significant level. This intersection is located in the City of Fairfield and this improvement will be implemented as part of the North Connector project, fully funded through City of Fairfield CFD No. 2007-1. The improvements called for under Mitigation Measure TRANS 7 were found to be included as part of the North Connector project. The project sponsor would contribute to this mitigation measure by paying its fair share (6 percent) of the cost through participation

in existing and future programs for funding improvements as determined by Solano County and the City of Fairfield.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-9 Near-Term (2010)

Impact TRANS-9 would be mitigated with construction of the I-80/I-680/SR 12 Interchange Project improvements. These improvements shall include the reconfiguration of the I-80/I-680/SR 12 Interchange, the widening of I-80 freeway, the construction of the north connector (extension of Business Center Drive both east and west), and the reconfiguration of the Green Valley Road, Suisun Valley Road, and Abernathy Road interchanges.

The project sponsor shall contribute to this mitigation by paying its fair share of the cost through participation in existing and future local and regional programs for funding improvements, including participation in the Major Thoroughfare Zone of Benefit No. 1, set by the County. As discussed previously, the roadway improvements, funded by various sources, are currently being programmed by STA, MTC & Caltrans and are to be completed in phases. The first two phases have funding and are expected to be completed by 2012 and 2015 respectively. The third phase, which is the majority of improvements and has a cost estimate of $1 billion, has no specific funding identified. The STA estimates completion of phase three to occur by 2020. If this estimated completion date is extended, and the development (construction and occupancy) of the entire project is completed, then the project would not be mitigated by the transportation improvements and would have significant and unavoidable effects until after the needed transportation improvements are completed.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-10 Cumulative (2030)

Mitigation of the unacceptable conditions at the Rockville Road/Abernathy Road intersection shall be achieved by implementing the following improvement:

- Add a second lane to the southeast quadrant of the roundabout to provide an exclusive right-turn lane from northbound Abernathy Road to eastbound Rockville Road.

The intersection would operate at LOS A (9 seconds of delay) during the PM peak hour with this improvement. The project engineer reviewed field conditions at this intersection in March 2008, and

discussed the methodology for design of future improvements with Solano County Public Works staff. Based on this information, the project engineer has estimated the total cost of improvements needed to add the additional northbound Abernathy Road to eastbound Rockville Road travel lane at $150,000. This preliminary feasibility-level analysis indicates that the additional travel lane may be constructed without disruption of existing building improvements on the adjoining property southeast of the intersection, but would require a small additional right-of-way acquisition. This necessary travel lane improvement shall be placed on the County's capital improvement list.

The Modified Project is obligated to pay toward completion of this long-term (2030) improvement. The fair share contribution for the 2030 impacts was calculated as the project trips' share of new trips added to the intersection during the critical peak hour (Project trips / [Future Plus Project – Existing trips]). Thus, the fair share contribution at this intersection has been recalculated and determined to be 5 percent (67 / [2,337 - 1,003]). Based on the foregoing 5 percent contribution share, the project would be obligated to pay $7,500 toward completion of this long-term (2030) improvement. Additional commercial, industrial and residential projects, identified in both the current and updated Draft Solano County General Plan as planned within the 2030 horizon, would contribute to the projected future intersection volumes, and will also be obligated to contribute to the remaining portion of the intersection improvement costs through conditions of approval. Therefore, the project sponsor shall contribute to this mitigation measure by paying its fair share (5 percent or $7,500) of the cost by participation in existing and future County and regional programs for funding improvements. County staff shall confirm inclusion of this improvement on the County's capital improvement list, prior to issuance of any permits for the project.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-11 Site Access and Circulation

The western entrance shall be aligned with Cravea Lane to create a four-way intersection. The project shall construct both eastbound left turn lanes and westbound right turn lanes at both the western and eastern access locations.

Monitoring Phase	Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-12 Site Access and Circulation

The left-turn lane on eastbound Rockville Road at the eastern entrance to the project shall be extended to a minimum of 350 feet to provide adequate storage and partial deceleration outside the through travel lane.

Monitoring Phase	Construction
Implementing Party	Applicant/Contractor
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

TRANS-13 Site Access and Circulation

In order to satisfy or exceed the Solano County Road Improvement Standards and Land Development (Road Standards), the internal project roadways with substandard curves shall be redesigned. The proposed project site plan provides two cross-sections for the internal roadways:

- Major roads through the development would be a width of between 32 feet and 40 feet edge to edge with a paved shoulder on both sides, and where possible an AC dike on the inside (cut side of the road).

- Minor roads through the development would be a width of 24 feet edge to edge with a gravel shoulder on one side and a paved shoulder and AC dike on the inside.

The major road cross-section exceeds the County's roadway width standard for roads with 751 to 4,000 ADT, which requires 24 feet (Solano County Road Improvement Standards and Land Development Requirements). The minor road cross-section also meets the County's roadway width standard for roads with 251 to 750 ADT, which requires 24 feet.

To mitigate the cost of maintenance of Road "A" which will be a public road maintained by the County of Solano, the project shall create a road benefit assessment district or similar mechanism to fully fund the cost of Solano County of maintaining the new road.

Monitoring Phase	Construction
Implementing Party	Applicant/Engineer/Contractor
Enforcement Agency	Public Works/Planning Services Department
Monitoring Agency	Public Works/Planning Services Department

UTILITIES & SERVICE SYSTEMS

Required Mitigation Measures

UTIL-1 Potential Shortfall in Domestic Water Supplies

To ensure the project has an adequate, maximum day water supply during the most restrictive conditions, prior to the issuance of the first building permit for the project, the operators of the proposed water system (either a state-regulated public utility or a CSD), shall develop and institute a monitoring and reporting program to confirm the aquifer is responding as expected. This program shall be designed and implemented by a professional ground water consultant (approved by the Solano County Department of Public Works), who would make recommendations as appropriate, in cooperation with regulatory

oversight by the CDPH and possibly the CPUC, for long-term operation of the water supply system. This monitoring program shall include a 12-month pre-construction testing and monitoring program that will establish a baseline for determination of future effects from operation of the project wells, as well as long-term monitoring and analysis that shall continue a minimum of 9 years beyond build-out of the project.

Further, the ground water consultant shall also oversee installation and testing of the proposed third well (Well #3) in cooperation with regulatory oversight by the CDPH and possibly the CPUC, to ensure it is properly constructed and meets the identified water supply and health requirements.

Monitoring Phase	Operation/Construction
Implementing Party	Applicant/Contractor/Ground Water Consultant
Enforcement Agency	Environmental Health Services/Planning Services Division
Monitoring Agency	Planning Services Division

UTIL-2 Potential Impacts on Existing Domestic Wells

To protect existing off-site wells in the project vicinity from the potentially adverse effects of declining ground water levels, the well monitoring program required to be developed and implemented pursuant to Mitigation Measure UTIL-1 (refer to Section IV.L, Utilities & Service Systems) shall also evaluate drawdown resulting from operation of the project's wells. In the event that significant drawdown with documented adverse effects is observed, the ground water consultant shall recommend, and the water system operators shall implement, corrective measures as needed to thoroughly mitigate these effects. Corrective measures shall include one or more of the following, at the discretion of the project water system operator, subject to the recommendation of the project ground water consultant and County, California Department of Public Health (CDPH) and California Public Utilities Commission (CPUC) approval, as applicable:

- Extend the depth of the affected well(s) to correct the problem;
- Provide replacement well(s) of suitable water quality and quantity; or
- Provide a water supply connection for the affected homeowner(s) to the project's water supply system.

Monitoring Phase	Operation
Implementing Party	Applicant/Ground Water Consultant
Enforcement Agency	Environmental Health Services/Planning Services Division/RWQCB
Monitoring Agency	Planning Services Division

UTIL-5 Potential Failure or Disruption of the Wastewater Treatment System Due to Inadequate Funding or Management Controls

UTIL-5a

To protect both public health and local water quality, the project sponsors shall provide an automatic back-up unit designed to come on if the first pump fails at each home where a grinder pump is to be installed.

In addition, to provide the highest level of service reliability, the pumps would be set up to alternate during normal service, so both receive regular use. In the event that a pump fails, the other would automatically take over and some type of alarm would notify the homeowner that one unit needs service. Having two pumps would also allow the removal of each pump for regular service without shutting down a home's sewer connection.

The project sponsor shall fully disclose the existence of a home's grinder pump system to potential buyers, and also provide written guidelines for the system's long term maintenance.

Monitoring Phase	Pre-Construction/Operation
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-5b

The system operator shall provide a battery power source with power inverter capable of running the grinder pumps in the event of a black-out.

Monitoring Phase	Pre-Construction/Operation
Implementing Party	Applicant/Engineer/Home Owner's Association
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-6 Limited Access to Portions of the Effluent Collection System

Prior to the filing of a Final map, the designer of the sewer system shall propose necessary sewer maintenance access roads to properly inspect and maintain off-street sewer lines, subject to the review and approval by the Solano County Department of Public Works. Such requirements would also include provisions for maintenance of a cleared way, free of large vegetation or other obstructions, to be incorporated into the CSD wastewater system operating responsibilities.

Monitoring Phase	Operation
Implementing Party	Applicant
Enforcement Agency	Public Works/Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-7 Potential Leakage of Treated Wastewater from Consolidated Pond

Prior to the filing of a Final Map, the project applicant shall submit geotechnical engineer's inspection guidelines to ensure the operators of the wastewater treatment system shall regularly inspect and maintain the proposed Consolidated Pond throughout its useful life, in accordance with recommendations set forth by the applicant's geotechnical engineer and approved by the Solano County Department of Public Works. The geotechnical engineer's inspection guidelines shall include, but not necessarily be limited to, the following:

- The frequency with which inspections shall be performed;
- The qualifications required for the inspector, and whether the inspector shall be independent of the operating entity; and
- A proposed oversight mechanism designed to ensure inspections are completed on schedule and maintenance and/or repairs are performed as recommended (e.g., regular reporting to the Solano County Department of Public Works, which would have the authority to order repairs).

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-8 Fail to Satisfy Applicable State Regulatory Requirements

To the extent possible, lots on which the drip dispersal system is located shall be under complete control of the CSD or state-regulated public utility. The proposed easements shall outlined in the CC&Rs and will provide specific details on how the public entity will have access 24 hours per day to the property for routine and emergency maintenance and monitoring, how the dispersal system and replacement area will be protected from damage or unauthorized work, and how any residence or guests on the property(s) will be restricted from entry into the area of the disposal field (unless noted otherwise per the operator) for public health protection.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-9 Potential Failure of Steep Slopes within the Subsurface Drip Irrigation Area

The applicant's geotechnical engineer shall prepare detailed slope and antecedent moisture condition dependent irrigation guidelines for County Department of Resource Management review and approval, for the operation of the subsurface drip irrigation system. The guidelines shall include:

- Drip irrigation shall be limited to grassland areas only during the 9-month period from March through November (275 days), and application to vineyards from May through September (153 days).

- The drip dispersal line shall only be placed in areas with effective soil of adequate depth that can adequately disperse the treated wastewater without ponding or break out.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-10 Potential Failure or Disruption of the Wastewater Treatment System Due to Inadequate Funding or Management Controls

Prior to the filing of a Final Map, the applicant shall submit a complete operating plan for the proposed wastewater treatment facility to the Solano County Department of Public Works for review and approval; the operating plan shall also be subject to review and approval of any state or local agency responsible for issuing a discretionary approval for the proposed wastewater treatment facility. At a minimum, the plan shall include a projected fee structure sufficient to cover all foreseeable operating costs, as well as the long-term costs of equipment replacement and upgrade.

The operating plan shall also include: (1) a clear delineation of the applicant's funding responsibilities during project build-out, when operating costs per connection would be expected to be significantly higher than when all of the proposed 370 homes are occupied; (2) a requirement that the applicant post a bond or provide such other surety as is acceptable to reviewing agencies for the continued operation of the plant for 5 years following start-up or until 75 percent of the project's lots served by the plant are sold; and (3) a plan for the ongoing operation of the facility by a state-regulated public utility or other public agency should the applicant default for any reason. In addition, the plan shall include a requirement for a deed disclosure to all homebuyers that explains the likely impact on monthly fees in the event the project is not built-out, leaving the treatment facility to operate indefinitely at below its design capacity.

Furthermore, the operating plan shall include specific odor and noise control methods associated with the treatment system, including the use of a complaint log which shall be maintained by the system operator, with copies of this updated manual submitted annually to the County Department of Resource Management for review.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-12 Construction Phase Solid Waste

The applicant shall prepare and implement a recycling plan for the construction phase of the Modified Project. The recycling plan would address the major materials generated by a construction project of this size and would identify the means to divert these materials away from the chosen solid waste landfill. Materials which could be included in such a plan are soil, brush and other vegetative growth, dimensional lumber, metal scraps, cardboard packaging, and plastic wrap.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division

UTIL-13 Operational Phase Solid Waste

The applicant shall submit a facility recycling program for the collection and loading of recyclable materials prepared in response to the California Solid Waste Reuse and Recycling Access Act of 1991 as described by the CIWMB, Model Ordinance, Relating to Areas for Collecting and Loading Recyclable Materials in Development Projects, March 31, 1993. Recycling bins should be provided at appropriate locations to promote recycling of paper, metal, glass, and other recyclable material.

Monitoring Phase	Pre-Construction
Implementing Party	Applicant/Engineer
Enforcement Agency	Planning Services Division
Monitoring Agency	Public Works/Planning Services Division