

4.1 BIOLOGICAL RESOURCES

This section describes the existing habitat and presence of special-status species in the natural communities surrounding the project area.

This section also evaluates the effects of the project on habitat or potential habitat for special-status plant and animal species, and identifies STA-proposed mitigation as well as additional actions that would be required to fully mitigate project impacts.

Two scoping comment letters raised issues related to biological resources, including a letter from the California Department of Fish and Game (CDFG) and a letter from the City of Fairfield. A copy of each letter is included in **Appendix B** of this EIR.

The CDFG provided general recommendations for the assessment of the project's effects (temporary and permanent) on local biological resources. The letter also included a summary of the appropriate permits and agency consultation that would be needed should impacts to specific biological resources be discovered during the environmental review of the project. The City of Fairfield letter raised the issue of potential impacts to Rockville Hills Park. This section of the draft EIR addresses the recommendations raised by the CDFG and the City of Fairfield.

4.1.1 METHODOLOGY

RCL Ecology prepared a biological resource assessment for the project to evaluate potential impacts to protected species, sensitive habitats and communities, and to determine compliance with the applicable regulations. This report is attached in its entirety as **Appendix C** to this EIR.

Field Reconnaissance

The project study area for biological resources includes the project right-of-way (ROW) and approximately 50 feet on either side of Rockville Road. A windshield survey and pedestrian reconnaissance of the study area was conducted by RCL Ecology on October 2, 2009 and January 13, 2010. The purpose of the reconnaissance was to identify any sensitive areas such as habitat for special-status species or natural communities for further analysis during project planning.

For the purpose of this assessment, the term “special-status” refers to those species that:

- have been designated by the CDFG and/or the US Fish and Wildlife Service (USFWS) as either threatened or endangered, and are legally protected under the California or Federal endangered species acts;
- are identified as “covered” or “special management species” in the Solano County administrative draft Habitat Conservation Plan (HCP);

- are proposed and/or are candidate species being considered for listing under either Federal or California endangered species legislation;
- are plants listed in various forms of rarity by the California Native Plant Society (CNPS);
- are of expressly stated interest to resource/regulatory agencies and/or local jurisdictions; or
- are protected under the Federal Migratory Bird Treaty Act, and/or the California Fish and Game Code.

Database/Literature Review

A literature review was conducted to evaluate the biological resources known to occur or to potentially occur in the study area. The documents listed below were included in this review.

- USFWS List of Species Potentially Occurring within Solano County. January 29, 2009.
- California Natural Diversity Database (CNDDDB), Special-Status Plants, Animals, and Communities Occurring within the U.S. Geological Survey (USGS) 7.5" minute topographic quadrangles for Mt. George, Napa, Fairfield North, and Cordelia, California.
- Final Administrative Draft, Solano County Habitat Conservation Plan (Solano County HCP), Solano County Water Agency, August 4, 2009.
- Solano County General Plan, 2008.

Additionally, Greg Meeks, Permit Coordinator for the Solano County Department of Public Works, was contacted on October 8, 2009 and January 12, 2010 to discuss the County's permitting requirements regarding the pruning and/or removal of trees within roadway ROW.¹

Special-Status Species Assessment

The USFWS, CNDDDB, and the CNPS Online Inventory of Rare and Endangered Plants identify special-status plant and wildlife species within Solano County. The Solano County administrative draft HCP further refines this data, with input from a technical review committee, to produce a current list of special-status species with recent documented

¹ Pruning or removal of trees within the study area is under the jurisdiction of the Solano County Department of Public Works (DPW), which conditions these actions within the encroachment permit for the project. Refer to Subsection 4.1.3 for the complete list of conditions that would be required for the pruning or removal of trees as part of the project construction.

occurrence in the County. The biological assessment for the project conservatively adopted the Solano County administrative draft HCP's list of 75 special-status plant and animal species for further assessment of occurrence within the project study area.

The Solano County administrative draft HCP separates listed species into two groups: Covered Species and Special Management Species.

- Covered species include federal- and state-listed species that will receive 'Incidental Take' coverage under existing regulations (refer to **Subsection 4.1.3** for a detailed discussion of applicable regulations).
- Special management species are those additional species for which insufficient information was available for the agencies to grant 'take' coverage, but are often included in California Environmental Quality Act (CEQA) analysis. Special management species also have conservation measures included in the Solano County administrative draft HCP.

Habitat requirements and potential for occurrence of these species in the study area are shown in Appendix A and B of the Biological Resources Assessment conducted for the project (**Appendix C**).

4.1.2 EXISTING CONDITIONS

Rockville Road runs in an east-west direction within the rolling terrain of the inner coastal mountain range of Solano County. The roadway forms a connection between Suisun Valley Road on the east and a point approximately 1,600 feet west of Green Valley Road, and traverses the northern boundary of Rockville Hills Regional Park. Land use in the project area is primarily rural open space with intermittent residential development. Soils in the study area are derived from marine sediments with granite bedrock intrusions. Vegetation in the study area consists primarily of ruderal/non-native annual grassland with interspersed urban landscape and mature riparian-type habitat along Green Valley Creek. Putah South Canal crosses Rockville Road near the eastern terminus of the alignment. No other natural waters or wetlands occur in the study area.

Ruderal/Non-Native Annual Grasslands

Ruderal/non-native grassland species occur throughout the study area. This habitat type exists mainly in the dry, upland areas that were originally graded during the construction of Rockville Road. Common species found in these areas include Italian ryegrass (*Lolium multiflorum*), wild oats (*Avena fatua*), wild barley (*Hordeum murinum* ssp. *leporinum*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), spring vetch (*Vicia sativa*), and yellow star thistle (*Centaurea solstitialis*). Native shrubs such as coyote brush (*Baccharis pilularis*), manzanita (*Arctostaphylos* sp.) and toyon (*Heteromeles arbutifolia*) are intermixed in the mid-story. Scattered stands of native oaks such as blue oak (*Quercus douglasii*), interior live oak (*Q. wislizeni*) Valley oak (*Q. lobata*) and Coast

live oak (*Q. agrifolia*) occur in the overstory along with some planted non-native trees such as Monterey pine (*Pinus radiata*), blue gum and iron bark eucalyptus (*Eucalyptus globulus* and *E. sideroxylon*). Most of the existing native trees are of small bush form. The few larger oaks that are present in the study area have been pruned back for utility line clearance and are of poor form and condition.

Common wildlife occurring in this habitat type include Botta's pocket gopher, (*Thomomys bottae*), black-tailed jackrabbit (*Lepus californicus*), western-fence lizard (*Sceloporus occidentalis*), Brewer's blackbird (*Euphagus cyanocephalus*), American crow (*Corvus brachyrhynchos*), downy woodpecker (*Picoides pubescens*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), and mourning dove (*Zenaidura macroura*).

Green Valley Creek Riparian

Common vegetation occurring within the riparian woodland along Green Valley Creek include red and arroyo willow (*Salix laevigata*, and *S. lasiolepis*), Fremont cottonwood (*Populus fremontii*), California black walnut (*Juglans californica*), Valley oak, Coast live oak, red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*) and Himalayan blackberry (*Rubus discolor*).

Common wildlife that would be expected within this area include, Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), western scrub jay (*Aphelocoma californica*), barn swallow (*Hirundo rustica*), oak tit mouse (*Baeolophus inornatus*), and black-capped chickadee (*Poecile atricapillus*), among others.

Urban Landscape

Urban landscaping exists in the area west of Green Valley Road, where ornamental landscaping and paving associated with the adjacent residential properties have encroached onto the shoulders of Rockville Road. While this ROW encroachment has eliminated most native understory vegetation, numerous mature oaks and non-native trees such as deodar cedar (*Cedrus deodara*) are prevalent and in some areas partially overhang the roadway.

The urban landscape is inhabited by species adapted to urban areas such as the striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), American crow (*Corvus brachyrhynchos*), great horned owl (*Bubo virginianus*), opossum (*Didelphis virginiana*), and house finch (*Carpodacus mexicana*).

Special-Status Species

The Solano County administrative draft HCP evaluated species occurrence information on a landscape level and identified five basic natural communities within Solano County based on habitat requirements. Based on the HCP, the study area lies within the Inner

Coast Range Community and includes a small portion of Green Valley Creek within the riparian, stream, and freshwater marsh community. The covered and special management species associated with these community types are shown in **Table 4.1-1**, below.

Table 4.1-1 Covered and Special Management Species Occurring within the Inner Coast Range and Riparian, Stream, and Freshwater Marsh Communities

Species	Administrative Draft HCP Status	Habitat Absence/Presence
Inner Coast Range Community		
Valley elderberry longhorn beetle <i>Desmocerus californicus demorphus</i>	Covered species	No blue elderberry host plants present
Callippe silverspot butterfly <i>Speyeria callippe callippe</i>	Covered species	No Johnny jump up host plants present
Riparian, Stream, and Freshwater Marsh Community		
Chinook salmon <i>Oncorhynchus tshawytscha</i>	Special management species	Habitat present in Green Valley Creek
Steelhead trout <i>Oncorhynchus mykiss irideus</i>	Special management species	Habitat present in Green Valley Creek
Delta smelt <i>Hypomesus transpacificus</i>	Covered species	Not present in this reach of Green Valley Creek
Sacramento Splittail <i>Pogonichthys macrolepidotus</i>	Covered species	Not present in this reach of Green Valley Creek
California red-legged frog <i>Rana draytonii</i>	Covered species	Not known from the Green Valley Ck. watershed
Foothill yellow-legged frog <i>Rana boylei</i>	Special management species	Habitat present in Green Valley Creek
Western pond turtle <i>Clemmys marmorata</i>	Special management species	Habitat present in Green Valley Creek
Giant garter snake <i>Thamnophis gigas</i>	Covered species	No habitat present in Green Valley Creek
Swainson's hawk <i>Buteo swainsoni</i>	Covered species	Potential nesting habitat in trees adjacent to the right-of-way
Yellow-breasted chat <i>Icteria virens</i>	Special management species	Habitat present in Green Valley Creek
Tri-colored blackbird <i>Agelaius tricolor</i>	Covered species	No habitat present
Burrowing owl <i>Athene cunicularia</i>	Covered species	No habitat present

Source: RCL Ecology, 2010

Note: **Bold text** indicates that the study area contains suitable habitat for that species.

Although no covered or special management species were identified by the biologist during field surveys, suitable habitat was identified in the field for several of the species. **Table 4.1-1** uses bold text to indicate the presence of suitable habitat. As shown, the study area includes suitable habitat for Chinook salmon, steelhead trout, foothill yellow-legged frog, western pond turtle, and yellow-breasted chat in Green Valley Creek and the adjacent riparian system. Nesting habitat for the Swainson's hawk is also present in trees adjacent to the project site.

The Solano County administrative draft HCP also identifies seven key wildlife corridors that furnish connections between habitat communities or connect otherwise discontinuous portions of a community type. The Rockville Hills Corridor crosses Rockville Road near the eastern end of the study area, as shown in **Figure 4**.

4.1.3 REGULATORY SETTING AND PROJECT CONSISTENCY

The biological resources on the project area may fall under the jurisdiction of one or more of the agencies described in this section.

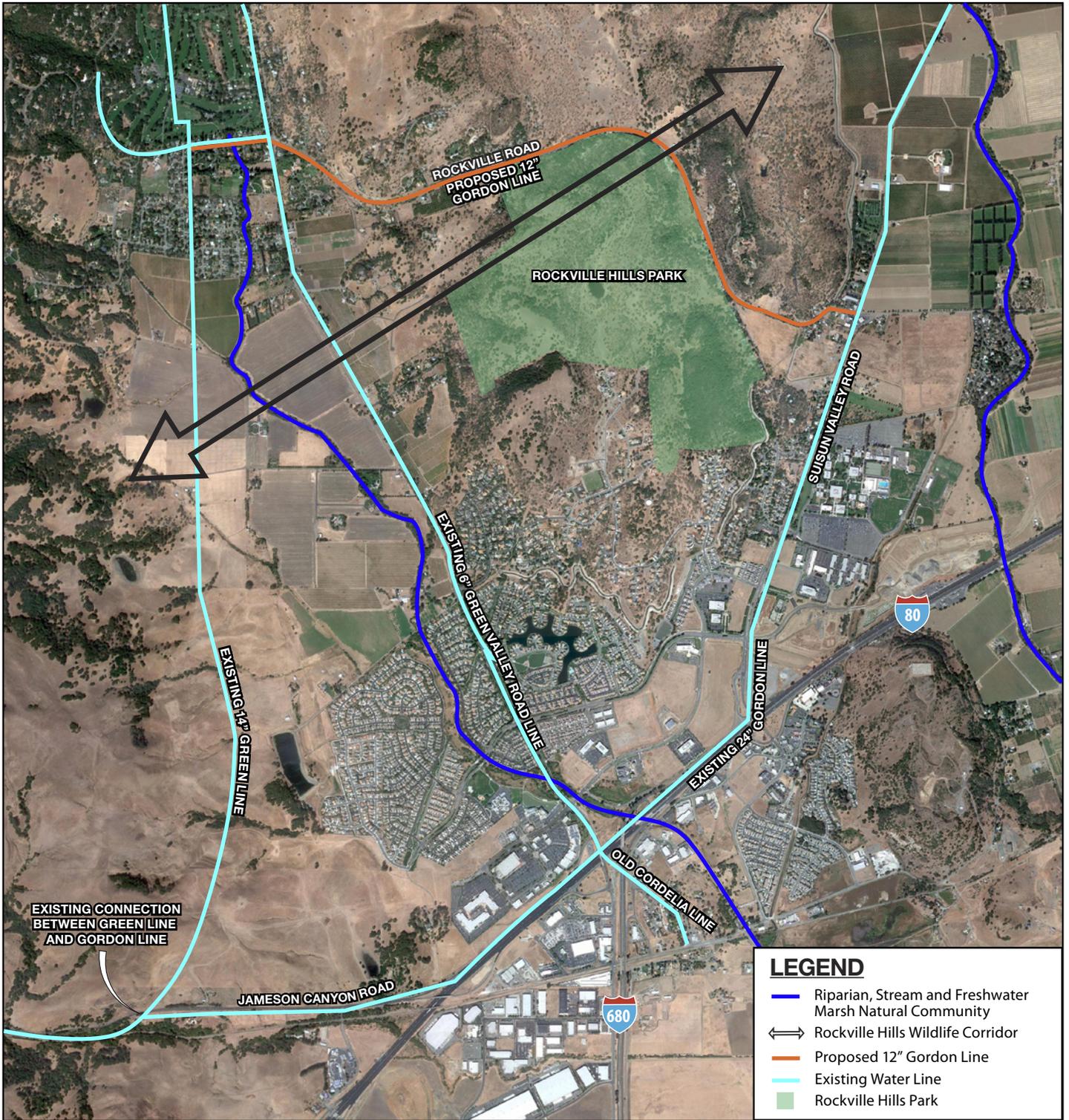
US Fish and Wildlife Service

The USFWS has jurisdiction over federally-listed Threatened and Endangered species under the federal Endangered Species Act (ESA). This act protects listed species from harm or "take," which is broadly defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." An activity can be defined as a "take" even if it is accidental or unintentional.

An Endangered species is one which is considered in danger of becoming extinct throughout all or significant portions of its range. A Threatened species is one that is likely to become Endangered within the foreseeable future. In addition to Endangered and Threatened species, the USFWS also maintains lists of candidate species and Birds of Conservation Concern. Species on these lists are not afforded the legal protection of the federal ESA but are considered to be of special-status under CEQA.

US Army Corps of Engineers

The US Army Corps of Engineers (ACOE) was established under the Department of Defense, under the Secretary of the Army. The responsibility of the ACOE is the protection of past, present, or potential commercial waterways, or waterways that affect the navigable "waters of the United States." The ACOE has jurisdiction over all navigable "waters of the United States" and has permit requirements to prevent unauthorized obstruction or alteration of these waters, including construction, excavation, or deposition of materials in, over, or under such waters or any work that would affect the course location, condition, or capacity of these waters. Section 404 of the Clean Water Act (CWA) authorizes the ACOE to regulate any activity that fills wetlands or "waters of the United States."



Note: Water line locations are approximate



California Department of Fish and Game

The CDFG has jurisdiction over state-listed Threatened and Endangered species under the ESA. The state also maintains a list of wildlife identified as Species of Special Concern. Species on this list are not afforded the legal protection of the state ESA but are considered to be of special-status under CEQA.

The CDFG also exerts jurisdiction over the bed and banks of watercourses according to the provisions of Section 1601 to 1603 of the Fish and Game Code. The CDFG typically require a Streambed Alteration Agreement for the fill or removal of any material from any natural drainage. The jurisdiction of the CDFG extends to the top of a bank and includes the outer edge of riparian canopy cover.

Section 3503 of the California Fish and Game Code protects all breeding native bird species in California by prohibiting the take, possession, or needless destruction of nests and eggs of any bird, with the exception of non-native English sparrows and European starlings (Section 3801).

Regional Water Quality Control Board

Pursuant to Section 401 of the Clean Water Act, projects that require a permit from the ACOE under Section 404 must also obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards.

California Native Plant Society

The CNPS has developed a list of rare, threatened or endangered plant species in California. Although the CNPS is a private conservation group, the species on their List 1B (plant species considered endangered in California and elsewhere) and List 2 (plant species considered rare, threatened or endangered in California, but common elsewhere) warrant analysis in CEQA documents. List 1A plants are considered extinct by the CNPS because they have not been observed despite focused searches. The CDFG does not consider the CNPS List 3 and List 4 plant species as requiring CEQA analysis, although the CNPS does recommended that these species be considered in CEQA documents. List 3 plants are those about which more information is needed (a review list), and List 4 Plants are those plants with limited distribution (a watch list).

Solano County

Solano County has not adopted a Tree Ordinance, and does not specify protection measures for trees of any specific size or species.

The pruning or removal of trees within the study area is under the jurisdiction of the Solano County Department of Public Works (DPW), which conditions these actions within the encroachment permit for the project. DPW conditions that are typically required for the pruning or removal of trees during construction of a project are listed below:

- Trees to be pruned or removed will be marked and mapped by a certified arborist indentifying the species, diameter at breast height (DBH), reason for pruning or removal and street address or other location information as appropriate.
- The proponent will notify the adjacent property owners by letter of the intent and purpose of the proposed tree work.
- Pruning and/or tree removal is to be conducted under supervision of a certified arborist.

4.1.4 IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the *State CEQA Guidelines* identifies environmental issues to be considered when determining whether a project could have significant effects on the environment. The project would have a potentially significant or significant biological resources impact if it would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
- c) Have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to: marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, Regional, or state habitat Conservation plan

No Impact

Sensitive Natural Communities

The operation of the underground water line would not affect habitat in the study area. Construction of the water line would occur entirely within the existing Rockville Road ROW, and would not affect habitat adjacent to the roadway.

No construction work would be conducted in the waterways or associated riparian habitat of Green Valley Creek. At the Green Valley Creek crossing, the 12-inch water line would be attached to the existing bridge structure. Therefore, there would be no effect on the riparian habitat or any other sensitive natural communities in the study area.

Wetlands

Other than Green Valley Creek, no other natural waters or wetlands occur in the study area. As described above, work would occur within the ROW and would not affect adjacent habitat. Therefore, there would be no effect on federally protected wetlands as defined in Section 404 of the Clean Water Act.

Wildlife Corridors

As identified in the Solano County administrative draft HCP, the Rockville Hills wildlife corridor crosses Rockville Road near the eastern end of the study area. This corridor provides important transition habitat between the area west of Green Valley and the Sky Valley/Sulfur Springs Mountain area ('Tri-City/County Planning Area').² As previously discussed, construction activities would occur entirely within the Rockville Road ROW, and would not disturb the surrounding habitat including habitat of the wildlife movement corridor.

Solano County Administrative Draft HCP

The project would be constructed within the existing Rockville Road ROW. No construction activities would occur in the sensitive natural community areas identified in the Solano County administrative draft HCP. As previously discussed, the new water line would not result in any impacts to the identified wildlife corridors that cross the study

² Solano County administrative draft HCP, 2009

area. Once constructed, the operation of the underground water line would not disturb the natural communities in the project area. As such, the project would not conflict with the provisions of the Solano County administrative draft HCP.

Less Than Significant Impacts

Wildlife Movement

While construction of the water line would result in a temporary increase in activity along Rockville Road, the predominant use of the wildlife movement corridor is at night. Construction is not therefore expected to significantly affect the use of the corridor, as project excavation and backfill within each segment of the roadway would be completed during the day. Once constructed, the operation of the water line would have no adverse effect on biological resources. Project impacts to the wildlife movement corridors in the project area are therefore considered to be less than significant.

Protected Trees

As noted above, Solano County does not have a Tree Ordinance, and does not specify protective measures for trees of a certain size or species.

Construction of the project would require some pruning and may require limited tree removal to accommodate equipment access, trenching, and installation of pipe. A project arborist would be on site during staking of the new water line to determine whether pruning or tree removal would be necessary for specific trees in close proximity to the proposed alignment. The Solano County DPW would oversee the pruning or removal of trees within the study area, and would condition protective measures that would be taken during construction activities with an encroachment permit for the project. The project arborist would ensure compliance with the conditions issued by the Solano County DPW. The project would therefore not have a significant effect on trees in the study area.

Significant Impacts

BIO-1: Construction of the project could impact nesting habitat for Swainson's hawk and other migratory birds. (Potentially Significant)

Based on a review of the Solano County administrative draft HCP and field observations, the Green Valley Creek riparian system adjacent to Rockville Road was determined to contain suitable habitat for the Swainson's hawk and other protected bird species. Nesting habitat is also present in trees adjacent to the ROW and in other sections of the project area. Swainson's hawk is identified as a covered species in the administrative draft HCP, and is protected under the ESA. Because the construction of the project would require some pruning and limited tree removal, there is potential for disturbance to nesting habitat should construction activity occur in close proximity to an active nest. The following mitigation measure would avoid potential disturbances to these protected species.

Mitigation Measure BIO-1: Preconstruction Surveys

If construction work is to be performed during the nesting season (March 1 through August 15) a preconstruction nesting survey for the Swainson's hawk and other migratory birds shall be conducted by a qualified biologist within 14 days of start of construction.

Significance after Mitigation: Less than Significant.

BIO-2: Construction of the project could impact waterways or associated riparian habitat where sensitive species could exist. (Potentially Significant)

Based on a review of the Solano County administrative draft HCP and field observations, the Green Valley Creek riparian system adjacent to Rockville Road was determined to contain suitable habitat for the Chinook salmon, steelhead trout, foothill yellow-legged frog, western pond turtle, and yellow-breasted chat. Stormwater runoff and/or construction debris from the temporary construction activities associated with the project could lead to changes in the water quality of Green Valley Creek. Substantial changes to the water quality of the creek could have an adverse affect on the aforementioned special management species protected under the Solano County administrative draft HCP (upon its adoption).

In accordance with the supplemental provisions of the project's Encroachment Permit Application with the County, the project contractor will perform water pollution control work in conformance with the Standard Specifications of the California Department of Transportation (Caltrans). Caltrans requires that a Water Pollution Control Program (WPCP) addressing control measures be prepared and implemented by the construction contractor for projects resulting in soil disturbance of less than 1-acre. The WPCP must comply with Caltrans Standard Specifications Section 7-1.01G, Water Pollution, and must be prepared in accordance with the Special Provisions following the procedures and format set forth in the *Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual* and its addenda in effect on the day the Notice to Bidders is dated. Implementation of the procedures and practices identified in the WPCP would ensure compliance with RWQCB regulations regarding the treatment of stormwater and erosion control measures. Subsequent to project construction, the operation of the project would not lead to any changes to the existing drainage systems or the water quality of the stormwater runoff from Rockville Road.

No construction work would be conducted in the waterways or associated riparian habitat where these sensitive species could exist. However, at the Green Valley Creek crossing, the 12-inch water line would be attached to the existing bridge structure. Construction materials could fall into the creek during the removal of the existing water line and installation of the replacement water line across the bridge. Construction debris that enter

the creek could degrade the water quality of the creek and affect suitable habitat for the special management species protected under the Solano County administrative draft HCP. This is a potentially significant impact.

Mitigation Measure BIO-2: Install Construction Netting at Green Valley Creek

A screen or netting would be placed below the work area during the removal of the existing water line and installation of the replacement water line across the Green Valley Creek bridge. The construction netting would protect the water quality of the creek by catching any falling material.

Significance after Mitigation: Less than Significant.

Cumulative Impacts

Cumulative development includes past, present, and reasonably foreseeable development that could affect the same biological resources as the project in such a way that a combined physical impact could occur. Biological resources considered for this cumulative analysis include the area within the Solano County administrative draft HCP (incorporated and unincorporated Solano County) and from the development anticipated by the cumulative projects identified in **Chapter 4.0** of this EIR.

The Solano County General Plan EIR evaluated the effect of anticipated development on biological resources and concluded that future development would cumulatively result in the loss of biological resources and wildlife habitat. Construction and operation of the project would occur entirely within the existing Rockville Road ROW, and would not affect adjacent habitats or sensitive natural communities. Additionally, the project would implement mitigation measures that would avoid any potential impacts to nesting birds in the overhanging tree line that may have to be pruned back or removed during project construction. Based on the project location within the Rockville road ROW and the protective mitigation measures included in the draft EIR, the project's impacts on biological resources would not be cumulatively considerable.

References

RCL Ecology (2010). *Biological Resources Assessment: Gordon Water Line Relocation*

Solano County (2008a). *Solano County General Plan.*

Solano County (2008b). *Solano County General Plan Draft Environmental Impact Report.*

Solano County Water Agency(2007). *Solano Multispecies Habitat Conservation Plan, Working Draft 2.2.*

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